NONPARAMETRIC TESTS FOR THE NON – DECREASING AND UMBRELLA ALTERNATIVES IN THE INCOMPLETE BLOCK AND COMPLETELY RANDOMIZED AND MIXED DESIGN

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ABSTRACT

This research study proposes a solution to deal with missing observations which is a common problem in real world datasets. A nonparametric approach is used because of its ease of use relative to the parametric approach that beleaguer the user with firm assumptions. The study assumes data is in an Incomplete Block (IBD) and Completely Randomized (CRD) Mixed Design. The scope of this research was limited to three, four and five treatments. Mersenne - Twister (2014) simulations were used to vary the design and to estimate the test statistic powers.

Two test statistics are proposed if the user expects a non – decreasing order of differences in treatment means. They are both applicable in the cited mixed design. The tests combine Alvo and Cabilio (1995) and Jonckheere – Terpstra ((Jonckheere (1954), Terpstra (1952)) in two ways: standardizing the sum of the standardized statistics and standardizing the sum of the unstandardized statistics. Results showed that the former is better.

Three tests are proposed for the umbrella alternative. The first, Mungai’s test, is only applicable in an IBD. The other two tests combine Mungai’s and Mack – Wolfe (1981) using the same methods described in the previous paragraph. The same conclusion holds except when the size of the IBD’s sample was equal to or greater than a quarter that of the CRD.

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CHAPTER 1. INTRODUCTION

Real world problems often present data that is challenging for common parametric analytic procedures. They are often heavily dependent on assumptions concerning the nature of the data. For instance, the T test procedure for testing differences in two means requires that the data follow a normal/mound shaped distribution. Also, data is usually required to have complete records (no missing observations). Powerful procedures like linear regression heavily rely on this assumption. Another assumption worth mentioning is the constant variance assumption. This states that the error (difference between the fitted and actual value) must be random. A plot of the residuals should not, therefore, exhibit a pattern/trend. This research looks to offer solutions to specific problems posed by such challenges, particularly when the main goal is to compare treatments.

When data fails to achieve the necessary requirements for parametric analysis there are two common ways statisticians employ to deal with the issues:

1. **Data transformation**. This method deals with violation of the constant variance assumption by taking changing the data values e.g. taking the natural log.
2. **Nonparametric (Distribution free) analysis**. In this method data is analyzed using procedures that are not subject to many restrictions on the data as the parametric ones.

There are advantages as well as disadvantages of each method. Transforming the data makes it viable for parametric procedures widely known and considered to be more powerful than the nonparametric ones. However, this option offers no guarantee that the new data will satisfy the conditions. Furthermore, it is not a solution for incomplete data.

The nonparametric procedures have few assumptions on the nature of the data. For instance, the measurement scale can be as low as nominal. They are also regarded to be computationally easier. This is desirable for most places where either access to sophisticated software is limited or there is a lack of trained personnel. More importantly, nonparametric procedures can deal with missing observations by offering different experiment designs and corresponding tests. The following is a brief background of the scope of this research.

1.1. Treatment Effect Experiments

These types of experiments are aimed to compare several products or substances. Here are some terminologies used:

- Treatment: a product or substance of interest to the researcher.
- Subject: an individual or object on which the treatment is applied.
- Effect: the difference in the outcome attributed to the treatment.
- Experiment design: the manner in which the treatments will be applied.

Example: An engineer is interested in testing the claim that a particular gasoline additive leads to improved fuel consumption. She proceeds by noting the miles per gallon (MPG) on her car with and without the additive. In this example

- The car is the subject
- The additive is the treatment

- Effect is the difference in the MPG caused by adding the additive.

An inherent problem when dealing with subjects is the confounding effect: Is the observed effect truly due to the treatment? Is it caused by the difference in the subjects? Had the engineer used different cars then there would be no way of concluding the difference was due to the additive. The effect due to the cars' nature is called a **nuisance factor** and must be accounted for. Experiment designs offer solutions through **blocking.** Blocking is a technique where homogeneous subjects are grouped forming a block and compares effects within that block. A subject can also represent a block. In the example above different cars would represent different blocks. Each car's MPG will be noted with and without the additive. The effect is then measured on each car.

There are two main things that a researcher must decide before proceeding with an experiment:

- The objective or claim
- The appropriate experiment design.

1.2. Experiment Designs

1.2.1. Completely Randomized Design (CRD)

In a CRD subjects are randomly assigned to treatments. Each subject will be exposed to only one treatment. The number of subjects assigned to each treatment does not have to be the same for all treatments. The treatment effect is then the difference among the groups formed by the treatments. In the MPG example the engineer would ask two groups of drivers: one using the additive and the other without it. She would then collect the results of the two groups and check their differences. An advantage of this design is that it is cheap and simple to employ. However, it does not use blocking and the performance of a treatment is dependent on the subjects assigned to it. There is a chance that the group not using the additive might have cars with better MPG than the group using the additive. A lack of difference would, therefore, be misleading.

1.2.2. Randomized Complete Block Design (RCBD)

An RCBD introduces blocking to the CRD. Instead of randomly assigning subjects to treatments an RCBD exposes each subject or a homogeneous group to all treatments. The order in which the treatment is exposed is random. Treatment effects are then measured within each block. The important attribute of the RCBD is that there are no missing observations. An RCBD represents an ideal design for testing treatment effects. However, given that there cannot be missing observations, an RCBD is often an expensive design.

1.2.3. Incomplete Block Design (IBD)

An IBD follows the same criteria as an RCBD but there can be missing observations. This, perhaps, represents practical data sets that researchers end up with. Missing observations could be due to several reasons: funds running out in the middle of a study limiting the number of subjects given a treatment, lack of diligence on subjects in studies that require follow – ups and sometimes death of subjects especially in studies that test lethality of drugs.

1.2.4. Balanced Incomplete Block Design (BIBD)

A BIBD is a form of IBD where missing observations form a balanced pattern. An IBD is a BIBD if

- Each treatment has the same number of subjects
- Each subject is exposed to the same number of treatments
- Each pair of treatments is tested an equal number of times.

A BIBD presents a fair comparison of treatments in the presence of missing observations. As opposed to an IBD results cannot be skewed by an uneven distribution of number of subjects across treatments.

1.3. Hypothesis Testing

Treatment effects can be tested in several ways. It is, therefore, imperative to state the objective of the research, also known as the alternative hypothesis, beforehand. This helps to clearly define the problem and relate findings at the end of the experiment. Before we look at the hypotheses we first introduce useful symbols that are used throughout this paper:

- τ_i: i^{th} treatment's effect
- n_i: i^{th} treatment's sample size
- b: total number of blocks in the experiment
- μ_i: i^{th} treatment's mean
- t: total number of treatments
- k_j: number of treatments appearing in block j.

There are five main hypotheses:

- **Null hypothesis**: this is the status quo and it states that there is no difference in treatment effects.
  - $H_0: \tau_1 = \tau_2 = \cdots = \tau_k$
- **Two – tailed alternative:** this assumes no directional differences in the treatment effects.
  - $H_a: at\ least\ one\ \tau_i\ is\ different.$
- **Non-decreasing alternative**: this states that the treatment effects, if different, the previous treatment's effect is smaller in magnitude than the next.
  - $H_a: \tau_1 \leq \tau_2 \leq \cdots \leq \tau_k\ with\ at\ least\ one\ inequality.$
- **Non-increasing alternative**: the opposite of the non-decreasing alternative
  - $H_a: \tau_1 \geq \tau_2 \geq \cdots \geq \tau_k\ with\ at\ least\ one\ inequality.$
- **Umbrella alternative**: this states that there is a presumed peak in treatment effects.
  - $H_a: \tau_1 \leq \tau_2 \leq \cdots \leq \tau_p \geq \cdots \geq \tau_k\ with\ at\ least\ one\ inequality.$

1.3.1. Tests

There are several nonparametric tests that can be used for testing effects. They are dependent on the type of design and alternative hypothesis. For instance the Jonckheere-Terpstra test (Jonckheere (1954), Terpstra (1952)) can be applied in a CRD for testing non-decreasing or non-increasing effects. Page's test (1963) can be applied in an RCBD for testing non-decreasing treatment effects. These tests and more are discussed in more detail in the next chapter.

The hypothesis is often clear for the researcher but the design choice might not be. There are several factors to consider when choosing a design as mentioned earlier. Some can be controlled while others cannot. Researchers must ask themselves whether or not blocking is essential in their study. If so, what is the size of the study's wallet? The choice of an experiment design often comes down to a balance of resources and the sample size. The following is a motivation of this research. Two case studies are used to highlight challenges often faced by a researcher.

1.4. Motivation

1.4.1. Case Study 1

Consider a scenario that is common at the workplace. The general wellness of employees has become an issue of interest. Companies offer wellness packages and education to their employees following studies that claim improved health and wellness lead to improved productivity (NCSF). In light of such statements a company may choose to test its wellness program. Employees will participate in the program and then have their low-density lipoprotein (LDL), cholesterol measure, checked over 6 month follow – ups. Productivity will be measured by number of tasks completed in 6 months. Since changes in productivity and LDL will be tracked on individual employees this then resembles an RCBD. However, employee turnover, sickness or injury along with lack of diligence can cause data to be incomplete. The company decides to complete the study by aggregating the employee groups that are present during follow – ups. The final data set will then resemble a combination of an IBD and a CRD.

1.4.2. Case Study 2

A psychology study claims that the outside temperature affects a person's mood: colder temperatures are associated with low moods while high temperatures are associated with happier moods. A year – long (January to December) study plans to follow a several students and measure their overall mood at random times every month. It is, therefore, expected that the highest mood levels will be observed during the middle summer months. The experiment, like the first case study, is prone to have missing observations. This could be because of several reasons: students transferring, graduation or lack of interest in the students after some time. The researcher might decide to complete the study by checking the moods of random students at random times in a month. The final data set might, again, resemble a combination of an IBD and a CRD.

The challenge posed here is: can we salvage the data and improve the power of the studies by combining the two designs? The next chapter looks at literature related to this research.

CHAPTER 2. LITERATURE REVIEW

The choice of a nonparametric testing procedure is dependent on the experiment design and alternative hypothesis stated. Each test has a set of related assumptions that must be met in order to ensure valid results. An experiment's design offers an environment that meets certain criteria based on assumptions. The following is a detailed look at several relevant nonparametric test statistics. They are divided by the design of the experiment and then the alternative hypothesis.

2.1. Completely Randomized Design (CRD)

The Mann – Whitney (1947) test is used for testing differences between two treatment effects' location parameters. It can test for either the two – tailed or both directional alternatives. The Mann – Whitney (1947) test is a rank based test and thus requires the data to be at least ordinal. The two treatments' population of treatment effects are assumed to be independent and that they only differ in their location parameters. Daniel (1990) provides tables for comparing the observed test statistic.

In the event of testing more than two treatment effects the Kruskal Wallis test (1953), an extension of the Mann Whitney (1947), offers a way to test for differences. It, inherently, has the same assumptions as the Mann Whitney (1947) with populations differing in location parameters only. The Kruskal Wallis test (1953), however, can only be used for the two-sided alternative.

The Jonckheere – Terpstra test ((Jonckheere (1954), Terpstra (1952)), JT test for short, is appropriate for testing differences in more than two treatment effects; it particularly tests directional differences. Unlike the Mann – Whitney (1947) the JT is not rank based. The JT test statistic is based on a comparison of pairs of treatments using their corresponding values. There are several assumptions given by Daniel (1990) that must be met in order to ensure the validity of results:

- Observations are independent of one another
- Variable of interest is continuous
- Data must be at least ordinal
- The population of treatment effects only differ in terms of location parameters

A priori: In order to use the JT test the treatments must first be arranged in the order of perceived directional differences i.e. if the treatments effects are believed to be in a non – decreasing order then the treatments should be arranged as so before any testing.

Pairing: The next step is to form all possible combinations of pairs of observations from different treatments. Each observation in treatment *A* forms a pair with each observation from treatment *B.* In the end each pair is assessed and if the order of magnitude within that pair matches the order of the treatment then the pair is assigned 1, 0 otherwise. This is to say that for a pair *(a, b)*, where *a* is an observation from *A* and *b* from *B*, if *a* is less than *b* and the alternative is non – decreasing then the pair will contribute a value of 1 towards the overall statistic. Let U_{ij} be the number of pairs in which the order of magnitude is in accord with the alternative.

Test and decision: The test statistic is then computed by adding all the values assigned to the pairs. For a non – decreasing alternative the null hypothesis is rejected for large values and vice versa. Daniel (1990) provides a table of critical values and levels of significance. The test statistic is given by:

$$J = \sum_{i<j} U_{ij}. \tag{2.1}$$

The JT test has a large sample approximation formula where the test statistic is standardized and observed values are compared to the standard normal distribution table. The standardized JT is given by:

$$Z_{JT} = \frac{J - [(N^2 - \sum_{j=1}^{t} n_j^2)/4]}{\sqrt{\left[N^2(2N+3) - \sum_{j=1}^{t} n_j^2\left(2n_j + 3\right)\right]/72}}. \tag{2.2}$$

Z_{JT} has been shown to have an asymptotically standard normal distribution. An example is given in Chapter 3.

Another test for a CRD experiment is the Mack – Wolfe (1981) test. This test is appropriate for researchers interested in the umbrella alternative. The Mack – Wolfe (1981) test uses Mann – Whitney (1947) counts for its test statistic. It approaches the umbrella design as two separate designs: non – increasing and non – decreasing. The test statistic is given by

$$A_p = \sum_{i<j} \sum_{j+1>p} U_{ij} \tag{2.3}$$

The null hypothesis is, therefore, rejected for large A_p values.

The Mack – Wolfe (1981) test statistic is asymptotically standard normal as the sample size tends to infinity. The expected value [E(A_p)] and variance [(Var(A_p)] are given below.

$$E(A_p) = \frac{N_1^2 + N_2^2 - \sum_{i=1}^{t} n_i^2 - n_p^2}{4} \tag{2.4}$$

$$Var(A_p) = \frac{1}{72}\Bigg\{2(N_1^3 + N_2^3) + 3(N_1^2 + N_2^2) - \sum_{i=1}^{k} n_i^2(2n_i + 3) - n_p^2(2n_p + 3) + 12n_pN_1N_2 - 12n_p^2N\Bigg\} \tag{2.5}$$

- N_1: total number of subjects to the left of the peak, inclusive
- N_2: total number of subjects to the right of the peak, inclusive
- n_p: number of subjects in the peak treatment.

Let

$$A_p^* = \frac{A_p - E(A_p)}{\sqrt{Var(A_p)}} \tag{2.6}$$

be the standardized Mack –Wolfe (1981) test statistic. The null hypothesis is rejected if $A_p^* \geq z_\propto$.

Suppose Table 2.1 shows a sample of findings of the mood study in case 2. The researcher simply asked random students to rate their overall monthly happiness on a scale of one to ten. Summer months are then expected to have the highest scores depicting good moods. Data is then arranged to reflect that expected order – June in the middle of January and December. The Mann – Whitney (1947) counts are 9 for both January – June and June – December comparison. For the example $A_p = 18, N_1 = N_2 = 6, n_p = 3$ and $t = 3$. The expected value and variance for this example are 11.25

Table 2.1. Weather vs. Mood

January	June	December
5	7	4
6	8	7
2	10	3

and 15. So, $A_p^* = 0.45$.The null hypothesis would not be rejected when using the usual 5% significance. The non – rejection could possibly be due to sample size.

2.2. Randomized Complete Block Design (RCBD)

The Friedman (1937, 1940) test was designed for testing differences in the presence of blocking. The test was rank based: treatments were compared ranking observations within a block. This technique ensured that correlation between blocks was accounted for. Therefore, one of the assumptions for the test was that the observations' measurement scale must allow for ranking in order of magnitude. Another important assumption was that there be no interaction between blocks and treatments since that nuisance factor cannot be avoided when ranking across blocks. A limitation of the Friedman (1937, 1940) test was that it could only detect mere differences and not directional.

For directional differences the Page (1963) test offered an alternative to the Friedman (1937, 1940). The Page's (1963) test was developed for the non – decreasing alternative hypothesis. Like the Friedman (1937, 1940) observations were ranked within a block. Summing the ranks of each, R_j, treatment formed the test statistic, L.

$$L = \sum_{j=1}^{t} jR_j = R_1 + 2R_2 + \cdots + tR_t \tag{2.7}$$

The Page's (1963) statistic thus gave more weight to treatments with higher expected effects. The null hypothesis was then rejected for large L values. The test statistic was shown to be asymptotically standard normal. The large approximation formula is given below.

$$Z_{Page} = \frac{L - [bt(t+1)^2/4]}{\sqrt{b(t^3 - t)^2/144(t-1)}} \tag{2.8}$$

The test statistic was rejected when $Z_{Page} \geq Z_{\alpha}$.

Table 2.2 below is used to illustrate the procedure of the Page's (1963) statistic. The data is a sample from the oil additive example used previously. However, this time ethanol is added as a treatment. It is the researcher's belief that the order of fuel consumption from the most to the least is ethanol, gas without additive and gas with additive. She used different cars as blocks.

Table 2.2. MPG Comparisons

Car	Ethanol	Gas w/o additive	Gas plus additive
A	20 (1)	26 (2)	35 (3)
B	23 (1)	30 (2)	34 (3)
C	23 (1)	26 (2)	33 (3)
D	21 (1)	30 (2)	33 (3)
R_j	4	8	12

The values in parentheses represent the rank of the MPG of that car when using that treatment. It can be seen that ethanol, gas without additive and gas with additive received a total of 4, 8 and 12 respectively. Therefore,

$$L = 4 + (2 * 8) + (3 * 12) = 56.$$

Now, using the large sample approximation formula we see that

$$Z_{Page} = \frac{56 - [4 * 3(3+1)^2/4]}{\sqrt{\frac{4(3^3 - 3)^2}{144(3-1)}})} = 2.83.$$

The null hypothesis would be rejected at the 5% significance level thereby establishing enough evidence to support her claim.

The Kim and Kim (1992) test was designed for the umbrella alternative. It was also rank based and applied the same technique as the Friedman (1937, 1940) and Page's (1963). Inherently, the test has the same assumptions about observations as the two. Kim and Kim (1992) applied the Mack – Wolfe (1981) test in each block and then summed the counts.

$$KK = \sum_{j=1}^{b} A_{jp} \tag{2.9}$$

The null hypothesis would then be rejected for large *KK* values.

2.3. Balanced Incomplete Block Design (BIBD)

The Durbin (1951) test was developed for testing differences in the presence of missing observations, particularly in a BIBD. It was geared towards researchers interested in mere differences among treatments and not the direction of the difference.

The Durbin (1951) test was rank based as well; it followed the same ranking criteria as the Page's (1963). However, Durbin (1951) assigned a rank of zero for missing observations.

Magel and Ndungu (2011) proposed a test that would offer more insight into the direction of treatment differences, particularly non – decreasing differences. The test was an extension of the Page's (1963) statistic. It followed a similar ranking procedure and data was required to meet the same criteria as Page's (1963). Missing observations were assigned a rank of zero like the Durbin (1951) test. Magel and Ndungu (2011) considered six cases of the BIBD design:

- Three treatments with only two appearing per block
- Four treatments with only two and three appearing per block
- Five with only two, three and four appearing per block.

The test statistic, $M,$ was the sum of the ranks each treatment received. The expected value was given by

$$E(M) = b\binom{t}{k}\frac{k(k+1)(t+1)}{4} \tag{2.10}$$

where

$$M = \sum_{j=1}^{k} jR_j \tag{2.11}$$

There was no general variance instead individual variances were provided for each of the six cases. Magel and Ndungu (2011) considered the large sample approximation and was asymptotically standard normal. The null hypothesis was, therefore, rejected when $M \geq Z_{\alpha}$. Simulation studies showed that Magel and Ndungu's (2011) test was more powerful than Durbin's (1951). Suppose Table 2.3 below represents data from the fuel consumption experiment. Missing observations might occur as a result of budget constraints.

Table 2.3. MPG Comparison BIBD

Cars	Ethanol	Gas w/o additive	Gas plus additive
A	20 (1)	27 (2)	
B	21 (1)		33 (2)
C		27 (1)	31 (2)
D	22 (1)	27 (2)	
E	25 (1)		34 (2)
F		26 (1)	31 (2)
R_j	4	6	8

In the above example $b = 6, t = 3, k = 2, M = 4 + 2(6) + 3(8) = 40, E(M) = 45$ and $var(M) = 1.5$. The standardized test statistic is then

$$Z_M = \frac{40 - 45}{\sqrt{1.5}} = -4.08.$$

The null hypothesis would not be rejected since $Z_M \leq Z_{.05} = 1.645$. Again, this decision can be attributed to the low sample size.

Magel and Hemmer (2012) considered testing the umbrella alternative in a BIBD. The test statistic, T, was an extension of Page's (1963) statistic and followed a similar ranking procedure. Missing observations were assigned a rank of zero. Magel and Hemmer's (2012) looked at the large sample approximation that was asymptotically standard normal. The null hypothesis was rejected when $Z_T \geq Z_{\alpha}$ where Z_T was the standardized Magel and Hemmer's (2012) statistic. Simulation studies showed that Magel and Hemmer's (2012) test was more powerful than Durbin's (1951) when the treatments followed the umbrella alternative. The research cautioned that Magel and Hemmer's (2012) test was sensitive to treatments of equal effects near the treatment when there were less than 5 treatments.

2.4. Incomplete Block Design (IBD)

Alvo and Cabilio (1995) developed a test that addressed the randomness of missing observations. The test was an extension of the Page's (1963) statistic and was used for the non – decreasing alternative. Therefore, it had the same data requirements and followed a similar ranking procedure. To deal with missing observations Alvo and Cabilio (1995) proposed assigning an average of the ranks appearing in that block. Furthermore, Alvo and Cabilio (1995) gave weight to a block with missing observations using the following formula:

$$\sum_{j=1}^{t} \frac{(t+1)}{(k+1)} \mu_{ij} \tag{2.12}$$

where μ_{ij} is the rank of the observation or the average of the ranks if missing. The test statistic was then the sum of the above quantity over all b blocks. Like Magel and Ndungu (2011) Alvo and Cabilio's (1995) variance was dependent on the order of missing observations within a block. The variance of each block was given by

$$\sigma^2(i) = \frac{k(t+1)}{12(k+1)} \sum_{j=1}^{k} (O_{ij} - \bar{O}_i)^2 \tag{2.13}$$

where O_{ij} is the order of the observation's treatment in the block and $\bar{O}_i$ is the average of the treatment order numbers appearing in the block.

Alvo and Cabilio's (1995) test can be used in a BIBD as well like Magel and Ndungu's (2011). Simulation studies over the six cases Magel and Ndungu (2011) considered showed that the two were equally powerful. Therefore, the researcher has a choice of which test might be easier to use.

2.5. Mixed Designs

There have been several studies that considered the combination of experimental designs. Each combination reflected a challenging scenario seen in real life data.

Magel and Mathisen (2011) looked at a combination of an RCBD and a BIBD. This reflected an example where funds were not sufficient to complete the experiment in an RCBD. Magel and Mathisen (2011) used Page's (1963) and Magel and Ndungu's (2011) test statistics to form two new statistics:

$$Standardizing\ First\colon T1 = \frac{Z_{Page} + Z_{Ndungu}}{\sqrt{2}} \tag{2.14}$$

and

$$Standardizing\ Last\colon T2 = \frac{L + M - [E(L) + E(M)]}{\sqrt{Var(L) + Var(M)}} \tag{2.15}$$

Simulation studies showed that when the ratio of complete to incomplete blocks was 1:1, Standardizing Last was better when there were fewer observations in the incomplete blocks. The reverse was true when there were more observations in the incomplete blocks. Standardizing last was also better when there were more complete blocks i.e. the ratio was 2:1. When the ratio of complete to incomplete was 1:2 there was no significant difference between the two methods.

In the following year Magel and Hemmer (2012) proposed a test for the umbrella alternative for the same combination of designs, RCBD and BIBD. The research considered the Kim and Kim (1992) and Magel and Hemmer's (2012) tests to form their new statistics. They followed similar methods to combine them: standardize first and last. Let M_1^* denote the statistic formed by standardizing first and M_2^* denote the statistic formed by standardizing last. For both statistics the null hypothesis was rejected when their corresponding values were greater than Z_α. Simulation studies showed that standardizing first was only better when there was an equal ratio of complete to incomplete blocks. Otherwise, standardizing last was more powerful. Magel and Hemmer (2012) recommended standardizing last when considering this approach.

Dubnicka, Blair and Hettmansperger (2002) considered a mixed design comprised of paired data, resembling an RCBD, and two independent samples, resembling a CRD. Dubnicka et al (2002) applied the Wilcoxon signed rank test (1945) to the paired data and the Mann – Whitney (1947) to the CRD part. Their new test was formed by combining both test statistic values and standardizing the quantity. The research also considered using weights when combining the tests. Dubnicka et al (2002) recommended using weights unless the paired data sample was larger than the two independent samples combined.

Magel and Fu (2014) considered a different test consisting of a linear combination of the Wilcoxon signed rank test and the Mann – Whitney test and found situations in which their test had higher powers than the Dubnicka et al. (2002) test.

Magel, Terpstra and Wen (2009) proposed two test statistics for the non – decreasing alternative in an RCBD and CRD mixed design. Their study showed that standardizing the sum of the standardized statistics was better than standardizing the sum of the unstandardized statistics unless the sample size of the CRD was less than a quarter that of the RCBD in which case the latter was better. Magel, Terpstra, Canonizado and Park (2010) considered the umbrella alternative in the presence of missing observations in a similar mixed design. The results of that study showed that standardizing the sum of the standardized was better overall.

CHAPTER 3. PROPOSED TEST STATISTICS

This chapter introduces two pairs of test statistics. They are both applicable in a Completely Randomized Design (CRD) and Incomplete Block Design (IBD) mixed design. One pair is used to test the non – decreasing alternative while the other for the umbrella alternative. This chapter will detail the assumptions that are necessary for validity of the statistics, the development of the statistics, the procedure of applying the statistics, the expected values and corresponding variances. Only the large sample approximation versions of the statistics are considered.

This chapter is divided into four main parts: preliminary research, non – decreasing alternative, umbrella alternative and examples.

3.1. Preliminary Research

The preliminary research primarily focused on the incomplete block section. The research investigated which of two methods was better to use for the incomplete block design (IBD) when testing for non – decreasing differences in means. The following two methods were investigated:

1. Split the IBD into the portion that is incomplete (IBD) and the portion that is to be complete (Randomized Complete Block Design), apply appropriate test statistics to both portions, and then combine
2. Avoid splitting the IBD and apply a statistic that is appropriate for both an IBD that contains both complete and incomplete blocks.

First, the latter idea is explored. The Alvo and Cabilio (1995) statistic is one that can be applied to a randomized block design consisting of both complete and incomplete blocks. It is an extension of the Page's statistic and is appropriate for testing whether differences followed a non – decreasing order. For simplicity it will be referred to as Alvo's statistic. The statistic is given in the following subsection.

3.1.1. Alvo

The statistic is given by Alvo and Cabilio (1995) as

$$Alvo = \sum_{1}^{t} j \times R_j \tag{3.1}$$

where

- $R_j = \sum_{i=1}^{n} \frac{(t+1)}{(k+1)} r_{ij}$ is the sum of the ranks of the j^{th} treatment.
- r_{ij} is the rank of treatment j's observation in block i. $r_{ij} = \frac{k+1}{2}$ if the observation is missing.
- t is the total number of treatments in the IBD.
- k is the number of treatments appearing in block i.

The expected value given by Alvo and Cabilio (1995) as

$$E(Alvo) = \frac{nt(t+1)^2}{4} \tag{3.2}$$

where

- n is the total number of blocks.

The variance for each block, i, is given by (Alvo and Cabilio 1020)

$$Var(Alvo_i) = \sigma^2(i) = \frac{k(t+1)^2}{12(k+1)} \sum_{j=1}^{k} (O_{ij} - \bar{O}_i)^2 \tag{3.3}$$

where

- k is the number of treatments appearing in block i.
- O_{ij} is treatment *j*'s expected rank when compared to all treatments. Only treatments appearing in the block are used to compute the variance.
- $\bar{O}_i = \frac{\sum_{j=1}^{k} O_{ij}}{k}$

The standardized Alvo's statistic which has an asymptotic standard normal distribution when the null hypothesis is true is then given by Alvo and Cabilio (1995) as

$$Z_{Alvo} = \frac{Alvo - \frac{nt(t+1)^2}{4}}{\sqrt{n \frac{k(t+1)}{12(k+1)} \sum_{j=1}^{k} (O_{ij} - \bar{O}_i)^2}} \tag{3.4}$$

The assumptions necessary for the validity of Alvo's statistic are:

- The variable of interest is continuous.
- The blocks are independent of one another.
- The treatments are also independent of one another.
- There is no interaction between blocks and treatments.
- The observations can be ranked in order of magnitude.

The procedure for applying this statistic is as follows:

- Arrange the treatments in the expected order of magnitude.

- For each block, rank observations from 1 to *k*. For missing observations assign the average of the ranks of the observations appearing in that block.
- For each block, multiply the sum of the ranks by

$$\frac{t+1}{k+1}.$$

- Compute the statistic by totaling the sum of the ranks for each block.

The following example is adapted from Alvo and Cabilio (1995). The experiment compared toads' heart pressure over set time periods. These time periods served as treatments and the toads represented the blocks. The ranks of the observations are given in parentheses.

Table 3.1. Toad Heart Pressure Example

Toad ID	Block	6hr	12hr	18hr	24hr
21	1	11.865 (1)	9.832 (3)	7.567 (4)	10.168 (2)
22	2	5.601 (1)	4.892 (2)	4.032 (3)	3.126 (4)
23	3	(2)	14.415 (1)	14.185 (2)	7.8 (3)
24	4	13.267(1)	(1.5)	(1.5)	9.953 (2)
25	5	8.006 (1)	7.973 (2)	(2)	7.582 (3)
27	6	17.692 (1)	16.644 (2)	15.327 (3)	11.573 (4)
28	7	9.027 (2)	7.973 (3)	11.855 (1)	6.82 (4)
29	8	9.789 (1)	7.967 (2)	7.758 (4)	7.849 (3)
$\sum_{i=1}^{n}\frac{(t+1)}{(k+1)}r_{ij}$		11.416	18.250	22.5	27.833

For the example illustrated in Table 3.1 on the following page

- $n = 8$
- $t = 4$
- $k_1 = k_2 = k_6 = k_7 = k_8 = 4;\ k_3 = k_5 = 3\ and\ k_4 = 2$

- $\sigma_1^2 = \sigma_2^2 = \sigma_6^2 = \sigma_7^2 = \sigma_8^2 = 8.3\dot{3};\ \sigma_3^2 = 3.125;\ \sigma_4^2 = 6.25\ and\ \sigma_5^2 = 7.2916.$

Applying these values to the formula yields the following

$$Z_{Alvo} = \frac{226.75 - 200}{7.6376} = 3.5.$$

H_0 is rejected if Z_α is greater than 1.645. The null hypothesis is then rejected at the 5% significance level.

3.1.2. Alvo and Page's Comparison in Split IBD

For the first idea of the preliminary research a combination of Alvo's and Page's statistics was proposed to test for differences. Alvo's statistic was applied to the incomplete part and Page's to the RCBD. The following equation shows how the two statistics were combined.

$$Z_{pa} = \frac{Z_{Page} + Z_{Alvo}}{\sqrt{2}} \tag{3.5}$$

Combining the two unstandardized statistics first was not considered because the subsequent statistic was equivalent to just using Alvo. See proof in Alvo and Cabilio (1995). Furthermore, the research explored using weights assigned to the Page's and Alvo's components in Z_{pa} in an attempt to improve its overall power. Z_{pa} was then compared to the alternative of just using Alvo's statistic for the entire block design. The statistic was also compared against a weighted Z_{pa} and a weighted Alvo given by

$$Weighted\ Z_{pa} = \frac{\beta Z_{Page} + \theta Z_{Alvo}}{\sqrt{(\beta^2 + \theta^2)}} \tag{3.6}$$

and

$$Weighted\ Alvo = \frac{Alvo - [\beta E(Alvo_{complete}) + \theta E(Alvo_{incomplete})]}{\sqrt{(\beta^2 Var(Alvo_{complete}) + \theta^2 Var(Alvo_{complete}))}} \tag{3.7}$$

where the ratio β:θ represented the ratio of the sample sizes of the complete to incomplete blocks, or the inverse. For instance, if there were twice as many incomplete blocks the ratio would be set at 1:2 and at 2:1. Generally, the power was higher when the ratio corresponded to the actual ratio of complete to incomplete blocks.

Observations were simulated using SAS© and the overall experiment design was varied by distribution (Normal, Exponential and T with three degrees of freedom), ratio of complete to incomplete blocks and number of treatments (three, four and five).

The results showed that Alvo's statistic was more powerful than Z_{pa} when there were twice as many complete as incomplete blocks. The weighted Alvo statistic was generally most powerful when there were twice as many incomplete blocks as complete and there were five treatments in the design. Otherwise, Z_{pa} and Alvo were more powerful than the weighted statistics. Table 3.2 to Table 3.4 show some results when there were twice as many incomplete (10) as complete blocks (20).

Table 3.2. Alvo and Page's Comparison under Normal Distribution

Treatments	μ1	μ2	μ3	μ4	μ5	Z_{pa}	Alvo	W. Z_{pa}	W. Alvo
3	0	0	0	_	_	4.7%	4.7%	4.2%	4.2%
	0	0.2	0.4	_	_	25.0%	25.0%	22.6%	22.5%
	0	0.3	0.9	_	_	73.8%	74.0%	68.2%	67.5%
4	0	0	0	0	_	4.6%	4.7%	4.7%	5.5%
	0	0.1	0.2	0.3	_	22.3%	22.3%	21.3%	23.3%
	0	0.3	0.45	0.6	_	54.1%	54.1%	51.1%	53.4%
5	0	0	0	0	0	5.1%	5.0%	4.9%	6.4%
	0	0.2	0.4	0.6	0.8	85.6%	85.5%	83.6%	85.8%
	0	0	0.2	0.2	0.2	20.4%	20.6%	19.6%	23.3%

Table 3.3. Alvo and Page's Comparison under Exponential Distribution

Treatments	μ1	μ2	μ3	μ4	μ5	Z_{pa}	Alvo	W. Z_{pa}	W. Alvo
3	0	0	0	_	_	4.8%	4.8%	4.4%	4.4%
	0	0.1	0.5	_	_	57.6%	57.8%	52.3%	51.8%
	0	0.3	0.9	_	_	91.8%	91.8%	88.2%	87.9%
4	0	0	0	0	_	5.1%	5.1%	5.0%	5.9%
	0	0.2	0.4	0.5	_	74.5%	74.5%	70.6%	72.3%
	0	0.3	0.45	0.6	_	82.0%	82.1%	79.0%	80.2%
5	0	0	0	0	0	5.4%	5.3%	5.1%	6.7%
	0	0	0	0.2	0.2	36.9%	37.1%	35.7%	39.6%
	0	0	0.2	0.2	0.2	37.3%	37.2%	35.8%	39.9%

Table 3.4. Alvo and Page's Comparison under T with 3 df. Distribution

Treatments	μ1	μ2	μ3	μ4	μ5	Z_{pa}	Alvo	W. Z_{pa}	W. Alvo
3	0	0	0	_	_	4.4%	4.3%	4.2%	4.0%
	0	0.1	0.5	_	_	25.6%	25.5%	22.8%	22.5%
	0	1	1.5	_	_	89.8%	89.8%	85.8%	85.4%
4	0	0	0	0	_	4.6%	4.5%	4.6%	5.4%
	0	0.2	0.4	0.5	_	34.5%	34.5%	31.7%	34.0%
	0	0.3	0.45	0.6	_	41.4%	41.4%	38.6%	40.9%
5	0	0	0	0	0	5.3%	5.3%	5.0%	6.6%
	0	0.2	0.4	0.6	0.8	70.1%	70.2%	67.7%	71.1%
	0	0.1	0.3	0.6	1	84.9%	84.9%	82.8%	85.1%

3.1.3. Alvo and Mathisen Comparison in RCBD and BIBD Mixed Design

The next step in the preliminary research compared Alvo's statistic with Mathisen and Magel's (2011) two proposed statistics T1 and T2 ((2.14) and (2.15)). Alvo's statistic was applied in both the RCBD part and the Balanced Incomplete Block Design (BIBD) part. Observations were simulated using SAS© and the mixed design was varied by distribution (Normal, Exponential and T with three degrees of freedom), ratio of complete to incomplete blocks and the number of treatments (three, four and five). Results showed that Alvo was generally more powerful than Mathisen and Magel's

(2011) proposed statistics. Table 3.5, Table 3.6 and Table 3.7 show some results of the analysis (t = total number of treatments; k = number of treatments per block).

Table 3.5. Alvo and Mathisen's Comparison under t = 3 and k = 2

Distribution	Split	μ1	μ2	μ3	(T1)	(T2)	Alvo
Normal	Even	0	0	0	5.4%	4.4%	5.1%
		0	0.4	0.8	70.2%	68.0%	70.7%
	More Complete	0	0	0	5.2%	4.2%	4.9%
		0	0.4	0.8	70.8%	75.0%	77.4%
	Less Complete	0	0	0	5.0%	5.7%	5.2%
		0	0.4	0.8	64.1%	65.4%	64.8%
Exponential	Even	0	0	0	5.4%	4.5%	5.2%
		0	0.2	0.4	52.1%	48.8%	51.8%
	More Complete	0	0	0	5.3%	4.4%	5.1%
		0	0.2	0.4	51.8%	55.2%	57.9%
	Less Complete	0	0	0	5.1%	5.7%	5.2%
		0	0.4	0.8	87.2%	87.9%	87.7%
T with 3 df	Even	0	0	0	5.2%	4.3%	5.0%
		0	0.4	0.8	54.6%	51.5%	54.7%
	More Complete	0	0	0	5.4%	4.5%	5.2%
		0	0.4	0.8	54.6%	58.0%	60.7%
	Less Complete	0	0	0	5.0%	5.6%	5.3%
		0	0.4	0.8	48.6%	50.3%	49.4%

Table 3.6. Alvo and Mathisen's Comparison under t = 4 and k = 2

Distribution	Split	μ1	μ2	μ3	μ4	T1	T2	Alvo
Normal	Even	0	0	0	0	4.9%	4.7%	4.9%
		0	0.2	0.4	0.6	65.7%	67.8%	69.5%
	More Complete	0	0	0	0	4.9%	5.1%	4.9%
		0	0.2	0.4	0.6	68.0%	73.6%	73.7%
	Less Complete	0	0	0	0	4.8%	5.1%	4.7%
		0	0.2	0.4	0.6	62.3%	63.5%	63.4%
Exponential	Even	0	0	0	0	4.9%	4.7%	5.0%
		0	0.1	0.2	0.3	49.7%	51.4%	52.8%

(continues)

Table 3.6. Alvo and Mathisen's Comparison under t = 4 and k = 2 (continued)

Distribution	Split	μ1	μ2	μ3	μ4	T1	T2	Alvo
	More Complete	0	0	0	0	5.2%	5.3%	5.3%
		0	0.1	0.2	0.3	52.2%	58.1%	57.9%
	Less Complete	0	0	0	0	5.0%	5.1%	5.0%
		0	0.2	0.4	0.6	88.9%	89.3%	89.7%
T with 3 df	Even	0	0	0	0	5.0%	4.6%	5.1%
		0	0.2	0.4	0.6	50.4%	52.4%	54.1%
	More Complete	0	0	0	0	5.1%	5.0%	5.0%
		0	0.2	0.4	0.6	52.5%	58.9%	58.9%
	Less Complete	0	0	0	0	5.2%	5.1%	5.1%
		0	0.2	0.4	0.6	47.3%	48.5%	48.5%

Table 3.7. Alvo and Mathisen's Comparison under t = 5 and k = 3

Distribution	Split	μ1	μ2	μ3	μ4	μ5	T1	T2	Alvo
Normal	Even	0	0	0	0	0	5.0%	4.8%	4.7%
		0	0.1	0.2	0.3	0.4	67.4%	67.9%	68.6%
	More Complete	0	0	0	0	0	5.0%	4.7%	4.7%
		0	0.1	0.2	0.3	0.4	69.0%	71.9%	72.4%
	Less Complete	0	0	0	0	0	5.3%	5.2%	5.3%
		0	0.1	0.2	0.3	0.4	65.1%	63.1%	65.1%
Exponential	Even	0	0	0	0	0	4.9%	5.1%	4.9%
		0	0.05	0.1	0.15	0.2	52.3%	53.1%	53.6%
	More Complete	0	0	0	0	0	5.1%	4.9%	4.9%
		0	0.05	0.1	0.15	0.2	54.1%	57.4%	57.9%
	Less Complete	0	0	0	0	0	4.7%	4.5%	4.6%
		0	0.05	0.1	0.15	0.2	50.9%	49.3%	51.0%
T with 3 df	Even	0	0	0	0	0	5.1%	5.0%	4.9%
		0	0.1	0.2	0.3	0.4	52.3%	53.2%	53.7%
	More Complete	0	0	0	0	0	5.0%	4.8%	4.9%
		0	0.1	0.2	0.3	0.4	53.8%	56.3%	56.8%
	Less Complete	0	0	0	0	0	5.0%	4.9%	4.9%
		0	0.1	0.2	0.3	0.4	50.2%	49.0%	50.2%

3.2. Mixed Design Tests for the Non – Decreasing Alternative

The non – decreasing alternative is given by

$$H_0: \tau_1 = \cdots = \tau_t$$

$$H_a: \tau_1 \leq \cdots \leq \tau_t \text{ with at least one strict inequality}$$

where

- τ_i is the i^{th} treatment's effect.

The *t* treatments are arranged in the believed order of magnitude prior to testing for differences.

The proposed statistic for this alternative for the mixed design is a combination of the JT and Alvo statistics. Alvo's statistic was chosen because of its versatility in the presence of missing observations; it is not affected by the pattern of missing observations. Furthermore, the preliminary results showed that Alvo's statistic was generally more powerful when the design was a BIBD. The JT statistic on the other hand is used to test the stated hypothesis in a CRD. The JT statistic is discussed in more detail in the following section.

3.2.1. JT

The test statistic for a completely randomized design is given by Daniel (1990) as

$$J = \sum_{i<j} U_{ij} \tag{3.8}$$

where U_{ij} is the number of pairs of observations (x, y) with x in sample i and y in sample j for which x < y. The pairs are all possible combinations made by treatment observations.

The expected value of J and the variance are given by Daniel (1990) as

$$E(JT) = \frac{N^2 - \sum_{j=1}^{t} n_j^2}{4} \tag{3.9}$$

and

$$Var(JT) = \frac{\left[N^2(2N+3) - \sum_{j=1}^{t} n_j^2\left(2n_j+3\right)\right]}{72} \tag{3.10}$$

respectively where

- N is the total number of observations in the CRD
- n_j is the number of observations receiving treatment j.
- t is the total number of treatments

The standardized JT statistic is then given by Daniel (1990) as

$$Z_{JT} = \frac{J - [(N^2 - \sum_{j=1}^{t} n_j^2)/4]}{\sqrt{\left[N^2(2N+3) - \sum_{j=1}^{t} n_j^2\left(2n_j+3\right)\right]/72}} \tag{3.11}$$

J has an asymptotic normal distribution for large sample sizes. Z_{JT}, therefore, has an expected value of 0 and a variance of 1. The null hypothesis is then rejected if $Z_{JT} > Z_\alpha$.

The assumptions necessary for the validity of the JT statistic, as given by Daniel (1990), are:

- The observations are independent of one another
- The measurement scale is at least ordinal
- The populations are identical except for the location parameters
- The variable of interest is continuous

The procedure of applying the JT statistic is as follows:

1. Arrange the treatments in the believed order of magnitude.
2. Take the first treatment and compare each observation with each observation in the second treatment. Count the number of pairs where observations from the second treatment are greater than the first.
3. Repeat step two for all possible pair of treatments.
4. Compute J by counting all pairs that meet the criteria listed in 2.

Suppose an experiment is conducted to test the claim that a particular oil additive increases a car's overall MPG. A random sample of nine cars is used in the experiment. The additive's effect is then compared with regular gasoline and ethanol effects. The cars are divided into three separate groups each filled with one of the three treatments. Table 3.8 shows the results of the experiment.

Table 3.8. Oil Additive Experiment Example

Without Additive (X)	Ethanol (Y)	With Additive (Z)
29	34	41
31	32	37
26	35	39

For this example

- $N = 9$
- $n_X = n_Y = n_Z = 3$
- $J = 27$
- $t = 3$

Applying these values to the formula gives the following

$$Z_{JT} = \frac{27 - [\frac{9^2 - (3^2 + 3^2 + 3^2)}{4}]}{\sqrt{[9^2(2(9) + 3) - \sum_{j=1}^{3} 3_j^2(2(3_j) + 3)]/72}} = 3.$$

The null hypothesis would be rejected at the 5% level of significance if $Z_{JT} \geq 1.645$. Hence, the null hypothesis is rejected.

Two statistics are proposed for the mixed design which are combinations of the JT and Alvo. These are given in equations 3.12 and 3.13. The first statistic, T_1, adds the standardized versions of JT and Alvo together and re – standardizes.

$$T_1 = \frac{Z_{JT} + Z_{Alvo}}{\sqrt{2}} \tag{3.12}$$

The second statistic, T_2, adds the unstandardized version of the JT and Alvo statistics and then standardizes.

$$T_2 = \frac{JT + Alvo - [E(JT) + E(Alvo)]}{\sqrt{Var(JT) + nVar(Alvo)}} \tag{3.13}$$

Both T_1 and T_2 are asymptotically normally distributed with a mean of 0 and a variance of 1. The null hypothesis is then rejected if $T_1 or\ T_2 > Z_\alpha$ where α is the level of significance.

3.3. Umbrella Alternative

The umbrella alternative is given by

$$H_0: \tau_1 = \cdots = \tau_t$$

$H_a: \tau_1 \leq \cdots \leq \tau_p \geq \cdots \geq \tau_t$ with at least one strict inequality where

- τ_t is the effect of treatment *t*. The point p is known as the peak.

The treatments are arranged in the expected order of magnitude prior to testing for differences.

This research proposes a combination of Mack – Wolfe's (1982) and a new statistic, Mungai's, introduced in section 3.3.2, to test for the umbrella alternative with the peak known. The Mack – Wolfe statistic is used to test the umbrella alternative hypothesis in a CRD and the Mungai's test statistic is used to test the same alternative in an IBD. The two statistics are discussed in further detail in the following sections.

3.3.1. Mack – Wolfe Statistic

The Mack – Wolfe test statistic for known peak p is given by Mack – Wolfe (1982)

$$A_p = \sum_{i<j} \sum_{j+1>p} U_{ij} \tag{3.14}$$

where U_{ij} is the number of pairs of observations (x, y) where

- $x < y$ if x & $y < peak$. y can be the peak.
- $x > y$ if x & $y > peak$. x can be the peak.
- Pairs where $x < peak > y$ are not considered. Treatments must be on the same side of the peak.

Similar to the JT statistic, for each pair being compared, each observation in one sample is compared to each observation in the other sample by forming all possible combinations.

The expected value is given by Mack – Wolfe (1982) as

$$E(A_p) = \frac{N_1^2 + N_2^2 - \sum_{i=1}^{t} n_i^2 - n_p^2}{4} \tag{3.15}$$

where

- N_1 is the total number of observations in all treatments to the left of the peak, including the peak.
- N_2 is the total number of observations in all treatments to the right of the peak, including the peak.
- n_i is the number of observations in treatment i.
- n_p is the number of observations in the peak treatment.

The variance is given by Mack – Wolfe (1982) as

$$Var(A_p) = \frac{1}{72}\left\{2(N_1^3 + N_2^3) + 3(N_1^2 + N_2^2) - \sum_{i=1}^{t} n_i^2(2n_i + 3) - n_p^2(2n_p + 3) + 12n_pN_1N_2 - 12n_p^2N\right\} \tag{3.16}$$

The standardized statistic is then given by Mack – Wolfe (1982)

$$Z_{MW} = \frac{A_p - E(A_p)}{\sqrt{Var(A_p)}} \tag{3.17}$$

This has been shown to have an asymptotic normal distribution with a mean of 0 and a variance of 1.The null hypothesis is then rejected if $Z_{MW} > Z_\alpha$.

3.3.2. Mungai's Statistic

This section introduces a new statistic proposed for the umbrella alternative applicable in an Incomplete Block Design. The statistic, referred to as Mungai is given by

$$M = \sum_{b=1}^{n} M_b \qquad (3.18)$$

where

- $M_b = \sum_{i<j} \sum_{j+1>p} U_{ijb}$
- U_{ijb} , similar to the Mack – Wolfe, is the number of pairs of observations (x, y) in block b for which
  - $x < y$ if x & $y < peak$. y can be the peak
  - $x > y$ if x & $y > peak$. x can be the peak
- Comparisons are restricted to only treatments on the same side of the peak.
- The following criterion is used for the values of U_{ijb} if there are missing observations. Without loss of generality, assume a pair $i < j \leq peak$ where j can also be the peak:
  - 0.5 if i and j are missing
  - $1 - \frac{r_i}{k+1}$ if j is missing. r_i is the rank of i within the block and k is the number of treatments appearing in the block
  - $\frac{r_j}{k+1}$ if i is missing.

The expected value for Mungai's statistic is dependent on the number of treatments and the position of the peak treatment. The general formula is given by

$$E(M) = \sum_{i=1}^{n} E(M_i) \tag{3.19}$$

where

- $E(M_i)$ is the expected value of block i.
- n is the total number of blocks in the IBD.

Similar to the expected value the variance also varies from block to block. The general formula is given by

$$Var(M) = \sum_{i=1}^{n} \sigma_i^2 \tag{3.20}$$

where

- σ_i^2 is the variance of block i. The values of σ_i^2 will vary depending on the pattern of missing observations, the number of treatments and the position of the peak.

The following is an illustration of how the expected value and variance are computed. Arrangements that represent a block where only one treatment observation occurs are not considered. There are four general steps involved:

1. List all the possible $c = k!$ arrangements of ranks and missing observations for a block where
   a. k is the number of treatments appearing in the block
2. For each combination, calculate the statistic U_{ijb}.
3. Calculate the average of the statistics.
4. Calculate the variance of the statistics.

The standardized Mungai statistic is then given by

$$Z_M = \frac{M - E(M)}{Var(M)} \tag{3.21}$$

The following is a detailed illustration of how the variance is calculated.

Consider a case with three treatments and the second treatment is the peak. There are four possible scenarios for any given block:

- No missing observations.
- The peak treatment is missing.
- The first treatment is missing.
- The last treatment is missing.

Each scenario is further explored in detail next.

For the case of no missing observations there are six possible arrangements of ranks. The first column of Table 3.9 lists the combinations (step 1), the second column calculates Mungai's statistic for each combination (step 2), the third column calculates the arithmetic average of the values from step two (step 3) and the final column calculates the variance of step two's values (step 4).

Table 3.9. t = 3, k = 3 & Peak =2

Step 1			Step 2	Step 3	Step 4
1	2	3	1	1	2/3
1	3	2	2		
2	1	3	0		
2	3	1	2		
3	1	2	0		
3	2	1	1		

The following are the detailed step calculations.

- Step 2: considering the first arrangement the following pairs are formed and their values of U_{ija}:
    - $(1, 2) \rightarrow U_{12a} = 1$; $(2, 3) \rightarrow U_{23a} = 0$.
    - $\sum U_{ija} = 1 + 0 = 1$.
- Step 3

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{1+2+0+2+0+1}{6} = 1.$$

- Step 4

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1-1)^2 + (2-1)^2 + (0-1)^2 + (2-1)^2 + (0-1)^2 + (1-1)^2}{6} = \frac{2}{3}.$$

In the second scenario where the peak is missing there are two possible ways in which the order of magnitude can vary. Table 3.10 lists steps one to three.

Table 3.10. t = 3, k = 2, Peak =2 & Observation at Peak Missing

Step 1			Step 2	Step 3	Step 4
2	_	1	1	1	0
1	_	2	1		

The following are the detailed step calculations.

- Step 2: using the first arrangement
    - $(2, \_) \rightarrow U_{12a} = 1 - \frac{2}{3} = \frac{1}{3}$; $(\_, 1) \rightarrow U_{23a} = 1 - \frac{1}{3} = \frac{2}{3}$
    - $\sum U_{ija} = \frac{1}{3} + \frac{2}{3} = 1$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{1+1}{2} = 1.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1-1)^2 + (1-1)^2}{2} = 0\,.$$

There are also two possible combinations for the third scenario where the first treatment is missing. Table 3.11 contains the details of the step-by-step calculation of the expected value.

Table 3.11. t = 3, k = 2, Peak =2 & First Observation Missing

Step 1			Step 2	Step 3	Step 4
_	1	2	1/3	1	4/9
_	2	1	5/3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) → $U_{12a} = \frac{1}{3}$; (1, 2) → $U_{23a} = 0$.
  - $\sum U_{ija} = \frac{1}{3} + 0 = \frac{1}{3}$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{\frac{1}{3}+\frac{5}{3}}{2} = 1.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{(\frac{1}{3} - 1)^2 + (\frac{5}{3} - 1)^2}{2} = \frac{4}{9}.$$

Similarly for the fourth scenario Table 3.12 shows the calculations on a step-by-step basis.

Table 3.12. t = 3, k = 2, Peak =2 & Third Observation Missing

Step 1			Step 2	Step 3	Step 4
2	1	_	1/3	1	4/9
1	2	_	5/3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o $(2, 1) \rightarrow U_{12a} = 0$; $(1, \_\ ) \rightarrow U_{23a} = \frac{1}{3}$.
  - o $\sum U_{ija} = 0 + \frac{1}{3} = \frac{1}{3}$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{\frac{1}{3} + \frac{5}{3}}{2} = 1.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(\frac{1}{3} - 1)^2 + (\frac{5}{3} - 1)^2}{2} = \frac{4}{9}.$$

Now consider the case where there are four treatments and the peak treatment at the second. There are three main scenarios for any given block with several other variations in the second and third:

- No missing observations.
- One of the observations is missing.
- Two of the observations are missing.

For the first scenario, there are $c = k! = 4! = 24$ different arrangements of ranks. Table 3.13 lists them and the corresponding steps involved in deriving the expected value and variance.

Table 3.13. t = 4, k = 4 & Peak = 2

Step 1					**Step 2**	**Step 3**	**Step 4**
1	2	3	4		1	2	3/2
1	2	4	3		2		
1	3	2	4		2		
1	3	4	2		3		
1	4	2	3		3		
1	4	3	2		4		
2	1	3	4		0		
2	1	4	3		1		
2	3	1	4		2		
2	3	4	1		3		
2	4	1	3		3		
2	4	3	1		4		
3	1	2	4		0		
3	1	4	2		1		
3	2	1	4		1		
3	2	4	1		2		
3	4	1	2		3		
3	4	2	1		4		
4	1	2	3		0		
4	1	3	2		1		
4	2	1	3		1		
4	2	3	1		2		
4	3	1	2		2		
4	3	2	1		3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, 3) → $U_{23a} = 0$; (2, 4) → $U_{24a} = 0$; (3, 4) → $U_{34a} = 0$.
  - $\sum U_{ija} = 1 + 0 + 0 + 0 = 1$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{1 + 2 + 2 + \cdots + 2 + 3}{24} = \frac{48}{24} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(1-2)^2 + (2-2)^2 + \cdots + (3-2)^2}{24} = 1.5\ .$$

Now consider the second scenario where only one treatment observation is missing. Table 3.14 to Table 3.17 show the calculations involved in computing the expected value and variance in the presence of missing observations.

Table 3.14. t = 4, k = 3, Peak = 2 & Fourth Observation Missing

Step 1				Step 2	Step 3	Step 4
1	2	3	_	2.25	2	7/8
1	3	2	_	3.25		
2	1	3	_	1		
2	3	1	_	3		
3	1	2	_	0.75		
3	2	1	_	1.75		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1, 2) \rightarrow U_{12a} = 1; (2, 3) \rightarrow U_{23a} = 0; (2, \_) \rightarrow U_{24a} = \frac{2}{4} = \frac{1}{2}; (3, \_)$ $\rightarrow U_{34a} = \frac{3}{4}$.
  - $\sum U_{ija} = 1 + \frac{2}{4} + \frac{3}{4} = 2.25$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{2.25 + 3.25 + 1 + 3 + 0.75 + 1.75}{6} = \frac{12}{6} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(2.25 - 2)^2 + (3.25 - 2)^2 + \cdots + (1.75 - 2)^2}{6}$$

$$= 0.875 .$$

Table 3.15. t = 4, k = 3, Peak = 2 & Third Observation Missing

Step 1				Step 2	Step 3	Step 4
1	2	_	3	1.75	2	31/24
1	3	_	2	3.25		
2	1	_	3	0.5		
2	3	_	1	3.5		
3	1	_	2	0.75		
3	2	_	1	2.25		

The following are the detailed step calculations.

- Step 2: using the first arrangement

- o $(1, 2) \rightarrow U_{12a} = 1$; $(2, \_\,) \rightarrow U_{23a} = \frac{2}{4} = \frac{1}{2}$; $(2, 3) \rightarrow U_{24a} = 0$; $(\,\_\,, 3)$ $\rightarrow U_{34a} = 1 - \frac{3}{4} = \frac{1}{4}$.
- o $\sum U_{ija} = 1 + \frac{2}{4} + \frac{1}{4} = 1.75$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{1.75 + 3.25 + 0.5 + 3.5 + 0.75 + 2.25}{6}$$

$$= \frac{12}{6} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(1.75 - 2)^2 + (3.25 - 2)^2 + \cdots + (2.25 - 2)^2}{6} = 1.2917.$$

Table 3.16. t = 4, k = 3, Peak = 2 & Second Observation Missing

Step 1				Step 2	Step 3	Step 4
1	_	2	3	1.5	2	1/4
1	_	3	2	2.5		
2	_	1	3	1.5		
2	_	3	1	2.5		
3	_	1	2	1.5		
3	_	2	1	2.5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o $(1, \_\,) \rightarrow U_{12a} = 1 - \frac{1}{4} = \frac{3}{4}$; $(\,\_\,, 2) \rightarrow U_{23a} = 1 - \frac{2}{4} = \frac{1}{2}$; $(\,\_\,, 3)$

$\rightarrow U_{24a} = 1 - \frac{3}{4} = \frac{1}{4}$; (2 , 3) $\rightarrow U_{34a} = 0.$

o $\sum U_{ija} = \frac{3}{4} + \frac{2}{4} + \frac{1}{4} = 1.5.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{1.5 + 2.5 + 1.5 + 2.5 + 1.5 + 2.5}{6}$$

$$= \frac{12}{6} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1.5-2)^2 + (2.5-2)^2 + \cdots + (2.5-2)^2}{6} = 0.5.$$

Table 3.17. t = 4, k = 3, Peak = 2 & First Treatment Missing

Step 1					Step 2	Step 3	Step 4
_	1	2	3		0.25	2	31/24
_	1	3	2		1.25		
_	2	1	3		1.5		
_	2	3	1		2.5		
_	3	1	2		2.75		
_	3	2	1		3.75		

The following are the detailed step calculations.

- Step 2: using the first arrangement

o (_ , 1) $\rightarrow U_{12a} = \frac{1}{4}$; (1, 2) $\rightarrow U_{23a} = 0$; (1, 3) $\rightarrow U_{24a} = 0$; (2 , 3)

$\rightarrow U_{34a} = 0.$

- $\sum U_{ija} = \frac{1}{4} + 0 + 0 + 0 = 0.25.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{0.25 + 1.25 + 1.5 + 2.5 + 2.75 + 3.75}{6}$$

$$= \frac{12}{6} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(0.25 - 2)^2 + (1.25 - 2)^2 + \cdots + (3.75 - 2)^2}{6} = 1.2917.$$

Finally, consider the last scenario where two observations are missing. There are two different arrangements for the treatment ranks. Table 3.18 to Table 3.23 show the arrangements, expected values and variances.

Table 3.18. t = 4, k = 2, Peak = 2 & Third & Fourth Observations Missing

Step 1				Step 2	Step 3	Step 4
1	2	_	_	17/6	2	25/36
2	1	_	_	7/6		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, _) → $U_{23a} = \frac{2}{3}$; (2, _) → $U_{24a} = \frac{2}{3}$; (_ , _) → $U_{34a} = 0.5.$

- $\sum U_{ija} = 1 + \frac{2}{3} + \frac{2}{3} + 0.5 = \frac{17}{6}$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{\frac{17}{6} + \frac{7}{6}}{2} = \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(\frac{17}{6} - 2)^2 + (\frac{7}{6} - 2)^2}{2} = \frac{25}{36}.$$

Table 3.19. t = 4, k = 2, Peak = 2 & First & Fourth Observations Missing

Step1					Step 2	Step 3	Step 4
_	1	2	_		4/3	2	4/9
_	2	1	_		8/3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) → $U_{12a} = \frac{1}{3}$; (1, 2) → $U_{23a} = 0$; (1, _) → $U_{24a} = \frac{1}{3}$; (2 , _) → $U_{34a} = \frac{2}{3}$.
  - $\sum U_{ija} = \frac{1}{3} + 0 + \frac{1}{3} + \frac{2}{3} = \frac{4}{3}$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{\frac{4}{3} + \frac{8}{3}}{2}$$

$$= \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(\frac{4}{3} - 2)^2 + (\frac{8}{3} - 2)^2}{2} = \frac{4}{9}.$$

Table 3.20. t = 4, k = 2, Peak = 2 & First & Second Observations Missing

Step1				Step 2	Step 3	Step 4
_	_	1	2	1.5	2	1/4
_	_	2	1	2.5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , _) → $U_{12a} = 0.5$; (_ , 1) → $U_{23a} = 1 - \frac{1}{3} = \frac{2}{3}$; (_ , 2) → $U_{24a} = 1 - \frac{2}{3} = \frac{1}{3}$; (1, 2) → $U_{34a} = 0$.
  - $\sum U_{ija} = 0.5 + \frac{2}{3} + \frac{1}{3} + 0 = 1.5.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{1.5 + 2.5}{2} = \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c} = \frac{(1.5 - 2)^2 + (2.5 - 2)^2}{2} = 0.25.$$

Table 3.21. t = 4, k = 2, Peak = 2 & Peak & Third Observations Missing

Step1					Step 2	Step 3	Step 4
1	_	_	2		11/6	2	1/36
2	_	_	1		13/6		

The following are the detailed step calculations for Table 3.21.

- Step 2: using the first arrangement
  - $(1\ ,\ \_\ ) \rightarrow U_{12a} = 1 - \frac{1}{3} = \frac{2}{3}$; $(\ \_\ ,\ \_\ ) \rightarrow U_{23a} = 0.5$; $(\ \_\ ,\ 2) \rightarrow U_{24a} = 1 - \frac{2}{3} = \frac{1}{3}$; $(\ \_\ ,\ 2) \rightarrow U_{34a} = 1 - \frac{2}{3} = \frac{1}{3}$.
  - $\sum U_{ija} = \frac{2}{3} + 0.5 + \frac{1}{3} + \frac{1}{3} = \frac{11}{6}$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{\frac{11}{6} + \frac{13}{6}}{2} = \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(\frac{11}{6} - 2)^2 + (\frac{13}{6} - 2)^2}{2} = \frac{1}{36}.$$

Table 3.22. t = 4, k = 2, Peak = 2 & Peak & Fourth Observations Missing

Step1					Step 2	Step 3	Step 4
1	_	2	_		13/6	2	1/36
2	_	1	_		11/6		

The following are the detailed step calculations.

- Step 2: using the first arrangement

- $(1\,,\_\,) \rightarrow U_{12a} = 1 - \frac{1}{3} = \frac{2}{3}$; $(\,\_\,, 2) \rightarrow U_{23a} = 1 - \frac{2}{3} = \frac{1}{3}$; $(\,\_\,,\_\,)$

  $\rightarrow U_{24a} = 0.5$; $(2,\_\,) \rightarrow U_{34a} = \frac{2}{3}$.
- $\sum U_{ija} = \frac{2}{3} + 0.5 + \frac{1}{3} + \frac{2}{3} = \frac{13}{6}$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{\frac{11}{6} + \frac{13}{6}}{2} = \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c} = \frac{(\frac{11}{6} - 2)^2 + (\frac{13}{6} - 2)^2}{2} = \frac{1}{36}.$$

Table 3.23. t = 4, k = 2, Peak = 2 & First & Third Observations Missing

Step1					Step 2	Step 3	Step 4
_	1	_	2		1	2	1
_	2	_	1		3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(\,\_\,, 1) \rightarrow U_{12a} = \frac{1}{3}$; $(1,\_\,) \rightarrow U_{23a} = \frac{1}{3}$; $(1, 2) \rightarrow U_{24a} = 0$; $(\,\_\,, 2)$

    $\rightarrow U_{34a} = 1 - \frac{2}{3} = \frac{1}{3}$.
  - $\sum U_{ija} = \frac{1}{3} + \frac{1}{3} + 0 + \frac{1}{3} = 1$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{1+3}{2} = \frac{4}{2} = 2.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{(1-2)^2 + (3-2)^2}{2} = 1.$$

Now consider five treatments in the design. There are four main scenarios for any given block in the design:

- No Missing Observations.
- One treatment is missing.
- Two treatments are missing.
- Three treatments are missing.

There are 120 different arrangements of the ranks. Table 3.24 shows the overall expected value and the variance under Step 3 and Step 4. Table 3.25 to Table 3.34 give the rest of the 120 combinations and the contribution to the statistic (Step 2).

Table 3.24. t = 5, k = 5, Peak = 2 & No Missing Observations

Step 1					Step 2	Step 3	Step 4
1	2	3	4	5	1	3.5	35/12
1	2	3	5	4	2		
1	2	4	3	5	2		
1	2	4	5	3	3		
1	2	5	3	4	3		
1	2	5	4	3	4		
1	3	2	4	5	2		
1	3	2	5	4	3		
1	3	4	2	5	3		
1	3	4	5	2	4		
1	3	5	2	4	4		
1	3	5	4	2	5		

Table 3.25. t = 5, k = 5, Peak = 2, μ1 = 1, μ2 = (4, 5) & No Missing Observations

Step 1					Step 2
1	4	2	3	5	3
1	4	2	5	3	4
1	4	3	2	5	4
1	4	3	5	2	5
1	4	5	2	3	5
1	4	5	3	2	6
1	5	2	3	4	4
1	5	2	4	3	5
1	5	3	2	4	5
1	5	3	4	2	6
1	5	4	2	3	6
1	5	4	3	2	7

Table 3.26. t = 5, k = 5, Peak = 2, μ1 = 2, μ2 = (1, 3) & No Missing Observations

Step 1					Step 2
2	1	3	4	5	0
2	1	3	5	4	1
2	1	4	3	5	1
2	1	4	5	3	2
2	1	5	3	4	2
2	1	5	4	3	3
2	3	1	4	5	2
2	3	1	5	4	3
2	3	4	1	5	3
2	3	4	5	1	4
2	3	5	1	4	4
2	3	5	4	1	5

Table 3.27. t = 5, k = 5, Peak = 2, μ1 = 4 & No Missing Observations

Step 1					Step 2
2	4	1	3	5	3
2	4	1	5	3	4
2	4	3	1	5	4
2	4	3	5	1	5
2	4	5	1	3	5
2	4	5	3	1	6

Table 3.28. t = 5, k = 5, Peak = 2, μ1 = 2, μ2 = 5 & No Missing Observations

Step 1					Step 2
2	5	1	3	4	4
2	5	1	4	3	5
2	5	3	1	4	5
2	5	3	4	1	6
2	5	4	1	3	6
2	5	4	3	1	7

Table 3.29. t = 5, k = 5, Peak = 2, μ1 = 3, μ2 = (1, 2) & No Missing Observations

Step 1					Step 2
3	1	2	4	5	0
3	1	2	5	4	1
3	1	4	2	5	1
3	1	4	5	2	2
3	1	5	2	4	2
3	1	5	4	2	3
3	2	1	4	5	1
3	2	1	5	4	2
3	2	4	1	5	2
3	2	4	5	1	3
3	2	5	1	4	3
3	2	5	4	1	4

Table 3.30. t = 5, k = 5, Peak = 2, μ1 = 3, μ2 = (4, 5) & No Missing Observations

Step 1					Step 2
3	4	1	2	5	3
3	4	1	5	2	4
3	4	2	1	5	4
3	4	2	5	1	5
3	4	5	1	2	5
3	4	5	2	1	6
3	5	1	2	4	4
3	5	1	4	2	5
3	5	2	1	4	5
3	5	2	4	1	6
3	5	4	1	2	6
3	5	4	2	1	7

Table 3.31. t = 5, k = 5, Peak = 2, μ1 = 4, μ2 = (1, 2) & No Missing Observations

Step 1					Step 2
4	1	2	3	5	0
4	1	2	5	3	1
4	1	3	2	5	1
4	1	3	5	2	2
4	1	5	2	3	2
4	1	5	3	2	3
4	2	1	3	5	1
4	2	1	5	3	2
4	2	3	1	5	2
4	2	3	5	1	3
4	2	5	1	3	3
4	2	5	3	1	4

Table 3.32. t = 5, k = 5, Peak = 2, μ1 = 4, μ2 = (3, 5) & No Missing Observations

Step 1					Step 2
4	3	1	2	5	2
4	3	1	5	2	3
4	3	2	1	5	3
4	3	2	5	1	4
4	3	5	1	2	4
4	3	5	2	1	5
4	5	1	2	3	4
4	5	1	3	2	5
4	5	2	1	3	5
4	5	2	3	1	6
4	5	3	1	2	6
4	5	3	2	1	7

Table 3.33. t = 5, k = 5, Peak = 2, μ1 = 5, μ2 = 1 & No Missing Observations

Step 1					Step 2
5	1	2	3	4	0
5	1	2	4	3	1
5	1	3	2	4	1
5	1	3	4	2	2
5	1	4	2	3	2
5	1	4	3	2	3

Table 3.34. t = 5, k = 5, Peak = 2, μ1 = 5, μ2 = (2, 3, 4) & No Missing Observations

Step 1					Step 2
5	2	1	4	3	2
5	2	1	3	4	1
5	2	3	1	4	2
5	2	3	4	1	3
5	2	4	1	3	3
5	2	4	3	1	4
5	3	1	2	4	2
5	3	1	4	2	3
5	3	2	1	4	3
5	3	2	4	1	4
5	3	4	1	2	4
5	3	4	2	1	5
5	4	1	2	3	3
5	4	1	3	2	4
5	4	2	1	3	4
5	4	2	3	1	5
5	4	3	1	2	5
5	4	3	2	1	6

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, 3) → $U_{23a} = 0$; (2, 4) → $U_{24a} = 0$; (2, 5) → $U_{25a} = 0$; (3, 4) → $U_{34a} = 0$; (3, 5) → $U_{35a} = 0$; $(4, 5)$ → $U_{45a} = 0$
  - $\sum U_{ija} = 1.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{420}{120} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1-3.5)^2 + \cdots + (6-3.5)^2}{120} = \frac{35}{12}.$$

When considering the second scenario where only one observation is missing there are 24 possible arrangements of treatment ranks. Table 3.35 to Table 3.39 list the arrangements, the expected values and the corresponding variances.

Table 3.35. t = 5, k = 4, Peak = 2 & Fifth Observation Missing

Step 1					Step 2	Step 3	Step 4
1	2	3	4	_	2.8	3.5	103/60
1	2	4	3	_	3.8		
1	3	2	4	_	3.8		
1	3	4	2	_	4.8		
1	4	2	3	_	4.8		
1	4	3	2	_	5.8		
2	1	3	4	_	1.6		
2	1	4	3	_	2.6		
2	3	1	4	_	3.6		
2	3	4	1	_	4.6		
2	4	1	3	_	4.6		
2	4	3	1	_	5.6		
3	1	2	4	_	1.4		
3	1	4	2	_	2.4		
3	2	1	4	_	2.4		
3	2	4	1	_	3.4		
3	4	1	2	_	4.4		
3	4	2	1	_	5.4		
4	1	2	3	_	1.2		
4	1	3	2	_	2.2		
4	2	1	3	_	2.2		
4	2	3	1	_	3.2		
4	3	1	2	_	3.2		
4	3	2	1	_	4.2		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1, 2) \rightarrow U_{12a} = 1; (2, 3) \rightarrow U_{23a} = 0; (2, 4) \rightarrow U_{24a} = 0; (2, \_)$
    $\rightarrow U_{25a} = \frac{2}{5}; (3, 4) \rightarrow U_{34a} = 0; (3, \_) \rightarrow U_{35a} = \frac{3}{5}; (4, \_) \rightarrow U_{45a} = \frac{4}{5}.$
  - $\sum U_{ija} = 2.8.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{84}{24} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(2.8 - 3.5)^2 + \cdots + (4.2 - 3.5)^2}{24} = \frac{103}{60}.$$

Table 3.36. t = 5, k = 4, Peak = 2, & Fourth Observation Missing

Step 1					Step 2	Step 3	Step 4
1	2	3	_	4	2.2	3.5	151/60
1	2	4	_	3	3.6		
1	3	2	_	4	3.2		
1	3	4	_	2	5		
1	4	2	_	3	4.6		
1	4	3	_	2	6		
2	1	3	_	4	1		
2	1	4	_	3	2.4		
2	3	1	_	4	3		
2	3	4	_	1	5.2		

(continues)

Table 3.36. t = 5, k = 4, Peak = 2, & Fourth Observation Missing (continued)

Step 1						Step 2	Step 3	Step 4
2	4	1	_	3		4.4		
2	4	3	_	1		6.2		
3	1	2	_	4		0.8		
3	1	4	_	2		2.6		
3	2	1	_	4		1.8		
3	2	4	_	1		4		
3	4	1	_	2		4.6		
3	4	2	_	1		6		
4	1	2	_	3		1		
4	1	3	_	2		2.4		
4	2	1	_	3		2		
4	2	3	_	1		3.8		
4	3	1	_	2		3.4		
4	3	2	_	1		4.8		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, 3) → $U_{23a} = 0$; (2, _) → $U_{24a} = \frac{2}{5}$; (2, 4) → $U_{25a} = 0$; (3, _) → $U_{34a} = \frac{3}{5}$; (3, 4) → $U_{35a} = 0$; (_ , 4) → $U_{45a} = 1 - \frac{4}{5} = \frac{1}{5}$.
  - $\sum U_{ija} = 2.2$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{84}{24} = 3.5.$$

- Step 4: $\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$

$$= \frac{(2.2-3.5)^2 + \cdots + (4.8-3.5)^2}{24} = \frac{151}{60}.$$

Table 3.37. t = 5, k = 4, Peak = 2 & Third Observation Missing

Step 1					Step 2	Step 3	Step 4
1	2	_	3	4	2.2	3.5	139/60
1	2	_	4	3	2.8		
1	3	_	2	4	3.8		
1	3	_	4	2	4		
1	4	_	2	3	5		
1	4	_	3	2	5.6		
2	1	_	3	4	1		
2	1	_	4	3	1.6		
2	3	_	1	4	4.2		
2	3	_	4	1	4		
2	4	_	1	3	5.4		
2	4	_	3	1	5.6		
3	1	_	2	4	1.4		
3	1	_	4	2	1.6		
3	2	_	1	4	3		
3	2	_	4	1	2.8		
3	4	_	1	2	5.4		
3	4	_	2	1	6		
4	1	_	2	3	1.4		
4	1	_	3	2	2		
4	2	_	1	3	3		
4	2	_	3	1	3.2		
4	3	_	1	2	4.2		
4	3	_	2	1	4.8		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, _) → $U_{23a} = \frac{2}{5}$; (2, 3) → $U_{24a} = 0$; (2, 4) → $U_{25a} = 0$; (_ , 3) → $U_{34a} = 1 - \frac{3}{5} = \frac{2}{5}$; (_ , 4) → $U_{35a} = 1 - \frac{4}{5} = \frac{1}{5}$; (3, 4) → $U_{45a} = 0$.

- $\sum U_{ija} = 2.2.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{84}{24} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(2.2 - 3.5)^2 + \cdots + (4.8 - 3.5)^2}{24}$$

$$= \frac{139}{60}.$$

Table 3.38. t = 5, k = 4, Peak = 2 & Observation at Peak Missing

Step 1							Step 2	Step 3	Step 4
1	_	2	3	4			2	3.5	11/12
1	_	2	4	3			3		
1	_	3	2	4			3		
1	_	3	4	2			4		
1	_	4	2	3			4		
1	_	4	3	2			5		
2	_	1	3	4			2		
2	_	1	4	3			3		
2	_	3	1	4			3		
2	_	3	4	1			4		
2	_	4	1	3			4		
2	_	4	3	1			5		
3	_	1	2	4			2		
3	_	1	4	2			3		

(continues)

Table 3.38. t = 5, k = 4, Peak **= 2 & Observation at Peak Missing (continued)**

Step 1						Step 2	Step 3	Step 4
3	_	2	1	4		3		
3	_	2	4	1		4		
3	_	4	1	2		4		
3	_	4	2	1		5		
4	_	1	2	3		2		
4	_	1	3	2		3		
4	_	2	1	3		3		
4	_	2	3	1		4		
4	_	3	1	2		4		
4	_	3	2	1		5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, _) → $U_{12a} = \frac{1}{5}$; (_ , 2) → $U_{23a} = 1 - \frac{2}{5} = \frac{3}{5}$;

    (_ , 3) → $U_{24a} = 1 - \frac{3}{5} = \frac{2}{5}$; (_ , 4) → $U_{25a} = 1 - \frac{4}{5} = \frac{1}{5}$;

    (2, 3) → $U_{34a} = 0$; (2, 4) → $U_{35a} = 0$; (3, 4) → $U_{45a} = 0$.
  - $\sum U_{ija} = 2$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{84}{24} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(2-3.5)^2 + \cdots + (5-3.5)^2}{24} = \frac{11}{12}.$$

Table 3.39. t = 5, k = 4, Peak = 2 & First Observation Missing

Step 1					Step 2	Step 3	Step 4
_	1	2	3	4	0.2	3.5	163/60
_	1	2	4	3	1.2		
_	1	3	2	4	1.2		
_	1	3	4	2	2.2		
_	1	4	2	3	2.2		
_	1	4	3	2	3.2		
_	2	1	3	4	1.4		
_	2	1	4	3	2.4		
_	2	3	1	4	2.4		
_	2	3	4	1	3.4		
_	2	4	1	3	3.4		
_	2	4	3	1	4.4		
_	3	1	2	4	2.6		
_	3	1	4	2	3.6		
_	3	2	1	4	3.6		
_	3	2	4	1	4.6		
_	3	4	1	2	4.6		
_	3	4	2	1	5.6		
_	4	1	2	3	3.8		
_	4	1	3	2	4.8		
_	4	2	1	3	4.8		
_	4	2	3	1	5.8		
_	4	3	1	2	5.8		
_	4	3	2	1	6.8		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) $\rightarrow U_{12a} = \frac{1}{5}$; (1, 2) $\rightarrow U_{23a} = 0$; (1, 3) $\rightarrow U_{24a} = 1 - \frac{3}{5} = \frac{2}{5}$; (1, 4) $\rightarrow U_{25a} = 0$; (2, 3) $\rightarrow U_{34a} = 0$; (2, 4) $\rightarrow U_{35a} = 0$; (3, 4) $\rightarrow U_{45a} = 0$.
  - $\sum U_{ija} = 0.2$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{84}{24} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(0.2 - 3.5)^2 + \cdots + (6.8 - 3.5)^2}{24} = \frac{163}{60}.$$

The following series of tables, Table 3.40 to Table 3.49, consider the case where there are two missing observations. There are six possible arrangements of treatment ranks. They are listed in the tables along with the overall missing observation pattern's expected values and variances.

Table 3.40. t = 5, k = 3, Peak = 2 & Third & Fourth Observations Missing

Step 1						Step 2	Step 3	Step 4
1	2	3	_	_		4	3.5	7/6
1	3	2	_	_		5		
2	1	3	_	_		2.5		
2	3	1	_	_		4.5		
3	1	2	_	_		2		
3	2	1	_	_		3		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o (1, 2) → $U_{12a} = 1$; (2, 3) → $U_{23a} = 0$; (2, _) → $U_{24a} = \frac{1}{2}$; (2, _) → $U_{25a} = \frac{1}{2}$; (3, _) → $U_{34a} = \frac{3}{4}$; (3, _) → $U_{35a} = \frac{3}{4}$; (_ , _) → $U_{45a} =$ 0.5.

o $\sum U_{ija} = 4.$

- Step 3: $E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(4-3.5)^2 + \cdots + (3-3.5)^2}{6} = \frac{7}{6}.$$

Table 3.41. t = 5, k = 3, Peak = 2 & Third & Fifth Observations Missing

Step 1						Step 2	Step 3	Step 4
1	2	_	3	_		3.5	3.5	1.5
1	3	_	2	_		5		
2	1	_	3	_		2		
2	3	_	1	_		5		
3	1	_	2	_		2		
3	2	_	1	_		3.5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o $(1, 2) \to U_{12a} = 1$; $(2, \_\,) \to U_{23a} = \frac{1}{2}$; $(2, 3) \to U_{24a} = 0$; $(2, \_\,)$ $\to U_{25a} = \frac{1}{2}$; $(\_\,, 3) \to U_{34a} = 1 - \frac{3}{4} = \frac{1}{4}$; $(\_\,, \_\,) \to U_{35a} = 0.5$; $(3, \_\,)$ $\to U_{45a} = \frac{3}{4}$.
  - o $\sum U_{ija} = 3.5.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(3.5-3.5)^2 + \cdots + (3.5-3.5)^2}{6} = \frac{3}{2}.$$

Table 3.42. t = 5, k = 3, Peak = 2 & Third & Fourth Observations Missing

Step 1					Step 2	Step 3	Step 4
1	2	_	_	3	3	3.5	13/6
1	3	_	_	2	5		
2	1	_	_	3	1.5		
2	3	_	_	1	5.5		
3	1	_	_	2	2		
3	2	_	_	1	4		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (1, 2) → $U_{12a} = 1$; (2, _) → $U_{23a} = \frac{1}{2}$; (2, _) → $U_{24a} = \frac{1}{2}$; (2, 3) → $U_{25a} = 0$; (_ , 3) → $U_{34a} = 1 - \frac{3}{4} = \frac{1}{4}$; (_ , 3) → $U_{35a} = 1 - \frac{3}{4} = \frac{1}{4}$; (_ , 3) → $U_{35a} = 1 - \frac{3}{4} = \frac{1}{4}$.
  - $\sum U_{ija} = 3$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{(3-3.5)^2 + \cdots + (4-4)^2}{6} = \frac{13}{6}.$$

Table 3.43. t = 5, k = 3, Peak = 2 & Peak & Fifth Observations Missing

Step 1					Step 2	Step 3	Step 4
1	_	2	3	_	3.25	3.5	7/24
1	_	3	2	_	4.25		
2	_	1	3	_	3		
2	_	3	1	_	4		
3	_	1	2	_	2.75		
3	_	2	1	_	3.75		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1, \_) \rightarrow U_{12a} = 1 - \frac{1}{4} = \frac{3}{4}$; $(\_, 2) \rightarrow U_{23a} = 1 - \frac{1}{2} = \frac{1}{2}$; $(\_, 3)$

    $\rightarrow U_{24a} = 1 - \frac{3}{4} = \frac{1}{4}$; $(\_, \_) \rightarrow U_{25a} = 0.5$; $(2, 3) \rightarrow U_{34a} = 0$; $(2, \_)$

    $\rightarrow U_{35a} = \frac{2}{4}$; $(3, \_) \rightarrow U_{35a} = \frac{3}{4}$.
  - $\sum U_{ija} = 3.25.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{(3.25 - 3.5)^2 + \cdots + (3.75 - 3.75)^2}{6} = \frac{7}{24}.$$

Table 3.44. t = 5, k = 3, Peak = 2 & Peak & Third Observations Missing

Step 1					Step 2	Step 3	Step 4
1	_	_	2	3	2.75	3.5	7/24
1	_	_	3	2	3.75		
2	_	_	1	3	3		
2	_	_	3	1	4		
3	_	_	1	2	3.25		
3	_	_	2	1	4.25		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1,\_) \rightarrow U_{12a} = 1 - \frac{1}{4} = \frac{3}{4}$; $(\_,\_) \rightarrow U_{23a} = 0.5$; $(\_,2) \rightarrow U_{24a} = 1 - \frac{2}{4} = \frac{2}{4}$; $(\_,3) \rightarrow U_{25a} = 1 - \frac{3}{4} = \frac{1}{4}$; $(\_,2) \rightarrow U_{34a} = 1 - \frac{2}{4} = \frac{2}{4}$; $(\_,3) \rightarrow U_{35a} = 1 - \frac{3}{4} = \frac{1}{4}$; $(2,3) \rightarrow U_{35a} = 0$.
  - $\sum U_{ija} = 2.75$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(2.75-3.5)^2 + \cdots + (4.75-3.5)^2}{6} = \frac{7}{24}.$$

Table 3.45. t = 5, k = 3, Peak = 2 & Peak & Fourth Observations Missing

Step 1					Step 2	Step 3	Step 4
1	_	2	_	3	2.75	3.5	17/24
1	_	3	_	2	4.25		
2	_	1	_	3	2.5		
2	_	3	_	1	4.5		
3	_	1	_	2	2.75		
3	_	2	_	1	4.25		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1,\_) \rightarrow U_{12a} = 1 - \frac{1}{4} = \frac{3}{4}$; $(\_,2) \rightarrow U_{23a} = 1 - \frac{2}{4} = \frac{2}{4}$; $(\_,\_)$

$\rightarrow U_{24a} = 0$; (_ , 3) $\rightarrow U_{25a} = 1 - \frac{3}{4} = \frac{1}{4}$; (2, _) $\rightarrow U_{34a} = \frac{2}{4}$; (2, 3)

$\rightarrow U_{35a} = 0$; (_ , 3) $\rightarrow U_{35a} = 1 - \frac{3}{4} = \frac{1}{4}$.

- o $\sum U_{ija} = 2.75$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(2.75 - 3.5)^2 + \cdots + (3.75 - 4.25)^2}{6} = \frac{7}{24}.$$

Table 3.46. t = 5, k = 3, Peak = 2 & First & Fifth Observations Missing

Step 1					Step 2	Step 3	Step 4
_	1	2	3	_	1.75	3.5	93/72
_	1	3	2	_	2.75		
_	2	1	3	_	3		
_	2	3	1	_	4		
_	3	1	2	_	4.25		
_	3	2	1	_	5.25		

The following are the detailed step calculations.

- Step 2: using the first arrangement

  - o (_ , 1) $\rightarrow U_{12a} = \frac{1}{4}$; (1, 2) $\rightarrow U_{23a} = 0$; (1, 3) $\rightarrow U_{24a} = 0$; (1, _)

$\rightarrow U_{25a} = \frac{1}{4}$; (2, 3) $\rightarrow U_{34a} = 0$; (2, _) $\rightarrow U_{35a} = \frac{2}{4}$; (3, _) $\rightarrow U_{35a} = \frac{3}{4}$.

- $\sum U_{ija} = 1.75.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1.75 - 3.5)^2 + \cdots + (5.25 - 3.5)^2}{6} = \frac{93}{72}.$$

Table 3.47. t = 5, k = 3, Peak = 2 & First & Peak Observations Missing

Step 1					Step 2	Step 3	Step 4
_	_	1	2	3	2	3.5	11/12
_	_	1	3	2	3		
_	_	2	1	3	3		
_	_	2	3	1	4		
_	_	3	1	2	4		
_	_	3	2	1	5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , _) → $U_{12a} = 0.5$; (_ , 1) → $U_{23a} = \frac{3}{4}$; (_ , 2) → $U_{24a} = \frac{1}{2}$; (_ , 3) → $U_{25a} = \frac{1}{4}$; (1, 2) → $U_{34a} = 0$; (1, 3) → $U_{35a} = 0$; (2, 3) → $U_{35a} = 0.$
  - $\sum U_{ija} = 2.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(2-3.5)^2 + \cdots + (5-3.5)^2}{6} = \frac{11}{12}.$$

Table 3.48. t = 5, k = 3, Peak = 2 & First & Third Observations Missing

Step 1					Step 2	Step 3	Step 4
_	1	_	2	3	1.25	3.5	55/24
_	1	_	3	2	2.25		
_	2	_	1	3	3		
_	2	_	3	1	4		
_	3	_	1	2	4.75		
_	3	_	2	1	5.75		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) → $U_{12a} = \frac{1}{4}$; (1, _) → $U_{23a} = \frac{1}{4}$; (1, 2) → $U_{24a} = 0$; (1, 3) → $U_{25a} = 0$; (_ , 2) → $U_{34a} = \frac{1}{2}$; (_ , 3) → $U_{35a} = \frac{1}{4}$; (2, 3) → $U_{35a} = 0$.
  - $\sum U_{ija} = 1.25$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1.25 - 3.5)^2 + \cdots + (5.75 - 3.5)^2}{6} = \frac{55}{24}.$$

Table 3.49. t = 5, k = 3, Peak = 2 & First & Third Observations Missing

Step 1					Step 2	Step 3	Step 4
_	1	2	_	3	1.25	3.5	159/72
_	1	3	_	2	2.75		
_	2	1	_	3	2.5		
_	2	3	_	1	4.5		
_	3	1	_	2	4.25		
_	3	2	_	1	5.75		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) → $U_{12a} = \frac{1}{4}$; (1, 2) → $U_{23a} = 0$; (1, _) → $U_{24a} = \frac{1}{4}$; (1, 3) → $U_{25a} = 0$; (2, _) → $U_{34a} = \frac{1}{2}$; (2, 3) → $U_{35a} = 0$; (_ , 3) → $U_{35a} = \frac{1}{4}$.
  - $\sum U_{ija} = 1.25$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{21}{6} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(1.25 - 3.5)^2 + \cdots + (5.75 - 3.5)^2}{6} = \frac{159}{72}.$$

Consider the final scenario where there are three missing observations. There are only two ways to arrange the treatment ranks. Table 3.50 to Table 3.59 list the arrangements, the expected values and variances for each pattern of missing observations.

Table 3.50. t = 5, k = 2, Peak = 2 & Only First & Second Observations Appear

Step 1					Step 2	Step 3	Step 4
1	2	_	_	_	4.5	3.5	1
2	1	_	_	_	2.5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - $(1, 2) \rightarrow U_{12a} = 1$; $(2, \_) \rightarrow U_{23a} = U_{24a} = U_{25a} = \frac{2}{3}$; $(\_, \_) \rightarrow U_{34a} = U_{35a} = U_{45a} = 0.5$;
  - $\sum U_{ija} = 4.5$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c}$$

$$= \frac{4.5 + 2.5}{2} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c}$$

$$= \frac{(4.5 - 3.5)^2 + (2.5 - 3.5)^2}{2} = 1.$$

Table 3.51. t = 5, k = 2, Peak = 2 & Only First & Third Observations Appear

Step 1					Step 2	Step 3	Step 4
1	_	2	_	_	3.8333	3.5	1/9
2	_	1	_	_	3.1667		

The following are the detailed step calculations.

- Step 2: using the first arrangement

- $(1, 2) \rightarrow U_{12a} = 1; (2, \_) \rightarrow U_{23a} = U_{24a} = U_{25a} = \frac{2}{3}; (\_ , \_) \rightarrow U_{34a} = U_{35a} = U_{45a} = 0.5;$
- $\sum U_{ija} = 4.5.$

• Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = \frac{4.5 + 2.5}{2} = 3.5.$$

• Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{(4.5 - 3.5)^2 + (2.5 - 3.5)^2}{2} = 1.$$

Table 3.52. t = 5, k = 2, Peak = 2 & Only First & Fourth Observations Appear

Step 1					Step 2	Step 3	Step 4
1	_	_	2	_	3.5	3.5	0
2	_	_	1	_	3.5		

The following are the detailed step calculations.

• Step 2: using the first arrangement

- $(1, \_) \rightarrow U_{12a} = \frac{2}{3}; (\_ , \_) \rightarrow U_{23a} = U_{25a} = U_{35a} = 0.5; (\_ , 2) \rightarrow U_{34a} = \frac{2}{3}; (2, \_) \rightarrow U_{45a} = \frac{2}{3};$
- $\sum U_{ija} = 3.5.$

• Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = 0.$$

Table 3.53. t = 5, k = 2, Peak = 2 & Only First & Fifth Observations Appear

Step 1					Step 2	Step 3	Step 4
1	_	_	_	2	3.1667	3.5	1/9
2	_	_	_	1	3.8333		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o $(1, \_) \rightarrow U_{12a} = \frac{2}{3}$; $(\_, \_) \rightarrow U_{23a} = U_{24a} = U_{34a} = 0.5$; $(\_, 2)$

    $\rightarrow U_{25a} = U_{35a} = U_{45a} = \frac{1}{3}$;
  - o $\sum U_{ija} = 3.1667.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{1}{9}.$$

Table 3.54. t = 5, k = 2, Peak = 2 & Only Peak & Third Observations Appear

Step 1					Step 2	Step 3	Step 4
_	1	2	_	_	2.8333	3.5	4/9
_	2	1	_	_	4.1667		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - o $(\_, 1) \rightarrow U_{12a} = \frac{1}{3}$; $(1, 2) \rightarrow U_{23a} = 0$; $(1, \_) \rightarrow U_{24a} = U_{25a} = \frac{1}{3}$; $(2, \_)$

$\rightarrow U_{34a} = U_{35a} = \frac{2}{3}$; (_ , _) $\rightarrow U_{45a} = 0.5$;

- $\sum U_{ija} = 2.8333$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c} = \frac{4}{9}.$$

Table 3.55. t = 5, k = 2, Peak = 2 & Only Peak & Fourth Observations Appear

Step 1					Step 2	Step 3	Step 4
_	1	_	2	_	2.5	3.5	1
_	2	_	1	_	4.5		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) $\rightarrow U_{12a} = \frac{1}{3}$; (1, _) $\rightarrow U_{23a} = U_{25a} = \frac{1}{3}$; (_ , 2) $\rightarrow U_{34a} = \frac{1}{3}$;

    (_ , _) $\rightarrow U_{35a} = 0.5$; (2, _) $\rightarrow U_{45a} = \frac{2}{3}$;
  - $\sum U_{ija} = 2.5$.

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c} (M_a - E(M_i))^2}{c} = 1.$$

Table 3.56. t = 5, k = 2, Peak = 2 & Only Peak & Fifth Observations Appear

Step 1					Step 2	Step 3	Step 4
_	1	_	_	2	2.1667	3.5	16/9
_	2	_	_	1	4.8333		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , 1) → $U_{12a} = \frac{1}{3}$; (1, _) → $U_{23a} = U_{24a} = \frac{1}{3}$; (_ , 2) → $U_{35a} = U_{45a} = \frac{1}{3}$; (_ , _) → $U_{34a} = 0.5$;
  - $\sum U_{ija} = 2.1667.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{16}{9}.$$

Table 3.57. t = 5, k = 2, Peak = 2 & Only Third & Fourth Observations Appear

Step 1					Step 2	Step 3	Step 4
_	_	1	2	_	3	3.5	1/4
_	_	2	1	_	4		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , _) → $U_{12a} = U_{25a} = 0.5$; (_ , 1) → $U_{23a} = \frac{2}{3}$; (_ , 2) → $U_{24a} = \frac{1}{3}$; (1, 2) → $U_{34a} = 0$; (1, _) → $U_{35a} = \frac{1}{3}$; (2, _) → $U_{45a} = \frac{2}{3}$;
  - $\sum U_{ija} = 3.$

- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{1}{4}.$$

Table 3.58. t = 5, k = 2, Peak = 2 & Only Third & Fifth Observations Appear

Step 1						Step 2	Step 3	Step 4
_	_	1	_	2		2.6667	3.5	25/36
_	_	2	_	1		4.3333		

The following are the detailed step calculations.

- Step 2: using the first arrangement
    - $(\_,\_) \rightarrow U_{12a} = U_{24a} = 0.5$; $(\_, 1) \rightarrow U_{23a} = \frac{2}{3}$; $(\_, 2) \rightarrow U_{25a} = U_{45a} = \frac{1}{3}$; $(1, \_) \rightarrow U_{34a} = \frac{1}{3}$; $(1, 2) \rightarrow U_{35a} = 0$;
    - $\sum U_{ija} = 2.6667.$
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c}$$

$$= \frac{25}{36}.$$

Table 3.59. t = 5, k = 2, Peak = 2 & Only Fourth & Fifth Observations Appear

Step 1					Step 2	Step 3	Step 4
_	_	_	1	2	3	3.5	1/4
_	_	_	2	1	4		

The following are the detailed step calculations.

- Step 2: using the first arrangement
  - (_ , _) → $U_{12a} = U_{23a} = 0.5$; (_ , 1) → $U_{24a} = U_{34a} = \frac{2}{3}$; (_ , 2) → $U_{25a} = U_{35a} = \frac{1}{3}$; (1, 2) → $U_{45a} = 0$;
  - $\sum U_{ija} = 3$.
- Step 3:

$$E(M_i) = \frac{\sum_{a=1}^{c} M_a}{c} = 3.5.$$

- Step 4:

$$\sigma_i^2 = \frac{\sum_{a=1}^{c}(M_a - E(M_i))^2}{c} = \frac{1}{4}.$$

The process above is repeated for the rest of the cases: four treatments with the peak at the third treatment, five treatments with the peak at the third and fourth treatments. The following table gives a comprehensive list of the expected values and variances for all the cases considered in this research.

Table 3.60. Expected Value and Variance t = 3 & Peak = 2

Case Number (i)	Pattern of Missing	Expected Value	Variance ($\boldsymbol{\sigma_i^2}$)
1	None Missing	1	2/3
2	First or Third	1	4/9
3	Peak	1	0

The expected value is then given by

$$E(M_{32}) = n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i \sigma_i^2 = \frac{2}{3} n_1 + \frac{4}{9} n_2 + 0 n_2$$

where

- n_i is the total number of blocks like case $i = 1, 2, 3$.
- n is the total number of blocks in the design

Table 3.61. Expected Value and Variance t = 4 & Peak = 2

Case Number (i)	Pattern of Missing	Expected Value	Variance (σ_i^2)
1	None Missing	2	3/2
2	First	2	31/24
3	Peak	2	1/4
4	Third	2	31/24
5	Fourth	2	7/8
6	First & Second	2	1/4
7	First & Third	2	1
8	First & Fourth	2	4/9
9	Second & Third	2	1/36
10	Second & Fourth	2	1/36
11	Third & Fourth	2	25/36

The expected value is then given by

$$E(M_{42}) = 2n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i\sigma_i^2 = \frac{3}{2}n_1 + \frac{31}{24}(n_2 + n_4) + \frac{3}{2}(n_3 + n_6) + \frac{3}{2}n_5 + n_7 + \frac{4}{9}n_8 + \frac{1}{36}(n_9 + n_{10}) + \frac{25}{36}n_{11}$$

where

- n_i is the total number of blocks like case $i = 1, \ldots, 11$.
- n is the total number of blocks in the design

Table 3.62. Expected Value and Variance t = 4 & Peak = 3

Case Number (i)	Pattern of Missing	Expected Value	Variance ($\boldsymbol{\sigma_i^2}$)
1	None Missing	2	3/2
2	First	2	1/2
3	Second	2	31/24
4	Third	2	1/4
5	Fourth	2	31/24
6	First & Second	2	25/36
7	First & Third	2	1/36
8	First & Fourth	2	4/9
9	Second & Third	2	1/36
10	Second & Fourth	2	1
11	Third & Fourth	2	1/4

The expected value is then given by

$$E(M_{43}) = 2n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i\sigma_i^2 = \frac{3}{2}n_1 + \frac{1}{2}n_2 + \frac{31}{24}(n_3 + n_5) + \frac{1}{4}(n_4 + n_{11}) + \frac{25}{36}n_6 + \frac{1}{36}(n_7 + n_9) + \frac{4}{9}n_8 + n_{10}$$

where

- n_i is the total number of blocks like case $i = 1, \ldots, 11$.
- n is the total number of blocks in the design

Table 3.63. Expected Value and Variance t = 5 & Peak = 2

Case Number (i)	Pattern of Missing	Expected Value	Variance (σ_i^2)
1	None Missing	3.5	35/12
2	First	3.5	103/60
3	Second	3.5	11/12
4	Third	3.5	139/60
5	Fourth	3.5	151/60
6	Fifth	3.5	103/60
7	First & Second	3.5	11/12
8	First & Third	3.5	55/24
9	First & Fourth	3.5	53/24
10	First & Fifth	3.5	31/24
11	Second & Third	3.5	7/24
12	Second & Fourth	3.5	17/24
13	Second & Fifth	3.5	7/24
14	Third & Fourth	3.5	13/6
15	Third & Fifth	3.5	3/2
16	Fourth & Fifth	3.5	7/6
17	First, Second & Third	3.5	1/4
18	First, Second & Fourth	3.5	25/36
19	First, Second & Fifth	3.5	1/4
20	First, Third & Fourth	3.5	16/9
21	First, Third & Fifth	3.5	1
22	First, Fourth & Fifth	3.5	4/9
23	Second, Third & Fourth	3.5	1/9
24	Second, Third & Fifth	3.5	0
25	Second, Fourth & Fifth	3.5	1/9
26	Third, Fourth & Fifth	3.5	1

The expected value is then given by

$$E(M_{52}) = 3.5n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i \sigma_i^2 = \frac{35}{12} n_1 + \frac{103}{60}(n_2 + n_6) + \frac{11}{12}(n_3 + n_7) + \frac{151}{60} n_5 + \frac{55}{24} n_8 + \frac{53}{24} n_9$$

$$+ \frac{31}{24} n_{10} + \frac{7}{24}(n_{11} + n_{13}) + \frac{17}{24} n_{12} + \frac{13}{6} n_{14} + \frac{3}{2} n_{15} + \frac{7}{6} n_{16}$$

$$+ \frac{1}{36}(n_7 + n_9) + \frac{4}{9} n_8 + n_{10}$$

where

- n_i is the total number of blocks like case $i = 1, \dots, 11$.
- n is the total number of blocks in the design

Table 3.64. Expected Value and Variance t = 5 & Peak = 3

Case Number	Missing Observation (s)	Expected Value	Variance
1	None Missing	3	5/2
2	First	3	19/10
3	Second	3	23/10
4	Third	3	½
5	Fourth	3	23/10
6	Fifth	3	19/10

Table 3.65. Expected Value and Variance t = 5, Peak = 3 & Two Obs. Missing

Case Number	Missing Observation (s)	Expected Value	Variance
7	First & Second	3	7/4
8	First & Third	3	7/24
9	First & Fourth	3	13/8
10	First & Fifth	3	25/24
11	Second & Third	3	7/24
12	Second & Fourth	3	49/24
13	Second & Fifth	3	13/8
14	Third & Fourth	3	7/24
15	Third & Fifth	3	7/24
16	Fourth & Fifth	3	7/4

Table 3.66. Expected Value and Variance t = 5, Peak = 3 & Three Obs. Missing

Case Number	Missing Observation (s)	Expected Value	Variance
17	First, Second & Third	3	1/4
18	First, Second & Fourth	3	49/36
19	First, Second & Fifth	3	25/36
20	First, Third & Fourth	3	1/9
21	First, Third & Fifth	3	0
22	First, Fourth & Fifth	3	25/36
23	Second, Third & Fourth	3	0
24	Second, Third & Fifth	3	1/9
25	Second, Fourth & Fifth	3	49/36
26	Third, Fourth & Fifth	3	1/4

The expected value is

$$E(M_{53}) = 3n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i \sigma_i^2 = \frac{5}{2} n_1 + \frac{19}{10}(n_2 + n_6) + \frac{23}{10}(n_3 + n_5) + 0.5n_4 + \frac{7}{4}(n_7 + n_{16})$$

$$+ \frac{7}{24}(n_8 + n_{11} + n_{14} + n_{15}) + \frac{13}{8}(n_9 + n_{13}) + \frac{25}{24} n_{10} + \frac{49}{24} n_{12}$$

$$+ 0.25(n_{17} + n_{26}) + \frac{49}{36}(n_{18} + n_{25}) + \frac{25}{36}(n_{19} + n_{22}) + \frac{1}{9}(n_{20} + n_{24})$$

$$+ \frac{4}{9} n_8 + n_{10}$$

where

- n_i is the total number of blocks like case $i = 1, \dots, 11$.
- n is the total number of blocks in the design.

Table 3.67. Expected Value and Variance t = 5 & Peak = 4

Number of Treatments	Missing Observation (s)	Expected Value	Variance
1	None Missing	3.5	35/12
2	First	3.5	103/60
3	Second	3.5	151/60
4	Third	3.5	151/60
5	Fourth	3.5	11/12
6	Fifth	3.5	163/60
7	First & Second	3.5	7/6
8	First & Third	3.5	3/2
9	First & Fourth	3.5	7/24
10	First & Fifth	3.5	31/24
11	Second & Third	3.5	13/6
12	Second & Fourth	3.5	17/24
13	Second & Fifth	3.5	53/24
14	Third & Fourth	3.5	7/24
15	Third & Fifth	3.5	55/24
16	Fourth & Fifth	3.5	11/12
17	First, Second & Third	3.5	1
18	First, Second & Fourth	3.5	1/9
19	First, Second & Fifth	3.5	4/9
20	First, Third & Fourth	3.5	0
21	First, Third & Fifth	3.5	1
22	First, Fourth & Fifth	3.5	1/4
23	Second, Third & Fourth	3.5	1/9
24	Second, Third & Fifth	3.5	16/9
25	Second, Fourth & Fifth	3.5	25/36
26	Third, Fourth & Fifth	3.5	1/4

The expected value is then given by

$$E(M) = 3.5n$$

and the variance by

$$\sigma^2 = \sum_{i=1}^{n} n_i \sigma_i^2 = \frac{35}{12} n_1 + \frac{103}{60} n_2 + \frac{151}{60} (n_3 + n_4) + \frac{11}{12} (n_5 + n_{16}) + \frac{163}{60} n_6 + \frac{7}{6} n_7$$

$$+ 3.5 n_8 + \frac{7}{24} (n_9 + n_{14}) + \frac{31}{24} n_{10} + \frac{13}{6} n_{11} + \frac{17}{24} n_{12} + \frac{53}{24} n_{13} + \frac{55}{24} n_{15}$$

$$+ (n_{17} + n_{21}) + \frac{1}{9} (n_{18} + n_{23}) + \frac{4}{9} n_{19} + 0.25 (n_{22} + n_{26}) + \frac{16}{9} n_{24}$$

$$+ \frac{25}{36} n_{25}$$

where

- n_i is the total number of blocks like case $i = 1, \dots, 11$.
- n is the total number of blocks in the design.

Appendix A gives the rest of the expected values and variances used in this research study.

The two statistics proposed to be applied in the case of a CRD and IBD mixed design are given below. They are a combination of Mack – Wolfe's and Mungai statistics. The first statistic, T_3, adds the standardized Mack – Wolfe and Mungai's statistics and then re – standardizes.

$$T_3 = \frac{Z_{MW} + Z_M}{\sqrt{2}} \tag{3.22}$$

The second statistic, T_4, adds the unstandardized versions of the Mack – Wolfe and Mungai's statistics and then standardizes.

$$T_4 = \frac{A_p + M - [E(A_p) + E(M)]}{\sqrt{Var(A_p) + Var(M)}} \tag{3.23}$$

3.4. Example

3.4.1. Non – Decreasing Alternative

The healthcare industry has widely been known for its skyrocketing costs over the recent years. Among the hot topics of debate is the readmission rates (proportion of patients readmitted to an inpatient facility). A readmission is defined as an admission back to the healthcare facility for the same or related conditions that caused the initial admission. There are several options of care once a patient is discharged. Suppose a hospital wants to evaluate the following discharge options:

- Discharged without further follow up (W)
- Discharged with instructions of care (X)
- Discharged with engaged communication by the hospital e.g. a phone call by the doctor or case management team (Y)
- Discharged to home care where care is provided by licensed clinicians (Z).

The hospital believes that the last option is the most effective one at reducing its readmission rates followed by engaged communication, discharge with instructions of care and discharged without further follow up. The hospital decides to do a retrospective study where medical records are reviewed to study readmissions rates within 30 days of discharge. In order to control for nuisance factors the hospital decides to only use Diagnostic Related Groups (DRGs) as a blocking factor. For instance, all patients with a DRG like major head and neck procedures are analyzed for readmission rates based on where they went after being discharged. Table 3.68 shows an ideal set up of data.

Table 3.68. Ideal Readmission Study Design Example

DRG	W	X	Y	Z
Major head and neck procedures	0.4	0.3	0.2	0.1
Pulmonary embolism	0.6	0.4	0.3	0.2
Heart transplant	0.5	0.3	0.1	0.0
Hypertension	0.7	0.5	0.4	0.2

However, suppose the hospital finds that there are not enough DRGs that have patients across all four options. This could be due to patients being readmitted to other facilities thus losing that data. Another reason could be low volume of some departments driving low numbers in some DRGs. In addition some patients admitted might have multiple DRGs which leads to exclusion of their data to avoid inaccurate results. Such factors lead to some DRGs missing certain discharge options. In order to have an ample sample size the hospital decides to go on with the rest of the study by dropping the blocking factor, DRG, and adopt a CRD. The eventual design is then a mixture of an incomplete block design and a CRD. Table 3.69 shows the data from the study.

Table 3.69. Hospital Readmission Rates Example

DRG	W	X	Y	Z
Major head and neck procedures	0.4	0.3	0.2	0.1
Pulmonary embolism	0.6	0.4	0.3	_
Heart transplant	0.5	_	0.1	0
Hypertension	0.7	_	0.4	0.2
Thyroid procedures	_	0.58	_	0.23
Kidney transplant	0.67	0.59	_	_
	0.68	0.50	0.39	0.21
	0.72	0.53	0.27	0.11
	0.66	0.48	0.43	0.12
	0.81	0.49	0.32	0.16
	0.67	0.48	0.44	0.18
	0.77	0.49	0.26	0.14
	0.81	0.45	0.35	0.10

Table 3.70. Hospital Readmission Rates with Calculated Statistics

DRG	W	X	Y	Z	$\frac{t+1}{k_i+1}\sum j\,r_{jb}$
Major head and neck procedures	0.4 (1)	0.3 (2)	0.2 (3)	0.1 (4)	30
Pulmonary embolism	0.6 (1)	0.4 (2)	0.3 (3)	_ (2)	27.5
Heart transplant	0.5 (1)	_ (2)	0.1 (2)	0 (3)	28.75
Hypertension	0.7 (1)	_ (2)	0.4 (2)	0.2 (3)	28.75
Thyroid procedures	_ (1.5)	0.58 (1)	_ (1.5)	0.23 (2)	26.67
Kidney transplant	0.67 (1)	0.59 (2)	_ (1.5)	_ (1.5)	25.83
	0.68 (21)	0.5 (14)	0.39 (7)	0.21	
	0.72 (21)	0.53 (14)	0.27 (7)	0.11	
	0.66 (21)	0.48 (14)	0.43 (7)	0.12	
	0.81 (21)	0.49 (14)	0.32 (7)	0.16	
	0.67 (21)	0.48 (14)	0.44 (7)	0.18	
	0.77 (21)	0.49 (14)	0.26 (7)	0.14	
	0.81 (21)	0.45 (14)	0.35 (7)	0.1	

For the example above Alvo's statistic value is

$$Alvo = \sum_{b=1}^{n} \frac{\mathrm{t}+1}{\mathrm{k_b}+1} \sum \mathrm{j}\,\mathrm{r_{jb}} = 30 + 27.5 + 2(28.75) + 20 + 19.375 = 167.5$$

where

- $n = 6$
- $\mathrm{r_{jb}}$ is the rank of treatment *j* in block *b*
- $t = 4$
- $\mathrm{k_1} = 4; \mathrm{k_2} = \mathrm{k_3} = \mathrm{k_4} = 3; \mathrm{k_5} = \mathrm{k_6} = 2$
- $\sigma_1^2 = 8.3\dot{3};\ \sigma_2^2 = 3.125;\ \sigma_3^2 = \sigma_4^2 = 7.292;\ \sigma_5^2 = 2.778;\ \sigma_6^2 = 0.694.$

The standardized statistic is

$$Z_{Alvo} = \frac{Alvo - \dfrac{nt(t+1)^2}{4}}{\sqrt{\sum_{b=1}^{n} \dfrac{k(t+1)^2}{12(k+1)} \sum_{j=1}^{k} (O_{ij} - \bar{O}_i)^2}}$$

$$= \frac{167.5 - 150}{\sqrt{(8.33 + 3.125 + 2(7.29) + 2.78 + 0.69)}} = 3.22.$$

JT statistic is computed as follows

$$J = \sum_{i<j} U_{ij} = 7(21) + 7(14) + 7(7) = 294.$$

The standardized JT statistic is then given by

$$Z_{JT} = \frac{J - [(N^2 - \sum_{j=1}^{t} n_j^2)/4]}{\sqrt{\dfrac{\left[N^2(2N+3) - \sum_{j=1}^{t} n_j^2\left(2n_j + 3\right)\right]}{72}}}$$

$$= \frac{294 - [(28^2 - (4 \times 7^2))/4]}{\sqrt{\left[28^2(2(28)+3) - 4\left(7^2(14+3)\right)\right]/72}} = \frac{147}{24.42} = 6.02.$$

It follows then that the two proposed statistics are

$$T_1 = \frac{3.22 + 6.02}{\sqrt{2}} = 6.53$$

and

$$T_2 = \frac{(167.5 + 294) - (150 + 147)}{\sqrt{29.51 + 596.34}} = 6.57.$$

The null hypothesis will be rejected in by both statistics.

3.4.2. Umbrella Alternative

Analytics has been a hot topic in business operations of late. With the emergence of big data it has become vital for management to make data driven decisions. Suppose a sales department wants to analyze the productivity of their customer representatives. It is their belief that Tuesday is the most productive day of the week. The study follows a random sample of sales representatives individually through one week in order to avoid bias due to the salesperson.

However, due to changing schedules, people calling in sick and employee turnover data experiences missing observations. In order to have a large sample size, it is suggested to complete the experiment by randomly selecting representatives each day and recording the number of sales made. Table 3.71 below shows the final data gathered.

Table 3.71. Weekly Sales Pattern Example

Sales Rep	Monday	Tuesday	Wednesday	Thursday	Friday
1	38	_	42	31	27
2	31	55	42	33	_
3	_	_	45	_	23
4	_	49	_	34	_
5	40	57	_	_	20
	37	49	42	39	26
	37	54	45	31	21
	42	51	43	35	21
	40	56	42	36	29

Table 3.72 below shows the contribution of each observation to the overall statistic. The number reflect the results of applying Mungai's statistic to the IBD section (each salesperson is followed individually) and Mack – Wolfe to the CRD (random selection without identifying the salesperson).

Table 3.72. Sales Example Calculated Statistics

Sales Rep	Monday	Tuesday	Wednesday	Thursday	Friday
1	38 (0.4)	_	42 (0.2)	31 (0.6) (1)	27 (0.8) (1) (1)
2	31 (1)	55	42 (1)	33 (1) (1)	_ (0.8) (0.6) (0.4)
3	_ (0.5)	_	45 (0.33)	_ (0.5) (0.67)	23 (0.67) (1) (0.67)
4	_ (0.67)	49	_ (0.67)	34 (1) (0.67)	_ (0.67) (0.5) (0.33)
5	40 (1)	57	_ (0.75)	_ (0.75) (0.5)	20 (1) (0.75) (0.75)
	37 (4)	49	42 (4)	39 (4) (4)	26 (4) (4) (4)
	37 (4)	54	45 (4)	31 (4) (4)	21 (4) (4) (4)
	42 (4)	51	43 (4)	35 (4) (4)	21 (4) (4) (4)
	40 (4)	56	42 (4)	36 (4) (4)	29 (4) (4) (4)

Mungai's statistic is given by

$$M = \sum_{b=1}^{5} \sum_{i<j} \sum_{j+1>p} U_{ijb} = 5 + 5.8 + 4.34 + 4.51 + 5.5 = 25.15.$$

Table 3.63 is referenced to get the corresponding expected value and variance of the design. The expected value is then given by

$$E(M) = 3.5n = 17.5$$

and the variance by

$$Var(M) = \frac{11}{12} + \frac{103}{60} + \frac{25}{36} + 1 + \frac{13}{6} = 6.49.$$

Therefore,

$$Z_M = \frac{25.15 - 17.5}{\sqrt{6.49}} = 3.$$

Mack – Wolfe statistic is given by

$$A_p = \sum_{i<j} \sum_{j+1>p} U_{ij} = 4 * 28 = 112.$$

The expected value is equal to

$$E(A_p) = \frac{N_1^2 + N_2^2 - \sum_{i=1}^{t} n_i^2 - n_p^2}{4} = \frac{8^2 + 16^2 - 5(4^2) - 4^2}{4} = 56.$$

The variance is given by

$$Var(A_p) = \frac{1}{72}\left\{2(N_1^3 + N_2^3) + 3(N_1^2 + N_2^2) - \sum_{i=1}^{t} n_i^2(2n_i + 3) - n_p^2(2n_p + 3) + 12n_pN_1N_2 - 12n_p^2N\right\}$$

$$= \frac{1}{72}\left\{2(8^3 + 16^3) + 3(8^2 + 16^2) - \sum_{i=1}^{5} 4^2(2(4) + 3) - 4^2(2(4) + 3) + 12(4)(8)(16) - 12(4^2)(20)\right\} = 158.67.$$

The standardized Mack – Wolfe is then given by

$$Z_{MW} = \frac{112 - 56}{\sqrt{158.67}} = 4.45.$$

Using the two results to calculate T3 and T4 gives the following

$$T_3 = \frac{3 + 4.45}{\sqrt{2}} = 5.27$$

and

$$T_4 = \frac{25.15 + 112 - (17.5 + 56)}{\sqrt{6.49 + 158.67}} = 4.95.$$

The null hypothesis would, therefore, be rejected by both statistics.

CHAPTER 4. SIMULATION STUDY

This chapter details the simulations process used in the research. It gives an overview of the general syntax of the programming language, data simulation logic, calculation of power and then details design variations based on the two main hypothesis in deliberation: the non – decreasing and the umbrella alternatives.

4.1. Mixed Design Simulation Overview

SAS® software was the primary statistical software used in this research study. Observations were simulated using the RAND function found in the software. The RAND function uses the Mersenne – Twister to generate random numbers (SAS help). It has a period length of $2^{199937} - 1$ thus providing very small correlation between successive numbers (SAS help). The random numbers are, however, not really random. The period length can be thought of as a loop of pre – determined numbers and the user points the engine to a starting point. The RAND function requires the user to define the starting point, also known as the seed. This is done using the Call Streaminit function before calling the RAND function.

Call Streaminit (Seed).

In this research the seed used was zero (0) which instructs RAND to use the internal clock time. Thus, theoretically, simulations ran at the same exact time of day will be identical. The RAND function also requires the distribution to be defined. This is done using this call

RAND (Distribution).

The function might require additional input of parameters depending on the type of distribution.

In this study missing observations were created by using the Uniform distribution. Simulated observations were individually assigned a probability of missing by this call function

RAND (‘Uniform’).

The procedure produced a random number between zero and one from the Uniform distribution. The probability of an observation missing was then given by the following If statement:

If RAND (‘Uniform’) < (insert probability) then . else RAND (‘Distribution’);.

SAS® reads a period (.) as a missing observation and uses a semicolon (;) to mark the end of a command. Blocks with less than two observations were excluded from analysis. There were no missing observations simulated in the CRD. This would be futile since there was no blocking in the CRD design and the ratio of treatment sample sizes did not matter.

The next step was to generate the two designs. Observations were generated either row wise for the Incomplete Block Design (IBD) or column wise for the Completely Randomized Design (CRD) until the desired number was attained. The process employed a series of Do loops until the sample size was reached. Below is an outline of the logic when generating observations for a design.

Do (until given number of blocks/ observations per treatment)

Generate random row of numbers

End (loop).

For the CRD the loop generated one number per row until the column (representing a treatment) had the desired number of observations.

Once the mixed design was simulated the appropriate tests were applied and the decision to reject the null hypothesis was tracked using a counter variable. The counter variable tallied the number of times the null hypothesis was rejected by adding one every time that criterion was met. That was accomplished using an If conditional statement given by

If test > 1.645 then Counter + 1;.

The power of a test statistic was then approximated by calculating the proportion of simulations where the null hypothesis was rejected.

Each mixed design generated for a given set of parameters was repeated 10000 times. Doing so simulated repeating an experiment that many times. In this research, therefore, the power of the test statistic was simply given by dividing the final value of Counter by 10000.

For every test statistic power approximations were calculated for all combinations of variations caused by each of the following factors

- Number of treatments (three, four and five treatments in the design)
- Underlying distribution
- Probability of an observation missing

- Ratio of IBD to CRD treatment sample size
- Ratio of IBD to CRD treatment variances
- Position of the peak treatment
- Shift in treatment means

The first factor is straightforward in that the number of treatments considered in this research study were three, four and five. The underlying distribution and probability of an observation missing are discussed in detail next and the rest in sections 4.2 and 4.3 as they are dependent on the alternative hypothesis.

There were four underlying distributions researched in both the non – decreasing and umbrella alternatives

- The Normal distribution
- The Exponential distribution
- The T, with three degrees of freedom, distribution
- The Cauchy distribution

The call function for the normal distribution was given by

RAND ('Normal', μ, α)

where μ was the mean and α was the standard deviation. The default values for the function were zero and one for the mean and variance respectively. Therefore, *RAND ('Normal', 0.5, 1)* generated a single observation from a normal distribution with a mean of 0.5 and a standard deviation of one.

The call function for the exponential on the other hand was given by

RAND ('Exponential').

This function generated a random number from an exponential distribution with a mean and variance of one. Therefore, transformation of the variable was necessary to obtain a desired distribution. For a change in the location parameter this research added the desired mean to the generated number.

For the T distribution with three degrees of freedom the following call function was used

RAND ('T', 3).

Three degrees of freedom were chosen to simulate heavier tails in the distribution than the normal. The location parameter was shifted to the desired value by simply adding the treatment's mean to the generated value.

Finally, the Cauchy distribution's random number was generated by

RAND ('Cauchy').

The Cauchy distribution is known for its heavy tails. Once again the number generated came from a default Cauchy distribution so the location parameter was shifted by adding the desired mean.

The second common source of variation between designs came from the probability of an observation missing. As discussed earlier each observation had a probability of missing dictated by a probability that followed a Uniform distribution. There were five probabilities considered: 0.1, 0.2, 0.3, 0.4 and 0.5. Therefore, the power of a test under a mixed design with a given set of parameters was simulated 10000 times for each probability for a total of 50000 simulations.

The final common source of variation considered was the ratio of the IBD to CRD variances. The first case considered was equal variances where observations simulated in the IBD and CRD had the same location parameter and variance. The other case considered a 2:1 ratio where observations simulated in the CRD had twice as much variance as those in the IBD but still had the same location parameter for given treatment.

4.2. Non – Decreasing Alternative

The ratio of IBD to CRD treatment sample sizes was another source of variation between designs. For simplicity, the number of observations per treatment in the CRD was kept the same. The ratio of the number of blocks in the IBD per treatment and the number of observations in the CRD per treatment thus remained constant. The following ratios were considered (ratios reflect IBD to CRD and vice versa)

- 1:1 with sample sizes 6, 10 and 12
- 2:1 with sample sizes of 12:6
- 3:2 with sample sizes of 10:15
- 3:1 with sample sizes of 18:6
- 4:1 with sample sizes of 20:5

The final cause of variation in the non – decreasing alternative was the shift in treatment means (location parameters). The shift in means referred to the relationship of one treatment mean to another in terms of unit distance between the two. There were several ways in which the means were shifted but two cases were always the same: the evaluation of type I error (the probability of falsely rejecting the null hypothesis) and the evaluation of the test under violation of the non – decreasing alternative assumption. In the former, the treatment means were all set to zero and so the power of the test under was the approximation of its type I error. For the latter the treatment means were ordered such that the non – decreasing order assumption was violated e.g. (1, 0.5, 0) without loss of generality of number of treatments. The following is an illustration of the shift under three, four and then five treatments.

Under three treatments in the design the cases considered were

- (0, 0.4, 0.8): equal spacing
- (0, 0.4, 0.5): unequal spacing
- (0, 0, 0.6): first two were equal
- (0, 0.6, 0.6): last two were equal

Cases considered under four treatments were

- (0, 0.2, 0.4, 0.6): equal spacing
- (0, 0.4, 0.8, 1): unequal spacing
- (0, 0, 0, 0.8): first three were equal
- (0, 0, 0.5, 0.5): first two were equal but different from the last two that were also equal
- (0, 0.5, 0.5, 0.5): last three were equal

Cases considered under five treatments were

- (0, 0.2, 0.4, 0.6, 1): equal spacing
- (0, 0.2, 0.5, 0.6, 0.9): unequal spacing
- (0, 0, 0, 0, 0.8): first four were equal
- (0, 0, 0, 0.8, 0.8): first three were equal but different from last two that were also equal
- (0, 0, 0.8, 0.8, 0.8): first two were equal but different from last three that were also equal
- (0, 0.8, 0.8, 0.8, 0.8): last four were equal

4.3. Umbrella Alternative

The ratio of IBD to CRD sample sizes under the umbrella alternative was varied using the following cases (once again the ratios reflect the IBD to CRD ratio and vice versa).

- 1:1 with sample sizes of 15
- 3:2 with sample sizes of 15:10
- 3:1 with sample sizes of 15:5
- 8:1 with sample sizes of 40:5

The next source of variation was unique to the umbrella alternative and that was the location of the peak treatment. The peak treatment was the one assumed to have the largest effect but did not occur at either end (was not the first or last treatment). The several combinations of peak and number of treatments were

- Three treatments with the peak at two

- Four treatments with the peak at two
- Four treatments with the peak at three
- Five treatments with the peak at two
- Five treatments with the peak at three
- Five treatments with the peak at four

Next is a look at the several ways the means were shifted with respect to the peak. Similar to the non – decreasing alternative, there were two common cases regardless of number of treatments or the peak: evaluation of type I error and under a violation of the umbrella alternative. The following is a look at the ways in which the means were shifted by the number of treatments in the design.

Under three treatments there was only one other case considered

- (0, 0.7, 0): the peak was different
- (0, 0.5, 0.4); Unequal means with the third greater than the first
- (0.4, 0.5, 0); Unequal means with the first greater than the third

Under four treatments with the peak at two the following cases were considered. The same logic was applied to the scenario where the peak was at three.

- (0, 0.8, 0, 0): the peak is different
- (0.2, 0.8, 0, 0): one treatment near the peak was different from the peak
- (0.2, 0.8, 0.2, 0): the two observations near the peak were different from the last observation

Cases considered under five treatments with the peak at two are as follows. The same logic was used for the scenario with the peak at four.

- (0, 0.8, 0, 0, 0): the peak is different
- (0.4, 0.8, 0, 0, 0): one treatment near the peak is different from the other three treatments; the other treatments were equal.
- (0.4, 0.8, 0.4, 0, 0): the two treatments on either side of the peak were equal but different from the last two. The last two were equal.
- (0.4, 0.8, 0.4, 0.4, 0): three treatments were equal but different from the last one.
- (0.4, 0.7, 0.6, 0.3, 0): all treatments were different

Finally, when there were five treatment and the peak was at three the mean was shifted in the following ways.

- (0, 0, 0.8, 0, 0): the peak is different
- (0, 0.4, 0.8, 0, 0): one observation next to the peak is different from the others. The rest are equal.
- (0, 0.4, 0.8, 0.4, 0): the two observations near the peak are the same but different from the others. The rest are equal.
- (0.3, 0.5, 0.9, 0.6, 0): all treatments are different.

CHAPTER 5. RESULTS

This chapter goes through the results of the simulation study. It is divided into two main sections according to the alternative hypothesis: non – decreasing alternative and umbrella alternative. The first section, non – decreasing alternative, compares the approximate powers of T_1 and T_2 which were both a combination of the JT and Alvo test statistics. The former standardized the two statistics first before re – standardizing them, standardized first (Std. First). The latter combined the unstandardized test statistic values and then standardized the sum, standardized last (Std. Last). The second section does the same for T_3 (Std. First) and T_4 (Std. Last) that combined the M and Mack – Wolfe test statistics.

There were, however, common trends when the powers are studied. The first concerned the underlying distribution. The Exponential distribution reported the highest powers when all other factors were equal. It was followed by the Normal, T with three degrees of freedom (df.) and Cauchy distributions in that order. The second trend was that neither the overall power of the tests nor the relationship between the test statistics were affected by the probability of missing observations all else being equal. Finally, type I error stayed relatively around 5% for all test statistics. Additionally, at least one random order of means that violated the assumed alternative hypothesis was tested. The powers of all proposed test statistics were extremely low which is favorable.

For the results here onward let p denote the probability that an observation is missing and pk denote the position of the peak.

5.1. Non – Decreasing Alternative

5.1.1. Three Treatments

The results showed that standardizing first T_1 was more powerful than T_2 regardless of the underlying distribution, ratio of variances or ratio of the sample sizes between the Completely Randomized Design (CRD) and the Incomplete Block Design (IBD). The difference between the two was especially vast under Cauchy's distribution. The powers of the test statistics were at their highest when the ratio of IBD to CRD was 1:3 and 2:3. They were at their lowest when the ratio was 1:1 and 2:1. The following tables show some representative results.

Table 5.1. Normal, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	29.3%	31.1%
	0	0.4	0.8	70.2%	74.2%
	0	0.5	1	86.0%	89.2%
	0	0	0.6	50.7%	54.1%
	0	0.6	0.6	46.7%	52.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.2. Exponential, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.3%
	0	0.2	0.4	52.8%	55.5%
	0	0.4	0.8	91.6%	94.1%
	0	0.5	1	97.8%	98.8%
	0	0	0.4	50.7%	54.8%
	0	0.4	0.5	62.0%	67.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.3. T with 3 df., t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.0%	4.7%
	0	0.2	0.4	22.6%	23.7%
	0	0.4	0.8	53.9%	58.3%
	0	0.5	1	70.5%	74.6%
	0	0	0.6	37.8%	41.1%
	0	0.6	0.6	34.8%	39.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.4. Cauchy with 3 df., t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.3%	5.3%
	0	1.5	3	6.1%	33.9%
	0	1	2.5	5.8%	29.4%
	0	2	3	6.3%	34.7%
	0	0	2	5.6%	22.2%
	0	2	2	5.8%	22.5%
	3	0	1	4.3%	0.5%
	2	1	0	4.5%	0.4%

Table 5.5. Normal, t = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.3%
	0	0.2	0.4	26.3%	33.4%
	0	0.4	0.8	64.3%	77.7%
	0	0.5	1	81.0%	91.3%
	0	0	0.6	46.9%	57.1%
	0	0.6	0.6	42.6%	54.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.6. Exponential, t = 3, IBD = 10, CRD = 15, p= 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.0%	4.8%
	0	0.2	0.4	47.5%	58.7%
	0	0.4	0.8	87.9%	95.4%
	0	0.5	1	95.8%	99.1%
	0	0	0.4	45.9%	57.5%
	0	0.4	0.5	58.3%	70.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.7. T with 3 df., t = 3, IBD = 10, CRD = 15, p= 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.2%	4.8%
	0	0.2	0.4	21.1%	25.6%
	0	0.4	0.8	48.9%	60.7%
	0	0.5	1	65.2%	78.0%
	0	0	0.6	35.2%	43.5%
	0	0.6	0.6	31.5%	40.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.8. Cauchy, t = 3, IBD = 10, CRD = 15, p= 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Cauchy	0	0	0	4.9%	5.0%
	0	1.5	3	7.7%	50.4%
	0	1	2.5	7.6%	42.3%
	0	2	3	7.6%	49.2%
	0	0	2	6.7%	31.4%
	0	2	2	7.0%	32.2%
	3	0	1	3.7%	0.1%
	2	1	0	3.5%	0.1%

Table 5.9. Normal, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	19.3%	23.6%
	0	0.4	0.8	45.7%	57.2%
	0	0.5	1	59.2%	73.6%
	0	0	0.6	33.2%	40.5%
	0	0.6	0.6	28.5%	36.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.10. Exponential, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.2%	5.0%
	0	0.2	0.4	32.0%	40.5%
	0	0.4	0.8	67.2%	81.4%
	0	0.5	1	79.9%	91.4%
	0	0	0.4	33.5%	40.7%
	0	0.4	0.5	39.8%	51.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.11. T with 3df., t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.6%	5.0%
	0	0.2	0.4	15.5%	18.0%
	0	0.4	0.8	34.8%	43.1%
	0	0.5	1	44.0%	56.7%
	0	0	0.6	25.8%	30.7%
	0	0.6	0.6	21.3%	27.4%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%

Table 5.12. Cauchy, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.1%	4.9%
	0	1.5	3	24.2%	56.4%
	0	1	2.5	21.7%	48.4%
	0	2	3	23.9%	55.4%
	0	0	2	17.0%	36.5%
	0	2	2	16.9%	35.5%
	3	0	1	1.3%	0.2%
	2	1	0	0.7%	0.1%

Table 5.13. Normal, t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.2	0.4	14.7%	18.7%
	0	0.4	0.8	31.8%	42.6%
	0	0.5	1	43.4%	58.2%
	0	0	0.6	24.4%	31.0%
	0	0.6	0.6	19.8%	27.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%

Table 5.14. Exponential, t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	4.6%	4.9%
	0	0.2	0.4	24.9%	31.9%
	0	0.4	0.8	52.0%	66.8%
	0	0.5	1	64.1%	80.1%
	0	0	0.4	23.7%	30.9%
	0	0.4	0.5	28.6%	38.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.15. T with 3 df., t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.2	0.4	12.4%	15.7%
	0	0.4	0.8	24.5%	33.1%
	0	0.5	1	32.5%	43.8%
	0	0	0.6	19.3%	24.6%
	0	0.6	0.6	15.3%	20.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%

Table 5.16. Cauchy, t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.0%	5.2%
	0	1.5	3	12.2%	34.6%
	0	1	2.5	10.3%	29.5%
	0	2	3	11.6%	34.0%
	0	0	2	9.4%	22.7%
	0	2	2	8.7%	22.0%
	3	0	1	2.2%	0.6%
	2	1	0	1.8%	0.3%

The change in the variances seemed to lower the overall powers of the test statistics. In the following tables, the variance of the CRD sample was set to twice that of the IBD and everything else was similar to the cases where the variances were equal. Furthermore, the difference between the two tests increased significantly. The difference was markedly higher when there were more observations in the CRD than in the IBD.

Table 5.17. t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	19.7%	24.1%
	0	0.4	0.8	45.2%	58.8%
	0	0.5	1	61.2%	75.0%
	0	0	0.6	32.6%	40.6%
	0	0.6	0.6	29.9%	39.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.18. Exponential, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.2%	5.0%
	0	0.2	0.4	35.3%	43.6%
	0	0.4	0.8	74.4%	85.9%
	0	0.5	1	86.9%	94.4%
	0	0	0.4	33.6%	42.0%
	0	0.4	0.5	44.0%	53.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.19. T with 3 df., t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.1%	5.4%
	0	0.2	0.4	15.5%	19.3%
	0	0.4	0.8	35.4%	44.5%
	0	0.5	1	47.2%	59.7%
	0	0	0.6	25.5%	31.9%
	0	0.6	0.6	23.9%	29.6%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%

Table 5.20. Cauchy, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	6.3%	35.7%
	0	1	2.5	5.5%	29.4%
	0	2	3	6.3%	34.6%
	0	0	2	5.9%	22.2%
	0	2	2	6.0%	22.6%
	3	0	1	4.1%	0.6%
	2	1	0	4.3%	0.4%

Table 5.21. Normal, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	17.9%	26.3%
	0	0.4	0.8	42.7%	63.7%
	0	0.5	1	57.5%	80.4%
	0	0	0.6	30.3%	45.1%
	0	0.6	0.6	27.8%	42.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.22. Exponential, t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.6%	5.4%
	0	0.2	0.4	33.5%	48.5%
	0	0.4	0.8	70.2%	88.6%
	0	0.5	1	82.4%	96.0%
	0	0	0.4	32.3%	46.6%
	0	0.4	0.5	40.6%	58.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.23. T with 3 df., t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.3%	5.2%
	0	0.2	0.4	14.7%	20.4%
	0	0.4	0.8	32.6%	48.6%
	0	0.5	1	43.7%	64.4%
	0	0	0.6	23.3%	33.6%
	0	0.6	0.6	21.6%	32.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%

Table 5.24. T with 3 df., t = 3, IBD = 6, CRD = 18, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Cauchy	0	0	0	4.8%	5.1%
	0	1.5	3	7.7%	50.2%
	0	1	2.5	7.4%	43.0%
	0	2	3	7.9%	49.5%
	0	0	2	6.6%	31.9%
	0	2	2	7.0%	31.7%
	3	0	1	3.6%	0.3%
	2	1	0	3.6%	0.2%

Table 5.25. Normal, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.5%	4.9%
	0	0.2	0.4	16.3%	20.6%
	0	0.4	0.8	35.6%	49.6%
	0	0.5	1	47.0%	64.7%
	0	0	0.6	26.1%	34.5%
	0	0.6	0.6	22.9%	32.3%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%

Table 5.26. Exponential, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	4.6%	4.4%
	0	0.2	0.4	26.6%	35.9%
	0	0.4	0.8	56.3%	74.5%
	0	0.5	1	68.8%	86.3%
	0	0	0.4	27.2%	36.2%
	0	0.4	0.5	31.7%	43.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.27. T with 3 df., t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.4%	5.2%
	0	0.2	0.4	13.3%	16.8%
	0	0.4	0.8	26.9%	37.6%
	0	0.5	1	34.9%	49.0%
	0	0	0.6	20.2%	26.3%
	0	0.6	0.6	17.8%	24.1%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%

Table 5.28. Cauchy, t = 3, IBD = 12, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.7%	5.0%
	0	1.5	3	24.2%	57.1%
	0	1	2.5	21.3%	48.1%
	0	2	3	24.5%	55.8%
	0	0	2	16.9%	36.0%
	0	2	2	16.8%	35.9%
	3	0	1	0.9%	0.2%
	2	1	0	0.8%	0.0%

Table 5.29. Normal, t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.2%
	0	0.2	0.4	12.0%	16.6%
	0	0.4	0.8	23.4%	36.0%
	0	0.5	1	30.9%	49.0%
	0	0	0.6	18.2%	26.2%
	0	0.6	0.6	15.5%	23.7%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%

Table 5.30. Exponential, t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	4.5%	5.1%
	0	0.2	0.4	18.5%	26.3%
	0	0.4	0.8	38.8%	57.4%
	0	0.5	1	49.5%	70.2%
	0	0	0.4	19.0%	25.9%
	0	0.4	0.5	22.4%	33.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%

Table 5.31. T with 3 df., t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.8%	5.4%
	0	0.2	0.4	9.7%	13.2%
	0	0.4	0.8	18.2%	27.0%
	0	0.5	1	24.3%	36.7%
	0	0	0.6	15.5%	21.0%
	0	0.6	0.6	12.5%	17.8%
	1	0.5	0	0.3%	0.2%
	2	1	0	0.0%	0.0%

Table 5.32. Cauchy 3 df., t = 3, IBD = 6, CRD = 6, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.4%	5.7%
	0	1.5	3	12.0%	35.6%
	0	1	2.5	10.7%	30.3%
	0	2	3	11.3%	33.9%
	0	0	2	9.4%	22.5%
	0	2	2	9.2%	22.0%
	3	0	1	1.9%	0.5%
	2	1	0	1.8%	0.5%

5.1.2. Four Treatments

A similar trend was followed when investigating four treatments where T_1 was more powerful than T_2. The test statistics were most powerful when the ratio of IBD to CRD was 1:3 and 2:3 and the opposite when the ratio was 1:1 and 2:1. The following tables show the approximate powers after simulations. The probability of an observation missing this time was 0.2.

Table 5.33. Normal, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	56.0%	59.4%
	0	0.4	0.8	1	91.4%	94.1%
	0	0	0	0.8	69.3%	72.8%
	0	0	0.5	0.5	55.3%	59.7%
	0	0.8	0.8	0.8	62.4%	68.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.34. Exponential, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	84.2%	87.8%
	0	0.4	0.8	1	99.2%	99.6%
	0	0	0	0.8	89.3%	91.9%
	0	0	0.5	0.5	81.5%	85.3%
	0	0.5	0.5	0.5	55.4%	61.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.35. T with 3 df., t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.2	0.4	0.6	42.4%	46.4%
	0	0.4	0.8	1	76.3%	81.4%
	0	0	0	0.8	53.5%	56.7%
	0	0	0.6	0.6	53.1%	57.8%
	0	0.8	0.8	0.8	47.9%	52.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.36. Cauchy, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.0%	5.3%
	0	1	2	3	7.0%	41.7%
	0	1.5	2	2.5	6.1%	32.7%
	0	0	0	2	6.1%	22.4%
	0	0	2	2	6.4%	32.6%
	0	2	2	2	5.9%	21.8%
	3	1	0	2	4.5%	1.1%
	3	2	1	0	3.6%	0.1%

Table 5.37. Normal, t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0.6	50.6%	62.2%
	0	0.4	0.8	1	87.3%	94.9%
	0	0	0	0.8	63.5%	75.3%
	0	0	0.5	0.5	51.7%	62.6%
	0	0.8	0.8	0.8	57.8%	72.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	79.6%	89.1%

Table 5.38. Exponential, t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	79.6%	89.1%
	0	0.4	0.8	1	98.3%	99.7%
	0	0	0	0.8	85.9%	93.4%
	0	0	0.5	0.5	78.0%	88.1%
	0	0.5	0.5	0.5	50.8%	63.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.39. T with 3 df., t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	38.5%	47.6%
	0	0.4	0.8	1	72.9%	84.2%
	0	0	0	0.8	50.0%	59.3%
	0	0	0.6	0.6	48.8%	60.9%
	0	0.8	0.8	0.8	43.8%	56.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.40. Cauchy, t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.3%	4.7%
	0	1	2	3	9.0%	58.4%
	0	1.5	2	2.5	8.4%	46.4%
	0	0	0	2	7.6%	30.5%
	0	0	2	2	8.3%	46.6%
	0	2	2	2	7.4%	30.8%
	3	1	0	2	3.9%	0.7%
	3	2	1	0	2.4%	0.0%

Table 5.41. Normal, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	41.0%	51.1%
	0	0.4	0.8	1	77.1%	88.8%
	0	0	0	0.8	54.3%	66.2%
	0	0	0.5	0.5	42.5%	53.5%
	0	0.8	0.8	0.8	45.0%	60.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.42. Exponential, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	4.5%	4.8%
	0	0.2	0.4	0.6	68.5%	81.7%
	0	0.4	0.8	1	94.2%	98.6%
	0	0	0	0.8	75.0%	87.1%
	0	0	0.5	0.5	68.0%	80.6%
	0	0.5	0.5	0.5	40.2%	52.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.43. T with 3 df., t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	31.5%	39.4%
	0	0.4	0.8	1	61.2%	75.2%
	0	0	0	0.8	41.0%	51.4%
	0	0	0.6	0.6	40.3%	51.2%
	0	0.8	0.8	0.8	33.6%	45.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.44. Cauchy, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.2%	5.1%
	0	1	2	3	14.4%	59.9%
	0	1.5	2	3	13.3%	56.2%
	0	0	0	2	10.1%	30.8%
	0	0	2	2	12.1%	45.9%
	0	2	2	2	9.9%	30.7%
	3	1	0	2	3.3%	0.6%
	3	2	1	0	1.3%	0.0%

Table 5.45. Normal, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.3%
	0	0.2	0.4	0.6	38.5%	44.9%
	0	0.4	0.8	1	73.4%	82.5%
	0	0	0	0.8	51.7%	58.5%
	0	0	0.5	0.5	39.3%	45.3%
	0	0.8	0.8	0.8	40.8%	50.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.46. Exponential, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	64.3%	73.8%
	0	0.2	0.5	0.7	75.4%	83.9%
	0	0	0	0.8	72.0%	80.4%
	0	0	0.5	0.5	63.6%	72.6%
	0	0.5	0.5	0.5	38.6%	46.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.47. T with 3 df., t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.7%	4.6%
	0	0.2	0.4	0.6	29.6%	34.2%
	0	0.4	0.8	1	57.0%	66.6%
	0	0	0	0.8	39.4%	44.4%
	0	0	0.6	0.6	38.2%	44.1%
	0	0.8	0.8	0.8	31.9%	38.8%
	1	0.5	0	0.25	0.2%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.48. Cauchy, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.5%	5.0%
	0	1	2	3	37.5%	65.9%
	0	1.5	2	2.5	29.9%	52.9%
	0	0	0	2	21.0%	34.8%
	0	0	2	2	30.6%	53.1%
	0	2	2	2	21.4%	35.8%
	3	1	0	2	1.4%	0.5%
	3	2	1	0	0.2%	0.0%

The results showed that the powers reduced when the variances were unequal. The difference between the two test statistics went up with the increase in variance. For instance, for the (0, 0.2, 0.4, 0.6) mean shift in Table 5.49, the powers went from 56% and 59.4% to 35.9% and 45% for Std. Last and Std. First respectively.

Table 5.49. Normal, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	35.9%	45.0%
	0	0.4	0.8	1	68.3%	82.2%
	0	0	0	0.8	45.6%	57.8%
	0	0	0.5	0.5	35.9%	45.2%
	0	0.8	0.8	0.8	41.3%	54.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.50. Exponential, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	63.4%	74.9%
	0	0.4	0.8	1	92.5%	97.8%
	0	0	0	0.8	71.6%	82.1%
	0	0	0.5	0.5	63.1%	74.9%
	0	0.5	0.5	0.5	41.1%	50.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.51. T with 3 df., t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	28.0%	34.8%
	0	0.4	0.8	1	54.2%	67.3%
	0	0	0	0.8	35.4%	43.5%
	0	0	0.6	0.6	34.4%	43.4%
	0	0.8	0.8	0.8	31.5%	40.7%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%

Table 5.52. Cauchy, t = 4, IBD = 6, CRD = 18, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.9%	4.8%
	0	1	2	3	7.0%	42.9%
	0	1.5	2	2.5	6.3%	32.1%
	0	0	0	2	6.1%	22.0%
	0	0	2	2	6.6%	32.2%
	0	2	2	2	6.0%	22.8%
	3	1	0	2	4.7%	1.2%
	3	2	1	0	3.7%	0.1%

Table 5.53. Normal, t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.2	0.4	0.6	34.8%	50.4%
	0	0.4	0.8	1	65.7%	86.8%
	0	0	0	0.8	43.0%	62.4%
	0	0	0.5	0.5	33.8%	50.5%
	0	0.8	0.8	0.8	38.2%	58.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.54. Exponential, t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	60.0%	79.5%
	0	0.4	0.8	1	90.6%	98.6%
	0	0	0	0.8	68.1%	86.2%
	0	0	0.5	0.5	59.6%	78.6%
	0	0.5	0.5	0.5	37.6%	53.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.55. T with 3 df., t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	26.4%	38.0%
	0	0.4	0.8	1	51.3%	72.0%
	0	0	0	0.8	32.9%	47.5%
	0	0	0.6	0.6	33.0%	48.0%
	0	0.8	0.8	0.8	29.2%	44.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.56. T with 3 df., t = 4, IBD = 10, CRD = 15, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	4.8%
	0	1	2	3	9.1%	59.2%
	0	1.5	2	2.5	8.3%	46.0%
	0	0	0	2	8.0%	31.5%
	0	0	2	2	8.4%	46.9%
	0	2	2	2	7.6%	31.2%
	3	1	0	2	3.6%	0.6%
	3	2	1	0	2.6%	0.0%

Table 5.57. Normal, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.0%
	0	0.2	0.4	0.6	28.7%	42.7%
	0	0.4	0.8	1	56.3%	78.7%
	0	0	0	0.8	37.7%	54.6%
	0	0	0.5	0.5	29.4%	43.3%
	0	0.8	0.8	0.8	31.8%	50.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.58. Exponential, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.2%	4.8%
	0	0.2	0.4	0.6	51.2%	71.1%
	0	0.4	0.8	1	82.3%	95.6%
	0	0	0	0.8	58.0%	78.2%
	0	0	0.5	0.5	51.3%	70.5%
	0	0.5	0.5	0.5	32.1%	46.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.59. T with 3 df., t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.5%	4.5%
	0	0.2	0.4	0.6	22.3%	32.6%
	0	0.4	0.8	1	43.8%	63.3%
	0	0	0	0.8	28.0%	40.2%
	0	0	0.6	0.6	28.9%	42.2%
	0	0.8	0.8	0.8	25.1%	38.0%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.1%	0.0%

Table 5.60. Cauchy, t = 4, IBD = 10, CRD = 10, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.0%
	0	1	2	3	13.7%	59.0%
	0	1.5	2	3	13.7%	54.9%
	0	0	0	2	9.9%	31.5%
	0	0	2	2	12.0%	45.8%
	0	2	2	2	9.9%	31.0%
	3	1	0	2	3.0%	0.8%
	3	2	1	0	1.3%	0.1%

Table 5.61. Normal, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	32.1%	39.8%
	0	0.4	0.8	1	59.5%	73.5%
	0	0	0	0.8	40.5%	49.7%
	0	0	0.5	0.5	31.0%	38.1%
	0	0.8	0.8	0.8	34.2%	44.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.62. Exponential, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	53.2%	65.0%
	0	0.2	0.5	0.7	63.6%	76.2%
	0	0	0	0.8	60.5%	71.8%
	0	0	0.5	0.5	52.9%	64.4%
	0	0.5	0.5	0.5	32.2%	39.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%

Table 5.63. T with 3 df., t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	4.6%
	0	0.2	0.4	0.6	23.5%	28.8%
	0	0.4	0.8	1	45.9%	56.7%
	0	0	0	0.8	30.1%	37.0%
	0	0	0.6	0.6	30.9%	38.5%
	0	0.8	0.8	0.8	26.6%	33.9%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%

Table 5.64. Cauchy, t = 4, IBD = 12, CRD = 6, p = 0.2 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.0%	4.8%
	0	1	2	3	37.1%	65.7%
	0	1.5	2	2.5	29.8%	52.1%
y	0	0	0	2	21.1%	35.4%
	0	0	2	2	30.3%	53.8%
	0	2	2	2	20.6%	34.3%
	3	1	0	2	1.6%	0.6%
	3	2	1	0	0.1%	0.0%

5.1.3. Five Treatments

The relationship between the test statistics remained unchanged when there were five treatments in the experiment design. The 1:3 and 3:1 ratios for the IBD to CRD sample sizes had the highest overall powers.

Table 5.65. Normal, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	87.6%	91.0%
	0	0	0	0	0.9	74.5%	77.8%
	0	0	0	0.8	0.8	93.0%	94.8%
	0	0	0.8	0.8	0.8	91.3%	93.6%
	0	0.8	0.8	0.8	0.8	58.6%	64.7%
	1	0.5	0	0.25	1	2.7%	2.1%

Table 5.66. Exponential, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	99.2%	99.6%
	0	0	0	0	0.9	91.2%	93.3%
	0	0	0	0.8	0.8	99.4%	99.6%
	0	0	0.8	0.8	0.8	98.7%	99.3%
	0	0.5	0.5	0.5	0.5	51.9%	57.5%
	1	0.5	0	0.25	1	0.3%	0.4%

Table 5.67. T with 3 df., t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0.2	0.5	0.6	0.9	73.2%	77.3%
	0	0	0	0	0.9	58.4%	61.9%
	0	0	0	0.8	0.8	80.2%	83.5%
	0	0	0.8	0.8	0.8	78.7%	82.4%
	0	0.8	0.8	0.8	0.8	44.8%	49.8%
	1	0.5	0	0.25	1	2.9%	2.6%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.68. Cauchy, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0.5	1	1.5	2	6.3%	31.0%
	0	0	0	0	3	6.6%	27.7%
	0	0	0	1	1	6.2%	19.0%
	0	0	1	1	1	6.1%	18.8%
	0	3	3	3	3	6.7%	27.5%
	4	3	2	1	0	3.0%	0.0%
	4	1	0	1	2	4.6%	0.8%

Table 5.69. Normal, t = 5, IBD = 18, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	84.5%	87.4%
	0	0	0	0	0.9	71.2%	74.2%
	0	0	0	0.8	0.8	90.9%	92.8%
	0	0	0.8	0.8	0.8	89.2%	91.7%
	0	0.8	0.8	0.8	0.8	53.5%	57.5%
	1	0.5	0	0.25	1	3.2%	2.9%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.70. Exponential, t = 5, IBD = 18, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.8%	5.5%
	0	0.2	0.5	0.6	0.9	98.0%	98.7%
	0	0	0	0	0.9	89.3%	91.3%
	0	0	0	0.5	0.5	86.1%	88.5%
	0	0	0.5	0.5	0.5	82.9%	85.9%
	0	0.5	0.5	0.5	0.5	48.0%	51.3%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.71. T with 3 df., t = 5, IBD = 18, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	70.1%	72.9%
	0	0	0	0	0.9	55.4%	58.3%
	0	0	0	0.8	0.8	77.5%	80.4%
	0	0	0.8	0.8	0.8	74.8%	78.2%
	0	0.8	0.8	0.8	0.8	41.0%	44.5%
	1	0.5	0	0.25	1	3.3%	3.0%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.72. Cauchy, t = 5, IBD = 18, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0.5	1	1.5	2	56.1%	66.7%
	0	0	0	0	3	49.2%	59.2%
	0	0	0	1	1	31.5%	37.7%
	0	0	1	1	1	31.5%	37.7%
	0	3	3	3	3	50.2%	60.7%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.5%	0.3%

Table 5.73. Normal, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0.2	0.5	0.6	0.9	75.6%	85.9%
	0	0	0	0	0.9	60.9%	71.2%
	0	0	0	0.8	0.8	83.2%	91.5%
	0	0	0.8	0.8	0.8	81.1%	90.4%
	0	0.8	0.8	0.8	0.8	44.3%	56.4%
	1	0.5	0	0.25	1	3.4%	2.6%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.74. Exponential, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	94.8%	98.3%
	0	0	0	0	0.9	79.6%	88.8%
	0	0	0	0.8	0.8	96.2%	99.1%
	0	0	0.8	0.8	0.8	94.0%	98.4%
	0	0.5	0.5	0.5	0.5	39.6%	50.8%
	1	0.5	0	0.25	1	0.6%	0.5%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.75. T with 3 df., t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	59.5%	70.4%
	0	0	0	0	0.9	46.3%	55.7%
	0	0	0	0.8	0.8	67.0%	77.5%
	0	0	0.8	0.8	0.8	64.4%	75.9%
	0	0.8	0.8	0.8	0.8	33.0%	42.1%
	1	0.5	0	0.25	1	3.5%	3.1%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.76. Cauchy, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	0.5	1	1.5	2	14.0%	45.2%
	0	0	0	0	3	12.2%	39.0%
	0	0	0	1	1	9.9%	25.4%
	0	0	1	1	1	10.2%	25.9%
	0	3	3	3	3	12.8%	40.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	0.5	1.2%	0.0%

Table 5.77. Normal, t = 5, IBD = 12, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.5%
	0	0.2	0.5	0.6	0.9	72.5%	78.8%
	0	0	0	0	0.9	59.4%	64.7%
	0	0	0	0.8	0.8	81.0%	85.8%
	0	0	0.8	0.8	0.8	79.1%	84.7%
	0	0.8	0.8	0.8	0.8	41.1%	48.0%
	1	0.5	0	0.25	1	3.1%	2.9%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.78. Exponential, t = 5, IBD = 12, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	93.7%	96.4%
	0	0	0	0	0.9	78.1%	83.7%
	0	0	0	0.5	0.5	74.8%	80.2%
	0	0	0.5	0.5	0.5	71.1%	77.0%
	0	0.5	0.5	0.5	0.5	37.6%	43.5%
	1	0.5	0	0.25	1	0.7%	0.7%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.79. T with 3 df., t = 5, IBD = 12, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.2	0.5	0.6	0.9	57.9%	63.6%
	0	0	0	0	0.9	44.4%	49.4%
	0	0	0	0.8	0.8	64.9%	71.1%
	0	0	0.8	0.8	0.8	62.6%	68.7%
	0	0.8	0.8	0.8	0.8	31.4%	35.7%
	1	0.5	0	0.25	1	3.5%	3.2%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.80. Cauchy, t = 5, IBD = 12, CRD = 6, p = 0.5 &$\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0.5	1	1.5	2	35.1%	52.2%
	0	0	0	0	3	30.5%	45.4%
	0	0	0	1	1	20.4%	29.3%
	0	0	1	1	1	19.8%	28.5%
	0	3	3	3	3	30.7%	45.6%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

The increase in the CRD variance led to a decrease in the overall powers similar to when there were three and four treatments in the design. The difference between the two test statistics increased with the change also.

Table 5.81. Normal, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	65.4%	78.0%
	0	0	0	0	0.9	51.1%	62.0%
	0	0	0	0.8	0.8	72.6%	84.2%
	0	0	0.8	0.8	0.8	70.5%	83.1%
	0	0.8	0.8	0.8	0.8	39.1%	50.7%
	1	0.5	0	0.25	1	3.0%	2.6%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.82. Exponential, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	91.5%	96.5%
	0	0	0	0	0.9	75.2%	84.9%
	0	0	0	0.8	0.8	94.0%	97.9%
	0	0	0.8	0.8	0.8	90.9%	97.0%
	0	0.5	0.5	0.5	0.5	37.4%	46.1%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.83. T with 3 df., t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.9%	5.5%
	0	0.2	0.5	0.6	0.9	66.1%	72.7%
	0	0	0	0	0.9	55.6%	59.2%
	0	0	0	0.8	0.8	75.1%	80.4%
	0	0	0.8	0.8	0.8	71.5%	78.1%
	0	0.8	0.8	0.8	0.8	35.7%	42.2%
	1	0.5	0	0.25	1	4.7%	3.4%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.84. Cauchy, t = 5, IBD = 6, CRD = 18, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	4.8%
	0	1	2	3	4	7.8%	59.4%
	0	0	0	0	3	6.6%	28.3%
	0	0	0	3	3	7.4%	48.9%
	0	0	3	3	3	7.8%	49.8%
	0	3	3	3	3	6.2%	28.0%
	4	3	2	1	0	3.1%	0.0%
	4	1	0	1	2	4.3%	0.9%

Table 5.85. Normal, t = 5, IBD = 18, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	76.0%	80.7%
	0	0	0	0	0.9	61.1%	65.3%
	0	0	0	0.8	0.8	82.7%	86.9%
	0	0	0.8	0.8	0.8	82.2%	86.2%
	0	0.8	0.8	0.8	0.8	47.6%	52.5%
	1	0.5	0	0.25	1	3.3%	2.9%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.86. Exponential, t = 5, IBD = 18, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	95.1%	97.3%
	0	0	0	0	0.9	82.7%	86.5%
	0	0	0	0.5	0.5	78.4%	82.6%
	0	0	0.5	0.5	0.5	75.0%	79.4%
	0	0.5	0.5	0.5	0.5	42.6%	46.3%
	1	0.5	0	0.25	1	0.9%	0.8%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.87. T with 3 df., t = 5, IBD = 18, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.6%	5.5%
	0	0.2	0.5	0.6	0.9	66.7%	70.5%
	0	0	0	0	0.9	54.9%	57.5%
	0	0	0	0.8	0.8	74.7%	78.1%
	0	0	0.8	0.8	0.8	72.8%	76.4%
	0	0.8	0.8	0.8	0.8	38.5%	41.5%
	1	0.5	0	0.25	1	4.6%	4.0%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.88. Cauchy, t = 5, IBD = 18, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.9%	4.7%
	0	1	2	3	4	89.7%	95.7%
	0	0	0	0	3	50.7%	60.6%
	0	0	0	3	3	80.1%	90.0%
	0	0	3	3	3	80.7%	90.1%
	0	3	3	3	3	49.2%	59.4%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table 5.89. Normal, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0.2	0.5	0.6	0.9	56.5%	75.0%
	0	0	0	0	0.9	44.9%	60.3%
	0	0	0	0.8	0.8	62.8%	81.2%
	0	0	0.8	0.8	0.8	61.1%	80.4%
	0	0.8	0.8	0.8	0.8	32.0%	46.6%
	1	0.5	0	0.25	1	3.4%	3.0%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.90. Exponential, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.7%	4.8%
	0	0.2	0.5	0.6	0.9	83.3%	95.3%
	0	0	0	0	0.9	64.3%	81.4%
	0	0	0	0.8	0.8	87.0%	96.7%
	0	0	0.8	0.8	0.8	84.1%	95.7%
	0	0.5	0.5	0.5	0.5	31.2%	42.9%
	1	0.5	0	0.25	1	1.0%	0.8%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.91. T with 3 df., t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.6%	5.4%
	0	0.2	0.5	0.6	0.9	54.8%	66.6%
	0	0	0	0	0.9	44.9%	53.7%
	0	0	0	0.8	0.8	63.0%	75.5%
	0	0	0.8	0.8	0.8	59.0%	72.3%
	0	0.8	0.8	0.8	0.8	28.5%	38.2%
	1	0.5	0	0.25	1	5.6%	3.7%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.92. Cauchy, t = 5, IBD = 10, CRD = 10, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.3%	5.4%
	0	1	2	3	4	22.0%	78.7%
	0	0	0	0	3	12.6%	39.7%
	0	0	0	3	3	19.0%	69.3%
	0	0	3	3	3	18.2%	69.4%
	0	3	3	3	3	12.8%	40.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	0.5	1.3%	0.1%

Table 5.93. Normal, t = 5, IBD = 12, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	60.1%	69.2%
	0	0	0	0	0.9	47.1%	54.4%
	0	0	0	0.8	0.8	69.3%	77.0%
	0	0	0.8	0.8	0.8	67.3%	76.1%
	0	0.8	0.8	0.8	0.8	34.3%	42.0%
	1	0.5	0	0.25	1	3.6%	3.2%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.94. Exponential, t = 5, IBD = 12, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0.2	0.5	0.6	0.9	87.1%	92.4%
	0	0	0	0	0.9	68.2%	76.3%
	0	0	0	0.5	0.5	63.0%	71.4%
	0	0	0.5	0.5	0.5	61.1%	69.9%
	0	0.5	0.5	0.5	0.5	32.1%	37.5%
	1	0.5	0	0.25	1	1.1%	0.9%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.95. T with 3 df., t = 5, IBD = 12, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.4%	5.0%
	0	0.2	0.5	0.6	0.9	54.7%	61.0%
	0	0	0	0	0.9	44.4%	49.1%
	0	0	0	0.8	0.8	62.4%	68.7%
	0	0	0.8	0.8	0.8	59.3%	65.6%
	0	0.8	0.8	0.8	0.8	28.6%	33.4%
	1	0.5	0	0.25	1	4.9%	4.4%
	2	1	0	1	0.5	0.0%	0.0%

Table 5.96. Cauchy, t = 5, IBD = 12, CRD = 6, p = 0.5 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.4%	5.3%
	0	1	2	3	4	64.0%	85.6%
	0	0	0	0	3	30.7%	45.5%
	0	0	0	3	3	53.7%	76.2%
	0	0	3	3	3	54.4%	76.8%
	0	3	3	3	3	30.5%	44.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.8%	0.3%

5.2. Umbrella Alternative

5.2.1. Three Treatments with Peak at Two

The results showed that the only factor that contributed to a difference the relationship of the two tests was the ratio of sample sizes. T_3 was significantly more powerful than T_4 in all ratios considered except when there were significantly more observations in the CRD than IBD, particularly 1:8. The results were inconclusive when the ratio was 2:3; the relationship would change for some simulations for the same parameters, underlying distributions and ratio of variances. The following tables represent some of the results from the simulations. The probability of an observation missing was 0.1.

Table 5.97. Normal, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	79.1%	88.5%
	0	0.5	0.5	21.4%	25.1%
	0.4	0.4	0	17.8%	20.6%

Table 5.98. Exponential, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	83.8%	91.9%
	0	0.5	0.5	33.3%	41.1%
	0.5	0.5	0	33.1%	40.5%

Table 5.99. T with 3 df., t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.7	0	63.4%	73.8%
	0	0.5	0.5	17.4%	20.2%
	0.5	0.5	0	17.4%	20.5%

Table 5.100. Cauchy, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.4%	5.2%
	0	1	0	59.5%	69.8%
	0	0.5	0.5	12.9%	14.6%
	0.5	0.5	0	12.9%	14.3%

Table 5.101. Normal, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.0%
	0	0.7	0	96.7%	92.9%
	0	0.5	0.4	33.7%	30.2%
	0.4	0.5	0	34.1%	30.0%

Table 5.102. Exponential, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.3%	5.1%
	0	0.5	0	98.4%	95.9%
	0	0.5	0.4	55.4%	48.6%
	0.4	0.5	0	55.1%	48.1%

Table 5.103. T with 3 df., t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.0%	5.0%
	0	0.7	0	87.8%	81.1%
	0	0.5	0.4	25.1%	22.1%
	0.4	0.5	0	26.4%	23.0%

Table 5.104. Cauchy, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.3%	4.7%
	0	1	0	84.8%	78.1%
	0	0.5	0.4	16.4%	15.1%
	0.4	0.5	0	16.5%	15.0%

Table 5.105. Normal, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.2%
	0	0.7	0	72.6%	86.0%
	0	0.5	0.4	19.3%	24.1%
	0.4	0.5	0	19.3%	24.7%

Table 5.106. Exponential, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	4.8%	4.9%
	0	0.5	0	76.4%	89.4%
	0	0.5	0.4	28.7%	38.5%
	0.4	0.5	0	28.8%	37.6%

Table 5.107. T with 3 df., t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.0%	5.2%
	0	0.7	0	56.7%	70.1%
	0	0.5	0.4	15.4%	19.2%
	0.4	0.5	0	15.7%	19.1%

Table 5.108. Cauchy, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	4.8%	4.8%
	0	1	0	52.9%	66.2%
	0	0.5	0.4	11.7%	13.5%
	0.4	0.5	0	11.5%	13.4%

The overall powers of the two test statistics decreased when the variance of the CRD sample was increased to twice that of the IBD sample. The difference between T_2 and T_3 increased with the change in variance. For instance, the case (0, 0.7, 0) in Table 5.109 shows an increase of 4.1%. The following results show the trend when the only factor changed from the previous three tables was the variance.

Table 5.109. Normal, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.9%
	0	0.7	0	69.4%	82.6%
	0	0.5	0.4	24.2%	29.2%
	0.4	0.4	0	15.6%	18.4%
	0.1	0.2	0.3	4.7%	4.7%
	0.6	0.2	0.8	0.1%	0.0%

Table 5.110. Exponential, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	74.7%	86.9%
	0	0.5	0.4	39.7%	50.6%
	0.4	0.5	0	39.9%	50.5%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.0%	0.0%

Table 5.111. T with 3 df., t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.8%	4.8%
	0	0.7	0	53.9%	67.2%
	0	0.5	0.4	18.8%	23.1%
	0.4	0.5	0	18.1%	22.3%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.2%	0.0%

Table 5.112. Cauchy, t = 3, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.0%	5.0%
	0	1	0	50.9%	63.8%
	0	0.5	0.4	13.4%	15.6%
	0.4	0.5	0	13.3%	15.5%
	0.1	0.2	0.3	5.0%	4.7%
	0.6	0.2	0.8	0.6%	0.3%

Table 5.113. Normal, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	80.1%	78.7%
	0	0.5	0.4	27.4%	27.8%
	0.4	0.5	0	28.8%	27.9%
	0.1	0.2	0.3	4.8%	5.0%
	0.6	0.2	0.8	0.0%	0.0%

Table 5.114. Exponential, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.0%	4.9%
	0	0.5	0	87.6%	85.4%
	0	0.5	0.4	49.6%	48.5%
	0.4	0.5	0	50.6%	48.9%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.0%	0.0%

Table 5.115. T with 3 df., t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.7	0	64.5%	63.4%
	0	0.5	0.4	21.9%	21.5%
	0.4	0.5	0	22.2%	21.4%
	0.1	0.2	0.3	5.1%	4.7%
	0.6	0.2	0.8	0.1%	0.1%

Table 5.116. Cauchy, t = 3, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	4.9%	5.3%
	0	1	0	62.1%	61.2%
	0	0.5	0.4	14.3%	14.2%
	0.4	0.5	0	14.8%	14.7%
	0.1	0.2	0.3	5.3%	4.8%
	0.6	0.2	0.8	0.4%	0.5%

Table 5.117. Normal, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.8%
	0	0.7	0	49.2%	73.8%
	0	0.5	0.4	17.1%	24.5%
	0.4	0.5	0	16.2%	24.5%
	0.1	0.2	0.3	5.1%	4.9%
	0.6	0.2	0.8	0.4%	0.1%

Table 5.118. Exponential, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.0%
	0	0.5	0	55.3%	79.7%
	0	0.5	0.5	20.7%	31.9%
	0.4	0.5	0	27.0%	42.8%
	0.1	0.2	0.3	5.0%	5.3%
	0.6	0.2	0.8	0.1%	0.0%

Table 5.119. T with 3 df., t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.7	0	36.5%	57.5%
	0	0.5	0.5	11.6%	16.3%
	0.4	0.5	0	13.8%	19.3%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.6%	0.2%

Table 5.120. Cauchy, t = 3, Pk = 2, IBD = 15, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	4.6%	4.7%
	0	1	0	35.4%	54.5%
	0	0.5	0.5	9.0%	11.5%
	0.4	0.5	0	10.6%	14.2%
	0.1	0.2	0.3	5.1%	5.4%
	0.6	0.2	0.8	1.1%	0.4%

5.2.2. Four Treatments with Peak at Two

T_3 was more powerful than T_4 except when the ratio of IBD to CRD was 5:40. The underlying distribution, probability of missing observations and shift in means did not affect that relationship. Generally, the overall powers of the test statistics increased with an increase in total number of observations. Therefore, the highest powers were reported when the mixed design had a ratio of 1:8 or vice versa for the CRD to IBD. Also, the powers increased when there were more observations in the CRD for the same total number of observations. These were the results from the simulations. The probability of an observation missing was set at 0.1.

Table 5.121. Normal, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	86.3%	93.7%
	0.4	0.8	0.4	0	74.6%	85.3%
	0.4	0.8	0	0	73.7%	84.5%
	0.1	0.7	0.4	0.2	58.9%	69.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.7%	1.4%

Table 5.122. Exponential, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	68.1%	80.3%
	0.2	0.4	0.2	0	57.4%	69.0%
	0.2	0.4	0	0	56.0%	67.2%
	0.1	0.7	0.4	0.2	87.4%	94.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.6%

Table 5.123. T with 3 df., t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.6%	4.7%
	0	0.8	0	0	71.1%	82.5%
	0.4	0.8	0.4	0	59.3%	70.2%
	0.4	0.8	0	0	58.0%	69.9%
	0.1	0.7	0.4	0.2	45.3%	54.6%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.1%	1.7%

Table 5.124. Cauchy, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	45.3%	54.9%
	0.4	1	0.4	0	50.0%	60.1%
	0.4	1	0	0	49.1%	59.3%
	0.2	1	0.4	0.2	46.2%	55.3%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	3.2%	2.8%

Table 5.125. Normal, t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.5	0	0	79.7%	72.2%
	0.2	0.4	0.2	0	49.3%	43.6%
	0.2	0.4	0	0	49.6%	43.4%
	0.1	0.7	0.4	0.2	83.0%	76.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	1.2%

Table 5.126. Exponential, t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	4.7%	5.1%
	0	0.2	0	0	48.3%	42.4%
	0.2	0.4	0.2	0	83.8%	76.4%
	0.2	0.4	0	0	82.4%	74.9%

(continues)

Table 5.126. Exponential, t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$ (continued)

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0.1	0.3	0.2	0.1	49.2%	43.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.3%	0.5%

Table 5.127. T with 3 df., t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	5.3%
	0	0.5	0	0	63.1%	56.4%
	0.4	0.8	0.4	0	84.9%	77.6%
	0.4	0.8	0	0	83.7%	77.2%
	0.1	0.7	0.4	0.2	68.6%	61.4%
	0.5	0	0.5	0.5	0.0%	0.1%
	0	0.2	0.4	0.5	1.4%	1.7%

Table 5.128. Cauchy, t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	69.1%	62.3%
	0.4	1	0.4	0	75.5%	68.3%
	0.4	1	0	0	73.9%	67.4%
	0.2	1	0.4	0.2	70.0%	62.7%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.1%	2.4%

Table 5.129. Normal, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	79.6%	87.8%
	0.4	0.8	0.4	0	66.0%	75.7%
	0.4	0.8	0	0	64.7%	75.3%
	0.1	0.7	0.4	0.2	50.5%	59.4%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.8%	1.8%

Table 5.130. Exponential, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.2%	5.4%
	0	0.4	0	0	59.2%	69.0%
	0.2	0.4	0.2	0	48.9%	58.3%
	0.2	0.4	0	0	47.1%	56.4%
	0.1	0.7	0.4	0.2	80.7%	88.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.9%	0.7%

Table 5.131. T with 3 df., t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.8%	4.7%
	0	0.8	0	0	62.8%	72.1%
	0.4	0.8	0.4	0	51.0%	60.0%
	0.4	0.8	0	0	50.1%	58.6%
	0.1	0.7	0.4	0.2	37.9%	45.9%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.4%	2.2%

Table 5.132. Cauchy, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.0%	5.3%
	0	0.8	0	0	38.3%	45.8%
	0.4	1	0.4	0	42.5%	51.4%
	0.4	1	0	0	42.1%	49.2%
	0.2	1	0.4	0.2	38.7%	46.3%
	0.5	0	0.5	0.5	0.8%	0.4%
	0	0.2	0.4	0.5	3.1%	2.7%

Table 5.133. Normal, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	69.3%	86.1%
	0.4	0.8	0.4	0	56.3%	73.9%
	0.4	0.8	0	0	55.0%	73.0%

(continues)

Table 5.133. Normal, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$ (continued)

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0.1	0.7	0.4	0.2	42.4%	57.2%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.2%	1.8%

Table 5.134. Exponential, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	49.0%	68.2%
	0.2	0.4	0.2	0	39.7%	55.7%
	0.2	0.4	0	0	37.8%	55.0%
	0.1	0.7	0.4	0.2	69.7%	87.4%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.4%	0.9%

Table 5.135. T with 3 df., t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	53.3%	71.1%
	0.4	0.8	0.4	0	43.2%	58.0%
	0.4	0.8	0	0	41.9%	56.7%
	0.1	0.7	0.4	0.2	32.2%	44.1%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.5%	2.1%

Table 5.136. Cauchy, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.8%	5.2%
	0	0.8	0	0	32.1%	44.1%
	0.4	1	0.4	0	36.6%	50.5%
	0.4	1	0	0	35.0%	48.5%
	0.2	1	0.4	0.2	32.9%	45.8%
	0.5	0	0.5	0.5	0.9%	0.5%
	0	0.2	0.4	0.5	3.2%	2.7%

The overall powers decreased when the variance of the CRD sample was doubled. The difference in the two tests seemed to have increased with the increase in variance. The following tables show the results when the same parameters but with unequal variances.

Table 5.137. Normal, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.4%	4.7%
	0	0.5	0	0	54.5%	54.3%
	0.2	0.4	0.2	0	31.4%	31.5%
	0.2	0.4	0	0	31.0%	31.1%
	0.1	0.7	0.4	0.2	58.9%	59.1%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.8%	1.6%

Table 5.138. Exponential, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	4.7%
	0	0.2	0	0	30.3%	29.3%
	0.2	0.4	0.2	0	59.9%	58.8%
	0.2	0.4	0	0	58.9%	57.9%
	0.1	0.3	0.2	0.1	32.0%	31.3%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.9%

Table 5.139. T with 3 df., t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.5	0	0	41.2%	40.5%
	0.4	0.8	0.4	0	59.1%	58.3%
	0.4	0.8	0	0	59.4%	58.2%
	0.1	0.7	0.4	0.2	44.1%	44.4%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.1%	2.2%

Table 5.140. Cauchy, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	45.0%	44.9%
	0.4	1	0.4	0	50.7%	50.8%
	0.4	1	0	0	51.8%	50.1%
	0.2	1	0.4	0.2	45.9%	44.9%
	0.5	0	0.5	0.5	0.5%	0.5%
	0	0.2	0.4	0.5	3.1%	3.0%

Table 5.141. Normal, t = 4, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	77.2%	89.5%
	0.4	0.8	0.4	0	64.6%	79.5%
	0.4	0.8	0	0	62.6%	77.6%
	0.1	0.7	0.4	0.2	50.3%	62.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	2.0%	1.6%

Table 5.142. Exponential, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	58.4%	73.3%
	0.2	0.4	0.2	0	48.9%	62.5%
	0.2	0.4	0	0	46.2%	59.7%
	0.1	0.7	0.4	0.2	79.7%	91.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.8%

Table 5.143. T with 3 df., t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	62.2%	76.5%
	0.4	0.8	0.4	0	49.4%	62.9%
	0.4	0.8	0	0	48.8%	62.5%

(continues)

Table 5.143. T with 3 df., t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$ (continued)

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0.1	0.7	0.4	0.2	37.1%	47.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.3%	2.1%

Table 5.144. Cauchy, t = 4, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	38.5%	48.9%
	0.4	1	0.4	0	43.3%	54.8%
	0.4	1	0	0	42.0%	52.9%
	0.2	1	0.4	0.2	38.0%	48.5%
	0.5	0	0.5	0.5	0.6%	0.3%
	0	0.2	0.4	0.5	2.9%	2.7%

Table 5.145. Normal, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	55.0%	75.2%
	0.4	0.8	0.4	0	43.8%	61.3%
	0.4	0.8	0	0	42.5%	60.4%
	0.1	0.7	0.4	0.2	31.8%	45.5%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.5%	1.9%

Table 5.146. Exponential, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.0%	5.2%
	0	0.4	0	0	38.7%	55.9%
	0.2	0.4	0.2	0	32.8%	46.0%
	0.2	0.4	0	0	29.8%	43.4%
	0.1	0.7	0.4	0.2	58.2%	77.2%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.8%	1.0%

Table 5.147. T with 3 df., t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	41.5%	59.3%
	0.4	0.8	0.4	0	32.5%	47.2%
	0.4	0.8	0	0	32.0%	46.8%
	0.1	0.7	0.4	0.2	24.5%	34.4%
	0.5	0	0.5	0.5	0.5%	0.4%
	0	0.2	0.4	0.5	3.0%	2.2%

Table 5.148. Cauchy, t = 4, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	24.6%	35.4%
	0.4	1	0.4	0	28.7%	40.1%
	0.4	1	0	0	26.9%	38.6%
	0.2	1	0.4	0.2	25.5%	35.3%
	0.5	0	0.5	0.5	1.4%	0.8%
	0	0.2	0.4	0.5	3.5%	3.2%

Table 5.149. Normal, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.7%
	0	0.8	0	0	53.0%	62.5%
	0.4	0.8	0.4	0	41.7%	50.8%
	0.4	0.8	0	0	41.5%	50.3%
	0.1	0.7	0.4	0.2	31.4%	38.0%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.2%	2.4%

Table 5.150. Exponential, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	5.1%
	0	0.4	0	0	37.3%	44.9%

(continues)

Table 5.150. Exponential, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$ (continued)

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0.2	0.4	0.2	0	30.7%	37.4%
	0.2	0.4	0	0	29.6%	35.8%
	0.1	0.7	0.4	0.2	56.7%	65.8%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.4%	1.3%

Table 5.151. T with 3 df., t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	40.4%	48.1%
	0.4	0.8	0.4	0	32.4%	38.9%
	0.4	0.8	0	0	31.7%	37.9%
	0.1	0.7	0.4	0.2	24.5%	29.1%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	3.0%	2.8%

Table 5.152. Cauchy, t = 4, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	24.5%	29.7%
	0.4	1	0.4	0	27.0%	32.5%
	0.4	1	0	0	27.0%	32.2%
	0.2	1	0.4	0.2	25.4%	30.3%
	0.5	0	0.5	0.5	1.2%	1.1%
	0	0.2	0.4	0.5	3.2%	3.2%

5.2.3. Four Treatments with Peak at Three

A pattern similar to the previous (section 5.2.2) was repeated when the peak was at the third treatment. Here are the results when the probability of an observation missing was set at 0.1.

Table 5.153. Normal, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	87.5%	94.7%
	0	0.4	0.8	0.4	74.5%	84.9%
	0	0	0.8	0	86.7%	94.1%
	0	0.3	0.5	0.1	49.7%	59.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	19.7%	23.8%

Table 5.154. Exponential, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0	70.7%	81.9%
	0	0.2	0.4	0.2	57.3%	68.7%
	0	0	0.4	0	67.9%	80.0%
	0	0.3	0.4	0.1	63.0%	74.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.1%	37.5%

Table 5.155. T with 3 df., t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	71.6%	83.2%
	0	0.4	0.8	0.4	58.8%	70.4%
	0	0	0.8	0	71.4%	82.3%
	0	0.3	0.5	0.1	36.8%	45.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	16.1%	18.8%

Table 5.156. Cauchy, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	45.1%	55.1%
	0	0.4	0.8	0.4	35.9%	43.7%
	0	0	0.8	0	45.4%	55.0%

(continues)

Table 5.156. Cauchy, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$ (continued)

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Cauchy	0	0.3	0.5	0.1	23.0%	27.9%
	0.5	0.5	0	0.5	0.5%	0.4%
	0	0	0.4	0.5	11.9%	13.7%

Table 5.157. Normal, t = 4, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0	62.7%	55.1%
	0	0.2	0.4	0.2	50.6%	44.4%
	0	0	0.5	0	79.1%	71.4%
	0	0.3	0.5	0.1	74.7%	67.8%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.5%	26.6%

Table 5.158. Exponential, t = 4, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	4.7%
	0	0.1	0.2	0	49.8%	43.5%
	0	0.2	0.4	0.2	84.0%	76.8%
	0	0	0.2	0	48.6%	42.5%
	0	0.3	0.4	0.1	88.8%	82.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	50.2%	43.9%

Table 5.159. T with 3 df., t = 4, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0	47.7%	42.1%
	0	0.4	0.8	0.4	84.4%	77.0%
	0	0	0.4	0	48.4%	42.7%
	0	0.3	0.5	0.1	58.6%	51.8%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	23.7%	20.9%

Table 5.160. Cauchy, t = 4, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	69.2%	62.9%
	0	0.4	0.8	0.4	56.7%	50.6%
	0	0	0.8	0	69.1%	62.5%
	0	0.3	0.5	0.1	36.1%	31.8%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	14.6%	13.5%

Table 5.161. Normal, t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	79.2%	87.8%
	0	0.4	0.8	0.4	66.6%	76.6%
	0	0	0.8	0	78.5%	87.4%
	0	0.3	0.5	0.1	41.4%	50.5%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	17.9%	20.4%

Table 5.162. Exponential, t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0	61.0%	71.4%
	0	0.2	0.4	0.2	49.3%	58.6%
	0	0	0.4	0	59.1%	69.4%
	0	0.3	0.4	0.1	55.1%	65.5%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.8%	31.7%

Table 5.163. T with 3 df., t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.8%	5.1%
	0	0.4	0.8	0	62.8%	73.6%
	0	0.4	0.8	0.4	51.1%	60.4%
	0	0	0.8	0	62.7%	72.9%
	0	0.3	0.5	0.1	31.7%	37.8%

Table 5.164. Cauchy, t = 4, Pk = 3, IBD = 10, CRD = 15, Pk = 3, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	39.5%	46.0%
	0	0.4	0.8	0.4	30.9%	36.6%
	0	0	0.8	0	38.0%	45.6%
	0	0.3	0.5	0.1	20.1%	23.6%
	0.5	0.5	0	0.5	0.7%	0.4%

Table 5.165. Normal, t = 4, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.3%
	0	0.4	0.8	0	69.3%	86.5%
	0	0.4	0.8	0.4	56.2%	74.1%
	0	0	0.8	0	69.3%	86.2%
	0	0.3	0.5	0.1	35.8%	48.9%
	0.5	0.5	0	0.5	0.1%	0.0%

Table 5.166. Exponential, t = 4, Pk = 3, IBD = 10, CRD = 15, Pk = 3, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	50.4%	69.4%
	0	0.2	0.4	0.2	40.6%	57.5%
	0	0.3	0.4	0.1	45.6%	62.7%
	0.5	0.5	0	0.5	0.1%	0.0%

Table 5.167. T with 3 df., t = 4, Pk = 3, IBD = 10, CRD = 15, Pk = 3, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.2%	4.7%
	0	0.4	0.8	0	55.0%	72.3%
	0	0.4	0.8	0.4	43.0%	58.3%
	0	0	0.8	0	53.0%	70.8%
	0	0.3	0.5	0.1	27.4%	36.7%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	12.7%	15.3%

Table 5.168. Cauchy, t = 4, Pk = 3, IBD = 10, CRD = 15, Pk = 3, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.0%	5.2%
	0	0.4	0.8	0	32.9%	44.3%
	0	0.4	0.8	0.4	25.2%	34.8%
	0	0	0.8	0	31.7%	44.5%
	0	0.3	0.5	0.1	17.4%	22.9%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	9.6%	11.2%

Doubling the CRD sample variance had the same effect as the previous section where the overall powers decreased and the difference between the powers increased. The following tables represent the trend.

Table 5.169. Normal, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	40.1%	40.0%
	0	0.2	0.4	0.2	32.2%	32.0%
	0	0	0.5	0	54.0%	53.1%
	0	0.3	0.5	0.1	49.6%	49.2%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	20.5%	20.1%

Table 5.170. Exponential, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	5.4%
	0	0.1	0.2	0	31.7%	30.4%
	0	0.2	0.4	0.2	59.9%	58.7%
	0	0	0.2	0	31.5%	30.4%
	0	0.3	0.4	0.1	66.6%	65.3%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	33.9%	32.6%

Table 5.171. T with 3 df., t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0	30.3%	29.8%
	0	0.4	0.8	0.4	59.1%	58.4%
	0	0	0.4	0	29.9%	29.3%
	0	0.3	0.5	0.1	37.5%	36.7%
	0.5	0.5	0	0.5	0.1%	0.1%

Table 5.172. Cauchy, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	47.1%	46.0%
	0	0.4	0.8	0.4	36.3%	36.1%
	0	0	0.8	0	46.0%	44.8%
	0	0.3	0.5	0.1	23.2%	22.9%
	0.5	0.5	0	0.5	0.5%	0.5%
	0	0	0.4	0.5	10.9%	11.5%

Table 5.173. Normal, t = 4, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.4	0.8	0	78.2%	90.3%
	0	0.4	0.8	0.4	64.8%	78.9%
	0	0	0.8	0	77.7%	90.4%
	0	0.3	0.5	0.1	41.0%	53.0%
	0.5	0.5	0	0.5	0.1%	0.0%

Table 5.174. Exponential, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0	61.3%	75.6%
	0	0.2	0.4	0.2	49.7%	62.8%
	0	0	0.4	0	58.3%	73.0%
	0	0.3	0.4	0.1	53.7%	68.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	26.1%	34.3%

Table 5.175. T with 3 df., t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	61.5%	76.3%
	0	0.4	0.8	0.4	50.1%	63.8%
	0	0	0.8	0	62.2%	76.0%
	0	0.3	0.5	0.1	31.3%	40.4%
	0.5	0.5	0	0.5	0.2%	0.1%

Table 5.176. Cauchy, t = 4, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.3%
	0	0.4	0.8	0	38.1%	49.0%
	0	0.4	0.8	0.4	30.8%	39.2%
	0	0	0.8	0	38.0%	48.5%
	0	0.3	0.5	0.1	20.3%	25.2%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	10.7%	12.2%

Table 5.177. Normal, t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.4	0.8	0	55.1%	75.1%
	0	0.4	0.8	0.4	43.3%	61.0%
	0	0	0.8	0	54.9%	75.3%
	0	0.3	0.5	0.1	27.2%	39.6%
	0.5	0.5	0	0.5	0.2%	0.1%

Table 5.178. Exponential, t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0	40.7%	57.6%
	0	0.2	0.4	0.2	32.5%	45.8%
	0	0	0.4	0	38.7%	54.9%
	0	0.3	0.4	0.1	36.9%	51.8%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.1%	25.3%

Table 5.179. T with 3 df., t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	4.7%	4.9%
	0	0.4	0.8	0	41.6%	58.3%
	0	0.4	0.8	0.4	33.5%	47.7%
	0	0	0.8	0	41.3%	59.0%
	0	0.3	0.5	0.1	20.7%	28.5%
	0.5	0.5	0	0.5	0.6%	0.3%

Table 5.180. Cauchy, t = 4, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.2%	4.8%
	0	0.4	0.8	0	25.2%	36.1%
	0	0.4	0.8	0.4	21.2%	29.0%
	0	0	0.8	0	25.2%	36.0%
	0	0.3	0.5	0.1	14.3%	19.1%
	0.5	0.5	0	0.5	1.2%	0.9%

Table 5.181. Normal, t = 4, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	54.2%	63.3%
	0	0.4	0.8	0.4	42.1%	51.1%
	0	0	0.8	0	53.5%	63.0%
	0	0.3	0.5	0.1	26.4%	32.5%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	12.7%	14.3%

Table 5.182. Exponential, t = 4, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Exponential	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0	38.6%	46.2%
	0	0.2	0.4	0.2	31.3%	37.4%
	0	0	0.4	0	37.2%	44.8%
	0	0.3	0.4	0.1	34.4%	42.8%
	0.5	0.5	0	0.5	0.1%	0.0%

Table 5.183. T with 3 df., t = 4, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
T with 3 df.	0	0	0	0	5.6%	5.4%
	0	0.4	0.8	0	41.4%	49.0%
	0	0.4	0.8	0.4	32.0%	38.4%
	0	0	0.8	0	39.9%	48.4%
	0	0.3	0.5	0.1	20.5%	24.3%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.7%	11.8%

Table 5.184. Cauchy, t = 4, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.0%
	0	0.4	0.8	0	24.0%	29.1%
	0	0.4	0.8	0.4	19.8%	23.7%
	0	0	0.8	0	23.8%	28.4%
	0	0.3	0.5	0.1	13.8%	16.7%
	0.5	0.5	0	0.5	1.3%	1.0%
	0	0	0.4	0.5	9.3%	9.7%

5.2.4. Five Treatments with Peak at Two

The results under five treatments with the peak at two showed that T_3 was more powerful than T_4 except when the ratio of IBD to CRD was 1:8. The underlying distribution, shift in means or probability of missing observations did not seem to affect the relationship. The overall powers increased with an increase in the total number of observations. This was more pronounced when there were more observations in the CRD than the IBD for the same total number of observations. The following tables show the results when the probability of an observation missing was 0.1.

Table 5.185. Normal, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.7%
	0	0.8	0	0	0	82.8%	91.7%
	0	0.8	0.4	0	0	90.6%	96.5%
	0	0.6	0.3	0.3	0	62.6%	74.0%
	0.4	0.8	0	0	0	73.7%	84.2%
	0.4	0.8	0.4	0	0	84.0%	92.3%
	0.4	0.8	0.4	0.4	0	74.6%	85.4%
	0.3	0.7	0.6	0.1	0	79.3%	89.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.0%

Table 5.186. Exponential, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	64.6%	77.0%
	0	0.4	0.2	0	0	75.1%	86.5%
	0	0.6	0.3	0.3	0	91.3%	96.8%
	0.2	0.4	0	0	0	54.7%	66.6%
	0.2	0.4	0.2	0	0	67.8%	79.4%
	0.2	0.4	0.2	0.2	0	58.3%	69.9%
	0.3	0.7	0.6	0.1	0	97.7%	99.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.187. T with 3 df., t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.4%
	0	0.8	0	0	0	68.0%	79.7%
	0	0.8	0.4	0	0	77.2%	87.8%
	0	0.6	0.3	0.3	0	48.9%	59.7%
	0.4	0.8	0	0	0	58.3%	69.4%
	0.4	0.8	0.4	0	0	67.2%	79.1%
	0.4	0.8	0.4	0.4	0	59.2%	70.7%
	0.3	0.7	0.6	0.1	0	64.0%	75.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.2%

Table 5.188. Cauchy, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	54.9%	66.2%
	0	1	0.4	0	0	62.8%	74.5%
	0	1	0.3	0.3	0	55.4%	66.7%
	0.4	1	0	0	0	48.3%	58.3%
	0.4	1	0.4	0	0	55.7%	67.3%
	0.4	1	0.4	0.4	0	49.9%	60.9%
	0.3	1	0.6	0.1	0	60.0%	71.3%
	0.5	0	0.5	0.5	1	0.1%	0.0%
	0	0.4	0.6	0.8	1	0.8%	0.4%

Table 5.189. Normal, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0.4	0	0	0	58.7%	51.6%
	0	0.4	0.2	0	0	67.9%	60.5%
	0	0.6	0.3	0.3	0	86.9%	81.2%
	0.2	0.4	0	0	0	48.5%	43.3%
	0.2	0.4	0.2	0	0	58.8%	52.3%
	0.2	0.4	0.2	0.2	0	48.3%	42.7%
	0.1	0.4	0.3	0.1	0	62.7%	56.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.190. Exponential, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0.4	0	0	0	89.4%	82.8%
	0	0.2	0.1	0	0	53.5%	46.3%
	0	0.3	0.1	0.1	0	73.2%	65.4%
	0.2	0.4	0	0	0	81.6%	74.2%
	0.1	0.2	0.1	0	0	45.9%	39.9%
	0.2	0.4	0.2	0.2	0	83.6%	76.9%
	0.1	0.4	0.2	0.1	0	91.3%	85.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.191. T with 3 df., t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	0	44.7%	39.6%
	0	0.4	0.2	0	0	52.0%	45.7%
	0	0.6	0.3	0.3	0	73.5%	66.4%
	0.4	0.8	0	0	0	82.3%	76.4%
	0.2	0.4	0.2	0	0	45.4%	39.9%
	0.4	0.8	0.4	0.4	0	83.4%	77.1%
	0.3	0.7	0.6	0.1	0	88.3%	81.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.1%

Table 5.192. Cauchy, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.3%	5.0%
	0	1	0	0	0	78.9%	72.2%
	0	1	0.4	0	0	87.3%	80.6%
	0	1	0.3	0.3	0	80.9%	74.8%
	0.4	1	0	0	0	72.1%	65.4%
	0.4	1	0.4	0	0	81.1%	74.9%
	0.4	1	0.4	0.4	0	74.1%	66.6%
	0.3	1	0.6	0.1	0	85.0%	78.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.4%	0.5%

Table 5.193. Normal, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0.8	0	0	0	73.9%	84.1%
	0	0.8	0.4	0	0	83.6%	91.5%
	0	0.6	0.3	0.3	0	55.0%	65.9%
	0.4	0.8	0	0	0	63.5%	74.3%
	0.4	0.8	0.4	0	0	75.3%	84.6%
	0.4	0.8	0.4	0.4	0	64.7%	75.9%
	0.3	0.7	0.6	0.1	0	70.9%	81.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.1%

Table 5.194. Exponential, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.7%	5.1%
	0	0.4	0	0	0	54.2%	65.2%
	0	0.4	0.2	0	0	66.0%	76.6%
	0	0.6	0.3	0.3	0	83.5%	91.5%
	0.2	0.4	0	0	0	45.6%	56.2%
	0.2	0.4	0.2	0	0	58.2%	68.3%
	0.2	0.4	0.2	0.2	0	50.0%	59.6%
	0.1	0.4	0.3	0.2	0	57.6%	68.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.195. T with 3 df., t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	0	58.9%	68.7%
	0	0.8	0.4	0	0	68.8%	78.5%
	0	0.6	0.3	0.3	0	41.1%	49.3%
	0.4	0.8	0	0	0	48.2%	58.0%
	0.4	0.8	0.4	0	0	60.4%	70.8%
	0.4	0.8	0.4	0.4	0	50.5%	59.0%
	0.3	0.7	0.6	0.1	0	54.6%	64.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.4%	0.3%

Table 5.196. Cauchy, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	4.9%
	0	1	0	0	0	46.7%	56.3%
	0	1	0.4	0	0	54.2%	64.0%
	0	1	0.3	0.3	0	48.3%	57.5%
	0.4	1	0	0	0	40.5%	49.3%
	0.4	1	0.4	0	0	48.7%	57.4%
	0.4	1	0.4	0.4	0	42.6%	51.1%
	0.3	1	0.6	0.1	0	51.0%	60.6%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	1.1%	0.9%

Table 5.197. Normal, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	64.9%	83.1%
	0	0.8	0.4	0	0	74.8%	90.8%
	0	0.6	0.3	0.3	0	45.4%	62.5%
	0.4	0.8	0	0	0	54.4%	73.3%
	0.4	0.8	0.4	0	0	65.5%	84.1%
	0.4	0.8	0.4	0.4	0	55.9%	74.8%
	0.3	0.7	0.6	0.1	0	61.1%	79.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.1%

Table 5.198. Exponential, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	44.1%	63.0%
	0	0.4	0.2	0	0	55.2%	74.7%
	0	0.6	0.3	0.3	0	73.9%	90.9%
	0.2	0.4	0	0	0	37.2%	53.8%
	0.2	0.4	0.2	0	0	48.6%	67.1%
	0.2	0.4	0.2	0.2	0	41.3%	57.2%
	0.3	0.7	0.6	0.1	0	87.1%	97.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.0%

Table 5.199. T with 3 df., t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	0	49.3%	66.9%
	0	0.8	0.4	0	0	57.7%	76.4%
	0	0.6	0.3	0.3	0	35.0%	48.7%
	0.4	0.8	0	0	0	41.7%	57.0%
	0.4	0.8	0.4	0	0	49.9%	67.8%
	0.4	0.8	0.4	0.4	0	41.8%	58.3%
	0.3	0.7	0.6	0.1	0	46.1%	63.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.7%	0.3%

Table 5.200. Cauchy, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	1	0	0	0	39.0%	53.8%
	0	1	0.4	0	0	44.7%	61.7%
	0	1	0.3	0.3	0	40.5%	55.6%
	0.4	1	0	0	0	34.1%	47.6%
	0.4	1	0.4	0	0	40.5%	56.5%
	0.4	1	0.4	0.4	0	34.8%	48.5%
	0.3	1	0.6	0.1	0	43.9%	60.0%
	0	0.4	0.6	0.8	1	1.3%	0.8%

Analysis indicated that increasing only the CRD sample's variance decreased the overall powers of the test statistics. The difference between the two test statistics increased with the change as well. The following tables show the results when the CRD sample's variance was twice that of the IBD's sample. All other parameters were held constant.

Table 5.201. Normal, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.8	0	0	0	72.4%	86.3%
	0	0.8	0.4	0	0	82.4%	93.3%
	0	0.6	0.3	0.3	0	54.7%	68.4%
	0.4	0.8	0	0	0	63.5%	78.1%
	0.4	0.8	0.4	0	0	74.5%	87.3%
	0.4	0.8	0.4	0.4	0	64.1%	78.3%
	0.3	0.7	0.6	0.1	0	70.4%	84.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.1%

Table 5.202. Exponential, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0.4	0	0	0	55.6%	70.6%
	0	0.4	0.2	0	0	65.9%	80.5%
	0	0.6	0.3	0.3	0	83.5%	93.9%
	0.2	0.4	0	0	0	47.2%	61.1%
	0.2	0.4	0.2	0	0	58.2%	72.5%
	0.2	0.4	0.2	0.2	0	48.9%	62.8%
	0.3	0.7	0.6	0.1	0	93.5%	98.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.203. T with 3 df., t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	0	57.6%	72.3%
	0	0.8	0.4	0	0	68.2%	82.4%
	0	0.6	0.3	0.3	0	40.4%	52.3%
	0.4	0.8	0	0	0	49.6%	62.9%
	0.4	0.8	0.4	0	0	59.0%	73.8%
	0.4	0.8	0.4	0.4	0	50.1%	63.7%
	0.3	0.7	0.6	0.1	0	55.3%	69.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.4%	0.2%

Table 5.204. Cauchy, t = 5, Pk = 2, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.3%	5.2%
	0	1	0	0	0	46.7%	58.9%
	0	1	0.4	0	0	54.6%	68.5%
	0	1	0.3	0.3	0	47.9%	61.2%
	0.4	1	0	0	0	40.4%	52.6%
	0.4	1	0.4	0	0	48.5%	61.7%
	0.4	1	0.4	0.4	0	42.2%	55.1%
	0.3	1	0.6	0.1	0	50.6%	63.9%
	0.5	0	0.5	0.5	1	0.1%	0.0%

Table 5.205. Normal, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	5.0%
	0	0.4	0	0	0	37.3%	37.2%
	0	0.4	0.2	0	0	43.2%	43.5%
	0	0.6	0.3	0.3	0	63.5%	62.2%
	0.2	0.4	0	0	0	31.3%	30.5%
	0.2	0.4	0.2	0	0	36.6%	36.5%
	0.2	0.4	0.2	0.2	0	31.1%	30.9%
	0.1	0.4	0.3	0.1	0	40.3%	40.3%
	0	0.4	0.6	0.8	1	0.2%	0.2%

Table 5.206. Exponential, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.6%	5.4%
	0	0.4	0	0	0	66.9%	65.8%
	0	0.2	0.1	0	0	33.5%	33.1%
	0	0.3	0.1	0.1	0	48.8%	48.1%
	0.2	0.4	0	0	0	56.1%	55.0%
	0.1	0.2	0.1	0	0	29.0%	29.0%
	0.2	0.4	0.2	0.2	0	60.0%	58.8%
	0.1	0.4	0.2	0.1	0	69.9%	69.1%
	0	0.4	0.6	0.8	1	0.0%	0.0%

Table 5.207. T with 3 df., t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0.4	0	0	0	27.6%	28.1%
	0	0.4	0.2	0	0	32.6%	32.6%
	0	0.6	0.3	0.3	0	48.3%	48.7%
	0.4	0.8	0	0	0	58.1%	57.9%
	0.2	0.4	0.2	0	0	28.2%	28.2%
	0.4	0.8	0.4	0.4	0	58.7%	58.3%
	0.3	0.7	0.6	0.1	0	64.2%	63.6%
	0	0.4	0.6	0.8	1	0.3%	0.1%

Table 5.208. Cauchy, t = 5, Pk = 2, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	56.4%	56.3%
	0	1	0.4	0	0	64.0%	63.6%
	0	1	0.3	0.3	0	57.1%	57.4%
	0.4	1	0	0	0	49.0%	49.1%
	0.4	1	0.4	0	0	58.0%	57.9%
	0.4	1	0.4	0.4	0	50.5%	50.3%
	0.3	1	0.6	0.1	0	60.8%	60.0%
	0	0.4	0.6	0.8	1	0.9%	0.9%

Table 5.209. Normal, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	0	51.3%	71.0%
	0	0.8	0.4	0	0	59.3%	80.1%
	0	0.6	0.3	0.3	0	34.1%	50.5%
	0.4	0.8	0	0	0	43.5%	60.7%
	0.4	0.8	0.4	0	0	51.6%	71.9%
	0.4	0.8	0.4	0.4	0	43.4%	61.1%
	0.3	0.7	0.6	0.1	0	47.0%	67.1%
	0	0.4	0.6	0.8	1	0.6%	0.3%

Table 5.210. Exponential, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	0	35.5%	52.2%
	0	0.4	0.2	0	0	44.4%	63.1%
	0	0.6	0.3	0.3	0	62.1%	82.1%
	0.2	0.4	0	0	0	29.4%	43.0%
	0.2	0.4	0.2	0	0	38.6%	55.6%
	0.2	0.4	0.2	0.2	0	32.8%	47.5%
	0.1	0.4	0.3	0.2	0	39.0%	55.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.0%

Table 5.211. T with 3 df., t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	38.2%	55.2%
	0	0.8	0.4	0	0	45.2%	64.0%
	0	0.6	0.3	0.3	0	26.4%	38.2%
	0.4	0.8	0	0	0	31.4%	45.0%
	0.4	0.8	0.4	0	0	38.4%	55.9%
	0.4	0.8	0.4	0.4	0	32.6%	47.2%
	0.3	0.7	0.6	0.1	0	36.2%	51.8%
	0	0.4	0.6	0.8	1	1.1%	0.6%

Table 5.212. Cauchy, t = 5, Pk = 2, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	1	0	0	0	30.7%	44.2%
	0	1	0.4	0	0	35.8%	50.5%
	0	1	0.3	0.3	0	31.5%	45.0%
	0.4	1	0	0	0	27.3%	39.1%
	0.4	1	0.4	0	0	30.9%	44.6%
	0.4	1	0.4	0.4	0	28.0%	40.1%
	0.3	1	0.6	0.1	0	34.1%	48.8%
	0	0.4	0.6	0.8	1	1.6%	1.1%

Table 5.213. Normal, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.8%
	0	0.8	0	0	0	49.1%	59.4%
	0	0.8	0.4	0	0	58.2%	69.3%
	0	0.6	0.3	0.3	0	33.4%	41.2%
	0.4	0.8	0	0	0	40.8%	48.6%
	0.4	0.8	0.4	0	0	49.4%	60.0%
	0.4	0.8	0.4	0.4	0	41.2%	52.0%
	0.3	0.7	0.6	0.1	0	45.8%	55.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.7%	0.5%

Table 5.214. Exponential, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	0	33.8%	41.4%
	0	0.4	0.2	0	0	42.1%	51.5%
	0	0.6	0.3	0.3	0	61.4%	71.0%
	0.2	0.4	0	0	0	28.6%	34.2%
	0.2	0.4	0.2	0	0	37.0%	45.2%
	0.2	0.4	0.2	0.2	0	32.2%	38.1%
	0.1	0.4	0.3	0.2	0	37.8%	45.1%
	0	0.4	0.6	0.8	1	0.1%	0.1%

Table 5.215. T with 3 df., t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	0	36.3%	44.5%
	0	0.8	0.4	0	0	43.8%	53.2%
	0	0.6	0.3	0.3	0	26.5%	31.2%
	0.4	0.8	0	0	0	31.6%	37.7%
	0.4	0.8	0.4	0	0	37.3%	45.0%
	0.4	0.8	0.4	0.4	0	31.0%	38.3%
	0.3	0.7	0.6	0.1	0	34.8%	42.5%
	0	0.4	0.6	0.8	1	1.1%	0.8%

Table 5.216. Cauchy, t = 5, Pk = 2, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	1	0	0	0	30.9%	36.4%
	0	1	0.4	0	0	33.8%	40.6%
	0	1	0.3	0.3	0	29.9%	35.9%
	0.4	1	0	0	0	26.5%	30.9%
	0.4	1	0.4	0	0	30.1%	36.2%
	0.4	1	0.4	0.4	0	27.1%	32.4%
	0.3	1	0.6	0.1	0	33.1%	40.0%
	0	0.4	0.6	0.8	1	1.9%	1.5%

5.2.5. Five Treatments with Peak at Three

Moving the peak to the third treatment did not change the relationship of the two statistics. T_3 remained significantly more powerful except when the ratio of IBD to CRD was 1:8. The relationship between sample size and overall powers of the tests remained the same as well where they were directly proportional. Lastly, for a given total number of observations, a higher CRD sample corresponded with higher overall powers as opposed to a higher IBD sample. The following results show the powers under probability of an observation missing set at 0.1.

Table 5.217. Normal, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0.6	0	0	68.6%	80.2%
	0	0.4	0.6	0.4	0	69.2%	80.7%
	0	0.3	0.6	0	0	69.0%	80.6%
	0.3	0.3	0.6	0	0	48.0%	58.2%
	0	0	1	0.4	0.4	88.3%	95.2%
	0	0.5	0.8	0.4	0.3	75.6%	86.0%
	1	1	0.6	0	0	8.5%	9.4%
	0	0.3	0.6	0.7	1	9.0%	9.9%

Table 5.218. Exponential, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0	0.4	0	0	70.0%	82.0%
	0	0.2	0.4	0.2	0	72.8%	83.7%
	0	0.2	0.4	0	0	72.3%	83.6%
	0.3	0.3	0.6	0	0	77.9%	88.3%
	0	0	0.6	0.4	0.4	67.3%	79.8%
	0	0.2	0.5	0.4	0.1	79.7%	89.7%
	1	1	0.6	0	0	8.4%	9.5%
	0	0.3	0.6	0.7	1	9.8%	11.7%

Table 5.219. T with 3 df., t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.4%	5.3%
	0	0	0.6	0	0	53.4%	64.1%
	0	0.4	0.6	0.4	0	53.5%	64.2%
	0	0.3	0.6	0	0	53.5%	65.2%
	0.3	0.3	1	0	0	76.9%	87.5%
	0	0	1	0.4	0.4	72.1%	83.5%
	0	0.5	0.8	0.4	0.3	60.0%	71.4%
	1	1	0.6	0	0	8.1%	8.6%
	1	1	0.6	1	1	0.2%	0.1%
	0	0.3	0.6	0.7	1	8.0%	8.8%

Table 5.220. Cauchy, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	0	1	0	0	60.9%	72.3%
	0	0.4	1.5	0.4	0	86.4%	94.0%
	0	0.3	1.5	0	0	85.4%	93.5%
	0.3	0.3	1.5	0	0	78.3%	88.3%
	0	0	1.5	0.4	0.4	76.7%	86.9%
	0	0.5	1.5	0.4	0.3	81.1%	90.0%
	1	1	0.6	0	0	7.2%	7.7%
	1	1	0.6	1	1	0.7%	0.5%
	0	0.3	0.6	0.7	1	7.2%	8.0%

Table 5.221. Normal, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	91.0%	85.7%
	0	0.4	0.6	0.4	0	91.7%	86.3%
	0	0.3	0.6	0	0	91.4%	86.4%
	0.3	0.3	0.6	0	0	72.9%	66.2%
	0	0	0.6	0.4	0.4	63.9%	57.0%
	0	0.5	0.8	0.4	0.3	94.5%	90.8%
	1	1	0.6	0	0	11.0%	10.4%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	11.0%	11.0%

Table 5.222. Exponential, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	5.3%
	0	0	0.4	0	0	94.1%	88.9%
	0	0.2	0.4	0.2	0	94.3%	89.9%
	0	0.2	0.4	0	0	94.2%	89.7%
	0.3	0.3	0.6	0	0	96.8%	92.8%
	0	0	0.6	0.4	0.4	92.0%	86.4%
	0	0.1	0.3	0.2	0.1	66.1%	59.4%
	1	1	0.6	0	0	10.6%	10.1%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	13.3%	12.3%

Table 5.223. T with 3 df., t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.7%	5.2%
	0	0	0.6	0	0	78.1%	71.0%
	0	0.4	0.6	0.4	0	78.8%	72.0%
	0	0.3	0.6	0	0	78.6%	71.4%
	0.3	0.3	1	0	0	95.8%	92.7%
	0	0	1	0.4	0.4	93.5%	89.3%
	0	0.5	0.8	0.4	0.3	83.0%	77.2%
	1	1	0.6	0	0	9.3%	8.5%
	1	1	0.6	1	1	0.1%	0.1%
	0	0.3	0.6	0.7	1	10.1%	9.0%

Table 5.224. Cauchy, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.9%	4.5%
	0	0	1	0	0	84.9%	78.5%
	0	0.4	0.8	0.4	0	71.9%	65.0%
	0	0.3	0.8	0	0	71.2%	64.9%
	0.3	0.3	1.5	0	0	96.0%	93.0%
	0	0	1.5	0.4	0.4	95.2%	91.4%
	0	0.5	0.8	0.4	0.3	56.8%	50.9%
	1	1	0.6	0	0	8.0%	7.6%
	1	1	0.6	1	1	0.4%	0.4%
	0	0.3	0.6	0.7	1	8.6%	8.4%

Table 5.225. Normal, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	59.2%	69.9%
	0	0.4	0.6	0.4	0	59.0%	69.5%
	0	0.3	0.6	0	0	59.3%	69.7%
	0.3	0.3	0.6	0	0	39.8%	47.7%
	0	0	0.8	0.4	0.4	57.6%	68.1%
	0	0.5	0.8	0.4	0.3	65.7%	75.9%
	1	1	0.6	0	0	7.9%	8.9%
	1	1	0.6	1	1	0.2%	0.1%
	0	0.3	0.6	0.7	1	8.0%	9.2%

Table 5.226. Exponential, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.7%	5.1%
	0	0	0.4	0	0	60.3%	71.7%
	0	0.2	0.4	0.2	0	64.2%	74.8%
	0	0.2	0.4	0	0	62.5%	74.2%
	0.3	0.3	0.6	0	0	67.0%	77.8%
	0	0	0.6	0.4	0.4	57.4%	68.4%
	0	0.2	0.5	0.4	0.1	71.3%	81.5%
	1	1	0.6	0	0	7.3%	8.3%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	8.3%	9.5%

Table 5.227. T with 3 df., t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	45.1%	53.9%
	0	0.4	0.6	0.4	0	45.8%	54.8%
	0	0.3	0.6	0	0	46.0%	55.0%
	0.3	0.3	1	0	0	68.6%	78.6%
	0	0	1	0.4	0.4	63.5%	73.7%
	0	0.5	0.8	0.4	0.3	50.1%	59.7%
	1	1	0.6	0	0	7.3%	7.9%
	0	0.3	0.6	0.7	1	8.5%	8.6%

Table 5.228. Cauchy, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	52.0%	61.4%
	0	0.4	1.5	0.4	0	79.0%	87.8%
	0	0.3	1.5	0	0	77.4%	86.5%
	0.3	0.3	1.5	0	0	69.7%	79.9%
	0	0	1.5	0.4	0.4	67.1%	76.6%
	0	0.5	1.5	0.4	0.3	72.9%	81.8%
	1	1	0.6	0	0	6.3%	6.6%
	1	1	0.6	1	1	0.9%	0.6%
	0	0.3	0.6	0.7	1	7.5%	7.1%

Table 5.229. Normal, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.6%
	0	0	0.6	0	0	50.4%	68.4%
	0	0.4	0.6	0.4	0	51.5%	68.8%
	0	0.3	0.6	0	0	51.0%	69.0%
	0.3	0.3	0.7	0	0	44.2%	61.0%
	0	0	0.6	0.4	0.4	28.7%	40.6%
	0	0.5	0.8	0.4	0.3	55.5%	74.1%
	1	1	0.6	0	0	7.0%	7.9%
	1	1	0.6	1	1	0.3%	0.0%
	0	0.3	0.6	0.7	1	7.4%	8.6%

Table 5.230. Exponential, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0.4	0	0	50.9%	70.7%
	0	0.2	0.4	0.2	0	54.6%	72.8%
	0	0.2	0.4	0	0	52.0%	72.0%
	0.3	0.3	0.6	0	0	55.7%	76.4%
	0	0	0.6	0.4	0.4	46.5%	66.3%
	0	0.2	0.5	0.4	0.1	61.2%	80.6%
	1	1	0.6	0	0	6.5%	7.5%
	1	1	0.6	1	1	0.1%	0.0%
	0	0.3	0.6	0.7	1	8.0%	9.7%

Table 5.231. T with 3 df., t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.6%	4.6%
	0	0	0.6	0	0	38.2%	53.3%
	0	0.4	0.6	0.4	0	37.8%	53.9%
	0	0.3	0.6	0	0	38.9%	53.5%
	0.3	0.3	1	0	0	58.1%	76.7%
	0	0	1	0.4	0.4	54.8%	72.8%
	0	0.5	0.8	0.4	0.3	42.0%	58.3%
	1	1	0.6	0	0	7.1%	7.8%
	0	0.3	0.6	0.7	1	7.6%	8.1%

Table 5.232. Cauchy, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	1	0	0	44.3%	60.8%
	0	0.4	1.5	0.4	0	69.5%	86.7%
	0	0.3	1.5	0	0	66.9%	85.0%
	0.3	0.3	1.5	0	0	59.2%	78.2%
	0	0	1.5	0.4	0.4	57.8%	76.1%
	0	0.5	1.5	0.4	0.3	62.8%	81.5%
	1	1	0.6	0	0	6.1%	6.6%
	0	0.3	0.6	0.7	1	6.7%	7.4%

The overall powers decreased when the variance of the CRD's sample was doubled. The difference between the two tests increased on the other hand. Otherwise, all else remained the same as before. The tables below show the simulations under same parameter specifications with the mentioned change in variance.

Table 5.233. Normal, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	68.7%	68.5%
	0	0.4	0.6	0.4	0	68.9%	69.1%

(continues)

Table 5.233. Normal, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$ (continued)

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0.3	0.6	0	0	68.3%	68.1%
	0.3	0.3	0.6	0	0	47.6%	47.9%
	0	0	0.6	0.4	0.4	40.6%	40.3%
	0	0.5	0.8	0.4	0.3	75.2%	74.9%
	1	1	0.6	0	0	9.1%	8.9%
	1	1	0.6	1	1	0.1%	0.1%
	0	0.3	0.6	0.7	1	9.5%	9.0%

Table 5.234. Exponential, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.5%	5.5%
	0	0	0.4	0	0	75.2%	73.2%
	0	0.2	0.4	0.2	0	75.4%	74.3%
	0	0.2	0.4	0	0	75.5%	74.3%
	0.3	0.3	0.6	0	0	80.8%	79.5%
	0	0	0.6	0.4	0.4	71.3%	69.5%
	0	0.1	0.3	0.2	0.1	43.3%	42.1%
	1	1	0.6	0	0	10.0%	9.3%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	11.2%	10.7%

Table 5.235. T with 3 df., t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	52.6%	53.8%
	0	0.4	0.6	0.4	0	53.7%	53.0%
	0	0.3	0.6	0	0	53.6%	53.7%
	0.3	0.3	1	0	0	77.9%	77.9%
	0	0	1	0.4	0.4	73.5%	73.5%
	0	0.5	0.8	0.4	0.3	58.8%	58.1%
	1	1	0.6	0	0	8.6%	8.2%
	1	1	0.6	1	1	0.2%	0.2%
	0	0.3	0.6	0.7	1	8.6%	8.6%

Table 5.236. Cauchy, t = 5, Pk = 3, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	61.6%	61.0%
	0	0.4	0.8	0.4	0	47.0%	48.1%
	0	0.3	0.8	0	0	47.5%	47.0%
	0.3	0.3	1.5	0	0	81.6%	81.2%
	0	0	1.5	0.4	0.4	79.0%	77.6%
	0	0.5	0.8	0.4	0.3	36.3%	36.1%
	1	1	0.6	0	0	6.9%	7.0%
	1	1	0.6	1	1	0.8%	0.8%
	0	0.3	0.6	0.7	1	7.0%	6.7%

Table 5.237. Normal, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0	0.6	0	0	59.4%	74.1%
	0	0.4	0.6	0.4	0	59.1%	74.0%
	0	0.3	0.6	0	0	58.5%	73.7%
	0.3	0.3	0.6	0	0	40.2%	52.5%
	0	0	1	0.4	0.4	78.4%	91.1%
	0	0.5	0.8	0.4	0.3	65.3%	79.4%
	1	1	0.6	0	0	8.1%	9.1%
	0	0.3	0.6	0.7	1	8.5%	9.8%

Table 5.238. Exponential, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0	0.4	0	0	60.6%	76.3%
	0	0.2	0.4	0.2	0	63.5%	78.8%
	0	0.2	0.4	0	0	62.6%	78.2%
	0.3	0.3	0.6	0	0	67.3%	82.4%
	0	0	0.6	0.4	0.4	57.8%	73.3%
	0	0.2	0.5	0.4	0.1	72.0%	85.5%
	1	1	0.6	0	0	8.4%	9.7%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	9.5%	10.8%

Table 5.239. T with 3 df., t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	44.9%	57.5%
	0	0.4	0.6	0.4	0	46.0%	58.6%
	0	0.3	0.6	0	0	44.7%	57.8%
	0.3	0.3	1	0	0	68.7%	82.8%
	0	0	1	0.4	0.4	63.6%	78.2%
	0	0.5	0.8	0.4	0.3	50.2%	64.0%
	1	1	0.6	0	0	7.0%	7.6%
	1	1	0.6	1	1	0.3%	0.2%
	0	0.3	0.6	0.7	1	7.7%	8.7%

Table 5.240. Cauchy, t = 5, Pk = 3, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	0	1	0	0	51.8%	65.1%
	0	0.4	1.5	0.4	0	79.8%	90.9%
	0	0.3	1.5	0	0	77.9%	89.7%
	0.3	0.3	1.5	0	0	70.5%	83.7%
	0	0	1.5	0.4	0.4	68.3%	81.6%
	0	0.5	1.5	0.4	0.3	72.2%	85.3%
	1	1	0.6	0	0	7.3%	7.7%
	0	0.3	0.6	0.7	1	7.1%	7.4%

Table 5.241. Normal, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0.6	0	0	38.5%	55.1%
	0	0.4	0.6	0.4	0	38.7%	55.4%
	0	0.3	0.6	0	0	38.7%	56.2%
	0.3	0.3	0.6	0	0	26.9%	38.0%
	0	0	0.8	0.4	0.4	38.3%	55.4%
	0	0.5	0.8	0.4	0.3	43.2%	62.5%
	1	1	0.6	0	0	7.3%	7.9%
	1	1	0.6	1	1	0.5%	0.2%
	0	0.3	0.6	0.7	1	7.5%	8.3%

Table 5.242. Exponential, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0.4	0	0	39.3%	58.2%
	0	0.2	0.4	0.2	0	42.6%	61.0%
	0	0.2	0.4	0	0	40.8%	58.9%
	0.3	0.3	0.6	0	0	45.7%	65.2%
	0	0	0.6	0.4	0.4	36.7%	53.8%
	0	0.2	0.5	0.4	0.1	49.6%	68.7%
	1	1	0.6	0	0	7.0%	8.1%
	0	0.3	0.6	0.7	1	7.9%	9.7%

Table 5.243. T with 3 df., t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	29.4%	42.3%
	0	0.4	0.6	0.4	0	29.7%	43.1%
	0	0.3	0.6	0	0	29.5%	42.7%
	0.3	0.3	1	0	0	46.2%	64.9%
	0	0	1	0.4	0.4	42.6%	61.3%
	0	0.5	0.8	0.4	0.3	32.2%	47.0%
	1	1	0.6	0	0	6.7%	7.1%
	0	0.3	0.6	0.7	1	7.0%	7.6%

Table 5.244. Cauchy, t = 5, Pk = 3, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	1	0	0	34.8%	49.1%
	0	0.4	1.5	0.4	0	57.1%	76.1%
	0	0.3	1.5	0	0	56.7%	75.9%
	0.3	0.3	1.5	0	0	49.8%	68.1%
	0	0	1.5	0.4	0.4	47.6%	65.3%
	0	0.5	1.5	0.4	0.3	51.0%	69.6%
	1	1	0.6	0	0	6.6%	6.7%
	0	0.3	0.6	0.7	1	5.9%	6.5%

Table 5.245. Normal, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	37.1%	45.7%
	0	0.4	0.6	0.4	0	37.1%	45.3%
	0	0.3	0.6	0	0	37.3%	45.6%
	0.3	0.3	0.6	0	0	25.8%	30.9%
	0	0	0.6	0.4	0.4	22.4%	26.3%
	0	0.5	0.8	0.4	0.3	42.6%	51.0%
	1	1	0.6	0	0	7.1%	7.4%
	0	0.3	0.6	0.7	1	7.6%	7.5%

Table 5.246. Exponential, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0	0.4	0	0	38.9%	46.6%
	0	0.2	0.4	0.2	0	41.1%	49.4%
	0	0.2	0.4	0	0	40.4%	48.4%
	0.3	0.3	0.6	0	0	44.3%	53.2%
	0	0	0.6	0.4	0.4	36.0%	43.5%
	0	0.2	0.5	0.4	0.1	46.6%	57.1%
	1	1	0.6	0	0	7.1%	7.4%
	0	0.3	0.6	0.7	1	7.7%	7.7%

Table 5.247. T with 3 df., t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0.6	0	0	28.4%	34.4%
	0	0.4	0.6	0.4	0	29.1%	35.4%
	0	0.3	0.6	0	0	28.8%	34.6%
	0.3	0.3	1	0	0	44.0%	53.6%
	0	0	1	0.4	0.4	41.0%	49.6%
	0	0.5	0.8	0.4	0.3	31.8%	38.7%
	1	1	0.6	0	0	7.0%	6.8%
	0	0.3	0.6	0.7	1	7.5%	7.4%

Table 5.248. Cauchy, t = 5, Pk = 3, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.4%
	0	0	1	0	0	32.8%	39.3%
	0	0.4	1.5	0.4	0	55.2%	65.3%
	0	0.3	1.5	0	0	54.8%	63.7%
	0.3	0.3	1.5	0	0	47.4%	56.3%
	0	0	1.5	0.4	0.4	45.4%	53.2%
	0	0.5	1.5	0.4	0.3	49.0%	58.9%
	1	1	0.6	0	0	6.4%	6.3%
	0	0.3	0.6	0.7	1	6.3%	6.3%

5.2.6. Five Treatments with Peak at Four

The same conclusions from the previous section hold when the peak is at four.

Table 5.249. Normal, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.4%
	0	0	0	0.8	0	83.5%	91.9%
	0	0	0.4	0.8	0	90.5%	96.4%
	0	0.3	0.3	0.6	0	62.8%	74.4%
	0.4	0	0	0.8	0	46.8%	58.4%
	0.4	0	0.4	0.8	0	61.2%	73.4%
	0.4	0.4	0.4	0.8	0	50.6%	61.0%
	0.3	0.1	0.6	0.7	0	62.9%	74.6%
	0	0.8	0.6	0.4	1	7.9%	8.8%

Table 5.250. Exponential, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.9%	4.7%
	0	0	0	0.4	0	64.3%	76.6%
	0	0	0.2	0.4	0	74.9%	86.3%
	0	0.3	0.3	0.6	0	91.4%	96.5%
	0.2	0	0	0.4	0	30.0%	38.6%
	0.2	0	0.2	0.4	0	44.1%	55.7%
	0.2	0.2	0.2	0.4	0	35.1%	43.9%
	0.3	0.1	0.6	0.7	0	89.6%	96.6%
	0	0.8	0.6	0.4	1	9.4%	10.2%

Table 5.251. T with 3 df., t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.8	0	67.4%	79.4%
	0	0	0.4	0.8	0	77.6%	87.4%
	0	0.3	0.3	0.6	0	49.8%	59.9%
	0.4	0	0	0.8	0	35.5%	44.3%
	0.4	0	0.4	0.8	0	47.3%	58.2%
	0.4	0.4	0.4	0.8	0	37.6%	46.4%
	0.3	0.1	0.6	0.7	0	47.7%	58.3%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	7.6%	8.3%

Table 5.252. Cauchy, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	0	1	0	54.3%	64.8%
	0	0	0.4	1	0	62.5%	74.4%
	0	0.3	0.3	1	0	56.0%	67.3%
	0.4	0	0	1	0	33.1%	40.8%
	0.4	0	0.4	1	0	41.6%	50.5%
	0.4	0.4	0.4	1	0	36.3%	44.3%
	0.3	0.1	0.6	1	0	48.7%	59.7%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	6.8%	7.5%

Table 5.253. Normal, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.4	0	58.4%	51.4%
	0	0	0.2	0.4	0	67.5%	61.2%
	0	0.3	0.3	0.6	0	87.8%	81.3%
	0.2	0	0	0.4	0	30.1%	27.4%
	0.2	0	0.2	0.4	0	39.6%	34.7%
	0.2	0.2	0.2	0.4	0	31.5%	27.7%
	0.1	0.1	0.3	0.4	0	53.5%	47.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	9.5%	9.2%

Table 5.254. Exponential, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.4	0	89.0%	82.8%
	0	0	0.1	0.2	0	53.2%	46.9%
	0	0.1	0.1	0.3	0	72.7%	65.6%
	0.2	0	0	0.4	0	51.8%	45.0%
	0.1	0	0.1	0.2	0	30.2%	26.5%
	0.2	0.2	0.2	0.4	0	57.1%	50.6%
	0.1	0.1	0.2	0.4	0	83.5%	76.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	11.7%	10.6%

Table 5.255. T with 3 df., t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0	0	0.4	0	44.6%	40.3%
	0	0	0.2	0.4	0	51.3%	46.3%
	0	0.3	0.3	0.6	0	73.5%	66.3%
	0.4	0	0	0.8	0	57.2%	50.7%
	0.2	0	0.2	0.4	0	29.9%	26.9%
	0.4	0.4	0.4	0.8	0	58.4%	52.3%
	0.3	0.1	0.6	0.7	0	72.7%	66.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	9.0%	8.6%

Table 5.256. Cauchy, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	78.8%	72.0%
	0	0	0.4	1	0	86.4%	80.7%
	0	0.3	0.3	1	0	81.0%	74.2%
	0.4	0	0	1	0	52.8%	46.1%
	0.4	0	0.4	1	0	64.3%	57.5%
	0.4	0.4	0.4	1	0	56.1%	49.6%
	0.3	0.1	0.6	1	0	74.1%	67.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
	0	0.8	0.6	0.4	1	7.7%	7.1%

Table 5.257. Normal, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	74.7%	84.5%
	0	0	0.4	0.8	0	83.7%	91.7%
	0	0.3	0.3	0.6	0	54.5%	64.8%
	0.4	0	0	0.8	0	39.6%	48.1%
	0.4	0	0.4	0.8	0	52.6%	63.1%
	0.4	0.4	0.4	0.8	0	42.2%	50.7%
	0.3	0.1	0.6	0.7	0	53.7%	63.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	7.3%	8.2%

Table 5.258. Exponential, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.4	0	54.6%	65.8%
	0	0	0.2	0.4	0	66.0%	77.4%
	0	0.3	0.3	0.6	0	83.5%	91.4%
	0.2	0	0	0.4	0	23.5%	30.2%
	0.2	0	0.2	0.4	0	36.6%	44.6%
	0.2	0.2	0.2	0.4	0	29.0%	36.5%
	0.1	0.2	0.3	0.4	0	49.3%	59.4%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	8.7%	9.1%

Table 5.259. T with 3 df., t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	58.1%	68.6%
	0	0	0.4	0.8	0	68.1%	78.5%
	0	0.3	0.3	0.6	0	40.7%	49.7%
	0.4	0	0	0.8	0	30.3%	36.0%
	0.4	0	0.4	0.8	0	39.9%	48.0%
	0.4	0.4	0.4	0.8	0	31.0%	37.9%
	0.3	0.1	0.6	0.7	0	40.9%	48.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
	0	0.8	0.6	0.4	1	7.0%	7.6%

Table 5.260. Cauchy, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	0	1	0	46.2%	55.4%
	0	0	0.4	1	0	53.4%	63.7%
	0	0.3	0.3	1	0	49.5%	57.8%
	0.4	0	0	1	0	28.2%	33.6%
	0.4	0	0.4	1	0	34.8%	41.7%
	0.4	0.4	0.4	1	0	29.8%	36.1%
	0.3	0.1	0.6	1	0	41.6%	49.4%
	0.5	0.5	0.5	0	1	0.5%	0.2%
	0	0.8	0.6	0.4	1	6.3%	6.3%

Table 5.261. Normal, t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.8	0	64.2%	82.8%
	0	0	0.4	0.8	0	73.9%	90.4%
	0	0.3	0.3	0.6	0	46.4%	63.0%
	0.4	0	0	0.8	0	33.1%	47.0%
	0.4	0	0.4	0.8	0	44.1%	61.4%
	0.4	0.4	0.4	0.8	0	35.5%	48.9%
	0.3	0.1	0.6	0.7	0	45.9%	63.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	6.8%	7.9%

Table 5.262. Exponential, t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.5%	4.6%
	0	0	0	0.4	0	44.6%	63.4%
	0	0	0.2	0.4	0	56.0%	75.2%
	0	0.3	0.3	0.6	0	73.6%	91.1%
	0.2	0	0	0.4	0	19.1%	29.6%
	0.2	0	0.2	0.4	0	29.5%	43.5%
	0.2	0.2	0.2	0.4	0	23.8%	33.8%
	0.3	0.1	0.6	0.7	0	71.6%	89.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	8.7%	8.9%

Table 5.263. T with 3 df., t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.9%	5.3%
	0	0	0	0.8	0	48.6%	66.8%
	0	0	0.4	0.8	0	59.2%	76.5%
	0	0.3	0.3	0.6	0	34.6%	48.7%
	0.4	0	0	0.8	0	25.3%	35.1%
	0.4	0	0.4	0.8	0	33.9%	47.9%
	0.4	0.4	0.4	0.8	0	27.4%	37.3%
	0.3	0.1	0.6	0.7	0	34.1%	47.7%
	0	0.8	0.6	0.4	1	7.2%	7.8%

Table 5.264. t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = \sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0	0	1	0	39.3%	54.5%
	0	0	0.4	1	0	45.4%	62.8%
	0	0.3	0.3	1	0	41.0%	56.6%
	0.4	0	0	1	0	24.6%	33.0%
	0.4	0	0.4	1	0	28.7%	40.7%
	0.4	0.4	0.4	1	0	25.9%	34.9%
	0.3	0.1	0.6	1	0	35.0%	49.0%
	0	0.8	0.6	0.4	1	6.2%	6.4%

Changing the variance as before led to the same conclusions where the overall powers decreased and the difference between the two statistics increased.

Table 5.265. Normal, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0	0	0.4	0	36.3%	36.4%
	0	0	0.2	0.4	0	44.1%	43.6%
	0	0.3	0.3	0.6	0	63.3%	63.5%
	0.2	0	0	0.4	0	20.6%	19.9%
	0.2	0	0.2	0.4	0	24.9%	25.5%
	0.2	0.2	0.2	0.4	0	20.4%	20.7%
	0.1	0.1	0.3	0.4	0	33.2%	34.0%
	0	0.8	0.6	0.4	1	8.7%	8.4%

Table 5.266. Exponential, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.0%	4.7%
	0	0	0	0.4	0	67.8%	66.9%
	0	0	0.1	0.2	0	34.1%	33.6%
	0	0.1	0.1	0.3	0	49.1%	48.3%
	0.2	0	0	0.4	0	33.3%	32.4%
	0.1	0	0.1	0.2	0	19.5%	19.5%
	0.2	0.2	0.2	0.4	0	37.2%	36.3%
	0.1	0.1	0.2	0.4	0	59.8%	58.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	10.8%	9.8%

Table 5.267. T with 3 df., t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.4	0	28.6%	29.1%
	0	0	0.2	0.4	0	32.9%	33.5%
	0	0.3	0.3	0.6	0	48.8%	48.1%
	0.4	0	0	0.8	0	37.3%	36.2%
	0.2	0	0.2	0.4	0	20.0%	19.9%
	0.4	0.4	0.4	0.8	0	37.5%	37.9%
	0.3	0.1	0.6	0.7	0	47.7%	48.0%
	0	0.8	0.6	0.4	1	8.1%	8.2%

Table 5.268. Cauchy, t = 5, Pk = 4, IBD = 40, CRD = 5, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.3%	5.3%
	0	0	0	1	0	56.4%	55.0%
	0	0	0.4	1	0	63.8%	63.5%
	0	0.3	0.3	1	0	57.6%	56.5%
	0.4	0	0	1	0	34.5%	33.5%
	0.4	0	0.4	1	0	42.9%	42.4%
	0.4	0.4	0.4	1	0	36.0%	35.3%
	0.3	0.1	0.6	1	0	49.5%	48.7%
	0.5	0.5	0.5	0	1	0.3%	0.3%
	0	0.8	0.6	0.4	1	7.5%	7.4%

Table 5.269. Normal, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.5%
	0	0	0	0.8	0	73.9%	87.5%
	0	0	0.4	0.8	0	83.0%	93.9%
	0	0.3	0.3	0.6	0	54.3%	68.5%
	0.4	0	0	0.8	0	40.3%	52.1%
	0.4	0	0.4	0.8	0	52.7%	67.2%
	0.4	0.4	0.4	0.8	0	42.0%	54.4%
	0.3	0.1	0.6	0.7	0	54.1%	67.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	7.7%	8.4%

Table 5.270. Exponential, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.4	0	54.6%	70.2%
	0	0	0.2	0.4	0	65.9%	80.5%
	0	0.3	0.3	0.6	0	84.0%	94.6%
	0.2	0	0	0.4	0	25.4%	33.9%
	0.2	0	0.2	0.4	0	37.5%	49.8%
	0.2	0.2	0.2	0.4	0	30.5%	39.9%
	0.3	0.1	0.6	0.7	0	82.3%	93.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	9.1%	9.7%

Table 5.271. T with 3 df., t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.8	0	58.6%	72.8%
	0	0	0.4	0.8	0	68.2%	82.2%
	0	0.3	0.3	0.6	0	40.9%	52.7%
	0.4	0	0	0.8	0	30.0%	38.9%
	0.4	0	0.4	0.8	0	39.4%	51.1%
	0.4	0.4	0.4	0.8	0	31.3%	41.2%
	0.3	0.1	0.6	0.7	0	40.8%	52.5%
	0	0.8	0.6	0.4	1	7.0%	7.6%

Table 5.272. Cauchy, t = 5, Pk = 4, IBD = 5, CRD = 40, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	47.1%	59.3%
	0	0	0.4	1	0	54.1%	68.1%
	0	0.3	0.3	1	0	47.6%	61.0%
	0.4	0	0	1	0	28.1%	36.1%
	0.4	0	0.4	1	0	35.1%	45.4%
	0.4	0.4	0.4	1	0	29.2%	38.1%
	0.3	0.1	0.6	1	0	41.0%	52.8%

Table 5.273. Normal, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.8	0	51.4%	71.0%
	0	0	0.4	0.8	0	59.5%	79.8%
	0	0.3	0.3	0.6	0	34.6%	50.2%
	0.4	0	0	0.8	0	26.1%	37.6%
	0.4	0	0.4	0.8	0	33.4%	49.5%
	0.4	0.4	0.4	0.8	0	27.9%	39.5%
	0.3	0.1	0.6	0.7	0	34.2%	50.2%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	6.7%	7.4%

Table 5.274. Exponential, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.4	0	35.9%	51.9%
	0	0	0.2	0.4	0	44.4%	63.1%
	0	0.3	0.3	0.6	0	62.2%	82.1%
	0.2	0	0	0.4	0	16.8%	24.6%
	0.2	0	0.2	0.4	0	23.8%	34.9%
	0.2	0.2	0.2	0.4	0	19.5%	28.5%
	0.1	0.2	0.3	0.4	0	32.1%	46.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	8.3%	8.8%

Table 5.275. T with 3 df., t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	4.9%	4.7%
	0	0	0	0.8	0	38.8%	54.5%
	0	0	0.4	0.8	0	44.9%	64.1%
	0	0.3	0.3	0.6	0	26.9%	38.7%
	0.4	0	0	0.8	0	20.8%	28.5%
	0.4	0	0.4	0.8	0	26.8%	38.0%
	0.4	0.4	0.4	0.8	0	21.7%	30.2%
	0.3	0.1	0.6	0.7	0	25.8%	37.8%
	0.5	0.5	0.5	0	1	0.3%	0.1%
	0	0.8	0.6	0.4	1	6.6%	7.1%

Table 5.276. Cauchy, t = 5, Pk = 4, IBD = 10, CRD = 15, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	0	0	1	0	30.4%	43.9%
	0	0	0.4	1	0	36.7%	52.0%
	0	0.3	0.3	1	0	31.2%	44.8%
	0.4	0	0	1	0	19.8%	27.4%
	0.4	0	0.4	1	0	23.7%	33.3%
	0.4	0.4	0.4	1	0	20.3%	27.8%
	0.3	0.1	0.6	1	0	26.3%	38.7%
	0	0.8	0.6	0.4	1	6.0%	6.2%

Table 5.277. Normal, t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.8	0	48.6%	58.8%
	0	0	0.4	0.8	0	57.5%	69.1%
	0	0.3	0.3	0.6	0	34.4%	41.8%
	0.4	0	0	0.8	0	24.8%	30.1%
	0.4	0	0.4	0.8	0	32.5%	39.7%
	0.4	0.4	0.4	0.8	0	26.2%	32.1%
	0.3	0.1	0.6	0.7	0	33.0%	40.8%
	0	0.8	0.6	0.4	1	6.7%	7.2%

Table 5.278. t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0	0	0.4	0	34.4%	42.0%
	0	0	0.2	0.4	0	41.8%	50.8%
	0	0.3	0.3	0.6	0	60.3%	70.6%
	0.2	0	0	0.4	0	15.8%	19.7%
	0.2	0	0.2	0.4	0	23.2%	28.5%
	0.2	0.2	0.2	0.4	0	19.4%	22.7%
	0.1	0.2	0.3	0.4	0	31.3%	37.7%
	0	0.8	0.6	0.4	1	8.3%	8.2%

Table 5.279. T with 3 df., t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0	0	0.8	0	36.4%	44.3%
	0	0	0.4	0.8	0	43.4%	52.4%
	0	0.3	0.3	0.6	0	25.9%	30.5%
	0.4	0	0	0.8	0	20.2%	23.8%
	0.4	0	0.4	0.8	0	25.6%	30.5%
	0.4	0.4	0.4	0.8	0	19.8%	23.7%
	0.3	0.1	0.6	0.7	0	26.0%	30.5%
	0	0.8	0.6	0.4	1	6.9%	6.9%

Table 5.280. Cauchy, t = 5, Pk = 4, IBD = 15, CRD = 10, p = 0.1 & $\sigma^2_{CRD} = 2\sigma^2_{IBD}$

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	4.6%	4.8%
	0	0	0	1	0	29.5%	36.0%
	0	0	0.4	1	0	34.6%	41.4%
	0	0.3	0.3	1	0	30.1%	36.8%
	0.4	0	0	1	0	19.4%	21.6%
	0.4	0	0.4	1	0	22.5%	27.4%
	0.4	0.4	0.4	1	0	19.2%	24.3%
	0.3	0.1	0.6	1	0	27.0%	32.1%
	0	0.8	0.6	0.4	1	5.8%	6.3%

CHAPTER 6. CONCLUSIONS

To recap, this research proposed four new test statistics – T_1, T_2, T_3 and T_4 – that are applicable in a mixed design formed by combining a Complete Randomized Design (CRD) and an Incomplete Block Design (IBD). T_1 and T_2 test for a non – decreasing order of differences in treatment means while T_3 and T_4 test for an umbrella order. This research also proposed a fifth test (Mungai). This statistic tests for an umbrella order of differences in treatment means in an IBD.

The study showed that T_1 was more powerful than T_2. This means that standardizing the sum of standardized Alvo and Cabilio (1995) and Jonckheere – Terpstra ((Jonckheere (1954), Terpstra (1952)) test statistics is better than standardizing the sum of their unstandardized statistics. This conclusion holds true regardless of the underlying distribution, proportion of missing observations, ratio of IBD to CRD sample sizes, ratio of IBD to CRD sample variances and overall the overall sample size. It was further shown that both tests are dependent on the order of treatment means. A violation of the order assumption led to very low approximated powers.

For the umbrella alternative, the study showed that T_3 (standardize the sum of the standardized M and Mack – Wolfe (1981) statistics) is better to use than T_4 (standardize the sum of unstandardized M and Mack – Wolfe (1981) statistics)) as long as IBD's sample is greater than a quarter that of the CRD. Otherwise, T_4 is preferable. This holds true irrespective of the underlying distribution, proportion of missing observations, ratio of IBD to CRD sample variances, the overall sample size and the position of the peak.

Similar to T_1 and T_2, the two tests are dependent on the order of treatment means assumption.

This study also investigated the effects of having unequal sample variances. Precisely, when the CRD's sample variance was twice as much that of the IBD's. The conclusion is that it is better to have equal variances since the approximated powers significantly decreased when there were unequal variances. Furthermore, the difference between the two test statistics increased when there were unequal variances.

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APPENDIX A. MUNGAI'S TEST STATISTIC EXPECTED VALUES AND VARIANCES DERIVATION

A.1. Three Treatments Peak at Two

Table A.1. t = 3, Pk = 2 & No Missing Observations

µ1	µ2	µ3	Expected Value	variance
1	2	3	1	0.67
1	3	2		
2	1	3		
2	3	1		
3	1	2		
3	2	1		

Table A.2. t = 3, Pk = 2 & One Observation Missing in a Block

µ1	µ2	µ3	Expected Value	variance
1	2	_	1	0.44
2	1	_		
1	_	2	1	-
2	_	1		
_	1	2	1	0.44
_	2	1		

A.2. Four Treatments Peak at Two

Table A.3. t = 4, Pk = 2 & No Missing Observations

µ1	µ2	µ3	µ4	M_c	Expected Value	Variance
1	2	3	4	1	2	1.5
1	2	4	3	2		
1	3	2	4	2		
1	3	4	2	3		
1	4	2	3	3		
1	4	3	2	4		
2	1	3	4	0		

(continues)

Table A.3. t = 4, Pk = 2 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	M_c	Expected Value	Variance
2	1	4	3	1		
2	3	1	4	2		
2	3	4	1	3		
2	4	1	3	3		
2	4	3	1	4		
3	1	2	4	0		
3	1	4	2	1		
3	2	1	4	1		
3	2	4	1	2		
3	4	1	2	3		
3	4	2	1	4		
4	1	2	3	0		
4	1	3	2	1		
4	2	1	3	1		
4	2	3	1	2		
4	3	1	2	2		
4	3	2	1	3		

Table A.4. t = 4, Pk = 2 & One Observation Missing in a Block

μ1	μ2	μ3	μ4	M_c	Expected Value	Variance
1	2	3	_	2.25	2	0.875
1	3	2	_	3.25		
2	1	3	_	1.00		
2	3	1	_	3.00		
3	1	2	_	0.75		
3	2	1	_	1.75		
1	2	_	3	1.75	2	1.29167
1	3	_	2	3.25		
2	1	_	3	0.50		
2	3	_	1	3.50		
3	1	_	2	0.75		
3	2	_	1	2.25		
1	_	2	3	1.50	2	0.25

(continues)

Table A.4. t = 4, Pk = 2 & One Observation Missing in a Block (continued)

μ1	μ2	μ3	μ4	M_c	Expected Value	Variance
1	_	3	2	2.50		
2	_	1	3	1.50		
2	_	3	1	2.50		
3	_	1	2	1.50		
3	_	2	1	2.50		
_	1	2	3	0.25	2	1.29167
_	1	3	2	1.25		
_	2	1	3	1.50		
_	2	3	1	2.50		
_	3	1	2	2.75		
_	3	2	1	3.75		

Table A.5. t = 4, Pk = 2 & Two Observations Missing in a Block

μ1	μ2	μ3	μ4	M_c	Expected Value	Variance
1	2	_	_	2.83	2	0.69444
2	1	_	_	1.17		
_	1	2	_	1.33	2	0.44444
_	2	1	_	2.67		
_	_	1	2	1.50	2	0.25
_	_	2	1	2.50		
1	_	_	2	1.83	2	0.02778
2	_	_	1	2.17		
1	_	2	_	2.17	2	0.02778
2	_	1	_	1.83		
_	1	_	2	1.00	2	1
_	2	_	1	3.00		

A.3. Four Treatments Peak at Three

Table A.6. t = 4, Pk = 3 & No Missing Observations

μ1	μ2	μ3	μ4	Mc	Expected Value	Variance
1	2	3	4	3	2	1.50
1	2	4	3	4		
1	3	2	4	2		

(continues)

Table A.6. t = 4, Pk = 3 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	Mc	Expected Value	Variance
1	3	4	2	4		
1	4	2	3	2		
1	4	3	2	3		
2	1	3	4	2		
2	1	4	3	3		
2	3	1	4	1		
2	3	4	1	4		
2	4	1	3	1		
2	4	3	1	3		
3	1	2	4	1		
3	1	4	2	3		
3	2	1	4	0		
3	2	4	1	3		
3	4	1	2	1		
3	4	2	1	2		
4	1	2	3	1		
4	1	3	2	2		
4	2	1	3	0		
4	2	3	1	2		
4	3	1	2	0		
4	3	2	1	1		

Table A.7. t = 4, Pk = 3 & One Missing Observations in a Block

μ1	μ2	μ3	μ4	Mc	Expected Value	Variance
1	2	_	3	2.5	2	0.25
1	3	_	2	2.5		
2	1	_	3	1.5		
2	3	_	1	2.5		
3	1	_	2	1.5		
3	2	_	1	1.5		
1	_	2	3	2.25	2	1.29
1	_	3	2	3.5		
2	_	1	3	0.75		

(continues)

Table A.7. t = 4, Pk = 3 & One Missing Observations in a Block (continued)

μ1	μ2	μ3	μ4	Mc	Expected Value	Variance
2	_	3	1	3.25		
3	_	1	2	0.5		
3	_	2	1	1.75		
1	2	3	_	3.75	2	1.29
1	3	2	_	2.5		
2	1	3	_	2.75		
2	3	1	_	1.25		
3	1	2	_	1.5		
3	2	1	_	0.25		
_	1	2	3	1.5	2	0.50
_	1	3	2	2.5		
_	2	1	3	1		
_	2	3	1	3		
_	3	1	2	1.5		
_	3	2	1	2.5		

Table A.8. t = 4, Pk = 3 & Two Missing Observations in a Block

μ1	μ2	μ3	μ4	Mc	Expected Value	Variance
1	_	2	_	3	2	1.00
2	_	1	_	1		
1	2	_	_	2 1/2	2	0.25
2	1	_	_	1 1/2		
1	_	_	2	2 1/6	2	0.03
2	_	_	1	1 5/6		
_	1	_	2	1 5/6	2	0.03
_	2	_	1	2 1/6		
_	_	1	2	1 1/6	2	0.69
_	_	2	1	2 5/6		
_	1	2	_	2 2/3	2	0.44
_	2	1	_	1 1/3		

A.4. Five Treatments Peak at Two

Table A.9. t = 5, Pk = 2 & No Missing Observations

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	4	5	1.00	3.50	2.92
1	2	3	5	4	2.00		
1	2	4	3	5	2.00		
1	2	4	5	3	3.00		
1	2	5	3	4	3.00		
1	2	5	4	3	4.00		
1	3	2	4	5	2.00		
1	3	2	5	4	3.00		
1	3	4	2	5	3.00		
1	3	4	5	2	4.00		
1	3	5	2	4	4.00		
1	3	5	4	2	5.00		
1	4	2	3	5	3.00		
1	4	2	5	3	4.00		
1	4	3	2	5	4.00		
1	4	3	5	2	5.00		
1	4	5	2	3	5.00		
1	4	5	3	2	6.00		
1	5	2	3	4	4.00		
1	5	2	4	3	5.00		
1	5	3	2	4	5.00		
1	5	3	4	2	6.00		
1	5	4	2	3	6.00		
1	5	4	3	2	7.00		
2	1	3	4	5	-		
2	1	3	5	4	1.00		
2	1	4	3	5	1.00		
2	1	4	5	3	2.00		
2	1	5	3	4	2.00		
2	1	5	4	3	3.00		
2	3	1	4	5	2.00		

(continues)

Table A.9. t = 5, Pk = 2 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	3	1	5	4	3.00		
2	3	4	1	5	3.00		
2	3	4	5	1	4.00		
2	3	5	1	4	4.00		
2	3	5	4	1	5.00		
2	4	1	3	5	3.00		
2	4	1	5	3	4.00		
2	4	3	1	5	4.00		
2	4	3	5	1	5.00		
2	4	5	1	3	5.00		
2	4	5	3	1	6.00		
2	5	1	3	4	4.00		
2	5	1	4	3	5.00		
2	5	3	1	4	5.00		
2	5	3	4	1	6.00		
2	5	4	1	3	6.00		
2	5	4	3	1	7.00		
3	1	2	4	5	-		
3	1	2	5	4	1.00		
3	1	4	2	5	1.00		
3	1	4	5	2	2.00		
3	1	5	2	4	2.00		
3	1	5	4	2	3.00		
3	2	1	4	5	1.00		
3	2	1	5	4	2.00		
3	2	4	1	5	2.00		
3	2	4	5	1	3.00		
3	2	5	1	4	3.00		
3	2	5	4	1	4.00		
3	4	1	2	5	3.00		
3	4	1	5	2	4.00		
3	4	2	1	5	4.00		
3	4	2	5	1	5.00		

(continues)

Table A.9. t = 5, Pk = 2 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
3	4	5	1	2	5.00		
3	4	5	2	1	6.00		
3	5	1	2	4	4.00		
3	5	1	4	2	5.00		
3	5	2	1	4	5.00		
3	5	2	4	1	6.00		
3	5	4	1	2	6.00		
3	5	4	2	1	7.00		
4	1	2	3	5	-		
4	1	2	5	3	1.00		
4	1	3	2	5	1.00		
4	1	3	5	2	2.00		
4	1	5	2	3	2.00		
4	1	5	3	2	3.00		
4	2	1	3	5	1.00		
4	2	1	5	3	2.00		
4	2	3	1	5	2.00		
4	2	3	5	1	3.00		
4	2	5	1	3	3.00		
4	2	5	3	1	4.00		
4	3	1	2	5	2.00		
4	3	1	5	2	3.00		
4	3	2	1	5	3.00		
4	3	2	5	1	4.00		
4	3	5	1	2	4.00		
4	3	5	2	1	5.00		
4	5	1	2	3	4.00		
4	5	1	3	2	5.00		
4	5	2	1	3	5.00		
4	5	2	3	1	6.00		
4	5	3	1	2	6.00		
4	5	3	2	1	7.00		
5	1	2	3	4	-		

(continues)

Table A.9. t = 5, Pk = 2 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
5	1	2	4	3	1.00		
5	1	3	2	4	1.00		
5	1	3	4	2	2.00		
5	1	4	2	3	2.00		
5	1	4	3	2	3.00		
5	2	1	3	4	1.00		
5	2	1	4	3	2.00		
5	2	3	1	4	2.00		
5	2	3	4	1	3.00		
5	2	4	1	3	3.00		
5	2	4	3	1	4.00		
5	3	1	2	4	2.00		
5	3	1	4	2	3.00		
5	3	2	1	4	3.00		
5	3	2	4	1	4.00		
5	3	4	1	2	4.00		
5	3	4	2	1	5.00		
5	4	1	2	3	3.00		
5	4	1	3	2	4.00		
5	4	2	1	3	4.00		
5	4	2	3	1	5.00		
5	4	3	1	2	5.00		
5	4	3	2	1	6.00		

Table A.10. t = 5, Pk = 2 & Only μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	4	_	2.80	3.50	1.72
1	2	4	3	_	3.80		
1	3	2	4	_	3.80		
1	3	4	2	_	4.80		
1	4	2	3	_	4.80		
1	4	3	2	_	5.80		
2	1	3	4	_	1.60		

(continues)

Table A.10. t = 5, Pk = 2 & Only μ5 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	1	4	3	_	2.60		
2	3	1	4	_	3.60		
2	3	4	1	_	4.60		
2	4	1	3	_	4.60		
2	4	3	1	_	5.60		
3	1	2	4	_	1.40		
3	1	4	2	_	2.40		
3	2	1	4	_	2.40		
3	2	4	1	_	3.40		
3	4	1	2	_	4.40		
3	4	2	1	_	5.40		
4	1	2	3	_	1.20		
4	1	3	2	_	2.20		
4	2	1	3	_	2.20		
4	2	3	1	_	3.20		
4	3	1	2	_	3.20		
4	3	2	1	_	4.20		

Table A.11. t = 5, Pk = 2 & Only μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	4	2.20	3.50	2.52
1	2	4	_	3	3.60		
1	3	2	_	4	3.20		
1	3	4	_	2	5.00		
1	4	2	_	3	4.60		
1	4	3	_	2	6.00		
2	1	3	_	4	1.00		
2	1	4	_	3	2.40		
2	3	1	_	4	3.00		
2	3	4	_	1	5.20		
2	4	1	_	3	4.40		
2	4	3	_	1	6.20		
3	1	2	_	4	0.80		

(continues)

Table A.11. t = 5, Pk = 2 & Only μ4 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
3	1	4	_	2	2.60		
3	2	1	_	4	1.80		
3	2	4	_	1	4.00		
3	4	1	_	2	4.60		
3	4	2	_	1	6.00		
4	1	2	_	3	1.00		
4	1	3	_	2	2.40		
4	2	1	_	3	2.00		
4	2	3	_	1	3.80		
4	3	1	_	2	3.40		
4	3	2	_	1	4.80		

Table A.12. t = 5, Pk = 2, μ1 = 1 & Only μ3 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	3	4	2.20	3.50	2.32
1	2	_	4	3	2.80		
1	3	_	2	4	3.80		
1	3	_	4	2	4.00		
1	4	_	2	3	5.00		
1	4	_	3	2	5.60		
2	1	_	3	4	1.00		
2	1	_	4	3	1.60		
2	3	_	1	4	4.20		
2	3	_	4	1	4.00		
2	4	_	1	3	5.40		
2	4	_	3	1	5.60		
3	1	_	2	4	1.40		
3	1	_	4	2	1.60		
3	2	_	1	4	3.00		
3	2	_	4	1	2.80		
3	4	_	1	2	5.40		
3	4	_	2	1	6.00		
4	1	_	2	3	1.40		

(continues)

Table A.12. t = 5, Pk = 2, μ1 = 1 & Only μ3 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
4	1	_	3	2	2.00		
4	2	_	1	3	3.00		
4	2	_	3	1	3.20		
4	3	_	1	2	4.20		
4	3	_	2	1	4.80		

Table A.13. t = 5, Pk = 2 & Only μ2 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	2	3	4	2.00	3.50	0.92
1	_	2	4	3	3.00		
1	_	3	2	4	3.00		
1	_	3	4	2	4.00		
1	_	4	2	3	4.00		
1	_	4	3	2	5.00		
2	_	1	3	4	2.00		
2	_	1	4	3	3.00		
2	_	3	1	4	3.00		
2	_	3	4	1	4.00		
2	_	4	1	3	4.00		
2	_	4	3	1	5.00		
3	_	1	2	4	2.00		
3	_	1	4	2	3.00		
3	_	2	1	4	3.00		
3	_	2	4	1	4.00		
3	_	4	1	2	4.00		
3	_	4	2	1	5.00		
4	_	1	2	3	2.00		
4	_	1	3	2	3.00		
4	_	2	1	3	3.00		
4	_	2	3	1	4.00		
4	_	3	1	2	4.00		
4	_	3	2	1	5.00		

Table A.14. t = 5, Pk = 2 & Only μ1 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	3	4	0.20	3.50	2.72
_	1	2	4	3	1.20		
_	1	3	2	4	1.20		
_	1	3	4	2	2.20		
_	1	4	2	3	2.20		
_	1	4	3	2	3.20		
_	2	1	3	4	1.40		
_	2	1	4	3	2.40		
_	2	3	1	4	2.40		
_	2	3	4	1	3.40		
_	2	4	1	3	3.40		
_	2	4	3	1	4.40		
_	3	1	2	4	2.60		
_	3	1	4	2	3.60		
_	3	2	1	4	3.60		
_	3	2	4	1	4.60		
_	3	4	1	2	4.60		
_	3	4	2	1	5.60		
_	4	1	2	3	3.80		
_	4	1	3	2	4.80		
_	4	2	1	3	4.80		
_	4	2	3	1	5.80		
_	4	3	1	2	5.80		
_	4	3	2	1	6.80		

Table A.15. t = 5, Pk = 2 & Only μ4 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	_	4.00	3.50	1.17
1	3	2	_	_	5.00		
2	1	3	_	_	2.50		
2	3	1	_	_	4.50		
3	1	2	_	_	2.00		
3	2	1	_	_	3.00		

Table A.16. t = 5, Pk = 2 & Only µ3 and µ5 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	2	_	3	_	3.50	3.50	1.50
1	3	_	2	_	5.00		
2	1	_	3	_	2.00		
2	3	_	1	_	5.00		
3	1	_	2	_	2.00		
3	2	_	1	_	3.50		

Table A.17. t = 5, Pk = 2 & Only µ3 and µ4 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	2	_	_	3	3.00	3.50	2.17
1	3	_	_	2	5.00		
2	1	_	_	3	1.50		
2	3	_	_	1	5.50		
3	1	_	_	2	2.00		
3	2	_	_	1	4.00		

Table A.18. t = 5, Pk = 2 & Only µ2 and µ5 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	_	2	3	_	3.25	3.50	0.29
1	_	3	2	_	4.25		
2	_	1	3	_	3.00		
2	_	3	1	_	4.00		
3	_	1	2	_	2.75		
3	_	2	1	_	3.75		

Table A.19. t = 5, Pk = 2 & Only µ2 and µ3 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	_	_	2	3	2.75	3.50	0.29
1	_	_	3	2	3.75		
2	_	_	1	3	3.00		
2	_	_	3	1	4.00		
3	_	_	1	2	3.25		
3	_	_	2	1	4.25		

Table A.20. t = 5, Pk = 2 & Only µ2 and µ4 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	_	2	_	3	2.75	3.50	0.71
1	_	3	_	2	4.25		
2	_	1	_	3	2.50		
2	_	3	_	1	4.50		
3	_	1	_	2	2.75		
3	_	2	_	1	4.25		

Table A.21. t = 5, Pk = 2 & Only µ1 and µ5 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	1	2	3	_	1.75	3.50	1.29
_	1	3	2	_	2.75		
_	2	1	3	_	3.00		
_	2	3	1	_	4.00		
_	3	1	2	_	4.25		
_	3	2	1	_	5.25		

Table A.22. t = 5, Pk = 2 & Only µ1 and µ2 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	_	1	2	3	2.00	3.50	0.92
_	_	1	3	2	3.00		
_	_	2	1	3	3.00		
_	_	2	3	1	4.00		
_	_	3	1	2	4.00		
_	_	3	2	1	5.00		

Table A.23. t = 5, Pk = 2 & Only µ1 and µ3 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	1	_	2	3	1.25	3.50	2.29
_	1	_	3	2	2.25		
_	2	_	1	3	3.00		
_	2	_	3	1	4.00		
_	3	_	1	2	4.75		
_	3	_	2	1	5.75		

Table A.24. t = 5, Pk = 2 & Only μ1 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	_	3	1.25	3.50	2.21
_	1	3	_	2	2.75		
_	2	1	_	3	2.50		
_	2	3	_	1	4.50		
_	3	1	_	2	4.25		
_	3	2	_	1	5.75		

Table A.25. t = 5, Pk = 2 & Only 2 Treatments Appear Per Block

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	_	_	4.50	3.50	1.00
2	1	_	_	_	2.50		
1	_	2	_	_	3.83	3.50	0.11
2	_	1	_	_	3.17		
1	_	_	2	_	3.50	3.50	0.00
2	_	_	1	_	3.50		
1	_	_	_	2	3.17	3.50	0.11
2	_	_	_	1	3.83		
_	1	2	_	_	2.83	3.50	0.44
_	2	1	_	_	4.17		
_	1	_	2	_	2.50	3.50	1.00
_	2	_	1	_	4.50		
_	1	_	_	2	2.17	3.50	1.78
_	2	_	_	1	4.83		
_	_	1	2	_	3.00	3.50	0.25
_	_	2	1	_	4.00		
_	_	1	_	2	2.67	3.50	0.69
_	_	2	_	1	4.33		
_	_		1	2	3.00	3.50	0.25
_	_		2	1	4.00		

A.5. Five Treatments Peak at Three

Table A.26. t = 5, Pk = 3 & No Missing Observations

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	2	3	4	5	3	3	2.5
1	2	3	5	4	4		
1	2	4	3	5	4		
1	2	4	5	3	5		
1	2	5	3	4	5		
1	2	5	4	3	6		
1	3	2	4	5	2		
1	3	2	5	4	3		
1	3	4	2	5	4		
1	3	4	5	2	5		
1	3	5	2	4	5		
1	3	5	4	2	6		
1	4	2	3	5	2		
1	4	2	5	3	3		
1	4	3	2	5	3		
1	4	3	5	2	4		
1	4	5	2	3	5		
1	4	5	3	2	6		
1	5	2	3	4	2		
1	5	2	4	3	3		
1	5	3	2	4	3		
1	5	3	4	2	4		
1	5	4	2	3	4		
1	5	4	3	2	5		
2	1	3	4	5	2		
2	1	3	5	4	3		
2	1	4	3	5	3		
2	1	4	5	3	4		
2	1	5	3	4	4		
2	1	5	4	3	5		
2	3	1	4	5	1		

(continues)

Table A.26. t = 5, Pk = 3 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	3	1	5	4	2		
2	3	4	1	5	4		
2	3	4	5	1	5		
2	3	5	1	4	5		
2	3	5	4	1	6		
2	4	1	3	5	1		
2	4	1	5	3	2		
2	4	3	1	5	3		
2	4	3	5	1	4		
2	4	5	1	3	5		
2	4	5	3	1	6		
2	5	1	3	4	1		
2	5	1	4	3	2		
2	5	3	1	4	3		
2	5	3	4	1	4		
2	5	4	1	3	4		
2	5	4	3	1	5		
3	1	2	4	5	1		
3	1	2	5	4	2		
3	1	4	2	5	3		
3	1	4	5	2	4		
3	1	5	2	4	4		
3	1	5	4	2	5		
3	2	1	4	5	0		
3	2	1	5	4	1		
3	2	4	1	5	3		
3	2	4	5	1	4		
3	2	5	1	4	4		
3	2	5	4	1	5		
3	4	1	2	5	1		
3	4	1	5	2	2		
3	4	2	1	5	2		
3	4	2	5	1	3		

(continues)

Table A.26. t = 5, Pk = 3 & No Missing Observations (continued)

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
3	4	5	1	2	5		
3	4	5	2	1	6		
3	5	1	2	4	1		
3	5	1	4	2	2		
3	5	2	1	4	2		
3	5	2	4	1	3		
3	5	4	1	2	4		
3	5	4	2	1	5		
4	1	2	3	5	1		
4	1	2	5	3	2		
4	1	3	2	5	2		
4	1	3	5	2	3		
4	1	5	2	3	4		
4	1	5	3	2	5		
4	2	1	3	5	0		
4	2	1	5	3	1		
4	2	3	1	5	2		
4	2	3	5	1	3		
4	2	5	1	3	4		
4	2	5	3	1	5		
4	3	1	2	5	0		
4	3	1	5	2	1		
4	3	2	1	5	1		
4	3	2	5	1	2		
4	3	5	1	2	4		
4	3	5	2	1	5		
4	5	1	2	3	1		
4	5	1	3	2	2		
4	5	2	1	3	2		
4	5	2	3	1	3		
4	5	3	1	2	3		
4	5	3	2	1	4		
5	1	2	3	4	1		

(continues)

Table A.26. t = 5, Pk = 3 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
5	1	2	4	3	2		
5	1	3	2	4	2		
5	1	3	4	2	3		
5	1	4	2	3	3		
5	1	4	3	2	4		
5	2	1	3	4	0		
5	2	1	4	3	1		
5	2	3	1	4	2		
5	2	3	4	1	3		
5	2	4	1	3	3		
5	2	4	3	1	4		
5	3	1	2	4	0		
5	3	1	4	2	1		
5	3	2	1	4	1		
5	3	2	4	1	2		
5	3	4	1	2	3		
5	3	4	2	1	4		
5	4	1	2	3	0		
5	4	1	3	2	1		
5	4	2	1	3	1		
5	4	2	3	1	2		
5	4	3	1	2	2		
5	4	3	2	1	3		

Table A.27. t = 5, Pk = 3 & Only μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	4	_	4.4	3	1.9
1	2	4	3	_	5.4		
1	3	2	4	_	3.2		
1	3	4	2	_	5.2		
1	4	2	3	_	3		
1	4	3	2	_	4		
2	1	3	4	_	3.4		

(continues)

Table A.27. t = 5, Pk = 3 & Only μ5 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	1	4	3	_	4.4		
2	3	1	4	_	2		
2	3	4	1	_	5		
2	4	1	3	_	1.8		
2	4	3	1	_	3.8		
3	1	2	4	_	2.2		
3	1	4	2	_	4.2		
3	2	1	4	_	1		
3	2	4	1	_	4		
3	4	1	2	_	1.6		
3	4	2	1	_	2.6		
4	1	2	3	_	2		
4	1	3	2	_	3		
4	2	1	3	_	0.8		
4	2	3	1	_	2.8		
4	3	1	2	_	0.6		
4	3	2	1	_	1.6		

Table A.28. t = 5, Pk = 3 & Only μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	4	3.8	3	2.3
1	2	4	_	3	5.2		
1	3	2	_	4	2.6		
1	3	4	_	2	5.4		
1	4	2	_	3	2.8		
1	4	3	_	2	4.2		
2	1	3	_	4	2.8		
2	1	4	_	3	4.2		
2	3	1	_	4	1.4		
2	3	4	_	1	5.6		
2	4	1	_	3	1.6		
2	4	3	_	1	4.4		
3	1	2	_	4	1.6		

(continues)

Table A.28. t = 5, Pk = 3 & Only µ4 Missing (continued)

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
3	1	4	_	2	4.4		
3	2	1	_	4	0.4		
3	2	4	_	1	4.6		
3	4	1	_	2	1.8		
3	4	2	_	1	3.2		
4	1	2	_	3	1.8		
4	1	3	_	2	3.2		
4	2	1	_	3	0.6		
4	2	3	_	1	3.4		
4	3	1	_	2	0.8		
4	3	2	_	1	2.2		

Table A.29. t = 5, Pk = 3 & Only µ3 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	2	_	3	4	3	3	0.5
1	2	_	4	3	4		
1	3	_	2	4	3		
1	3	_	4	2	4		
1	4	_	2	3	3		
1	4	_	3	2	4		
2	1	_	3	4	2		
2	1	_	4	3	3		
2	3	_	1	4	3		
2	3	_	4	1	4		
2	4	_	1	3	3		
2	4	_	3	1	4		
3	1	_	2	4	2		
3	1	_	4	2	3		
3	2	_	1	4	2		
3	2	_	4	1	3		
3	4	_	1	2	3		
3	4	_	2	1	4		
4	1	_	2	3	2		

(continues)

Table A.29. t = 5, Pk = 3 & Only µ3 Missing (continued)

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
4	1	_	3	2	3		
4	2	_	1	3	2		
4	2	_	3	1	3		
4	3	_	1	2	2		
4	3	_	2	1	3		

Table A.30. t = 5, Pk = 3 & Only µ2 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	_	2	3	4	2.2	3	2.3
1	_	2	4	3	3.2		
1	_	3	2	4	3.4		
1	_	3	4	2	4.4		
1	_	4	2	3	4.6		
1	_	4	3	2	5.6		
2	_	1	3	4	0.8		
2	_	1	4	3	1.8		
2	_	3	1	4	3.2		
2	_	3	4	1	4.2		
2	_	4	1	3	4.4		
2	_	4	3	1	5.4		
3	_	1	2	4	0.6		
3	_	1	4	2	1.6		
3	_	2	1	4	1.8		
3	_	2	4	1	2.8		
3	_	4	1	2	4.2		
3	_	4	2	1	5.2		
4	_	1	2	3	0.4		
4	_	1	3	2	1.4		
4	_	2	1	3	1.6		
4	_	2	3	1	2.6		
4	_	3	1	2	2.8		
4	_	3	2	1	3.8		

Table A.31. t = 5, Pk = 3 & Only μ1 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	3	4	1.6	3	1.9
_	1	2	4	3	2.6		
_	1	3	2	4	2.8		
_	1	3	4	2	3.8		
_	1	4	2	3	4		
_	1	4	3	2	5		
_	2	1	3	4	0.6		
_	2	1	4	3	1.6		
_	2	3	1	4	3		
_	2	3	4	1	4		
_	2	4	1	3	4.2		
_	2	4	3	1	5.2		
_	3	1	2	4	0.8		
_	3	1	4	2	1.8		
_	3	2	1	4	2		
_	3	2	4	1	3		
_	3	4	1	2	4.4		
_	3	4	2	1	5.4		
_	4	1	2	3	1		
_	4	1	3	2	2		
_	4	2	1	3	2.2		
_	4	2	3	1	3.2		
_	4	3	1	2	3.4		
_	4	3	2	1	4.4		

Table A.32. t = 5, Pk = 3 & Only μ4 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	_	5	3	1.75
1	3	2	_	_	3.5		
2	1	3	_	_	4		
2	3	1	_	_	2		
3	1	2	_	_	2.5		
3	2	1	_	_	1		

Table A.33. t = 5, Pk = 3 & Only μ3 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	3	_	3.75	3	0.29
1	3	_	2	_	3.5		
2	1	_	3	_	2.75		
2	3	_	1	_	3.25		
3	1	_	2	_	2.5		
3	2	_	1	_	2.25		

Table A.34. t = 5, Pk = 3 & Only μ3 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	_	3	3.25	3	0.29
1	3	_	_	2	3.5		
2	1	_	_	3	2.25		
2	3	_	_	1	3.75		
3	1	_	_	2	2.5		
3	2	_	_	1	2.75		

Table A.35. t = 5, Pk = 3 & Only μ2 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	2	3	_	3.5	3	1.63
1	_	3	2	_	4.75		
2	_	1	3	_	1.75		
2	_	3	1	_	4.25		
3	_	1	2	_	1.25		
3	_	2	1	_	2.5		

Table A.36. t = 5, Pk = 3 & Only μ2 and μ3 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	_	2	3	2.75	3	0.29
1	_	_	3	2	3.75		
2	_	_	1	3	2.5		
2	_	_	3	1	3.5		
3	_	_	1	2	2.25		
3	_	_	2	1	3.25		

Table A.37. t = 5, Pk = 3 & Only µ2 and µ4 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
1	_	2	_	3	3	3	2.04
1	_	3	_	2	4.75		
2	_	1	_	3	1.25		
2	_	3	_	1	4.75		
3	_	1	_	2	1.25		
3	_	2	_	1	3		

Table A.38. t = 5, Pk = 3 & Only µ1 and µ5 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	1	2	3	_	3	3	1.04
_	1	3	2	_	4.25		
_	2	1	3	_	1.75		
_	2	3	1	_	4.25		
_	3	1	2	_	1.75		
_	3	2	1	_	3		

Table A.39. t = 5, Pk = 3 & Only µ1 and µ2 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	_	1	2	3	1	3	1.75
_	_	1	3	2	2		
_	_	2	1	3	2.5		
_	_	2	3	1	3.5		
_	_	3	1	2	4		
_	_	3	2	1	5		

Table A.40. t = 5, Pk = 3 & Only µ1 and µ3 Missing

µ1	µ2	µ3	µ4	µ5	Mc	Average	Variance
_	1	_	2	3	2.25	3	0.29
_	1	_	3	2	3.25		
_	2	_	1	3	2.5		
_	2	_	3	1	3.5		
_	3	_	1	2	2.75		
_	3	_	2	1	3.75		

Table A.41. t = 5, Pk = 3 & Only μ1 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	_	3	2.5	3	1.63
_	1	3	_	2	4.25		
_	2	1	_	3	1.25		
_	2	3	_	1	4.75		
_	3	1	_	2	1.75		
_	3	2	_	1	3.5		

Table A.42. t = 5, Pk = 3 & μ3 = μ4 = μ5 = Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	_	_	3.50	3	0.25
2	1	_	_	_	2.50		
1	_	2	_	_	4.17	3	1.36
2	_	1	_	_	1.83		
1	_	_	2	_	3.33	3	0.11
2	_	_	1	_	2.67		
1	_	_	_	2	3.00	3	0.00
2	_	_	_	1	3.00		
_	1	2	_	_	3.83	3	0.69
_	2	1	_	_	2.17		
_	1	_	2	_	3.00	3	0.00
_	2	_	1	_	3.00		
_	1	_	_	2	2.67	3	0.11
_	2	_	_	1	3.33		
_	_	1	2	_	2.17	3	0.69
_	_	2	1	_	3.83		
_	_	1	_	2	1.83	3	1.36
_	_	2	_	1	4.17		
_	_	_	1	2	2.50	3	0.25
_	_	_	2	1	3.50		

A.6. Five Treatments Peak at Four

Table A.43. t = 5, Pk = 4 & No Missing Observations

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	4	5	6	3.5	2.92
1	2	3	5	4	7		
1	2	4	3	5	5		
1	2	4	5	3	7		
1	2	5	3	4	5		
1	2	5	4	3	6		
1	3	2	4	5	5		
1	3	2	5	4	6		
1	3	4	2	5	4		
1	3	4	5	2	7		
1	3	5	2	4	4		
1	3	5	4	2	6		
1	4	2	3	5	4		
1	4	2	5	3	6		
1	4	3	2	5	3		
1	4	3	5	2	6		
1	4	5	2	3	4		
1	4	5	3	2	5		
1	5	2	3	4	4		
1	5	2	4	3	5		
1	5	3	2	4	3		
1	5	3	4	2	5		
1	5	4	2	3	3		
1	5	4	3	2	4		
2	1	3	4	5	5		
2	1	3	5	4	6		
2	1	4	3	5	4		
2	1	4	5	3	6		
2	1	5	3	4	4		
2	1	5	4	3	5		
2	3	1	4	5	4		
2	3	1	5	4	5		

(continues)

Table A.43. t = 5, Pk = 4 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	3	4	1	5	3		
2	3	4	5	1	7		
2	3	5	1	4	3		
2	3	5	4	1	6		
2	4	1	3	5	3		
2	4	1	5	3	5		
2	4	3	1	5	2		
2	4	3	5	1	6		
2	4	5	1	3	3		
2	4	5	3	1	5		
2	5	1	3	4	3		
2	5	1	4	3	4		
2	5	3	1	4	2		
2	5	3	4	1	5		
2	5	4	1	3	2		
2	5	4	3	1	4		
3	1	2	4	5	4		
3	1	2	5	4	5		
3	1	4	2	5	3		
3	1	4	5	2	6		
3	1	5	2	4	3		
3	1	5	4	2	5		
3	2	1	4	5	3		
3	2	1	5	4	4		
3	2	4	1	5	2		
3	2	4	5	1	6		
3	2	5	1	4	2		
3	2	5	4	1	5		
3	4	1	2	5	2		
3	4	1	5	2	5		
3	4	2	1	5	1		
3	4	2	5	1	5		
3	4	5	1	2	3		
3	4	5	2	1	4		

(continues)

Table A.43. t = 5, Pk = 4 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
3	5	1	2	4	2		
3	5	1	4	2	4		
3	5	2	1	4	1		
3	5	2	4	1	4		
3	5	4	1	2	2		
3	5	4	2	1	3		
4	1	2	3	5	3		
4	1	2	5	3	5		
4	1	3	2	5	2		
4	1	3	5	2	5		
4	1	5	2	3	3		
4	1	5	3	2	4		
4	2	1	3	5	2		
4	2	1	5	3	4		
4	2	3	1	5	1		
4	2	3	5	1	5		
4	2	5	1	3	2		
4	2	5	3	1	4		
4	3	1	2	5	1		
4	3	1	5	2	4		
4	3	2	1	5	0		
4	3	2	5	1	4		
4	3	5	1	2	2		
4	3	5	2	1	3		
4	5	1	2	3	2		
4	5	1	3	2	3		
4	5	2	1	3	1		
4	5	2	3	1	3		
4	5	3	1	2	1		
4	5	3	2	1	2		
5	1	2	3	4	3		
5	1	2	4	3	4		
5	1	3	2	4	2		
5	1	3	4	2	4		

(continues)

Table A.43. t = 5, Pk = 4 & No Missing Observations (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
5	1	4	2	3	2		
5	1	4	3	2	3		
5	2	1	3	4	2		
5	2	1	4	3	3		
5	2	3	1	4	1		
5	2	3	4	1	4		
5	2	4	1	3	1		
5	2	4	3	1	3		
5	3	1	2	4	1		
5	3	1	4	2	3		
5	3	2	1	4	0		
5	3	2	4	1	3		
5	3	4	1	2	1		
5	3	4	2	1	2		
5	4	1	2	3	1		
5	4	1	3	2	2		
5	4	2	1	3	0		
5	4	2	3	1	2		
5	4	3	1	2	0		
5	4	3	2	1	1		

Table A.44. t = 5, Pk = 4 & Only μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	4	_	6.8	3.5	2.72
1	2	4	3	_	5.6		
1	3	2	4	_	5.8		
1	3	4	2	_	4.4		
1	4	2	3	_	4.6		
1	4	3	2	_	3.4		
2	1	3	4	_	5.8		
2	1	4	3	_	4.6		
2	3	1	4	_	4.8		
2	3	4	1	_	3.2		
2	4	1	3	_	3.6		

(continues)

Table A.44. t = 5, Pk = 4 & Only μ5 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
2	4	3	1	_	2.2		
3	1	2	4	_	4.8		
3	1	4	2	_	3.4		
3	2	1	4	_	3.8		
3	2	4	1	_	2.2		
3	4	1	2	_	2.4		
3	4	2	1	_	1.2		
4	1	2	3	_	3.6		
4	1	3	2	_	2.4		
4	2	1	3	_	2.6		
4	2	3	1	_	1.2		
4	3	1	2	_	1.4		
4	3	2	1	_	0.2		

Table A.45. t = 5, Pk = 4 & Only μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	4	5	3.5	0.92
1	2	4	_	3	5		
1	3	2	_	4	4		
1	3	4	_	2	5		
1	4	2	_	3	4		
1	4	3	_	2	4		
2	1	3	_	4	4		
2	1	4	_	3	4		
2	3	1	_	4	3		
2	3	4	_	1	5		
2	4	1	_	3	3		
2	4	3	_	1	4		
3	1	2	_	4	3		
3	1	4	_	2	4		
3	2	1	_	4	2		
3	2	4	_	1	4		
3	4	1	_	2	3		

(continues)

Table A.45. t = 5, Pk = 4 & Only μ4 Missing (continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
3	4	2	_	1	3		
4	1	2	_	3	3		
4	1	3	_	2	3		
4	2	1	_	3	2		
4	2	3	_	1	3		
4	3	1	_	2	2		
4	3	2	_	1	2		

Table A.46. t = 5, Pk = 4 & Only μ3 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	3	4	5	3.5	2.52
1	2	_	4	3	6.2		
1	3	_	2	4	3.6		
1	3	_	4	2	6		
1	4	_	2	3	3.4		
1	4	_	3	2	4.6		
2	1	_	3	4	4		
2	1	_	4	3	5.2		
2	3	_	1	4	2.2		
2	3	_	4	1	5.8		
2	4	_	1	3	2		
2	4	_	3	1	4.4		
3	1	_	2	4	2.6		
3	1	_	4	2	5		
3	2	_	1	4	1.2		
3	2	_	4	1	4.8		
3	4	_	1	2	1.8		
3	4	_	2	1	3		
4	1	_	2	3	2.4		
4	1	_	3	2	3.6		
4	2	_	1	3	1		
4	2	_	3	1	3.4		
4	3	_	1	2	0.8		
4	3	_	2	1	2		

Table A.47. t = 5, Pk = 4 & Only μ2 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	2	3	4	4.8	3.5	2.52
1	_	2	4	3	6		
1	_	3	2	4	3.8		
1	_	3	4	2	6.2		
1	_	4	2	3	4		
1	_	4	3	2	5.2		
2	_	1	3	4	3.4		
2	_	1	4	3	4.6		
2	_	3	1	4	2.4		
2	_	3	4	1	6		
2	_	4	1	3	2.6		
2	_	4	3	1	5		
3	_	1	2	4	2		
3	_	1	4	2	4.4		
3	_	2	1	4	1		
3	_	2	4	1	4.6		
3	_	4	1	2	2.4		
3	_	4	2	1	3.6		
4	_	1	2	3	1.8		
4	_	1	3	2	3		
4	_	2	1	3	0.8		
4	_	2	3	1	3.2		
4	_	3	1	2	1		
4	_	3	2	1	2.2		

Table A.48. t = 5, Pk = 4 & Only μ1 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	3	4	4.2	3.5	1.72
_	1	2	4	3	5.4		
_	1	3	2	4	3.2		
_	1	3	4	2	5.6		
_	1	4	2	3	3.4		
_	1	4	3	2	4.6		

(continues)

Table A.48. t = 5, Pk = 4 & Only μ1 Missing (Continued)

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	2	1	3	4	3.2		
_	2	1	4	3	4.4		
_	2	3	1	4	2.2		
_	2	3	4	1	5.8		
_	2	4	1	3	2.4		
_	2	4	3	1	4.8		
_	3	1	2	4	2.2		
_	3	1	4	2	4.6		
_	3	2	1	4	1.2		
_	3	2	4	1	4.8		
_	3	4	1	2	2.6		
_	3	4	2	1	3.8		
_	4	1	2	3	2.4		
_	4	1	3	2	3.6		
_	4	2	1	3	1.4		
_	4	2	3	1	3.8		
_	4	3	1	2	1.6		
_	4	3	2	1	2.8		

Table A.49. t = 5, Pk = 4 & Only μ4 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	3	_	_	5	3.5	0.92
1	3	2	_	_	4		
2	1	3	_	_	4		
2	3	1	_	_	3		
3	1	2	_	_	3		
3	2	1	_	_	2		

Table A.50. t = 5, Pk = 4 & Only μ3 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	3	_	5.75	3.5	2.29
1	3	_	2	_	4		
2	1	_	3	_	4.75		
2	3	_	1	_	2.25		
3	1	_	2	_	3		
3	2	_	1	_	1.25		

Table A.51. t = 5, Pk = 4 & Only μ3 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	_	3	4.25	3.5	0.29
1	3	_	_	2	4		
2	1	_	_	3	3.25		
2	3	_	_	1	3.75		
3	1	_	_	2	3		
3	2	_	_	1	2.75		

Table A.52. t = 5, Pk = 4 & Only μ2 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	2	3	_	5.75	3.5	2.21
1	_	3	2	_	4.5		
2	_	1	3	_	4.25		
2	_	3	1	_	2.75		
3	_	1	2	_	2.5		
3	_	2	1	_	1.25		

Table A.53. t = 5, Pk = 4 & Only μ2 and μ3 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	_	2	3	4	3.5	2.17
1	_	_	3	2	5.5		
2	_	_	1	3	2		
2	_	_	3	1	5		
3	_	_	1	2	1.5		
3	_	_	2	1	3		

Table A.54. t = 5, Pk = 4 & Only μ2 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	_	2	_	3	4.25	3.5	0.71
1	_	3	_	2	4.5		
2	_	1	_	3	2.75		
2	_	3	_	1	4.25		
3	_	1	_	2	2.5		
3	_	2	_	1	2.75		

Table A.55. t = 5, Pk = 4 & Only μ1 and μ5 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	3	_	5.25	3.5	1.29
_	1	3	2	_	4		
_	2	1	3	_	4.25		
_	2	3	1	_	2.75		
_	3	1	2	_	3		
_	3	2	1	_	1.75		

Table A.56. t = 5, Pk = 4 & Only μ1 and μ2 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	_	1	2	3	3	3.5	1.17
_	_	1	3	2	4.5		
_	_	2	1	3	2		
_	_	2	3	1	5		
_	_	3	1	2	2.5		
_	_	3	2	1	4		

Table A.57. t = 5, Pk = 4 & Only μ1 and μ3 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	_	2	3	3.5	3.5	1.50
_	1	_	3	2	5		
_	2	_	1	3	2		
_	2	_	3	1	5		
_	3	_	1	2	2		
_	3	_	2	1	3.5		

Table A.58. t = 5, Pk = 4 & Only μ1 and μ4 Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
_	1	2	_	3	3.75	3.5	0.29
_	1	3	_	2	4		
_	2	1	_	3	2.75		
_	2	3	_	1	4.25		
_	3	1	_	2	3		
_	3	2	_	1	3.25		

Table A.59. t = 5, Pk = 4 & μ3 = μ4 = μ5 = Missing

μ1	μ2	μ3	μ4	μ5	Mc	Average	Variance
1	2	_	_	_	4	3.5	0.25
2	1	_	_	_	3		
1	_	2	_	_	4.33	3.5	0.69
2	_	1	_	_	2.67		
1	_	_	2	_	4.83	3.5	1.78
2	_	_	1	_	2.17		
1	_	_	_	2	3.83	3.5	0.11
2	_	_	_	1	3.17		
_	1	2	_	_	4	3.5	0.25
_	2	1	_	_	3		
_	1	_	2	_	4.5	3.5	1.00
_	2	_	1	_	2.5		
_	1	_	_	2	3.5	3.5	0.00
_	2	_	_	1	3.5		
_	_	1	2	_	4.17	3.5	0.44
_	_	2	1	_	2.83		
_	_	1	_	2	3.17	3.5	0.11
_	_	2	_	1	3.83		
_	_	_	1	2	2.5	3.5	1.00
_	_	_	2	1	4.5		

APPENDIX B. SAS CODES

B.1. Non – Decreasing Alternative Equal Variances

```
%macro p(p);
%macro rank(dta, varn, newdta);

  data tmp1;
    set &dta;
    idn+1;
  run;

  data temp;
   set tmp1;
   array dummy{*} y1-y&varn;
   do i=1 to &varn;
     y=dummy{i};
     grp=i;
     output;
   end;
  run;

  proc sort data=temp;
    by idn;
  run;

  proc rank data=temp out=rankpair;
    by idn;
    var y;
  run;

  data rankpair;
    set rankpair;
    if y=. then y=(ki + 1)/2;
  run;

  proc sort data=rankpair;
    by idn;
  run;

  proc transpose data=rankpair out=tmp prefix=r;
```

```
    by idn ;
    var y;
  run;

  data &newdta(drop=idn _NAME_ _LABEL_ );
    merge tmp1 tmp;
    by idn;
  run;

%mend rank;
%macro three(d, sim, p, k, b, m1, m2, m3, n1, n2, n3);
data blocking;
call streaminit(0);

do sim = 1 to &sim;
block = 0;
v = 0;
        do while (block < &b);
        ki = &k;
        if &d = 'normal' then do;
                if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                        y1 = rand('normal') + &m1; end;
                if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                        y2 = rand('normal') + &m2; end;
                if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                        y3 = rand('normal') + &m3; end; end;
        else if &d = 'exponential' then do;
                if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                        y1 = rand('exponential') + &m1; end;
                if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                        y2 = rand('exponential') + &m2; end;
                if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                        y3 = rand('exponential') + &m3; end; end;
        else if &d = 't' then do;
                if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                        y1 = rand('t', 3) + &m1; end;
                if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                        y2 = rand('t', 3) + &m2; end;
                if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                        y3 = rand('t', 3) + &m3; end; end;
        else if &d = 'cauchy' then do;
                if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
```

```
                y1 = rand('cauchy') + &m1; end;
            if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('cauchy') + &m2; end;
            if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('cauchy') + &m3; end; end;

        if (missing(y1) & ki = 2) then do; v = (4/9) + v; end; else
        if (missing(y2) & ki = 2) then do; v = (16/9)+ v; end; else
        if (missing(y3) & ki = 2) then do; v = (4/9)+ v; end; else
        if ki = 3 then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
        if (ki > 1) then do; output; block + 1; end; end; end;
run;

%rank(blocking, 3, new32);
data two;
set new32 end = eof;
by sim;
        array r{3} r1-r3;
        array sumr{3} sumr1-sumr3;
        array sumrinc{3} sumrinc1-sumrinc3;
        do i=1 to 3;
            if first.sim then do;
                sumr{i}=0;
                sumrinc{i}=0; end;
            if ( y1=. | y2=. | y3=. )  then do;
            sumrinc{i}+(i*r{i}*4/3);        end;
            else do;
            sumr{i}+(i*r{i}); end;
        end;
        output;
        if last.sim then do;
            alvo = sumr1 + sumr2 + sumr3 + sumrinc1 + sumrinc2 + sumrinc3;
            z_alvo = (alvo - &b*&k*(&k + 1)**2/4)/sqrt(v);
            if alvo > 1.645 then pow2 + 1;
            output;
        end;
        run;
data raw (drop=i);
call streaminit(0);

do sim = 1 to &sim;
        do i = 1 to &n1;
```

```
		if &d = 'normal' then do; y = rand('normal', &m1, 1); output; end; else
		if &d = 'exponential' then do; y = rand('exponential') + &m1; output; end;
else
		if &d = 't' then do; y = rand('t', 3) + &m1; output; end; else
		if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
		t =1;
	end;
	do i = 1 to &n2;
		if &d = 'normal' then do; y = rand('normal', &m2, 1); output; end; else
		if &d = 'exponential' then do; y = rand('exponential') + &m2; output; end;
else
		if &d = 't' then do; y = rand('t', 3) + &m2; output; end; else
		if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
		t = 2;
	end;
	do i = 1 to &n3;
		if &d = 'normal' then do; y = rand('normal', &m3, 1); output; end; else
		if &d = 'exponential' then do; y = rand('exponential') + &m3; output; end;
else
		if &d = 't' then do; y = rand('t', 3) + &m3; output; end; else
		if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
		t = 3;
	end;
end;
run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;

data combined (keePk =aj sim p_aj p_zazj p_z z_alvo z zazj);
merge two j  end = eof;
by sim;
if last.sim then do;
	z = z_jt;
	j = _jt_;
	N = &n1 + &n2 + &n3;
	ex = (N**2 - (&n1**2 + &n2**2 + &n3**2))/4;
	vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3)))/72;
```

```
        aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
        zazj = (z + z_alvo)/sqrt(2);
        if aj > 1.645 then p_aj + 1;
        if zazj > 1.645 then p_zazj + 1;
        if z > 1.645 then p_z + 1;
        output;
end;
if eof then do;
        alvonjt = p_aj/&sim;
        zalnjt  = p_zazj/&sim;
file 'C:\Users\alfred.ndungu.AD\Desktop\Dissertation\newCauchy.txt'  mod;
put @1 "3 treatments, &d, &m1, &m2, &m3, ., ., IBD, &b, CRD, &n1, &n2, &n3, ., .,
standardize last," alvonjt", standardize first," zalnjt;  end;
run;
%mend three;
%macro four(d, sim, p, k, b, m1, m2, m3, m4, n1, n2, n3, n4);
data blocking;
call streaminit(0);
do sim = 1 to &sim;
block = 0;
v = 0;
do while (block < &b);
ki = &k;
        if &d = 'normal' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('normal') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('normal') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('normal') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('normal') + &m4; end; end;
        else if &d = 'exponential' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('exponential') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('exponential') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('exponential') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('exponential') + &m4; end; end;
        else if &d = 't' then do;
```

```
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
            y1 = rand('t', 3) + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
            y2 = rand('t', 3) + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
            y3 = rand('t', 3) + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
            y4 = rand('t', 3) + &m4; end; end;
        else if &d = 'cauchy' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
            y1 = rand('cauchy') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
            y2 = rand('cauchy') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
            y3 = rand('cauchy') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
            y4 = rand('cauchy') + &m4; end; end;

if (missing(y1) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*2 + v; inc = inc + 1; end;
else
if (missing(y2) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*((1-8/3)**2 + (3-8/3)**2 +
(4-8/3)**2) + v; inc = inc + 1; end; else
if (missing(y3) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*((1-7/3)**2 + (2-7/3)**2 +
(4-7/3)**2) + v; inc = inc + 1; end; else
if (missing(y4) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*2 + v; inc = inc + 1; end;
else
if (missing(y1) & missing(y2) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
if (missing(y2) & missing(y3) & ki = 2) then do; v = (25/18)*4.5 + v; inc = inc + 1; end;
else
if (missing(y3) & missing(y4) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
if (missing(y1) & missing(y4) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
if (missing(y1) & missing(y3) & ki = 2) then do; v = (25/18)*2 + v; inc = inc + 1; end;
else
if (missing(y2) & missing(y4) & ki = 2) then do; v = (25/18)*2 + v; inc = inc + 1; end;
else
if (ki = 4) then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
if (ki > 1) then do; output; block + 1; end; end;
end; run;
```

```
%rank(blocking, 4, new32);
data two;
set new32 end = eof;
by sim;
array r{4};
array sumr{4};
array sumrinc{4};
do i=1 to 4;
if first.sim then do;
        sumr{i}=0;
        sumrinc{i}=0;
end;
        if ( y1=. | y2=. | y3=. | y4=. )  then do;
        sumrinc{i}+(i*r{i}*(&k + 1)/(ki + 1));
end;
else do;
        sumr{i}+(i*r{i});
end; end; output;
if last.sim then do;
        alvo = sumr1 + sumr2 + sumr3 + sumr4 + sumrinc1 + sumrinc2 + sumrinc3 +
sumrinc4;
        z_alvo = ((sumrinc1 + sumrinc2 + sumrinc3 + sumrinc4 + sumr1 + sumr2 +
sumr3 + sumr4) - &b*&k*(&k + 1)**2/4)/sqrt(v);
if alvo > 1.645 then pow2 + 1; output; end;
run;

data raw (drop=i);
call streaminit(0);
do sim = 1 to &sim;
do i = 1 to &n1;
        if &d = 'normal' then do; y = rand('normal', &m1, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m1; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m1; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
        t =1; end;
do i = 1 to &n2;
        if &d = 'normal' then do; y = rand('normal', &m2, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m2; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m2; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
        t = 2; end;
do i = 1 to &n3;
```

```
        if &d = 'normal' then do; y = rand('normal', &m3, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m3; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m3; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
        t = 3; end;
do i = 1 to &n4;
        if &d = 'normal' then do; y = rand('normal', &m4, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m4; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m4; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end;
        t = 4; end;
end; run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;

data combined (keePk =aj sim p_aj p_zazj p_z z_alvo z zazj);
merge two j end = eof;
by sim;
if last.sim then do;
        z = z_jt;
        j = _jt_;
        N = &n1 + &n2 + &n3 + &n4;
        ex = (N**2 - (&n1**2 + &n2**2 + &n3**2 + &n4**2))/4;
        vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3) + &n4**2*(2*&n4 + 3)))/72;
        aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
        zazj = (z + z_alvo)/sqrt(2);
        if aj > 1.645 then p_aj + 1;
        if zazj > 1.645 then p_zazj + 1;
        if z > 1.645 then p_z + 1; output; end;
if eof then do;
        alvonjt = p_aj/&sim;
        zalnjt  = p_zazj/&sim;
file 'C:\Users\alfred.ndungu.AD\Desktop\Dissertation\newCauchy.txt'  mod;
put @1 "4 treatments, &d, &m1, &m2, &m3, &m4, ., IBD, &b, CRD, &n1, &n2, &n3,
&n4, ., standardize last," alvonjt", standardize first," zalnjt;  end; run;

%mend four;
```

```
%macro five(d, sim, p, k, b, m1, m2, m3, m4, m5, n1, n2, n3, n4, n5);
data blocking;
call streaminit(0);
do sim = 1 to &sim;
block = 0;
v = 0;
do while (block < &b);
ki = &k;
	if &d = 'normal' then do;
	if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
		y1 = rand('normal') + &m1; end;
	if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
		y2 = rand('normal') + &m2 ; end;
	if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
		y3 = rand('normal') + &m3 ; end;
	if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
		y4 = rand('normal') + &m4 ; end;
	if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
		y5 = rand('normal') + &m5 ; end; end;
	if &d = 'exponential' then do;
	if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
		y1 = rand('exponential') + &m1; end;
	if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
		y2 = rand('exponential') + &m2 ; end;
	if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
		y3 = rand('exponential') + &m3 ; end;
	if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
		y4 = rand('exponential') + &m4 ; end;
	if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
		y5 = rand('exponential') + &m5 ; end; end;
	if &d = 't' then do;
	if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
		y1 = rand('T', 3) + &m1; end;
	if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
		y2 = rand('T', 3) + &m2 ; end;
	if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
		y3 = rand('T', 3) + &m3 ; end;
	if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
		y4 = rand('T', 3) + &m4 ; end;
	if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
		y5 = rand('T', 3) + &m5 ; end; end;
	if &d = 'cauchy' then do;
```

```
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('cauchy') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('cauchy') + &m2 ; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('cauchy') + &m3 ; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('cauchy') + &m4 ; end;
        if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
                y5 = rand('cauchy') + &m5 ; end; end;
if (missing(y1) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*5.00 + v; end; else
if (missing(y2) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*8.75 + v; end; else
if (missing(y3) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*10.0 + v; end; else
if (missing(y4) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*8.75 + v; end; else
if (missing(y5) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*5.00 + v; end; else
if (missing(y1) & missing(y2) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y2) & missing(y3) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(26/3) + v;
end; else
if (missing(y3) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(26/3) + v;
end; else
if (missing(y1) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y1) & missing(y3) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y2) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*8 + v; end;
else
if (missing(y1) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y2) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y3) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y4) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y1) & missing(y2) & missing (y3) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (missing(y1) & missing(y2) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y1) & missing(y2) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
```

```
if (missing(y1) & missing(y3) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*4.5 + v; end; else
if (missing(y1) & missing(y3) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y1) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (missing(y2) & missing(y3) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*8 + v; end; else
if (missing(y2) & missing(y3) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*4.5 + v; end; else
if (missing(y3) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y3) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (ki = 5) then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
if (ki > 1 ) then do; block + 1; output; end; end; end;
run;

%rank(blocking, 5, new32);

data two (droPk =block);
set new32 end = eof;
by sim;
        array r{5};
        array sumr{5};
        array sumrinc{5};
        do i=1 to 5;
        if first.sim then do;
                sumr{i}=0; sumrinc{i}=0;
        end;
        if ( y1 = . | y2 = . | y3 = . | y4 = . | y5 = .)  then do;
                sumrinc{i}+(i*r{i}*(&k + 1)/(ki + 1));
        end;
        else do; sumr{i}+(i*r{i}); end;
        end; output;
if last.sim then do;
alvo = sumr1 + sumr2 + sumr3 + sumr4 + sumr5 + sumrinc1 + sumrinc2 + sumrinc3 +
sumrinc4 + sumrinc5;
var = v;
z_alvo = ((sumr1 + sumrinc1) + (sumr2 + sumrinc2) + (sumr3 + sumrinc3) + (sumr4 +
sumrinc4) + (sumr5 + sumrinc5) - (&b*&k*(&k + 1)**2/4))/sqrt(v);
if z_alvo > 1.645 then p_alvo + 1; output; end;
```

```
run;

data raw (drop=i);
call streaminit(0);
do sim = 1 to &sim;
do i = 1 to &n1;
        if &d = 'normal' then do; y = rand('normal', &m1, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m1; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m1; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end; t =1;
end;
do i = 1 to &n2;
        if &d = 'normal' then do; y = rand('normal', &m2, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m2; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m2; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end; t = 2;
        end;
do i = 1 to &n3;
        if &d = 'normal' then do; y = rand('normal', &m3, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m3; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m3; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end; t = 3;
        end;
do i = 1 to &n4;
        if &d = 'normal' then do; y = rand('normal', &m4, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m4; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m4; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end; t = 4;
end;
do i = 1 to &n5;
        if &d = 'normal' then do; y = rand('normal', &m5, 1); output; end; else
        if &d = 'exponential' then do; y = rand('exponential') + &m5; output; end; else
        if &d = 't' then do; y = rand('t', 3) + &m5; output; end; else
        if &d = 'cauchy' then do; y = rand('cauchy') + &m1; output; end; t = 5;
end; end;
run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;
```

```
data combined;
merge two j end = eof;
by sim;
if last.sim then do;
        z = z_jt;
        j = _jt_;
        N = &n1 + &n2 + &n3 + &n4 + &n5;
        ex = (N**2 - (&n1**2 + &n2**2 + &n3**2 + &n4**2 + &n5**2))/4;
        vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3) + &n4**2*(2*&n4 + 3) + &n5**2*(2*&n5 + 3)))/72;
        aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
        zazj = (z + z_alvo)/sqrt(2);
        if aj > 1.645 then p_aj + 1;
        if zazj > 1.645 then p_zazj + 1;
        if z > 1.645 then p_z + 1; output;
end;
if eof then do;
        alvonjt = p_aj/&sim;
        zalnjt  = p_zazj/&sim;
file 'C:\Users\alfred.ndungu.AD\Desktop\Dissertation\newCauchy.txt'  mod;
put @1 "5 treatments, &d, &m1, &m2, &m3, &m4, &m5, IBD, &b, CRD, &n1, &n2,
&n3, &n4, &n5, standardize last," alvonjt", standardize first," zalnjt;  end;
run;
%five('normal', 10000, p, 5, 6, 0, 0, 0, 0, 0, 6, 6, 6, 6, 6);
%five('exponential', 10000, p, 5, 6, 0, 0, 0, 0, 0, 6, 6, 6, 6, 6);
%five('t', 10000, p, 5, 6, 0, 0, 0, 0, 0, 6, 6, 6, 6, 6);
%five('cauchy', 10000, p, 5, 6, 0, 0, 0, 0, 0, 6, 6, 6, 6, 6);
%mend five; %mend p; %p(0.1);
```

B.2. Non – Decreasing Alternative Unequal Variances

```
%macro p(p);
%macro rank(dta, varn, newdta);
data tmp1;
  set &dta;
  idn+1;
run;
data temp;
   set tmp1;
   array dummy{*} y1-y&varn;
do i=1 to &varn;
```

```
   y=dummy{i};grp=i; output;
end;
run;
proc sort data=temp; by idn; run;
proc rank data=temp out=rankpair; by idn; var y; run;

data rankpair;
  set rankpair;
  if y=. then y=(ki + 1)/2;
run;

proc sort data=rankpair; by idn; run;
proc transpose data=rankpair out=tmp prefix=r; by idn ;
      var y;
run;

data &newdta(drop=idn _NAME_ _LABEL_  );
      merge tmp1 tmp;
      by idn;
run;

%mend rank;
%macro three(d, sim, p, k, b, m1, m2, m3, n1, n2, n3);
data blocking;
call streaminit(0);
do sim = 1 to &sim;
block = 0;
v = 0;
do while (block < &b);
ki = &k;
            if &d = 'normal' then do;
            if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                        y1 = rand('normal') + &m1; end;
            if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                        y2 = rand('normal') + &m2; end;
            if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                        y3 = rand('normal') + &m3; end;
end;
else if &d = 'exponential' then do;
            if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                        y1 = rand('exponential') + &m1; end;
            if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
```

```
                y2 = rand('exponential') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('exponential') + &m3; end;
end;
else if &d = 't' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('t', 3) + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('t', 3) + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('t', 3) + &m3; end;
end;
else if &d = 'cauchy' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('cauchy') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('cauchy') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('cauchy') + &m3; end;
end;
if (missing(y1) & ki = 2) then do; v = (4/9) + v; end; else
if (missing(y2) & ki = 2) then do; v = (16/9)+ v; end; else
if (missing(y3) & ki = 2) then do; v = (4/9)+ v; end; else
if ki = 3 then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
if (ki > 1) then do; output; block + 1; end; end; end;
run;

%rank(blocking, 3, new32);

data two;
set new32 end = eof;
by sim;
array r{3} r1-r3;
array sumr{3} sumr1-sumr3;
array sumrinc{3} sumrinc1-sumrinc3;
do i=1 to 3;
        if first.sim then do;
                sumr{i}=0; sumrinc{i}=0;
        end;
        if ( y1=. | y2=. | y3=. )  then do;
                sumrinc{i}+(i*r{i}*4/3);
        end;
```

```
        else do;
                sumr{i}+(i*r{i});
        end; end; output;
        if last.sim then do;
                alvo = sumr1 + sumr2 + sumr3 + sumrinc1 + sumrinc2 + sumrinc3;
                z_alvo = (alvo - &b*&k*(&k + 1)**2/4)/sqrt(v);
                if alvo > 1.645 then pow2 + 1; output;
        end;
        run;
data raw (drop=i);
call streaminit(0);
do sim = 1 to &sim;
do i = 1 to &n1;
        if &d = 'normal' then do; y = rand('normal', &m1, sqrt(2)); output; end; else
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m1; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m1; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t =1;
        end;

do i = 1 to &n2;
        if &d = 'normal' then do; y = rand('normal', &m2, sqrt(2)); output; end; else
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m2; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m2; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t = 2;
        end;

do i = 1 to &n3;
        if &d = 'normal' then do; y = rand('normal', &m3, sqrt(2)); output; end; else
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m3; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m3; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t = 3;
        end;
end; run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;
```

```
data combined (keePk =aj sim p_aj p_zazj p_z z_alvo z zazj);
merge two j  end = eof;
by sim;
if last.sim then do;
        z = z_jt;
        j = _jt_;
        N = &n1 + &n2 + &n3;
        ex = (N**2 - (&n1**2 + &n2**2 + &n3**2))/4;
        vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3)))/72;
        aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
        zazj = (z + z_alvo)/sqrt(2);
        if aj > 1.645 then p_aj + 1;
        if zazj > 1.645 then p_zazj + 1;
        if z > 1.645 then p_z + 1; output;
        end;
if eof then do;
        alvonjt = p_aj/&sim;
        zalnjt  = p_zazj/&sim;
file 'C:\Users\alfred\Desktop\Dissertation\JTAlvoVariance.txt'  mod;
put @1 "3 treatments, &d, &m1, &m2, &m3, ., ., IBD, &b, CRD, &n1, &n2, &n3, ., .,
standardize last," alvonjt", standardize first," zalnjt;  end;
run;
%mend three;
%macro four(d, sim, p, k, b, m1, m2, m3, m4, n1, n2, n3, n4);
data blocking;
call streaminit(0);
do sim = 1 to &sim;
block = 0;
v = 0;
do while (block < &b);
ki = &k;
        if &d = 'normal' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('normal') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('normal') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('normal') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('normal') + &m4; end; end;
        else if &d = 'exponential' then do;
```

```
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('exponential') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('exponential') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('exponential') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('exponential') + &m4; end; end;
        else if &d = 't' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('t', 3) + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('t', 3) + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('t', 3) + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('t', 3) + &m4; end; end;
        else if &d = 'cauchy' then do;
        if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
                y1 = rand('cauchy') + &m1; end;
        if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
                y2 = rand('cauchy') + &m2; end;
        if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
                y3 = rand('cauchy') + &m3; end;
        if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
                y4 = rand('cauchy') + &m4; end; end;
if (missing(y1) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*2 + v; inc = inc + 1; end;
else
if (missing(y2) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*((1-8/3)**2 + (3-8/3)**2 +
(4-8/3)**2) + v; inc = inc + 1; end; else
if (missing(y3) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*((1-7/3)**2 + (2-7/3)**2 +
(4-7/3)**2) + v; inc = inc + 1; end; else
if (missing(y4) & ki = 3) then do; v = ((3*5**2)/(12*(3+1)))*2 + v; inc = inc + 1; end;
else
if (missing(y1) & missing(y2) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
if (missing(y2) & missing(y3) & ki = 2) then do; v = (25/18)*4.5 + v; inc = inc + 1; end;
else
if (missing(y3) & missing(y4) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
if (missing(y1) & missing(y4) & ki = 2) then do; v = (25/18)*0.5 + v; inc = inc + 1; end;
else
```

```
if (missing(y1) & missing(y3) & ki = 2) then do; v = (25/18)*2 + v; inc = inc + 1; end;
else
if (missing(y2) & missing(y4) & ki = 2) then do; v = (25/18)*2 + v; inc = inc + 1; end;
else
if (ki = 4) then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
if (ki > 1) then do; output; block + 1; end; end; end;
run;

%rank(blocking, 4, new32);

data two;
set new32 end = eof;
by sim;
array r{4};
array sumr{4};
array sumrinc{4};
do i=1 to 4;
	if first.sim then do; sumr{i}=0; sumrinc{i}=0; end;
	if ( y1=. | y2=. | y3=. | y4=. )  then do; sumrinc{i}+(i*r{i}*(&k + 1)/(ki + 1)); end;
	else do; sumr{i}+(i*r{i}); end;
end;
output;
if last.sim then do;
	alvo = sumr1 + sumr2 + sumr3 + sumr4 + sumrinc1 + sumrinc2 + sumrinc3 +
sumrinc4;
	z_alvo = ((sumrinc1 + sumrinc2 + sumrinc3 + sumrinc4 + sumr1 + sumr2 +
sumr3 + sumr4) - &b*&k*(&k + 1)**2/4)/sqrt(v);
	if alvo > 1.645 then pow2 + 1; output;
end; run;

data raw (drop=i);
call streaminit(0);
do sim = 1 to &sim;
do i = 1 to &n1;
	if &d = 'normal' then do; y = rand('normal', &m1, sqrt(2)); output; end; else
	if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m1; output; end; else
	if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m1; output; end; else
	if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t =1;
	end;
do i = 1 to &n2;
	if &d = 'normal' then do; y = rand('normal', &m2, sqrt(2)); output; end; else
```

```
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m2; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m2; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t = 2;
        end;
do i = 1 to &n3;
        if &d = 'normal' then do; y = rand('normal', &m3, sqrt(2)); output; end; else
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m3; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m3; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t = 3;
        end;

do i = 1 to &n4;
        if &d = 'normal' then do; y = rand('normal', &m4, sqrt(2)); output; end; else
        if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1) +
&m4; output; end; else
        if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m4; output; end; else
        if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end; t = 4;
        end;
end; run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;

data combined (keePk =aj sim p_aj p_zazj p_z z_alvo z zazj);
merge two j end = eof;
by sim;
if last.sim then do;
        z = z_jt;
        j = _jt_;
        N = &n1 + &n2 + &n3 + &n4;
        ex = (N**2 - (&n1**2 + &n2**2 + &n3**2 + &n4**2))/4;
        vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3) + &n4**2*(2*&n4 + 3)))/72;
        aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
        zazj = (z + z_alvo)/sqrt(2);
        if aj > 1.645 then p_aj + 1;
        if zazj > 1.645 then p_zazj + 1;
```

```
		if z > 1.645 then p_z + 1; output;
end;
if eof then do;
		alvonjt = p_aj/&sim; zalnjt  = p_zazj/&sim;
file 'C:\Users\alfred\Desktop\Dissertation\JTAlvoVariance.txt'  mod;
put @1 "4 treatments, &d, &m1, &m2, &m3, &m4, ., IBD, &b, CRD, &n1, &n2, &n3,
&n4, ., standardize last," alvonjt", standardize first," zalnjt;  end;
run;

%mend four;
%macro five(d, sim, p, k, b, m1, m2, m3, m4, m5, n1, n2, n3, n4, n5);
data blocking;
call streaminit(0);
do sim = 1 to &sim;
block = 0;
v = 0;
do while (block < &b);
ki = &k;
		if &d = 'normal' then do;
		if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
				y1 = rand('normal') + &m1; end;
		if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
				y2 = rand('normal') + &m2 ; end;
		if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
				y3 = rand('normal') + &m3 ; end;
		if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
				y4 = rand('normal') + &m4 ; end;
		if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
				y5 = rand('normal') + &m5 ; end; end;
		if &d = 'exponential' then do;
		if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
				y1 = rand('exponential') + &m1; end;
		if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
				y2 = rand('exponential') + &m2 ; end;
		if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
				y3 = rand('exponential') + &m3 ; end;
		if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
				y4 = rand('exponential') + &m4 ; end;
		if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
				y5 = rand('exponential') + &m5 ; end; end;
		if &d = 't' then do;
		if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
```

```
        y1 = rand('T', 3) + &m1; end;
    if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
        y2 = rand('T', 3) + &m2 ; end;
    if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
        y3 = rand('T', 3) + &m3 ; end;
    if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
        y4 = rand('T', 3) + &m4 ; end;
    if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
        y5 = rand('T', 3) + &m5 ; end; end;
    if &d = 'cauchy' then do;
    if rand('uniform') < &p then do; y1 = .; ki = ki - 1; end; else do;
        y1 = rand('cauchy') + &m1; end;
    if rand('uniform') < &p then do; y2 = .; ki = ki - 1; end; else do;
        y2 = rand('cauchy') + &m2 ; end;
    if rand('uniform') < &p then do; y3 = .; ki = ki - 1; end; else do;
        y3 = rand('cauchy') + &m3 ; end;
    if rand('uniform') < &p then do; y4 = .; ki = ki - 1; end; else do;
        y4 = rand('cauchy') + &m4 ; end;
    if rand('uniform') < &p then do; y5 = .; ki = ki - 1; end; else do;
        y5 = rand('cauchy') + &m5 ; end; end;
if (missing(y1) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*5.00 + v; end; else
if (missing(y2) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*8.75 + v; end; else
if (missing(y3) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*10.0 + v; end; else
if (missing(y4) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*8.75 + v; end; else
if (missing(y5) & ki = 4) then do; v = ((4*6**2)/(12*(ki + 1)))*5.00 + v; end; else
if (missing(y1) & missing(y2) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y2) & missing(y3) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(26/3) + v;
end; else
if (missing(y3) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(26/3) + v;
end; else
if (missing(y1) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y1) & missing(y3) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y2) & missing(y4) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*8 + v; end;
else
if (missing(y1) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y2) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
```

```
if (missing(y3) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*(14/3) + v;
end; else
if (missing(y4) & missing(y5) & ki = 3) then do; v = (3*6**2/(12*(ki+1)))*2 + v; end;
else
if (missing(y1) & missing(y2) & missing (y3) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (missing(y1) & missing(y2) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y1) & missing(y2) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (missing(y1) & missing(y3) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*4.5 + v; end; else
if (missing(y1) & missing(y3) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y1) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (missing(y2) & missing(y3) & missing (y4) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*8 + v; end; else
if (missing(y2) & missing(y3) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*4.5 + v; end; else
if (missing(y3) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*2 + v; end; else
if (missing(y3) & missing(y4) & missing (y5) & ki = 2) then do; v =
(2*6**2/(12*(ki+1)))*0.5 + v; end; else
if (ki = 5) then v = ((&k**3 - &k)**2)/(144*(&k - 1)) + v;
if (ki > 1 ) then do; block + 1; output; end; end; end;
run;

%rank(blocking, 5, new32);

data two (droPk =block);
set new32 end = eof;
by sim;
        array r{5};
        array sumr{5};
        array sumrinc{5};
        do i=1 to 5;
                if first.sim then do;
                        sumr{i}=0;
                        sumrinc{i}=0;
                end;
        if ( y1 = . | y2 = . | y3 = . | y4 = . | y5 = .)  then do;
```

```
			sumrinc{i}+(i*r{i}*(&k + 1)/(ki + 1));
		end;
		else do;
			sumr{i}+(i*r{i});
		end;
end; output;
if last.sim then do;
			alvo = sumr1 + sumr2 + sumr3 + sumr4 + sumr5 + sumrinc1 + sumrinc2 +
sumrinc3 + sumrinc4 + sumrinc5;
			var = v;
			z_alvo = ((sumr1 + sumrinc1) + (sumr2 + sumrinc2) + (sumr3 +
sumrinc3) + (sumr4 + sumrinc4) + (sumr5 + sumrinc5) - (&b*&k*(&k +
1)**2/4))/sqrt(v);
			if z_alvo > 1.645 then p_alvo + 1;
			output;
		end;

run;
data raw (drop=i);
call streaminit(0);
do sim = 1 to &sim;
		do i = 1 to &n1;
			if &d = 'normal' then do; y = rand('normal', &m1, sqrt(2)); output; end;
else
			if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1)
+ &m1; output; end; else
			if &d = 't' then do; y = sqrt(2)*rand('t', 3) + &m1; output; end; else
			if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end;
			t =1;
		end;
		do i = 1 to &n2;
			if &d = 'normal' then do; y = rand('normal', &m2, sqrt(2)); output; end;
else
			if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1)
+ &m2; output; end; else
			if &d = 't' then do; y = rand('t', 3) + &m2; output; end; else
			if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end;
			t = 2;
		end;
		do i = 1 to &n3;
			if &d = 'normal' then do; y = rand('normal', &m3, sqrt(2)); output; end;
else
```

```
		if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1)
+ &m3; output; end; else
		if &d = 't' then do; y = rand('t', 3) + &m3; output; end; else
		if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end;
		t = 3;
	end;
	do i = 1 to &n4;
		if &d = 'normal' then do; y = rand('normal', &m4, sqrt(2)); output; end;
else
		if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1)
+ &m4; output; end; else
		if &d = 't' then do; y = rand('t', 3) + &m4; output; end; else
		if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end;
		t = 4;
	end;
	do i = 1 to &n5;
		if &d = 'normal' then do; y = rand('normal', &m5, sqrt(2)); output; end;
else
		if &d = 'exponential' then do; y = (sqrt(2)*rand('exponential') - sqrt(2) + 1)
+ &m5; output; end; else
		if &d = 't' then do; y = rand('t', 3) + &m5; output; end; else
		if &d = 'cauchy' then do; y = sqrt(2)*rand('cauchy') + &m1; output; end;
		t = 5;
	end;
end;
run;

proc freq.data=raw noprint;
by sim;
tables t*y/ jt noprint;
output out = j jt;
run;

data combined;
merge two j end = eof;
by sim;
	if last.sim then do;
		z = z_jt;
		j = _jt_;
		N = &n1 + &n2 + &n3 + &n4 + &n5;
		ex = (N**2 - (&n1**2 + &n2**2 + &n3**2 + &n4**2 + &n5**2))/4;
```

```
                vx = (N**2*(2*N + 3) - (&n1**2*(2*&n1 + 3) + &n2**2*(2*&n2 + 3) +
&n3**2*(2*&n3 + 3) + &n4**2*(2*&n4 + 3) + &n5**2*(2*&n5 + 3)))/72;
                aj = ((alvo + j) - ((&b*&k*(&k + 1)**2/4)+(ex)))/sqrt(v + vx);
                zazj = (z + z_alvo)/sqrt(2);
                if aj > 1.645 then p_aj + 1;
                if zazj > 1.645 then p_zazj + 1;
                if z > 1.645 then p_z + 1;
                output;
        end;
        if eof then do;
                alvonjt = p_aj/&sim;
                zalnjt  = p_zazj/&sim;

                file 'C:\Users\alfred\Desktop\Dissertation\JTAlvoVariance.txt'  mod;
put @1 "5 treatments, &d, &m1, &m2, &m3, &m4, &m5, IBD, &b, CRD, &n1, &n2,
&n3, &n4, &n5, standardize last," alvonjt", standardize first," zalnjt;  end;run;
%mend five;
%mend p;
%p(0.1);
```

APPENDIX C. ALVO AND JT COMPARISON – EQUAL VARIANCES

C.1. Three Treatments

C.1.1. Probability of Missing = 0.1

Table C.1. t = 3, p = 0.1, IBD =20, CRD =5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.4%	4.4%
	0	0.2	0.4	22.2%	26.3%
	0	0.4	0.8	57.4%	65.9%
	0	0.1	0.6	40.7%	47.6%
	0	0	0.8	60.3%	68.5%
	0	0.8	0.8	52.4%	62.3%
	1	0.5	0	0.0%	0.0%
Exponential	0	0	0	4.7%	5.0%
	0	0.2	0.4	40.1%	47.0%
	0	0.4	0.8	81.0%	88.5%
	0	0.1	0.6	64.1%	72.5%
	0	0	0.4	41.8%	48.5%
	0	0.5	0.5	46.1%	54.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.7%	4.8%
	0	0.2	0.4	18.6%	21.2%
	0	0.4	0.8	42.8%	50.3%
	0	0.1	0.9	52.4%	60.2%
	0	0	0.8	44.8%	52.0%
	0	0.8	0.8	38.7%	46.2%
	1	0.5	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	5.2%
	0	1.5	3	57.0%	76.7%
	0	1	2.5	47.4%	67.1%
	0	2	3	55.7%	75.4%
	0	0	2	35.7%	50.9%
	0	2	2	36.5%	51.5%
	3	0	1	0.2%	0.0%

Table C.2. t = 3, p = 0.1, IBD =10, CRD =10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.2	0.4	21.6%	26.8%
	0	0.4	0.8	51.2%	65.9%
	0	0.5	1	67.5%	82.8%
	0	0	0.6	36.7%	47.6%
	0	0.6	0.6	32.2%	44.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	5.2%
	0	0.2	0.4	37.1%	48.8%
	0	0.4	0.8	75.6%	89.4%
	0	0.5	1	86.7%	96.4%
	0	0	0.4	35.8%	47.2%
	0	0.4	0.5	45.5%	59.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	4.9%
	0	0.2	0.4	16.5%	20.9%
	0	0.4	0.8	39.6%	52.3%
	0	0.5	1	50.6%	66.3%
	0	0	0.6	28.6%	35.9%
	0	0.6	0.6	24.1%	33.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	4.9%
	0	1.5	3	10.4%	50.9%
	0	1	2.5	9.8%	42.3%
	0	2	3	10.8%	50.2%
	0	0	2	8.6%	31.8%
	0	2	2	8.7%	31.1%
	3	0	1	2.8%	0.3%
	2	1	0	2.5%	0.2%

Table C.3. t = 3, p = 0.1, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.3%
	0	0.2	0.4	26.3%	33.4%
	0	0.4	0.8	64.3%	77.7%
	0	0.5	1	81.0%	91.3%
	0	0	0.6	46.9%	57.1%
	0	0.6	0.6	42.6%	54.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.8%
	0	0.2	0.4	47.5%	58.7%
	0	0.4	0.8	87.9%	95.4%
	0	0.5	1	95.8%	99.1%
	0	0	0.4	45.9%	57.5%
	0	0.4	0.5	58.3%	70.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	4.8%
	0	0.2	0.4	21.1%	25.6%
	0	0.4	0.8	48.9%	60.7%
	0	0.5	1	65.2%	78.0%
	0	0	0.6	35.2%	43.5%
	0	0.6	0.6	31.5%	40.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.0%
	0	1.5	3	7.7%	50.4%
	0	1	2.5	7.6%	42.3%
	0	2	3	7.6%	49.2%
	0	0	2	6.7%	31.4%
	0	2	2	7.0%	32.2%
	3	0	1	3.7%	0.1%
	2	1	0	3.5%	0.1%

Table C.4. t = 3, p = 0.1, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	29.3%	31.1%
	0	0.4	0.8	70.2%	74.2%
	0	0.5	1	86.0%	89.2%
	0	0	0.6	50.7%	54.1%
	0	0.6	0.6	46.7%	52.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.3%
	0	0.2	0.4	52.8%	55.5%
	0	0.4	0.8	91.6%	94.1%
	0	0.5	1	97.8%	98.8%
	0	0	0.4	50.7%	54.8%
	0	0.4	0.5	62.0%	67.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	4.7%
	0	0.2	0.4	22.6%	23.7%
	0	0.4	0.8	53.9%	58.3%
	0	0.5	1	70.5%	74.6%
	0	0	0.6	37.8%	41.1%
	0	0.6	0.6	34.8%	39.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.3%
	0	1.5	3	6.1%	33.9%
	0	1	2.5	5.8%	29.4%
	0	2	3	6.3%	34.7%
	0	0	2	5.6%	22.2%
	0	2	2	5.8%	22.5%
	3	0	1	4.3%	0.5%
	2	1	0	4.5%	0.4%

Table C.5. t = 3, p = 0.1, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.6%
	0	0.2	0.4	22.8%	27.8%
	0	0.4	0.8	54.6%	67.9%
	0	0.5	1	70.8%	83.8%
	0	0	0.6	39.6%	49.3%
	0	0.6	0.6	34.0%	44.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.8%
	0	0.2	0.4	38.6%	49.0%
	0	0.4	0.8	78.3%	89.8%
	0	0.5	1	89.2%	97.0%
	0	0	0.4	38.8%	48.7%
	0	0.4	0.5	47.9%	60.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.0%
	0	0.2	0.4	17.3%	21.3%
	0	0.4	0.8	41.0%	51.7%
	0	0.5	1	53.6%	67.3%
	0	0	0.6	30.0%	37.3%
	0	0.6	0.6	26.0%	33.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.1%
	0	1.5	3	38.7%	73.3%
	0	1	2.5	33.7%	63.8%
	0	2	3	37.5%	71.8%
	0	0	2	26.5%	49.0%
	0	2	2	25.6%	48.2%
	3	0	1	0.4%	0.1%
	2	1	0	0.3%	0.0%

Table C.6. t = 3, p = 0.1, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	19.3%	23.6%
	0	0.4	0.8	45.7%	57.2%
	0	0.5	1	59.2%	73.6%
	0	0	0.6	33.2%	40.5%
	0	0.6	0.6	28.5%	36.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.0%
	0	0.2	0.4	32.0%	40.5%
	0	0.4	0.8	67.2%	81.4%
	0	0.5	1	79.9%	91.4%
	0	0	0.4	33.5%	40.7%
	0	0.4	0.5	39.8%	51.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.0%
	0	0.2	0.4	15.5%	18.0%
	0	0.4	0.8	34.8%	43.1%
	0	0.5	1	44.0%	56.7%
	0	0	0.6	25.8%	30.7%
	0	0.6	0.6	21.3%	27.4%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	4.9%
	0	1.5	3	24.2%	56.4%
	0	1	2.5	21.7%	48.4%
	0	2	3	23.9%	55.4%
	0	0	2	17.0%	36.5%
	0	2	2	16.9%	35.5%
	3	0	1	1.3%	0.2%
	2	1	0	0.7%	0.1%

Table C.7. t = 3, p = 0.1, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	4.9%
	0	0.2	0.4	22.4%	26.2%
	0	0.4	0.8	54.0%	62.2%
	0	0.5	1	70.8%	79.5%
	0	0	0.6	38.2%	44.0%
	0	0.6	0.6	33.4%	40.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.6%	5.2%
	0	0.2	0.4	39.0%	45.4%
	0	0.4	0.8	78.8%	86.6%
	0	0.5	1	89.5%	94.8%
	0	0	0.4	39.0%	44.5%
	0	0.4	0.5	48.4%	56.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	4.8%
	0	0.2	0.4	18.0%	20.2%
	0	0.4	0.8	40.8%	47.7%
	0	0.5	1	54.1%	62.3%
	0	0	0.6	30.3%	34.5%
	0	0.6	0.6	26.4%	30.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.1%
	0	1.5	3	6.9%	34.0%
	0	1	2.5	7.0%	30.2%
	0	2	3	7.2%	33.7%
	0	0	2	6.5%	21.9%
	0	2	2	6.7%	21.5%
	3	0	1	4.0%	0.4%
	2	1	0	4.0%	0.3%

Table C.8. t = 3, p = 0.1, IBD =12, CRD =12

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.7%	5.0%
	0	0.2	0.4	23.0%	32.1%
	0	0.4	0.8	57.1%	74.4%
	0	0.5	1	74.6%	89.6%
	0	0	0.6	41.0%	54.5%
	0	0.6	0.6	36.7%	52.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.2%
	0	0.2	0.4	42.0%	56.4%
	0	0.4	0.8	82.0%	94.0%
	0	0.5	1	91.9%	98.7%
	0	0	0.4	41.0%	55.5%
	0	0.4	0.5	50.6%	68.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.4%
	0	0.2	0.4	17.8%	24.1%
	0	0.4	0.8	42.8%	58.4%
	0	0.5	1	56.4%	74.2%
	0	0	0.6	31.6%	41.9%
	0	0.6	0.6	27.1%	39.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	4.9%
	0	1.5	3	7.9%	58.1%
	0	1	2.5	7.1%	48.2%
	0	2	3	7.6%	56.0%
	0	0	2	6.5%	36.0%
	0	2	2	6.7%	36.9%
	3	0	1	3.9%	0.1%
	2	1	0	3.5%	0.1%

Table C.9. t = 3, p = 0.1, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.2	0.4	14.7%	18.7%
	0	0.4	0.8	31.8%	42.6%
	0	0.5	1	43.4%	58.2%
	0	0	0.6	24.4%	31.0%
	0	0.6	0.6	19.8%	27.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.6%	4.9%
	0	0.2	0.4	24.9%	31.9%
	0	0.4	0.8	52.0%	66.8%
	0	0.5	1	64.1%	80.1%
	0	0	0.4	23.7%	30.9%
	0	0.4	0.5	28.6%	38.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.2	0.4	12.4%	15.7%
	0	0.4	0.8	24.5%	33.1%
	0	0.5	1	32.5%	43.8%
	0	0	0.6	19.3%	24.6%
	0	0.6	0.6	15.3%	20.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.2%
	0	1.5	3	12.2%	34.6%
	0	1	2.5	10.3%	29.5%
	0	2	3	11.6%	34.0%
	0	0	2	9.4%	22.7%
	0	2	2	8.7%	22.0%
	3	0	1	2.2%	0.6%
	2	1	0	1.8%	0.3%

C.1.2. Probability of Missing = 0.2

Table C.10. t = 3, p = 0.2, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.0%
	0	0.2	0.4	22.8%	26.6%
	0	0.4	0.8	57.2%	65.9%
	0	0.1	0.6	41.5%	47.9%
	0	0	0.8	59.9%	67.7%
	0	0.8	0.8	52.0%	62.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.4%
	0	0.2	0.4	41.2%	47.8%
	0	0.4	0.8	81.1%	88.7%
	0	0.1	0.6	65.2%	74.3%
	0	0	0.4	40.9%	48.1%
	0	0.5	0.5	46.5%	55.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.7%	4.7%
	0	0.2	0.4	18.0%	20.8%
	0	0.4	0.8	43.5%	50.3%
	0	0.1	0.9	51.9%	59.9%
	0	0	0.8	46.0%	52.8%
	0	0.8	0.8	38.3%	46.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.0%
	0	1.5	3	56.5%	76.4%
	0	1	2.5	47.7%	66.7%
	0	2	3	55.2%	76.2%
	0	0	2	35.7%	51.5%
	0	2	2	36.0%	51.0%
	3	0	1	0.1%	0.0%
	2	1	0	0.1%	0.0%

Table C.11. t = 3, p = 0.2, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.2%
	0	0.2	0.4	21.2%	27.2%
	0	0.4	0.8	51.1%	66.3%
	0	0.5	1	67.1%	82.7%
	0	0	0.6	36.6%	47.6%
	0	0.6	0.6	31.1%	43.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	4.8%
	0	0.2	0.4	36.4%	48.1%
	0	0.4	0.8	75.3%	89.4%
	0	0.5	1	86.8%	96.5%
	0	0	0.4	36.3%	48.1%
	0	0.4	0.5	45.3%	59.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.0%
	0	0.2	0.4	17.0%	21.6%
	0	0.4	0.8	38.6%	50.1%
	0	0.5	1	51.2%	67.9%
	0	0	0.6	28.3%	35.6%
	0	0.6	0.6	24.8%	33.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.3%
	0	1.5	3	10.5%	49.8%
	0	1	2.5	10.3%	42.5%
	0	2	3	10.5%	49.1%
	0	0	2	8.5%	31.2%
	0	2	2	8.6%	31.6%
	3	0	1	2.8%	0.2%
	2	1	0	2.5%	0.1%

Table C.12. t = 3, p = 0.2, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.2	0.4	26.9%	32.8%
	0	0.4	0.8	64.5%	77.4%
	0	0.5	1	81.0%	90.9%
	0	0	0.6	46.5%	57.3%
	0	0.6	0.6	42.1%	53.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	4.9%
	0	0.2	0.4	47.5%	58.1%
	0	0.4	0.8	87.5%	95.0%
	0	0.5	1	95.7%	99.1%
	0	0	0.4	45.9%	57.4%
	0	0.4	0.5	57.9%	70.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.3%
	0	0.2	0.4	21.1%	25.1%
	0	0.4	0.8	49.2%	61.4%
	0	0.5	1	63.9%	77.0%
	0	0	0.6	35.2%	43.7%
	0	0.6	0.6	31.6%	41.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.0%
	0	1.5	3	8.2%	49.9%
	0	1	2.5	7.5%	42.5%
	0	2	3	8.0%	50.2%
	0	0	2	7.1%	31.9%
	0	2	2	6.4%	32.1%
	3	0	1	4.0%	0.3%
	2	1	0	3.8%	0.1%

Table C.13. t = 3, p = 0.2, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.2%
	0	0.2	0.4	28.7%	31.7%
	0	0.4	0.8	70.2%	75.2%
	0	0.5	1	85.9%	89.6%
	0	0	0.6	49.8%	53.8%
	0	0.6	0.6	47.2%	52.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.2%
	0	0.2	0.4	52.3%	57.1%
	0	0.4	0.8	91.7%	94.3%
	0	0.5	1	97.7%	98.8%
	0	0	0.4	51.1%	53.9%
	0	0.4	0.5	63.5%	68.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.2%
	0	0.2	0.4	22.5%	24.4%
	0	0.4	0.8	54.5%	58.8%
	0	0.5	1	70.9%	74.5%
	0	0	0.6	38.0%	40.9%
	0	0.6	0.6	35.9%	39.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.5%	5.4%
	0	1.5	3	6.1%	35.0%
	0	1	2.5	6.1%	29.7%
	0	2	3	5.6%	33.4%
	0	0	2	5.8%	22.9%
	0	2	2	6.0%	22.4%
	3	0	1	4.5%	0.5%
	2	1	0	4.3%	0.4%

Table C.14. t = 3, p = 0.2, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.2	0.4	22.9%	28.4%
	0	0.4	0.8	54.0%	67.1%
	0	0.5	1	69.7%	82.5%
	0	0	0.6	39.9%	48.9%
	0	0.6	0.6	34.1%	44.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.0%
	0	0.2	0.4	38.7%	48.6%
	0	0.4	0.8	78.1%	89.8%
	0	0.5	1	89.1%	96.4%
	0	0	0.4	39.3%	48.9%
	0	0.4	0.5	47.1%	59.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.0%
	0	0.2	0.4	17.7%	20.9%
	0	0.4	0.8	40.8%	51.6%
	0	0.5	1	54.0%	67.6%
	0	0	0.6	30.6%	37.0%
	0	0.6	0.6	25.5%	33.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.0%
	0	1.5	3	38.9%	72.7%
	0	1	2.5	33.9%	63.8%
	0	2	3	39.0%	72.6%
	0	0	2	25.8%	48.0%
	0	2	2	25.5%	48.3%
	3	0	1	0.5%	0.0%
	2	1	0	0.2%	0.0%

Table C.15. t = 3, p = 0.2, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.3%
	0	0.2	0.4	19.9%	23.1%
	0	0.4	0.8	44.8%	57.2%
	0	0.5	1	59.8%	73.9%
	0	0	0.6	33.6%	41.3%
	0	0.6	0.6	27.4%	36.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.7%	5.5%
	0	0.2	0.4	32.2%	40.6%
	0	0.4	0.8	67.4%	81.0%
	0	0.5	1	80.2%	91.3%
	0	0	0.4	33.0%	40.9%
	0	0.4	0.5	38.6%	49.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.1%
	0	0.2	0.4	16.0%	18.5%
	0	0.4	0.8	34.1%	43.2%
	0	0.5	1	45.2%	57.5%
	0	0	0.6	25.7%	30.9%
	0	0.6	0.6	21.3%	26.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.6%
	0	1.5	3	24.4%	56.9%
	0	1	2.5	21.7%	48.8%
	0	2	3	24.2%	56.8%
	0	0	2	16.9%	35.6%
	0	2	2	17.4%	36.0%
	3	0	1	1.2%	0.2%
	2	1	0	0.9%	0.1%

Table C.16. t = 3, p = 0.2, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.2%
	0	0.2	0.4	21.8%	25.3%
	0	0.4	0.8	54.3%	62.6%
	0	0.5	1	70.3%	79.6%
	0	0	0.6	38.9%	43.6%
	0	0.6	0.6	34.2%	41.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	4.8%
	0	0.2	0.4	39.4%	45.4%
	0	0.4	0.8	78.2%	86.2%
	0	0.5	1	89.4%	95.1%
	0	0	0.4	39.1%	44.6%
	0	0.4	0.5	47.8%	55.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.0%
	0	0.2	0.4	18.8%	20.7%
	0	0.4	0.8	41.2%	48.1%
	0	0.5	1	53.5%	61.7%
	0	0	0.6	30.3%	33.8%
	0	0.6	0.6	26.0%	31.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	4.9%
	0	1.5	3	7.1%	35.3%
	0	1	2.5	6.9%	29.4%
	0	2	3	7.2%	34.5%
	0	0	2	6.9%	22.5%
	0	2	2	7.1%	22.1%
	3	0	1	4.2%	0.5%
	2	1	0	4.0%	0.4%

Table C.17. t = 3, p = 0.2, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.7%
	0	0.2	0.4	22.6%	31.3%
	0	0.4	0.8	57.7%	75.1%
	0	0.5	1	74.0%	89.2%
	0	0	0.6	41.6%	55.1%
	0	0.6	0.6	36.4%	50.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.4%	5.0%
	0	0.2	0.4	41.7%	55.6%
	0	0.4	0.8	82.3%	94.1%
	0	0.5	1	92.0%	98.6%
	0	0	0.4	40.7%	55.1%
	0	0.4	0.5	50.4%	67.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.9%
	0	0.2	0.4	18.9%	24.5%
	0	0.4	0.8	43.4%	58.3%
	0	0.5	1	57.2%	74.9%
	0	0	0.6	31.3%	41.9%
	0	0.6	0.6	27.2%	38.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.2%
	0	1.5	3	7.2%	57.1%
	0	1	2.5	7.2%	49.1%
	0	2	3	7.6%	55.3%
	0	0	2	6.9%	36.4%
	0	2	2	6.8%	36.8%
	3	0	1	3.9%	0.2%
	2	1	0	3.5%	0.1%

Table C.18. t = 3, p = 0.2, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.3%
	0	0.2	0.4	15.1%	18.8%
	0	0.4	0.8	32.5%	44.1%
	0	0.5	1	43.3%	58.1%
	0	0	0.6	24.5%	31.7%
	0	0.6	0.6	19.8%	27.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.4%	5.0%
	0	0.2	0.4	23.9%	31.6%
	0	0.4	0.8	50.7%	66.5%
	0	0.5	1	64.5%	79.5%
	0	0	0.4	23.7%	30.6%
	0	0.4	0.5	28.6%	38.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.4%	5.0%
	0	0.2	0.4	12.1%	14.6%
	0	0.4	0.8	25.0%	33.1%
	0	0.5	1	33.0%	44.7%
	0	0	0.6	19.2%	24.3%
	0	0.6	0.6	15.1%	20.6%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.5%	5.0%
	0	1.5	3	11.8%	35.5%
	0	1	2.5	10.9%	30.1%
	0	2	3	11.5%	34.2%
	0	0	2	9.3%	22.6%
	0	2	2	9.1%	22.5%
	3	0	1	2.3%	0.3%
	2	1	0	2.0%	0.5%

C.1.3. Probability of Missing = 0.3

Table C.19. t = 3, p = 0.3, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	22.5%	25.8%
	0	0.4	0.8	56.9%	65.5%
	0	0.1	0.6	41.2%	47.5%
	0	0	0.8	59.9%	68.0%
	0	0.8	0.8	51.7%	61.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	5.1%
	0	0.2	0.4	41.0%	47.7%
	0	0.4	0.8	81.6%	88.8%
	0	0.1	0.6	64.9%	73.3%
	0	0	0.4	42.5%	49.2%
	0	0.5	0.5	46.8%	55.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.3%
	0	0.2	0.4	17.8%	20.4%
	0	0.4	0.8	42.4%	49.6%
	0	0.1	0.9	52.3%	59.9%
	0	0	0.8	46.4%	53.4%
	0	0.8	0.8	39.2%	46.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	4.8%
	0	1.5	3	56.3%	75.6%
	0	1	2.5	48.3%	67.3%
	0	2	3	55.2%	75.4%
	0	0	2	36.3%	51.3%
	0	2	2	36.1%	51.4%
	3	0	1	0.2%	0.1%
	2	1	0	0.1%	0.0%

Table C.20. t = 3, p = 0.3, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.2%
	0	0.2	0.4	21.1%	27.6%
	0	0.4	0.8	50.7%	65.6%
	0	0.5	1	66.8%	82.5%
	0	0	0.6	37.0%	47.9%
	0	0.6	0.6	32.7%	44.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.4%	5.2%
	0	0.2	0.4	37.5%	49.0%
	0	0.4	0.8	75.9%	89.2%
	0	0.5	1	87.1%	96.4%
	0	0	0.4	36.5%	47.6%
	0	0.4	0.5	44.5%	59.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.4%
	0	0.2	0.4	17.9%	22.0%
	0	0.4	0.8	38.8%	51.1%
	0	0.5	1	51.1%	67.0%
	0	0	0.6	27.9%	36.6%
	0	0.6	0.6	25.0%	34.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.4%	5.3%
	0	1.5	3	10.6%	50.0%
	0	1	2.5	9.8%	41.7%
	0	2	3	10.9%	49.9%
	0	0	2	9.2%	31.6%
	0	2	2	8.8%	32.3%
	3	0	1	3.1%	0.2%
	2	1	0	2.6%	0.1%

Table C.21. t = 3, p = 0.3, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.2%
	0	0.2	0.4	26.8%	33.2%
	0	0.4	0.8	65.3%	77.8%
	0	0.5	1	81.0%	91.1%
	0	0	0.6	45.3%	56.3%
	0	0.6	0.6	42.3%	54.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.7%
	0	0.2	0.4	47.8%	59.0%
	0	0.4	0.8	88.1%	95.7%
	0	0.5	1	95.6%	98.8%
	0	0	0.4	46.6%	56.9%
	0	0.4	0.5	56.8%	69.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.0%
	0	0.2	0.4	21.4%	25.3%
	0	0.4	0.8	49.3%	61.2%
	0	0.5	1	64.6%	76.5%
	0	0	0.6	34.8%	43.3%
	0	0.6	0.6	32.0%	40.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	7.5%	49.6%
	0	1	2.5	7.5%	43.0%
	0	2	3	7.3%	50.0%
	0	0	2	7.0%	31.8%
	0	2	2	7.0%	32.1%
	3	0	1	3.5%	0.2%
	2	1	0	3.4%	0.1%

Table C.22. t = 3, p = 0.3, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.2	0.4	28.7%	30.6%
	0	0.4	0.8	70.2%	74.8%
	0	0.5	1	85.4%	89.0%
	0	0	0.6	50.7%	54.7%
	0	0.6	0.6	46.5%	51.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	5.1%
	0	0.2	0.4	51.7%	55.6%
	0	0.4	0.8	91.5%	93.8%
	0	0.5	1	97.5%	98.7%
	0	0	0.4	50.2%	55.0%
	0	0.4	0.5	63.5%	68.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.1%
	0	0.2	0.4	21.9%	23.8%
	0	0.4	0.8	54.7%	59.2%
	0	0.5	1	69.7%	74.7%
	0	0	0.6	38.3%	41.1%
	0	0.6	0.6	36.0%	39.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.3%
	0	1.5	3	6.0%	34.6%
	0	1	2.5	5.9%	29.3%
	0	2	3	5.9%	34.1%
	0	0	2	5.7%	22.2%
	0	2	2	5.8%	22.7%
	3	0	1	4.8%	0.5%
	2	1	0	4.4%	0.4%

Table C.23. t = 3, p = 0.3, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.2	0.4	21.8%	26.9%
	0	0.4	0.8	54.7%	67.7%
	0	0.5	1	69.6%	83.4%
	0	0	0.6	38.3%	48.1%
	0	0.6	0.6	34.4%	44.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.4%	5.0%
	0	0.2	0.4	38.5%	48.2%
	0	0.4	0.8	78.9%	89.9%
	0	0.5	1	88.8%	96.7%
	0	0	0.4	40.0%	50.0%
	0	0.4	0.5	47.3%	59.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.2	0.4	17.9%	21.8%
	0	0.4	0.8	41.1%	51.8%
	0	0.5	1	54.5%	67.8%
	0	0	0.6	30.2%	36.6%
	0	0.6	0.6	25.7%	32.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.1%
	0	1.5	3	38.8%	72.6%
	0	1	2.5	33.1%	63.6%
	0	2	3	37.7%	71.4%
	0	0	2	25.3%	48.2%
	0	2	2	26.3%	49.1%
	3	0	1	0.5%	0.0%
	2	1	0	0.2%	0.0%

Table C.24. t = 3, p = 0.3, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	4.9%
	0	0.2	0.4	19.9%	23.7%
	0	0.4	0.8	44.2%	56.6%
	0	0.5	1	59.8%	73.6%
	0	0	0.6	33.3%	41.6%
	0	0.6	0.6	27.2%	36.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	5.1%
	0	0.2	0.4	33.3%	41.5%
	0	0.4	0.8	67.6%	81.7%
	0	0.5	1	80.3%	91.7%
	0	0	0.4	33.3%	40.8%
	0	0.4	0.5	39.9%	50.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.2%
	0	0.2	0.4	16.1%	18.7%
	0	0.4	0.8	34.1%	42.7%
	0	0.5	1	46.4%	58.5%
	0	0	0.6	26.1%	30.8%
	0	0.6	0.6	21.9%	27.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	24.7%	56.7%
	0	1	2.5	21.9%	48.5%
	0	2	3	24.4%	56.3%
	0	0	2	17.8%	36.1%
	0	2	2	18.1%	36.3%
	3	0	1	1.2%	0.2%
	2	1	0	0.7%	0.1%

Table C.25. t = 3, p = 0.3, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.1%
	0	0.2	0.4	22.1%	26.1%
	0	0.4	0.8	54.4%	62.8%
	0	0.5	1	70.2%	79.0%
	0	0	0.6	38.4%	44.4%
	0	0.6	0.6	33.5%	40.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.7%
	0	0.2	0.4	38.8%	44.7%
	0	0.4	0.8	79.5%	87.0%
	0	0.5	1	89.7%	94.7%
	0	0	0.4	38.3%	44.7%
	0	0.4	0.5	48.1%	56.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.3%
	0	0.2	0.4	17.9%	20.1%
	0	0.4	0.8	39.9%	47.3%
	0	0.5	1	54.8%	62.8%
	0	0	0.6	29.7%	33.7%
	0	0.6	0.6	25.6%	30.7%
	1	0.5	0	0.0%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.9%	5.6%
	0	1.5	3	7.3%	34.3%
	0	1	2.5	7.0%	30.3%
	0	2	3	7.5%	34.6%
	0	0	2	6.9%	23.1%
	0	2	2	7.2%	22.6%
	3	0	1	4.0%	0.6%
	2	1	0	4.0%	0.4%

Table C.26. t = 3, p = 0.3, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	4.8%
	0	0.2	0.4	23.4%	31.7%
	0	0.4	0.8	57.2%	74.6%
	0	0.5	1	73.6%	89.4%
	0	0	0.6	41.8%	54.8%
	0	0.6	0.6	36.5%	51.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.1%
	0	0.2	0.4	41.8%	55.7%
	0	0.4	0.8	82.3%	94.3%
	0	0.5	1	92.1%	98.7%
	0	0	0.4	41.0%	55.1%
	0	0.4	0.5	51.0%	67.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.5%	4.7%
	0	0.2	0.4	18.6%	24.4%
	0	0.4	0.8	42.9%	58.5%
	0	0.5	1	57.8%	75.4%
	0	0	0.6	30.7%	40.9%
	0	0.6	0.6	26.8%	38.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.2%
	0	1.5	3	7.1%	57.0%
	0	1	2.5	7.3%	49.3%
	0	2	3	7.2%	56.2%
	0	0	2	6.9%	35.7%
	0	2	2	6.5%	36.1%
	3	0	1	3.9%	0.2%
	2	1	0	3.3%	0.1%

Table C.27. t = 3, p = 0.3, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	5.1%
	0	0.2	0.4	14.5%	18.8%
	0	0.4	0.8	32.5%	43.4%
	0	0.5	1	42.7%	57.8%
	0	0	0.6	24.8%	32.1%
	0	0.6	0.6	19.7%	27.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.6%	5.2%
	0	0.2	0.4	24.1%	30.8%
	0	0.4	0.8	51.0%	66.5%
	0	0.5	1	64.5%	79.7%
	0	0	0.4	24.6%	31.4%
	0	0.4	0.5	28.4%	38.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	4.7%
	0	0.2	0.4	12.4%	15.0%
	0	0.4	0.8	24.2%	32.3%
	0	0.5	1	32.2%	44.2%
	0	0	0.6	19.0%	24.3%
	0	0.6	0.6	15.7%	21.2%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.2%
	0	1.5	3	11.5%	34.6%
	0	1	2.5	10.6%	28.8%
	0	2	3	11.1%	34.2%
	0	0	2	8.9%	22.8%
	0	2	2	9.3%	21.9%
	3	0	1	2.2%	0.4%
	2	1	0	2.0%	0.4%

C.1.4. Probability of Missing = 0.4

Table C.28. t = 3, p = 0.4, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.6%	4.6%
	0	0.2	0.4	22.7%	26.8%
	0	0.4	0.8	56.7%	65.8%
	0	0.1	0.6	40.4%	47.9%
	0	0	0.8	59.6%	67.7%
	0	0.8	0.8	52.5%	62.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.0%
	0	0.2	0.4	40.5%	47.9%
	0	0.4	0.8	80.5%	88.1%
	0	0.1	0.6	64.5%	73.0%
	0	0	0.4	41.7%	48.1%
	0	0.5	0.5	46.8%	55.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.6%	4.9%
	0	0.2	0.4	18.3%	20.5%
	0	0.4	0.8	43.0%	50.4%
	0	0.1	0.9	51.4%	59.2%
	0	0	0.8	43.6%	51.2%
	0	0.8	0.8	39.7%	48.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.5%	4.5%
	0	1.5	3	56.7%	76.4%
	0	1	2.5	48.1%	66.4%
	0	2	3	55.8%	75.4%
	0	0	2	36.2%	51.0%
	0	2	2	35.4%	49.9%
	3	0	1	0.1%	0.1%
	2	1	0	0.1%	0.0%

Table C.29. t = 3, p = 0.4, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.2	0.4	21.0%	27.3%
	0	0.4	0.8	50.9%	66.4%
	0	0.5	1	67.6%	83.0%
	0	0	0.6	36.8%	48.1%
	0	0.6	0.6	33.0%	43.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	5.0%
	0	0.2	0.4	37.2%	48.7%
	0	0.4	0.8	75.7%	88.6%
	0	0.5	1	87.5%	96.4%
	0	0	0.4	37.3%	48.2%
	0	0.4	0.5	45.5%	59.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	4.7%
	0	0.2	0.4	17.0%	20.8%
	0	0.4	0.8	39.0%	51.0%
	0	0.5	1	49.9%	66.4%
	0	0	0.6	26.7%	35.8%
	0	0.6	0.6	25.2%	33.4%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	4.7%
	0	1.5	3	10.7%	50.4%
	0	1	2.5	9.9%	42.5%
	0	2	3	10.2%	49.0%
	0	0	2	9.0%	32.1%
	0	2	2	8.9%	32.6%
	3	0	1	3.0%	0.3%
	2	1	0	2.6%	0.3%

Table C.30. t = 3, p = 0.4, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.0%
	0	0.2	0.4	26.4%	32.5%
	0	0.4	0.8	64.9%	77.1%
	0	0.5	1	81.0%	90.9%
	0	0	0.6	46.3%	57.3%
	0	0.6	0.6	40.8%	52.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.3%
	0	0.2	0.4	47.4%	59.3%
	0	0.4	0.8	88.2%	95.5%
	0	0.5	1	95.5%	99.0%
	0	0	0.4	47.2%	57.0%
	0	0.4	0.5	58.5%	70.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.2	0.4	20.6%	24.5%
	0	0.4	0.8	49.4%	61.5%
	0	0.5	1	63.7%	76.4%
	0	0	0.6	35.3%	43.4%
	0	0.6	0.6	31.6%	40.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	4.7%
	0	1.5	3	7.5%	49.5%
	0	1	2.5	7.5%	42.5%
	0	2	3	7.7%	50.5%
	0	0	2	6.8%	31.9%
	0	2	2	7.2%	32.3%
	3	0	1	3.7%	0.2%
	2	1	0	3.4%	0.2%

Table C.31. t = 3, p = 0.4, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	4.9%
	0	0.2	0.4	29.4%	31.2%
	0	0.4	0.8	70.2%	74.9%
	0	0.5	1	85.7%	89.8%
	0	0	0.6	50.2%	53.3%
	0	0.6	0.6	47.1%	51.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	4.5%
	0	0.2	0.4	51.5%	56.0%
	0	0.4	0.8	91.7%	94.4%
	0	0.5	1	97.7%	98.7%
	0	0	0.4	51.8%	55.6%
	0	0.4	0.5	63.7%	68.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.1%
	0	0.2	0.4	22.1%	24.4%
	0	0.4	0.8	54.6%	59.0%
	0	0.5	1	70.2%	74.6%
	0	0	0.6	38.0%	41.4%
	0	0.6	0.6	35.2%	39.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.8%
	0	1.5	3	5.9%	34.9%
	0	1	2.5	5.8%	29.4%
	0	2	3	6.4%	33.7%
	0	0	2	6.1%	22.5%
	0	2	2	6.0%	22.6%
	3	0	1	4.3%	0.5%
	2	1	0	4.2%	0.3%

Table C.32. t = 3, p = 0.4, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.9%
	0	0.2	0.4	23.1%	28.4%
	0	0.4	0.8	54.3%	68.1%
	0	0.5	1	69.7%	83.4%
	0	0	0.6	39.0%	48.2%
	0	0.6	0.6	33.7%	44.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.0%
	0	0.2	0.4	39.1%	48.6%
	0	0.4	0.8	78.2%	89.6%
	0	0.5	1	88.6%	96.5%
	0	0	0.4	39.1%	48.9%
	0	0.4	0.5	46.6%	59.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.0%
	0	0.2	0.4	17.8%	21.2%
	0	0.4	0.8	41.7%	52.7%
	0	0.5	1	54.0%	67.4%
	0	0	0.6	29.6%	36.5%
	0	0.6	0.6	26.8%	33.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.3%
	0	1.5	3	38.6%	72.1%
	0	1	2.5	33.6%	63.7%
	0	2	3	37.9%	71.3%
	0	0	2	25.6%	48.2%
	0	2	2	24.9%	48.4%
	3	0	1	0.4%	0.1%
	2	1	0	0.3%	0.0%

Table C.33. t = 3, p = 0.4, IBD =12, CRD =6

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.8%
	0	0.2	0.4	19.4%	23.3%
	0	0.4	0.8	44.9%	57.6%
	0	0.5	1	58.5%	73.2%
	0	0	0.6	33.2%	41.0%
	0	0.6	0.6	27.8%	36.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.5%	4.9%
	0	0.2	0.4	33.6%	41.6%
	0	0.4	0.8	67.8%	81.1%
	0	0.5	1	80.8%	92.0%
	0	0	0.4	34.1%	42.1%
	0	0.4	0.5	39.2%	50.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	4.9%
	0	0.2	0.4	16.0%	18.6%
	0	0.4	0.8	34.2%	43.4%
	0	0.5	1	45.5%	56.7%
	0	0	0.6	25.8%	31.1%
	0	0.6	0.6	21.5%	27.6%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.4%	4.9%
	0	1.5	3	25.7%	56.8%
	0	1	2.5	21.3%	48.3%
	0	2	3	24.3%	56.0%
	0	0	2	17.9%	36.6%
	0	2	2	16.7%	35.7%
	3	0	1	1.1%	0.2%
	2	1	0	0.8%	0.1%

Table C.34. t = 3, p = 0.4, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.0%
	0	0.2	0.4	22.2%	25.5%
	0	0.4	0.8	53.2%	62.4%
	0	0.5	1	70.0%	78.8%
	0	0	0.6	38.9%	44.4%
	0	0.6	0.6	34.4%	40.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.0%
	0	0.2	0.4	38.5%	44.6%
	0	0.4	0.8	78.9%	86.2%
	0	0.5	1	89.6%	94.8%
	0	0	0.4	38.9%	44.3%
	0	0.4	0.5	48.2%	56.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	5.3%
	0	0.2	0.4	17.6%	20.5%
	0	0.4	0.8	41.2%	48.1%
	0	0.5	1	53.4%	62.5%
	0	0	0.6	29.5%	33.8%
	0	0.6	0.6	25.3%	30.5%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.3%
	0	1.5	3	7.2%	34.6%
	0	1	2.5	7.3%	29.9%
	0	2	3	7.3%	33.2%
	0	0	2	6.6%	22.1%
	0	2	2	6.5%	23.3%
	3	0	1	3.9%	0.4%
	2	1	0	3.8%	0.3%

Table C.35. t = 3, p = 0.4, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	23.3%	31.6%
	0	0.4	0.8	57.4%	74.5%
	0	0.5	1	73.9%	89.1%
	0	0	0.6	40.3%	54.6%
	0	0.6	0.6	36.5%	51.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	4.8%
	0	0.2	0.4	40.8%	55.7%
	0	0.4	0.8	81.6%	94.1%
	0	0.5	1	92.1%	98.3%
	0	0	0.4	40.6%	54.5%
	0	0.4	0.5	51.7%	67.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.2%
	0	0.2	0.4	19.0%	25.0%
	0	0.4	0.8	43.2%	58.4%
	0	0.5	1	57.6%	75.2%
	0	0	0.6	30.6%	41.8%
	0	0.6	0.6	27.8%	38.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	6.7%	56.1%
	0	1	2.5	7.1%	48.2%
	0	2	3	7.1%	55.8%
	0	0	2	6.9%	36.2%
	0	2	2	6.4%	36.4%
	3	0	1	3.6%	0.2%
	2	1	0	3.4%	0.1%

Table C.36. t = 3, p = 0.4, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	5.0%
	0	0.2	0.4	14.5%	18.2%
	0	0.4	0.8	32.4%	44.1%
	0	0.5	1	42.7%	58.1%
	0	0	0.6	24.9%	32.3%
	0	0.6	0.6	20.0%	27.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	4.8%
	0	0.2	0.4	23.2%	31.3%
	0	0.4	0.8	51.5%	66.7%
	0	0.5	1	64.8%	79.6%
	0	0	0.4	23.4%	30.4%
	0	0.4	0.5	28.5%	37.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	5.1%
	0	0.2	0.4	12.1%	15.5%
	0	0.4	0.8	24.2%	32.4%
	0	0.5	1	32.3%	44.0%
	0	0	0.6	19.5%	24.2%
	0	0.6	0.6	15.7%	21.5%
	1	0.5	0	0.3%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.2%
	0	1.5	3	11.1%	33.9%
	0	1	2.5	10.8%	29.8%
	0	2	3	12.5%	35.2%
	0	0	2	9.2%	22.4%
	0	2	2	8.8%	22.1%
	3	0	1	2.2%	0.5%
	2	1	0	2.0%	0.4%

C.1.5. Probability of Missing = 0.5

Table C.37. t = 3, p = 0.5, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.9%
	0	0.2	0.4	22.7%	26.4%
	0	0.4	0.8	56.8%	66.0%
	0	0.1	0.6	40.2%	46.7%
	0	0	0.8	60.0%	67.6%
	0	0.8	0.8	50.8%	60.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.6%	4.7%
	0	0.2	0.4	41.0%	48.2%
	0	0.4	0.8	80.9%	88.2%
	0	0.1	0.6	64.6%	73.5%
	0	0	0.4	41.0%	47.6%
	0	0.5	0.5	45.3%	53.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.5%	4.6%
	0	0.2	0.4	18.1%	20.7%
	0	0.4	0.8	43.3%	50.9%
	0	0.1	0.9	52.2%	59.4%
	0	0	0.8	45.8%	52.1%
	0	0.8	0.8	38.6%	46.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.7%	4.7%
	0	1.5	3	56.5%	76.6%
	0	1	2.5	48.2%	66.8%
	0	2	3	55.2%	74.5%
	0	0	2	36.4%	50.8%
	0	2	2	37.1%	52.0%
	3	0	1	0.1%	0.0%
	2	1	0	0.1%	0.0%

Table C.38. t = 3, p = 0.5, IBD =10, CRD =10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.3%
	0	0.2	0.4	21.5%	27.2%
	0	0.4	0.8	50.6%	65.6%
	0	0.5	1	66.8%	82.3%
	0	0	0.6	36.4%	47.2%
	0	0.6	0.6	32.5%	43.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.9%
	0	0.2	0.4	37.4%	48.7%
	0	0.4	0.8	75.8%	89.4%
	0	0.5	1	87.4%	96.5%
	0	0	0.4	36.6%	47.7%
	0	0.4	0.5	45.9%	59.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.2%
	0	0.2	0.4	17.6%	20.9%
	0	0.4	0.8	38.9%	51.1%
	0	0.5	1	51.3%	66.8%
	0	0	0.6	28.3%	36.3%
	0	0.6	0.6	24.9%	33.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.4%	4.8%
	0	1.5	3	10.3%	50.4%
	0	1	2.5	10.5%	43.0%
	0	2	3	10.5%	49.5%
	0	0	2	8.9%	32.0%
	0	2	2	9.1%	31.7%
	3	0	1	3.0%	0.3%
	2	1	0	2.4%	0.1%

Table C.39. t = 3, p = 0.5, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.3%
	0	0.2	0.4	25.7%	32.1%
	0	0.4	0.8	64.4%	77.0%
	0	0.5	1	80.9%	90.5%
	0	0	0.6	45.7%	56.5%
	0	0.6	0.6	41.0%	52.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.7%
	0	0.2	0.4	47.5%	58.4%
	0	0.4	0.8	87.7%	95.3%
	0	0.5	1	95.8%	99.1%
	0	0	0.4	45.9%	57.2%
	0	0.4	0.5	57.3%	70.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.0%
	0	0.2	0.4	20.5%	25.0%
	0	0.4	0.8	49.4%	61.4%
	0	0.5	1	65.4%	78.3%
	0	0	0.6	34.8%	42.7%
	0	0.6	0.6	31.2%	40.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.1%
	0	1.5	3	7.9%	50.7%
	0	1	2.5	7.5%	42.9%
	0	2	3	7.7%	50.5%
	0	0	2	6.7%	31.3%
	0	2	2	6.8%	31.9%
	3	0	1	3.7%	0.2%
	2	1	0	3.5%	0.1%

Table C.40. t = 3, p = 0.5, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.3%
	0	0.2	0.4	28.3%	31.0%
	0	0.4	0.8	69.6%	74.3%
	0	0.5	1	86.0%	89.5%
	0	0	0.6	50.4%	53.6%
	0	0.6	0.6	46.0%	50.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	4.8%
	0	0.2	0.4	51.4%	55.4%
	0	0.4	0.8	91.8%	94.5%
	0	0.5	1	97.9%	98.7%
	0	0	0.4	50.1%	54.6%
	0	0.4	0.5	62.2%	67.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.3%
	0	0.2	0.4	22.9%	25.0%
	0	0.4	0.8	54.1%	58.7%
	0	0.5	1	69.8%	74.9%
	0	0	0.6	38.5%	40.9%
	0	0.6	0.6	35.9%	39.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.9%
	0	1.5	3	6.4%	35.7%
	0	1	2.5	5.8%	29.6%
	0	2	3	6.1%	34.0%
	0	0	2	5.8%	22.6%
	0	2	2	5.9%	22.7%
	3	0	1	4.5%	0.4%
	2	1	0	4.1%	0.3%

Table C.41. t = 3, p = 0.5, IBD =18, CRD =6

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.0%
	0	0.2	0.4	22.3%	27.2%
	0	0.4	0.8	54.0%	67.7%
	0	0.5	1	69.7%	83.6%
	0	0	0.6	39.9%	49.3%
	0	0.6	0.6	34.7%	44.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.4%	5.3%
	0	0.2	0.4	38.7%	49.6%
	0	0.4	0.8	77.4%	89.4%
	0	0.5	1	89.2%	96.5%
	0	0	0.4	39.3%	48.5%
	0	0.4	0.5	47.0%	59.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	4.9%
	0	0.2	0.4	18.2%	21.7%
	0	0.4	0.8	40.2%	51.4%
	0	0.5	1	54.4%	67.6%
	0	0	0.6	30.5%	37.0%
	0	0.6	0.6	25.6%	32.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.1%
	0	1.5	3	38.6%	72.5%
	0	1	2.5	32.7%	63.4%
	0	2	3	37.5%	71.8%
	0	0	2	25.6%	48.2%
	0	2	2	24.9%	47.4%
	3	0	1	0.4%	0.1%
	2	1	0	0.2%	0.0%

Table C.42. t = 3, p = 0.5, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.7%
	0	0.2	0.4	19.4%	23.7%
	0	0.4	0.8	46.0%	57.0%
	0	0.5	1	59.8%	73.8%
	0	0	0.6	33.7%	41.4%
	0	0.6	0.6	28.9%	37.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	4.7%
	0	0.2	0.4	32.8%	41.6%
	0	0.4	0.8	67.1%	80.9%
	0	0.5	1	80.6%	91.7%
	0	0	0.4	32.0%	40.4%
	0	0.4	0.5	39.1%	50.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.2%
	0	0.2	0.4	15.8%	18.0%
	0	0.4	0.8	34.3%	43.3%
	0	0.5	1	44.7%	57.6%
	0	0	0.6	25.6%	30.6%
	0	0.6	0.6	22.5%	28.3%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.5%	5.1%
	0	1.5	3	24.7%	56.9%
	0	1	2.5	21.6%	49.1%
	0	2	3	23.9%	55.3%
	0	0	2	17.8%	36.4%
	0	2	2	18.1%	36.3%
	3	0	1	1.1%	0.1%
	2	1	0	1.0%	0.1%

Table C.43. t = 3, p = 0.5, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.9%
	0	0.2	0.4	22.4%	26.0%
	0	0.4	0.8	54.0%	62.7%
	0	0.5	1	70.5%	79.9%
	0	0	0.6	38.2%	44.0%
	0	0.6	0.6	33.5%	41.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.7%
	0	0.2	0.4	38.8%	46.0%
	0	0.4	0.8	77.9%	85.6%
	0	0.5	1	89.3%	94.5%
	0	0	0.4	37.9%	44.6%
	0	0.4	0.5	47.4%	56.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.7%
	0	0.2	0.4	17.9%	20.4%
	0	0.4	0.8	39.8%	47.7%
	0	0.5	1	54.4%	62.6%
	0	0	0.6	29.6%	33.4%
	0	0.6	0.6	26.3%	30.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.1%
	0	1.5	3	7.4%	34.5%
	0	1	2.5	7.6%	30.1%
	0	2	3	7.4%	34.8%
	0	0	2	6.9%	22.7%
	0	2	2	6.5%	22.7%
	3	0	1	3.8%	0.5%
	2	1	0	4.1%	0.4%

Table C.44. t = 3, p = 0.5, IBD =12, CRD =12

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.0%
	0	0.2	0.4	23.1%	31.7%
	0	0.4	0.8	57.8%	75.3%
	0	0.5	1	74.2%	89.1%
	0	0	0.6	41.1%	54.8%
	0	0.6	0.6	35.9%	51.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	5.1%
	0	0.2	0.4	42.2%	57.2%
	0	0.4	0.8	82.3%	94.3%
	0	0.5	1	92.3%	98.6%
	0	0	0.4	41.9%	56.2%
	0	0.4	0.5	50.9%	67.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.1%
	0	0.2	0.4	18.8%	24.8%
	0	0.4	0.8	43.5%	59.0%
	0	0.5	1	57.5%	74.3%
	0	0	0.6	31.5%	41.5%
	0	0.6	0.6	28.3%	38.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.3%
	0	1.5	3	8.0%	57.8%
	0	1	2.5	7.3%	48.4%
	0	2	3	8.0%	55.7%
	0	0	2	6.8%	37.1%
	0	2	2	6.6%	35.3%
	3	0	1	4.1%	0.2%
	2	1	0	3.8%	0.1%

Table C.45. t = 3, p = 0.5, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	5.2%
	0	0.2	0.4	14.6%	18.6%
	0	0.4	0.8	32.8%	43.6%
	0	0.5	1	44.2%	58.8%
	0	0	0.6	24.0%	31.4%
	0	0.6	0.6	20.0%	27.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.9%
	0	0.2	0.4	24.3%	31.9%
	0	0.4	0.8	51.4%	66.3%
	0	0.5	1	63.4%	79.3%
	0	0	0.4	23.7%	30.2%
	0	0.4	0.5	27.9%	37.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	5.2%
	0	0.2	0.4	12.5%	15.7%
	0	0.4	0.8	24.0%	32.3%
	0	0.5	1	31.4%	44.1%
	0	0	0.6	19.7%	24.6%
	0	0.6	0.6	16.3%	22.2%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.4%	4.9%
	0	1.5	3	11.3%	35.2%
	0	1	2.5	10.9%	30.2%
	0	2	3	11.8%	34.4%
	0	0	2	9.2%	22.6%
	0	2	2	9.6%	23.3%
	3	0	1	2.4%	0.6%
	2	1	0	2.0%	0.4%

C.2. Four Treatments

C.2.1. Probability of Missing = 0.1

Table C.46. t = 4, p = 0.1, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0.6	50.7%	53.0%
	0	0.2	0.5	0.7	63.6%	66.3%
	0	0	0	0.8	65.3%	67.6%
	0	0	0.5	0.5	52.4%	55.0%
	0	0.5	0.5	0.5	31.8%	33.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	79.1%	81.5%
	0	0.2	0.5	0.6	81.1%	83.7%
	0	0	0	0.8	86.8%	88.9%
	0	0	0.5	0.5	79.0%	81.3%
	0	0.5	0.5	0.5	50.3%	53.0%
	1	0.5	0	0.25	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	37.5%	39.8%
	0	0.4	0.8	1	72.6%	75.5%
	0	0	0	0.8	49.9%	52.1%
	0	0	0.5	0.5	39.4%	41.5%
	0	0.5	0.5	0.5	24.2%	25.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	5.2%
	0	1	2	3	78.9%	84.7%
	0	1.5	2	3	76.0%	81.8%
	0	0	0	2	45.1%	50.2%
	0	0	2	2	65.6%	72.3%
	0	2	2	2	44.9%	50.1%
	3	1	0	2	0.4%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.47. t = 4, p = 0.1, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.4%
	0	0.2	0.4	0.6	41.1%	52.2%
	0	0.4	0.8	1	77.2%	89.1%
	0	0	0	0.8	53.6%	65.6%
	0	0	0.5	0.5	42.1%	53.0%
	0	0.8	0.8	0.8	45.6%	60.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	68.1%	80.9%
	0	0.4	0.8	1	94.0%	98.6%
	0	0	0	0.8	75.4%	87.1%
	0	0	0.5	0.5	67.0%	79.6%
	0	0.5	0.5	0.5	41.3%	53.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.6%
	0	0.2	0.4	0.6	30.9%	40.0%
	0	0.4	0.8	1	61.9%	75.4%
	0	0	0	0.8	41.5%	51.2%
	0	0	0.6	0.6	40.0%	50.0%
	0	0.8	0.8	0.8	34.6%	46.6%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.5%
	0	1	2	3	13.6%	59.6%
	0	1.5	2	3	14.0%	56.2%
	0	0	0	2	10.2%	31.9%
	0	0	2	2	12.6%	46.1%
	0	2	2	2	9.8%	30.9%
	3	1	0	2	3.2%	0.7%
	3	2	1	0	1.3%	0.0%

Table C.48. t = 4, p = 0.1, IBD =10, CRD =15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0.6	51.0%	62.9%
	0	0.4	0.8	1	88.0%	95.4%
	0	0	0	0.8	65.0%	76.1%
	0	0	0.5	0.5	51.8%	62.9%
	0	0.8	0.8	0.8	56.0%	70.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0.6	80.1%	89.5%
	0	0.4	0.8	1	98.2%	99.7%
	0	0	0	0.8	85.9%	93.9%
	0	0	0.5	0.5	78.3%	88.1%
	0	0.5	0.5	0.5	51.7%	64.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	38.3%	47.4%
	0	0.4	0.8	1	72.5%	84.0%
	0	0	0	0.8	50.2%	60.0%
	0	0	0.6	0.6	48.7%	60.4%
	0	0.8	0.8	0.8	43.2%	56.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	4.9%
	0	1	2	3	8.8%	59.0%
	0	1.5	2	2.5	8.2%	46.6%
	0	0	0	2	7.5%	30.9%
	0	0	2	2	8.5%	47.0%
	0	2	2	2	6.9%	31.3%
	3	1	0	2	4.1%	0.7%
	3	2	1	0	2.4%	0.0%

Table C.49. t = 4, p = 0.1, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	55.0%	59.8%
	0	0.4	0.8	1	91.4%	93.8%
	0	0	0	0.8	69.1%	73.4%
	0	0	0.5	0.5	56.0%	60.0%
	0	0.8	0.8	0.8	62.7%	68.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	84.6%	87.7%
	0	0.4	0.8	1	99.0%	99.4%
	0	0	0	0.8	89.6%	91.6%
	0	0	0.5	0.5	81.2%	85.7%
	0	0.5	0.5	0.5	56.0%	61.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	42.0%	45.9%
	0	0.4	0.8	1	77.7%	82.0%
	0	0	0	0.8	53.5%	56.5%
	0	0	0.6	0.6	53.5%	57.2%
	0	0.8	0.8	0.8	48.0%	53.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.2%
	0	1	2	3	6.7%	41.2%
	0	1.5	2	2.5	6.7%	33.1%
	0	0	0	2	6.1%	21.8%
	0	0	2	2	6.0%	32.0%
	0	2	2	2	6.0%	21.6%
	3	1	0	2	4.5%	1.0%
	3	2	1	0	3.7%	0.1%

Table C.50. t = 4, p = 0.1, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	47.4%	53.4%
	0	0.4	0.8	1	84.6%	90.7%
	0	0	0	0.8	61.8%	68.5%
	0	0	0.5	0.5	49.1%	55.1%
	0	0.8	0.8	0.8	52.5%	61.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	75.0%	82.4%
	0	0.2	0.5	0.7	86.4%	91.6%
	0	0	0	0.8	81.9%	88.4%
	0	0	0.5	0.5	75.1%	81.4%
	0	0.5	0.5	0.5	47.1%	54.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0.6	34.9%	40.2%
	0	0.4	0.8	1	69.2%	76.5%
	0	0	0	0.8	47.5%	53.4%
	0	0	0.6	0.6	46.4%	52.3%
	0	0.8	0.8	0.8	41.0%	47.2%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.4%	5.2%
	0	1	2	3	60.6%	81.8%
	0	1.5	2	2.5	48.4%	68.7%
	0	0	0	2	31.6%	46.0%
	0	0	2	2	47.7%	67.9%
	0	2	2	2	32.7%	46.9%
	3	1	0	2	0.7%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.51. t = 4, p = 0.1, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.4%
	0	0.2	0.4	0.6	38.7%	44.9%
	0	0.4	0.8	1	72.7%	81.7%
	0	0	0	0.8	51.6%	58.6%
	0	0	0.5	0.5	40.6%	46.9%
	0	0.8	0.8	0.8	42.0%	51.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.6%	5.4%
	0	0.2	0.4	0.6	63.7%	72.3%
	0	0.2	0.5	0.7	75.3%	84.1%
	0	0	0	0.8	72.2%	80.2%
	0	0	0.5	0.5	63.1%	71.7%
	0	0.5	0.5	0.5	38.6%	46.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.5%	5.1%
	0	0.2	0.4	0.6	29.7%	33.6%
	0	0.4	0.8	1	57.4%	66.6%
	0	0	0	0.8	39.1%	44.8%
	0	0	0.6	0.6	39.0%	45.2%
	0	0.8	0.8	0.8	31.7%	38.2%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.8%
	0	1	2	3	37.6%	65.8%
	0	1.5	2	2.5	30.3%	52.8%
	0	0	0	2	20.8%	34.7%
	0	0	2	2	30.0%	53.1%
	0	2	2	2	20.9%	35.1%
	3	1	0	2	1.4%	0.5%
	3	2	1	0	0.1%	0.0%

Table C.52. t = 4, p = 0.1, IBD =6, CRD =12

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	4.7%
	0	0.2	0.4	0.6	41.4%	49.3%
	0	0.4	0.8	1	77.6%	86.4%
	0	0	0	0.8	54.2%	61.6%
	0	0	0.5	0.5	42.7%	49.2%
	0	0.8	0.8	0.8	46.6%	57.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.2%
	0	0.2	0.4	0.6	69.2%	77.5%
	0	0.2	0.5	0.7	81.0%	87.9%
	0	0	0	0.8	75.5%	83.9%
	0	0	0.5	0.5	67.1%	75.8%
	0	0.5	0.5	0.5	41.0%	49.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	31.9%	37.2%
	0	0.4	0.8	1	62.0%	70.7%
	0	0	0	0.8	40.8%	47.1%
	0	0	0.6	0.6	40.6%	47.7%
	0	0.8	0.8	0.8	34.8%	42.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.2%
	0	1	2	3	8.3%	41.7%
	0	1.5	2	2.5	7.5%	32.4%
	0	0	0	2	7.1%	22.5%
	0	0	2	2	7.7%	33.1%
	0	2	2	2	7.1%	22.2%
	3	1	0	2	4.0%	1.1%
	3	2	1	0	2.7%	0.1%

Table C.53. t = 4, p = 0.1, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	46.5%	59.7%
	0	0.4	0.8	1	83.2%	94.0%
	0	0	0	0.8	59.4%	73.4%
	0	0	0.5	0.5	48.1%	60.7%
	0	0.8	0.8	0.8	51.9%	68.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0.6	74.7%	87.9%
	0	0.2	0.5	0.7	85.7%	94.8%
	0	0	0	0.8	81.0%	92.2%
	0	0	0.5	0.5	73.8%	86.7%
	0	0.5	0.5	0.5	46.1%	61.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	35.1%	45.4%
	0	0.4	0.8	1	68.1%	82.1%
	0	0	0	0.8	45.9%	58.0%
	0	0	0.6	0.6	45.1%	57.8%
	0	0.8	0.8	0.8	39.2%	52.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.6%	4.8%
	0	1	2	3	13.2%	65.9%
	0	1.5	2	2.5	12.0%	54.1%
	0	0	0	2	9.2%	35.4%
	0	0	2	2	11.3%	52.7%
	0	2	2	2	9.8%	35.4%
	3	1	0	2	3.2%	0.5%
	3	2	1	0	1.5%	0.0%

Table C.54. t = 4, p = 0.1, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0.6	28.3%	34.3%
	0	0.4	0.8	1	55.8%	67.8%
	0	0	0	0.8	37.8%	45.4%
	0	0	0.5	0.5	30.5%	36.6%
	0	0.8	0.8	0.8	28.2%	36.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.5%	4.7%
	0	0.2	0.4	0.6	49.3%	59.2%
	0	0.2	0.5	0.7	59.9%	70.3%
	0	0	0	0.8	54.1%	64.0%
	0	0	0.5	0.5	48.1%	58.4%
	0	0.5	0.5	0.5	27.5%	35.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.4%
	0	0.2	0.4	0.6	21.3%	26.5%
	0	0.4	0.8	1	41.4%	51.5%
	0	0	0	0.8	29.8%	35.8%
	0	0	0.6	0.6	28.4%	34.2%
	0	0.8	0.8	0.8	22.9%	29.7%
	1	0.5	0	0.25	0.2%	0.2%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	4.8%
	0	1	2	3	16.2%	42.0%
	0	1.5	2	2.5	13.9%	33.4%
	0	0	0	2	10.9%	21.8%
	0	0	2	2	12.9%	32.1%
	0	2	2	2	10.8%	21.9%
	3	1	0	2	2.4%	1.1%
	3	2	1	0	0.9%	0.1%

C.2.2. Probability of Missing = 0.2

Table C.55. t = 4, p = 0.2, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	50.6%	53.5%
	0	0.2	0.5	0.7	63.7%	66.4%
	0	0	0	0.8	64.9%	67.2%
	0	0	0.5	0.5	52.1%	54.4%
	0	0.5	0.5	0.5	30.8%	32.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.6%	4.7%
	0	0.2	0.4	0.6	79.5%	81.8%
	0	0.2	0.5	0.6	81.4%	84.1%
	0	0	0	0.8	86.2%	88.3%
	0	0	0.5	0.5	79.0%	81.2%
	0	0.5	0.5	0.5	50.6%	53.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	38.2%	40.1%
	0	0.4	0.8	1	72.9%	75.3%
	0	0	0	0.8	49.5%	51.8%
	0	0	0.5	0.5	39.9%	41.7%
	0	0.5	0.5	0.5	23.6%	25.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.0%
	0	1	2	3	78.3%	84.1%
	0	1.5	2	3	76.2%	82.1%
	0	0	0	2	44.7%	50.0%
	0	0	2	2	65.7%	72.0%
	0	2	2	2	44.6%	49.9%
	3	1	0	2	0.4%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.56. t = 4, p = 0.2, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	41.0%	51.1%
	0	0.4	0.8	1	77.1%	88.8%
	0	0	0	0.8	54.3%	66.2%
	0	0	0.5	0.5	42.5%	53.5%
	0	0.8	0.8	0.8	45.0%	60.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.5%	4.8%
	0	0.2	0.4	0.6	68.5%	81.7%
	0	0.4	0.8	1	94.2%	98.6%
	0	0	0	0.8	75.0%	87.1%
	0	0	0.5	0.5	68.0%	80.6%
	0	0.5	0.5	0.5	40.2%	52.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	31.5%	39.4%
	0	0.4	0.8	1	61.2%	75.2%
	0	0	0	0.8	41.0%	51.4%
	0	0	0.6	0.6	40.3%	51.2%
	0	0.8	0.8	0.8	33.6%	45.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.1%
	0	1	2	3	14.4%	59.9%
	0	1.5	2	3	13.3%	56.2%
	0	0	0	2	10.1%	30.8%
	0	0	2	2	12.1%	45.9%
	0	2	2	2	9.9%	30.7%
	3	1	0	2	3.3%	0.6%
	3	2	1	0	1.3%	0.0%

Table C.57. t = 4, p = 0.2, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0.6	50.6%	62.2%
	0	0.4	0.8	1	87.3%	94.9%
	0	0	0	0.8	63.5%	75.3%
	0	0	0.5	0.5	51.7%	62.6%
	0	0.8	0.8	0.8	57.8%	72.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	79.6%	89.1%
	0	0.4	0.8	1	98.3%	99.7%
	0	0	0	0.8	85.9%	93.4%
	0	0	0.5	0.5	78.0%	88.1%
	0	0.5	0.5	0.5	50.8%	63.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	38.5%	47.6%
	0	0.4	0.8	1	72.9%	84.2%
	0	0	0	0.8	50.0%	59.3%
	0	0	0.6	0.6	48.8%	60.9%
	0	0.8	0.8	0.8	43.8%	56.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	4.7%
	0	1	2	3	9.0%	58.4%
	0	1.5	2	2.5	8.4%	46.4%
	0	0	0	2	7.6%	30.5%
	0	0	2	2	8.3%	46.6%
	0	2	2	2	7.4%	30.8%
	3	1	0	2	3.9%	0.7%
	3	2	1	0	2.4%	0.0%

Table C.58. t = 4, p = 0.2, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	56.0%	59.4%
	0	0.4	0.8	1	91.4%	94.1%
	0	0	0	0.8	69.3%	72.8%
	0	0	0.5	0.5	55.3%	59.7%
	0	0.8	0.8	0.8	62.4%	68.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	84.2%	87.8%
	0	0.4	0.8	1	99.2%	99.6%
	0	0	0	0.8	89.3%	91.9%
	0	0	0.5	0.5	81.5%	85.3%
	0	0.5	0.5	0.5	55.4%	61.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.2	0.4	0.6	42.4%	46.4%
	0	0.4	0.8	1	76.3%	81.4%
	0	0	0	0.8	53.5%	56.7%
	0	0	0.6	0.6	53.1%	57.8%
	0	0.8	0.8	0.8	47.9%	52.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.3%
	0	1	2	3	7.0%	41.7%
	0	1.5	2	2.5	6.1%	32.7%
	0	0	0	2	6.1%	22.4%
	0	0	2	2	6.4%	32.6%
	0	2	2	2	5.9%	21.8%
	3	1	0	2	4.5%	1.1%
	3	2	1	0	3.6%	0.1%

Table C.59. t = 4, p = 0.2, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.7%	5.5%
	0	0.2	0.4	0.6	47.3%	53.5%
	0	0.4	0.8	1	84.7%	90.4%
	0	0	0	0.8	62.2%	69.0%
	0	0	0.5	0.5	49.4%	56.3%
	0	0.8	0.8	0.8	52.5%	61.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.7%
	0	0.2	0.4	0.6	75.8%	82.3%
	0	0.2	0.5	0.7	86.7%	91.8%
	0	0	0	0.8	83.8%	89.3%
	0	0	0.5	0.5	75.9%	82.2%
	0	0.5	0.5	0.5	47.4%	54.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	35.9%	40.8%
	0	0.4	0.8	1	69.1%	76.2%
	0	0	0	0.8	47.0%	52.7%
	0	0	0.6	0.6	46.6%	51.8%
	0	0.8	0.8	0.8	39.4%	46.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.9%
	0	1	2	3	59.1%	81.4%
	0	1.5	2	2.5	47.3%	68.1%
	0	0	0	2	33.0%	47.7%
	0	0	2	2	47.0%	66.8%
	0	2	2	2	33.0%	47.8%
	3	1	0	2	0.8%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.60. t = 4, p = 0.2, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.3%
	0	0.2	0.4	0.6	38.5%	44.9%
	0	0.4	0.8	1	73.4%	82.5%
	0	0	0	0.8	51.7%	58.5%
	0	0	0.5	0.5	39.3%	45.3%
	0	0.8	0.8	0.8	40.8%	50.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	64.3%	73.8%
	0	0.2	0.5	0.7	75.4%	83.9%
	0	0	0	0.8	72.0%	80.4%
	0	0	0.5	0.5	63.6%	72.6%
	0	0.5	0.5	0.5	38.6%	46.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.7%	4.6%
	0	0.2	0.4	0.6	29.6%	34.2%
	0	0.4	0.8	1	57.0%	66.6%
	0	0	0	0.8	39.4%	44.4%
	0	0	0.6	0.6	38.2%	44.1%
	0	0.8	0.8	0.8	31.9%	38.8%
	1	0.5	0	0.25	0.2%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.5%	5.0%
	0	1	2	3	37.5%	65.9%
	0	1.5	2	2.5	29.9%	52.9%
	0	0	0	2	21.0%	34.8%
	0	0	2	2	30.6%	53.1%
	0	2	2	2	21.4%	35.8%
	3	1	0	2	1.4%	0.5%
	3	2	1	0	0.2%	0.0%

Table C.61. t = 4, p = 0.2, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	42.0%	48.7%
	0	0.4	0.8	1	77.7%	86.2%
	0	0	0	0.8	54.7%	61.5%
	0	0	0.5	0.5	42.8%	49.0%
	0	0.8	0.8	0.8	45.8%	55.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0.6	70.0%	78.1%
	0	0.2	0.5	0.7	81.5%	87.5%
	0	0	0	0.8	75.8%	82.9%
	0	0	0.5	0.5	67.9%	76.3%
	0	0.5	0.5	0.5	42.5%	51.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0.6	31.0%	36.1%
	0	0.4	0.8	1	62.5%	71.1%
	0	0	0	0.8	41.3%	47.1%
	0	0	0.6	0.6	39.8%	47.0%
	0	0.8	0.8	0.8	35.3%	42.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	4.8%
	0	1	2	3	8.1%	41.9%
	0	1.5	2	2.5	7.2%	32.7%
	0	0	0	2	6.7%	21.7%
	0	0	2	2	7.7%	33.1%
	0	2	2	2	7.0%	22.3%
	3	1	0	2	3.7%	1.0%
	3	2	1	0	2.7%	0.1%

Table C.62. t = 4, p = 0.2, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.8%	5.6%
	0	0.2	0.4	0.6	46.8%	60.0%
	0	0.4	0.8	1	83.6%	94.3%
	0	0	0	0.8	59.1%	72.9%
	0	0	0.5	0.5	48.0%	60.5%
	0	0.8	0.8	0.8	51.9%	68.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	75.3%	88.1%
	0	0.2	0.5	0.7	85.7%	94.6%
	0	0	0	0.8	81.3%	92.3%
	0	0	0.5	0.5	73.2%	86.4%
	0	0.5	0.5	0.5	46.6%	61.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	35.3%	45.6%
	0	0.4	0.8	1	67.2%	82.0%
	0	0	0	0.8	45.8%	57.4%
	0	0	0.6	0.6	45.2%	57.9%
	0	0.8	0.8	0.8	39.3%	53.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.5%	5.5%
	0	1	2	3	12.6%	66.6%
	0	1.5	2	2.5	11.5%	53.0%
	0	0	0	2	9.4%	35.0%
	0	0	2	2	11.9%	51.9%
	0	2	2	2	10.0%	35.3%
	3	1	0	2	3.3%	0.4%
	3	2	1	0	1.5%	0.0%

Table C.63. t = 4, p = 0.2, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.5%	5.0%
	0	0.2	0.4	0.6	27.1%	33.7%
	0	0.4	0.8	1	55.3%	67.3%
	0	0	0	0.8	37.4%	45.4%
	0	0	0.5	0.5	29.3%	35.8%
	0	0.8	0.8	0.8	28.7%	38.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.4%	4.8%
	0	0.2	0.4	0.6	48.2%	58.3%
	0	0.2	0.5	0.7	59.6%	70.6%
	0	0	0	0.8	54.2%	64.8%
	0	0	0.5	0.5	47.7%	57.3%
	0	0.5	0.5	0.5	26.6%	34.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	5.2%
	0	0.2	0.4	0.6	22.9%	27.8%
	0	0.4	0.8	1	42.2%	52.6%
	0	0	0	0.8	28.3%	34.1%
	0	0	0.6	0.6	28.4%	34.6%
	0	0.8	0.8	0.8	22.2%	28.8%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	4.9%
	0	1	2	3	16.8%	42.1%
	0	1.5	2	2.5	13.6%	32.5%
	0	0	0	2	10.9%	22.3%
	0	0	2	2	13.4%	32.3%
	0	2	2	2	11.0%	22.4%
	3	1	0	2	2.4%	1.0%
	3	2	1	0	0.9%	0.1%

C.2.3. Probability of Missing = 0.3

Table C.64. t = 4, p = 0.3, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	50.6%	53.0%
	0	0.2	0.5	0.7	63.5%	66.4%
	0	0	0	0.8	65.0%	67.6%
	0	0	0.5	0.5	52.0%	54.5%
	0	0.5	0.5	0.5	31.9%	33.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	79.7%	82.1%
	0	0.2	0.5	0.6	81.2%	83.7%
	0	0	0	0.8	86.4%	88.5%
	0	0	0.5	0.5	78.1%	80.4%
	0	0.5	0.5	0.5	50.7%	53.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	38.2%	40.3%
	0	0.4	0.8	1	72.9%	75.6%
	0	0	0	0.8	50.4%	52.7%
	0	0	0.5	0.5	39.1%	40.9%
	0	0.5	0.5	0.5	23.7%	24.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	5.0%
	0	1	2	3	79.0%	84.4%
	0	1.5	2	3	75.7%	81.8%
	0	0	0	2	44.4%	49.7%
	0	0	2	2	66.2%	72.9%
	0	2	2	2	44.9%	50.1%
	3	1	0	2	0.3%	0.2%
	3	2	1	0	0.0%	0.0%

Table C.65. t = 4, p = 0.3, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	41.5%	53.1%
	0	0.4	0.8	1	77.8%	89.3%
	0	0	0	0.8	53.5%	65.1%
	0	0	0.5	0.5	41.3%	52.5%
	0	0.8	0.8	0.8	45.7%	60.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	4.7%
	0	0.2	0.4	0.6	68.3%	81.2%
	0	0.4	0.8	1	93.9%	98.4%
	0	0	0	0.8	75.5%	87.5%
	0	0	0.5	0.5	67.2%	79.9%
	0	0.5	0.5	0.5	42.0%	53.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	31.7%	39.9%
	0	0.4	0.8	1	60.6%	74.2%
	0	0	0	0.8	40.4%	50.3%
	0	0	0.6	0.6	40.5%	50.7%
	0	0.8	0.8	0.8	34.4%	45.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.2%
	0	1	2	3	14.1%	59.1%
	0	1.5	2	3	12.8%	54.7%
	0	0	0	2	9.8%	30.7%
	0	0	2	2	11.5%	46.4%
	0	2	2	2	10.0%	31.0%
	3	1	0	2	2.9%	0.5%
	3	2	1	0	1.5%	0.0%

Table C.66. t = 4, p = 0.3, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0.6	51.3%	61.9%
	0	0.4	0.8	1	87.7%	95.1%
	0	0	0	0.8	64.4%	75.4%
	0	0	0.5	0.5	51.5%	62.4%
	0	0.8	0.8	0.8	57.9%	71.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	80.7%	89.8%
	0	0.4	0.8	1	98.3%	99.7%
	0	0	0	0.8	86.5%	93.9%
	0	0	0.5	0.5	77.8%	87.8%
	0	0.5	0.5	0.5	51.6%	63.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	38.7%	47.3%
	0	0.4	0.8	1	72.6%	84.1%
	0	0	0	0.8	50.0%	60.2%
	0	0	0.6	0.6	49.2%	60.2%
	0	0.8	0.8	0.8	43.8%	55.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.1%
	0	1	2	3	9.3%	58.6%
	0	1.5	2	2.5	8.6%	46.6%
	0	0	0	2	7.5%	31.1%
	0	0	2	2	8.7%	46.4%
	0	2	2	2	7.3%	31.2%
	3	1	0	2	4.1%	0.6%
	3	2	1	0	2.6%	0.0%

Table C.67. t = 4, p = 0.3, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.6%
	0	0.2	0.4	0.6	54.9%	59.0%
	0	0.4	0.8	1	90.9%	93.6%
	0	0	0	0.8	68.8%	72.9%
	0	0	0.5	0.5	55.4%	59.1%
	0	0.8	0.8	0.8	62.3%	68.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	84.3%	87.5%
	0	0.4	0.8	1	99.0%	99.6%
	0	0	0	0.8	89.0%	91.6%
	0	0	0.5	0.5	81.8%	86.1%
	0	0.5	0.5	0.5	55.7%	60.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	4.8%
	0	0.2	0.4	0.6	42.4%	46.2%
	0	0.4	0.8	1	77.2%	81.3%
	0	0	0	0.8	53.9%	56.8%
	0	0	0.6	0.6	52.8%	58.1%
	0	0.8	0.8	0.8	47.8%	53.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	5.0%
	0	1	2	3	6.6%	41.4%
	0	1.5	2	2.5	6.3%	32.6%
	0	0	0	2	5.9%	21.6%
	0	0	2	2	6.5%	32.8%
	0	2	2	2	6.2%	21.8%
	3	1	0	2	4.4%	1.1%
	3	2	1	0	3.7%	0.1%

Table C.68. t = 4, p = 0.3, IBD =18, CRD =6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.5%
	0	0.2	0.4	0.6	48.1%	54.0%
	0	0.4	0.8	1	84.0%	90.0%
	0	0	0	0.8	61.5%	67.7%
	0	0	0.5	0.5	49.8%	55.5%
	0	0.8	0.8	0.8	52.7%	61.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	75.3%	82.3%
	0	0.2	0.5	0.7	86.6%	91.7%
	0	0	0	0.8	82.4%	88.4%
	0	0	0.5	0.5	74.5%	81.5%
	0	0.5	0.5	0.5	46.8%	54.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.4%	4.9%
	0	0.2	0.4	0.6	35.7%	40.4%
	0	0.4	0.8	1	69.0%	76.7%
	0	0	0	0.8	47.6%	53.0%
	0	0	0.6	0.6	45.8%	51.9%
	0	0.8	0.8	0.8	39.8%	46.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	5.1%
	0	1	2	3	59.7%	81.3%
	0	1.5	2	2.5	47.7%	68.1%
	0	0	0	2	32.2%	46.8%
	0	0	2	2	47.5%	68.0%
	0	2	2	2	32.5%	46.9%
	3	1	0	2	0.5%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.69. t = 4, p = 0.3, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	39.2%	45.4%
	0	0.4	0.8	1	74.0%	82.5%
	0	0	0	0.8	52.9%	59.7%
	0	0	0.5	0.5	40.1%	46.3%
	0	0.8	0.8	0.8	41.2%	50.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.6%	5.3%
	0	0.2	0.4	0.6	64.7%	72.9%
	0	0.2	0.5	0.7	76.0%	83.8%
	0	0	0	0.8	72.6%	81.2%
	0	0	0.5	0.5	63.8%	72.1%
	0	0.5	0.5	0.5	37.6%	45.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.5%	5.0%
	0	0.2	0.4	0.6	29.5%	34.5%
	0	0.4	0.8	1	57.8%	66.3%
	0	0	0	0.8	39.6%	44.9%
	0	0	0.6	0.6	38.9%	44.8%
	0	0.8	0.8	0.8	31.4%	38.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.4%	5.1%
	0	1	2	3	38.0%	66.5%
	0	1.5	2	2.5	30.1%	52.8%
	0	0	0	2	20.7%	34.8%
	0	0	2	2	30.0%	53.1%
	0	2	2	2	20.4%	34.8%
	3	1	0	2	1.4%	0.5%
	3	2	1	0	0.1%	0.0%

Table C.70. t = 4, p = 0.3, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	41.9%	49.4%
	0	0.4	0.8	1	77.5%	85.9%
	0	0	0	0.8	54.8%	62.4%
	0	0	0.5	0.5	42.7%	49.8%
	0	0.8	0.8	0.8	46.2%	56.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	69.5%	77.5%
	0	0.2	0.5	0.7	80.9%	87.9%
	0	0	0	0.8	76.2%	84.3%
	0	0	0.5	0.5	67.7%	76.3%
	0	0.5	0.5	0.5	41.2%	50.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.4%	4.9%
	0	0.2	0.4	0.6	31.8%	36.9%
	0	0.4	0.8	1	62.0%	70.7%
	0	0	0	0.8	41.3%	47.4%
	0	0	0.6	0.6	40.3%	47.6%
	0	0.8	0.8	0.8	35.0%	42.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	4.9%
	0	1	2	3	8.5%	42.0%
	0	1.5	2	2.5	7.6%	32.5%
	0	0	0	2	6.6%	22.5%
	0	0	2	2	7.6%	31.6%
	0	2	2	2	7.2%	22.1%
	3	1	0	2	3.9%	1.2%
	3	2	1	0	2.8%	0.0%

Table C.71. t = 4, p = 0.3, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0.6	47.1%	60.3%
	0	0.4	0.8	1	83.1%	93.6%
	0	0	0	0.8	59.5%	73.3%
	0	0	0.5	0.5	47.2%	59.8%
	0	0.8	0.8	0.8	52.8%	68.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	75.3%	88.2%
	0	0.2	0.5	0.7	86.3%	94.7%
	0	0	0	0.8	82.0%	92.3%
	0	0	0.5	0.5	73.7%	86.6%
	0	0.5	0.5	0.5	46.4%	60.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	35.1%	45.8%
	0	0.4	0.8	1	68.1%	82.3%
	0	0	0	0.8	45.8%	57.9%
	0	0	0.6	0.6	45.2%	57.7%
	0	0.8	0.8	0.8	40.5%	53.6%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.6%	5.6%
	0	1	2	3	13.2%	65.7%
	0	1.5	2	2.5	11.7%	52.3%
	0	0	0	2	9.3%	35.3%
	0	0	2	2	11.3%	52.6%
	0	2	2	2	9.3%	34.3%
	3	1	0	2	2.7%	0.5%
	3	2	1	0	1.5%	0.0%

Table C.72. t = 4, p = 0.3, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	28.4%	34.9%
	0	0.4	0.8	1	56.3%	68.3%
	0	0	0	0.8	37.2%	44.4%
	0	0	0.5	0.5	29.4%	35.9%
	0	0.8	0.8	0.8	27.7%	37.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0.6	48.8%	58.3%
	0	0.2	0.5	0.7	58.9%	69.2%
	0	0	0	0.8	54.8%	64.2%
	0	0	0.5	0.5	47.7%	57.7%
	0	0.5	0.5	0.5	26.8%	34.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	22.0%	26.7%
	0	0.4	0.8	1	42.5%	51.7%
	0	0	0	0.8	29.3%	34.7%
	0	0	0.6	0.6	28.7%	34.3%
	0	0.8	0.8	0.8	22.0%	28.1%
	1	0.5	0	0.25	0.3%	0.2%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	4.5%	4.9%
	0	1	2	3	15.6%	41.6%
	0	1.5	2	2.5	13.7%	32.3%
	0	0	0	2	10.8%	22.0%
	0	0	2	2	13.8%	32.7%
	0	2	2	2	11.2%	23.0%
	3	1	0	2	2.4%	0.9%
	3	2	1	0	0.8%	0.1%

C.2.4. Probability of Missing = 0.4

Table C.73. t = 4, p = 0.4, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.3%
	0	0.2	0.4	0.6	50.8%	53.3%
	0	0.2	0.5	0.7	63.8%	66.4%
	0	0	0	0.8	65.7%	68.2%
	0	0	0.5	0.5	52.1%	54.2%
	0	0.5	0.5	0.5	31.6%	33.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	78.9%	81.5%
	0	0.2	0.5	0.6	81.9%	84.1%
	0	0	0	0.8	85.8%	87.8%
	0	0	0.5	0.5	78.8%	81.4%
	0	0.5	0.5	0.5	50.3%	53.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	38.3%	40.0%
	0	0.4	0.8	1	72.9%	75.5%
	0	0	0	0.8	49.6%	51.6%
	0	0	0.5	0.5	38.8%	40.9%
	0	0.5	0.5	0.5	24.8%	26.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.8%	4.9%
	0	1	2	3	79.1%	84.6%
	0	1.5	2	3	76.4%	82.4%
	0	0	0	2	44.2%	49.2%
	0	0	2	2	65.2%	71.8%
	0	2	2	2	45.0%	50.1%
	3	1	0	2	0.3%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.74. t = 4, p = 0.4, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	41.1%	53.0%
	0	0.4	0.8	1	78.1%	89.4%
	0	0	0	0.8	54.2%	65.9%
	0	0	0.5	0.5	42.8%	53.7%
	0	0.8	0.8	0.8	46.1%	60.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	69.2%	81.6%
	0	0.4	0.8	1	93.7%	98.4%
	0	0	0	0.8	75.6%	87.4%
	0	0	0.5	0.5	66.3%	79.5%
	0	0.5	0.5	0.5	41.3%	53.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	31.3%	39.4%
	0	0.4	0.8	1	60.9%	74.7%
	0	0	0	0.8	41.3%	50.7%
	0	0	0.6	0.6	40.7%	50.8%
	0	0.8	0.8	0.8	35.1%	45.6%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.4%	5.0%
	0	1	2	3	14.3%	58.9%
	0	1.5	2	3	13.4%	55.7%
	0	0	0	2	10.1%	31.4%
	0	0	2	2	12.3%	46.6%
	0	2	2	2	9.9%	31.2%
	3	1	0	2	3.0%	0.5%
	3	2	1	0	1.4%	0.0%

Table C.75. t = 4, p = 0.4, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.2%
	0	0.2	0.4	0.6	50.4%	62.3%
	0	0.4	0.8	1	87.5%	94.7%
	0	0	0	0.8	64.5%	75.4%
	0	0	0.5	0.5	51.3%	63.0%
	0	0.8	0.8	0.8	57.9%	71.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	80.3%	90.0%
	0	0.4	0.8	1	98.0%	99.7%
	0	0	0	0.8	86.0%	94.2%
	0	0	0.5	0.5	78.2%	88.3%
	0	0.5	0.5	0.5	51.2%	63.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	5.0%
	0	0.2	0.4	0.6	38.8%	48.2%
	0	0.4	0.8	1	72.5%	83.2%
	0	0	0	0.8	48.8%	59.7%
	0	0	0.6	0.6	49.3%	59.7%
	0	0.8	0.8	0.8	43.8%	55.2%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.9%
	0	1	2	3	9.1%	59.4%
	0	1.5	2	2.5	8.4%	47.3%
	0	0	0	2	7.1%	30.6%
	0	0	2	2	8.4%	46.7%
	0	2	2	2	7.4%	30.1%
	3	1	0	2	3.9%	0.6%
	3	2	1	0	2.2%	0.0%

Table C.76. t = 4, p = 0.4, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	55.2%	59.5%
	0	0.4	0.8	1	91.0%	93.9%
	0	0	0	0.8	69.5%	72.4%
	0	0	0.5	0.5	55.1%	59.0%
	0	0.8	0.8	0.8	62.4%	69.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0.6	84.6%	88.0%
	0	0.4	0.8	1	99.1%	99.6%
	0	0	0	0.8	89.6%	91.8%
	0	0	0.5	0.5	82.0%	85.8%
	0	0.5	0.5	0.5	55.3%	61.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	4.8%
	0	0.2	0.4	0.6	42.0%	44.2%
	0	0.4	0.8	1	77.3%	81.4%
	0	0	0	0.8	53.3%	56.1%
	0	0	0.6	0.6	53.4%	57.0%
	0	0.8	0.8	0.8	47.2%	52.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.8%
	0	1	2	3	6.4%	40.9%
	0	1.5	2	2.5	6.5%	31.9%
	0	0	0	2	5.8%	21.2%
	0	0	2	2	6.3%	32.5%
	0	2	2	2	6.2%	21.9%
	3	1	0	2	4.5%	1.2%
	3	2	1	0	3.3%	0.1%

Table C.77. t = 4, p = 0.4, IBD =18, CRD =6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.8%
	0	0.2	0.4	0.6	47.7%	54.3%
	0	0.4	0.8	1	84.2%	90.1%
	0	0	0	0.8	62.1%	68.5%
	0	0	0.5	0.5	49.1%	55.4%
	0	0.8	0.8	0.8	52.7%	61.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	75.9%	82.4%
	0	0.2	0.5	0.7	86.1%	91.2%
	0	0	0	0.8	82.8%	88.6%
	0	0	0.5	0.5	75.1%	81.7%
	0	0.5	0.5	0.5	46.2%	54.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	36.1%	40.7%
	0	0.4	0.8	1	68.0%	75.7%
	0	0	0	0.8	47.1%	52.7%
	0	0	0.6	0.6	46.4%	52.2%
	0	0.8	0.8	0.8	40.1%	46.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.4%	5.2%
	0	1	2	3	59.8%	81.4%
	0	1.5	2	2.5	47.6%	67.6%
	0	0	0	2	32.6%	47.2%
	0	0	2	2	46.8%	67.9%
	0	2	2	2	31.7%	46.6%
	3	1	0	2	0.7%	0.2%
	3	2	1	0	0.0%	0.0%

Table C.78. t = 4, p = 0.4, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	39.5%	45.8%
	0	0.4	0.8	1	73.4%	82.7%
	0	0	0	0.8	51.7%	58.8%
	0	0	0.5	0.5	39.5%	46.2%
	0	0.8	0.8	0.8	41.8%	50.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0.6	65.3%	73.7%
	0	0.2	0.5	0.7	76.0%	84.4%
	0	0	0	0.8	72.0%	80.0%
	0	0	0.5	0.5	64.2%	72.6%
	0	0.5	0.5	0.5	38.0%	46.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	30.2%	34.8%
	0	0.4	0.8	1	57.8%	66.2%
	0	0	0	0.8	39.8%	45.0%
	0	0	0.6	0.6	38.3%	44.6%
	0	0.8	0.8	0.8	31.1%	37.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.9%
	0	1	2	3	37.2%	65.7%
	0	1.5	2	2.5	29.6%	53.3%
	0	0	0	2	21.9%	35.7%
	0	0	2	2	29.8%	52.2%
	0	2	2	2	20.3%	34.5%
	3	1	0	2	1.5%	0.5%
	3	2	1	0	0.1%	0.0%

Table C.79. t = 4, p = 0.4, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.5%	4.9%
	0	0.2	0.4	0.6	42.2%	49.5%
	0	0.4	0.8	1	78.1%	86.2%
	0	0	0	0.8	53.9%	61.7%
	0	0	0.5	0.5	42.8%	48.6%
	0	0.8	0.8	0.8	46.0%	56.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.3%
	0	0.2	0.4	0.6	68.5%	76.8%
	0	0.2	0.5	0.7	81.0%	87.9%
	0	0	0	0.8	76.1%	83.6%
	0	0	0.5	0.5	66.4%	75.7%
	0	0.5	0.5	0.5	40.8%	49.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0.6	31.4%	36.5%
	0	0.4	0.8	1	61.9%	70.4%
	0	0	0	0.8	40.5%	46.3%
	0	0	0.6	0.6	41.0%	47.0%
	0	0.8	0.8	0.8	33.9%	42.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	5.1%
	0	1	2	3	8.1%	41.8%
	0	1.5	2	2.5	7.4%	32.4%
	0	0	0	2	6.5%	22.3%
	0	0	2	2	7.2%	31.3%
	0	2	2	2	6.5%	21.5%
	3	1	0	2	4.3%	1.1%
	3	2	1	0	2.8%	0.1%

Table C.80. t = 4, p = 0.4, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	47.2%	59.9%
	0	0.4	0.8	1	83.3%	93.9%
	0	0	0	0.8	60.2%	74.1%
	0	0	0.5	0.5	47.6%	59.6%
	0	0.8	0.8	0.8	52.3%	69.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	4.5%
	0	0.2	0.4	0.6	75.1%	87.6%
	0	0.2	0.5	0.7	85.5%	94.9%
	0	0	0	0.8	82.2%	92.6%
	0	0	0.5	0.5	73.2%	86.9%
	0	0.5	0.5	0.5	46.7%	61.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	4.7%
	0	0.2	0.4	0.6	35.9%	45.6%
	0	0.4	0.8	1	67.7%	82.6%
	0	0	0	0.8	46.1%	58.3%
	0	0	0.6	0.6	45.3%	58.0%
	0	0.8	0.8	0.8	39.6%	53.5%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.1%
	0	1	2	3	12.4%	65.3%
	0	1.5	2	2.5	11.8%	54.0%
	0	0	0	2	9.4%	35.0%
	0	0	2	2	11.9%	52.8%
	0	2	2	2	9.6%	35.6%
	3	1	0	2	3.7%	0.6%
	3	2	1	0	1.6%	0.0%

Table C.81. t = 4, p = 0.4, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0.6	29.1%	35.5%
	0	0.4	0.8	1	56.2%	68.5%
	0	0	0	0.8	37.2%	44.4%
	0	0	0.5	0.5	29.1%	36.1%
	0	0.8	0.8	0.8	27.8%	37.2%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0.6	47.9%	58.4%
	0	0.2	0.5	0.7	59.9%	70.5%
	0	0	0	0.8	55.2%	65.7%
	0	0	0.5	0.5	48.7%	58.0%
	0	0.5	0.5	0.5	28.3%	36.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	21.8%	27.0%
	0	0.4	0.8	1	41.7%	50.9%
	0	0	0	0.8	28.9%	34.7%
	0	0	0.6	0.6	27.8%	34.2%
	0	0.8	0.8	0.8	21.7%	28.3%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	4.7%
	0	1	2	3	16.2%	41.9%
	0	1.5	2	2.5	14.0%	32.9%
	0	0	0	2	10.5%	21.6%
	0	0	2	2	12.9%	32.4%
	0	2	2	2	11.3%	21.8%
	3	1	0	2	2.5%	1.1%
	3	2	1	0	0.8%	0.1%

C.2.5. Probability of Missing = 0.5

Table C.82. t = 4, p = 0.5, IBD =20, CRD =5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	49.9%	52.7%
	0	0.2	0.5	0.7	64.4%	66.8%
	0	0	0	0.8	65.4%	67.7%
	0	0	0.5	0.5	51.8%	54.0%
	0	0.5	0.5	0.5	31.3%	33.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	78.9%	81.3%
	0	0.2	0.5	0.6	81.6%	84.0%
	0	0	0	0.8	86.9%	89.0%
	0	0	0.5	0.5	78.6%	80.8%
	0	0.5	0.5	0.5	50.7%	53.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	39.1%	41.1%
	0	0.4	0.8	1	72.5%	75.2%
	0	0	0	0.8	50.4%	52.4%
	0	0	0.5	0.5	40.1%	41.8%
	0	0.5	0.5	0.5	23.6%	25.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.1%
	0	1	2	3	79.8%	85.8%
	0	1.5	2	3	75.8%	81.7%
	0	0	0	2	45.0%	50.4%
	0	0	2	2	65.3%	71.3%
	0	2	2	2	44.7%	50.0%
	3	1	0	2	0.3%	0.2%
	3	2	1	0	0.0%	0.0%

Table C.83. t = 4, p = 0.5, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.2	0.4	0.6	42.0%	52.6%
	0	0.4	0.8	1	76.8%	88.7%
	0	0	0	0.8	54.1%	65.8%
	0	0	0.5	0.5	41.8%	53.3%
	0	0.8	0.8	0.8	45.7%	60.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	68.8%	81.6%
	0	0.4	0.8	1	94.2%	98.5%
	0	0	0	0.8	75.2%	87.2%
	0	0	0.5	0.5	67.0%	80.1%
	0	0.5	0.5	0.5	40.8%	53.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	31.5%	39.9%
	0	0.4	0.8	1	61.1%	74.6%
	0	0	0	0.8	41.3%	51.0%
	0	0	0.6	0.6	40.6%	51.0%
	0	0.8	0.8	0.8	34.7%	45.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.1%
	0	1	2	3	14.0%	58.5%
	0	1.5	2	3	13.9%	56.0%
	0	0	0	2	9.9%	30.9%
	0	0	2	2	12.0%	46.1%
	0	2	2	2	10.0%	30.7%
	3	1	0	2	3.4%	0.6%
	3	2	1	0	1.2%	0.0%

Table C.84. t = 4, p = 0.5, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	50.8%	62.5%
	0	0.4	0.8	1	87.5%	94.9%
	0	0	0	0.8	63.8%	75.7%
	0	0	0.5	0.5	51.4%	62.9%
	0	0.8	0.8	0.8	57.9%	71.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	79.6%	89.4%
	0	0.4	0.8	1	98.4%	99.7%
	0	0	0	0.8	86.1%	93.7%
	0	0	0.5	0.5	78.4%	88.0%
	0	0.5	0.5	0.5	52.3%	64.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	38.1%	46.6%
	0	0.4	0.8	1	73.6%	84.2%
	0	0	0	0.8	49.2%	59.8%
	0	0	0.6	0.6	48.8%	59.5%
	0	0.8	0.8	0.8	43.2%	55.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.4%
	0	1	2	3	8.6%	58.5%
	0	1.5	2	2.5	8.2%	47.4%
	0	0	0	2	7.4%	30.6%
	0	0	2	2	8.4%	46.7%
	0	2	2	2	7.3%	31.4%
	3	1	0	2	3.9%	0.6%
	3	2	1	0	2.6%	0.0%

Table C.85. t = 4, p = 0.5, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0.6	54.9%	59.2%
	0	0.4	0.8	1	91.0%	93.8%
	0	0	0	0.8	68.4%	72.7%
	0	0	0.5	0.5	56.0%	58.9%
	0	0.8	0.8	0.8	63.0%	68.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0.6	85.2%	88.1%
	0	0.4	0.8	1	99.1%	99.5%
	0	0	0	0.8	89.1%	92.2%
	0	0	0.5	0.5	82.7%	86.0%
	0	0.5	0.5	0.5	55.3%	61.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	4.6%
	0	0.2	0.4	0.6	41.1%	44.7%
	0	0.4	0.8	1	77.8%	82.2%
	0	0	0	0.8	53.2%	57.2%
	0	0	0.6	0.6	53.6%	57.3%
	0	0.8	0.8	0.8	48.3%	53.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.5%
	0	1	2	3	6.4%	41.8%
	0	1.5	2	2.5	6.9%	32.9%
	0	0	0	2	6.2%	21.9%
	0	0	2	2	6.6%	32.7%
	0	2	2	2	6.1%	22.3%
	3	1	0	2	4.3%	1.0%
	3	2	1	0	4.1%	0.1%

Table C.86. t = 4, p = 0.5, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.0%
	0	0.2	0.4	0.6	48.2%	54.5%
	0	0.4	0.8	1	84.1%	90.4%
	0	0	0	0.8	62.1%	68.7%
	0	0	0.5	0.5	49.0%	55.3%
	0	0.8	0.8	0.8	53.5%	62.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.7%	5.4%
	0	0.2	0.4	0.6	75.6%	82.7%
	0	0.2	0.5	0.7	85.4%	90.7%
	0	0	0	0.8	82.9%	88.7%
	0	0	0.5	0.5	74.8%	81.5%
	0	0.5	0.5	0.5	46.7%	54.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	36.8%	41.8%
	0	0.4	0.8	1	69.1%	76.4%
	0	0	0	0.8	47.5%	53.1%
	0	0	0.6	0.6	46.9%	53.0%
	0	0.8	0.8	0.8	39.4%	46.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.9%
	0	1	2	3	59.6%	81.0%
	0	1.5	2	2.5	48.0%	68.5%
	0	0	0	2	32.1%	47.2%
	0	0	2	2	47.0%	68.0%
	0	2	2	2	33.2%	47.4%
	3	1	0	2	0.8%	0.3%
	3	2	1	0	0.0%	0.0%

Table C.87. t = 4, p = 0.5, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	39.1%	45.6%
	0	0.4	0.8	1	72.8%	81.7%
	0	0	0	0.8	50.9%	58.2%
	0	0	0.5	0.5	39.7%	46.0%
	0	0.8	0.8	0.8	41.4%	51.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	64.8%	73.7%
	0	0.2	0.5	0.7	76.4%	84.5%
	0	0	0	0.8	71.7%	80.3%
	0	0	0.5	0.5	63.7%	72.3%
	0	0.5	0.5	0.5	37.6%	45.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	30.4%	34.7%
	0	0.4	0.8	1	56.5%	65.8%
	0	0	0	0.8	39.0%	44.2%
	0	0	0.6	0.6	38.7%	44.7%
	0	0.8	0.8	0.8	31.6%	38.4%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.3%
	0	1	2	3	37.2%	66.0%
	0	1.5	2	2.5	30.5%	53.8%
	0	0	0	2	20.8%	35.7%
	0	0	2	2	30.7%	53.2%
	0	2	2	2	21.1%	34.9%
	3	1	0	2	1.3%	0.3%
	3	2	1	0	0.1%	0.0%

Table C.88. t = 4, p = 0.5, IBD =6, CRD =12

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.3%
	0	0.2	0.4	0.6	41.3%	48.9%
	0	0.4	0.8	1	77.4%	85.6%
	0	0	0	0.8	54.8%	62.2%
	0	0	0.5	0.5	43.1%	50.2%
	0	0.8	0.8	0.8	46.0%	56.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	70.3%	77.9%
	0	0.2	0.5	0.7	80.3%	87.3%
	0	0	0	0.8	76.2%	83.4%
	0	0	0.5	0.5	67.6%	76.5%
	0	0.5	0.5	0.5	42.5%	50.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.3%
	0	0.2	0.4	0.6	32.2%	37.3%
	0	0.4	0.8	1	62.3%	71.0%
	0	0	0	0.8	40.7%	47.6%
	0	0	0.6	0.6	40.6%	47.4%
	0	0.8	0.8	0.8	35.2%	42.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.9%
	0	1	2	3	8.0%	41.4%
	0	1.5	2	2.5	7.1%	33.0%
	0	0	0	2	6.6%	21.9%
	0	0	2	2	8.2%	32.1%
	0	2	2	2	6.6%	21.7%
	3	1	0	2	4.2%	1.1%
	3	2	1	0	2.6%	0.0%

Table C.89. t = 4, p = 0.5, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.3%
	0	0.2	0.4	0.6	46.6%	60.2%
	0	0.4	0.8	1	84.2%	94.2%
	0	0	0	0.8	59.2%	73.9%
	0	0	0.5	0.5	46.7%	60.3%
	0	0.8	0.8	0.8	52.0%	69.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	75.7%	87.9%
	0	0.2	0.5	0.7	85.6%	94.9%
	0	0	0	0.8	81.5%	92.2%
	0	0	0.5	0.5	73.2%	86.6%
	0	0.5	0.5	0.5	46.9%	61.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.4%
	0	0.2	0.4	0.6	35.5%	45.8%
	0	0.4	0.8	1	67.9%	82.5%
	0	0	0	0.8	45.3%	57.2%
	0	0	0.6	0.6	45.2%	57.8%
	0	0.8	0.8	0.8	39.8%	53.5%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.0%
	0	1	2	3	13.1%	66.1%
	0	1.5	2	2.5	11.7%	53.7%
	0	0	0	2	9.9%	34.9%
	0	0	2	2	11.6%	52.6%
	0	2	2	2	9.9%	34.7%
	3	1	0	2	3.0%	0.6%
	3	2	1	0	1.3%	0.0%

Table C.90. t = 4, p = 0.5, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	28.2%	34.6%
	0	0.4	0.8	1	56.1%	68.3%
	0	0	0	0.8	38.2%	45.2%
	0	0	0.5	0.5	28.2%	35.2%
	0	0.8	0.8	0.8	28.9%	38.1%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	49.3%	59.4%
	0	0.2	0.5	0.7	58.6%	69.6%
	0	0	0	0.8	55.5%	65.5%
	0	0	0.5	0.5	48.7%	57.9%
	0	0.5	0.5	0.5	26.5%	34.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	5.1%
	0	0.2	0.4	0.6	21.1%	25.6%
	0	0.4	0.8	1	41.8%	51.6%
	0	0	0	0.8	28.9%	34.6%
	0	0	0.6	0.6	27.6%	34.2%
	0	0.8	0.8	0.8	21.7%	28.3%
	1	0.5	0	0.25	0.3%	0.2%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	4.8%	5.1%
	0	1	2	3	16.1%	41.9%
	0	1.5	2	2.5	14.0%	33.6%
	0	0	0	2	11.1%	22.5%
	0	0	2	2	13.9%	33.0%
	0	2	2	2	11.1%	22.6%
	3	1	0	2	2.6%	1.1%
	3	2	1	0	0.8%	0.1%

C.3. Five Treatments

C.3.1. Probability of Missing = 0.1

Table C.91. t = 5, p = 0.1, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.4%	4.5%
	0	0.15	0.3	0.45	0.6	60.7%	59.9%
	0	0	0	0	0.9	74.2%	73.5%
	0	0	0	0.4	0.4	45.9%	45.5%
	0	0	0.4	0.4	0.4	45.3%	44.7%
	0	0.5	0.5	0.5	0.5	31.8%	31.3%
	1	0.5	0	0.25	1	2.9%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0.15	0.3	0.45	0.6	88.8%	88.0%
	0	0	0	0	0.9	91.4%	90.8%
	0	0	0	0.4	0.4	76.7%	76.0%
	0	0	0.4	0.4	0.4	73.3%	72.6%
	0	0.5	0.5	0.5	0.5	51.5%	50.4%
	1	0.5	0	0.25	1	0.7%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.15	0.3	0.45	0.6	46.7%	46.0%
	0	0	0	0	0.9	59.1%	58.5%
	0	0	0	0.8	0.8	80.9%	80.2%
	0	0	0.8	0.8	0.8	78.5%	77.8%
	0	0.5	0.5	0.5	0.5	23.6%	23.3%
	1	0.5	0	0.25	1	3.1%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	0.5	1	1.5	2	73.3%	71.2%
	0	0	0	0	3	66.3%	63.8%
	0	0	0	1	1	41.5%	40.1%
	0	0	1	1	1	42.0%	40.6%
	0	3	3	3	3	66.3%	63.7%
	4	3	2	1	0	0.0%	0.0%

Table C.92. t = 5, p = 0.1, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	76.1%	86.5%
	0	0	0	0	0.9	60.7%	71.6%
	0	0	0	0.8	0.8	82.8%	91.1%
	0	0	0.8	0.8	0.8	81.0%	90.5%
	0	0.8	0.8	0.8	0.8	43.5%	55.9%
	1	0.5	0	0.25	1	2.7%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	94.7%	98.5%
	0	0	0	0	0.9	80.0%	89.0%
	0	0	0	0.8	0.8	96.7%	99.1%
	0	0	0.8	0.8	0.8	94.4%	98.4%
	0	0.5	0.5	0.5	0.5	40.2%	50.9%
	1	0.5	0	0.25	1	0.5%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	60.3%	71.3%
	0	0	0	0	0.9	46.0%	55.2%
	0	0	0	0.8	0.8	67.8%	78.0%
	0	0	0.8	0.8	0.8	64.7%	76.3%
	0	0.8	0.8	0.8	0.8	32.3%	42.2%
	1	0.5	0	0.25	1	3.7%	3.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0.5	1	1.5	2	13.8%	45.5%
	0	0	0	0	3	13.2%	41.0%
	0	0	0	1	1	9.9%	25.2%
	0	0	1	1	1	10.4%	26.2%
	0	3	3	3	3	12.6%	39.1%
	4	3	2	1	0	0.7%	0.0%
	4	1	0	1	0.5	1.3%	0.1%

Table C.93. t = 5, p = 0.1, IBD =10, CRD =15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	85.3%	92.4%
	0	0	0	0	0.9	70.3%	80.4%
	0	0	0	0.8	0.8	90.8%	96.2%
	0	0	0.8	0.8	0.8	89.5%	95.5%
	0	0.8	0.8	0.8	0.8	54.4%	67.9%
	1	0.5	0	0.25	1	2.6%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	98.6%	99.7%
	0	0	0	0	0.9	89.0%	94.8%
	0	0	0	0.8	0.8	99.1%	99.9%
	0	0	0.8	0.8	0.8	98.0%	99.6%
	0	0.5	0.5	0.5	0.5	48.6%	59.6%
	1	0.5	0	0.25	1	0.3%	0.3%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	70.2%	79.7%
	0	0	0	0	0.9	54.9%	64.6%
	0	0	0	0.8	0.8	76.6%	86.1%
	0	0	0.8	0.8	0.8	75.8%	85.7%
	0	0.8	0.8	0.8	0.8	41.6%	52.0%
	1	0.5	0	0.25	1	3.0%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0.5	1	1.5	2	9.3%	46.3%
	0	0	0	0	3	9.0%	40.2%
	0	0	0	1	1	7.6%	25.6%
	0	0	1	1	1	7.3%	25.3%
	0	3	3	3	3	8.5%	40.4%
	4	3	2	1	0	1.3%	0.0%
	4	1	0	1	0.15	2.4%	0.0%

Table C.94. t = 5, p = 0.1, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.3%
	0	0.2	0.5	0.6	0.9	88.1%	90.7%
	0	0	0	0	0.9	73.8%	77.6%
	0	0	0	0.8	0.8	92.5%	94.8%
	0	0	0.8	0.8	0.8	91.8%	93.9%
	0	0.8	0.8	0.8	0.8	57.7%	63.7%
	1	0.5	0	0.25	1	2.3%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.4%
	0	0.2	0.5	0.6	0.9	99.0%	99.4%
	0	0	0	0	0.9	91.4%	93.8%
	0	0	0	0.8	0.8	99.5%	99.6%
	0	0	0.8	0.8	0.8	98.6%	99.3%
	0	0.5	0.5	0.5	0.5	52.2%	57.5%
	1	0.5	0	0.25	1	0.3%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0.2	0.5	0.6	0.9	72.8%	77.5%
	0	0	0	0	0.9	58.6%	61.9%
	0	0	0	0.8	0.8	79.9%	83.2%
	0	0	0.8	0.8	0.8	78.8%	82.4%
	0	0.8	0.8	0.8	0.8	44.4%	48.9%
	1	0.5	0	0.25	1	3.1%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0.5	1	1.5	2	6.7%	31.8%
	0	0	0	0	3	6.7%	27.9%
	0	0	0	1	1	5.7%	18.9%
	0	0	1	1	1	6.0%	18.2%
	0	3	3	3	3	6.3%	27.1%
	4	3	2	1	0	3.0%	0.0%
	4	1	0	1	2	4.3%	0.8%

Table C.95. t = 5, p = 0.1, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.3%
	0	0.2	0.5	0.6	0.9	84.2%	87.2%
	0	0	0	0	0.9	71.2%	74.6%
	0	0	0	0.8	0.8	90.7%	92.8%
	0	0	0.8	0.8	0.8	89.5%	91.8%
	0	0.8	0.8	0.8	0.8	53.4%	57.6%
	1	0.5	0	0.25	1	3.1%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	98.0%	98.8%
	0	0	0	0	0.9	89.1%	91.4%
	0	0	0	0.5	0.5	85.7%	88.1%
	0	0	0.5	0.5	0.5	83.0%	86.1%
	0	0.5	0.5	0.5	0.5	47.8%	51.4%
	1	0.5	0	0.25	1	0.7%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.5%	5.4%
	0	0.2	0.5	0.6	0.9	69.2%	72.1%
	0	0	0	0	0.9	55.7%	58.0%
	0	0	0	0.8	0.8	77.7%	80.2%
	0	0	0.8	0.8	0.8	75.4%	78.8%
	0	0.8	0.8	0.8	0.8	40.9%	43.7%
	1	0.5	0	0.25	1	3.6%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.7%
	0	0.5	1	1.5	2	56.5%	67.4%
	0	0	0	0	3	50.7%	60.2%
	0	0	0	1	1	31.8%	37.9%
	0	0	1	1	1	31.7%	37.8%
	0	3	3	3	3	49.8%	60.0%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table C.96. t = 5, p = 0.1, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	73.4%	79.4%
	0	0	0	0	0.9	58.3%	63.9%
	0	0	0	0.8	0.8	81.1%	86.1%
	0	0	0.8	0.8	0.8	78.2%	83.9%
	0	0.8	0.8	0.8	0.8	40.5%	47.4%
	1	0.5	0	0.25	1	3.4%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	93.4%	96.2%
	0	0	0	0	0.9	78.6%	84.0%
	0	0	0	0.5	0.5	75.5%	80.5%
	0	0	0.5	0.5	0.5	70.8%	76.8%
	0	0.5	0.5	0.5	0.5	38.1%	43.2%
	1	0.5	0	0.25	1	0.9%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.3%
	0	0.2	0.5	0.6	0.9	57.5%	63.4%
	0	0	0	0	0.9	45.2%	49.7%
	0	0	0	0.8	0.8	65.4%	71.0%
	0	0	0.8	0.8	0.8	64.0%	70.1%
	0	0.8	0.8	0.8	0.8	32.2%	37.3%
	1	0.5	0	0.25	1	4.1%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0.5	1	1.5	2	34.7%	51.4%
	0	0	0	0	3	30.1%	45.6%
	0	0	0	1	1	19.4%	28.4%
	0	0	1	1	1	20.7%	28.7%
	0	3	3	3	3	30.6%	45.8%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.6%	0.3%

Table C.97. t = 5, p = 0.1, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	75.9%	82.9%
	0	0	0	0	0.9	60.3%	67.4%
	0	0	0	0.8	0.8	82.9%	88.0%
	0	0	0.8	0.8	0.8	81.3%	87.3%
	0	0.8	0.8	0.8	0.8	43.8%	52.9%
	1	0.5	0	0.25	1	2.8%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.3%
	0	0.2	0.5	0.6	0.9	94.8%	97.3%
	0	0	0	0	0.9	78.6%	85.0%
	0	0	0	0.5	0.5	76.4%	82.6%
	0	0	0.5	0.5	0.5	73.2%	80.4%
	0	0.5	0.5	0.5	0.5	40.5%	47.1%
	1	0.5	0	0.25	1	0.4%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	60.2%	66.6%
	0	0	0	0	0.9	46.0%	51.1%
	0	0	0	0.8	0.8	67.6%	74.4%
	0	0	0.8	0.8	0.8	64.2%	71.9%
	0	0.8	0.8	0.8	0.8	33.4%	40.0%
	1	0.5	0	0.25	1	3.5%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0.5	1	1.5	2	8.6%	32.5%
	0	0	0	0	3	8.4%	28.1%
	0	0	0	1	1	7.0%	19.3%
	0	0	1	1	1	7.3%	19.5%
	0	3	3	3	3	7.9%	27.8%
	4	3	2	1	0	1.9%	0.0%
	4	1	0	1	2	3.7%	0.7%

Table C.98. t = 5, p = 0.1, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	81.6%	91.3%
	0	0	0	0	0.9	66.7%	78.5%
	0	0	0	0.8	0.8	87.9%	94.9%
	0	0	0.8	0.8	0.8	86.4%	94.7%
	0	0.8	0.8	0.8	0.8	49.7%	64.9%
	1	0.5	0	0.25	1	3.0%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	4.5%
	0	0.2	0.5	0.6	0.9	97.5%	99.6%
	0	0	0	0	0.9	85.4%	94.3%
	0	0	0	0.5	0.5	82.3%	91.8%
	0	0	0.5	0.5	0.5	78.9%	90.0%
	0	0.5	0.5	0.5	0.5	45.3%	58.3%
	1	0.5	0	0.25	1	0.5%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.2	0.5	0.6	0.9	65.4%	78.5%
	0	0	0	0	0.9	51.3%	62.8%
	0	0	0	0.8	0.8	72.9%	84.8%
	0	0	0.8	0.8	0.8	70.6%	83.2%
	0	0.8	0.8	0.8	0.8	37.2%	49.8%
	1	0.5	0	0.25	1	3.1%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.3%
	0	0.5	1	1.5	2	12.4%	52.2%
	0	0	0	0	3	12.1%	45.7%
	0	0	0	1	1	9.2%	28.2%
	0	0	1	1	1	9.2%	28.2%
	0	3	3	3	3	12.2%	45.5%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	2	2.7%	0.4%

Table C.99. t = 5, p = 0.1, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	56.5%	63.5%
	0	0	0	0	0.9	45.3%	50.7%
	0	0	0	0.8	0.8	67.0%	73.4%
	0	0	0.8	0.8	0.8	62.5%	69.8%
	0	0.8	0.8	0.8	0.8	29.7%	36.1%
	1	0.5	0	0.25	1	3.9%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	81.9%	87.7%
	0	0	0	0	0.9	62.5%	69.2%
	0	0	0	0.5	0.5	59.5%	65.6%
	0	0	0.5	0.5	0.5	55.9%	62.8%
	0	0.5	0.5	0.5	0.5	27.2%	32.5%
	1	0.5	0	0.25	1	1.0%	1.1%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	43.3%	49.1%
	0	0	0	0	0.9	34.2%	37.7%
	0	0	0	0.8	0.8	50.7%	56.3%
	0	0	0.8	0.8	0.8	47.3%	54.1%
	0	0.8	0.8	0.8	0.8	22.2%	26.5%
	1	0.5	0	0.25	1	4.4%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0.5	1	1.5	2	16.2%	31.8%
	0	0	0	0	3	14.9%	27.8%
	0	0	0	1	1	12.2%	19.3%
	0	0	1	1	1	11.7%	19.4%
	0	3	3	3	3	14.7%	28.1%
	4	3	2	1	0	0.2%	0.0%
	4	1	0	1	2	2.0%	0.7%

C.3.2. Probability of Missing = 0.2

Table C.100. t = 5, p = 0.2, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.15	0.3	0.45	0.6	61.6%	60.8%
	0	0	0	0	0.9	74.7%	73.8%
	0	0	0	0.4	0.4	46.9%	46.4%
	0	0	0.4	0.4	0.4	45.9%	45.2%
	0	0.5	0.5	0.5	0.5	31.1%	30.5%
	1	0.5	0	0.25	1	2.5%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.4%
	0	0.15	0.3	0.45	0.6	88.6%	87.9%
	0	0	0	0	0.9	91.0%	90.5%
	0	0	0	0.4	0.4	76.5%	75.8%
	0	0	0.4	0.4	0.4	74.0%	73.0%
	0	0.5	0.5	0.5	0.5	49.9%	49.1%
	1	0.5	0	0.25	1	0.6%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.15	0.3	0.45	0.6	46.3%	45.5%
	0	0	0	0	0.9	58.8%	58.1%
	0	0	0	0.8	0.8	79.9%	79.3%
	0	0	0.8	0.8	0.8	79.1%	78.2%
	0	0.5	0.5	0.5	0.5	23.5%	23.3%
	1	0.5	0	0.25	1	3.3%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0.5	1	1.5	2	74.1%	71.8%
	0	0	0	0	3	66.3%	64.0%
	0	0	0	1	1	41.8%	39.9%
	0	0	1	1	1	41.2%	39.6%
	0	3	3	3	3	67.4%	65.1%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table C.101. t = 5, p = 0.2, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	75.7%	86.1%
	0	0	0	0	0.9	60.9%	71.5%
	0	0	0	0.8	0.8	82.7%	90.9%
	0	0	0.8	0.8	0.8	80.4%	90.0%
	0	0.8	0.8	0.8	0.8	44.3%	56.8%
	1	0.5	0	0.25	1	3.1%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.7%
	0	0.2	0.5	0.6	0.9	94.4%	98.4%
	0	0	0	0	0.9	79.8%	89.1%
	0	0	0	0.8	0.8	96.1%	99.0%
	0	0	0.8	0.8	0.8	93.9%	98.2%
	0	0.5	0.5	0.5	0.5	39.8%	49.6%
	1	0.5	0	0.25	1	0.5%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	59.3%	70.7%
	0	0	0	0	0.9	45.8%	54.4%
	0	0	0	0.8	0.8	67.1%	77.9%
	0	0	0.8	0.8	0.8	65.1%	76.8%
	0	0.8	0.8	0.8	0.8	33.1%	43.2%
	1	0.5	0	0.25	1	3.7%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0.5	1	1.5	2	13.8%	46.6%
	0	0	0	0	3	12.7%	39.3%
	0	0	0	1	1	9.4%	25.3%
	0	0	1	1	1	9.9%	26.1%
	0	3	3	3	3	13.1%	40.2%
	4	3	2	1	0	0.5%	0.0%
	4	1	0	1	0.5	1.3%	0.1%

Table C.102. t = 5, p = 0.2, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	84.9%	92.4%
	0	0	0	0	0.9	70.4%	80.6%
	0	0	0	0.8	0.8	90.3%	95.7%
	0	0	0.8	0.8	0.8	89.6%	95.1%
	0	0.8	0.8	0.8	0.8	54.4%	67.1%
	1	0.5	0	0.25	1	2.6%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0.2	0.5	0.6	0.9	98.3%	99.6%
	0	0	0	0	0.9	88.7%	95.3%
	0	0	0	0.8	0.8	99.0%	99.9%
	0	0	0.8	0.8	0.8	97.7%	99.6%
	0	0.5	0.5	0.5	0.5	48.2%	59.4%
	1	0.5	0	0.25	1	0.3%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0.2	0.5	0.6	0.9	70.0%	80.3%
	0	0	0	0	0.9	55.0%	65.1%
	0	0	0	0.8	0.8	77.5%	86.8%
	0	0	0.8	0.8	0.8	75.2%	85.4%
	0	0.8	0.8	0.8	0.8	41.3%	52.5%
	1	0.5	0	0.25	1	3.0%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	0.5	1	1.5	2	9.1%	44.3%
	0	0	0	0	3	9.2%	40.4%
	0	0	0	1	1	7.3%	25.6%
	0	0	1	1	1	7.4%	25.1%
	0	3	3	3	3	8.9%	40.9%
	4	3	2	1	0	1.6%	0.0%
	4	1	0	1	0.15	2.4%	0.0%

Table C.103. t = 5, p = 0.2, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0.2	0.5	0.6	0.9	88.0%	91.0%
	0	0	0	0	0.9	73.2%	76.8%
	0	0	0	0.8	0.8	92.8%	94.5%
	0	0	0.8	0.8	0.8	91.8%	94.4%
	0	0.8	0.8	0.8	0.8	58.1%	63.4%
	1	0.5	0	0.25	1	2.4%	2.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	4.8%
	0	0.2	0.5	0.6	0.9	99.2%	99.4%
	0	0	0	0	0.9	91.3%	93.5%
	0	0	0	0.8	0.8	99.4%	99.7%
	0	0	0.8	0.8	0.8	98.4%	99.2%
	0	0.5	0.5	0.5	0.5	51.5%	56.9%
	1	0.5	0	0.25	1	0.3%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	73.7%	78.1%
	0	0	0	0	0.9	57.8%	62.1%
	0	0	0	0.8	0.8	80.1%	83.6%
	0	0	0.8	0.8	0.8	78.5%	82.6%
	0	0.8	0.8	0.8	0.8	44.7%	50.2%
	1	0.5	0	0.25	1	3.1%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.8%
	0	0.5	1	1.5	2	6.7%	31.3%
	0	0	0	0	3	6.0%	27.3%
	0	0	0	1	1	6.5%	19.0%
	0	0	1	1	1	5.9%	18.3%
	0	3	3	3	3	6.3%	27.1%
	4	3	2	1	0	3.2%	0.0%
	4	1	0	1	2	4.4%	0.8%

Table C.104. t = 5, p = 0.2, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0.2	0.5	0.6	0.9	85.0%	87.8%
	0	0	0	0	0.9	70.6%	73.3%
	0	0	0	0.8	0.8	91.2%	93.1%
	0	0	0.8	0.8	0.8	89.6%	91.7%
	0	0.8	0.8	0.8	0.8	53.7%	57.3%
	1	0.5	0	0.25	1	2.7%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	4.5%
	0	0.2	0.5	0.6	0.9	98.1%	98.7%
	0	0	0	0	0.9	89.0%	91.3%
	0	0	0	0.5	0.5	85.6%	88.2%
	0	0	0.5	0.5	0.5	83.3%	86.2%
	0	0.5	0.5	0.5	0.5	48.4%	51.4%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.4%
	0	0.2	0.5	0.6	0.9	69.3%	72.7%
	0	0	0	0	0.9	55.8%	58.3%
	0	0	0	0.8	0.8	77.3%	80.0%
	0	0	0.8	0.8	0.8	75.2%	78.6%
	0	0.8	0.8	0.8	0.8	40.7%	43.9%
	1	0.5	0	0.25	1	3.7%	3.5%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.5%	5.3%
	0	0.5	1	1.5	2	56.2%	67.0%
	0	0	0	0	3	49.8%	59.7%
	0	0	0	1	1	31.2%	36.7%
	0	0	1	1	1	31.6%	37.7%
	0	3	3	3	3	50.5%	60.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table C.105. t = 5, p = 0.2, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	73.8%	79.3%
	0	0	0	0	0.9	58.9%	64.5%
	0	0	0	0.8	0.8	81.5%	85.8%
	0	0	0.8	0.8	0.8	78.4%	84.2%
	0	0.8	0.8	0.8	0.8	41.1%	47.9%
	1	0.5	0	0.25	1	3.2%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	93.2%	96.2%
	0	0	0	0	0.9	78.4%	83.9%
	0	0	0	0.5	0.5	74.6%	79.8%
	0	0	0.5	0.5	0.5	70.5%	76.8%
	0	0.5	0.5	0.5	0.5	37.3%	42.3%
	1	0.5	0	0.25	1	0.8%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.2%
	0	0.2	0.5	0.6	0.9	56.5%	62.6%
	0	0	0	0	0.9	45.3%	49.8%
	0	0	0	0.8	0.8	64.6%	70.4%
	0	0	0.8	0.8	0.8	62.3%	68.5%
	0	0.8	0.8	0.8	0.8	31.1%	36.0%
	1	0.5	0	0.25	1	3.6%	3.5%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	0.5	1	1.5	2	34.9%	52.2%
	0	0	0	0	3	30.8%	45.6%
	0	0	0	1	1	20.0%	28.4%
	0	0	1	1	1	20.5%	28.9%
	0	3	3	3	3	30.5%	45.4%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.8%	0.3%

Table C.106. t = 5, p = 0.2, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	75.3%	82.2%
	0	0	0	0	0.9	60.3%	66.5%
	0	0	0	0.8	0.8	82.5%	88.3%
	0	0	0.8	0.8	0.8	81.1%	86.9%
	0	0.8	0.8	0.8	0.8	43.9%	51.6%
	1	0.5	0	0.25	1	3.1%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.5%	4.9%
	0	0.2	0.5	0.6	0.9	94.7%	97.2%
	0	0	0	0	0.9	79.9%	85.7%
	0	0	0	0.5	0.5	76.2%	82.6%
	0	0	0.5	0.5	0.5	72.6%	79.3%
	0	0.5	0.5	0.5	0.5	39.4%	46.6%
	1	0.5	0	0.25	1	0.5%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	59.5%	66.7%
	0	0	0	0	0.9	45.5%	51.7%
	0	0	0	0.8	0.8	67.0%	73.6%
	0	0	0.8	0.8	0.8	64.6%	71.9%
	0	0.8	0.8	0.8	0.8	32.7%	39.4%
	1	0.5	0	0.25	1	3.7%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	0.5	1	1.5	2	8.2%	32.8%
	0	0	0	0	3	7.8%	27.1%
	0	0	0	1	1	7.6%	19.2%
	0	0	1	1	1	7.0%	19.5%
	0	3	3	3	3	7.8%	27.8%
	4	3	2	1	0	1.8%	0.0%
	4	1	0	1	2	3.7%	0.9%

Table C.107. t = 5, p = 0.2, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	81.5%	91.0%
	0	0	0	0	0.9	66.1%	78.8%
	0	0	0	0.8	0.8	87.8%	95.4%
	0	0	0.8	0.8	0.8	86.3%	94.9%
	0	0.8	0.8	0.8	0.8	49.6%	64.9%
	1	0.5	0	0.25	1	2.8%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	97.1%	99.5%
	0	0	0	0	0.9	85.3%	93.9%
	0	0	0	0.5	0.5	82.0%	91.7%
	0	0	0.5	0.5	0.5	79.3%	90.2%
	0	0.5	0.5	0.5	0.5	44.2%	57.3%
	1	0.5	0	0.25	1	0.4%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0.2	0.5	0.6	0.9	66.4%	78.5%
	0	0	0	0	0.9	51.2%	62.6%
	0	0	0	0.8	0.8	72.7%	84.3%
	0	0	0.8	0.8	0.8	71.5%	82.8%
	0	0.8	0.8	0.8	0.8	37.9%	50.0%
	1	0.5	0	0.25	1	3.3%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.8%
	0	0.5	1	1.5	2	13.3%	51.6%
	0	0	0	0	3	12.1%	45.8%
	0	0	0	1	1	9.8%	27.9%
	0	0	1	1	1	9.9%	29.2%
	0	3	3	3	3	11.8%	45.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	2	2.7%	0.3%

Table C.108. t = 5, p = 0.2, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	57.5%	64.3%
	0	0	0	0	0.9	45.0%	50.1%
	0	0	0	0.8	0.8	65.8%	72.5%
	0	0	0.8	0.8	0.8	62.5%	70.7%
	0	0.8	0.8	0.8	0.8	28.6%	35.1%
	1	0.5	0	0.25	1	4.0%	3.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	82.6%	88.6%
	0	0	0	0	0.9	62.1%	68.5%
	0	0	0	0.5	0.5	59.3%	66.3%
	0	0	0.5	0.5	0.5	54.8%	61.7%
	0	0.5	0.5	0.5	0.5	27.2%	32.6%
	1	0.5	0	0.25	1	1.0%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.5%
	0	0.2	0.5	0.6	0.9	42.8%	49.1%
	0	0	0	0	0.9	33.7%	37.5%
	0	0	0	0.8	0.8	50.1%	55.9%
	0	0	0.8	0.8	0.8	47.8%	54.6%
	0	0.8	0.8	0.8	0.8	22.6%	27.0%
	1	0.5	0	0.25	1	4.1%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0.5	1	1.5	2	17.0%	32.3%
	0	0	0	0	3	15.1%	27.7%
	0	0	0	1	1	11.4%	18.6%
	0	0	1	1	1	11.2%	18.6%
	0	3	3	3	3	14.6%	27.7%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.7%	0.6%

C.3.3. Probability of Missing = 0.3

Table C.109. t = 5, p = 0.3, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0.15	0.3	0.45	0.6	60.9%	60.0%
	0	0	0	0	0.9	74.4%	73.6%
	0	0	0	0.4	0.4	46.8%	46.3%
	0	0	0.4	0.4	0.4	46.4%	45.7%
	0	0.5	0.5	0.5	0.5	31.4%	30.9%
	1	0.5	0	0.25	1	2.5%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.15	0.3	0.45	0.6	88.7%	88.2%
	0	0	0	0	0.9	91.7%	91.1%
	0	0	0	0.4	0.4	75.5%	75.0%
	0	0	0.4	0.4	0.4	73.2%	72.4%
	0	0.5	0.5	0.5	0.5	51.8%	51.0%
	1	0.5	0	0.25	1	0.8%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.15	0.3	0.45	0.6	46.0%	45.3%
	0	0	0	0	0.9	58.3%	57.6%
	0	0	0	0.8	0.8	80.2%	79.7%
	0	0	0.8	0.8	0.8	79.0%	78.0%
	0	0.5	0.5	0.5	0.5	24.3%	24.1%
	1	0.5	0	0.25	1	3.6%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.6%
	0	0.5	1	1.5	2	72.8%	70.4%
	0	0	0	0	3	66.8%	64.5%
	0	0	0	1	1	42.2%	40.5%
	0	0	1	1	1	41.2%	39.4%
	0	3	3	3	3	67.1%	64.6%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table C.110. t = 5, p = 0.3, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	74.9%	85.3%
	0	0	0	0	0.9	60.6%	70.5%
	0	0	0	0.8	0.8	82.6%	90.7%
	0	0	0.8	0.8	0.8	80.3%	90.1%
	0	0.8	0.8	0.8	0.8	44.7%	56.3%
	1	0.5	0	0.25	1	3.1%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	94.9%	98.3%
	0	0	0	0	0.9	79.5%	88.8%
	0	0	0	0.8	0.8	96.4%	99.1%
	0	0	0.8	0.8	0.8	94.5%	98.4%
	0	0.5	0.5	0.5	0.5	39.8%	50.5%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.5%
	0	0.2	0.5	0.6	0.9	59.7%	70.9%
	0	0	0	0	0.9	46.2%	55.1%
	0	0	0	0.8	0.8	66.0%	76.6%
	0	0	0.8	0.8	0.8	65.0%	76.3%
	0	0.8	0.8	0.8	0.8	33.3%	42.4%
	1	0.5	0	0.25	1	3.5%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	0.5	1	1.5	2	14.2%	46.5%
	0	0	0	0	3	13.0%	40.0%
	0	0	0	1	1	10.2%	25.4%
	0	0	1	1	1	10.0%	25.3%
	0	3	3	3	3	13.5%	40.5%
	4	3	2	1	0	0.5%	0.0%
	4	1	0	1	0.5	1.3%	0.0%

Table C.111. t = 5, p = 0.3, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.0%
	0	0.2	0.5	0.6	0.9	84.4%	92.6%
	0	0	0	0	0.9	71.0%	80.7%
	0	0	0	0.8	0.8	90.7%	95.9%
	0	0	0.8	0.8	0.8	89.7%	95.7%
	0	0.8	0.8	0.8	0.8	54.1%	66.7%
	1	0.5	0	0.25	1	2.8%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	98.5%	99.7%
	0	0	0	0	0.9	88.3%	95.0%
	0	0	0	0.8	0.8	98.9%	99.8%
	0	0	0.8	0.8	0.8	98.0%	99.6%
	0	0.5	0.5	0.5	0.5	49.3%	60.0%
	1	0.5	0	0.25	1	0.3%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	69.8%	80.5%
	0	0	0	0	0.9	54.4%	64.3%
	0	0	0	0.8	0.8	77.1%	86.1%
	0	0	0.8	0.8	0.8	75.7%	85.5%
	0	0.8	0.8	0.8	0.8	41.4%	52.2%
	1	0.5	0	0.25	1	2.9%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0.5	1	1.5	2	8.9%	44.8%
	0	0	0	0	3	9.0%	40.4%
	0	0	0	1	1	7.8%	25.4%
	0	0	1	1	1	7.6%	25.1%
	0	3	3	3	3	8.5%	40.0%
	4	3	2	1	0	1.7%	0.0%
	4	1	0	1	0.15	2.4%	0.0%

Table C.112. t = 5, p = 0.3, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	87.7%	90.6%
	0	0	0	0	0.9	73.3%	77.2%
	0	0	0	0.8	0.8	93.0%	94.9%
	0	0	0.8	0.8	0.8	92.1%	94.1%
	0	0.8	0.8	0.8	0.8	58.5%	63.7%
	1	0.5	0	0.25	1	2.8%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.4%	5.0%
	0	0.2	0.5	0.6	0.9	99.0%	99.5%
	0	0	0	0	0.9	91.1%	93.7%
	0	0	0	0.8	0.8	99.3%	99.5%
	0	0	0.8	0.8	0.8	98.7%	99.4%
	0	0.5	0.5	0.5	0.5	52.3%	57.2%
	1	0.5	0	0.25	1	0.2%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	73.3%	78.1%
	0	0	0	0	0.9	57.1%	60.4%
	0	0	0	0.8	0.8	79.2%	82.8%
	0	0	0.8	0.8	0.8	78.4%	82.2%
	0	0.8	0.8	0.8	0.8	45.1%	49.3%
	1	0.5	0	0.25	1	3.1%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	0.5	1	1.5	2	6.9%	32.4%
	0	0	0	0	3	6.8%	28.1%
	0	0	0	1	1	5.9%	18.6%
	0	0	1	1	1	6.3%	18.6%
	0	3	3	3	3	6.7%	27.7%
	4	3	2	1	0	3.0%	0.0%
	4	1	0	1	2	4.0%	0.9%

Table C.113. t = 5, p = 0.3, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0.2	0.5	0.6	0.9	84.2%	87.2%
	0	0	0	0	0.9	70.7%	73.7%
	0	0	0	0.8	0.8	91.0%	93.0%
	0	0	0.8	0.8	0.8	90.1%	92.0%
	0	0.8	0.8	0.8	0.8	53.8%	58.2%
	1	0.5	0	0.25	1	2.8%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	98.2%	98.9%
	0	0	0	0	0.9	89.5%	91.4%
	0	0	0	0.5	0.5	85.6%	88.0%
	0	0	0.5	0.5	0.5	82.2%	84.9%
	0	0.5	0.5	0.5	0.5	48.3%	51.6%
	1	0.5	0	0.25	1	0.6%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	70.0%	73.4%
	0	0	0	0	0.9	55.8%	58.4%
	0	0	0	0.8	0.8	77.6%	80.6%
	0	0	0.8	0.8	0.8	75.8%	78.7%
	0	0.8	0.8	0.8	0.8	41.3%	44.2%
	1	0.5	0	0.25	1	3.6%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0.5	1	1.5	2	55.0%	65.8%
	0	0	0	0	3	49.4%	59.8%
	0	0	0	1	1	31.3%	37.0%
	0	0	1	1	1	31.7%	37.4%
	0	3	3	3	3	49.7%	60.2%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.2%	0.1%

Table C.114. t = 5, p = 0.3, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	73.5%	79.3%
	0	0	0	0	0.9	58.2%	63.8%
	0	0	0	0.8	0.8	80.5%	85.7%
	0	0	0.8	0.8	0.8	78.6%	84.0%
	0	0.8	0.8	0.8	0.8	41.3%	47.9%
	1	0.5	0	0.25	1	2.9%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	94.3%	96.7%
	0	0	0	0	0.9	78.0%	83.4%
	0	0	0	0.5	0.5	74.6%	80.1%
	0	0	0.5	0.5	0.5	70.8%	76.8%
	0	0.5	0.5	0.5	0.5	37.8%	43.2%
	1	0.5	0	0.25	1	0.7%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	57.2%	63.7%
	0	0	0	0	0.9	44.2%	48.9%
	0	0	0	0.8	0.8	65.0%	70.9%
	0	0	0.8	0.8	0.8	62.9%	69.0%
	0	0.8	0.8	0.8	0.8	30.7%	35.9%
	1	0.5	0	0.25	1	3.5%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.4%
	0	0.5	1	1.5	2	35.2%	51.5%
	0	0	0	0	3	30.5%	45.7%
	0	0	0	1	1	20.4%	28.8%
	0	0	1	1	1	20.3%	29.2%
	0	3	3	3	3	31.1%	45.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.2%

Table C.115. t = 5, p = 0.3, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.8%
	0	0.2	0.5	0.6	0.9	76.7%	82.4%
	0	0	0	0	0.9	60.6%	66.9%
	0	0	0	0.8	0.8	82.3%	88.3%
	0	0	0.8	0.8	0.8	80.5%	86.8%
	0	0.8	0.8	0.8	0.8	44.0%	52.7%
	1	0.5	0	0.25	1	3.0%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.4%
	0	0.2	0.5	0.6	0.9	95.1%	97.6%
	0	0	0	0	0.9	79.5%	85.7%
	0	0	0	0.5	0.5	76.7%	82.9%
	0	0	0.5	0.5	0.5	72.8%	79.9%
	0	0.5	0.5	0.5	0.5	39.2%	46.1%
	1	0.5	0	0.25	1	0.5%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.3%
	0	0.2	0.5	0.6	0.9	59.5%	66.7%
	0	0	0	0	0.9	45.9%	51.9%
	0	0	0	0.8	0.8	66.8%	73.1%
	0	0	0.8	0.8	0.8	64.8%	72.4%
	0	0.8	0.8	0.8	0.8	33.3%	39.9%
	1	0.5	0	0.25	1	3.5%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0.5	1	1.5	2	8.5%	32.5%
	0	0	0	0	3	7.7%	26.8%
	0	0	0	1	1	7.0%	19.1%
	0	0	1	1	1	7.5%	19.3%
	0	3	3	3	3	8.1%	28.5%
	4	3	2	1	0	1.8%	0.0%
	4	1	0	1	2	3.2%	0.7%

Table C.116. t = 5, p = 0.3, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0.2	0.5	0.6	0.9	81.5%	92.1%
	0	0	0	0	0.9	66.2%	78.7%
	0	0	0	0.8	0.8	87.1%	95.0%
	0	0	0.8	0.8	0.8	86.5%	94.3%
	0	0.8	0.8	0.8	0.8	50.0%	65.0%
	1	0.5	0	0.25	1	3.1%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	4.9%
	0	0.2	0.5	0.6	0.9	97.0%	99.5%
	0	0	0	0	0.9	85.4%	93.6%
	0	0	0	0.5	0.5	82.1%	91.8%
	0	0	0.5	0.5	0.5	79.2%	89.8%
	0	0.5	0.5	0.5	0.5	45.1%	57.8%
	1	0.5	0	0.25	1	0.4%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	65.3%	77.9%
	0	0	0	0	0.9	51.2%	62.8%
	0	0	0	0.8	0.8	72.8%	84.9%
	0	0	0.8	0.8	0.8	71.1%	83.7%
	0	0.8	0.8	0.8	0.8	36.8%	49.4%
	1	0.5	0	0.25	1	3.5%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	0.5	1	1.5	2	13.7%	52.3%
	0	0	0	0	3	11.5%	44.1%
	0	0	0	1	1	9.0%	29.0%
	0	0	1	1	1	10.1%	29.4%
	0	3	3	3	3	12.3%	46.0%
	4	3	2	1	0	0.8%	0.0%
	4	1	0	1	2	2.7%	0.4%

Table C.117. t = 5, p = 0.3, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	56.5%	63.9%
	0	0	0	0	0.9	44.8%	50.1%
	0	0	0	0.8	0.8	66.0%	72.8%
	0	0	0.8	0.8	0.8	61.8%	69.3%
	0	0.8	0.8	0.8	0.8	29.0%	35.7%
	1	0.5	0	0.25	1	3.8%	3.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0.2	0.5	0.6	0.9	82.2%	87.8%
	0	0	0	0	0.9	61.7%	68.2%
	0	0	0	0.5	0.5	59.1%	65.6%
	0	0	0.5	0.5	0.5	55.0%	62.4%
	0	0.5	0.5	0.5	0.5	27.5%	32.5%
	1	0.5	0	0.25	1	1.0%	1.0%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	5.1%
	0	0.2	0.5	0.6	0.9	42.9%	49.1%
	0	0	0	0	0.9	34.4%	38.0%
	0	0	0	0.8	0.8	50.8%	56.3%
	0	0	0.8	0.8	0.8	47.3%	53.9%
	0	0.8	0.8	0.8	0.8	21.9%	26.3%
	1	0.5	0	0.25	1	4.1%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0.5	1	1.5	2	16.7%	32.6%
	0	0	0	0	3	14.7%	27.3%
	0	0	0	1	1	10.6%	18.1%
	0	0	1	1	1	12.1%	18.8%
	0	3	3	3	3	15.3%	28.1%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.8%	0.7%

C.3.4. Probability of Missing = 0.4

Table C.118. t = 5, p = 0.4, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.7%
	0	0.15	0.3	0.45	0.6	60.0%	59.2%
	0	0	0	0	0.9	74.1%	73.2%
	0	0	0	0.4	0.4	47.0%	46.3%
	0	0	0.4	0.4	0.4	45.3%	44.6%
	0	0.5	0.5	0.5	0.5	31.4%	30.9%
	1	0.5	0	0.25	1	2.8%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.15	0.3	0.45	0.6	88.4%	87.8%
	0	0	0	0	0.9	91.4%	90.9%
	0	0	0	0.4	0.4	76.0%	75.3%
	0	0	0.4	0.4	0.4	73.5%	72.5%
	0	0.5	0.5	0.5	0.5	50.6%	50.0%
	1	0.5	0	0.25	1	0.6%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0.15	0.3	0.45	0.6	45.5%	44.8%
	0	0	0	0	0.9	58.3%	57.5%
	0	0	0	0.8	0.8	80.6%	79.9%
	0	0	0.8	0.8	0.8	79.3%	78.4%
	0	0.5	0.5	0.5	0.5	24.4%	23.9%
	1	0.5	0	0.25	1	3.2%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0.5	1	1.5	2	73.6%	71.3%
	0	0	0	0	3	67.1%	64.4%
	0	0	0	1	1	41.5%	39.9%
	0	0	1	1	1	41.5%	40.0%
	0	3	3	3	3	66.9%	64.7%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table C.119. t = 5, p = 0.4, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0.2	0.5	0.6	0.9	75.4%	85.7%
	0	0	0	0	0.9	60.4%	70.9%
	0	0	0	0.8	0.8	83.1%	90.9%
	0	0	0.8	0.8	0.8	80.9%	90.3%
	0	0.8	0.8	0.8	0.8	44.4%	57.2%
	1	0.5	0	0.25	1	2.9%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	94.9%	98.4%
	0	0	0	0	0.9	78.9%	88.6%
	0	0	0	0.8	0.8	96.8%	99.0%
	0	0	0.8	0.8	0.8	94.4%	98.3%
	0	0.5	0.5	0.5	0.5	39.7%	51.0%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	59.4%	70.8%
	0	0	0	0	0.9	46.7%	55.9%
	0	0	0	0.8	0.8	67.0%	78.2%
	0	0	0.8	0.8	0.8	64.5%	76.0%
	0	0.8	0.8	0.8	0.8	34.5%	44.5%
	1	0.5	0	0.25	1	3.5%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	0.5	1	1.5	2	13.9%	46.1%
	0	0	0	0	3	12.9%	40.2%
	0	0	0	1	1	10.2%	25.8%
	0	0	1	1	1	10.1%	25.5%
	0	3	3	3	3	13.2%	40.5%
	4	3	2	1	0	0.4%	0.0%
	4	1	0	1	0.5	1.2%	0.0%

Table C.120. t = 5, p = 0.4, IBD =10, CRD =15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.5%
	0	0.2	0.5	0.6	0.9	85.2%	92.9%
	0	0	0	0	0.9	70.3%	80.1%
	0	0	0	0.8	0.8	90.6%	96.0%
	0	0	0.8	0.8	0.8	90.0%	95.8%
	0	0.8	0.8	0.8	0.8	54.0%	67.1%
	1	0.5	0	0.25	1	2.6%	2.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0.2	0.5	0.6	0.9	98.4%	99.6%
	0	0	0	0	0.9	89.4%	95.1%
	0	0	0	0.8	0.8	98.9%	99.8%
	0	0	0.8	0.8	0.8	97.8%	99.5%
	0	0.5	0.5	0.5	0.5	48.5%	59.8%
	1	0.5	0	0.25	1	0.4%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	69.5%	79.7%
	0	0	0	0	0.9	54.3%	64.1%
	0	0	0	0.8	0.8	77.2%	85.8%
	0	0	0.8	0.8	0.8	74.5%	84.9%
	0	0.8	0.8	0.8	0.8	41.7%	52.5%
	1	0.5	0	0.25	1	3.2%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	0.5	1	1.5	2	9.4%	46.0%
	0	0	0	0	3	8.4%	39.3%
	0	0	0	1	1	7.6%	25.2%
	0	0	1	1	1	7.4%	25.3%
	0	3	3	3	3	9.2%	40.3%
	4	3	2	1	0	1.6%	0.0%
	4	1	0	1	0.15	2.3%	0.0%

Table C.121. t = 5, p = 0.4, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.0%
	0	0.2	0.5	0.6	0.9	87.7%	91.1%
	0	0	0	0	0.9	74.5%	77.0%
	0	0	0	0.8	0.8	92.8%	94.7%
	0	0	0.8	0.8	0.8	91.6%	94.2%
	0	0.8	0.8	0.8	0.8	57.7%	63.9%
	1	0.5	0	0.25	1	2.2%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.2	0.5	0.6	0.9	99.1%	99.4%
	0	0	0	0	0.9	91.0%	92.6%
	0	0	0	0.8	0.8	99.4%	99.7%
	0	0	0.8	0.8	0.8	98.6%	99.5%
	0	0.5	0.5	0.5	0.5	52.9%	57.2%
	1	0.5	0	0.25	1	0.2%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	73.3%	77.6%
	0	0	0	0	0.9	58.2%	61.9%
	0	0	0	0.8	0.8	79.4%	82.8%
	0	0	0.8	0.8	0.8	78.9%	82.3%
	0	0.8	0.8	0.8	0.8	45.0%	49.3%
	1	0.5	0	0.25	1	2.9%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.6%
	0	0.5	1	1.5	2	6.6%	33.0%
	0	0	0	0	3	6.5%	28.4%
	0	0	0	1	1	6.1%	18.7%
	0	0	1	1	1	6.4%	18.7%
	0	3	3	3	3	6.5%	27.7%
	4	3	2	1	0	3.1%	0.0%
	4	1	0	1	2	3.9%	0.7%

Table C.122. t = 5, p = 0.4, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	84.8%	87.6%
	0	0	0	0	0.9	71.9%	74.6%
	0	0	0	0.8	0.8	90.7%	92.7%
	0	0	0.8	0.8	0.8	89.7%	91.8%
	0	0.8	0.8	0.8	0.8	53.3%	56.8%
	1	0.5	0	0.25	1	3.2%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.3%
	0	0.2	0.5	0.6	0.9	98.3%	98.9%
	0	0	0	0	0.9	89.4%	91.4%
	0	0	0	0.5	0.5	86.1%	88.3%
	0	0	0.5	0.5	0.5	82.6%	85.4%
	0	0.5	0.5	0.5	0.5	48.4%	51.4%
	1	0.5	0	0.25	1	0.8%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	69.7%	72.8%
	0	0	0	0	0.9	55.7%	58.5%
	0	0	0	0.8	0.8	77.2%	80.3%
	0	0	0.8	0.8	0.8	75.1%	78.4%
	0	0.8	0.8	0.8	0.8	40.5%	43.6%
	1	0.5	0	0.25	1	3.5%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0.5	1	1.5	2	56.5%	66.7%
	0	0	0	0	3	50.0%	59.6%
	0	0	0	1	1	31.7%	37.8%
	0	0	1	1	1	32.3%	38.5%
	0	3	3	3	3	49.7%	59.5%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table C.123. t = 5, p = 0.4, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0.2	0.5	0.6	0.9	73.2%	79.0%
	0	0	0	0	0.9	58.7%	64.4%
	0	0	0	0.8	0.8	80.9%	86.0%
	0	0	0.8	0.8	0.8	78.8%	84.2%
	0	0.8	0.8	0.8	0.8	41.7%	47.9%
	1	0.5	0	0.25	1	3.3%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.2	0.5	0.6	0.9	94.0%	96.5%
	0	0	0	0	0.9	78.1%	83.0%
	0	0	0	0.5	0.5	74.9%	80.4%
	0	0	0.5	0.5	0.5	70.8%	76.7%
	0	0.5	0.5	0.5	0.5	37.4%	42.7%
	1	0.5	0	0.25	1	0.8%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0.2	0.5	0.6	0.9	57.2%	63.4%
	0	0	0	0	0.9	44.1%	48.7%
	0	0	0	0.8	0.8	64.8%	70.4%
	0	0	0.8	0.8	0.8	62.1%	69.1%
	0	0.8	0.8	0.8	0.8	31.0%	36.0%
	1	0.5	0	0.25	1	4.0%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.9%
	0	0.5	1	1.5	2	34.7%	52.0%
	0	0	0	0	3	30.4%	45.3%
	0	0	0	1	1	20.7%	29.1%
	0	0	1	1	1	20.5%	28.9%
	0	3	3	3	3	30.4%	45.5%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

Table C.124. t = 5, p = 0.4, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	75.3%	82.0%
	0	0	0	0	0.9	60.3%	66.6%
	0	0	0	0.8	0.8	83.0%	88.3%
	0	0	0.8	0.8	0.8	80.7%	86.7%
	0	0.8	0.8	0.8	0.8	44.3%	53.6%
	1	0.5	0	0.25	1	3.1%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.6%	5.1%
	0	0.2	0.5	0.6	0.9	94.9%	97.3%
	0	0	0	0	0.9	79.7%	85.3%
	0	0	0	0.5	0.5	76.5%	82.7%
	0	0	0.5	0.5	0.5	72.7%	79.5%
	0	0.5	0.5	0.5	0.5	40.0%	46.4%
	1	0.5	0	0.25	1	0.5%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	59.5%	66.5%
	0	0	0	0	0.9	45.0%	50.3%
	0	0	0	0.8	0.8	66.5%	72.9%
	0	0	0.8	0.8	0.8	64.4%	71.3%
	0	0.8	0.8	0.8	0.8	33.5%	39.6%
	1	0.5	0	0.25	1	3.8%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.5%
	0	0.5	1	1.5	2	8.1%	31.4%
	0	0	0	0	3	8.2%	27.6%
	0	0	0	1	1	6.6%	18.6%
	0	0	1	1	1	7.5%	18.6%
	0	3	3	3	3	7.8%	28.1%
	4	3	2	1	0	2.0%	0.0%
	4	1	0	1	2	3.5%	0.6%

Table C.125. t = 5, p = 0.4, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.7%
	0	0.2	0.5	0.6	0.9	81.7%	91.6%
	0	0	0	0	0.9	66.5%	79.0%
	0	0	0	0.8	0.8	87.2%	94.7%
	0	0	0.8	0.8	0.8	86.6%	95.0%
	0	0.8	0.8	0.8	0.8	49.7%	64.9%
	1	0.5	0	0.25	1	3.0%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.2	0.5	0.6	0.9	97.3%	99.4%
	0	0	0	0	0.9	85.7%	94.1%
	0	0	0	0.5	0.5	82.2%	91.8%
	0	0	0.5	0.5	0.5	79.0%	89.9%
	0	0.5	0.5	0.5	0.5	43.6%	56.8%
	1	0.5	0	0.25	1	0.5%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	64.8%	78.4%
	0	0	0	0	0.9	51.3%	63.1%
	0	0	0	0.8	0.8	72.5%	83.9%
	0	0	0.8	0.8	0.8	71.9%	83.9%
	0	0.8	0.8	0.8	0.8	37.4%	48.9%
	1	0.5	0	0.25	1	3.1%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	0.5	1	1.5	2	13.1%	51.7%
	0	0	0	0	3	12.7%	46.4%
	0	0	0	1	1	9.4%	28.1%
	0	0	1	1	1	9.3%	28.2%
	0	3	3	3	3	11.9%	45.2%
	4	3	2	1	0	0.8%	0.0%
	4	1	0	1	2	2.5%	0.3%

Table C.126. t = 5, p = 0.4, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.8%
	0	0.2	0.5	0.6	0.9	57.1%	63.9%
	0	0	0	0	0.9	45.5%	50.3%
	0	0	0	0.8	0.8	65.8%	71.8%
	0	0	0.8	0.8	0.8	62.5%	69.8%
	0	0.8	0.8	0.8	0.8	28.8%	35.4%
	1	0.5	0	0.25	1	4.0%	3.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.6%	4.5%
	0	0.2	0.5	0.6	0.9	82.3%	88.3%
	0	0	0	0	0.9	61.7%	67.9%
	0	0	0	0.5	0.5	59.0%	65.6%
	0	0	0.5	0.5	0.5	55.2%	61.4%
	0	0.5	0.5	0.5	0.5	27.1%	32.1%
	1	0.5	0	0.25	1	1.1%	1.1%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	43.1%	48.6%
	0	0	0	0	0.9	34.2%	37.8%
	0	0	0	0.8	0.8	50.1%	55.6%
	0	0	0.8	0.8	0.8	47.8%	54.2%
	0	0.8	0.8	0.8	0.8	22.3%	26.5%
	1	0.5	0	0.25	1	4.3%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.0%
	0	0.5	1	1.5	2	16.5%	32.4%
	0	0	0	0	3	15.0%	28.7%
	0	0	0	1	1	11.4%	18.2%
	0	0	1	1	1	10.8%	18.5%
	0	3	3	3	3	14.5%	27.4%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.8%	0.7%

C.3.5. Probability of Missing = 0.5

Table C.127. t = 5, p = 0.5, IBD =20, CRD =5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0.15	0.3	0.45	0.6	61.3%	60.6%
	0	0	0	0	0.9	73.7%	72.9%
	0	0	0	0.4	0.4	46.1%	45.5%
	0	0	0.4	0.4	0.4	46.0%	45.3%
	0	0.5	0.5	0.5	0.5	31.7%	31.2%
	1	0.5	0	0.25	1	2.7%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.15	0.3	0.45	0.6	88.9%	88.2%
	0	0	0	0	0.9	91.1%	90.5%
	0	0	0	0.4	0.4	75.5%	74.6%
	0	0	0.4	0.4	0.4	73.5%	72.6%
	0	0.5	0.5	0.5	0.5	50.7%	50.0%
	1	0.5	0	0.25	1	0.6%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0.15	0.3	0.45	0.6	46.1%	45.4%
	0	0	0	0	0.9	58.1%	57.2%
	0	0	0	0.8	0.8	80.5%	79.8%
	0	0	0.8	0.8	0.8	78.0%	77.2%
	0	0.5	0.5	0.5	0.5	24.1%	23.7%
	1	0.5	0	0.25	1	3.2%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0.5	1	1.5	2	73.2%	70.9%
	0	0	0	0	3	67.3%	64.9%
	0	0	0	1	1	41.8%	40.3%
	0	0	1	1	1	42.3%	40.6%
	0	3	3	3	3	66.7%	64.2%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table C.128. t = 5, p = 0.5, IBD =10, CRD =10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0.2	0.5	0.6	0.9	75.6%	85.9%
	0	0	0	0	0.9	60.9%	71.2%
	0	0	0	0.8	0.8	83.2%	91.5%
	0	0	0.8	0.8	0.8	81.1%	90.4%
	0	0.8	0.8	0.8	0.8	44.3%	56.4%
	1	0.5	0	0.25	1	3.4%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	94.8%	98.3%
	0	0	0	0	0.9	79.6%	88.8%
	0	0	0	0.8	0.8	96.2%	99.1%
	0	0	0.8	0.8	0.8	94.0%	98.4%
	0	0.5	0.5	0.5	0.5	39.6%	50.8%
	1	0.5	0	0.25	1	0.6%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	59.5%	70.4%
	0	0	0	0	0.9	46.3%	55.7%
	0	0	0	0.8	0.8	67.0%	77.5%
	0	0	0.8	0.8	0.8	64.4%	75.9%
	0	0.8	0.8	0.8	0.8	33.0%	42.1%
	1	0.5	0	0.25	1	3.5%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	0.5	1	1.5	2	14.0%	45.2%
	0	0	0	0	3	12.2%	39.0%
	0	0	0	1	1	9.9%	25.4%
	0	0	1	1	1	10.2%	25.9%
	0	3	3	3	3	12.8%	40.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	0.5	1.2%	0.0%

Table C.129. t = 5, p = 0.5, IBD =10, CRD =15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	85.3%	92.7%
	0	0	0	0	0.9	70.0%	80.0%
	0	0	0	0.8	0.8	90.5%	95.8%
	0	0	0.8	0.8	0.8	89.8%	95.6%
	0	0.8	0.8	0.8	0.8	54.6%	67.5%
	1	0.5	0	0.25	1	2.7%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.5%	5.2%
	0	0.2	0.5	0.6	0.9	98.2%	99.6%
	0	0	0	0	0.9	88.6%	95.1%
	0	0	0	0.8	0.8	99.0%	99.9%
	0	0	0.8	0.8	0.8	98.0%	99.6%
	0	0.5	0.5	0.5	0.5	47.9%	60.1%
	1	0.5	0	0.25	1	0.4%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	4.9%
	0	0.2	0.5	0.6	0.9	69.8%	79.9%
	0	0	0	0	0.9	54.6%	64.8%
	0	0	0	0.8	0.8	76.5%	85.8%
	0	0	0.8	0.8	0.8	74.7%	85.0%
	0	0.8	0.8	0.8	0.8	41.5%	52.7%
	1	0.5	0	0.25	1	3.2%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	0.5	1	1.5	2	9.1%	45.8%
	0	0	0	0	3	9.1%	39.7%
	0	0	0	1	1	8.1%	25.5%
	0	0	1	1	1	7.6%	25.1%
	0	3	3	3	3	9.0%	40.3%
	4	3	2	1	0	1.4%	0.0%
	4	1	0	1	0.15	2.2%	0.0%

Table C.130. t = 5, p = 0.5, IBD =6, CRD =18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	87.6%	91.0%
	0	0	0	0	0.9	74.5%	77.8%
	0	0	0	0.8	0.8	93.0%	94.8%
	0	0	0.8	0.8	0.8	91.3%	93.6%
	0	0.8	0.8	0.8	0.8	58.6%	64.7%
	1	0.5	0	0.25	1	2.7%	2.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	99.2%	99.6%
	0	0	0	0	0.9	91.2%	93.3%
	0	0	0	0.8	0.8	99.4%	99.6%
	0	0	0.8	0.8	0.8	98.7%	99.3%
	0	0.5	0.5	0.5	0.5	51.9%	57.5%
	1	0.5	0	0.25	1	0.3%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0.2	0.5	0.6	0.9	73.2%	77.3%
	0	0	0	0	0.9	58.4%	61.9%
	0	0	0	0.8	0.8	80.2%	83.5%
	0	0	0.8	0.8	0.8	78.7%	82.4%
	0	0.8	0.8	0.8	0.8	44.8%	49.8%
	1	0.5	0	0.25	1	2.9%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0.5	1	1.5	2	6.3%	31.0%
	0	0	0	0	3	6.6%	27.7%
	0	0	0	1	1	6.2%	19.0%
	0	0	1	1	1	6.1%	18.8%
	0	3	3	3	3	6.7%	27.5%
	4	3	2	1	0	3.0%	0.0%
	4	1	0	1	2	4.6%	0.8%

Table C.131. t = 5, p = 0.5, IBD =18, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	84.5%	87.4%
	0	0	0	0	0.9	71.2%	74.2%
	0	0	0	0.8	0.8	90.9%	92.8%
	0	0	0.8	0.8	0.8	89.2%	91.7%
	0	0.8	0.8	0.8	0.8	53.5%	57.5%
	1	0.5	0	0.25	1	3.2%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.8%	5.5%
	0	0.2	0.5	0.6	0.9	98.0%	98.7%
	0	0	0	0	0.9	89.3%	91.3%
	0	0	0	0.5	0.5	86.1%	88.5%
	0	0	0.5	0.5	0.5	82.9%	85.9%
	0	0.5	0.5	0.5	0.5	48.0%	51.3%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	70.1%	72.9%
	0	0	0	0	0.9	55.4%	58.3%
	0	0	0	0.8	0.8	77.5%	80.4%
	0	0	0.8	0.8	0.8	74.8%	78.2%
	0	0.8	0.8	0.8	0.8	41.0%	44.5%
	1	0.5	0	0.25	1	3.3%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0.5	1	1.5	2	56.1%	66.7%
	0	0	0	0	3	49.2%	59.2%
	0	0	0	1	1	31.5%	37.7%
	0	0	1	1	1	31.5%	37.7%
	0	3	3	3	3	50.2%	60.7%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.5%	0.3%

Table C.132. t = 5, p = 0.5, IBD =12, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.5%
	0	0.2	0.5	0.6	0.9	72.5%	78.8%
	0	0	0	0	0.9	59.4%	64.7%
	0	0	0	0.8	0.8	81.0%	85.8%
	0	0	0.8	0.8	0.8	79.1%	84.7%
	0	0.8	0.8	0.8	0.8	41.1%	48.0%
	1	0.5	0	0.25	1	3.1%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	93.7%	96.4%
	0	0	0	0	0.9	78.1%	83.7%
	0	0	0	0.5	0.5	74.8%	80.2%
	0	0	0.5	0.5	0.5	71.1%	77.0%
	0	0.5	0.5	0.5	0.5	37.6%	43.5%
	1	0.5	0	0.25	1	0.7%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.2	0.5	0.6	0.9	57.9%	63.6%
	0	0	0	0	0.9	44.4%	49.4%
	0	0	0	0.8	0.8	64.9%	71.1%
	0	0	0.8	0.8	0.8	62.6%	68.7%
	0	0.8	0.8	0.8	0.8	31.4%	35.7%
	1	0.5	0	0.25	1	3.5%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0.5	1	1.5	2	35.1%	52.2%
	0	0	0	0	3	30.5%	45.4%
	0	0	0	1	1	20.4%	29.3%
	0	0	1	1	1	19.8%	28.5%
	0	3	3	3	3	30.7%	45.6%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

Table C.133. t = 5, p = 0.5, IBD =6, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	75.7%	82.4%
	0	0	0	0	0.9	60.5%	66.5%
	0	0	0	0.8	0.8	82.6%	88.4%
	0	0	0.8	0.8	0.8	80.3%	87.0%
	0	0.8	0.8	0.8	0.8	44.2%	53.1%
	1	0.5	0	0.25	1	2.9%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	95.0%	97.4%
	0	0	0	0	0.9	79.5%	85.9%
	0	0	0	0.5	0.5	76.7%	83.3%
	0	0	0.5	0.5	0.5	73.4%	80.0%
	0	0.5	0.5	0.5	0.5	40.0%	47.1%
	1	0.5	0	0.25	1	0.5%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	60.0%	67.4%
	0	0	0	0	0.9	44.8%	50.1%
	0	0	0	0.8	0.8	65.7%	72.6%
	0	0	0.8	0.8	0.8	64.5%	71.7%
	0	0.8	0.8	0.8	0.8	33.2%	39.4%
	1	0.5	0	0.25	1	3.6%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	0.5	1	1.5	2	8.3%	31.7%
	0	0	0	0	3	7.7%	27.0%
	0	0	0	1	1	7.1%	18.8%
	0	0	1	1	1	6.9%	18.4%
	0	3	3	3	3	7.9%	27.0%
	4	3	2	1	0	1.9%	0.0%
	4	1	0	1	2	3.8%	0.6%

Table C.134. t = 5, p = 0.5, IBD =12, CRD =12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.9%
	0	0.2	0.5	0.6	0.9	80.8%	90.8%
	0	0	0	0	0.9	66.4%	78.5%
	0	0	0	0.8	0.8	87.5%	95.0%
	0	0	0.8	0.8	0.8	86.0%	94.8%
	0	0.8	0.8	0.8	0.8	50.6%	65.3%
	1	0.5	0	0.25	1	2.8%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.5%	5.3%
	0	0.2	0.5	0.6	0.9	97.4%	99.5%
	0	0	0	0	0.9	85.0%	93.9%
	0	0	0	0.5	0.5	82.1%	91.6%
	0	0	0.5	0.5	0.5	79.0%	89.7%
	0	0.5	0.5	0.5	0.5	45.4%	58.8%
	1	0.5	0	0.25	1	0.4%	0.4%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	65.8%	78.5%
	0	0	0	0	0.9	51.4%	62.9%
	0	0	0	0.8	0.8	73.6%	84.8%
	0	0	0.8	0.8	0.8	71.4%	83.0%
	0	0.8	0.8	0.8	0.8	37.1%	50.1%
	1	0.5	0	0.25	1	3.5%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.6%
	0	0.5	1	1.5	2	12.9%	50.8%
	0	0	0	0	3	12.2%	45.8%
	0	0	0	1	1	9.6%	28.4%
	0	0	1	1	1	9.5%	28.0%
	0	3	3	3	3	12.0%	45.6%
	4	3	2	1	0	0.7%	0.0%
	4	1	0	1	2	2.5%	0.3%

Table C.135. t = 5, p = 0.5, IBD =6, CRD =6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	57.1%	64.3%
	0	0	0	0	0.9	44.3%	49.6%
	0	0	0	0.8	0.8	65.1%	72.0%
	0	0	0.8	0.8	0.8	62.7%	70.1%
	0	0.8	0.8	0.8	0.8	28.3%	34.8%
	1	0.5	0	0.25	1	4.1%	3.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	82.5%	88.3%
	0	0	0	0	0.9	62.3%	68.8%
	0	0	0	0.5	0.5	59.2%	65.3%
	0	0	0.5	0.5	0.5	56.0%	63.1%
	0	0.5	0.5	0.5	0.5	26.9%	32.5%
	1	0.5	0	0.25	1	0.9%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0.2	0.5	0.6	0.9	42.8%	48.9%
	0	0	0	0	0.9	33.9%	37.7%
	0	0	0	0.8	0.8	50.4%	56.6%
	0	0	0.8	0.8	0.8	48.0%	54.2%
	0	0.8	0.8	0.8	0.8	22.1%	26.3%
	1	0.5	0	0.25	1	4.3%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	0.5	1	1.5	2	16.9%	32.7%
	0	0	0	0	3	14.7%	27.8%
	0	0	0	1	1	11.0%	18.1%
	0	0	1	1	1	11.7%	19.4%
	0	3	3	3	3	15.0%	28.4%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.8%	0.8%

APPENDIX D. UMBRELLA ALTERNATIVE – EQUAL VARIANCES

D.1. Three Treatments – Peak at Two

D.1.1. Probability of Missing = 0.1

Table D.1. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.2%
	0	0.7	0	72.6%	86.0%
	0	0.5	0.4	19.3%	24.1%
	0.4	0.5	0	19.3%	24.7%
Exponential	0	0	0	4.8%	4.9%
	0	0.5	0	76.4%	89.4%
	0	0.5	0.4	28.7%	38.5%
	0.4	0.5	0	28.8%	37.6%
T with 3 df.	0	0	0	5.0%	5.2%
	0	0.7	0	56.7%	70.1%
	0	0.5	0.4	15.4%	19.2%
	0.4	0.5	0	15.7%	19.1%
Cauchy	0	0	0	4.8%	4.8%
	0	1	0	52.9%	66.2%
	0	0.5	0.4	11.7%	13.5%
	0.4	0.5	0	11.5%	13.4%

Table D.2. t = 3, p = 0.1, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.8%
	0	0.7	0	70.8%	79.5%
	0	0.5	0.4	19.2%	22.7%
	0.4	0.5	0	18.9%	21.9%
Exponential	0	0	0	4.6%	4.9%
	0	0.5	0	75.8%	84.5%
	0	0.5	0.4	28.0%	34.4%
	0.4	0.5	0	28.1%	33.9%
T with 3 df.	0	0	0	5.2%	5.0%
	0	0.7	0	54.8%	64.4%
	0	0.5	0.4	15.1%	17.6%
	0.4	0.5	0	15.3%	17.3%

(continues)

Table D.2. t = 3, p = 0.1, IBD = 10, CRD = 15 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Cauchy	0	0	0	5.2%	5.3%
	0	1	0	50.5%	60.0%
	0	0.5	0.4	11.4%	12.7%
	0.4	0.5	0	12.0%	12.6%

Table D.3. t = 3, p = 0.1, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.8%
	0	0.7	0	69.5%	71.0%
	0	0.5	0.4	18.3%	19.3%
	0.4	0.5	0	18.6%	19.1%
Exponential	0	0	0	4.6%	4.8%
	0	0.5	0	74.1%	74.4%
	0	0.5	0.4	27.1%	28.3%
	0.4	0.5	0	26.8%	28.1%
T with 3 df.	0	0	0	4.8%	5.1%
	0	0.7	0	53.5%	54.4%
	0	0.5	0.4	14.9%	15.4%
	0.4	0.5	0	14.8%	15.6%
Cauchy	0	0	0	4.7%	5.4%
	0	1	0	49.7%	50.8%
	0	0.5	0.4	11.5%	11.7%
	0.4	0.5	0	11.1%	11.3%

Table D.4. t = 3, p = 0.1, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.2%
	0	0.7	0	60.9%	78.4%
	0	0.5	0.4	16.5%	22.1%
	0.4	0.5	0	16.8%	21.4%
Exponential	0	0	0	4.8%	4.9%
	0	0.5	0	64.5%	82.8%
	0	0.5	0.4	22.8%	32.9%
	0.4	0.5	0	22.8%	32.7%

(continues)

Table D.4. t = 3, p = 0.1, IBD = 15, CRD = 10 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.9%	5.0%
	0	0.7	0	46.7%	63.0%
	0	0.5	0.4	12.6%	16.1%
	0.4	0.5	0	13.3%	17.2%
Cauchy	0	0	0	4.8%	5.1%
	0	1	0	43.1%	57.9%
	0	0.5	0.4	9.9%	11.6%
	0.4	0.5	0	10.4%	12.1%

Table D.5. t = 3, p = 0.1, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.7	0	52.1%	65.3%
	0	0.5	0.4	14.5%	17.6%
	0.14	0.15	0	7.5%	7.8%
Exponential	0	0	0	5.2%	5.0%
	0	0.5	0	55.7%	69.7%
	0	0.5	0.4	20.0%	26.3%
	0.4	0.5	0	19.8%	26.3%
T with 3 df.	0	0	0	5.3%	4.9%
	0	0.7	0	40.9%	51.4%
	0	0.5	0.4	12.5%	14.8%
	0.4	0.5	0	13.4%	15.2%
Cauchy	0	0	0	5.1%	4.8%
	0	1	0	37.0%	46.4%
	0	0.5	0.4	10.0%	11.0%
	0.4	0.5	0	9.6%	10.7%

Table D.6. t = 3, p = 0.1, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	79.1%	88.5%
	0	0.5	0.4	21.4%	25.1%
	0.4	0.5	0	17.8%	20.6%

(continues)

Table D.6. t = 3, p = 0.1, IBD = 40, CRD = 5 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	83.8%	91.9%
	0	0.5	0.4	33.3%	41.1%
	0.4	0.5	0	33.1%	40.5%
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.7	0	63.4%	73.8%
	0	0.5	0.4	17.4%	20.2%
	0.4	0.5	0	17.4%	20.5%
Cauchy	0	0	0	5.4%	5.2%
	0	1	0	59.5%	69.8%
	0	0.5	0.4	12.9%	14.6%
	0.4	0.5	0	12.9%	14.3%

Table D.7. t = 3, p = 0.1, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.0%
	0	0.7	0	96.7%	92.9%
	0	0.5	0.4	33.7%	30.2%
	0.4	0.5	0	34.1%	30.0%
Exponential	0	0	0	5.3%	5.1%
	0	0.5	0	98.4%	95.9%
	0	0.5	0.4	55.4%	48.6%
	0.4	0.5	0	55.1%	48.1%
T with 3 df.	0	0	0	5.0%	5.0%
	0	0.7	0	87.8%	81.1%
	0	0.5	0.4	25.1%	22.1%
	0.4	0.5	0	26.4%	23.0%
Cauchy	0	0	0	5.3%	4.7%
	0	1	0	84.8%	78.1%
	0	0.5	0.4	16.4%	15.1%
	0.4	0.5	0	16.5%	15.0%

D.1.2. Probability of Missing = 0.2

Table D.8. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.2%
	0	0.7	0	73.0%	84.9%
	0	0.5	0.4	19.0%	23.4%
	0.4	0.5	0	19.3%	23.8%
Exponential	0	0	0	5.0%	5.0%
	0	0.5	0	76.8%	87.6%
	0	0.5	0.4	28.7%	37.1%
	0.4	0.5	0	28.7%	37.0%
T with 3 df.	0	0	0	5.4%	5.5%
	0	0.7	0	56.3%	69.2%
	0	0.5	0.4	15.3%	18.9%
	0.4	0.5	0	15.5%	18.3%
Cauchy	0	0	0	5.0%	4.9%
	0	1	0	51.7%	64.7%
	0	0.5	0.4	11.7%	13.1%
	0.4	0.5	0	11.8%	13.2%

Table D.9. t = 4, Pk = 2, p = 0.2, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.7%
	0	0.7	0	70.9%	78.8%
	0	0.5	0.4	18.8%	21.7%
	0.4	0.5	0	19.0%	21.3%
Exponential	0	0	0	5.2%	5.2%
	0	0.5	0	75.3%	82.7%
	0	0.5	0.4	27.6%	32.9%
	0.4	0.5	0	28.6%	33.0%
T with 3 df.	0	0	0	5.2%	5.2%
	0	0.7	0	54.1%	61.8%
	0	0.5	0.4	15.7%	17.1%
	0.4	0.5	0	15.4%	16.7%
Cauchy	0	0	0	4.8%	4.8%
	0	1	0	51.3%	59.1%
	0	0.5	0.4	11.4%	12.6%
	0.4	0.5	0	11.4%	12.4%

Table D.10. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.7%
	0	0.7	0	69.6%	69.5%
	0	0.5	0.4	18.5%	18.7%
	0.4	0.5	0	18.4%	19.1%
Exponential	0	0	0	5.0%	5.0%
	0	0.5	0	73.7%	73.7%
	0	0.5	0.4	27.5%	28.5%
	0.4	0.5	0	26.7%	27.7%
T with 3 df.	0	0	0	5.6%	5.4%
	0	0.7	0	53.3%	54.3%
	0	0.5	0.4	14.8%	15.4%
	0.4	0.5	0	14.9%	15.4%
Cauchy	0	0	0	4.8%	4.8%
	0	1	0	50.7%	49.7%
	0	0.5	0.4	11.0%	11.1%
	0.4	0.5	0	10.7%	11.2%

Table D.11. t = 3, p = 0.2, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	61.2%	76.6%
	0	0.5	0.4	16.9%	21.7%
	0.4	0.5	0	16.2%	20.0%
Exponential	0	0	0	5.1%	4.9%
	0	0.5	0	63.3%	80.5%
	0	0.5	0.4	23.0%	31.5%
	0.4	0.5	0	22.7%	31.8%
T with 3 df.	0	0	0	4.7%	4.6%
	0	0.7	0	45.0%	59.8%
	0	0.5	0.4	13.1%	16.7%
	0.4	0.5	0	14.0%	16.7%
Cauchy	0	0	0	5.1%	5.2%
	0	1	0	42.8%	56.4%
	0	0.5	0.4	10.4%	11.6%
	0.4	0.5	0	10.1%	11.7%

Table D.12. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.0%
	0	0.7	0	50.5%	63.9%
	0	0.5	0.4	14.1%	17.1%
	0.14	0.15	0	7.4%	7.8%
Exponential	0	0	0	5.0%	5.1%
	0	0.5	0	53.4%	67.2%
	0	0.5	0.4	19.3%	24.6%
	0.4	0.5	0	19.0%	24.7%
T with 3 df.	0	0	0	4.9%	5.0%
	0	0.7	0	38.0%	48.6%
	0	0.5	0.4	12.0%	14.0%
	0.4	0.5	0	12.2%	13.8%
Cauchy	0	0	0	5.0%	4.9%
	0	1	0	35.9%	45.6%
	0	0.5	0.4	8.9%	9.8%
	0.4	0.5	0	9.1%	10.5%

Table D.13. t = 4, Pk = 2, p = 0.2, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.8%
	0	0.7	0	75.1%	85.7%
	0	0.5	0.5	20.9%	24.6%
	0.4	0.4	0	16.1%	18.8%
Exponential	0	0	0	5.3%	5.3%
	0	0.5	0	79.4%	88.9%
	0	0.5	0.4	31.4%	39.0%
	0.4	0.5	0	30.5%	38.1%
T with 3 df.	0	0	0	4.9%	4.9%
	0	0.7	0	59.5%	70.8%
	0	0.5	0.4	16.2%	19.3%
	0.4	0.5	0	16.4%	18.8%
Cauchy	0	0	0	5.0%	5.1%
	0	1	0	55.1%	66.0%
	0	0.5	0.4	12.2%	13.8%
	0.4	0.5	0	11.5%	13.1%

Table D.14. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.2%
	0	0.7	0	96.7%	93.1%
	0	0.5	0.4	33.2%	28.6%
	0.4	0.5	0	34.6%	29.6%
Exponential	0	0	0	5.1%	5.3%
	0	0.5	0	98.2%	95.4%
	0	0.5	0.4	55.2%	47.2%
	0.4	0.5	0	55.5%	48.1%
T with 3 df.	0	0	0	4.9%	4.8%
	0	0.7	0	88.2%	80.7%
	0	0.5	0.4	25.6%	23.0%
	0.4	0.5	0	25.7%	22.1%
Cauchy	0	0	0	5.0%	5.0%
	0	1	0	84.8%	77.4%
	0	0.5	0.4	17.2%	15.5%
	0.4	0.5	0	16.1%	15.2%

D.1.3. Probability of Missing = 0.3

Table D.15. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.6%
	0	0.7	0	71.4%	81.7%
	0	0.5	0.4	18.5%	23.1%
	0.4	0.5	0	19.0%	22.8%
Exponential	0	0	0	4.5%	4.4%
	0	0.5	0	76.3%	86.6%
	0	0.5	0.4	28.4%	36.4%
	0.4	0.5	0	28.1%	35.5%
T with 3 df.	0	0	0	4.9%	5.1%
	0	0.7	0	54.9%	67.3%
	0	0.5	0.4	15.5%	17.5%
	0.4	0.5	0	15.4%	17.9%
Cauchy	0	0	0	4.8%	5.2%
	0	1	0	51.4%	63.2%
	0	0.5	0.4	11.4%	12.5%

Table D.16. t = 4, Pk = 2, p = 0.3, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.9%
	0	0.7	0	71.6%	77.7%
	0	0.5	0.4	18.4%	21.1%
	0.4	0.5	0	19.1%	20.3%
Exponential	0	0	0	4.9%	4.9%
	0	0.5	0	75.2%	81.2%
	0	0.5	0.4	28.5%	31.9%
	0.4	0.5	0	28.1%	32.1%
T with 3 df.	0	0	0	5.1%	4.7%
	0	0.7	0	53.4%	60.1%
	0	0.5	0.4	14.9%	16.2%
	0.4	0.5	0	15.3%	16.8%
Cauchy	0	0	0	4.7%	4.8%
	0	1	0	50.4%	56.4%
	0	0.5	0.4	11.3%	12.0%
	0.4	0.5	0	11.0%	11.8%

Table D.17. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.4%
	0	0.7	0	69.2%	67.8%
	0	0.5	0.4	18.0%	17.1%
	0.4	0.5	0	18.8%	18.2%
Exponential	0	0	0	5.1%	5.0%
	0	0.5	0	73.5%	71.4%
	0	0.5	0.4	27.0%	27.1%
	0.4	0.5	0	26.9%	26.9%
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.7	0	52.4%	52.1%
	0	0.5	0.4	15.1%	15.3%
	0.4	0.5	0	15.4%	14.6%
Cauchy	0	0	0	5.1%	5.3%
	0	1	0	49.7%	49.8%
	0	0.5	0.4	10.9%	11.5%
	0.4	0.5	0	11.3%	11.2%

Table D.18. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.7%
	0	0.7	0	59.2%	73.3%
	0	0.5	0.4	16.4%	20.6%
	0.4	0.5	0	16.3%	20.3%
Exponential	0	0	0	5.2%	4.8%
	0	0.5	0	63.9%	79.0%
	0	0.5	0.4	22.7%	30.0%
	0.4	0.5	0	22.8%	30.2%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.7	0	45.8%	57.6%
	0	0.5	0.4	13.2%	15.9%
	0.4	0.5	0	12.8%	15.8%
Cauchy	0	0	0	5.3%	4.9%
	0	1	0	41.4%	54.0%
	0	0.5	0.4	10.1%	11.5%
	0.4	0.5	0	9.8%	10.8%

Table D.19. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.1%
	0	0.7	0	48.6%	61.6%
	0	0.5	0.4	14.0%	16.7%
	0.14	0.15	0	7.2%	7.5%
Exponential	0	0	0	4.9%	4.9%
	0	0.5	0	51.5%	65.3%
	0	0.5	0.4	18.9%	24.7%
	0.4	0.5	0	19.1%	24.4%
T with 3 df.	0	0	0	4.9%	5.2%
	0	0.7	0	36.1%	46.3%
	0	0.5	0.4	11.1%	13.5%
	0.4	0.5	0	11.5%	12.9%
Cauchy	0	0	0	4.9%	4.9%
	0	1	0	33.7%	43.0%
	0	0.5	0.4	9.2%	10.3%
	0.4	0.5	0	9.2%	10.2%

Table D.20. t = 4, Pk = 2, p = 0.3, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.7	0	72.4%	83.4%
	0	0.5	0.4	19.3%	23.7%
	0.4	0.5	0	16.0%	18.5%
Exponential	0	0	0	4.9%	4.9%
	0	0.5	0	76.8%	87.4%
	0	0.5	0.4	29.5%	36.9%
	0.4	0.5	0	29.3%	37.4%
T with 3 df.	0	0	0	5.1%	4.9%
	0	0.7	0	56.2%	67.8%
	0	0.5	0.4	15.7%	18.7%
	0.4	0.5	0	15.5%	18.9%
Cauchy	0	0	0	5.0%	5.2%
	0	1	0	51.7%	63.6%
	0	0.5	0.4	11.6%	12.8%
	0.4	0.5	0	11.7%	13.0%

Table D.21. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.2%
	0	0.7	0	96.8%	92.4%
	0	0.5	0.4	33.3%	28.9%
	0.4	0.5	0	34.2%	29.4%
Exponential	0	0	0	5.3%	5.0%
	0	0.5	0	98.5%	95.1%
	0	0.5	0.4	55.7%	46.4%
	0.4	0.5	0	54.3%	46.4%
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.7	0	88.2%	80.4%
	0	0.5	0.4	26.6%	22.4%
	0.4	0.5	0	25.9%	21.9%
Cauchy	0	0	0	5.2%	5.0%
	0	1	0	84.5%	76.4%
	0	0.5	0.4	16.9%	15.3%
	0.4	0.5	0	17.3%	15.5%

D.1.4. Probability of Missing = 0.4

Table D.22. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.2%
	0	0.7	0	72.1%	81.2%
	0	0.5	0.4	18.4%	21.9%
	0.4	0.5	0	18.9%	22.7%
Exponential	0	0	0	5.2%	5.2%
	0	0.5	0	75.3%	84.7%
	0	0.5	0.4	27.6%	34.4%
	0.4	0.5	0	27.9%	34.8%
T with 3 df.	0	0	0	5.1%	5.3%
	0	0.7	0	54.9%	65.1%
	0	0.5	0.4	15.8%	18.5%
	0.4	0.5	0	15.4%	17.5%
Cauchy	0	0	0	4.9%	5.2%
	0	1	0	51.0%	61.2%
	0	0.5	0.4	11.2%	12.4%
	0.4	0.5	0	11.2%	12.6%

Table D.23. t = 4, Pk = 2, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.7	0	70.0%	75.8%
	0	0.5	0.4	18.6%	20.7%
	0.4	0.5	0	19.2%	20.4%
Exponential	0	0	0	4.8%	5.0%
	0	0.5	0	73.9%	79.4%
	0	0.5	0.4	27.1%	30.5%
	0.4	0.5	0	28.1%	31.9%
T with 3 df.	0	0	0	4.6%	5.0%
	0	0.7	0	54.5%	59.6%
	0	0.5	0.4	15.3%	16.3%
	0.4	0.5	0	16.0%	16.9%
Cauchy	0	0	0	5.2%	4.8%
	0	1	0	50.0%	54.8%
	0	0.5	0.4	11.0%	11.7%

Table D.24. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.4%
	0	0.7	0	68.7%	66.0%
	0	0.5	0.4	17.8%	18.7%
	0.4	0.5	0	18.4%	18.0%
Exponential	0	0	0	5.1%	5.2%
	0	0.5	0	73.8%	71.3%
	0	0.5	0.4	26.9%	26.4%
	0.4	0.5	0	27.5%	27.4%
T with 3 df.	0	0	0	5.1%	5.1%
	0	0.7	0	53.7%	52.1%
	0	0.5	0.4	14.5%	15.3%
	0.4	0.5	0	15.4%	14.7%
Cauchy	0	0	0	5.3%	5.5%
	0	1	0	50.4%	48.3%
	0	0.5	0.4	10.8%	11.1%
	0.4	0.5	0	11.3%	11.1%

Table D.25. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.7%
	0	0.7	0	58.5%	72.8%
	0	0.5	0.4	16.1%	19.3%
	0.4	0.5	0	16.3%	20.0%
Exponential	0	0	0	5.0%	4.7%
	0	0.5	0	62.8%	76.7%
	0	0.5	0.4	22.4%	29.3%
	0.4	0.5	0	21.5%	28.8%
T with 3 df.	0	0	0	5.1%	5.3%
	0	0.7	0	45.0%	57.4%
	0	0.5	0.4	13.6%	16.1%
	0.4	0.5	0	13.6%	15.9%
Cauchy	0	0	0	5.5%	5.1%
	0	1	0	41.7%	52.9%
	0	0.5	0.4	10.1%	11.5%
	0.4	0.5	0	10.0%	11.1%

Table D.26. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.0%
	0	0.7	0	47.4%	59.7%
	0	0.5	0.4	14.0%	16.6%
	0.14	0.15	0	7.3%	7.9%
Exponential	0	0	0	5.0%	4.8%
	0	0.5	0	49.4%	63.1%
	0	0.5	0.4	18.1%	23.1%
	0.4	0.5	0	17.5%	23.2%
T with 3 df.	0	0	0	4.7%	4.8%
	0	0.7	0	35.0%	44.7%
	0	0.5	0.4	11.7%	13.3%
	0.4	0.5	0	11.5%	13.3%
Cauchy	0	0	0	5.0%	4.9%
	0	1	0	32.0%	41.2%
	0	0.5	0.4	8.9%	9.4%
	0.4	0.5	0	9.0%	9.9%

Table D.27. t = 4, Pk = 2, p = 0.4, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.0%
	0	0.7	0	69.0%	81.1%
	0	0.5	0.4	18.7%	22.1%
	0.4	0.5	0	15.0%	18.2%
Exponential	0	0	0	4.6%	4.9%
	0	0.5	0	73.9%	85.1%
	0	0.5	0.4	27.9%	35.2%
	0.4	0.5	0	27.3%	35.4%
T with 3 df.	0	0	0	5.4%	5.1%
	0	0.7	0	53.8%	65.6%
	0	0.5	0.4	15.2%	18.1%
	0.4	0.5	0	15.7%	18.2%
Cauchy	0	0	0	4.8%	4.7%
	0	1	0	50.7%	62.1%
	0	0.5	0.4	10.9%	12.6%
	0.4	0.5	0	11.5%	13.1%

Table D.28. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.1%
	0	0.7	0	97.0%	91.8%
	0	0.5	0.4	34.0%	29.3%
	0.4	0.5	0	33.8%	28.9%
Exponential	0	0	0	4.9%	4.8%
	0	0.5	0	98.4%	94.4%
	0	0.5	0.4	54.3%	45.8%
	0.4	0.5	0	54.7%	46.4%
T with 3 df.	0	0	0	5.0%	4.8%
	0	0.7	0	87.9%	78.6%
	0	0.5	0.4	26.3%	22.6%
	0.4	0.5	0	25.7%	22.7%
Cauchy	0	0	0	5.1%	5.1%
	0	1	0	84.6%	75.2%
	0	0.5	0.4	16.9%	14.7%
	0.4	0.5	0	17.0%	15.5%

D.1.5. Probability of Missing = 0.5

Table D.29. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.7%
	0	0.7	0	71.6%	80.8%
	0	0.5	0.4	19.0%	22.3%
	0.4	0.5	0	18.8%	22.4%
Exponential	0	0	0	5.3%	5.1%
	0	0.5	0	75.9%	84.1%
	0	0.5	0.4	28.4%	34.4%
	0.4	0.5	0	29.0%	33.8%
T with 3 df.	0	0	0	5.0%	4.8%
	0	0.7	0	54.7%	64.5%
	0	0.5	0.4	15.9%	17.9%
	0.4	0.5	0	15.3%	18.1%
Cauchy	0	0	0	5.0%	5.0%
	0	1	0	51.7%	60.4%
	0	0.5	0.4	11.4%	12.6%

Table D.30. t = 4, Pk = 2, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	69.7%	74.4%
	0	0.5	0.4	18.7%	20.8%
	0.4	0.5	0	18.1%	20.8%
Exponential	0	0	0	5.0%	5.1%
	0	0.5	0	75.0%	78.5%
	0	0.5	0.4	27.3%	31.0%
	0.4	0.5	0	27.5%	30.6%
T with 3 df.	0	0	0	4.7%	5.2%
	0	0.7	0	54.0%	58.9%
	0	0.5	0.4	14.4%	16.3%
	0.4	0.5	0	15.0%	16.5%
Cauchy	0	0	0	5.0%	5.2%
	0	1	0	50.3%	54.3%
	0	0.5	0.4	11.2%	11.5%
	0.4	0.5	0	11.3%	12.3%

Table D.31. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.6%
	0	0.7	0	69.4%	66.9%
	0	0.5	0.4	18.5%	18.3%
	0.4	0.5	0	17.4%	17.6%
Exponential	0	0	0	5.1%	5.4%
	0	0.5	0	73.5%	70.2%
	0	0.5	0.4	26.6%	26.4%
	0.4	0.5	0	26.8%	26.9%
T with 3 df.	0	0	0	5.2%	5.1%
	0	0.7	0	52.9%	51.0%
	0	0.5	0.4	15.1%	14.7%
	0.4	0.5	0	15.1%	14.7%
Cauchy	0	0	0	5.2%	5.2%
	0	1	0	49.2%	47.9%
	0	0.5	0.4	10.7%	11.1%
	0.4	0.5	0	10.8%	10.8%

Table D.32. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.8%
	0	0.7	0	58.3%	71.5%
	0	0.5	0.4	16.1%	19.6%
	0.4	0.5	0	16.7%	19.8%
Exponential	0	0	0	4.9%	4.7%
	0	0.5	0	62.9%	76.3%
	0	0.5	0.4	22.5%	28.2%
	0.4	0.5	0	22.9%	30.1%
T with 3 df.	0	0	0	4.9%	5.0%
	0	0.7	0	44.3%	55.9%
	0	0.5	0.4	13.2%	15.8%
	0.4	0.5	0	13.3%	15.3%
Cauchy	0	0	0	4.8%	4.8%
	0	1	0	41.4%	51.5%
	0	0.5	0.4	10.2%	11.3%
	0.4	0.5	0	10.1%	11.1%

Table D.33. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	46.7%	58.0%
	0	0.5	0.4	12.9%	15.4%
	0.14	0.15	0	7.0%	7.5%
Exponential	0	0	0	4.9%	5.0%
	0	0.5	0	48.3%	60.8%
	0	0.5	0.4	17.3%	22.7%
	0.4	0.5	0	17.9%	23.1%
T with 3 df.	0	0	0	5.1%	5.0%
	0	0.7	0	34.7%	43.5%
	0	0.5	0.4	11.3%	12.8%
	0.4	0.5	0	11.4%	13.6%
Cauchy	0	0	0	5.3%	5.1%
	0	1	0	32.4%	40.2%
	0	0.5	0.4	9.0%	9.9%
	0.4	0.5	0	8.4%	9.6%

Table D.34. t = 4, Pk = 2, p = 0.5, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.7	0	67.2%	79.8%
	0	0.5	0.4	17.7%	21.0%
	0.4	0.5	0	14.4%	17.1%
Exponential	0	0	0	5.0%	4.9%
	0	0.5	0	71.0%	83.2%
	0	0.5	0.4	25.9%	33.9%
	0.4	0.5	0	26.5%	33.6%
T with 3 df.	0	0	0	5.5%	5.2%
	0	0.7	0	51.4%	63.7%
	0	0.5	0.4	14.7%	17.8%
	0.4	0.5	0	14.4%	17.4%
Cauchy	0	0	0	5.3%	5.6%
	0	1	0	47.8%	59.3%
	0	0.5	0.4	11.1%	12.4%
	0.4	0.5	0	10.6%	12.1%

Table D.35. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.9%
	0	0.7	0	96.9%	91.8%
	0	0.5	0.4	34.6%	29.1%
	0.4	0.5	0	33.9%	29.1%
Exponential	0	0	0	5.2%	5.1%
	0	0.5	0	98.3%	93.9%
	0	0.5	0.4	55.2%	45.6%
	0.4	0.5	0	55.0%	45.0%
T with 3 df.	0	0	0	5.2%	5.5%
	0	0.7	0	88.2%	78.6%
	0	0.5	0.4	26.5%	22.1%
	0.4	0.5	0	25.9%	22.2%
Cauchy	0	0	0	4.7%	4.8%
	0	1	0	84.8%	74.6%
	0	0.5	0.4	16.2%	14.3%
	0.4	0.5	0	17.1%	14.8%

D.2. Four Treatments – Peak at Two

D.2.1. Probability of Missing = 0.1

Table D.36. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.6%
	0	0.8	0	0	80.2%	91.8%
	0.4	0.8	0.4	0	67.5%	82.6%
	0.4	0.8	0	0	66.6%	81.4%
	0.1	0.7	0.4	0.2	51.1%	65.3%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.0%	1.7%
Exponential	0	0	0	0	4.9%	5.2%
	0	0.4	0	0	60.3%	76.7%
	0.2	0.4	0.2	0	50.5%	65.3%
	0.2	0.4	0	0	47.5%	63.1%
	0.1	0.7	0.4	0.2	81.2%	93.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	0.6%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	63.4%	78.7%
	0.4	0.8	0.4	0	51.9%	66.5%
	0.4	0.8	0	0	50.7%	65.2%
	0.1	0.7	0.4	0.2	39.5%	51.8%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.1%	1.5%
Cauchy	0	0	0	0	5.0%	5.3%
	0	0.8	0	0	39.7%	51.3%
	0.4	1	0.4	0	44.6%	58.0%
	0.4	1	0	0	42.8%	56.1%
	0.2	1	0.4	0.2	39.4%	51.6%
	0.5	0	0.5	0.5	0.5%	0.4%
	0	0.2	0.4	0.5	3.0%	2.7%

Table D.37. t = 4, Pk = 2, p = 0.1, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	79.6%	87.8%
	0.4	0.8	0.4	0	66.0%	75.7%
	0.4	0.8	0	0	64.7%	75.3%
	0.1	0.7	0.4	0.2	50.5%	59.4%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.8%	1.8%
Exponential	0	0	0	0	5.2%	5.4%
	0	0.4	0	0	59.2%	69.0%
	0.2	0.4	0.2	0	48.9%	58.3%
	0.2	0.4	0	0	47.1%	56.4%
	0.1	0.7	0.4	0.2	80.7%	88.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.9%	0.7%
T with 3 df.	0	0	0	0	4.8%	4.7%
	0	0.8	0	0	62.8%	72.1%
	0.4	0.8	0.4	0	51.0%	60.0%
	0.4	0.8	0	0	50.1%	58.6%
	0.1	0.7	0.4	0.2	37.9%	45.9%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.4%	2.2%
Cauchy	0	0	0	0	5.0%	5.3%
	0	0.8	0	0	38.3%	45.8%
	0.4	1	0.4	0	42.5%	51.4%
	0.4	1	0	0	42.1%	49.2%
	0.2	1	0.4	0.2	38.7%	46.3%
	0.5	0	0.5	0.5	0.8%	0.4%
	0	0.2	0.4	0.5	3.1%	2.7%

Table D.38. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	69.3%	86.1%
	0.4	0.8	0.4	0	56.3%	73.9%
	0.4	0.8	0	0	55.0%	73.0%
	0.1	0.7	0.4	0.2	42.4%	57.2%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.2%	1.8%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	49.0%	68.2%
	0.2	0.4	0.2	0	39.7%	55.7%
	0.2	0.4	0	0	37.8%	55.0%
	0.1	0.7	0.4	0.2	69.7%	87.4%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.4%	0.9%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	53.3%	71.1%
	0.4	0.8	0.4	0	43.2%	58.0%
	0.4	0.8	0	0	41.9%	56.7%
	0.1	0.7	0.4	0.2	32.2%	44.1%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.5%	2.1%
Cauchy	0	0	0	0	4.8%	5.2%
	0	0.8	0	0	32.1%	44.1%
	0.4	1	0.4	0	36.6%	50.5%
	0.4	1	0	0	35.0%	48.5%
	0.2	1	0.4	0.2	32.9%	45.8%
	0.5	0	0.5	0.5	0.9%	0.5%
	0	0.2	0.4	0.5	3.2%	2.7%

Table D.39. t = 4, Pk = 2, p = 0.1, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	77.5%	79.2%
	0.4	0.8	0.4	0	63.8%	65.7%
	0.4	0.8	0	0	64.5%	65.5%
	0.1	0.7	0.4	0.2	48.7%	50.7%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.7%	1.8%
Exponential	0	0	0	0	4.8%	4.5%
	0	0.4	0	0	57.5%	59.3%
	0.2	0.4	0.2	0	46.8%	49.8%
	0.2	0.4	0	0	45.3%	47.6%
	0.1	0.7	0.4	0.2	78.5%	79.4%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.2%	1.0%
T with 3 df.	0	0	0	0	5.1%	5.3%
	0	0.8	0	0	61.4%	63.6%
	0.4	0.8	0.4	0	48.9%	50.1%
	0.4	0.8	0	0	49.2%	50.9%
	0.1	0.7	0.4	0.2	36.2%	37.3%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.3%	2.5%
Cauchy	0	0	0	0	4.6%	4.9%
	0	0.8	0	0	37.2%	38.0%
	0.4	1	0.4	0	41.9%	43.1%
	0.4	1	0	0	40.5%	42.4%
	0.2	1	0.4	0.2	38.4%	39.2%
	0.5	0	0.5	0.5	0.6%	0.5%
	0	0.2	0.4	0.5	3.3%	3.1%

Table D.40. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.5%	4.6%
	0	0.8	0	0	60.0%	74.3%
	0.4	0.8	0.4	0	49.5%	62.3%
	0.4	0.8	0	0	47.0%	60.4%
	0.1	0.7	0.4	0.2	36.0%	46.8%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.5%	2.0%
Exponential	0	0	0	0	4.9%	4.7%
	0	0.4	0	0	41.1%	54.7%
	0.2	0.4	0.2	0	34.8%	45.7%
	0.2	0.4	0	0	31.9%	42.8%
	0.1	0.7	0.4	0.2	60.1%	76.0%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.5%	1.3%
T with 3 df.	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	46.2%	59.6%
	0.4	0.8	0.4	0	36.4%	47.7%
	0.4	0.8	0	0	36.0%	46.6%
	0.1	0.7	0.4	0.2	27.4%	35.3%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.6%	2.4%
Cauchy	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	28.7%	35.8%
	0.4	1	0.4	0	31.3%	40.3%
	0.4	1	0	0	30.3%	38.6%
	0.2	1	0.4	0.2	28.2%	35.9%
	0.5	0	0.5	0.5	1.0%	0.7%
	0	0.2	0.4	0.5	3.5%	3.3%

Table D.41. t = 4, Pk = 2, p = 0.1, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.5	0	0	79.7%	72.2%
	0.2	0.4	0.2	0	49.3%	43.6%
	0.2	0.4	0	0	49.6%	43.4%
	0.1	0.7	0.4	0.2	83.0%	76.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	1.2%
Exponential	0	0	0	0	4.7%	5.1%
	0	0.2	0	0	48.3%	42.4%
	0.2	0.4	0.2	0	83.8%	76.4%
	0.2	0.4	0	0	82.4%	74.9%
	0.1	0.3	0.2	0.1	49.2%	43.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.3%	0.5%
T with 3 df.	0	0	0	0	5.0%	5.3%
	0	0.5	0	0	63.1%	56.4%
	0.4	0.8	0.4	0	84.9%	77.6%
	0.4	0.8	0	0	83.7%	77.2%
	0.1	0.7	0.4	0.2	68.6%	61.4%
	0.5	0	0.5	0.5	0.0%	0.1%
	0	0.2	0.4	0.5	1.4%	1.7%
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	69.1%	62.3%
	0.4	1	0.4	0	75.5%	68.3%
	0.4	1	0	0	73.9%	67.4%
	0.2	1	0.4	0.2	70.0%	62.7%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.1%	2.4%

Table D.42. t = 4, Pk = 2, p = 0.1, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	86.3%	93.7%
	0.4	0.8	0.4	0	74.6%	85.3%
	0.4	0.8	0	0	73.7%	84.5%
	0.1	0.7	0.4	0.2	58.9%	69.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.7%	1.4%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	68.1%	80.3%
	0.2	0.4	0.2	0	57.4%	69.0%
	0.2	0.4	0	0	56.0%	67.2%
	0.1	0.7	0.4	0.2	87.4%	94.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.6%
T with 3 df.	0	0	0	0	4.6%	4.7%
	0	0.8	0	0	71.1%	82.5%
	0.4	0.8	0.4	0	59.3%	70.2%
	0.4	0.8	0	0	58.0%	69.9%
	0.1	0.7	0.4	0.2	45.3%	54.6%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.1%	1.7%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	45.3%	54.9%
	0.4	1	0.4	0	50.0%	60.1%
	0.4	1	0	0	49.1%	59.3%
	0.2	1	0.4	0.2	46.2%	55.3%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	3.2%	2.8%

D.2.2. Probability of Missing = 0.2

Table D.43. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	5.0%
	0	0.8	0	0	79.6%	90.2%
	0.4	0.8	0.4	0	66.4%	79.7%
	0.4	0.8	0	0	65.8%	78.9%
	0.1	0.7	0.4	0.2	51.6%	64.2%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.7%	1.4%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	59.9%	74.6%
	0.2	0.4	0.2	0	49.9%	62.9%
	0.2	0.4	0	0	47.8%	60.2%
	0.1	0.7	0.4	0.2	81.3%	91.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.7%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	64.0%	77.3%
	0.4	0.8	0.4	0	51.6%	64.2%
	0.4	0.8	0	0	50.6%	63.0%
	0.1	0.7	0.4	0.2	38.4%	47.9%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.1%	1.9%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	38.2%	48.4%
	0.4	1	0.4	0	43.7%	54.6%
	0.4	1	0	0	41.2%	53.3%
	0.2	1	0.4	0.2	39.5%	50.0%
	0.5	0	0.5	0.5	0.4%	0.4%
	0	0.2	0.4	0.5	3.0%	2.7%

Table D.44. t = 4, Pk = 2, p = 0.2, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.9%
	0	0.8	0	0	78.8%	85.9%
	0.4	0.8	0.4	0	65.6%	73.7%
	0.4	0.8	0	0	64.2%	72.2%
	0.1	0.7	0.4	0.2	50.1%	57.3%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.1%	1.7%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.4	0	0	59.1%	67.6%
	0.2	0.4	0.2	0	48.7%	56.7%
	0.2	0.4	0	0	46.2%	53.4%
	0.1	0.7	0.4	0.2	79.7%	86.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	0.9%
T with 3 df.	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	61.9%	69.7%
	0.4	0.8	0.4	0	51.4%	59.1%
	0.4	0.8	0	0	50.4%	56.8%
	0.1	0.7	0.4	0.2	37.3%	43.0%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.5%	2.2%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	37.9%	43.4%
	0.4	1	0.4	0	42.1%	47.8%
	0.4	1	0	0	41.6%	48.1%
	0.2	1	0.4	0.2	39.7%	45.2%
	0.5	0	0.5	0.5	0.6%	0.5%
	0	0.2	0.4	0.5	3.0%	2.8%

Table D.45. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.4%
	0	0.8	0	0	68.2%	84.1%
	0.4	0.8	0.4	0	54.8%	71.4%
	0.4	0.8	0	0	54.3%	70.9%
	0.1	0.7	0.4	0.2	41.5%	55.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.0%	1.6%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.4	0	0	47.4%	63.4%
	0.2	0.4	0.2	0	40.4%	54.3%
	0.2	0.4	0	0	37.3%	50.6%
	0.1	0.7	0.4	0.2	68.7%	84.8%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.4%	0.9%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	51.5%	67.6%
	0.4	0.8	0.4	0	42.1%	55.8%
	0.4	0.8	0	0	40.7%	54.4%
	0.1	0.7	0.4	0.2	31.8%	41.9%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.8%	2.4%
Cauchy	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	30.9%	41.8%
	0.4	1	0.4	0	35.4%	46.9%
	0.4	1	0	0	34.4%	45.0%
	0.2	1	0.4	0.2	32.7%	43.2%
	0.5	0	0.5	0.5	1.0%	0.4%
	0	0.2	0.4	0.5	3.3%	3.2%

Table D.46. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	4.9%
	0	0.8	0	0	77.5%	77.5%
	0.4	0.8	0.4	0	65.0%	64.9%
	0.4	0.8	0	0	62.9%	62.9%
	0.1	0.7	0.4	0.2	48.6%	49.0%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.0%	1.9%
Exponential	0	0	0	0	4.8%	5.2%
	0	0.4	0	0	58.5%	57.6%
	0.2	0.4	0.2	0	47.8%	47.5%
	0.2	0.4	0	0	44.1%	44.8%
	0.1	0.7	0.4	0.2	78.3%	78.1%
	0.5	0	0.5	0.5	0.0%	0.1%
	0	0.2	0.4	0.5	1.1%	1.1%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	61.5%	61.4%
	0.4	0.8	0.4	0	50.6%	49.1%
	0.4	0.8	0	0	48.0%	48.2%
	0.1	0.7	0.4	0.2	36.8%	36.4%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.4%	2.3%
Cauchy	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	37.2%	38.3%
	0.4	1	0.4	0	42.1%	42.9%
	0.4	1	0	0	40.5%	41.1%
	0.2	1	0.4	0.2	37.8%	38.0%
	0.5	0	0.5	0.5	0.8%	0.7%
	0	0.2	0.4	0.5	3.2%	3.3%

Table D.47. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.3%
	0	0.8	0	0	56.7%	71.2%
	0.4	0.8	0.4	0	45.9%	58.6%
	0.4	0.8	0	0	44.7%	57.6%
	0.1	0.7	0.4	0.2	33.5%	43.7%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.2%	2.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.4	0	0	38.8%	51.4%
	0.2	0.4	0.2	0	32.5%	42.8%
	0.2	0.4	0	0	29.9%	39.9%
	0.1	0.7	0.4	0.2	57.1%	71.8%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.6%	1.2%
T with 3 df.	0	0	0	0	5.1%	4.8%
	0	0.8	0	0	43.2%	55.6%
	0.4	0.8	0.4	0	35.9%	45.5%
	0.4	0.8	0	0	33.8%	43.5%
	0.1	0.7	0.4	0.2	26.6%	33.9%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	2.9%	2.3%
Cauchy	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	25.9%	32.9%
	0.4	1	0.4	0	29.7%	37.4%
	0.4	1	0	0	28.2%	36.6%
	0.2	1	0.4	0.2	26.7%	34.5%
	0.5	0	0.5	0.5	1.4%	0.9%
	0	0.2	0.4	0.5	3.4%	3.1%

Table D.48. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	5.0%
	0	0.5	0	0	79.6%	71.1%
	0.2	0.4	0.2	0	50.4%	44.2%
	0.2	0.4	0	0	49.0%	42.0%
	0.1	0.7	0.4	0.2	84.3%	75.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	1.1%
Exponential	0	0	0	0	5.2%	5.2%
	0	0.2	0	0	47.8%	41.7%
	0.2	0.4	0.2	0	83.5%	75.6%
	0.2	0.4	0	0	82.5%	73.7%
	0.1	0.3	0.2	0.1	49.5%	43.0%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.5%	0.6%
T with 3 df.	0	0	0	0	4.4%	4.7%
	0	0.5	0	0	64.6%	55.4%
	0.4	0.8	0.4	0	84.2%	76.5%
	0.4	0.8	0	0	83.1%	74.8%
	0.1	0.7	0.4	0.2	68.2%	59.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.5%	1.8%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	67.9%	59.7%
	0.4	1	0.4	0	75.3%	66.9%
	0.4	1	0	0	74.1%	66.1%
	0.2	1	0.4	0.2	69.6%	61.5%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.2%	2.3%

Table D.49. t = 4, Pk = 2, p = 0.2, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	81.9%	91.5%
	0.4	0.8	0.4	0	69.6%	81.1%
	0.4	0.8	0	0	68.6%	80.8%
	0.1	0.7	0.4	0.2	53.6%	66.0%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.8%	1.5%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.4	0	0	63.1%	75.2%
	0.2	0.4	0.2	0	52.6%	64.5%
	0.2	0.4	0	0	49.7%	62.8%
	0.1	0.7	0.4	0.2	83.0%	92.1%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.8%
T with 3 df.	0	0	0	0	5.3%	5.1%
	0	0.8	0	0	65.5%	78.2%
	0.4	0.8	0.4	0	54.0%	65.5%
	0.4	0.8	0	0	52.1%	64.5%
	0.1	0.7	0.4	0.2	40.2%	50.6%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.1%	1.9%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	41.6%	51.3%
	0.4	1	0.4	0	47.2%	57.6%
	0.4	1	0	0	44.1%	54.7%
	0.2	1	0.4	0.2	41.0%	51.1%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	2.7%	2.5%

D.2.3. Probability of Missing = 0.3

Table D.50. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	78.4%	88.5%
	0.4	0.8	0.4	0	66.9%	77.3%
	0.4	0.8	0	0	66.7%	76.7%
	0.1	0.7	0.4	0.2	50.8%	60.5%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.0%	1.8%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.4	0	0	59.3%	71.2%
	0.2	0.4	0.2	0	49.4%	60.0%
	0.2	0.4	0	0	45.9%	55.9%
	0.1	0.7	0.4	0.2	80.5%	89.1%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	0.7%
T with 3 df.	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	63.4%	73.9%
	0.4	0.8	0.4	0	51.1%	61.1%
	0.4	0.8	0	0	49.9%	60.5%
	0.1	0.7	0.4	0.2	38.6%	46.8%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.4%	2.1%
Cauchy	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	39.0%	47.2%
	0.4	1	0.4	0	42.8%	52.3%
	0.4	1	0	0	42.3%	51.1%
	0.2	1	0.4	0.2	38.6%	47.6%
	0.5	0	0.5	0.5	0.7%	0.5%
	0	0.2	0.4	0.5	3.2%	2.8%

Table D.51. t = 4, Pk = 2, p = 0.3, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	78.5%	83.8%
	0.4	0.8	0.4	0	64.9%	71.4%
	0.4	0.8	0	0	65.0%	70.9%
	0.1	0.7	0.4	0.2	48.8%	54.9%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.8%	1.8%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	58.1%	63.8%
	0.2	0.4	0.2	0	48.6%	55.1%
	0.2	0.4	0	0	45.7%	50.8%
	0.1	0.7	0.4	0.2	79.1%	84.0%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	0.9%
T with 3 df.	0	0	0	0	5.3%	4.8%
	0	0.8	0	0	62.0%	67.9%
	0.4	0.8	0.4	0	50.0%	55.4%
	0.4	0.8	0	0	49.3%	54.7%
	0.1	0.7	0.4	0.2	37.6%	42.0%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.3%	2.3%
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	38.1%	42.3%
	0.4	1	0.4	0	42.6%	47.3%
	0.4	1	0	0	41.2%	45.4%
	0.2	1	0.4	0.2	37.9%	42.5%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	3.0%	2.9%

Table D.52. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	67.0%	81.1%
	0.4	0.8	0.4	0	54.0%	69.0%
	0.4	0.8	0	0	53.0%	67.9%
	0.1	0.7	0.4	0.2	41.1%	53.0%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.4%	2.0%
Exponential	0	0	0	0	5.4%	5.0%
	0	0.4	0	0	46.3%	61.3%
	0.2	0.4	0.2	0	39.5%	51.8%
	0.2	0.4	0	0	36.0%	47.9%
	0.1	0.7	0.4	0.2	68.0%	82.0%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.3%	0.9%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	51.7%	65.5%
	0.4	0.8	0.4	0	40.8%	52.2%
	0.4	0.8	0	0	39.3%	51.5%
	0.1	0.7	0.4	0.2	30.5%	39.6%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	3.0%	2.7%
Cauchy	0	0	0	0	5.3%	5.5%
	0	0.8	0	0	30.8%	39.7%
	0.4	1	0.4	0	34.9%	44.9%
	0.4	1	0	0	33.4%	43.7%
	0.2	1	0.4	0.2	31.4%	40.6%
	0.5	0	0.5	0.5	0.9%	0.7%
	0	0.2	0.4	0.5	3.4%	3.2%

Table D.53. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	77.7%	74.7%
	0.4	0.8	0.4	0	64.5%	63.2%
	0.4	0.8	0	0	63.4%	60.9%
	0.1	0.7	0.4	0.2	48.8%	47.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.8%	2.0%
Exponential	0	0	0	0	4.9%	5.3%
	0	0.4	0	0	56.1%	54.7%
	0.2	0.4	0.2	0	47.1%	46.4%
	0.2	0.4	0	0	44.9%	43.2%
	0.1	0.7	0.4	0.2	78.8%	76.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	1.0%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	61.3%	59.6%
	0.4	0.8	0.4	0	48.9%	47.8%
	0.4	0.8	0	0	48.4%	46.8%
	0.1	0.7	0.4	0.2	36.2%	35.8%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.5%	2.5%
Cauchy	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	37.5%	36.1%
	0.4	1	0.4	0	41.7%	40.8%
	0.4	1	0	0	40.9%	40.2%
	0.2	1	0.4	0.2	37.7%	37.0%
	0.5	0	0.5	0.5	0.7%	0.8%
	0	0.2	0.4	0.5	2.8%	3.3%

Table D.54. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	54.7%	68.5%
	0.4	0.8	0.4	0	43.9%	55.1%
	0.4	0.8	0	0	41.9%	53.9%
	0.1	0.7	0.4	0.2	32.3%	41.5%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.5%	2.1%
Exponential	0	0	0	0	4.7%	5.0%
	0	0.4	0	0	36.2%	48.0%
	0.2	0.4	0.2	0	31.1%	39.8%
	0.2	0.4	0	0	27.9%	36.8%
	0.1	0.7	0.4	0.2	53.6%	68.0%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.8%	1.4%
T with 3 df.	0	0	0	0	4.8%	5.2%
	0	0.8	0	0	40.5%	51.8%
	0.4	0.8	0.4	0	33.0%	42.7%
	0.4	0.8	0	0	31.9%	40.9%
	0.1	0.7	0.4	0.2	24.3%	30.9%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	2.7%	2.3%
Cauchy	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	25.4%	31.9%
	0.4	1	0.4	0	27.9%	35.6%
	0.4	1	0	0	27.5%	34.9%
	0.2	1	0.4	0.2	25.6%	31.6%
	0.5	0	0.5	0.5	1.3%	0.8%
	0	0.2	0.4	0.5	3.3%	3.0%

Table D.55. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.5	0	0	79.8%	69.6%
	0.2	0.4	0.2	0	50.9%	43.1%
	0.2	0.4	0	0	49.6%	42.6%
	0.1	0.7	0.4	0.2	84.0%	74.4%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.9%	1.4%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0	0	48.8%	40.9%
	0.2	0.4	0.2	0	83.9%	73.9%
	0.2	0.4	0	0	82.7%	71.0%
	0.1	0.3	0.2	0.1	48.1%	40.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.3%	0.4%
T with 3 df.	0	0	0	0	5.0%	4.6%
	0	0.5	0	0	62.7%	53.6%
	0.4	0.8	0.4	0	84.4%	75.3%
	0.4	0.8	0	0	83.3%	74.8%
	0.1	0.7	0.4	0.2	68.3%	58.3%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.5%	1.7%
Cauchy	0	0	0	0	4.8%	4.8%
	0	0.8	0	0	68.9%	58.9%
	0.4	1	0.4	0	75.4%	65.8%
	0.4	1	0	0	73.8%	64.2%
	0.2	1	0.4	0.2	69.8%	60.9%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.1%	2.3%

Table D.56. t = 4, Pk = 2, p = 0.3, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.4%
	0	0.8	0	0	78.0%	89.1%
	0.4	0.8	0.4	0	64.4%	77.2%
	0.4	0.8	0	0	63.7%	76.5%
	0.1	0.7	0.4	0.2	49.7%	61.8%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.8%	1.4%
Exponential	0	0	0	0	4.7%	5.2%
	0	0.4	0	0	57.7%	71.3%
	0.2	0.4	0.2	0	47.3%	60.2%
	0.2	0.4	0	0	44.7%	58.1%
	0.1	0.7	0.4	0.2	78.1%	89.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.7%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	61.2%	75.1%
	0.4	0.8	0.4	0	49.8%	62.2%
	0.4	0.8	0	0	48.4%	60.7%
	0.1	0.7	0.4	0.2	37.6%	46.8%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.3%	2.1%
Cauchy	0	0	0	0	5.1%	4.8%
	0	0.8	0	0	37.5%	47.6%
	0.4	1	0.4	0	41.8%	52.5%
	0.4	1	0	0	41.7%	52.1%
	0.2	1	0.4	0.2	38.2%	48.1%
	0.5	0	0.5	0.5	0.8%	0.4%
	0	0.2	0.4	0.5	2.9%	2.5%

D.2.4. Probability of Missing = 0.4

Table D.57. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	4.8%
	0	0.8	0	0	78.9%	86.5%
	0.4	0.8	0.4	0	66.0%	75.0%
	0.4	0.8	0	0	65.7%	73.9%
	0.1	0.7	0.4	0.2	49.5%	58.1%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.0%	1.7%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.4	0	0	58.4%	67.7%
	0.2	0.4	0.2	0	49.1%	58.2%
	0.2	0.4	0	0	45.6%	54.7%
	0.1	0.7	0.4	0.2	79.8%	87.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.9%
T with 3 df.	0	0	0	0	5.3%	5.4%
	0	0.8	0	0	61.6%	71.7%
	0.4	0.8	0.4	0	51.0%	59.7%
	0.4	0.8	0	0	49.5%	57.3%
	0.1	0.7	0.4	0.2	38.8%	44.6%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.4%	2.2%
Cauchy	0	0	0	0	5.2%	5.3%
	0	0.8	0	0	38.7%	45.4%
	0.4	1	0.4	0	42.9%	50.5%
	0.4	1	0	0	41.6%	48.8%
	0.2	1	0.4	0.2	39.1%	45.8%
	0.5	0	0.5	0.5	0.5%	0.4%
	0	0.2	0.4	0.5	3.0%	2.9%

Table D.58. t = 4, Pk = 2, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	77.7%	81.9%
	0.4	0.8	0.4	0	65.4%	69.7%
	0.4	0.8	0	0	63.6%	67.8%
	0.1	0.7	0.4	0.2	48.8%	52.1%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.9%	1.7%
Exponential	0	0	0	0	5.1%	4.9%
	0	0.4	0	0	58.6%	61.5%
	0.2	0.4	0.2	0	47.6%	51.7%
	0.2	0.4	0	0	45.6%	49.8%
	0.1	0.7	0.4	0.2	80.4%	82.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.9%
T with 3 df.	0	0	0	0	4.6%	4.8%
	0	0.8	0	0	61.9%	65.7%
	0.4	0.8	0.4	0	49.3%	54.0%
	0.4	0.8	0	0	48.3%	52.3%
	0.1	0.7	0.4	0.2	37.3%	41.0%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.4%	2.2%
Cauchy	0	0	0	0	5.2%	5.0%
	0	0.8	0	0	38.6%	41.1%
	0.4	1	0.4	0	42.0%	45.5%
	0.4	1	0	0	40.4%	44.1%
	0.2	1	0.4	0.2	37.8%	41.0%
	0.5	0	0.5	0.5	0.8%	0.7%
	0	0.2	0.4	0.5	3.1%	3.1%

Table D.59. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	66.5%	78.3%
	0.4	0.8	0.4	0	53.4%	65.8%
	0.4	0.8	0	0	52.0%	64.8%
	0.1	0.7	0.4	0.2	40.0%	49.1%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.1%	1.9%
Exponential	0	0	0	0	5.3%	4.9%
	0	0.4	0	0	45.8%	58.1%
	0.2	0.4	0.2	0	38.8%	49.6%
	0.2	0.4	0	0	36.0%	47.0%
	0.1	0.7	0.4	0.2	66.4%	79.2%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.4%	1.0%
T with 3 df.	0	0	0	0	5.3%	4.9%
	0	0.8	0	0	51.2%	63.4%
	0.4	0.8	0.4	0	39.7%	50.6%
	0.4	0.8	0	0	40.0%	50.3%
	0.1	0.7	0.4	0.2	30.2%	37.9%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.6%	2.5%
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	30.4%	38.7%
	0.4	1	0.4	0	33.7%	42.5%
	0.4	1	0	0	33.7%	41.5%
	0.2	1	0.4	0.2	31.2%	38.9%
	0.5	0	0.5	0.5	1.0%	0.7%
	0	0.2	0.4	0.5	3.2%	3.1%

Table D.60. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	77.4%	73.7%
	0.4	0.8	0.4	0	64.2%	61.0%
	0.4	0.8	0	0	62.5%	59.9%
	0.1	0.7	0.4	0.2	48.2%	46.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.8%	1.9%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.4	0	0	57.5%	53.7%
	0.2	0.4	0.2	0	47.7%	45.0%
	0.2	0.4	0	0	44.9%	42.6%
	0.1	0.7	0.4	0.2	77.9%	74.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	1.1%
T with 3 df.	0	0	0	0	5.5%	5.8%
	0	0.8	0	0	61.0%	57.6%
	0.4	0.8	0.4	0	49.5%	47.2%
	0.4	0.8	0	0	48.4%	45.6%
	0.1	0.7	0.4	0.2	37.1%	35.1%
	0.5	0	0.5	0.5	0.2%	0.2%
	0	0.2	0.4	0.5	2.4%	2.4%
Cauchy	0	0	0	0	5.2%	5.3%
	0	0.8	0	0	36.8%	35.4%
	0.4	1	0.4	0	41.8%	39.7%
	0.4	1	0	0	39.9%	38.3%
	0.2	1	0.4	0.2	37.4%	35.2%
	0.5	0	0.5	0.5	0.8%	0.8%
	0	0.2	0.4	0.5	2.9%	3.0%

Table D.61. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	51.8%	63.7%
	0.4	0.8	0.4	0	41.9%	52.6%
	0.4	0.8	0	0	40.4%	51.0%
	0.1	0.7	0.4	0.2	30.7%	38.5%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.4%	2.2%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.4	0	0	35.0%	46.0%
	0.2	0.4	0.2	0	29.2%	37.7%
	0.2	0.4	0	0	26.6%	35.2%
	0.1	0.7	0.4	0.2	51.6%	64.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.9%	1.6%
T with 3 df.	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	39.6%	49.5%
	0.4	0.8	0.4	0	31.2%	39.1%
	0.4	0.8	0	0	30.9%	39.5%
	0.1	0.7	0.4	0.2	23.9%	29.9%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	3.0%	2.6%
Cauchy	0	0	0	0	4.6%	4.4%
	0	0.8	0	0	24.1%	29.7%
	0.4	1	0.4	0	27.8%	33.4%
	0.4	1	0	0	27.0%	33.0%
	0.2	1	0.4	0.2	24.1%	30.1%
	0.5	0	0.5	0.5	1.3%	0.9%
	0	0.2	0.4	0.5	3.2%	3.3%

Table D.62. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	5.2%
	0	0.5	0	0	79.5%	68.8%
	0.2	0.4	0.2	0	50.6%	42.0%
	0.2	0.4	0	0	49.2%	40.8%
	0.1	0.7	0.4	0.2	83.8%	73.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	1.3%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0	0	48.0%	39.4%
	0.2	0.4	0.2	0	83.9%	72.4%
	0.2	0.4	0	0	82.6%	70.9%
	0.1	0.3	0.2	0.1	49.4%	40.3%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.4%	0.5%
T with 3 df.	0	0	0	0	5.0%	4.7%
	0	0.5	0	0	63.4%	53.2%
	0.4	0.8	0.4	0	84.2%	74.5%
	0.4	0.8	0	0	83.7%	72.2%
	0.1	0.7	0.4	0.2	68.8%	58.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.5%	1.7%
Cauchy	0	0	0	0	5.0%	4.7%
	0	0.8	0	0	68.7%	58.1%
	0.4	1	0.4	0	75.2%	65.4%
	0.4	1	0	0	74.2%	63.7%
	0.2	1	0.4	0.2	69.6%	58.6%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.3%	2.5%

Table D.63. t = 4, Pk = 2, p = 0.4, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	73.3%	86.4%
	0.4	0.8	0.4	0	60.2%	74.9%
	0.4	0.8	0	0	59.3%	73.0%
	0.1	0.7	0.4	0.2	45.5%	57.9%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.2%	1.8%
Exponential	0	0	0	0	5.3%	5.4%
	0	0.4	0	0	53.0%	67.3%
	0.2	0.4	0.2	0	44.1%	56.3%
	0.2	0.4	0	0	41.9%	54.3%
	0.1	0.7	0.4	0.2	74.0%	86.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.7%
T with 3 df.	0	0	0	0	5.1%	4.8%
	0	0.8	0	0	56.3%	70.2%
	0.4	0.8	0.4	0	46.3%	58.6%
	0.4	0.8	0	0	44.8%	57.1%
	0.1	0.7	0.4	0.2	34.7%	43.7%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.3%	2.1%
Cauchy	0	0	0	0	5.1%	5.3%
	0	0.8	0	0	35.2%	44.6%
	0.4	1	0.4	0	39.3%	49.8%
	0.4	1	0	0	38.5%	48.9%
	0.2	1	0.4	0.2	35.8%	45.0%
	0.5	0	0.5	0.5	0.8%	0.6%
	0	0.2	0.4	0.5	3.1%	2.7%

D.2.5. Probability of Missing = 0.5

Table D.64. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	79.2%	85.2%
	0.4	0.8	0.4	0	66.2%	73.2%
	0.4	0.8	0	0	64.4%	71.5%
	0.1	0.7	0.4	0.2	49.8%	56.5%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.0%	1.8%
Exponential	0	0	0	0	5.4%	5.4%
	0	0.4	0	0	58.9%	66.4%
	0.2	0.4	0.2	0	47.9%	54.8%
	0.2	0.4	0	0	44.8%	52.2%
	0.1	0.7	0.4	0.2	79.7%	85.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.2%	1.0%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.8	0	0	62.1%	69.9%
	0.4	0.8	0.4	0	49.7%	57.1%
	0.4	0.8	0	0	49.8%	56.7%
	0.1	0.7	0.4	0.2	37.8%	43.7%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.0%	1.9%
Cauchy	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	38.0%	42.6%
	0.4	1	0.4	0	42.7%	48.5%
	0.4	1	0	0	41.0%	47.2%
	0.2	1	0.4	0.2	37.8%	43.4%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	3.0%	2.7%

Table D.65. t = 4, Pk = 2, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.8	0	0	78.0%	79.7%
	0.4	0.8	0.4	0	65.3%	68.0%
	0.4	0.8	0	0	63.9%	66.0%
	0.1	0.7	0.4	0.2	49.2%	51.8%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.1%	2.3%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	57.3%	59.6%
	0.2	0.4	0.2	0	48.5%	51.0%
	0.2	0.4	0	0	45.5%	48.0%
	0.1	0.7	0.4	0.2	78.2%	80.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.0%	1.0%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	61.5%	64.6%
	0.4	0.8	0.4	0	50.7%	52.7%
	0.4	0.8	0	0	49.1%	52.2%
	0.1	0.7	0.4	0.2	37.1%	39.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.8%	2.5%
Cauchy	0	0	0	0	4.7%	5.1%
	0	0.8	0	0	37.3%	39.1%
	0.4	1	0.4	0	42.4%	44.4%
	0.4	1	0	0	41.0%	42.9%
	0.2	1	0.4	0.2	38.1%	39.3%
	0.5	0	0.5	0.5	0.7%	0.6%
	0	0.2	0.4	0.5	2.9%	3.1%

Table D.66. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	65.7%	77.3%
	0.4	0.8	0.4	0	52.9%	64.2%
	0.4	0.8	0	0	51.9%	62.4%
	0.1	0.7	0.4	0.2	38.9%	46.9%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.3%	2.1%
Exponential	0	0	0	0	5.3%	5.3%
	0	0.4	0	0	45.6%	55.9%
	0.2	0.4	0.2	0	38.8%	47.6%
	0.2	0.4	0	0	35.0%	44.0%
	0.1	0.7	0.4	0.2	66.0%	77.0%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.3%	1.3%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.8	0	0	50.5%	60.5%
	0.4	0.8	0.4	0	40.5%	50.0%
	0.4	0.8	0	0	39.0%	47.7%
	0.1	0.7	0.4	0.2	29.8%	36.5%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.7%	2.1%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	30.6%	37.0%
	0.4	1	0.4	0	33.5%	41.2%
	0.4	1	0	0	32.9%	40.4%
	0.2	1	0.4	0.2	31.1%	37.6%
	0.5	0	0.5	0.5	0.9%	0.7%
	0	0.2	0.4	0.5	3.5%	2.9%

Table D.67. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.9%
	0	0.8	0	0	77.6%	73.0%
	0.4	0.8	0.4	0	64.9%	60.4%
	0.4	0.8	0	0	63.3%	57.9%
	0.1	0.7	0.4	0.2	48.1%	44.4%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.0%	2.0%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.4	0	0	55.8%	51.9%
	0.2	0.4	0.2	0	47.6%	44.4%
	0.2	0.4	0	0	44.9%	41.6%
	0.1	0.7	0.4	0.2	77.9%	73.0%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.0%	1.3%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	60.7%	56.4%
	0.4	0.8	0.4	0	48.8%	45.1%
	0.4	0.8	0	0	48.9%	45.1%
	0.1	0.7	0.4	0.2	36.0%	33.4%
	0.5	0	0.5	0.5	0.2%	0.3%
	0	0.2	0.4	0.5	2.4%	2.4%
Cauchy	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	36.6%	34.1%
	0.4	1	0.4	0	41.4%	37.8%
	0.4	1	0	0	40.9%	37.8%
	0.2	1	0.4	0.2	38.0%	35.3%
	0.5	0	0.5	0.5	0.6%	0.8%
	0	0.2	0.4	0.5	2.8%	3.0%

Table D.68. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.1%
	0	0.8	0	0	50.8%	62.4%
	0.4	0.8	0.4	0	39.9%	49.7%
	0.4	0.8	0	0	39.0%	49.0%
	0.1	0.7	0.4	0.2	29.5%	36.9%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.6%	2.2%
Exponential	0	0	0	0	5.2%	5.2%
	0	0.4	0	0	32.4%	42.5%
	0.2	0.4	0.2	0	28.6%	36.3%
	0.2	0.4	0	0	26.2%	33.9%
	0.1	0.7	0.4	0.2	48.5%	61.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.7%	1.2%
T with 3 df.	0	0	0	0	5.2%	4.9%
	0	0.8	0	0	38.1%	47.1%
	0.4	0.8	0.4	0	30.1%	37.5%
	0.4	0.8	0	0	29.3%	36.8%
	0.1	0.7	0.4	0.2	22.6%	28.2%
	0.5	0	0.5	0.5	0.7%	0.4%
	0	0.2	0.4	0.5	3.1%	2.9%
Cauchy	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	23.7%	28.7%
	0.4	1	0.4	0	26.6%	32.7%
	0.4	1	0	0	25.2%	31.8%
	0.2	1	0.4	0.2	23.8%	29.3%
	0.5	0	0.5	0.5	1.3%	1.0%
	0	0.2	0.4	0.5	3.4%	3.3%

Table D.69. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.2%
	0	0.5	0	0	79.1%	66.4%
	0.2	0.4	0.2	0	49.4%	40.8%
	0.2	0.4	0	0	49.2%	40.4%
	0.1	0.7	0.4	0.2	83.7%	72.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.3%	1.5%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.2	0	0	48.1%	38.4%
	0.2	0.4	0.2	0	83.6%	71.7%
	0.2	0.4	0	0	82.5%	69.3%
	0.1	0.3	0.2	0.1	49.2%	39.6%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.5%	0.7%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.5	0	0	63.6%	52.6%
	0.4	0.8	0.4	0	84.1%	72.4%
	0.4	0.8	0	0	83.3%	71.9%
	0.1	0.7	0.4	0.2	69.1%	57.3%
	0.5	0	0.5	0.5	0.0%	0.1%
	0	0.2	0.4	0.5	1.5%	1.7%
Cauchy	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	69.2%	57.5%
	0.4	1	0.4	0	74.7%	62.8%
	0.4	1	0	0	74.2%	63.2%
	0.2	1	0.4	0.2	70.1%	59.2%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.4%	2.4%

Table D.70. t = 4, Pk = 2, p = 0.5, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	69.7%	83.1%
	0.4	0.8	0.4	0	56.9%	71.6%
	0.4	0.8	0	0	56.5%	70.4%
	0.1	0.7	0.4	0.2	41.8%	54.1%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.3%	2.0%
Exponential	0	0	0	0	5.2%	5.1%
	0	0.4	0	0	49.5%	64.3%
	0.2	0.4	0.2	0	40.5%	52.9%
	0.2	0.4	0	0	38.0%	50.5%
	0.1	0.7	0.4	0.2	69.9%	84.0%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.2%	0.9%
T with 3 df.	0	0	0	0	4.6%	4.6%
	0	0.8	0	0	54.1%	68.5%
	0.4	0.8	0.4	0	42.8%	55.4%
	0.4	0.8	0	0	41.7%	54.3%
	0.1	0.7	0.4	0.2	32.1%	41.7%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.3%	2.0%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.8	0	0	32.1%	41.2%
	0.4	1	0.4	0	36.3%	46.6%
	0.4	1	0	0	35.8%	46.4%
	0.2	1	0.4	0.2	33.3%	42.0%
	0.5	0	0.5	0.5	0.8%	0.5%
	0	0.2	0.4	0.5	3.4%	3.0%

D.3. Four Treatments – Peak at Three

D.3.1. Probability of Missing = 0.1

Table D.71. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	80.6%	92.5%
	0	0.4	0.8	0.4	66.7%	82.1%
	0	0	0.8	0	80.8%	92.5%
	0	0.3	0.5	0.1	42.9%	56.3%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.2%	22.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0	62.5%	78.3%
	0	0.2	0.4	0.2	50.9%	64.6%
	0	0	0.4	0	59.9%	76.7%
	0	0.3	0.4	0.1	56.3%	70.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.5%	34.5%
T with 3 df.	0	0	0	0	5.3%	5.3%
	0	0.4	0.8	0	65.0%	79.4%
	0	0.4	0.8	0.4	51.5%	65.9%
	0	0	0.8	0	63.4%	78.9%
	0	0.3	0.5	0.1	33.1%	43.3%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.3%	17.4%
Cauchy	0	0	0	0	5.1%	5.4%
	0	0.4	0.8	0	39.5%	52.2%
	0	0.4	0.8	0.4	31.5%	41.8%
	0	0	0.8	0	39.0%	51.1%
	0	0.3	0.5	0.1	21.0%	26.5%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	10.7%	12.4%

Table D.72. t = 4, Pk = 3, p = 0.1, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	79.2%	87.8%
	0	0.4	0.8	0.4	66.6%	76.6%
	0	0	0.8	0	78.5%	87.4%
	0	0.3	0.5	0.1	41.4%	50.5%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	17.9%	20.4%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0	61.0%	71.4%
	0	0.2	0.4	0.2	49.3%	58.6%
	0	0	0.4	0	59.1%	69.4%
	0	0.3	0.4	0.1	55.1%	65.5%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.8%	31.7%
T with 3 df.	0	0	0	0	4.8%	5.1%
	0	0.4	0.8	0	62.8%	73.6%
	0	0.4	0.8	0.4	51.1%	60.4%
	0	0	0.8	0	62.7%	72.9%
	0	0.3	0.5	0.1	31.7%	37.8%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	14.4%	17.0%
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	39.5%	46.0%
	0	0.4	0.8	0.4	30.9%	36.6%
	0	0	0.8	0	38.0%	45.6%
	0	0.3	0.5	0.1	20.1%	23.6%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	10.4%	11.4%

Table D.73. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.3%
	0	0.4	0.8	0	69.3%	86.5%
	0	0.4	0.8	0.4	56.2%	74.1%
	0	0	0.8	0	69.3%	86.2%
	0	0.3	0.5	0.1	35.8%	48.9%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	15.4%	19.9%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	50.4%	69.4%
	0	0.2	0.4	0.2	40.6%	57.5%
	0	0	0.4	0	49.0%	67.9%
	0	0.3	0.4	0.1	45.6%	62.7%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	21.1%	30.2%
T with 3 df.	0	0	0	0	5.2%	4.7%
	0	0.4	0.8	0	55.0%	72.3%
	0	0.4	0.8	0.4	43.0%	58.3%
	0	0	0.8	0	53.0%	70.8%
	0	0.3	0.5	0.1	27.4%	36.7%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	12.7%	15.3%
Cauchy	0	0	0	0	5.0%	5.2%
	0	0.4	0.8	0	32.9%	44.3%
	0	0.4	0.8	0.4	25.2%	34.8%
	0	0	0.8	0	31.7%	44.5%
	0	0.3	0.5	0.1	17.4%	22.9%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	9.6%	11.2%

Table D.74. t = 4, Pk = 3, p = 0.1, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.3%
	0	0.4	0.8	0	78.7%	80.5%
	0	0.4	0.8	0.4	65.5%	66.4%
	0	0	0.8	0	77.3%	79.2%
	0	0.3	0.5	0.1	40.6%	42.4%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.3%	17.6%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0	59.7%	61.6%
	0	0.2	0.4	0.2	47.8%	49.7%
	0	0	0.4	0	56.9%	59.3%
	0	0.3	0.4	0.1	52.7%	54.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	24.7%	26.3%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	62.2%	63.9%
	0	0.4	0.8	0.4	50.3%	51.8%
	0	0	0.8	0	61.0%	63.0%
	0	0.3	0.5	0.1	31.5%	32.1%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	13.9%	14.2%
Cauchy	0	0	0	0	5.2%	5.0%
	0	0.4	0.8	0	37.4%	39.9%
	0	0.4	0.8	0.4	30.2%	30.5%
	0	0	0.8	0	36.8%	37.7%
	0	0.3	0.5	0.1	19.6%	20.3%
	0.5	0.5	0	0.5	0.7%	0.6%
	0	0	0.4	0.5	10.7%	10.8%

Table D.75. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	4.8%
	0	0.4	0.8	0	61.0%	75.5%
	0	0.4	0.8	0.4	48.4%	61.2%
	0	0	0.8	0	60.2%	74.8%
	0	0.3	0.5	0.1	30.1%	39.0%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.7%	16.5%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0	43.3%	56.5%
	0	0.2	0.4	0.2	34.7%	45.3%
	0	0	0.4	0	40.6%	54.1%
	0	0.3	0.4	0.1	38.8%	50.5%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.5%	23.4%
T with 3 df.	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	46.9%	59.8%
	0	0.4	0.8	0.4	36.4%	47.0%
	0	0	0.8	0	45.9%	58.9%
	0	0.3	0.5	0.1	24.1%	30.4%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	11.5%	12.9%
Cauchy	0	0	0	0	4.4%	4.7%
	0	0.4	0.8	0	28.3%	35.4%
	0	0.4	0.8	0.4	23.4%	29.2%
	0	0	0.8	0	28.0%	36.5%
	0	0.3	0.5	0.1	15.3%	18.8%
	0.5	0.5	0	0.5	1.1%	0.7%
	0	0	0.4	0.5	9.0%	9.9%

Table D.76. t = 4, Pk = 3, p = 0.1, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0	62.7%	55.1%
	0	0.2	0.4	0.2	50.6%	44.4%
	0	0	0.5	0	79.1%	71.4%
	0	0.3	0.5	0.1	74.7%	67.8%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.5%	26.6%
Exponential	0	0	0	0	5.1%	4.7%
	0	0.1	0.2	0	49.8%	43.5%
	0	0.2	0.4	0.2	84.0%	76.8%
	0	0	0.2	0	48.6%	42.5%
	0	0.3	0.4	0.1	88.8%	82.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	50.2%	43.9%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0	47.7%	42.1%
	0	0.4	0.8	0.4	84.4%	77.0%
	0	0	0.4	0	48.4%	42.7%
	0	0.3	0.5	0.1	58.6%	51.8%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	23.7%	20.9%
Cauchy	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	69.2%	62.9%
	0	0.4	0.8	0.4	56.7%	50.6%
	0	0	0.8	0	69.1%	62.5%
	0	0.3	0.5	0.1	36.1%	31.8%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	14.6%	13.5%

Table D.77. t = 4, Pk = 3, p = 0.1, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	87.5%	94.7%
	0	0.4	0.8	0.4	74.5%	84.9%
	0	0	0.8	0	86.7%	94.1%
	0	0.3	0.5	0.1	49.7%	59.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	19.7%	23.8%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0	70.7%	81.9%
	0	0.2	0.4	0.2	57.3%	68.7%
	0	0	0.4	0	67.9%	80.0%
	0	0.3	0.4	0.1	63.0%	74.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.1%	37.5%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	71.6%	83.2%
	0	0.4	0.8	0.4	58.8%	70.4%
	0	0	0.8	0	71.4%	82.3%
	0	0.3	0.5	0.1	36.8%	45.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	16.1%	18.8%
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	45.1%	55.1%
	0	0.4	0.8	0.4	35.9%	43.7%
	0	0	0.8	0	45.4%	55.0%
	0	0.3	0.5	0.1	23.0%	27.9%
	0.5	0.5	0	0.5	0.5%	0.4%
	0	0	0.4	0.5	11.9%	13.7%

D.3.2. Probability of Missing = 0.2

Table D.78. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	80.5%	90.9%
	0	0.4	0.8	0.4	68.2%	80.6%
	0	0	0.8	0	79.5%	90.4%
	0	0.3	0.5	0.1	43.8%	54.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.7%	21.2%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0	61.9%	75.2%
	0	0.2	0.4	0.2	50.5%	63.4%
	0	0	0.4	0	59.5%	73.4%
	0	0.3	0.4	0.1	55.2%	68.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	26.0%	33.9%
T with 3 df.	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	64.6%	77.5%
	0	0.4	0.8	0.4	51.1%	64.1%
	0	0	0.8	0	63.2%	75.8%
	0	0.3	0.5	0.1	32.5%	41.3%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.3%	17.1%
Cauchy	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	39.4%	49.8%
	0	0.4	0.8	0.4	32.0%	39.3%
	0	0	0.8	0	38.6%	48.5%
	0	0.3	0.5	0.1	20.5%	24.4%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	10.9%	12.5%

Table D.79. t = 4, Pk = 3, p = 0.2, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.1%
	0	0.4	0.8	0	79.0%	85.6%
	0	0.4	0.8	0.4	65.7%	72.8%
	0	0	0.8	0	78.6%	85.0%
	0	0.3	0.5	0.1	41.9%	47.7%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.1%	19.1%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0	61.8%	69.5%
	0	0.2	0.4	0.2	48.2%	56.0%
	0	0	0.4	0	58.3%	66.6%
	0	0.3	0.4	0.1	54.6%	62.4%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	25.3%	30.1%
T with 3 df.	0	0	0	0	5.6%	4.9%
	0	0.4	0.8	0	62.6%	71.2%
	0	0.4	0.8	0.4	50.8%	58.0%
	0	0	0.8	0	62.9%	70.3%
	0	0.3	0.5	0.1	32.4%	36.9%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.9%	15.8%
Cauchy	0	0	0	0	4.8%	5.1%
	0	0.4	0.8	0	38.0%	44.6%
	0	0.4	0.8	0.4	30.4%	34.7%
	0	0	0.8	0	38.5%	43.5%
	0	0.3	0.5	0.1	20.5%	23.3%
	0.5	0.5	0	0.5	0.7%	0.5%
	0	0	0.4	0.5	10.8%	11.4%

Table D.80. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.4	0.8	0	68.5%	84.1%
	0	0.4	0.8	0.4	54.8%	70.9%
	0	0	0.8	0	68.2%	83.5%
	0	0.3	0.5	0.1	34.4%	46.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	14.6%	17.9%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0	50.4%	66.3%
	0	0.2	0.4	0.2	40.5%	54.4%
	0	0	0.4	0	48.0%	65.2%
	0	0.3	0.4	0.1	44.7%	59.6%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	21.8%	28.8%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.4	0.8	0	52.7%	68.7%
	0	0.4	0.8	0.4	41.5%	54.9%
	0	0	0.8	0	52.2%	67.5%
	0	0.3	0.5	0.1	26.6%	35.0%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	12.3%	15.3%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	32.0%	42.6%
	0	0.4	0.8	0.4	25.6%	33.7%
	0	0	0.8	0	31.7%	42.2%
	0	0.3	0.5	0.1	17.5%	22.1%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	9.8%	11.1%

Table D.81. t = 4, Pk = 3, p = 0.2, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	78.3%	79.1%
	0	0.4	0.8	0.4	63.7%	63.6%
	0	0	0.8	0	77.1%	76.7%
	0	0.3	0.5	0.1	41.6%	41.5%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.2%	17.5%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0	59.0%	59.4%
	0	0.2	0.4	0.2	48.2%	48.6%
	0	0	0.4	0	57.1%	56.4%
	0	0.3	0.4	0.1	52.1%	52.5%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	24.5%	25.4%
T with 3 df.	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	61.6%	62.0%
	0	0.4	0.8	0.4	50.4%	50.4%
	0	0	0.8	0	61.3%	61.2%
	0	0.3	0.5	0.1	31.0%	31.5%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	14.1%	14.3%
Cauchy	0	0	0	0	4.8%	4.7%
	0	0.4	0.8	0	37.1%	37.3%
	0	0.4	0.8	0.4	30.0%	30.0%
	0	0	0.8	0	37.1%	37.4%
	0	0.3	0.5	0.1	19.5%	19.7%
	0.5	0.5	0	0.5	0.7%	0.6%
	0	0	0.4	0.5	10.6%	10.4%

Table D.82. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.3%	4.2%
	0	0.4	0.8	0	57.4%	71.4%
	0	0.4	0.8	0.4	45.3%	58.5%
	0	0	0.8	0	56.5%	70.4%
	0	0.3	0.5	0.1	28.7%	36.8%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.1%	15.7%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0	40.8%	53.1%
	0	0.2	0.4	0.2	32.6%	43.2%
	0	0	0.4	0	38.7%	51.5%
	0	0.3	0.4	0.1	36.7%	48.4%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	17.1%	22.3%
T with 3 df.	0	0	0	0	5.4%	5.2%
	0	0.4	0.8	0	45.1%	56.3%
	0	0.4	0.8	0.4	34.6%	44.8%
	0	0	0.8	0	42.7%	54.8%
	0	0.3	0.5	0.1	22.8%	28.0%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	11.2%	13.1%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	26.5%	33.7%
	0	0.4	0.8	0.4	21.5%	27.1%
	0	0	0.8	0	26.2%	32.9%
	0	0.3	0.5	0.1	14.3%	17.7%
	0.5	0.5	0	0.5	1.0%	0.7%
	0	0	0.4	0.5	8.8%	9.9%

Table D.83. t = 4, Pk = 3, p = 0.2, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0	62.9%	54.3%
	0	0.2	0.4	0.2	50.1%	42.3%
	0	0	0.5	0	78.8%	70.1%
	0	0.3	0.5	0.1	74.5%	65.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.3%	25.6%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.1	0.2	0	49.0%	42.3%
	0	0.2	0.4	0.2	83.9%	75.2%
	0	0	0.2	0	48.6%	42.0%
	0	0.3	0.4	0.1	88.3%	81.0%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	49.6%	42.6%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.2	0.4	0	48.6%	41.2%
	0	0.4	0.8	0.4	83.7%	76.7%
	0	0	0.4	0	48.2%	41.5%
	0	0.3	0.5	0.1	57.8%	50.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	23.7%	20.8%
Cauchy	0	0	0	0	5.2%	4.8%
	0	0.4	0.8	0	70.3%	61.4%
	0	0.4	0.8	0.4	57.6%	50.5%
	0	0	0.8	0	68.3%	60.6%
	0	0.3	0.5	0.1	36.8%	31.1%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	15.5%	14.0%

Table D.84. t = 4, Pk = 3, p = 0.2, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	82.5%	91.8%
	0	0.4	0.8	0.4	69.2%	81.3%
	0	0	0.8	0	81.9%	91.5%
	0	0.3	0.5	0.1	45.4%	56.1%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	19.3%	22.8%
Exponential	0	0	0	0	5.3%	5.4%
	0	0.2	0.4	0	63.9%	76.9%
	0	0.2	0.4	0.2	52.1%	64.3%
	0	0	0.4	0	62.4%	75.6%
	0	0.3	0.4	0.1	58.0%	69.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	27.5%	35.8%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	66.6%	79.1%
	0	0.4	0.8	0.4	54.3%	66.2%
	0	0	0.8	0	66.4%	78.5%
	0	0.3	0.5	0.1	34.0%	42.1%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	15.0%	17.5%
Cauchy	0	0	0	0	5.1%	5.0%
	0	0.4	0.8	0	41.5%	52.0%
	0	0.4	0.8	0.4	33.2%	41.4%
	0	0	0.8	0	40.8%	51.0%
	0	0.3	0.5	0.1	22.3%	27.2%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	11.6%	12.7%

D.2.3. Probability of Missing = 0.3

Table D.85. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.4	0.8	0	80.2%	88.7%
	0	0.4	0.8	0.4	66.0%	77.0%
	0	0	0.8	0	79.2%	88.5%
	0	0.3	0.5	0.1	42.5%	51.7%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.9%	20.6%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0	61.0%	72.1%
	0	0.2	0.4	0.2	49.3%	59.6%
	0	0	0.4	0	59.4%	70.0%
	0	0.3	0.4	0.1	55.3%	65.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.3%	31.5%
T with 3 df.	0	0	0	0	5.1%	4.7%
	0	0.4	0.8	0	64.2%	75.1%
	0	0.4	0.8	0.4	51.3%	61.0%
	0	0	0.8	0	62.8%	74.0%
	0	0.3	0.5	0.1	31.9%	39.0%
	0.5	0.5	0	0.5	0.2%	0.0%
	0	0	0.4	0.5	14.2%	17.2%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	39.2%	47.6%
	0	0.4	0.8	0.4	30.8%	38.0%
	0	0	0.8	0	39.0%	46.7%
	0	0.3	0.5	0.1	20.6%	23.7%
	0.5	0.5	0	0.5	0.5%	0.4%
	0	0	0.4	0.5	10.5%	11.9%

Table D.86. t = 4, Pk = 3, p = 0.3, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	79.3%	84.5%
	0	0.4	0.8	0.4	64.9%	71.0%
	0	0	0.8	0	78.4%	83.5%
	0	0.3	0.5	0.1	41.5%	45.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	17.2%	18.8%
Exponential	0	0	0	0	4.9%	5.4%
	0	0.2	0.4	0	60.8%	67.2%
	0	0.2	0.4	0.2	48.6%	53.7%
	0	0	0.4	0	59.0%	65.2%
	0	0.3	0.4	0.1	54.3%	60.2%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.1%	28.5%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	62.4%	68.1%
	0	0.4	0.8	0.4	49.8%	55.0%
	0	0	0.8	0	62.0%	67.4%
	0	0.3	0.5	0.1	32.3%	35.1%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	14.2%	15.0%
Cauchy	0	0	0	0	4.8%	5.3%
	0	0.4	0.8	0	38.0%	43.0%
	0	0.4	0.8	0.4	30.5%	34.2%
	0	0	0.8	0	37.9%	41.8%
	0	0.3	0.5	0.1	19.9%	21.4%
	0.5	0.5	0	0.5	0.6%	0.7%
	0	0	0.4	0.5	10.3%	10.5%

Table D.87. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.2%
	0	0.4	0.8	0	67.5%	81.2%
	0	0.4	0.8	0.4	54.1%	68.4%
	0	0	0.8	0	67.0%	80.6%
	0	0.3	0.5	0.1	33.9%	43.7%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	14.8%	18.4%
Exponential	0	0	0	0	4.8%	5.3%
	0	0.2	0.4	0	49.1%	62.7%
	0	0.2	0.4	0.2	39.8%	51.4%
	0	0	0.4	0	47.0%	60.5%
	0	0.3	0.4	0.1	43.8%	56.4%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	20.6%	26.9%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	52.4%	66.2%
	0	0.4	0.8	0.4	40.7%	51.8%
	0	0	0.8	0	50.9%	64.8%
	0	0.3	0.5	0.1	26.2%	33.0%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	12.5%	14.8%
Cauchy	0	0	0	0	5.1%	5.0%
	0	0.4	0.8	0	31.7%	40.8%
	0	0.4	0.8	0.4	25.6%	32.5%
	0	0	0.8	0	30.7%	39.9%
	0	0.3	0.5	0.1	17.0%	21.4%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	9.7%	11.4%

Table D.88. t = 4, Pk = 3, p = 0.3, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	78.0%	76.2%
	0	0.4	0.8	0.4	65.4%	62.2%
	0	0	0.8	0	77.1%	75.8%
	0	0.3	0.5	0.1	40.2%	40.1%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	16.9%	16.3%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0	59.4%	56.9%
	0	0.2	0.4	0.2	47.9%	46.0%
	0	0	0.4	0	57.8%	55.8%
	0	0.3	0.4	0.1	53.1%	51.8%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	24.3%	24.1%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	61.5%	60.5%
	0	0.4	0.8	0.4	48.5%	47.8%
	0	0	0.8	0	60.6%	59.2%
	0	0.3	0.5	0.1	30.7%	30.0%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	13.9%	13.8%
Cauchy	0	0	0	0	5.0%	5.2%
	0	0.4	0.8	0	37.8%	37.0%
	0	0.4	0.8	0.4	30.2%	29.6%
	0	0	0.8	0	36.7%	36.3%
	0	0.3	0.5	0.1	20.1%	19.5%
	0.5	0.5	0	0.5	0.7%	0.8%
	0	0	0.4	0.5	10.8%	10.7%

Table D.89. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	55.7%	69.0%
	0	0.4	0.8	0.4	43.7%	55.0%
	0	0	0.8	0	54.6%	69.0%
	0	0.3	0.5	0.1	26.8%	34.6%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	12.7%	15.4%
Exponential	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0	39.1%	50.8%
	0	0.2	0.4	0.2	31.3%	40.1%
	0	0	0.4	0	36.6%	47.9%
	0	0.3	0.4	0.1	34.9%	44.8%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	16.1%	21.4%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	41.6%	53.5%
	0	0.4	0.8	0.4	32.3%	41.3%
	0	0	0.8	0	41.0%	52.4%
	0	0.3	0.5	0.1	21.1%	26.5%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	10.7%	12.5%
Cauchy	0	0	0	0	5.3%	5.2%
	0	0.4	0.8	0	24.9%	32.2%
	0	0.4	0.8	0.4	20.8%	25.5%
	0	0	0.8	0	26.3%	32.1%
	0	0.3	0.5	0.1	15.3%	17.6%
	0.5	0.5	0	0.5	1.3%	0.9%
	0	0	0.4	0.5	8.9%	9.8%

Table D.90. t = 4, Pk = 3, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0	62.3%	54.1%
	0	0.2	0.4	0.2	50.7%	42.4%
	0	0	0.5	0	79.2%	69.4%
	0	0.3	0.5	0.1	74.6%	64.5%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.9%	26.0%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.1	0.2	0	48.8%	40.7%
	0	0.2	0.4	0.2	84.0%	73.8%
	0	0	0.2	0	48.4%	41.2%
	0	0.3	0.4	0.1	88.0%	79.2%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	51.1%	42.4%
T with 3 df.	0	0	0	0	5.3%	4.9%
	0	0.2	0.4	0	48.4%	40.0%
	0	0.4	0.8	0.4	84.4%	75.1%
	0	0	0.4	0	47.8%	40.4%
	0	0.3	0.5	0.1	59.0%	50.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	23.9%	20.3%
Cauchy	0	0	0	0	5.4%	5.3%
	0	0.4	0.8	0	69.9%	60.4%
	0	0.4	0.8	0.4	57.7%	48.8%
	0	0	0.8	0	68.9%	59.3%
	0	0.3	0.5	0.1	36.5%	30.3%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	15.6%	14.0%

Table D.91. t = 4, Pk = 3, p = 0.3, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.9%
	0	0.4	0.8	0	78.1%	89.7%
	0	0.4	0.8	0.4	65.5%	78.2%
	0	0	0.8	0	76.8%	88.8%
	0	0.3	0.5	0.1	42.0%	52.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.3%	20.8%
Exponential	0	0	0	0	5.4%	5.3%
	0	0.2	0.4	0	60.3%	73.9%
	0	0.2	0.4	0.2	47.6%	60.2%
	0	0	0.4	0	56.9%	71.7%
	0	0.3	0.4	0.1	53.1%	66.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	26.2%	33.8%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.4	0.8	0	62.6%	75.5%
	0	0.4	0.8	0.4	50.6%	62.4%
	0	0	0.8	0	61.4%	75.3%
	0	0.3	0.5	0.1	30.9%	39.5%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.3%	16.7%
Cauchy	0	0	0	0	5.3%	5.2%
	0	0.4	0.8	0	38.5%	47.7%
	0	0.4	0.8	0.4	29.9%	37.6%
	0	0	0.8	0	38.0%	47.7%
	0	0.3	0.5	0.1	20.2%	23.9%
	0.5	0.5	0	0.5	0.8%	0.5%
	0	0	0.4	0.5	10.3%	11.7%

D.3.4. Probability of Missing = 0.4

Table D.92. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.4	0.8	0	79.0%	86.5%
	0	0.4	0.8	0.4	66.1%	76.0%
	0	0	0.8	0	79.1%	86.8%
	0	0.3	0.5	0.1	41.8%	48.8%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.3%	20.1%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0	61.2%	70.0%
	0	0.2	0.4	0.2	49.2%	57.5%
	0	0	0.4	0	59.3%	68.7%
	0	0.3	0.4	0.1	54.5%	63.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.0%	29.6%
T with 3 df.	0	0	0	0	5.3%	4.9%
	0	0.4	0.8	0	62.6%	72.3%
	0	0.4	0.8	0.4	51.4%	59.8%
	0	0	0.8	0	62.5%	72.3%
	0	0.3	0.5	0.1	32.4%	37.6%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	13.9%	15.3%
Cauchy	0	0	0	0	5.2%	4.9%
	0	0.4	0.8	0	38.9%	45.6%
	0	0.4	0.8	0.4	31.4%	36.7%
	0	0	0.8	0	38.5%	45.7%
	0	0.3	0.5	0.1	20.1%	23.2%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	9.6%	10.7%

Table D.93. t = 4, Pk = 3, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	5.2%
	0	0.4	0.8	0	78.4%	82.5%
	0	0.4	0.8	0.4	65.9%	69.9%
	0	0	0.8	0	78.7%	81.9%
	0	0.3	0.5	0.1	41.3%	44.6%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	17.3%	18.4%
Exponential	0	0	0	0	5.5%	5.2%
	0	0.2	0.4	0	59.8%	63.9%
	0	0.2	0.4	0.2	47.9%	51.7%
	0	0	0.4	0	57.3%	62.1%
	0	0.3	0.4	0.1	53.8%	57.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	24.7%	27.3%
T with 3 df.	0	0	0	0	5.1%	5.4%
	0	0.4	0.8	0	62.9%	67.4%
	0	0.4	0.8	0.4	49.5%	53.4%
	0	0	0.8	0	61.1%	65.7%
	0	0.3	0.5	0.1	31.7%	34.3%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	13.5%	14.9%
Cauchy	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	38.4%	42.0%
	0	0.4	0.8	0.4	30.1%	33.4%
	0	0	0.8	0	37.7%	40.3%
	0	0.3	0.5	0.1	19.7%	21.4%
	0.5	0.5	0	0.5	0.5%	0.5%
	0	0	0.4	0.5	10.7%	11.5%

Table D.94. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.3%
	0	0.4	0.8	0	67.5%	79.7%
	0	0.4	0.8	0.4	54.0%	66.1%
	0	0	0.8	0	66.5%	78.6%
	0	0.3	0.5	0.1	33.3%	42.0%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.4%	17.5%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0	48.6%	61.1%
	0	0.2	0.4	0.2	38.3%	48.5%
	0	0	0.4	0	45.4%	58.5%
	0	0.3	0.4	0.1	44.1%	55.3%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	19.0%	25.8%
T with 3 df.	0	0	0	0	5.2%	5.0%
	0	0.4	0.8	0	51.4%	64.0%
	0	0.4	0.8	0.4	40.1%	50.4%
	0	0	0.8	0	51.0%	62.3%
	0	0.3	0.5	0.1	25.5%	31.8%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	11.9%	13.9%
Cauchy	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	30.9%	39.7%
	0	0.4	0.8	0.4	25.4%	31.3%
	0	0	0.8	0	29.8%	37.7%
	0	0.3	0.5	0.1	16.6%	20.1%
	0.5	0.5	0	0.5	0.9%	0.7%
	0	0	0.4	0.5	9.1%	10.3%

Table D.95. t = 4, Pk = 3, p = 0.4, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.4%
	0	0.4	0.8	0	78.0%	74.5%
	0	0.4	0.8	0.4	65.0%	61.4%
	0	0	0.8	0	77.0%	73.2%
	0	0.3	0.5	0.1	40.8%	39.0%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.3%	16.1%
Exponential	0	0	0	0	4.9%	4.7%
	0	0.2	0.4	0	59.3%	55.9%
	0	0.2	0.4	0.2	46.9%	43.8%
	0	0	0.4	0	57.3%	53.8%
	0	0.3	0.4	0.1	52.5%	49.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	24.1%	24.3%
T with 3 df.	0	0	0	0	5.2%	5.0%
	0	0.4	0.8	0	62.3%	58.7%
	0	0.4	0.8	0.4	49.1%	46.4%
	0	0	0.8	0	61.0%	57.6%
	0	0.3	0.5	0.1	31.1%	29.3%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	13.5%	13.2%
Cauchy	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	38.2%	35.3%
	0	0.4	0.8	0.4	29.4%	29.3%
	0	0	0.8	0	37.1%	34.8%
	0	0.3	0.5	0.1	19.3%	19.0%
	0.5	0.5	0	0.5	0.7%	0.6%
	0	0	0.4	0.5	10.4%	10.7%

Table D.96. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	4.9%
	0	0.4	0.8	0	53.3%	66.1%
	0	0.4	0.8	0.4	41.9%	52.7%
	0	0	0.8	0	53.0%	65.4%
	0	0.3	0.5	0.1	26.6%	33.8%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	12.4%	14.8%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0	36.6%	47.0%
	0	0.2	0.4	0.2	29.4%	37.6%
	0	0	0.4	0	34.6%	45.2%
	0	0.3	0.4	0.1	32.7%	42.4%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	16.0%	19.6%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	41.0%	51.7%
	0	0.4	0.8	0.4	31.0%	39.6%
	0	0	0.8	0	39.0%	49.2%
	0	0.3	0.5	0.1	20.8%	25.5%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.4%	11.5%
Cauchy	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	24.2%	30.0%
	0	0.4	0.8	0.4	20.3%	24.6%
	0	0	0.8	0	24.1%	29.9%
	0	0.3	0.5	0.1	14.4%	17.1%
	0.5	0.5	0	0.5	1.3%	0.9%
	0	0	0.4	0.5	8.9%	9.1%

Table D.97. t = 4, Pk = 3, p = 0.4, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0	62.4%	52.6%
	0	0.2	0.4	0.2	50.1%	41.3%
	0	0	0.5	0	78.7%	67.6%
	0	0.3	0.5	0.1	75.2%	64.2%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.0%	24.6%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.1	0.2	0	49.5%	40.3%
	0	0.2	0.4	0.2	83.5%	72.6%
	0	0	0.2	0	46.8%	38.5%
	0	0.3	0.4	0.1	88.2%	78.2%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	50.5%	41.0%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0	48.5%	40.3%
	0	0.4	0.8	0.4	84.6%	74.9%
	0	0	0.4	0	47.7%	39.1%
	0	0.3	0.5	0.1	58.3%	49.2%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	23.1%	19.5%
Cauchy	0	0	0	0	4.8%	5.2%
	0	0.4	0.8	0	69.5%	59.0%
	0	0.4	0.8	0.4	57.4%	47.8%
	0	0	0.8	0	69.4%	58.7%
	0	0.3	0.5	0.1	36.0%	29.4%
	0.5	0.5	0	0.5	0.1%	0.3%
	0	0	0.4	0.5	15.5%	13.9%

Table D.98. t = 4, Pk = 3, p = 0.4, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	73.3%	86.5%
	0	0.4	0.8	0.4	60.9%	75.2%
	0	0	0.8	0	73.0%	85.7%
	0	0.3	0.5	0.1	38.5%	48.9%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	16.0%	19.6%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0	55.4%	69.2%
	0	0.2	0.4	0.2	45.0%	57.5%
	0	0	0.4	0	52.6%	67.2%
	0	0.3	0.4	0.1	49.7%	63.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	22.8%	29.7%
T with 3 df.	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	57.2%	71.4%
	0	0.4	0.8	0.4	46.5%	59.3%
	0	0	0.8	0	57.3%	71.5%
	0	0.3	0.5	0.1	29.2%	37.0%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.0%	15.9%
Cauchy	0	0	0	0	5.4%	5.0%
	0	0.4	0.8	0	35.6%	45.5%
	0	0.4	0.8	0.4	28.2%	35.7%
	0	0	0.8	0	34.7%	44.2%
	0	0.3	0.5	0.1	18.8%	22.5%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	10.2%	11.7%

D.3.5. Probability of Missing = 0.5

Table D.99. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	79.3%	85.6%
	0	0.4	0.8	0.4	66.1%	73.4%
	0	0	0.8	0	78.7%	85.2%
	0	0.3	0.5	0.1	42.1%	48.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.2%	19.2%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0	60.4%	67.2%
	0	0.2	0.4	0.2	48.0%	54.1%
	0	0	0.4	0	58.0%	66.1%
	0	0.3	0.4	0.1	56.0%	62.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	24.4%	29.3%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	63.8%	70.9%
	0	0.4	0.8	0.4	51.1%	58.6%
	0	0	0.8	0	62.9%	69.6%
	0	0.3	0.5	0.1	31.8%	36.8%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.0%	15.5%
Cauchy	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	38.0%	43.7%
	0	0.4	0.8	0.4	30.2%	35.0%
	0	0	0.8	0	38.0%	43.4%
	0	0.3	0.5	0.1	20.4%	22.9%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.9%	11.4%

Table D.100. t = 4, Pk = 3, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	78.9%	81.0%
	0	0.4	0.8	0.4	66.1%	68.1%
	0	0	0.8	0	77.9%	80.3%
	0	0.3	0.5	0.1	41.6%	43.0%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.1%	17.8%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.2	0.4	0	58.9%	61.8%
	0	0.2	0.4	0.2	47.5%	49.6%
	0	0	0.4	0	57.7%	60.5%
	0	0.3	0.4	0.1	53.6%	56.0%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	25.5%	27.1%
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.4	0.8	0	61.8%	64.5%
	0	0.4	0.8	0.4	49.5%	52.7%
	0	0	0.8	0	62.0%	64.2%
	0	0.3	0.5	0.1	31.1%	33.3%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	13.9%	14.8%
Cauchy	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	38.1%	40.2%
	0	0.4	0.8	0.4	30.3%	31.4%
	0	0	0.8	0	37.4%	39.4%
	0	0.3	0.5	0.1	19.3%	20.9%
	0.5	0.5	0	0.5	0.8%	0.6%
	0	0	0.4	0.5	10.3%	10.3%

Table D.101. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	65.5%	76.9%
	0	0.4	0.8	0.4	53.0%	64.0%
	0	0	0.8	0	65.3%	76.5%
	0	0.3	0.5	0.1	33.2%	40.2%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	14.2%	16.5%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	47.8%	58.2%
	0	0.2	0.4	0.2	38.1%	47.6%
	0	0	0.4	0	45.1%	56.5%
	0	0.3	0.4	0.1	43.0%	52.3%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	20.0%	24.9%
T with 3 df.	0	0	0	0	4.9%	4.6%
	0	0.4	0.8	0	50.1%	60.3%
	0	0.4	0.8	0.4	39.8%	49.5%
	0	0	0.8	0	50.2%	60.6%
	0	0.3	0.5	0.1	25.8%	31.5%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	11.7%	13.5%
Cauchy	0	0	0	0	4.7%	4.9%
	0	0.4	0.8	0	30.0%	37.3%
	0	0.4	0.8	0.4	24.3%	29.0%
	0	0	0.8	0	30.1%	37.0%
	0	0.3	0.5	0.1	16.9%	19.6%
	0.5	0.5	0	0.5	1.0%	0.7%
	0	0	0.4	0.5	9.8%	10.5%

Table D.102. t = 4, Pk = 3, p = 0.5, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	77.4%	73.9%
	0	0.4	0.8	0.4	64.2%	59.2%
	0	0	0.8	0	77.9%	72.3%
	0	0.3	0.5	0.1	40.5%	37.4%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	16.4%	15.7%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	59.8%	55.7%
	0	0.2	0.4	0.2	47.9%	44.9%
	0	0	0.4	0	56.9%	52.1%
	0	0.3	0.4	0.1	52.4%	49.0%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	24.3%	23.1%
T with 3 df.	0	0	0	0	5.4%	5.0%
	0	0.4	0.8	0	61.7%	57.1%
	0	0.4	0.8	0.4	49.0%	45.0%
	0	0	0.8	0	61.1%	56.3%
	0	0.3	0.5	0.1	30.7%	29.1%
	0.5	0.5	0	0.5	0.2%	0.3%
	0	0	0.4	0.5	14.2%	13.6%
Cauchy	0	0	0	0	5.1%	5.3%
	0	0.4	0.8	0	37.9%	35.3%
	0	0.4	0.8	0.4	30.5%	28.5%
	0	0	0.8	0	36.8%	34.3%
	0	0.3	0.5	0.1	19.9%	19.0%
	0.5	0.5	0	0.5	0.6%	0.8%
	0	0	0.4	0.5	10.5%	10.3%

Table D.103. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.2%
	0	0.4	0.8	0	51.9%	63.3%
	0	0.4	0.8	0.4	39.7%	49.8%
	0	0	0.8	0	50.1%	61.5%
	0	0.3	0.5	0.1	26.1%	31.8%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	11.6%	13.3%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0	35.6%	45.3%
	0	0.2	0.4	0.2	29.0%	36.5%
	0	0	0.4	0	33.2%	43.1%
	0	0.3	0.4	0.1	31.6%	39.9%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	15.0%	19.7%
T with 3 df.	0	0	0	0	5.4%	5.2%
	0	0.4	0.8	0	38.3%	47.7%
	0	0.4	0.8	0.4	30.1%	37.6%
	0	0	0.8	0	37.4%	46.9%
	0	0.3	0.5	0.1	20.3%	24.5%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	10.7%	11.8%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.4	0.8	0	23.9%	29.1%
	0	0.4	0.8	0.4	19.2%	23.1%
	0	0	0.8	0	23.9%	28.5%
	0	0.3	0.5	0.1	13.5%	15.7%
	0.5	0.5	0	0.5	1.6%	1.2%
	0	0	0.4	0.5	8.2%	9.2%

Table D.104. t = 4, Pk = 3, p = 0.5, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0	63.0%	51.8%
	0	0.2	0.4	0.2	49.8%	41.0%
	0	0	0.5	0	79.5%	67.9%
	0	0.3	0.5	0.1	74.7%	62.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	30.2%	25.2%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.1	0.2	0	48.4%	39.7%
	0	0.2	0.4	0.2	84.2%	71.8%
	0	0	0.2	0	47.9%	39.0%
	0	0.3	0.4	0.1	88.3%	77.3%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	50.5%	40.8%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0	48.4%	39.1%
	0	0.4	0.8	0.4	83.9%	72.2%
	0	0	0.4	0	48.2%	39.7%
	0	0.3	0.5	0.1	58.8%	47.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	23.8%	20.0%
Cauchy	0	0	0	0	4.9%	4.8%
	0	0.4	0.8	0	70.3%	58.6%
	0	0.4	0.8	0.4	56.5%	47.2%
	0	0	0.8	0	68.5%	56.9%
	0	0.3	0.5	0.1	35.6%	30.0%
	0.5	0.5	0	0.5	0.2%	0.2%
	0	0	0.4	0.5	15.7%	13.6%

Table D.105. t = 4, Pk = 3, p = 0.5, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	69.5%	83.0%
	0	0.4	0.8	0.4	55.7%	70.3%
	0	0	0.8	0	69.6%	83.1%
	0	0.3	0.5	0.1	35.8%	45.5%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	15.6%	18.8%
Exponential	0	0	0	0	5.7%	5.8%
	0	0.2	0.4	0	51.2%	65.7%
	0	0.2	0.4	0.2	41.6%	53.9%
	0	0	0.4	0	49.1%	63.4%
	0	0.3	0.4	0.1	45.9%	58.9%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	21.7%	29.0%
T with 3 df.	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	54.5%	68.6%
	0	0.4	0.8	0.4	43.9%	55.6%
	0	0	0.8	0	52.9%	66.6%
	0	0.3	0.5	0.1	27.6%	35.8%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	12.4%	14.9%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	32.9%	42.4%
	0	0.4	0.8	0.4	25.9%	33.6%
	0	0	0.8	0	33.4%	42.2%
	0	0.3	0.5	0.1	17.0%	21.6%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	10.0%	11.4%

D.4. Five Treatments – Peak at Two

D.4.1. Probability of Missing = 0.1

Table D.106. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	0	75.0%	89.0%
	0	0.8	0.4	0	0	84.4%	95.0%
	0	0.6	0.3	0.3	0	56.7%	71.3%
	0.4	0.8	0	0	0	65.0%	80.9%
	0.4	0.8	0.4	0	0	77.0%	89.6%
	0.4	0.8	0.4	0.4	0	67.4%	82.5%
	0.3	0.7	0.6	0.1	0	72.9%	86.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.2%	4.9%
	0	0.4	0	0	0	54.9%	72.4%
	0	0.4	0.2	0	0	66.3%	82.8%
	0	0.6	0.3	0.3	0	85.5%	95.5%
	0.2	0.4	0	0	0	46.2%	62.3%
	0.2	0.4	0.2	0	0	58.9%	74.7%
	0.2	0.4	0.2	0.2	0	49.8%	64.9%
	0.1	0.4	0.3	0.2	0	58.0%	75.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	0	59.4%	75.2%
	0	0.8	0.4	0	0	69.1%	84.3%
	0	0.6	0.3	0.3	0	41.7%	54.8%
	0.4	0.8	0	0	0	50.6%	65.0%
	0.4	0.8	0.4	0	0	60.7%	75.7%
	0.4	0.8	0.4	0.4	0	51.1%	66.3%
	0.3	0.7	0.6	0.1	0	56.5%	72.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.2%

(continues)

Table D.106. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD = 15 (continued)

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Cauchy	0	0	0	0	0	5.4%	5.2%
	0	1	0	0	0	47.6%	61.6%
	0	1	0.4	0	0	55.0%	70.4%
	0	1	0.3	0.3	0	48.4%	63.2%
	0.4	1	0	0	0	41.6%	54.6%
	0.4	1	0.4	0	0	50.3%	63.8%
	0.4	1	0.4	0.4	0	43.5%	56.2%
	0.3	1	0.6	0.1	0	52.4%	67.7%
	0.5	0	0.5	0.5	1	0.1%	0.0%
	0	0.4	0.6	0.8	1	1.0%	0.7%

Table D.107. t = 5, Pk = 2, p = 0.1, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0.8	0	0	0	73.9%	84.1%
	0	0.8	0.4	0	0	83.6%	91.5%
	0	0.6	0.3	0.3	0	55.0%	65.9%
	0.4	0.8	0	0	0	63.5%	74.3%
	0.4	0.8	0.4	0	0	75.3%	84.6%
	0.4	0.8	0.4	0.4	0	64.7%	75.9%
	0.3	0.7	0.6	0.1	0	70.9%	81.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.1%
Exponential	0	0	0	0	0	4.7%	5.1%
	0	0.4	0	0	0	54.2%	65.2%
	0	0.4	0.2	0	0	66.0%	76.6%
	0	0.6	0.3	0.3	0	83.5%	91.5%
	0.2	0.4	0	0	0	45.6%	56.2%
	0.2	0.4	0.2	0	0	58.2%	68.3%
	0.2	0.4	0.2	0.2	0	50.0%	59.6%
	0.1	0.4	0.3	0.2	0	57.6%	68.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%

(continues)

Table D.107. t = 5, Pk = 2, p = 0.1, IBD = 10, CRD = 15 (continued)

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	0	58.9%	68.7%
	0	0.8	0.4	0	0	68.8%	78.5%
	0	0.6	0.3	0.3	0	41.1%	49.3%
	0.4	0.8	0	0	0	48.2%	58.0%
	0.4	0.8	0.4	0	0	60.4%	70.8%
	0.4	0.8	0.4	0.4	0	50.5%	59.0%
	0.3	0.7	0.6	0.1	0	54.6%	64.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.4%	0.3%
Cauchy	0	0	0	0	0	5.2%	4.9%
	0	1	0	0	0	46.7%	56.3%
	0	1	0.4	0	0	54.2%	64.0%
	0	1	0.3	0.3	0	48.3%	57.5%
	0.4	1	0	0	0	40.5%	49.3%
	0.4	1	0.4	0	0	48.7%	57.4%
	0.4	1	0.4	0.4	0	42.6%	51.1%
	0.3	1	0.6	0.1	0	51.0%	60.6%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	1.1%	0.9%

Table D.108. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	64.9%	83.1%
	0	0.8	0.4	0	0	74.8%	90.8%
	0	0.6	0.3	0.3	0	45.4%	62.5%
	0.4	0.8	0	0	0	54.4%	73.3%
	0.4	0.8	0.4	0	0	65.5%	84.1%
	0.4	0.8	0.4	0.4	0	55.9%	74.8%
	0.3	0.7	0.6	0.1	0	61.1%	79.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.1%

(continues)

Table D.108. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD = 10 (continued)

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	44.1%	63.0%
	0	0.4	0.2	0	0	55.2%	74.7%
	0	0.6	0.3	0.3	0	73.9%	90.9%
	0.2	0.4	0	0	0	37.2%	53.8%
	0.2	0.4	0.2	0	0	48.6%	67.1%
	0.2	0.4	0.2	0.2	0	41.3%	57.2%
	0.3	0.7	0.6	0.1	0	87.1%	97.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	0	49.3%	66.9%
	0	0.8	0.4	0	0	57.7%	76.4%
	0	0.6	0.3	0.3	0	35.0%	48.7%
	0.4	0.8	0	0	0	41.7%	57.0%
	0.4	0.8	0.4	0	0	49.9%	67.8%
	0.4	0.8	0.4	0.4	0	41.8%	58.3%
	0.3	0.7	0.6	0.1	0	46.1%	63.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.7%	0.3%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	1	0	0	0	39.0%	53.8%
	0	1	0.4	0	0	44.7%	61.7%
	0	1	0.3	0.3	0	40.5%	55.6%
	0.4	1	0	0	0	34.1%	47.6%
	0.4	1	0.4	0	0	40.5%	56.5%
	0.4	1	0.4	0.4	0	34.8%	48.5%
	0.3	1	0.6	0.1	0	43.9%	60.0%
	0.5	0	0.5	0.5	1	0.3%	0.1%
	0	0.4	0.6	0.8	1	1.3%	0.8%

Table D.109. t = 5, Pk = 2, p = 0.1, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	0	72.7%	74.8%
	0	0.8	0.4	0	0	82.1%	84.5%
	0	0.6	0.3	0.3	0	52.0%	54.2%
	0.4	0.8	0	0	0	62.4%	65.0%
	0.4	0.8	0.4	0	0	74.0%	76.2%
	0.4	0.8	0.4	0.4	0	63.6%	66.0%
	0.3	0.7	0.6	0.1	0	68.8%	70.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0.4	0	0	0	52.9%	55.5%
	0	0.4	0.2	0	0	64.2%	66.5%
	0	0.6	0.3	0.3	0	82.8%	84.6%
	0.2	0.4	0	0	0	42.7%	45.7%
	0.2	0.4	0.2	0	0	56.4%	58.8%
	0.2	0.4	0.2	0.2	0	48.9%	50.8%
	0.1	0.4	0.3	0.2	0	57.2%	59.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	56.3%	58.5%
	0	0.8	0.4	0	0	66.2%	68.5%
	0	0.6	0.3	0.3	0	39.9%	41.6%
	0.4	0.8	0	0	0	48.2%	50.6%
	0.4	0.8	0.4	0	0	57.5%	59.8%
	0.4	0.8	0.4	0.4	0	49.0%	51.3%
	0.3	0.7	0.6	0.1	0	53.6%	56.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	1	0	0	0	44.6%	46.5%
	0	1	0.4	0	0	52.3%	54.8%
	0	1	0.3	0.3	0	47.1%	48.5%
	0.4	1	0	0	0	39.1%	41.5%
	0.4	1	0.4	0	0	46.9%	48.0%
	0.4	1	0.4	0.4	0	40.7%	43.2%
	0.3	1	0.6	0.1	0	50.4%	52.7%
	0.5	0	0.5	0.5	1	0.2%	0.2%

Table D.110. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	55.8%	70.7%
	0	0.8	0.4	0	0	64.8%	80.2%
	0	0.6	0.3	0.3	0	38.6%	50.2%
	0.4	0.8	0	0	0	46.5%	60.7%
	0.4	0.8	0.4	0	0	57.6%	72.1%
	0.4	0.8	0.4	0.4	0	48.5%	62.1%
	0.3	0.7	0.6	0.1	0	52.6%	67.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	0	37.2%	51.4%
	0	0.4	0.2	0	0	48.0%	63.0%
	0	0.6	0.3	0.3	0	66.4%	81.5%
	0.2	0.4	0	0	0	31.3%	42.5%
	0.2	0.4	0.2	0	0	41.3%	54.6%
	0.2	0.4	0.2	0.2	0	35.5%	46.5%
	0.3	0.7	0.6	0.1	0	79.7%	92.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	0	42.5%	54.9%
	0	0.8	0.4	0	0	50.6%	64.2%
	0	0.6	0.3	0.3	0	29.6%	38.7%
	0.4	0.8	0	0	0	34.9%	46.0%
	0.4	0.8	0.4	0	0	42.8%	55.5%
	0.4	0.8	0.4	0.4	0	36.9%	48.0%
	0.3	0.7	0.6	0.1	0	39.6%	51.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	1	0	0	0	33.1%	43.1%
	0	1	0.4	0	0	39.4%	51.3%
	0	1	0.3	0.3	0	35.3%	44.9%
	0.4	1	0	0	0	29.4%	38.7%
	0.4	1	0.4	0	0	35.4%	45.9%
	0.4	1	0.4	0.4	0	30.8%	39.9%
	0.3	1	0.6	0.1	0	36.9%	48.0%
	0.5	0	0.5	0.5	1	0.4%	0.2%

Table D.111. t = 5, Pk = 2, p = 0.1, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0.4	0	0	0	58.7%	51.6%
	0	0.4	0.2	0	0	67.9%	60.5%
	0	0.6	0.3	0.3	0	86.9%	81.2%
	0.2	0.4	0	0	0	48.5%	43.3%
	0.2	0.4	0.2	0	0	58.8%	52.3%
	0.2	0.4	0.2	0.2	0	48.3%	42.7%
	0.1	0.4	0.3	0.1	0	62.7%	56.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0.4	0	0	0	89.4%	82.8%
	0	0.2	0.1	0	0	53.5%	46.3%
	0	0.3	0.1	0.1	0	73.2%	65.4%
	0.2	0.4	0	0	0	81.6%	74.2%
	0.1	0.2	0.1	0	0	45.9%	39.9%
	0.2	0.4	0.2	0.2	0	83.6%	76.9%
	0.1	0.4	0.2	0.1	0	91.3%	85.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	0	44.7%	39.6%
	0	0.4	0.2	0	0	52.0%	45.7%
	0	0.6	0.3	0.3	0	73.5%	66.4%
	0.4	0.8	0	0	0	82.3%	76.4%
	0.2	0.4	0.2	0	0	45.4%	39.9%
	0.4	0.8	0.4	0.4	0	83.4%	77.1%
	0.3	0.7	0.6	0.1	0	88.3%	81.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.0%
	0	1	0	0	0	78.9%	72.2%
	0	1	0.4	0	0	87.3%	80.6%
	0	1	0.3	0.3	0	80.9%	74.8%
	0.4	1	0	0	0	72.1%	65.4%
	0.4	1	0.4	0	0	81.1%	74.9%
	0.4	1	0.4	0.4	0	74.1%	66.6%
	0.3	1	0.6	0.1	0	85.0%	78.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%

Table D.112. t = 5, Pk = 2, p = 0.1, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.7%
	0	0.8	0	0	0	82.8%	91.7%
	0	0.8	0.4	0	0	90.6%	96.5%
	0	0.6	0.3	0.3	0	62.6%	74.0%
	0.4	0.8	0	0	0	73.7%	84.2%
	0.4	0.8	0.4	0	0	84.0%	92.3%
	0.4	0.8	0.4	0.4	0	74.6%	85.4%
	0.3	0.7	0.6	0.1	0	79.3%	89.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	64.6%	77.0%
	0	0.4	0.2	0	0	75.1%	86.5%
	0	0.6	0.3	0.3	0	91.3%	96.8%
	0.2	0.4	0	0	0	54.7%	66.6%
	0.2	0.4	0.2	0	0	67.8%	79.4%
	0.2	0.4	0.2	0.2	0	58.3%	69.9%
	0.3	0.7	0.6	0.1	0	97.7%	99.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.4%
	0	0.8	0	0	0	68.0%	79.7%
	0	0.8	0.4	0	0	77.2%	87.8%
	0	0.6	0.3	0.3	0	48.9%	59.7%
	0.4	0.8	0	0	0	58.3%	69.4%
	0.4	0.8	0.4	0	0	67.2%	79.1%
	0.4	0.8	0.4	0.4	0	59.2%	70.7%
	0.3	0.7	0.6	0.1	0	64.0%	75.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	54.9%	66.2%
	0	1	0.4	0	0	62.8%	74.5%
	0	1	0.3	0.3	0	55.4%	66.7%
	0.4	1	0	0	0	48.3%	58.3%
	0.4	1	0.4	0	0	55.7%	67.3%
	0.4	1	0.4	0.4	0	49.9%	60.9%
	0.3	1	0.6	0.1	0	60.0%	71.3%
	0.5	0	0.5	0.5	1	0.1%	0.0%

D.4.2. Probability of Missing = 0.2

Table D.113. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	0	74.5%	87.1%
	0	0.8	0.4	0	0	83.8%	93.4%
	0	0.6	0.3	0.3	0	54.9%	68.2%
	0.4	0.8	0	0	0	65.3%	78.5%
	0.4	0.8	0.4	0	0	77.0%	88.3%
	0.4	0.8	0.4	0.4	0	66.9%	79.8%
	0.3	0.7	0.6	0.1	0	70.5%	83.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	0	54.4%	69.1%
	0	0.4	0.2	0	0	66.4%	80.4%
	0	0.6	0.3	0.3	0	84.3%	93.8%
	0.2	0.4	0	0	0	45.8%	59.1%
	0.2	0.4	0.2	0	0	58.1%	72.0%
	0.2	0.4	0.2	0.2	0	50.1%	63.2%
	0.1	0.4	0.3	0.2	0	58.4%	72.2%
T with 3 df.	0	0	0	0	0	4.8%	5.3%
	0	0.8	0	0	0	59.4%	72.3%
	0	0.8	0.4	0	0	68.6%	81.6%
	0	0.6	0.3	0.3	0	42.1%	53.8%
	0.4	0.8	0	0	0	50.7%	62.4%
	0.4	0.8	0.4	0	0	60.3%	74.4%
	0.4	0.8	0.4	0.4	0	50.9%	63.9%
	0.3	0.7	0.6	0.1	0	56.0%	69.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	46.9%	59.4%
	0	1	0.4	0	0	54.7%	68.0%
	0	1	0.3	0.3	0	48.3%	61.5%
	0.4	1	0	0	0	41.2%	52.2%
	0.4	1	0.4	0	0	48.6%	60.9%
	0.4	1	0.4	0.4	0	43.9%	54.1%
	0.3	1	0.6	0.1	0	51.7%	64.1%
	0.5	0	0.5	0.5	1	0.2%	0.1%

Table D.114. t = 5, Pk = 2, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	4.9%
	0	0.8	0	0	0	73.6%	81.7%
	0	0.8	0.4	0	0	83.2%	89.7%
	0	0.6	0.3	0.3	0	53.7%	61.6%
	0.4	0.8	0	0	0	63.6%	72.0%
	0.4	0.8	0.4	0	0	75.5%	82.6%
	0.4	0.8	0.4	0.4	0	65.0%	73.3%
	0.3	0.7	0.6	0.1	0	69.6%	78.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.1%
	0	0.4	0	0	0	52.5%	61.3%
	0	0.4	0.2	0	0	66.3%	74.8%
	0	0.6	0.3	0.3	0	83.3%	90.1%
	0.2	0.4	0	0	0	44.7%	52.7%
	0.2	0.4	0.2	0	0	57.3%	66.2%
	0.2	0.4	0.2	0.2	0	48.1%	56.4%
	0.1	0.4	0.3	0.2	0	58.2%	66.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.0%
	0	0.8	0	0	0	57.8%	66.1%
	0	0.8	0.4	0	0	67.7%	75.9%
	0	0.6	0.3	0.3	0	41.6%	47.9%
	0.4	0.8	0	0	0	48.8%	56.3%
	0.4	0.8	0.4	0	0	59.1%	67.1%
	0.4	0.8	0.4	0.4	0	49.2%	57.0%
	0.3	0.7	0.6	0.1	0	54.8%	62.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	1	0	0	0	46.2%	53.1%
	0	1	0.4	0	0	53.8%	61.8%
	0	1	0.3	0.3	0	47.4%	53.5%
	0.4	1	0	0	0	39.3%	45.6%
	0.4	1	0.4	0	0	48.1%	55.9%
	0.4	1	0.4	0.4	0	42.5%	49.3%
	0.3	1	0.6	0.1	0	50.0%	57.8%
	0.5	0	0.5	0.5	1	0.2%	0.1%

Table D.115. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	63.2%	79.8%
	0	0.8	0.4	0	0	73.4%	87.6%
	0	0.6	0.3	0.3	0	44.1%	59.5%
	0.4	0.8	0	0	0	53.4%	69.9%
	0.4	0.8	0.4	0	0	64.8%	81.4%
	0.4	0.8	0.4	0.4	0	54.0%	70.9%
	0.3	0.7	0.6	0.1	0	59.8%	77.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.2%
	0	0.4	0	0	0	44.2%	60.0%
	0	0.4	0.2	0	0	54.5%	71.7%
	0	0.6	0.3	0.3	0	73.6%	89.0%
	0.2	0.4	0	0	0	35.6%	50.8%
	0.2	0.4	0.2	0	0	47.3%	63.7%
	0.2	0.4	0.2	0.2	0	39.7%	53.8%
	0.3	0.7	0.6	0.1	0	85.7%	95.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	48.6%	64.5%
	0	0.8	0.4	0	0	57.4%	73.7%
	0	0.6	0.3	0.3	0	33.7%	45.1%
	0.4	0.8	0	0	0	39.7%	53.9%
	0.4	0.8	0.4	0	0	49.9%	65.7%
	0.4	0.8	0.4	0.4	0	41.7%	55.7%
	0.3	0.7	0.6	0.1	0	45.8%	60.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	1	0	0	0	38.8%	51.1%
	0	1	0.4	0	0	44.0%	59.2%
	0	1	0.3	0.3	0	38.7%	52.4%
	0.4	1	0	0	0	33.7%	44.8%
	0.4	1	0.4	0	0	39.1%	52.4%
	0.4	1	0.4	0.4	0	35.3%	47.1%
	0.3	1	0.6	0.1	0	42.4%	56.3%
	0.5	0	0.5	0.5	1	0.3%	0.1%

Table D.116. t = 5, Pk = 2, p = 0.2, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	72.5%	72.3%
	0	0.8	0.4	0	0	82.5%	82.4%
	0	0.6	0.3	0.3	0	53.0%	53.2%
	0.4	0.8	0	0	0	62.8%	63.1%
	0.4	0.8	0.4	0	0	73.4%	73.4%
	0.4	0.8	0.4	0.4	0	63.6%	64.1%
	0.3	0.7	0.6	0.1	0	69.1%	69.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0.4	0	0	0	53.2%	53.1%
	0	0.4	0.2	0	0	64.4%	64.8%
	0	0.6	0.3	0.3	0	83.0%	82.8%
	0.2	0.4	0	0	0	44.5%	44.5%
	0.2	0.4	0.2	0	0	56.8%	56.4%
	0.2	0.4	0.2	0.2	0	47.8%	47.9%
	0.1	0.4	0.3	0.2	0	56.9%	56.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	0	55.9%	56.2%
	0	0.8	0.4	0	0	65.3%	65.4%
	0	0.6	0.3	0.3	0	40.1%	41.2%
	0.4	0.8	0	0	0	48.1%	48.7%
	0.4	0.8	0.4	0	0	57.6%	57.6%
	0.4	0.8	0.4	0.4	0	48.9%	48.8%
	0.3	0.7	0.6	0.1	0	53.2%	53.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	1	0	0	0	45.8%	45.0%
	0	1	0.4	0	0	51.2%	52.4%
	0	1	0.3	0.3	0	46.0%	46.3%
	0.4	1	0	0	0	39.5%	40.0%
	0.4	1	0.4	0	0	46.9%	47.7%
	0.4	1	0.4	0.4	0	40.6%	41.8%
	0.3	1	0.6	0.1	0	49.9%	51.0%
	0.5	0	0.5	0.5	1	0.2%	0.2%

Table D.117. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.5%
	0	0.8	0	0	0	53.1%	67.2%
	0	0.8	0.4	0	0	62.6%	77.3%
	0	0.6	0.3	0.3	0	36.3%	47.1%
	0.4	0.8	0	0	0	44.8%	57.7%
	0.4	0.8	0.4	0	0	53.4%	68.0%
	0.4	0.8	0.4	0.4	0	45.7%	58.8%
	0.3	0.7	0.6	0.1	0	49.1%	63.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	35.8%	48.1%
	0	0.4	0.2	0	0	43.8%	58.7%
	0	0.6	0.3	0.3	0	61.3%	76.7%
	0.2	0.4	0	0	0	28.5%	39.3%
	0.2	0.4	0.2	0	0	39.0%	50.8%
	0.2	0.4	0.2	0.2	0	33.0%	43.3%
	0.3	0.7	0.6	0.1	0	76.8%	89.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	40.2%	52.8%
	0	0.8	0.4	0	0	48.2%	61.2%
	0	0.6	0.3	0.3	0	28.0%	36.4%
	0.4	0.8	0	0	0	34.2%	44.2%
	0.4	0.8	0.4	0	0	41.6%	53.0%
	0.4	0.8	0.4	0.4	0	34.2%	44.2%
	0.3	0.7	0.6	0.1	0	37.4%	49.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	0	0	0	32.0%	41.2%
	0	1	0.4	0	0	36.6%	47.3%
	0	1	0.3	0.3	0	33.7%	43.2%
	0.4	1	0	0	0	27.7%	35.4%
	0.4	1	0.4	0	0	32.8%	42.0%
	0.4	1	0.4	0.4	0	29.0%	36.7%
	0.3	1	0.6	0.1	0	34.8%	45.6%
	0.5	0	0.5	0.5	1	0.3%	0.1%

Table D.118. t = 5, Pk = 2, p = 0.2, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	58.5%	52.0%
	0	0.4	0.2	0	0	67.0%	59.2%
	0	0.6	0.3	0.3	0	87.4%	80.5%
	0.2	0.4	0	0	0	48.7%	42.2%
	0.2	0.4	0.2	0	0	58.2%	50.4%
	0.2	0.4	0.2	0.2	0	48.8%	43.0%
	0.1	0.4	0.3	0.1	0	63.4%	55.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.3%
	0	0.4	0	0	0	89.6%	81.8%
	0	0.2	0.1	0	0	54.2%	45.7%
	0	0.3	0.1	0.1	0	73.6%	64.9%
	0.2	0.4	0	0	0	80.9%	71.6%
	0.1	0.2	0.1	0	0	46.0%	39.3%
	0.2	0.4	0.2	0.2	0	83.1%	74.9%
	0.1	0.4	0.2	0.1	0	91.5%	84.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	5.0%
	0	0.4	0	0	0	44.3%	38.1%
	0	0.4	0.2	0	0	53.0%	45.8%
	0	0.6	0.3	0.3	0	73.0%	64.6%
	0.4	0.8	0	0	0	82.5%	74.7%
	0.2	0.4	0.2	0	0	44.1%	38.4%
	0.4	0.8	0.4	0.4	0	82.9%	75.4%
	0.3	0.7	0.6	0.1	0	88.5%	81.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	1	0	0	0	79.6%	71.3%
	0	1	0.4	0	0	87.2%	79.6%
	0	1	0.3	0.3	0	80.3%	72.0%
	0.4	1	0	0	0	71.3%	63.0%
	0.4	1	0.4	0	0	81.1%	73.4%
	0.4	1	0.4	0.4	0	74.6%	66.1%
	0.3	1	0.6	0.1	0	84.4%	77.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%

Table D.119. t = 5, Pk = 2, p = 0.2, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.4%
	0	0.8	0	0	0	78.8%	89.6%
	0	0.8	0.4	0	0	86.5%	94.6%
	0	0.6	0.3	0.3	0	58.2%	70.6%
	0.4	0.8	0	0	0	68.4%	80.8%
	0.4	0.8	0.4	0	0	78.5%	89.6%
	0.4	0.8	0.4	0.4	0	68.8%	80.9%
	0.3	0.7	0.6	0.1	0	74.3%	86.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.4	0	0	0	58.9%	72.5%
	0	0.4	0.2	0	0	70.0%	82.6%
	0	0.6	0.3	0.3	0	87.3%	95.4%
	0.2	0.4	0	0	0	48.8%	61.9%
	0.2	0.4	0.2	0	0	60.9%	74.3%
	0.2	0.4	0.2	0.2	0	52.4%	65.6%
	0.3	0.7	0.6	0.1	0	95.3%	98.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0.8	0	0	0	62.0%	75.5%
	0	0.8	0.4	0	0	71.6%	83.3%
	0	0.6	0.3	0.3	0	43.6%	54.8%
	0.4	0.8	0	0	0	51.9%	64.2%
	0.4	0.8	0.4	0	0	63.1%	76.0%
	0.4	0.8	0.4	0.4	0	54.5%	66.6%
	0.3	0.7	0.6	0.1	0	58.8%	71.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	1	0	0	0	49.3%	61.2%
	0	1	0.4	0	0	57.1%	69.7%
	0	1	0.3	0.3	0	51.0%	62.6%
	0.4	1	0	0	0	44.1%	54.3%
	0.4	1	0.4	0	0	51.5%	63.1%
	0.4	1	0.4	0.4	0	44.9%	56.1%
	0.3	1	0.6	0.1	0	54.5%	66.4%
	0.5	0	0.5	0.5	1	0.1%	0.1%

D.4.3. Probability of Missing = 0.3

Table D.120. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	0	74.2%	84.8%
	0	0.8	0.4	0	0	84.3%	92.3%
	0	0.6	0.3	0.3	0	54.2%	65.2%
	0.4	0.8	0	0	0	63.5%	75.2%
	0.4	0.8	0.4	0	0	75.4%	84.9%
	0.4	0.8	0.4	0.4	0	66.0%	76.9%
	0.3	0.7	0.6	0.1	0	70.6%	81.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	54.4%	65.5%
	0	0.4	0.2	0	0	65.8%	76.8%
	0	0.6	0.3	0.3	0	83.9%	91.9%
	0.2	0.4	0	0	0	45.5%	55.6%
	0.2	0.4	0.2	0	0	58.2%	69.3%
	0.2	0.4	0.2	0.2	0	49.2%	59.5%
	0.1	0.4	0.3	0.2	0	58.4%	69.8%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	58.6%	69.3%
	0	0.8	0.4	0	0	68.1%	78.7%
	0	0.6	0.3	0.3	0	41.5%	51.0%
	0.4	0.8	0	0	0	49.0%	59.0%
	0.4	0.8	0.4	0	0	59.8%	70.5%
	0.4	0.8	0.4	0.4	0	50.7%	61.4%
	0.3	0.7	0.6	0.1	0	55.8%	66.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	4.9%
	0	1	0	0	0	46.7%	55.5%
	0	1	0.4	0	0	53.7%	65.6%
	0	1	0.3	0.3	0	48.3%	58.1%
	0.4	1	0	0	0	40.1%	48.5%
	0.4	1	0.4	0	0	47.7%	58.3%
	0.4	1	0.4	0.4	0	42.5%	52.0%
	0.3	1	0.6	0.1	0	50.9%	61.8%
	0.5	0	0.5	0.5	1	0.1%	0.1%

Table D.121. t = 5, Pk = 2, p = 0.3, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.7%
	0	0.8	0	0	0	73.4%	79.7%
	0	0.8	0.4	0	0	82.8%	87.5%
	0	0.6	0.3	0.3	0	53.8%	60.0%
	0.4	0.8	0	0	0	62.7%	69.2%
	0.4	0.8	0.4	0	0	74.8%	80.4%
	0.4	0.8	0.4	0.4	0	64.2%	70.8%
	0.3	0.7	0.6	0.1	0	69.7%	76.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	53.4%	59.2%
	0	0.4	0.2	0	0	64.7%	71.4%
	0	0.6	0.3	0.3	0	82.4%	87.6%
	0.2	0.4	0	0	0	44.2%	50.3%
	0.2	0.4	0.2	0	0	56.7%	62.8%
	0.2	0.4	0.2	0.2	0	49.1%	54.5%
	0.1	0.4	0.3	0.2	0	56.3%	62.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	56.4%	62.5%
	0	0.8	0.4	0	0	67.2%	73.5%
	0	0.6	0.3	0.3	0	41.1%	46.0%
	0.4	0.8	0	0	0	48.6%	54.8%
	0.4	0.8	0.4	0	0	59.1%	64.7%
	0.4	0.8	0.4	0.4	0	50.1%	55.5%
	0.3	0.7	0.6	0.1	0	54.3%	60.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.5%
	0	1	0	0	0	45.7%	51.0%
	0	1	0.4	0	0	53.3%	58.6%
	0	1	0.3	0.3	0	46.4%	52.2%
	0.4	1	0	0	0	39.9%	44.7%
	0.4	1	0.4	0	0	47.6%	52.8%
	0.4	1	0.4	0.4	0	42.8%	47.1%
	0.3	1	0.6	0.1	0	51.2%	57.5%
	0.5	0	0.5	0.5	1	0.1%	0.1%

Table D.122. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	0	62.8%	77.0%
	0	0.8	0.4	0	0	71.8%	85.5%
	0	0.6	0.3	0.3	0	43.7%	56.6%
	0.4	0.8	0	0	0	52.0%	66.1%
	0.4	0.8	0.4	0	0	62.3%	78.1%
	0.4	0.8	0.4	0.4	0	53.3%	68.6%
	0.3	0.7	0.6	0.1	0	58.6%	73.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0.4	0	0	0	42.1%	55.9%
	0	0.4	0.2	0	0	53.1%	68.3%
	0	0.6	0.3	0.3	0	72.4%	86.4%
	0.2	0.4	0	0	0	35.8%	48.0%
	0.2	0.4	0.2	0	0	46.0%	60.1%
	0.2	0.4	0.2	0.2	0	39.3%	52.3%
	0.3	0.7	0.6	0.1	0	85.7%	95.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	0	46.9%	61.8%
	0	0.8	0.4	0	0	56.6%	70.7%
	0	0.6	0.3	0.3	0	32.5%	43.3%
	0.4	0.8	0	0	0	39.2%	51.0%
	0.4	0.8	0.4	0	0	49.6%	62.3%
	0.4	0.8	0.4	0.4	0	41.2%	52.8%
	0.3	0.7	0.6	0.1	0	44.5%	57.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.3%
	0	1	0	0	0	37.4%	48.5%
	0	1	0.4	0	0	42.6%	55.1%
	0	1	0.3	0.3	0	38.5%	50.4%
	0.4	1	0	0	0	32.2%	42.6%
	0.4	1	0.4	0	0	39.0%	50.3%
	0.4	1	0.4	0.4	0	34.3%	44.4%
	0.3	1	0.6	0.1	0	41.8%	53.6%
	0.5	0	0.5	0.5	1	0.3%	0.1%

Table D.123. t = 5, Pk = 2, p = 0.3, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0.8	0	0	0	73.0%	70.4%
	0	0.8	0.4	0	0	81.9%	80.0%
	0	0.6	0.3	0.3	0	52.9%	51.2%
	0.4	0.8	0	0	0	61.8%	60.0%
	0.4	0.8	0.4	0	0	73.5%	72.1%
	0.4	0.8	0.4	0.4	0	64.2%	62.4%
	0.3	0.7	0.6	0.1	0	69.2%	67.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0.4	0	0	0	53.3%	51.3%
	0	0.4	0.2	0	0	64.3%	62.7%
	0	0.6	0.3	0.3	0	82.3%	80.9%
	0.2	0.4	0	0	0	43.2%	42.3%
	0.2	0.4	0.2	0	0	56.4%	54.8%
	0.2	0.4	0.2	0.2	0	47.8%	46.2%
	0.1	0.4	0.3	0.2	0	56.5%	54.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.9%
	0	0.8	0	0	0	56.5%	54.1%
	0	0.8	0.4	0	0	66.4%	64.9%
	0	0.6	0.3	0.3	0	39.1%	38.1%
	0.4	0.8	0	0	0	47.2%	46.2%
	0.4	0.8	0.4	0	0	57.2%	55.8%
	0.4	0.8	0.4	0.4	0	48.2%	47.8%
	0.3	0.7	0.6	0.1	0	52.2%	51.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.4%
	0	1	0	0	0	45.5%	45.0%
	0	1	0.4	0	0	52.7%	50.9%
	0	1	0.3	0.3	0	46.8%	44.7%
	0.4	1	0	0	0	39.6%	38.9%
	0.4	1	0.4	0	0	47.3%	45.5%
	0.4	1	0.4	0.4	0	40.6%	39.1%
	0.3	1	0.6	0.1	0	48.9%	48.5%
	0.5	0	0.5	0.5	1	0.2%	0.2%

Table D.124. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	0	50.3%	63.6%
	0	0.8	0.4	0	0	59.5%	73.9%
	0	0.6	0.3	0.3	0	34.5%	45.6%
	0.4	0.8	0	0	0	41.6%	53.8%
	0.4	0.8	0.4	0	0	50.8%	64.3%
	0.4	0.8	0.4	0.4	0	42.9%	54.5%
	0.3	0.7	0.6	0.1	0	46.4%	59.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.6%	5.2%
	0	0.4	0	0	0	32.1%	43.8%
	0	0.4	0.2	0	0	42.4%	55.1%
	0	0.6	0.3	0.3	0	58.7%	72.6%
	0.2	0.4	0	0	0	27.1%	36.3%
	0.2	0.4	0.2	0	0	36.2%	47.7%
	0.2	0.4	0.2	0.2	0	31.2%	40.6%
	0.3	0.7	0.6	0.1	0	73.0%	86.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	0	38.2%	49.6%
	0	0.8	0.4	0	0	44.6%	56.5%
	0	0.6	0.3	0.3	0	27.5%	34.3%
	0.4	0.8	0	0	0	31.0%	40.4%
	0.4	0.8	0.4	0	0	38.0%	49.4%
	0.4	0.8	0.4	0.4	0	32.9%	42.0%
	0.3	0.7	0.6	0.1	0	35.3%	45.9%
	0.5	0	0.5	0.5	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	1	0	0	0	29.9%	38.5%
	0	1	0.4	0	0	33.9%	44.0%
	0	1	0.3	0.3	0	30.8%	40.2%
	0.4	1	0	0	0	26.8%	33.9%
	0.4	1	0.4	0	0	30.6%	39.1%
	0.4	1	0.4	0.4	0	26.8%	33.9%
	0.3	1	0.6	0.1	0	33.1%	42.1%
	0.5	0	0.5	0.5	1	0.4%	0.2%

Table D.125. t = 5, Pk = 2, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	0	58.5%	49.6%
	0	0.4	0.2	0	0	66.8%	57.7%
	0	0.6	0.3	0.3	0	87.3%	78.7%
	0.2	0.4	0	0	0	49.4%	40.7%
	0.2	0.4	0.2	0	0	59.3%	50.5%
	0.2	0.4	0.2	0.2	0	48.8%	41.6%
	0.1	0.4	0.3	0.1	0	63.4%	54.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.5%	4.4%
	0	0.4	0	0	0	89.8%	80.1%
	0	0.2	0.1	0	0	53.6%	44.3%
	0	0.3	0.1	0.1	0	72.9%	64.0%
	0.2	0.4	0	0	0	81.7%	70.4%
	0.1	0.2	0.1	0	0	45.2%	38.5%
	0.2	0.4	0.2	0.2	0	82.5%	73.3%
	0.1	0.4	0.2	0.1	0	90.7%	82.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.4	0	0	0	44.0%	37.8%
	0	0.4	0.2	0	0	51.9%	43.4%
	0	0.6	0.3	0.3	0	72.8%	62.7%
	0.4	0.8	0	0	0	82.9%	73.4%
	0.2	0.4	0.2	0	0	43.8%	37.0%
	0.4	0.8	0.4	0.4	0	83.5%	73.9%
	0.3	0.7	0.6	0.1	0	87.7%	79.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	0	0	0	79.2%	70.4%
	0	1	0.4	0	0	86.9%	78.8%
	0	1	0.3	0.3	0	81.4%	72.3%
	0.4	1	0	0	0	72.5%	62.7%
	0.4	1	0.4	0	0	81.6%	72.4%
	0.4	1	0.4	0.4	0	74.5%	64.8%
	0.3	1	0.6	0.1	0	84.4%	75.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%

Table D.126. t = 5, Pk = 2, p = 0.3, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.7%	5.5%
	0	0.8	0	0	0	72.3%	84.9%
	0	0.8	0.4	0	0	81.9%	92.3%
	0	0.6	0.3	0.3	0	52.3%	65.7%
	0.4	0.8	0	0	0	62.8%	76.2%
	0.4	0.8	0.4	0	0	73.8%	86.4%
	0.4	0.8	0.4	0.4	0	63.1%	76.8%
	0.3	0.7	0.6	0.1	0	70.0%	82.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	0	51.5%	66.1%
	0	0.4	0.2	0	0	64.1%	78.2%
	0	0.6	0.3	0.3	0	81.8%	92.4%
	0.2	0.4	0	0	0	43.6%	57.2%
	0.2	0.4	0.2	0	0	55.8%	69.4%
	0.2	0.4	0.2	0.2	0	47.3%	60.7%
	0.3	0.7	0.6	0.1	0	92.6%	98.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.9%
	0	0.8	0	0	0	57.6%	70.7%
	0	0.8	0.4	0	0	66.1%	79.9%
	0	0.6	0.3	0.3	0	39.2%	50.1%
	0.4	0.8	0	0	0	46.9%	59.7%
	0.4	0.8	0.4	0	0	57.8%	71.1%
	0.4	0.8	0.4	0.4	0	48.7%	61.6%
	0.3	0.7	0.6	0.1	0	53.0%	67.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	1	0	0	0	45.8%	57.3%
	0	1	0.4	0	0	52.4%	65.9%
	0	1	0.3	0.3	0	45.7%	58.2%
	0.4	1	0	0	0	39.4%	50.3%
	0.4	1	0.4	0	0	46.6%	59.1%
	0.4	1	0.4	0.4	0	41.2%	52.6%
	0.3	1	0.6	0.1	0	49.8%	62.8%
	0.5	0	0.5	0.5	1	0.1%	0.0%

D.4.4. Probability of Missing = 0.4

Table D.127. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.7%
	0	0.8	0	0	0	74.0%	82.5%
	0	0.8	0.4	0	0	83.9%	90.5%
	0	0.6	0.3	0.3	0	54.8%	62.7%
	0.4	0.8	0	0	0	62.9%	72.1%
	0.4	0.8	0.4	0	0	75.0%	83.3%
	0.4	0.8	0.4	0.4	0	65.4%	74.4%
	0.3	0.7	0.6	0.1	0	69.7%	79.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.4	0	0	0	54.1%	63.3%
	0	0.4	0.2	0	0	66.1%	74.3%
	0	0.6	0.3	0.3	0	83.7%	90.0%
	0.2	0.4	0	0	0	45.2%	53.4%
	0.2	0.4	0.2	0	0	57.7%	66.0%
	0.2	0.4	0.2	0.2	0	49.0%	57.6%
	0.1	0.4	0.3	0.2	0	59.1%	67.4%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	58.7%	66.9%
	0	0.8	0.4	0	0	67.2%	76.7%
	0	0.6	0.3	0.3	0	41.3%	48.1%
	0.4	0.8	0	0	0	48.8%	56.9%
	0.4	0.8	0.4	0	0	59.3%	67.7%
	0.4	0.8	0.4	0.4	0	50.0%	58.3%
	0.3	0.7	0.6	0.1	0	54.4%	63.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	1	0	0	0	46.8%	54.2%
	0	1	0.4	0	0	52.6%	61.7%
	0	1	0.3	0.3	0	47.1%	55.9%
	0.4	1	0	0	0	40.7%	48.1%
	0.4	1	0.4	0	0	47.7%	55.8%
	0.4	1	0.4	0.4	0	42.0%	48.7%
	0.3	1	0.6	0.1	0	50.6%	59.4%
	0.5	0	0.5	0.5	1	0.1%	0.1%

Table D.128. t = 5, Pk = 2, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.8%
	0	0.8	0	0	0	72.8%	76.3%
	0	0.8	0.4	0	0	82.1%	85.6%
	0	0.6	0.3	0.3	0	53.6%	56.7%
	0.4	0.8	0	0	0	62.7%	65.7%
	0.4	0.8	0.4	0	0	75.0%	78.4%
	0.4	0.8	0.4	0.4	0	64.6%	68.5%
	0.3	0.7	0.6	0.1	0	69.2%	73.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0.4	0	0	0	53.1%	57.8%
	0	0.4	0.2	0	0	64.9%	69.1%
	0	0.6	0.3	0.3	0	83.1%	85.7%
	0.2	0.4	0	0	0	43.1%	47.5%
	0.2	0.4	0.2	0	0	56.3%	61.3%
	0.2	0.4	0.2	0.2	0	47.4%	51.8%
	0.1	0.4	0.3	0.2	0	57.7%	60.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	0	57.1%	61.6%
	0	0.8	0.4	0	0	67.5%	71.3%
	0	0.6	0.3	0.3	0	39.7%	42.7%
	0.4	0.8	0	0	0	48.1%	51.0%
	0.4	0.8	0.4	0	0	58.7%	62.2%
	0.4	0.8	0.4	0.4	0	49.7%	52.9%
	0.3	0.7	0.6	0.1	0	54.5%	58.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.4%
	0	1	0	0	0	46.0%	49.1%
	0	1	0.4	0	0	52.8%	56.0%
	0	1	0.3	0.3	0	46.7%	49.5%
	0.4	1	0	0	0	40.0%	42.9%
	0.4	1	0.4	0	0	47.2%	50.7%
	0.4	1	0.4	0.4	0	41.4%	44.6%
	0.3	1	0.6	0.1	0	50.4%	53.9%
	0.5	0	0.5	0.5	1	0.2%	0.1%

Table D.129. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	60.9%	73.4%
	0	0.8	0.4	0	0	70.1%	82.6%
	0	0.6	0.3	0.3	0	42.5%	52.9%
	0.4	0.8	0	0	0	51.2%	63.0%
	0.4	0.8	0.4	0	0	61.7%	74.8%
	0.4	0.8	0.4	0.4	0	52.0%	64.3%
	0.3	0.7	0.6	0.1	0	57.9%	70.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	0	40.9%	53.7%
	0	0.4	0.2	0	0	52.2%	64.9%
	0	0.6	0.3	0.3	0	71.6%	83.7%
	0.2	0.4	0	0	0	35.3%	45.3%
	0.2	0.4	0.2	0	0	45.3%	57.6%
	0.2	0.4	0.2	0.2	0	38.1%	48.1%
	0.3	0.7	0.6	0.1	0	84.5%	93.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	0	46.5%	58.8%
	0	0.8	0.4	0	0	54.4%	66.8%
	0	0.6	0.3	0.3	0	33.0%	41.3%
	0.4	0.8	0	0	0	39.5%	49.0%
	0.4	0.8	0.4	0	0	46.8%	58.3%
	0.4	0.8	0.4	0.4	0	40.1%	50.7%
	0.3	0.7	0.6	0.1	0	42.9%	53.7%
	0.5	0	0.5	0.5	1	0.1%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	1	0	0	0	37.4%	46.1%
	0	1	0.4	0	0	43.7%	54.0%
	0	1	0.3	0.3	0	36.9%	46.8%
	0.4	1	0	0	0	32.1%	40.5%
	0.4	1	0.4	0	0	37.3%	46.9%
	0.4	1	0.4	0.4	0	33.4%	41.8%
	0.3	1	0.6	0.1	0	41.6%	51.2%
	0.5	0	0.5	0.5	1	0.2%	0.2%

Table D.130. t = 5, Pk = 2, p = 0.4, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	0	72.5%	69.5%
	0	0.8	0.4	0	0	81.6%	78.1%
	0	0.6	0.3	0.3	0	52.6%	50.1%
	0.4	0.8	0	0	0	62.1%	58.6%
	0.4	0.8	0.4	0	0	73.6%	70.5%
	0.4	0.8	0.4	0.4	0	63.5%	60.6%
	0.3	0.7	0.6	0.1	0	68.5%	65.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	0	51.8%	49.3%
	0	0.4	0.2	0	0	64.3%	60.2%
	0	0.6	0.3	0.3	0	82.6%	78.0%
	0.2	0.4	0	0	0	42.8%	40.1%
	0.2	0.4	0.2	0	0	55.6%	52.8%
	0.2	0.4	0.2	0.2	0	47.4%	44.4%
	0.1	0.4	0.3	0.2	0	56.2%	53.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	55.4%	52.4%
	0	0.8	0.4	0	0	66.3%	63.1%
	0	0.6	0.3	0.3	0	39.9%	38.0%
	0.4	0.8	0	0	0	48.1%	44.6%
	0.4	0.8	0.4	0	0	56.8%	53.4%
	0.4	0.8	0.4	0.4	0	48.6%	45.8%
	0.3	0.7	0.6	0.1	0	53.2%	50.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	1	0	0	0	44.9%	41.9%
	0	1	0.4	0	0	51.7%	49.9%
	0	1	0.3	0.3	0	46.4%	43.5%
	0.4	1	0	0	0	39.1%	36.6%
	0.4	1	0.4	0	0	46.8%	43.9%
	0.4	1	0.4	0.4	0	41.2%	38.8%
	0.3	1	0.6	0.1	0	50.3%	47.5%
	0.5	0	0.5	0.5	1	0.1%	0.1%

Table D.131. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	48.2%	60.6%
	0	0.8	0.4	0	0	56.5%	69.7%
	0	0.6	0.3	0.3	0	33.5%	43.4%
	0.4	0.8	0	0	0	39.8%	50.2%
	0.4	0.8	0.4	0	0	48.9%	61.0%
	0.4	0.8	0.4	0.4	0	40.5%	50.9%
	0.3	0.7	0.6	0.1	0	44.1%	56.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.3%
	0	0.4	0	0	0	30.2%	40.1%
	0	0.4	0.2	0	0	39.2%	50.7%
	0	0.6	0.3	0.3	0	56.5%	70.2%
	0.2	0.4	0	0	0	25.9%	34.7%
	0.2	0.4	0.2	0	0	34.0%	43.9%
	0.2	0.4	0.2	0.2	0	30.1%	39.0%
	0.3	0.7	0.6	0.1	0	69.8%	83.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	4.7%
	0	0.8	0	0	0	35.1%	44.7%
	0	0.8	0.4	0	0	43.2%	54.6%
	0	0.6	0.3	0.3	0	25.6%	32.3%
	0.4	0.8	0	0	0	29.7%	37.7%
	0.4	0.8	0.4	0	0	36.4%	46.7%
	0.4	0.8	0.4	0.4	0	30.3%	37.9%
	0.3	0.7	0.6	0.1	0	33.7%	42.8%
	0.5	0	0.5	0.5	1	0.1%	0.1%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	1	0	0	0	28.8%	35.8%
	0	1	0.4	0	0	33.7%	42.4%
	0	1	0.3	0.3	0	30.1%	38.0%
	0.4	1	0	0	0	23.9%	30.9%
	0.4	1	0.4	0	0	29.2%	36.8%
	0.4	1	0.4	0.4	0	25.9%	33.2%
	0.3	1	0.6	0.1	0	32.0%	40.0%
	0.5	0	0.5	0.5	1	0.5%	0.3%

Table D.132. t = 5, Pk = 2, p = 0.4, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.4	0	0	0	57.8%	48.0%
	0	0.4	0.2	0	0	67.9%	57.2%
	0	0.6	0.3	0.3	0	87.3%	77.7%
	0.2	0.4	0	0	0	48.9%	40.6%
	0.2	0.4	0.2	0	0	58.6%	48.5%
	0.2	0.4	0.2	0.2	0	50.2%	40.8%
	0.1	0.4	0.3	0.1	0	63.5%	52.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.4%
	0	0.4	0	0	0	89.5%	79.1%
	0	0.2	0.1	0	0	53.3%	43.1%
	0	0.3	0.1	0.1	0	73.5%	61.5%
	0.2	0.4	0	0	0	81.3%	68.7%
	0.1	0.2	0.1	0	0	45.6%	37.2%
	0.2	0.4	0.2	0.2	0	83.1%	72.1%
	0.1	0.4	0.2	0.1	0	91.3%	82.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.8%
	0	0.4	0	0	0	44.7%	37.1%
	0	0.4	0.2	0	0	51.9%	43.1%
	0	0.6	0.3	0.3	0	73.2%	62.7%
	0.4	0.8	0	0	0	82.2%	72.1%
	0.2	0.4	0.2	0	0	44.7%	37.7%
	0.4	0.8	0.4	0.4	0	83.4%	73.0%
	0.3	0.7	0.6	0.1	0	88.2%	77.8%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.6%
	0	1	0	0	0	79.3%	67.9%
	0	1	0.4	0	0	86.9%	76.7%
	0	1	0.3	0.3	0	81.0%	70.3%
	0.4	1	0	0	0	71.9%	61.6%
	0.4	1	0.4	0	0	81.1%	70.2%
	0.4	1	0.4	0.4	0	73.6%	63.0%
	0.3	1	0.6	0.1	0	84.7%	75.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%

Table D.133. t = 5, Pk = 2, p = 0.4, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.0%
	0	0.8	0	0	0	66.8%	81.2%
	0	0.8	0.4	0	0	76.5%	89.5%
	0	0.6	0.3	0.3	0	48.4%	61.9%
	0.4	0.8	0	0	0	56.9%	71.6%
	0.4	0.8	0.4	0	0	68.3%	82.5%
	0.4	0.8	0.4	0.4	0	57.6%	72.6%
	0.3	0.7	0.6	0.1	0	63.4%	77.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	47.0%	62.1%
	0	0.4	0.2	0	0	58.5%	73.4%
	0	0.6	0.3	0.3	0	76.3%	88.9%
	0.2	0.4	0	0	0	38.9%	51.9%
	0.2	0.4	0.2	0	0	50.1%	64.3%
	0.2	0.4	0.2	0.2	0	43.3%	55.8%
	0.3	0.7	0.6	0.1	0	89.1%	96.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	52.4%	66.2%
	0	0.8	0.4	0	0	62.6%	77.2%
	0	0.6	0.3	0.3	0	37.1%	47.6%
	0.4	0.8	0	0	0	43.4%	55.7%
	0.4	0.8	0.4	0	0	53.0%	67.4%
	0.4	0.8	0.4	0.4	0	44.5%	57.7%
	0.3	0.7	0.6	0.1	0	48.2%	62.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.3%
	0	1	0	0	0	41.7%	53.8%
	0	1	0.4	0	0	47.4%	61.1%
	0	1	0.3	0.3	0	42.5%	55.3%
	0.4	1	0	0	0	35.4%	46.2%
	0.4	1	0.4	0	0	43.0%	54.9%
	0.4	1	0.4	0.4	0	37.8%	48.9%
	0.3	1	0.6	0.1	0	45.1%	58.1%
	0.5	0	0.5	0.5	1	0.2%	0.1%

D.4.5. Probability of Missing = 0.5

Table D.134. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.2%
	0	0.8	0	0	0	73.7%	80.0%
	0	0.8	0.4	0	0	83.6%	88.5%
	0	0.6	0.3	0.3	0	54.1%	59.9%
	0.4	0.8	0	0	0	62.6%	69.9%
	0.4	0.8	0.4	0	0	74.6%	80.1%
	0.4	0.8	0.4	0.4	0	64.2%	71.1%
	0.3	0.7	0.6	0.1	0	69.6%	76.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.8%
	0	0.4	0	0	0	53.3%	60.7%
	0	0.4	0.2	0	0	64.8%	71.1%
	0	0.6	0.3	0.3	0	84.4%	88.7%
	0.2	0.4	0	0	0	44.2%	50.5%
	0.2	0.4	0.2	0	0	57.2%	64.2%
	0.2	0.4	0.2	0.2	0	47.7%	54.0%
	0.1	0.4	0.3	0.2	0	58.4%	64.5%
T with 3 df.	0	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	0	57.3%	63.7%
	0	0.8	0.4	0	0	67.6%	74.5%
	0	0.6	0.3	0.3	0	41.0%	46.1%
	0.4	0.8	0	0	0	48.3%	54.1%
	0.4	0.8	0.4	0	0	59.2%	66.1%
	0.4	0.8	0.4	0.4	0	50.2%	56.8%
	0.3	0.7	0.6	0.1	0	53.8%	60.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	0	0	0	45.3%	51.7%
	0	1	0.4	0	0	54.0%	59.9%
	0	1	0.3	0.3	0	46.1%	52.2%
	0.4	1	0	0	0	39.9%	45.8%
	0.4	1	0.4	0	0	48.0%	53.9%
	0.4	1	0.4	0.4	0	42.3%	47.0%
	0.3	1	0.6	0.1	0	50.1%	56.7%
	0.5	0	0.5	0.5	1	0.1%	0.1%

Table D.135. t = 5, Pk = 2, p = 0.5, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	72.8%	75.3%
	0	0.8	0.4	0	0	82.2%	83.7%
	0	0.6	0.3	0.3	0	53.4%	55.3%
	0.4	0.8	0	0	0	62.7%	64.7%
	0.4	0.8	0.4	0	0	73.7%	76.6%
	0.4	0.8	0.4	0.4	0	63.4%	65.8%
	0.3	0.7	0.6	0.1	0	70.2%	71.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0.4	0	0	0	52.2%	55.0%
	0	0.4	0.2	0	0	64.8%	66.6%
	0	0.6	0.3	0.3	0	83.2%	84.1%
	0.2	0.4	0	0	0	43.1%	45.6%
	0.2	0.4	0.2	0	0	55.8%	58.8%
	0.2	0.4	0.2	0.2	0	48.5%	49.8%
	0.1	0.4	0.3	0.2	0	56.8%	59.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0.8	0	0	0	56.2%	58.8%
	0	0.8	0.4	0	0	67.1%	68.4%
	0	0.6	0.3	0.3	0	39.9%	41.5%
	0.4	0.8	0	0	0	47.8%	49.2%
	0.4	0.8	0.4	0	0	58.1%	60.7%
	0.4	0.8	0.4	0.4	0	48.1%	50.9%
	0.3	0.7	0.6	0.1	0	53.8%	56.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.2%
	0	1	0	0	0	45.2%	46.5%
	0	1	0.4	0	0	52.4%	54.1%
	0	1	0.3	0.3	0	47.1%	48.2%
	0.4	1	0	0	0	40.2%	42.6%
	0.4	1	0.4	0	0	46.4%	48.3%
	0.4	1	0.4	0.4	0	41.0%	43.0%
	0.3	1	0.6	0.1	0	49.9%	52.1%
	0.5	0	0.5	0.5	1	0.1%	0.2%

Table D.136. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	0	60.2%	71.1%
	0	0.8	0.4	0	0	69.8%	80.0%
	0	0.6	0.3	0.3	0	42.1%	50.7%
	0.4	0.8	0	0	0	50.9%	60.8%
	0.4	0.8	0.4	0	0	61.4%	72.0%
	0.4	0.8	0.4	0.4	0	52.0%	62.7%
	0.3	0.7	0.6	0.1	0	56.7%	67.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	0	40.9%	50.9%
	0	0.4	0.2	0	0	51.9%	62.0%
	0	0.6	0.3	0.3	0	70.3%	81.0%
	0.2	0.4	0	0	0	33.9%	42.4%
	0.2	0.4	0.2	0	0	44.7%	53.2%
	0.2	0.4	0.2	0.2	0	38.0%	46.3%
	0.3	0.7	0.6	0.1	0	83.8%	91.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.1%
	0	0.8	0	0	0	45.4%	54.8%
	0	0.8	0.4	0	0	54.3%	65.3%
	0	0.6	0.3	0.3	0	32.0%	38.5%
	0.4	0.8	0	0	0	36.6%	45.3%
	0.4	0.8	0.4	0	0	46.1%	56.0%
	0.4	0.8	0.4	0.4	0	39.2%	46.8%
	0.3	0.7	0.6	0.1	0	42.9%	52.4%
	0.5	0	0.5	0.5	1	0.1%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	36.3%	43.0%
	0	1	0.4	0	0	42.9%	50.8%
	0	1	0.3	0.3	0	36.7%	43.9%
	0.4	1	0	0	0	32.6%	38.7%
	0.4	1	0.4	0	0	37.4%	46.3%
	0.4	1	0.4	0.4	0	32.5%	39.9%
	0.3	1	0.6	0.1	0	40.4%	48.0%
	0.5	0	0.5	0.5	1	0.3%	0.2%

Table D.137. t = 5, Pk = 2, p = 0.5, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	5.2%
	0	0.8	0	0	0	72.8%	66.7%
	0	0.8	0.4	0	0	82.1%	77.3%
	0	0.6	0.3	0.3	0	51.8%	48.3%
	0.4	0.8	0	0	0	62.4%	57.4%
	0.4	0.8	0.4	0	0	72.7%	67.8%
	0.4	0.8	0.4	0.4	0	62.9%	58.4%
	0.3	0.7	0.6	0.1	0	68.2%	63.9%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	0	50.3%	46.9%
	0	0.4	0.2	0	0	63.9%	58.2%
	0	0.6	0.3	0.3	0	81.8%	76.4%
	0.2	0.4	0	0	0	43.6%	39.7%
	0.2	0.4	0.2	0	0	55.8%	51.1%
	0.2	0.4	0.2	0.2	0	46.8%	42.8%
	0.1	0.4	0.3	0.2	0	56.7%	52.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	0	56.3%	51.7%
	0	0.8	0.4	0	0	66.4%	61.4%
	0	0.6	0.3	0.3	0	39.8%	36.9%
	0.4	0.8	0	0	0	47.6%	43.6%
	0.4	0.8	0.4	0	0	56.2%	52.6%
	0.4	0.8	0.4	0.4	0	48.5%	44.9%
	0.3	0.7	0.6	0.1	0	53.2%	49.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	0	0	0	45.4%	41.4%
	0	1	0.4	0	0	51.8%	48.6%
	0	1	0.3	0.3	0	45.7%	42.1%
	0.4	1	0	0	0	39.0%	35.7%
	0.4	1	0.4	0	0	45.7%	41.8%
	0.4	1	0.4	0.4	0	39.9%	36.8%
	0.3	1	0.6	0.1	0	50.0%	45.6%
	0.5	0	0.5	0.5	1	0.1%	0.2%

Table D.138. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.5%
	0	0.8	0	0	0	44.2%	55.3%
	0	0.8	0.4	0	0	53.9%	66.5%
	0	0.6	0.3	0.3	0	32.0%	39.6%
	0.4	0.8	0	0	0	38.1%	47.8%
	0.4	0.8	0.4	0	0	45.5%	56.8%
	0.4	0.8	0.4	0.4	0	38.9%	48.3%
	0.3	0.7	0.6	0.1	0	42.3%	53.3%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0.4	0	0	0	28.4%	37.6%
	0	0.4	0.2	0	0	37.3%	48.2%
	0	0.6	0.3	0.3	0	53.5%	66.6%
	0.2	0.4	0	0	0	24.6%	31.5%
	0.2	0.4	0.2	0	0	32.0%	40.6%
	0.2	0.4	0.2	0.2	0	28.2%	35.1%
	0.3	0.7	0.6	0.1	0	68.1%	80.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	0	33.4%	42.4%
	0	0.8	0.4	0	0	40.9%	50.5%
	0	0.6	0.3	0.3	0	24.4%	29.8%
	0.4	0.8	0	0	0	28.2%	35.3%
	0.4	0.8	0.4	0	0	34.5%	43.6%
	0.4	0.8	0.4	0.4	0	28.5%	36.5%
	0.3	0.7	0.6	0.1	0	32.1%	40.2%
Cauchy	0	0	0	0	0	4.7%	4.8%
	0	1	0	0	0	27.5%	33.4%
	0	1	0.4	0	0	32.0%	39.6%
	0	1	0.3	0.3	0	28.5%	35.3%
	0.4	1	0	0	0	24.1%	29.4%
	0.4	1	0.4	0	0	27.7%	34.6%
	0.4	1	0.4	0.4	0	25.3%	31.0%
	0.3	1	0.6	0.1	0	29.9%	37.7%

Table D.139. t = 5, Pk = 2, p = 0.5, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	5.1%
	0	0.4	0	0	0	58.0%	47.4%
	0	0.4	0.2	0	0	67.4%	56.4%
	0	0.6	0.3	0.3	0	87.3%	76.0%
	0.2	0.4	0	0	0	49.4%	40.4%
	0.2	0.4	0.2	0	0	58.8%	47.2%
	0.2	0.4	0.2	0.2	0	49.3%	40.5%
	0.1	0.4	0.3	0.1	0	63.7%	52.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	89.6%	77.0%
	0	0.2	0.1	0	0	52.5%	42.7%
	0	0.3	0.1	0.1	0	73.5%	60.8%
	0.2	0.4	0	0	0	81.2%	67.5%
	0.1	0.2	0.1	0	0	45.7%	36.2%
	0.2	0.4	0.2	0.2	0	83.2%	71.2%
	0.1	0.4	0.2	0.1	0	91.5%	80.7%
T with 3 df.	0	0	0	0	0	4.8%	5.2%
	0	0.4	0	0	0	44.4%	35.5%
	0	0.4	0.2	0	0	51.7%	41.6%
	0	0.6	0.3	0.3	0	72.8%	61.3%
	0.4	0.8	0	0	0	82.7%	70.0%
	0.2	0.4	0.2	0	0	45.0%	36.4%
	0.4	0.8	0.4	0.4	0	83.2%	72.1%
	0.3	0.7	0.6	0.1	0	88.1%	77.5%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	1	0	0	0	78.9%	66.8%
	0	1	0.4	0	0	86.5%	75.2%
	0	1	0.3	0.3	0	80.4%	68.8%
	0.4	1	0	0	0	71.9%	59.8%
	0.4	1	0.4	0	0	80.9%	69.9%
	0.4	1	0.4	0.4	0	73.2%	61.6%
	0.3	1	0.6	0.1	0	84.6%	73.1%

Table D.140. t = 5, Pk = 2, p = 0.5, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	0	62.8%	77.5%
	0	0.8	0.4	0	0	72.0%	85.9%
	0	0.6	0.3	0.3	0	44.3%	57.1%
	0.4	0.8	0	0	0	53.7%	68.3%
	0.4	0.8	0.4	0	0	63.5%	78.3%
	0.4	0.8	0.4	0.4	0	53.7%	69.0%
	0.3	0.7	0.6	0.1	0	59.1%	73.7%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0.4	0	0	0	43.9%	57.8%
	0	0.4	0.2	0	0	53.9%	69.4%
	0	0.6	0.3	0.3	0	71.7%	86.6%
	0.2	0.4	0	0	0	36.3%	48.8%
	0.2	0.4	0.2	0	0	46.2%	60.2%
	0.2	0.4	0.2	0.2	0	40.4%	51.9%
	0.3	0.7	0.6	0.1	0	85.7%	95.1%
T with 3 df.	0	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	0	48.1%	61.2%
	0	0.8	0.4	0	0	56.7%	71.7%
	0	0.6	0.3	0.3	0	33.7%	44.2%
	0.4	0.8	0	0	0	39.6%	51.8%
	0.4	0.8	0.4	0	0	48.9%	62.6%
	0.4	0.8	0.4	0.4	0	41.1%	54.0%
	0.3	0.7	0.6	0.1	0	44.7%	58.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	1	0	0	0	37.3%	49.0%
	0	1	0.4	0	0	45.0%	56.9%
	0	1	0.3	0.3	0	38.5%	50.4%
	0.4	1	0	0	0	33.0%	42.5%
	0.4	1	0.4	0	0	38.9%	51.0%
	0.4	1	0.4	0.4	0	35.1%	45.6%
	0.3	1	0.6	0.1	0	41.0%	53.9%

D.5. Five Treatments – Peak at Three

D.5.1. Probability of Missing = 0.1

Table D.141. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0.6	0	0	60.5%	76.5%
	0	0.4	0.6	0.4	0	61.0%	76.7%
	0	0.3	0.6	0	0	61.4%	76.4%
	0.3	0.3	0.6	0	0	41.3%	54.8%
	0	0	0.6	0.4	0.4	35.0%	47.5%
	0	0.5	0.8	0.4	0.3	66.5%	82.6%
	1	1	0.6	0	0	7.3%	8.9%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0	0.4	0	0	62.6%	78.5%
	0	0.2	0.4	0.2	0	65.1%	81.0%
	0	0.2	0.4	0	0	64.5%	80.3%
	0.3	0.3	0.6	0	0	69.3%	84.7%
	0	0	0.6	0.4	0.4	57.9%	75.5%
	0	0.2	0.5	0.4	0.1	72.8%	87.3%
	1	1	0.6	0	0	7.0%	9.2%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	46.9%	60.2%
	0	0.4	0.6	0.4	0	46.0%	60.8%
	0	0.3	0.6	0	0	47.5%	61.2%
	0.3	0.3	1	0	0	69.6%	84.4%
	0	0	1	0.4	0.4	65.2%	80.7%
	0	0.5	0.8	0.4	0.3	51.6%	66.9%
	1	1	0.6	0	0	6.8%	7.6%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	1	0	0	52.8%	68.0%
	0	0.4	1.5	0.4	0	80.0%	92.1%
	0	0.3	1.5	0	0	78.5%	91.1%
	0.3	0.3	1.5	0	0	70.9%	86.1%
	0	0	1.5	0.4	0.4	69.1%	83.8%
	0	0.5	1.5	0.4	0.3	72.8%	86.5%
	1	1	0.6	0	0	6.5%	7.0%

Table D.142. t = 5, Pk = 3, p = 0.1, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	59.2%	69.9%
	0	0.4	0.6	0.4	0	59.0%	69.5%
	0	0.3	0.6	0	0	59.3%	69.7%
	0.3	0.3	0.6	0	0	39.8%	47.7%
	0	0	0.8	0.4	0.4	57.6%	68.1%
	0	0.5	0.8	0.4	0.3	65.7%	75.9%
	1	1	0.6	0	0	7.9%	8.9%
Exponential	0	0	0	0	0	4.7%	5.1%
	0	0	0.4	0	0	60.3%	71.7%
	0	0.2	0.4	0.2	0	64.2%	74.8%
	0	0.2	0.4	0	0	62.5%	74.2%
	0.3	0.3	0.6	0	0	67.0%	77.8%
	0	0	0.6	0.4	0.4	57.4%	68.4%
	0	0.2	0.5	0.4	0.1	71.3%	81.5%
	1	1	0.6	0	0	7.3%	8.3%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	45.1%	53.9%
	0	0.4	0.6	0.4	0	45.8%	54.8%
	0	0.3	0.6	0	0	46.0%	55.0%
	0.3	0.3	1	0	0	68.6%	78.6%
	0	0	1	0.4	0.4	63.5%	73.7%
	0	0.5	0.8	0.4	0.3	50.1%	59.7%
	1	1	0.6	0	0	7.3%	7.9%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	52.0%	61.4%
	0	0.4	1.5	0.4	0	79.0%	87.8%
	0	0.3	1.5	0	0	77.4%	86.5%
	0.3	0.3	1.5	0	0	69.7%	79.9%
	0	0	1.5	0.4	0.4	67.1%	76.6%
	0	0.5	1.5	0.4	0.3	72.9%	81.8%
	1	1	0.6	0	0	6.3%	6.6%
	1	1	0.6	1	1	0.9%	0.6%
	0	0.3	0.6	0.7	1	7.5%	7.1%

Table D.143. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.6%
	0	0	0.6	0	0	50.4%	68.4%
	0	0.4	0.6	0.4	0	51.5%	68.8%
	0	0.3	0.6	0	0	51.0%	69.0%
	0.3	0.3	0.7	0	0	44.2%	61.0%
	0	0	0.6	0.4	0.4	28.7%	40.6%
	0	0.5	0.8	0.4	0.3	55.5%	74.1%
	1	1	0.6	0	0	7.0%	7.9%
	1	1	0.6	1	1	0.3%	0.0%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0.4	0	0	50.9%	70.7%
	0	0.2	0.4	0.2	0	54.6%	72.8%
	0	0.2	0.4	0	0	52.0%	72.0%
	0.3	0.3	0.6	0	0	55.7%	76.4%
	0	0	0.6	0.4	0.4	46.5%	66.3%
	0	0.2	0.5	0.4	0.1	61.2%	80.6%
	1	1	0.6	0	0	6.5%	7.5%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	4.6%
	0	0	0.6	0	0	38.2%	53.3%
	0	0.4	0.6	0.4	0	37.8%	53.9%
	0	0.3	0.6	0	0	38.9%	53.5%
	0.3	0.3	1	0	0	58.1%	76.7%
	0	0	1	0.4	0.4	54.8%	72.8%
	0	0.5	0.8	0.4	0.3	42.0%	58.3%
	1	1	0.6	0	0	7.1%	7.8%
	1	1	0.6	1	1	0.5%	0.3%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	1	0	0	44.3%	60.8%
	0	0.4	1.5	0.4	0	69.5%	86.7%
	0	0.3	1.5	0	0	66.9%	85.0%
	0.3	0.3	1.5	0	0	59.2%	78.2%
	0	0	1.5	0.4	0.4	57.8%	76.1%
	0	0.5	1.5	0.4	0.3	62.8%	81.5%
	1	1	0.6	0	0	6.1%	6.6%
	1	1	0.6	1	1	1.2%	0.9%

Table D.144. t = 5, Pk = 3, p = 0.1, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	4.7%
	0	0	0.6	0	0	57.4%	59.6%
	0	0.4	0.6	0.4	0	58.3%	60.5%
	0	0.3	0.6	0	0	57.7%	60.5%
	0.3	0.3	0.6	0	0	39.1%	41.0%
	0	0	0.6	0.4	0.4	33.7%	35.2%
	0	0.5	0.8	0.4	0.3	64.6%	66.6%
	1	1	0.6	0	0	8.1%	7.9%
	1	1	0.6	1	1	0.2%	0.2%
Exponential	0	0	0	0	0	5.3%	5.0%
	0	0	0.4	0	0	59.0%	61.8%
	0	0.2	0.4	0.2	0	62.7%	64.9%
	0	0.2	0.4	0	0	61.7%	62.9%
	0.3	0.3	0.6	0	0	66.4%	67.7%
	0	0	0.6	0.4	0.4	55.6%	57.3%
	0	0.2	0.5	0.4	0.1	70.0%	71.9%
	1	1	0.6	0	0	6.4%	7.1%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0	0.6	0	0	44.0%	45.4%
	0	0.4	0.6	0.4	0	45.7%	46.6%
	0	0.3	0.6	0	0	44.5%	46.9%
	0.3	0.3	1	0	0	67.1%	68.3%
	0	0	1	0.4	0.4	62.2%	64.3%
	0	0.5	0.8	0.4	0.3	48.8%	51.1%
	1	1	0.6	0	0	7.6%	7.6%
	1	1	0.6	1	1	0.6%	0.3%
Cauchy	0	0	0	0	0	4.7%	4.9%
	0	0	1	0	0	50.6%	52.5%
	0	0.4	1.5	0.4	0	77.2%	79.3%
	0	0.3	1.5	0	0	75.7%	76.9%
	0.3	0.3	1.5	0	0	67.8%	70.5%
	0	0	1.5	0.4	0.4	65.5%	68.1%
	0	0.5	1.5	0.4	0.3	70.7%	71.4%
	1	1	0.6	0	0	6.5%	6.9%
	1	1	0.6	1	1	1.0%	0.9%

Table D.145. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.8%
	0	0	0.6	0	0	43.0%	56.6%
	0	0.4	0.6	0.4	0	43.3%	56.5%
	0	0.3	0.6	0	0	43.8%	56.7%
	0.3	0.3	0.8	0	0	47.0%	61.2%
	0	0	0.8	0.4	0.4	42.1%	54.3%
	0	0.5	0.8	0.4	0.3	49.6%	62.7%
	1	1	0.6	0	0	6.9%	8.0%
	1	1	0.6	1	1	0.5%	0.3%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0	0.4	0	0	42.1%	57.0%
	0	0.2	0.4	0.2	0	46.0%	59.6%
	0	0.2	0.4	0	0	44.2%	59.0%
	0.3	0.3	0.6	0	0	47.7%	63.4%
	0	0	0.8	0.4	0.4	64.9%	81.9%
	0	0.2	0.5	0.4	0.1	52.1%	67.6%
	1	1	0.6	0	0	6.5%	8.0%
	1	1	0.6	1	1	0.2%	0.1%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0	1	0	0	61.9%	76.3%
	0	0.4	0.8	0.4	0	48.6%	62.6%
	0	0.3	0.8	0	0	48.8%	61.6%
	0.3	0.3	1	0	0	50.7%	64.7%
	0	0	1	0.4	0.4	47.7%	60.3%
	0	0.5	1	0.4	0.3	51.5%	65.7%
	1	1	0.6	0	0	6.9%	7.3%
	1	1	0.6	1	1	0.7%	0.5%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	0	1.5	0	0	58.2%	73.2%
	0	0.4	1.5	0.4	0	61.3%	76.4%
	0	0.3	1.5	0	0	59.0%	73.8%
	0.3	0.3	1.5	0	0	52.2%	66.6%
	0	0	1.5	0.4	0.4	50.2%	64.2%
	0	0.5	1.5	0.4	0.3	55.1%	69.2%
	1	1	0.6	0	0	6.0%	6.5%
	1	1	0.6	1	1	1.5%	1.2%

Table D.146. t = 5, Pk = 3, p = 0.1, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	91.0%	85.7%
	0	0.4	0.6	0.4	0	91.7%	86.3%
	0	0.3	0.6	0	0	91.4%	86.4%
	0.3	0.3	0.6	0	0	72.9%	66.2%
	0	0	0.6	0.4	0.4	63.9%	57.0%
	0	0.5	0.8	0.4	0.3	94.5%	90.8%
	1	1	0.6	0	0	11.0%	10.4%
	1	1	0.6	1	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.3%
	0	0	0.4	0	0	94.1%	88.9%
	0	0.2	0.4	0.2	0	94.3%	89.9%
	0	0.2	0.4	0	0	94.2%	89.7%
	0.3	0.3	0.6	0	0	96.8%	92.8%
	0	0	0.6	0.4	0.4	92.0%	86.4%
	0	0.1	0.3	0.2	0.1	66.1%	59.4%
	1	1	0.6	0	0	10.6%	10.1%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	5.2%
	0	0	0.6	0	0	78.1%	71.0%
	0	0.4	0.6	0.4	0	78.8%	72.0%
	0	0.3	0.6	0	0	78.6%	71.4%
	0.3	0.3	1	0	0	95.8%	92.7%
	0	0	1	0.4	0.4	93.5%	89.3%
	0	0.5	0.8	0.4	0.3	83.0%	77.2%
	1	1	0.6	0	0	9.3%	8.5%
	1	1	0.6	1	1	0.1%	0.1%
Cauchy	0	0	0	0	0	4.9%	4.5%
	0	0	1	0	0	84.9%	78.5%
	0	0.4	0.8	0.4	0	71.9%	65.0%
	0	0.3	0.8	0	0	71.2%	64.9%
	0.3	0.3	1.5	0	0	96.0%	93.0%
	0	0	1.5	0.4	0.4	95.2%	91.4%
	0	0.5	0.8	0.4	0.3	56.8%	50.9%
	1	1	0.6	0	0	8.0%	7.6%
	1	1	0.6	1	1	0.4%	0.4%

Table D.147. t = 5, Pk = 3, p = 0.1, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0.6	0	0	68.6%	80.2%
	0	0.4	0.6	0.4	0	69.2%	80.7%
	0	0.3	0.6	0	0	69.0%	80.6%
	0.3	0.3	0.6	0	0	48.0%	58.2%
	0	0	1	0.4	0.4	88.3%	95.2%
	0	0.5	0.8	0.4	0.3	75.6%	86.0%
	1	1	0.6	0	0	8.5%	9.4%
	1	1	0.6	1	1	0.1%	0.0%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0	0.4	0	0	70.0%	82.0%
	0	0.2	0.4	0.2	0	72.8%	83.7%
	0	0.2	0.4	0	0	72.3%	83.6%
	0.3	0.3	0.6	0	0	77.9%	88.3%
	0	0	0.6	0.4	0.4	67.3%	79.8%
	0	0.2	0.5	0.4	0.1	79.7%	89.7%
	1	1	0.6	0	0	8.4%	9.5%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.3%
	0	0	0.6	0	0	53.4%	64.1%
	0	0.4	0.6	0.4	0	53.5%	64.2%
	0	0.3	0.6	0	0	53.5%	65.2%
	0.3	0.3	1	0	0	76.9%	87.5%
	0	0	1	0.4	0.4	72.1%	83.5%
	0	0.5	0.8	0.4	0.3	60.0%	71.4%
	1	1	0.6	0	0	8.1%	8.6%
	1	1	0.6	1	1	0.2%	0.1%
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	0	1	0	0	60.9%	72.3%
	0	0.4	1.5	0.4	0	86.4%	94.0%
	0	0.3	1.5	0	0	85.4%	93.5%
	0.3	0.3	1.5	0	0	78.3%	88.3%
	0	0	1.5	0.4	0.4	76.7%	86.9%
	0	0.5	1.5	0.4	0.3	81.1%	90.0%
	1	1	0.6	0	0	7.2%	7.7%
	1	1	0.6	1	1	0.7%	0.5%

D.5.2. Probability of Missing = 0.2

Table D.148. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	59.4%	73.7%
	0	0.4	0.6	0.4	0	60.7%	73.7%
	0	0.3	0.6	0	0	60.3%	73.6%
	0.3	0.3	0.6	0	0	41.7%	53.2%
	0	0	0.6	0.4	0.4	34.9%	45.0%
	0	0.5	0.8	0.4	0.3	65.7%	79.2%
	1	1	0.6	0	0	7.6%	9.1%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0	0.4	0	0	61.0%	75.9%
	0	0.2	0.4	0.2	0	64.6%	78.1%
	0	0.2	0.4	0	0	63.0%	77.0%
	0.3	0.3	0.6	0	0	68.5%	81.9%
	0	0	0.6	0.4	0.4	58.4%	73.2%
	0	0.2	0.5	0.4	0.1	71.8%	84.6%
	1	1	0.6	0	0	7.3%	8.6%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0.6	0	0	45.2%	57.1%
	0	0.4	0.6	0.4	0	46.3%	58.9%
	0	0.3	0.6	0	0	45.9%	57.7%
	0.3	0.3	1	0	0	69.0%	82.3%
	0	0	1	0.4	0.4	65.2%	78.5%
	0	0.5	0.8	0.4	0.3	51.2%	64.0%
	1	1	0.6	0	0	7.0%	8.2%
	1	1	0.6	1	1	0.4%	0.2%
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	0	1	0	0	52.9%	65.3%
	0	0.4	1.5	0.4	0	79.2%	90.5%
	0	0.3	1.5	0	0	78.1%	89.4%
	0.3	0.3	1.5	0	0	70.3%	83.5%
	0	0	1.5	0.4	0.4	68.8%	81.7%
	0	0.5	1.5	0.4	0.3	73.0%	84.7%
	1	1	0.6	0	0	6.9%	7.3%
	1	1	0.6	1	1	1.0%	0.7%

Table D.149. t = 5, Pk = 3, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0	0.6	0	0	59.5%	67.8%
	0	0.4	0.6	0.4	0	58.7%	66.8%
	0	0.3	0.6	0	0	58.8%	67.1%
	0.3	0.3	0.6	0	0	40.7%	46.8%
	0	0	0.8	0.4	0.4	58.8%	66.3%
	0	0.5	0.8	0.4	0.3	64.8%	73.1%
	1	1	0.6	0	0	7.8%	8.4%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0	0.4	0	0	61.0%	69.9%
	0	0.2	0.4	0.2	0	63.6%	72.1%
	0	0.2	0.4	0	0	61.8%	70.3%
	0.3	0.3	0.6	0	0	66.1%	75.5%
	0	0	0.6	0.4	0.4	56.7%	65.6%
	0	0.2	0.5	0.4	0.1	70.6%	79.0%
	1	1	0.6	0	0	7.1%	8.3%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	4.8%
	0	0	0.6	0	0	45.1%	52.4%
	0	0.4	0.6	0.4	0	45.1%	52.7%
	0	0.3	0.6	0	0	44.7%	52.0%
	0.3	0.3	1	0	0	67.1%	75.7%
	0	0	1	0.4	0.4	62.7%	72.0%
	0	0.5	0.8	0.4	0.3	50.4%	57.8%
	1	1	0.6	0	0	7.1%	7.9%
	1	1	0.6	1	1	0.4%	0.3%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	1	0	0	51.5%	59.7%
	0	0.4	1.5	0.4	0	78.7%	86.1%
	0	0.3	1.5	0	0	77.5%	84.9%
	0.3	0.3	1.5	0	0	69.8%	77.8%
	0	0	1.5	0.4	0.4	67.7%	75.6%
	0	0.5	1.5	0.4	0.3	71.5%	79.1%
	1	1	0.6	0	0	6.7%	6.9%
	1	1	0.6	1	1	0.8%	0.8%

Table D.150. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	49.2%	65.5%
	0	0.4	0.6	0.4	0	48.6%	64.8%
	0	0.3	0.6	0	0	49.0%	65.1%
	0.3	0.3	0.7	0	0	43.0%	57.9%
	0	0	0.6	0.4	0.4	27.8%	37.0%
	0	0.5	0.8	0.4	0.3	55.2%	72.3%
	1	1	0.6	0	0	7.1%	8.1%
	1	1	0.6	1	1	0.3%	0.2%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0	0.4	0	0	48.0%	66.1%
	0	0.2	0.4	0.2	0	52.4%	69.7%
	0	0.2	0.4	0	0	51.0%	68.2%
	0.3	0.3	0.6	0	0	53.8%	72.9%
	0	0	0.6	0.4	0.4	45.9%	63.0%
	0	0.2	0.5	0.4	0.1	59.7%	76.9%
	1	1	0.6	0	0	6.6%	8.0%
	1	1	0.6	1	1	0.3%	0.1%
T with 3 df.	0	0	0	0	0	4.9%	4.7%
	0	0	0.6	0	0	38.3%	50.7%
	0	0.4	0.6	0.4	0	36.6%	50.6%
	0	0.3	0.6	0	0	37.4%	50.0%
	0.3	0.3	1	0	0	57.2%	73.6%
	0	0	1	0.4	0.4	52.2%	69.1%
	0	0.5	0.8	0.4	0.3	40.9%	55.7%
	1	1	0.6	0	0	7.3%	7.9%
	1	1	0.6	1	1	0.6%	0.3%
Cauchy	0	0	0	0	0	4.5%	4.9%
	0	0	1	0	0	42.9%	57.0%
	0	0.4	1.5	0.4	0	69.3%	85.4%
	0	0.3	1.5	0	0	66.9%	82.2%
	0.3	0.3	1.5	0	0	59.2%	75.1%
	0	0	1.5	0.4	0.4	56.4%	72.9%
	0	0.5	1.5	0.4	0.3	61.6%	77.8%
	1	1	0.6	0	0	6.4%	6.9%
	1	1	0.6	1	1	1.2%	0.7%

Table D.151. t = 5, Pk = 3, p = 0.2, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0	0.6	0	0	57.4%	57.8%
	0	0.4	0.6	0.4	0	58.3%	58.3%
	0	0.3	0.6	0	0	58.2%	58.5%
	0.3	0.3	0.6	0	0	39.0%	39.5%
	0	0	0.6	0.4	0.4	33.1%	33.6%
	0	0.5	0.8	0.4	0.3	64.5%	64.6%
	1	1	0.6	0	0	7.9%	7.6%
	1	1	0.6	1	1	0.1%	0.2%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0.4	0	0	58.7%	58.7%
	0	0.2	0.4	0.2	0	60.8%	62.2%
	0	0.2	0.4	0	0	60.9%	60.9%
	0.3	0.3	0.6	0	0	65.8%	65.7%
	0	0	0.6	0.4	0.4	56.0%	56.2%
	0	0.2	0.5	0.4	0.1	69.7%	69.7%
	1	1	0.6	0	0	7.3%	7.8%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.7%
	0	0	0.6	0	0	44.3%	44.5%
	0	0.4	0.6	0.4	0	45.1%	44.7%
	0	0.3	0.6	0	0	44.8%	44.9%
	0.3	0.3	1	0	0	67.1%	66.8%
	0	0	1	0.4	0.4	62.7%	62.6%
	0	0.5	0.8	0.4	0.3	48.7%	49.6%
	1	1	0.6	0	0	6.9%	7.3%
	1	1	0.6	1	1	0.3%	0.5%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0	1	0	0	50.3%	50.2%
	0	0.4	1.5	0.4	0	77.3%	77.8%
	0	0.3	1.5	0	0	75.1%	75.7%
	0.3	0.3	1.5	0	0	69.3%	69.6%
	0	0	1.5	0.4	0.4	65.5%	65.9%
	0	0.5	1.5	0.4	0.3	70.4%	71.1%
	1	1	0.6	0	0	6.5%	6.8%
	1	1	0.6	1	1	1.0%	1.0%

Table D.152. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	40.1%	52.8%
	0	0.4	0.6	0.4	0	41.6%	53.8%
	0	0.3	0.6	0	0	40.7%	52.8%
	0.3	0.3	0.8	0	0	45.0%	57.6%
	0	0	0.8	0.4	0.4	39.9%	52.5%
	0	0.5	0.8	0.4	0.3	44.8%	58.0%
	1	1	0.6	0	0	6.4%	7.3%
	1	1	0.6	1	1	0.4%	0.2%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0.4	0	0	39.2%	52.8%
	0	0.2	0.4	0.2	0	43.4%	56.7%
	0	0.2	0.4	0	0	41.2%	54.3%
	0.3	0.3	0.6	0	0	44.3%	59.1%
	0	0	0.8	0.4	0.4	62.1%	78.2%
	0	0.2	0.5	0.4	0.1	49.2%	63.9%
	1	1	0.6	0	0	6.1%	7.3%
	1	1	0.6	1	1	0.3%	0.1%
T with 3 df.	0	0	0	0	0	4.9%	4.7%
	0	0	1	0	0	58.9%	73.4%
	0	0.4	0.8	0.4	0	45.0%	58.4%
	0	0.3	0.8	0	0	45.0%	58.3%
	0.3	0.3	1	0	0	47.2%	61.1%
	0	0	1	0.4	0.4	44.0%	56.3%
	0	0.5	1	0.4	0.3	49.1%	62.4%
	1	1	0.6	0	0	6.3%	7.0%
	1	1	0.6	1	1	0.8%	0.6%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	1.5	0	0	54.1%	69.0%
	0	0.4	1.5	0.4	0	57.8%	72.4%
	0	0.3	1.5	0	0	56.6%	70.5%
	0.3	0.3	1.5	0	0	49.1%	63.1%
	0	0	1.5	0.4	0.4	47.0%	60.5%
	0	0.5	1.5	0.4	0.3	51.4%	65.5%
	1	1	0.6	0	0	5.8%	6.0%
	1	1	0.6	1	1	1.4%	1.0%

Table D.153. t = 5, Pk = 3, p = 0.2, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0	0.6	0	0	91.4%	85.2%
	0	0.4	0.6	0.4	0	91.5%	85.7%
	0	0.3	0.6	0	0	91.8%	85.4%
	0.3	0.3	0.6	0	0	72.3%	64.8%
	0	0	0.6	0.4	0.4	63.3%	56.5%
	0	0.5	0.8	0.4	0.3	95.0%	89.6%
	1	1	0.6	0	0	10.3%	9.6%
	1	1	0.6	1	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0.4	0	0	93.8%	87.6%
	0	0.2	0.4	0.2	0	94.2%	88.8%
	0	0.2	0.4	0	0	93.8%	87.9%
	0.3	0.3	0.6	0	0	96.8%	92.3%
	0	0	0.6	0.4	0.4	91.7%	84.8%
	0	0.1	0.3	0.2	0.1	66.4%	57.4%
	1	1	0.6	0	0	10.8%	10.0%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	4.4%
	0	0	0.6	0	0	78.0%	70.4%
	0	0.4	0.6	0.4	0	78.1%	69.7%
	0	0.3	0.6	0	0	79.4%	70.8%
	0.3	0.3	1	0	0	95.8%	91.5%
	0	0	1	0.4	0.4	93.8%	88.2%
	0	0.5	0.8	0.4	0.3	83.7%	76.0%
	1	1	0.6	0	0	9.2%	8.5%
	1	1	0.6	1	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	1	0	0	84.9%	76.6%
	0	0.4	0.8	0.4	0	72.0%	63.6%
	0	0.3	0.8	0	0	69.7%	62.2%
	0.3	0.3	1.5	0	0	96.1%	91.9%
	0	0	1.5	0.4	0.4	95.3%	90.8%
	0	0.5	0.8	0.4	0.3	57.0%	49.4%
	1	1	0.6	0	0	8.0%	7.4%
	1	1	0.6	1	1	0.3%	0.4%

Table D.154. t = 5, Pk = 3, p = 0.2, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.9%
	0	0	0.6	0	0	62.7%	75.8%
	0	0.4	0.6	0.4	0	64.3%	76.4%
	0	0.3	0.6	0	0	63.1%	75.9%
	0.3	0.3	0.6	0	0	43.1%	54.3%
	0	0	1	0.4	0.4	83.5%	92.8%
	0	0.5	0.8	0.4	0.3	70.0%	81.7%
	1	1	0.6	0	0	7.7%	9.2%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.3%	5.4%
	0	0	0.4	0	0	64.3%	78.2%
	0	0.2	0.4	0.2	0	67.2%	79.9%
	0	0.2	0.4	0	0	67.0%	79.7%
	0.3	0.3	0.6	0	0	71.4%	84.8%
	0	0	0.6	0.4	0.4	61.3%	74.8%
	0	0.2	0.5	0.4	0.1	74.5%	86.4%
	1	1	0.6	0	0	7.1%	8.4%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.7%
	0	0	0.6	0	0	48.5%	59.8%
	0	0.4	0.6	0.4	0	49.2%	60.8%
	0	0.3	0.6	0	0	49.4%	60.7%
	0.3	0.3	1	0	0	72.2%	84.5%
	0	0	1	0.4	0.4	67.6%	80.0%
	0	0.5	0.8	0.4	0.3	54.6%	67.0%
	1	1	0.6	0	0	7.6%	8.3%
	1	1	0.6	1	1	0.3%	0.2%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	1	0	0	54.8%	67.3%
	0	0.4	1.5	0.4	0	82.2%	92.1%
	0	0.3	1.5	0	0	80.6%	90.7%
	0.3	0.3	1.5	0	0	73.8%	85.8%
	0	0	1.5	0.4	0.4	72.0%	84.0%
	0	0.5	1.5	0.4	0.3	76.5%	87.1%
	1	1	0.6	0	0	6.9%	7.3%
	1	1	0.6	1	1	1.0%	0.8%

D.5.3. Probability of Missing = 0.3

Table D.155. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	5.1%
	0	0	0.6	0	0	59.7%	70.9%
	0	0.4	0.6	0.4	0	60.1%	70.6%
	0	0.3	0.6	0	0	60.3%	72.1%
	0.3	0.3	0.6	0	0	41.1%	49.3%
	0	0	0.6	0.4	0.4	34.0%	42.2%
	0	0.5	0.8	0.4	0.3	65.4%	76.7%
	1	1	0.6	0	0	7.7%	8.7%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.6%	5.3%
	0	0	0.4	0	0	60.9%	72.8%
	0	0.2	0.4	0.2	0	64.7%	76.0%
	0	0.2	0.4	0	0	62.4%	74.0%
	0.3	0.3	0.6	0	0	68.2%	79.0%
	0	0	0.6	0.4	0.4	57.7%	69.6%
	0	0.2	0.5	0.4	0.1	71.8%	82.1%
	1	1	0.6	0	0	7.1%	8.3%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0	0.6	0	0	44.6%	54.0%
	0	0.4	0.6	0.4	0	46.4%	56.5%
	0	0.3	0.6	0	0	45.4%	55.1%
	0.3	0.3	1	0	0	68.4%	79.3%
	0	0	1	0.4	0.4	64.3%	75.3%
	0	0.5	0.8	0.4	0.3	50.8%	61.5%
	1	1	0.6	0	0	7.2%	7.7%
	1	1	0.6	1	1	0.3%	0.2%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0	1	0	0	51.9%	62.5%
	0	0.4	1.5	0.4	0	79.4%	88.6%
	0	0.3	1.5	0	0	78.5%	87.6%
	0.3	0.3	1.5	0	0	69.8%	80.9%
	0	0	1.5	0.4	0.4	68.0%	78.4%
	0	0.5	1.5	0.4	0.3	72.2%	81.9%
	1	1	0.6	1	1	1.1%	0.8%

Table D.156. t = 5, Pk = 3, p = 0.3, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.9%
	0	0	0.6	0	0	58.2%	63.7%
	0	0.4	0.6	0.4	0	58.8%	64.7%
	0	0.3	0.6	0	0	58.7%	64.4%
	0.3	0.3	0.6	0	0	39.8%	44.7%
	0	0	0.8	0.4	0.4	58.5%	63.9%
	0	0.5	0.8	0.4	0.3	64.5%	71.2%
	1	1	0.6	0	0	8.0%	8.5%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.0%	4.8%
	0	0	0.4	0	0	59.1%	66.1%
	0	0.2	0.4	0.2	0	62.9%	68.7%
	0	0.2	0.4	0	0	61.2%	67.6%
	0.3	0.3	0.6	0	0	66.4%	72.7%
	0	0	0.6	0.4	0.4	56.1%	62.8%
	0	0.2	0.5	0.4	0.1	71.0%	76.2%
	1	1	0.6	0	0	7.0%	7.6%
	1	1	0.6	1	1	0.1%	0.1%
T with 3 df.	0	0	0	0	0	5.4%	5.3%
	0	0	0.6	0	0	44.4%	49.3%
	0	0.4	0.6	0.4	0	44.9%	49.7%
	0	0.3	0.6	0	0	45.5%	50.2%
	0.3	0.3	1	0	0	67.7%	73.2%
	0	0	1	0.4	0.4	63.2%	69.0%
	0	0.5	0.8	0.4	0.3	49.8%	55.4%
	1	1	0.6	0	0	7.3%	8.0%
	1	1	0.6	1	1	0.4%	0.3%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	0	1	0	0	50.6%	57.0%
	0	0.4	1.5	0.4	0	78.1%	84.1%
	0	0.3	1.5	0	0	76.9%	82.7%
	0.3	0.3	1.5	0	0	68.8%	75.5%
	0	0	1.5	0.4	0.4	67.4%	73.3%
	0	0.5	1.5	0.4	0.3	71.2%	77.5%
	1	1	0.6	0	0	6.5%	6.5%
	1	1	0.6	1	1	0.8%	0.7%

Table D.157. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	4.8%
	0	0	0.6	0	0	47.6%	61.8%
	0	0.4	0.6	0.4	0	49.0%	62.8%
	0	0.3	0.6	0	0	48.9%	62.2%
	0.3	0.3	0.7	0	0	43.4%	55.7%
	0	0	0.6	0.4	0.4	28.2%	35.9%
	0	0.5	0.8	0.4	0.3	53.9%	68.5%
	1	1	0.6	0	0	6.9%	8.1%
	1	1	0.6	1	1	0.3%	0.2%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0.4	0	0	47.4%	62.8%
	0	0.2	0.4	0.2	0	51.5%	66.5%
	0	0.2	0.4	0	0	49.5%	65.3%
	0.3	0.3	0.6	0	0	54.1%	70.5%
	0	0	0.6	0.4	0.4	44.8%	60.2%
	0	0.2	0.5	0.4	0.1	58.5%	74.0%
	1	1	0.6	0	0	6.7%	8.2%
	1	1	0.6	1	1	0.2%	0.0%
T with 3 df.	0	0	0	0	0	5.5%	5.4%
	0	0	0.6	0	0	36.3%	47.4%
	0	0.4	0.6	0.4	0	37.4%	48.5%
	0	0.3	0.6	0	0	36.9%	48.2%
	0.3	0.3	1	0	0	56.5%	71.5%
	0	0	1	0.4	0.4	53.1%	66.9%
	0	0.5	0.8	0.4	0.3	39.6%	52.4%
	1	1	0.6	0	0	7.1%	7.3%
	1	1	0.6	1	1	0.6%	0.4%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	0	1	0	0	41.8%	53.6%
	0	0.4	1.5	0.4	0	67.1%	81.6%
	0	0.3	1.5	0	0	65.6%	79.9%
	0.3	0.3	1.5	0	0	58.1%	72.1%
	0	0	1.5	0.4	0.4	56.2%	70.0%
	0	0.5	1.5	0.4	0.3	60.6%	74.6%
	1	1	0.6	0	0	6.6%	6.9%
	1	1	0.6	1	1	1.2%	0.8%

Table D.158. t = 5, Pk = 3, p = 0.3, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.2%
	0	0	0.6	0	0	58.8%	56.6%
	0	0.4	0.6	0.4	0	58.0%	57.4%
	0	0.3	0.6	0	0	58.4%	56.3%
	0.3	0.3	0.6	0	0	37.9%	37.8%
	0	0	0.6	0.4	0.4	32.5%	32.3%
	0	0.5	0.8	0.4	0.3	63.5%	62.0%
	1	1	0.6	0	0	7.9%	8.2%
	1	1	0.6	1	1	0.2%	0.2%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0	0.4	0	0	57.7%	55.7%
	0	0.2	0.4	0.2	0	62.1%	60.2%
	0	0.2	0.4	0	0	60.4%	58.5%
	0.3	0.3	0.6	0	0	65.4%	63.8%
	0	0	0.6	0.4	0.4	55.1%	53.0%
	0	0.2	0.5	0.4	0.1	69.6%	67.4%
	1	1	0.6	0	0	6.7%	7.1%
	1	1	0.6	1	1	0.1%	0.1%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	43.6%	42.5%
	0	0.4	0.6	0.4	0	44.3%	42.9%
	0	0.3	0.6	0	0	44.2%	43.0%
	0.3	0.3	1	0	0	66.2%	65.0%
	0	0	1	0.4	0.4	61.9%	60.6%
	0	0.5	0.8	0.4	0.3	48.5%	47.5%
	1	1	0.6	0	0	7.2%	7.4%
	1	1	0.6	1	1	0.4%	0.4%
Cauchy	0	0	0	0	0	4.6%	4.8%
	0	0	1	0	0	50.1%	48.6%
	0	0.4	1.5	0.4	0	77.6%	76.1%
	0	0.3	1.5	0	0	75.7%	74.0%
	0.3	0.3	1.5	0	0	67.8%	66.7%
	0	0	1.5	0.4	0.4	65.4%	63.6%
	0	0.5	1.5	0.4	0.3	69.8%	67.7%
	1	1	0.6	0	0	6.6%	6.3%
	1	1	0.6	1	1	1.0%	0.9%

Table D.159. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	37.8%	48.5%
	0	0.4	0.6	0.4	0	38.5%	49.2%
	0	0.3	0.6	0	0	38.8%	50.0%
	0.3	0.3	0.8	0	0	42.6%	55.2%
	0	0	0.8	0.4	0.4	37.5%	49.0%
	0	0.5	0.8	0.4	0.3	42.9%	54.6%
	1	1	0.6	0	0	6.7%	7.7%
	1	1	0.6	1	1	0.6%	0.3%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0	0.4	0	0	37.2%	49.6%
	0	0.2	0.4	0.2	0	40.7%	52.6%
	0	0.2	0.4	0	0	38.4%	51.3%
	0.3	0.3	0.6	0	0	40.7%	54.7%
	0	0	0.8	0.4	0.4	57.5%	73.6%
	0	0.2	0.5	0.4	0.1	46.2%	59.9%
	1	1	0.6	0	0	6.3%	7.5%
	1	1	0.6	1	1	0.3%	0.1%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0	1	0	0	54.6%	68.0%
	0	0.4	0.8	0.4	0	42.9%	55.4%
	0	0.3	0.8	0	0	42.8%	54.7%
	0.3	0.3	1	0	0	45.5%	57.6%
	0	0	1	0.4	0.4	42.3%	54.1%
	0	0.5	1	0.4	0.3	46.4%	58.6%
	1	1	0.6	0	0	6.1%	6.8%
	1	1	0.6	1	1	0.8%	0.5%
Cauchy	0	0	0	0	0	5.3%	5.3%
	0	0	1.5	0	0	52.4%	65.7%
	0	0.4	1.5	0.4	0	55.7%	68.6%
	0	0.3	1.5	0	0	53.2%	67.3%
	0.3	0.3	1.5	0	0	46.4%	58.6%
	0	0	1.5	0.4	0.4	44.8%	56.6%
	0	0.5	1.5	0.4	0.3	47.5%	61.2%
	1	1	0.6	0	0	6.1%	6.4%
	1	1	0.6	1	1	1.6%	1.3%

Table D.160. t = 5, Pk = 3, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0.6	0	0	91.5%	83.6%
	0	0.4	0.6	0.4	0	91.3%	84.3%
	0	0.3	0.6	0	0	91.5%	84.7%
	0.3	0.3	0.6	0	0	72.7%	62.0%
	0	0	0.6	0.4	0.4	63.0%	54.8%
	0	0.5	0.8	0.4	0.3	94.2%	87.9%
	1	1	0.6	0	0	10.8%	10.1%
	1	1	0.6	1	1	0.0%	0.1%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0	0.4	0	0	94.2%	86.7%
	0	0.2	0.4	0.2	0	94.2%	87.6%
	0	0.2	0.4	0	0	94.0%	87.0%
	0.3	0.3	0.6	0	0	97.0%	90.7%
	0	0	0.6	0.4	0.4	91.7%	83.1%
	0	0.1	0.3	0.2	0.1	66.7%	56.4%
	1	1	0.6	0	0	10.5%	9.9%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0	0.6	0	0	78.3%	68.8%
	0	0.4	0.6	0.4	0	78.3%	69.7%
	0	0.3	0.6	0	0	78.9%	69.1%
	0.3	0.3	1	0	0	95.6%	90.1%
	0	0	1	0.4	0.4	94.0%	87.7%
	0	0.5	0.8	0.4	0.3	83.8%	75.2%
	1	1	0.6	0	0	9.4%	8.8%
	1	1	0.6	1	1	0.0%	0.1%
Cauchy	0	0	0	0	0	5.0%	4.8%
	0	0	1	0	0	84.1%	75.4%
	0	0.4	0.8	0.4	0	72.0%	62.2%
	0	0.3	0.8	0	0	70.5%	61.4%
	0.3	0.3	1.5	0	0	96.2%	91.7%
	0	0	1.5	0.4	0.4	95.3%	90.1%
	0	0.5	0.8	0.4	0.3	56.2%	48.9%
	1	1	0.6	0	0	7.8%	7.6%
	1	1	0.6	1	1	0.4%	0.5%

Table D.161. t = 5, Pk = 3, p = 0.3, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	57.7%	71.1%
	0	0.4	0.6	0.4	0	58.2%	72.2%
	0	0.3	0.6	0	0	58.7%	72.0%
	0.3	0.3	0.6	0	0	39.1%	50.5%
	0	0	1	0.4	0.4	77.9%	89.4%
	0	0.5	0.8	0.4	0.3	63.4%	77.5%
	1	1	0.6	0	0	7.4%	8.4%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0	0.4	0	0	58.4%	73.2%
	0	0.2	0.4	0.2	0	61.1%	75.8%
	0	0.2	0.4	0	0	60.0%	74.2%
	0.3	0.3	0.6	0	0	65.0%	79.7%
	0	0	0.6	0.4	0.4	55.2%	70.1%
	0	0.2	0.5	0.4	0.1	69.2%	82.7%
	1	1	0.6	0	0	7.3%	8.6%
	1	1	0.6	1	1	0.1%	0.1%
T with 3 df.	0	0	0	0	0	5.3%	5.4%
	0	0	0.6	0	0	44.4%	56.3%
	0	0.4	0.6	0.4	0	44.7%	56.3%
	0	0.3	0.6	0	0	44.9%	56.4%
	0.3	0.3	1	0	0	65.9%	79.9%
	0	0	1	0.4	0.4	61.2%	75.4%
	0	0.5	0.8	0.4	0.3	49.4%	62.2%
	1	1	0.6	0	0	7.9%	8.4%
	1	1	0.6	1	1	0.5%	0.3%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	1	0	0	50.8%	63.6%
	0	0.4	1.5	0.4	0	77.2%	89.1%
	0	0.3	1.5	0	0	75.1%	87.7%
	0.3	0.3	1.5	0	0	68.7%	81.1%
	0	0	1.5	0.4	0.4	65.4%	79.2%
	0	0.5	1.5	0.4	0.3	70.0%	83.6%
	1	1	0.6	0	0	6.7%	7.3%
	1	1	0.6	1	1	1.1%	0.8%

D.5.4. Probability of Missing = 0.4

Table D.162. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.6%
	0	0	0.6	0	0	59.1%	67.7%
	0	0.4	0.6	0.4	0	59.0%	68.3%
	0	0.3	0.6	0	0	59.0%	68.4%
	0.3	0.3	0.6	0	0	40.9%	47.8%
	0	0	0.6	0.4	0.4	33.9%	40.8%
	0	0.5	0.8	0.4	0.3	65.8%	74.7%
	1	1	0.6	0	0	8.1%	8.5%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0	0.4	0	0	60.6%	70.5%
	0	0.2	0.4	0.2	0	62.6%	72.1%
	0	0.2	0.4	0	0	62.2%	70.9%
	0.3	0.3	0.6	0	0	67.3%	76.7%
	0	0	0.6	0.4	0.4	57.0%	65.5%
	0	0.2	0.5	0.4	0.1	70.9%	78.9%
	1	1	0.6	0	0	6.8%	8.2%
T with 3 df.	0	0	0	0	0	4.7%	5.0%
	0	0	0.6	0	0	45.9%	52.8%
	0	0.4	0.6	0.4	0	45.0%	53.1%
	0	0.3	0.6	0	0	45.2%	52.2%
	0.3	0.3	1	0	0	68.7%	76.3%
	0	0	1	0.4	0.4	62.5%	72.5%
	0	0.5	0.8	0.4	0.3	50.1%	57.9%
	1	1	0.6	0	0	7.6%	8.0%
	1	1	0.6	1	1	0.4%	0.3%
Cauchy	0	0	0	0	0	4.7%	5.0%
	0	0	1	0	0	51.1%	59.5%
	0	0.4	1.5	0.4	0	79.0%	86.7%
	0	0.3	1.5	0	0	76.7%	84.6%
	0.3	0.3	1.5	0	0	69.1%	78.2%
	0	0	1.5	0.4	0.4	67.7%	75.4%
	0	0.5	1.5	0.4	0.3	71.3%	79.8%
	1	1	0.6	0	0	6.6%	6.9%
	1	1	0.6	1	1	1.1%	0.6%

Table D.163. t = 5, Pk = 3, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.5%	5.0%
	0	0	0.6	0	0	58.7%	62.2%
	0	0.4	0.6	0.4	0	58.1%	62.5%
	0	0.3	0.6	0	0	58.0%	61.7%
	0.3	0.3	0.6	0	0	40.4%	42.9%
	0	0	0.8	0.4	0.4	57.5%	61.1%
	0	0.5	0.8	0.4	0.3	64.4%	68.5%
	1	1	0.6	0	0	8.0%	8.4%
	1	1	0.6	1	1	0.2%	0.2%
Exponential	0	0	0	0	0	5.5%	5.1%
	0	0	0.4	0	0	59.8%	64.3%
	0	0.2	0.4	0.2	0	63.0%	66.5%
	0	0.2	0.4	0	0	60.8%	64.2%
	0.3	0.3	0.6	0	0	65.8%	69.7%
	0	0	0.6	0.4	0.4	56.2%	60.1%
	0	0.2	0.5	0.4	0.1	69.8%	73.4%
	1	1	0.6	0	0	6.9%	8.3%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	44.4%	47.7%
	0	0.4	0.6	0.4	0	44.2%	47.7%
	0	0.3	0.6	0	0	43.8%	47.1%
	0.3	0.3	1	0	0	67.8%	71.2%
	0	0	1	0.4	0.4	62.8%	66.6%
	0	0.5	0.8	0.4	0.3	49.4%	53.0%
	1	1	0.6	0	0	7.4%	7.5%
	1	1	0.6	1	1	0.4%	0.3%
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	0	1	0	0	51.8%	54.9%
	0	0.4	1.5	0.4	0	78.4%	81.9%
	0	0.3	1.5	0	0	76.0%	80.0%
	0.3	0.3	1.5	0	0	68.1%	71.7%
	0	0	1.5	0.4	0.4	66.5%	70.4%
	0	0.5	1.5	0.4	0.3	70.9%	74.9%
	1	1	0.6	0	0	6.5%	6.8%
	1	1	0.6	1	1	0.9%	1.0%

Table D.164. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0	0.6	0	0	48.1%	59.2%
	0	0.4	0.6	0.4	0	48.1%	58.9%
	0	0.3	0.6	0	0	48.7%	59.3%
	0.3	0.3	0.7	0	0	41.5%	52.2%
	0	0	0.6	0.4	0.4	26.9%	34.6%
	0	0.5	0.8	0.4	0.3	52.0%	63.8%
	1	1	0.6	0	0	6.9%	8.1%
	1	1	0.6	1	1	0.4%	0.2%
Exponential	0	0	0	0	0	4.9%	4.7%
	0	0	0.4	0	0	46.4%	59.4%
	0	0.2	0.4	0.2	0	50.6%	63.1%
	0	0.2	0.4	0	0	48.1%	61.1%
	0.3	0.3	0.6	0	0	53.0%	66.0%
	0	0	0.6	0.4	0.4	44.1%	57.1%
	0	0.2	0.5	0.4	0.1	57.6%	70.2%
	1	1	0.6	0	0	6.2%	7.3%
	1	1	0.6	1	1	0.2%	0.1%
T with 3 df.	0	0	0	0	0	4.7%	4.7%
	0	0	0.6	0	0	37.2%	45.4%
	0	0.4	0.6	0.4	0	36.2%	44.8%
	0	0.3	0.6	0	0	36.1%	45.3%
	0.3	0.3	1	0	0	55.0%	68.3%
	0	0	1	0.4	0.4	51.1%	62.9%
	0	0.5	0.8	0.4	0.3	39.1%	48.9%
	1	1	0.6	0	0	6.5%	7.4%
	1	1	0.6	1	1	0.6%	0.3%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	1	0	0	41.0%	51.0%
	0	0.4	1.5	0.4	0	66.9%	79.0%
	0	0.3	1.5	0	0	65.1%	76.8%
	0.3	0.3	1.5	0	0	56.6%	69.0%
	0	0	1.5	0.4	0.4	55.2%	67.2%
	0	0.5	1.5	0.4	0.3	58.7%	71.0%
	1	1	0.6	0	0	6.1%	6.5%
	1	1	0.6	1	1	1.4%	0.9%

Table D.165. t = 5, Pk = 3, p = 0.4, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	57.5%	54.5%
	0	0.4	0.6	0.4	0	58.0%	54.9%
	0	0.3	0.6	0	0	57.8%	54.7%
	0.3	0.3	0.6	0	0	40.6%	37.8%
	0	0	0.6	0.4	0.4	33.2%	31.6%
	0	0.5	0.8	0.4	0.3	63.8%	60.6%
	1	1	0.6	0	0	7.6%	7.9%
	1	1	0.6	1	1	0.2%	0.3%
Exponential	0	0	0	0	0	5.2%	4.8%
	0	0	0.4	0	0	58.8%	55.6%
	0	0.2	0.4	0.2	0	61.9%	58.6%
	0	0.2	0.4	0	0	61.2%	57.9%
	0.3	0.3	0.6	0	0	64.6%	61.3%
	0	0	0.6	0.4	0.4	55.5%	52.4%
	0	0.2	0.5	0.4	0.1	69.2%	65.4%
	1	1	0.6	0	0	6.8%	7.1%
	1	1	0.6	1	1	0.2%	0.1%
T with 3 df.	0	0	0	0	0	4.7%	4.8%
	0	0	0.6	0	0	44.6%	42.5%
	0	0.4	0.6	0.4	0	44.5%	42.9%
	0	0.3	0.6	0	0	44.5%	42.5%
	0.3	0.3	1	0	0	66.1%	62.9%
	0	0	1	0.4	0.4	62.2%	57.9%
	0	0.5	0.8	0.4	0.3	48.7%	46.2%
	1	1	0.6	0	0	7.0%	7.4%
	1	1	0.6	1	1	0.4%	0.4%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	1	0	0	49.6%	46.6%
	0	0.4	1.5	0.4	0	76.9%	74.0%
	0	0.3	1.5	0	0	75.6%	71.9%
	0.3	0.3	1.5	0	0	68.1%	64.3%
	0	0	1.5	0.4	0.4	66.1%	62.7%
	0	0.5	1.5	0.4	0.3	71.1%	67.2%
	1	1	0.6	0	0	6.5%	6.4%
	1	1	0.6	1	1	1.0%	0.9%

Table D.166. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0	0.6	0	0	36.0%	45.9%
	0	0.4	0.6	0.4	0	36.6%	46.9%
	0	0.3	0.6	0	0	37.3%	47.5%
	0.3	0.3	0.8	0	0	40.5%	51.1%
	0	0	0.8	0.4	0.4	36.1%	45.7%
	0	0.5	0.8	0.4	0.3	40.5%	51.3%
	1	1	0.6	0	0	7.0%	7.4%
	1	1	0.6	1	1	0.6%	0.4%
Exponential	0	0	0	0	0	5.6%	5.5%
	0	0	0.4	0	0	34.8%	45.8%
	0	0.2	0.4	0.2	0	37.7%	49.0%
	0	0.2	0.4	0	0	36.3%	46.8%
	0.3	0.3	0.6	0	0	38.9%	50.6%
	0	0	0.8	0.4	0.4	55.0%	69.8%
	0	0.2	0.5	0.4	0.1	44.0%	56.7%
	1	1	0.6	0	0	5.8%	6.9%
	1	1	0.6	1	1	0.5%	0.2%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0	1	0	0	52.8%	65.7%
	0	0.4	0.8	0.4	0	40.5%	51.8%
	0	0.3	0.8	0	0	40.2%	50.9%
	0.3	0.3	1	0	0	43.2%	54.2%
	0	0	1	0.4	0.4	39.4%	50.0%
	0	0.5	1	0.4	0.3	43.1%	55.0%
	1	1	0.6	0	0	6.2%	6.7%
	1	1	0.6	1	1	0.8%	0.6%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	1.5	0	0	50.4%	62.4%
	0	0.4	1.5	0.4	0	51.8%	64.9%
	0	0.3	1.5	0	0	50.7%	63.0%
	0.3	0.3	1.5	0	0	43.5%	55.4%
	0	0	1.5	0.4	0.4	41.5%	52.9%
	0	0.5	1.5	0.4	0.3	45.1%	57.5%
	1	1	0.6	0	0	5.8%	6.4%
	1	1	0.6	1	1	1.7%	1.2%

Table D.167. t = 5, Pk = 3, p = 0.4, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0.6	0	0	91.2%	81.9%
	0	0.4	0.6	0.4	0	90.6%	82.3%
	0	0.3	0.6	0	0	91.4%	82.3%
	0.3	0.3	0.6	0	0	73.2%	61.6%
	0	0	0.6	0.4	0.4	64.3%	53.3%
	0	0.5	0.8	0.4	0.3	94.6%	87.3%
	1	1	0.6	0	0	10.3%	9.7%
	1	1	0.6	1	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0	0.4	0	0	93.9%	84.3%
	0	0.2	0.4	0.2	0	94.6%	87.1%
	0	0.2	0.4	0	0	94.1%	86.0%
	0.3	0.3	0.6	0	0	96.7%	89.2%
	0	0	0.6	0.4	0.4	92.1%	82.3%
	0	0.1	0.3	0.2	0.1	66.1%	55.1%
	1	1	0.6	0	0	11.5%	10.8%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0	0.6	0	0	78.9%	67.7%
	0	0.4	0.6	0.4	0	78.0%	67.9%
	0	0.3	0.6	0	0	78.6%	67.3%
	0.3	0.3	1	0	0	95.8%	89.7%
	0	0	1	0.4	0.4	93.9%	86.1%
	0	0.5	0.8	0.4	0.3	83.5%	72.8%
	1	1	0.6	0	0	9.8%	9.1%
	1	1	0.6	1	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.0%	5.4%
	0	0	1	0	0	84.2%	74.5%
	0	0.4	0.8	0.4	0	71.3%	61.0%
	0	0.3	0.8	0	0	71.0%	60.1%
	0.3	0.3	1.5	0	0	95.8%	90.2%
	0	0	1.5	0.4	0.4	95.1%	88.2%
	0	0.5	0.8	0.4	0.3	56.9%	47.2%
	1	1	0.6	0	0	8.6%	7.6%
	1	1	0.6	1	1	0.3%	0.5%

Table D.168. t = 5, Pk = 3, p = 0.4, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.7%
	0	0	0.6	0	0	54.0%	67.6%
	0	0.4	0.6	0.4	0	53.4%	67.7%
	0	0.3	0.6	0	0	54.0%	67.8%
	0.3	0.3	0.6	0	0	36.3%	46.8%
	0	0	1	0.4	0.4	72.4%	86.6%
	0	0.5	0.8	0.4	0.3	58.7%	73.6%
	1	1	0.6	0	0	7.6%	8.8%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0.4	0	0	53.0%	69.2%
	0	0.2	0.4	0.2	0	56.4%	71.6%
	0	0.2	0.4	0	0	55.2%	69.9%
	0.3	0.3	0.6	0	0	58.8%	75.4%
	0	0	0.6	0.4	0.4	49.7%	64.8%
	0	0.2	0.5	0.4	0.1	63.8%	78.6%
	1	1	0.6	0	0	7.3%	8.9%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.0%
	0	0	0.6	0	0	39.8%	51.2%
	0	0.4	0.6	0.4	0	40.7%	52.5%
	0	0.3	0.6	0	0	40.2%	51.9%
	0.3	0.3	1	0	0	61.6%	75.9%
	0	0	1	0.4	0.4	56.9%	71.9%
	0	0.5	0.8	0.4	0.3	44.3%	57.2%
	1	1	0.6	0	0	7.9%	8.5%
	1	1	0.6	1	1	0.5%	0.2%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	0	1	0	0	46.1%	59.0%
	0	0.4	1.5	0.4	0	72.7%	85.5%
	0	0.3	1.5	0	0	70.6%	83.9%
	0.3	0.3	1.5	0	0	62.8%	76.8%
	0	0	1.5	0.4	0.4	60.9%	75.3%
	0	0.5	1.5	0.4	0.3	65.4%	79.8%
	1	1	0.6	0	0	6.8%	7.2%
	1	1	0.6	1	1	1.2%	0.8%

D.5.5. Probability of Missing = 0.5

Table D.169. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.7%
	0	0	0.6	0	0	58.9%	64.7%
	0	0.4	0.6	0.4	0	59.1%	65.7%
	0	0.3	0.6	0	0	58.1%	65.5%
	0.3	0.3	0.6	0	0	39.8%	44.3%
	0	0	0.6	0.4	0.4	34.0%	38.7%
	0	0.5	0.8	0.4	0.3	64.7%	71.3%
	1	1	0.6	0	0	8.1%	8.3%
	1	1	0.6	1	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.5%	5.5%
	0	0	0.4	0	0	60.1%	67.4%
	0	0.2	0.4	0.2	0	63.0%	69.4%
	0	0.2	0.4	0	0	61.4%	68.4%
	0.3	0.3	0.6	0	0	66.7%	72.9%
	0	0	0.6	0.4	0.4	56.2%	63.7%
	0	0.2	0.5	0.4	0.1	70.9%	76.9%
	1	1	0.6	0	0	7.3%	8.0%
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0	0.6	0	0	45.4%	50.5%
	0	0.4	0.6	0.4	0	45.0%	51.3%
	0	0.3	0.6	0	0	46.1%	51.7%
	0.3	0.3	1	0	0	67.5%	74.0%
	0	0	1	0.4	0.4	62.7%	69.3%
	0	0.5	0.8	0.4	0.3	49.8%	56.6%
	1	1	0.6	0	0	7.4%	8.3%
	1	1	0.6	1	1	0.4%	0.3%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	1	0	0	51.1%	57.0%
	0	0.4	1.5	0.4	0	77.9%	83.4%
	0	0.3	1.5	0	0	77.2%	82.9%
	0.3	0.3	1.5	0	0	68.7%	75.3%
	0	0	1.5	0.4	0.4	67.1%	73.5%
	0	0.5	1.5	0.4	0.3	71.5%	77.7%
	1	1	0.6	0	0	6.7%	7.1%
	1	1	0.6	1	1	0.9%	0.8%

Table D.170. t = 5, Pk = 3, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	57.7%	59.4%
	0	0.4	0.6	0.4	0	59.1%	60.8%
	0	0.3	0.6	0	0	57.9%	60.2%
	0.3	0.3	0.6	0	0	39.3%	41.2%
	0	0	0.8	0.4	0.4	57.5%	60.0%
	0	0.5	0.8	0.4	0.3	63.5%	65.8%
	1	1	0.6	0	0	7.7%	7.7%
	1	1	0.6	1	1	0.2%	0.2%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0	0.4	0	0	58.9%	60.3%
	0	0.2	0.4	0.2	0	62.4%	64.6%
	0	0.2	0.4	0	0	60.1%	61.8%
	0.3	0.3	0.6	0	0	66.4%	67.4%
	0	0	0.6	0.4	0.4	55.9%	58.1%
	0	0.2	0.5	0.4	0.1	70.1%	71.9%
	1	1	0.6	0	0	7.1%	7.8%
	1	1	0.6	1	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	44.5%	45.9%
	0	0.4	0.6	0.4	0	45.2%	46.7%
	0	0.3	0.6	0	0	44.2%	45.5%
	0.3	0.3	1	0	0	66.9%	68.9%
	0	0	1	0.4	0.4	62.4%	64.1%
	0	0.5	0.8	0.4	0.3	50.1%	52.1%
	1	1	0.6	0	0	7.5%	7.8%
	1	1	0.6	1	1	0.5%	0.5%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	1	0	0	50.4%	51.8%
	0	0.4	1.5	0.4	0	77.5%	78.9%
	0	0.3	1.5	0	0	76.4%	78.0%
	0.3	0.3	1.5	0	0	68.0%	69.7%
	0	0	1.5	0.4	0.4	66.1%	68.5%
	0	0.5	1.5	0.4	0.3	71.2%	72.4%
	1	1	0.6	0	0	6.8%	6.8%
	1	1	0.6	1	1	0.9%	0.9%

Table D.171. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.9%
	0	0	0.6	0	0	45.8%	56.1%
	0	0.4	0.6	0.4	0	47.1%	56.1%
	0	0.3	0.6	0	0	46.4%	55.6%
	0.3	0.3	0.7	0	0	41.3%	49.8%
	0	0	0.6	0.4	0.4	26.8%	32.5%
	0	0.5	0.8	0.4	0.3	51.5%	61.6%
	1	1	0.6	0	0	7.1%	8.2%
	1	1	0.6	1	1	0.3%	0.3%
Exponential	0	0	0	0	0	5.0%	5.4%
	0	0	0.4	0	0	45.9%	56.2%
	0	0.2	0.4	0.2	0	50.0%	59.7%
	0	0.2	0.4	0	0	48.0%	58.2%
	0.3	0.3	0.6	0	0	51.7%	62.6%
	0	0	0.6	0.4	0.4	43.2%	52.9%
	0	0.2	0.5	0.4	0.1	56.3%	67.4%
	1	1	0.6	0	0	6.2%	7.5%
	1	1	0.6	1	1	0.2%	0.1%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0	0.6	0	0	34.8%	42.0%
	0	0.4	0.6	0.4	0	34.6%	42.3%
	0	0.3	0.6	0	0	35.4%	43.1%
	0.3	0.3	1	0	0	54.0%	64.6%
	0	0	1	0.4	0.4	50.4%	60.7%
	0	0.5	0.8	0.4	0.3	38.8%	46.8%
	1	1	0.6	0	0	6.5%	7.1%
	1	1	0.6	1	1	0.7%	0.6%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	1	0	0	40.9%	48.6%
	0	0.4	1.5	0.4	0	64.6%	74.9%
	0	0.3	1.5	0	0	64.0%	73.4%
	0.3	0.3	1.5	0	0	56.1%	66.6%
	0	0	1.5	0.4	0.4	53.8%	63.8%
	0	0.5	1.5	0.4	0.3	58.7%	68.4%
	1	1	0.6	0	0	6.3%	6.7%
	1	1	0.6	1	1	1.4%	1.0%

Table D.172. t = 5, Pk = 3, p = 0.5, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.2%
	0	0	0.6	0	0	57.8%	52.7%
	0	0.4	0.6	0.4	0	57.7%	52.8%
	0	0.3	0.6	0	0	58.0%	53.3%
	0.3	0.3	0.6	0	0	38.5%	36.0%
	0	0	0.6	0.4	0.4	32.6%	30.8%
	0	0.5	0.8	0.4	0.3	63.8%	59.2%
	1	1	0.6	0	0	7.4%	7.6%
	1	1	0.6	1	1	0.2%	0.3%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0.4	0	0	58.7%	52.8%
	0	0.2	0.4	0.2	0	62.6%	57.2%
	0	0.2	0.4	0	0	60.5%	55.0%
	0.3	0.3	0.6	0	0	65.1%	58.2%
	0	0	0.6	0.4	0.4	54.4%	49.4%
	0	0.2	0.5	0.4	0.1	69.1%	63.1%
	1	1	0.6	0	0	7.0%	7.2%
	1	1	0.6	1	1	0.1%	0.1%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	43.9%	40.0%
	0	0.4	0.6	0.4	0	43.9%	40.6%
	0	0.3	0.6	0	0	43.1%	40.3%
	0.3	0.3	1	0	0	66.1%	60.6%
	0	0	1	0.4	0.4	61.9%	56.8%
	0	0.5	0.8	0.4	0.3	48.9%	44.4%
	1	1	0.6	0	0	7.0%	6.8%
	1	1	0.6	1	1	0.4%	0.5%
Cauchy	0	0	0	0	0	5.1%	4.8%
	0	0	1	0	0	49.6%	44.9%
	0	0.4	1.5	0.4	0	76.3%	71.8%
	0	0.3	1.5	0	0	76.0%	70.9%
	0.3	0.3	1.5	0	0	67.7%	62.1%
	0	0	1.5	0.4	0.4	65.3%	60.9%
	0	0.5	1.5	0.4	0.3	70.6%	65.9%
	1	1	0.6	0	0	6.4%	6.4%
	1	1	0.6	1	1	1.1%	1.2%

Table D.173. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0	0.6	0	0	34.5%	43.4%
	0	0.4	0.6	0.4	0	35.2%	45.0%
	0	0.3	0.6	0	0	34.8%	44.1%
	0.3	0.3	0.8	0	0	38.2%	48.1%
	0	0	0.8	0.4	0.4	34.1%	42.3%
	0	0.5	0.8	0.4	0.3	38.4%	48.5%
	1	1	0.6	0	0	6.3%	7.5%
	1	1	0.6	1	1	0.7%	0.3%
Exponential	0	0	0	0	0	5.3%	5.0%
	0	0	0.4	0	0	32.0%	41.9%
	0	0.2	0.4	0.2	0	36.9%	47.6%
	0	0.2	0.4	0	0	34.7%	45.3%
	0.3	0.3	0.6	0	0	36.2%	47.7%
	0	0	0.8	0.4	0.4	51.6%	65.3%
	0	0.2	0.5	0.4	0.1	42.0%	52.3%
	1	1	0.6	0	0	5.6%	6.4%
	1	1	0.6	1	1	0.4%	0.2%
T with 3 df.	0	0	0	0	0	4.9%	5.3%
	0	0	1	0	0	50.7%	61.3%
	0	0.4	0.8	0.4	0	39.2%	48.7%
	0	0.3	0.8	0	0	38.2%	47.4%
	0.3	0.3	1	0	0	41.8%	51.7%
	0	0	1	0.4	0.4	37.1%	46.8%
	0	0.5	1	0.4	0.3	40.9%	51.2%
	1	1	0.6	0	0	6.4%	6.5%
	1	1	0.6	1	1	0.9%	0.7%
Cauchy	0	0	0	0	0	4.7%	5.0%
	0	0	1.5	0	0	48.2%	59.4%
	0	0.4	1.5	0.4	0	50.7%	61.8%
	0	0.3	1.5	0	0	48.7%	59.7%
	0.3	0.3	1.5	0	0	43.0%	53.3%
	0	0	1.5	0.4	0.4	40.5%	50.1%
	0	0.5	1.5	0.4	0.3	43.4%	54.2%
	1	1	0.6	0	0	6.0%	6.4%
	1	1	0.6	1	1	1.8%	1.3%

Table D.174. t = 5, Pk = 3, p = 0.5, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.7%
	0	0	0.6	0	0	91.1%	81.7%
	0	0.4	0.6	0.4	0	91.5%	82.3%
	0	0.3	0.6	0	0	91.5%	82.1%
	0.3	0.3	0.6	0	0	72.1%	60.4%
	0	0	0.6	0.4	0.4	63.6%	52.5%
	0	0.5	0.8	0.4	0.3	94.2%	86.2%
	1	1	0.6	1	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.8%
	0	0	0.4	0	0	94.0%	83.2%
	0	0.2	0.4	0.2	0	94.2%	85.8%
	0	0.2	0.4	0	0	94.3%	84.4%
	0.3	0.3	0.6	0	0	96.6%	88.3%
	0	0	0.6	0.4	0.4	92.2%	80.7%
	0	0.1	0.3	0.2	0.1	65.8%	52.6%
	1	1	0.6	0	0	10.7%	10.0%
	1	1	0.6	1	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0	0.6	0	0	78.1%	65.7%
	0	0.4	0.6	0.4	0	78.2%	66.4%
	0	0.3	0.6	0	0	78.7%	66.2%
	0.3	0.3	1	0	0	95.8%	89.1%
	0	0	1	0.4	0.4	93.5%	85.0%
	0	0.5	0.8	0.4	0.3	83.8%	72.5%
	1	1	0.6	0	0	9.9%	9.3%
	1	1	0.6	1	1	0.1%	0.1%
	0	0.3	0.6	0.7	1	10.2%	9.6%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	1	0	0	85.1%	73.2%
	0	0.4	0.8	0.4	0	71.5%	59.6%
	0	0.3	0.8	0	0	70.6%	58.3%
	0.3	0.3	1.5	0	0	96.2%	89.3%
	0	0	1.5	0.4	0.4	95.4%	87.9%
	0	0.5	0.8	0.4	0.3	56.7%	46.2%
	1	1	0.6	0	0	8.4%	7.3%
	1	1	0.6	1	1	0.3%	0.5%

Table D.175. t = 5, Pk = 3, p = 0.5, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.2%
	0	0	0.6	0	0	48.1%	62.2%
	0	0.4	0.6	0.4	0	49.1%	63.2%
	0	0.3	0.6	0	0	49.6%	63.2%
	0.3	0.3	0.6	0	0	33.4%	42.8%
	0	0	1	0.4	0.4	68.2%	82.9%
	0	0.5	0.8	0.4	0.3	54.1%	69.5%
	1	1	0.6	0	0	7.7%	8.4%
	1	1	0.6	1	1	0.4%	0.2%
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0	0.4	0	0	47.7%	63.3%
	0	0.2	0.4	0.2	0	50.9%	66.2%
	0	0.2	0.4	0	0	50.2%	65.7%
	0.3	0.3	0.6	0	0	54.1%	70.4%
	0	0	0.6	0.4	0.4	44.2%	59.3%
	0	0.2	0.5	0.4	0.1	58.8%	73.7%
	1	1	0.6	0	0	7.1%	8.4%
	1	1	0.6	1	1	0.1%	0.1%
T with 3 df.	0	0	0	0	0	5.0%	4.6%
	0	0	0.6	0	0	36.2%	47.6%
	0	0.4	0.6	0.4	0	36.3%	48.2%
	0	0.3	0.6	0	0	37.0%	48.6%
	0.3	0.3	1	0	0	56.6%	71.6%
	0	0	1	0.4	0.4	52.7%	67.1%
	0	0.5	0.8	0.4	0.3	41.7%	54.4%
	1	1	0.6	0	0	7.0%	7.6%
	1	1	0.6	1	1	0.6%	0.4%
Cauchy	0	0	0	0	0	5.3%	4.9%
	0	0	1	0	0	42.2%	55.3%
	0	0.4	1.5	0.4	0	67.4%	82.0%
	0	0.3	1.5	0	0	65.4%	80.3%
	0.3	0.3	1.5	0	0	58.0%	72.7%
	0	0	1.5	0.4	0.4	55.7%	71.1%
	0	0.5	1.5	0.4	0.3	61.1%	75.3%
	1	1	0.6	0	0	6.5%	6.9%
	1	1	0.6	1	1	1.5%	1.0%

D.6. Five Treatments – Peak at Four

D.6.1. Probability of Missing = 0.1

Table D.176. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0	0	0.8	0	75.2%	88.9%
	0	0	0.4	0.8	0	84.9%	94.8%
	0	0.3	0.3	0.6	0	56.3%	70.9%
	0.4	0	0	0.8	0	39.7%	54.3%
	0.4	0	0.4	0.8	0	54.0%	69.9%
	0.4	0.4	0.4	0.8	0	43.6%	57.7%
	0.3	0.1	0.6	0.7	0	55.3%	70.2%
Exponential	0	0	0	0	0	5.3%	4.9%
	0	0	0	0.4	0	55.7%	72.0%
	0	0	0.2	0.4	0	67.0%	82.7%
	0	0.3	0.3	0.6	0	85.0%	95.2%
	0.2	0	0	0.4	0	24.5%	35.2%
	0.2	0	0.2	0.4	0	37.5%	52.1%
	0.2	0.2	0.2	0.4	0	30.0%	40.6%
	0.1	0.2	0.3	0.4	0	51.0%	65.6%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.8	0	59.0%	74.5%
	0	0	0.4	0.8	0	69.6%	84.0%
	0	0.3	0.3	0.6	0	41.5%	55.6%
	0.4	0	0	0.8	0	30.6%	40.8%
	0.4	0	0.4	0.8	0	41.1%	54.1%
	0.4	0.4	0.4	0.8	0	32.9%	43.9%
	0.3	0.1	0.6	0.7	0	41.6%	55.4%
Cauchy	0	0	0	0	0	5.0%	5.5%
	0	0	0	1	0	47.3%	61.9%
	0	0	0.4	1	0	55.2%	70.4%
	0	0.3	0.3	1	0	49.3%	64.1%
	0.4	0	0	1	0	29.0%	37.7%
	0.4	0	0.4	1	0	35.6%	46.7%
	0.4	0.4	0.4	1	0	30.0%	40.2%
	0.3	0.1	0.6	1	0	42.9%	55.8%
	0.5	0.5	0.5	0	1	0.3%	0.3%

Table D.177. t = 5, Pk = 4, p = 0.1, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	74.7%	84.5%
	0	0	0.4	0.8	0	83.7%	91.7%
	0	0.3	0.3	0.6	0	54.5%	64.8%
	0.4	0	0	0.8	0	39.6%	48.1%
	0.4	0	0.4	0.8	0	52.6%	63.1%
	0.4	0.4	0.4	0.8	0	42.2%	50.7%
	0.3	0.1	0.6	0.7	0	53.7%	63.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.4	0	54.6%	65.8%
	0	0	0.2	0.4	0	66.0%	77.4%
	0	0.3	0.3	0.6	0	83.5%	91.4%
	0.2	0	0	0.4	0	23.5%	30.2%
	0.2	0	0.2	0.4	0	36.6%	44.6%
	0.2	0.2	0.2	0.4	0	29.0%	36.5%
	0.1	0.2	0.3	0.4	0	49.3%	59.4%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	58.1%	68.6%
	0	0	0.4	0.8	0	68.1%	78.5%
	0	0.3	0.3	0.6	0	40.7%	49.7%
	0.4	0	0	0.8	0	30.3%	36.0%
	0.4	0	0.4	0.8	0	39.9%	48.0%
	0.4	0.4	0.4	0.8	0	31.0%	37.9%
	0.3	0.1	0.6	0.7	0	40.9%	48.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	0	1	0	46.2%	55.4%
	0	0	0.4	1	0	53.4%	63.7%
	0	0.3	0.3	1	0	49.5%	57.8%
	0.4	0	0	1	0	28.2%	33.6%
	0.4	0	0.4	1	0	34.8%	41.7%
	0.4	0.4	0.4	1	0	29.8%	36.1%
	0.3	0.1	0.6	1	0	41.6%	49.4%
	0.5	0.5	0.5	0	1	0.5%	0.2%

Table D.178. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.8	0	64.2%	82.8%
	0	0	0.4	0.8	0	73.9%	90.4%
	0	0.3	0.3	0.6	0	46.4%	63.0%
	0.4	0	0	0.8	0	33.1%	47.0%
	0.4	0	0.4	0.8	0	44.1%	61.4%
	0.4	0.4	0.4	0.8	0	35.5%	48.9%
	0.3	0.1	0.6	0.7	0	45.9%	63.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.5%	4.6%
	0	0	0	0.4	0	44.6%	63.4%
	0	0	0.2	0.4	0	56.0%	75.2%
	0	0.3	0.3	0.6	0	73.6%	91.1%
	0.2	0	0	0.4	0	19.1%	29.6%
	0.2	0	0.2	0.4	0	29.5%	43.5%
	0.2	0.2	0.2	0.4	0	23.8%	33.8%
	0.3	0.1	0.6	0.7	0	71.6%	89.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.3%
	0	0	0	0.8	0	48.6%	66.8%
	0	0	0.4	0.8	0	59.2%	76.5%
	0	0.3	0.3	0.6	0	34.6%	48.7%
	0.4	0	0	0.8	0	25.3%	35.1%
	0.4	0	0.4	0.8	0	33.9%	47.9%
	0.4	0.4	0.4	0.8	0	27.4%	37.3%
	0.3	0.1	0.6	0.7	0	34.1%	47.7%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0	0	1	0	39.3%	54.5%
	0	0	0.4	1	0	45.4%	62.8%
	0	0.3	0.3	1	0	41.0%	56.6%
	0.4	0	0	1	0	24.6%	33.0%
	0.4	0	0.4	1	0	28.7%	40.7%
	0.4	0.4	0.4	1	0	25.9%	34.9%
	0.3	0.1	0.6	1	0	35.0%	49.0%
	0.5	0.5	0.5	0	1	0.6%	0.4%

Table D.179. t = 5, Pk = 4, p = 0.1, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	72.4%	74.6%
	0	0	0.4	0.8	0	82.9%	84.0%
	0	0.3	0.3	0.6	0	52.5%	54.8%
	0.4	0	0	0.8	0	38.7%	40.5%
	0.4	0	0.4	0.8	0	50.8%	53.3%
	0.4	0.4	0.4	0.8	0	39.9%	42.8%
	0.3	0.1	0.6	0.7	0	52.8%	55.4%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Exponential	0	0	0	0	0	4.7%	4.7%
	0	0	0	0.4	0	53.8%	55.5%
	0	0	0.2	0.4	0	64.1%	67.0%
	0	0.3	0.3	0.6	0	82.5%	84.4%
	0.2	0	0	0.4	0	23.5%	25.5%
	0.2	0	0.2	0.4	0	34.7%	36.7%
	0.2	0.2	0.2	0.4	0	27.6%	29.7%
	0.1	0.2	0.3	0.4	0	47.4%	49.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	56.2%	59.1%
	0	0	0.4	0.8	0	66.8%	68.8%
	0	0.3	0.3	0.6	0	40.3%	41.8%
	0.4	0	0	0.8	0	29.2%	30.4%
	0.4	0	0.4	0.8	0	39.7%	40.8%
	0.4	0.4	0.4	0.8	0	31.2%	32.2%
	0.3	0.1	0.6	0.7	0	39.4%	41.1%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	4.9%	5.4%
	0	0	0	1	0	46.1%	48.1%
	0	0	0.4	1	0	52.1%	54.8%
	0	0.3	0.3	1	0	47.6%	48.2%
	0.4	0	0	1	0	27.7%	29.4%
	0.4	0	0.4	1	0	34.1%	35.7%
	0.4	0.4	0.4	1	0	28.3%	30.1%
	0.3	0.1	0.6	1	0	40.2%	42.7%
	0.5	0.5	0.5	0	1	0.4%	0.4%

Table D.180. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.8	0	55.2%	70.1%
	0	0	0.4	0.8	0	65.0%	79.7%
	0	0.3	0.3	0.6	0	38.9%	50.8%
	0.4	0	0	0.8	0	27.8%	37.1%
	0.4	0	0.4	0.8	0	37.9%	49.8%
	0.4	0.4	0.4	0.8	0	30.8%	39.9%
	0.3	0.1	0.6	0.7	0	38.8%	50.3%
	0.5	0.5	0.5	0	1	0.2%	0.0%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.4	0	37.9%	51.6%
	0	0	0.2	0.4	0	47.3%	61.8%
	0	0.3	0.3	0.6	0	66.4%	81.6%
	0.2	0	0	0.4	0	16.8%	23.0%
	0.2	0	0.2	0.4	0	24.8%	34.2%
	0.2	0.2	0.2	0.4	0	20.4%	27.8%
	0.3	0.1	0.6	0.7	0	62.0%	78.4%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	41.4%	55.2%
	0	0	0.4	0.8	0	49.3%	63.7%
	0	0.3	0.3	0.6	0	29.2%	38.7%
	0.4	0	0	0.8	0	22.2%	29.0%
	0.4	0	0.4	0.8	0	29.3%	38.3%
	0.4	0.4	0.4	0.8	0	22.8%	29.2%
	0.3	0.1	0.6	0.7	0	29.5%	39.1%
	0.5	0.5	0.5	0	1	0.5%	0.2%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	0	1	0	33.7%	43.9%
	0	0	0.4	1	0	39.3%	51.1%
	0	0.3	0.3	1	0	34.7%	44.9%
	0.4	0	0	1	0	20.1%	25.9%
	0.4	0	0.4	1	0	25.6%	33.1%
	0.4	0.4	0.4	1	0	21.4%	27.4%
	0.3	0.1	0.6	1	0	29.5%	38.9%
	0.5	0.5	0.5	0	1	0.9%	0.5%

Table D.181. t = 5, Pk = 4, p = 0.1, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.4	0	58.4%	51.4%
	0	0	0.2	0.4	0	67.5%	61.2%
	0	0.3	0.3	0.6	0	87.8%	81.3%
	0.2	0	0	0.4	0	30.1%	27.4%
	0.2	0	0.2	0.4	0	39.6%	34.7%
	0.2	0.2	0.2	0.4	0	31.5%	27.7%
	0.1	0.1	0.3	0.4	0	53.5%	47.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.4	0	89.0%	82.8%
	0	0	0.1	0.2	0	53.2%	46.9%
	0	0.1	0.1	0.3	0	72.7%	65.6%
	0.2	0	0	0.4	0	51.8%	45.0%
	0.1	0	0.1	0.2	0	30.2%	26.5%
	0.2	0.2	0.2	0.4	0	57.1%	50.6%
	0.1	0.1	0.2	0.4	0	83.5%	76.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0	0	0.4	0	44.6%	40.3%
	0	0	0.2	0.4	0	51.3%	46.3%
	0	0.3	0.3	0.6	0	73.5%	66.3%
	0.4	0	0	0.8	0	57.2%	50.7%
	0.2	0	0.2	0.4	0	29.9%	26.9%
	0.4	0.4	0.4	0.8	0	58.4%	52.3%
	0.3	0.1	0.6	0.7	0	72.7%	66.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	78.8%	72.0%
	0	0	0.4	1	0	86.4%	80.7%
	0	0.3	0.3	1	0	81.0%	74.2%
	0.4	0	0	1	0	52.8%	46.1%
	0.4	0	0.4	1	0	64.3%	57.5%
	0.4	0.4	0.4	1	0	56.1%	49.6%
	0.3	0.1	0.6	1	0	74.1%	67.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%

Table D.182. t = 5, Pk = 4, p = 0.1, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.4%
	0	0	0	0.8	0	83.5%	91.9%
	0	0	0.4	0.8	0	90.5%	96.4%
	0	0.3	0.3	0.6	0	62.8%	74.4%
	0.4	0	0	0.8	0	46.8%	58.4%
	0.4	0	0.4	0.8	0	61.2%	73.4%
	0.4	0.4	0.4	0.8	0	50.6%	61.0%
	0.3	0.1	0.6	0.7	0	62.9%	74.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.7%
	0	0	0	0.4	0	64.3%	76.6%
	0	0	0.2	0.4	0	74.9%	86.3%
	0	0.3	0.3	0.6	0	91.4%	96.5%
	0.2	0	0	0.4	0	30.0%	38.6%
	0.2	0	0.2	0.4	0	44.1%	55.7%
	0.2	0.2	0.2	0.4	0	35.1%	43.9%
	0.3	0.1	0.6	0.7	0	89.6%	96.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.8	0	67.4%	79.4%
	0	0	0.4	0.8	0	77.6%	87.4%
	0	0.3	0.3	0.6	0	49.8%	59.9%
	0.4	0	0	0.8	0	35.5%	44.3%
	0.4	0	0.4	0.8	0	47.3%	58.2%
	0.4	0.4	0.4	0.8	0	37.6%	46.4%
	0.3	0.1	0.6	0.7	0	47.7%	58.3%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	0	1	0	54.3%	64.8%
	0	0	0.4	1	0	62.5%	74.4%
	0	0.3	0.3	1	0	56.0%	67.3%
	0.4	0	0	1	0	33.1%	40.8%
	0.4	0	0.4	1	0	41.6%	50.5%
	0.4	0.4	0.4	1	0	36.3%	44.3%
	0.3	0.1	0.6	1	0	48.7%	59.7%
	0.5	0.5	0.5	0	1	0.2%	0.1%

D.6.2. Probability of Missing = 0.2

Table D.183. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.2%
	0	0	0	0.8	0	74.7%	87.6%
	0	0	0.4	0.8	0	83.7%	93.3%
	0	0.3	0.3	0.6	0	54.9%	68.4%
	0.4	0	0	0.8	0	40.1%	52.4%
	0.4	0	0.4	0.8	0	53.4%	67.2%
	0.4	0.4	0.4	0.8	0	42.5%	53.9%
	0.3	0.1	0.6	0.7	0	54.0%	67.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.4%
	0	0	0	0.4	0	54.7%	69.6%
	0	0	0.2	0.4	0	66.2%	80.0%
	0	0.3	0.3	0.6	0	84.4%	93.8%
	0.2	0	0	0.4	0	24.3%	33.2%
	0.2	0	0.2	0.4	0	37.7%	48.8%
	0.2	0.2	0.2	0.4	0	29.6%	38.8%
	0.1	0.2	0.3	0.4	0	50.0%	62.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	4.9%
	0	0	0	0.8	0	59.5%	72.5%
	0	0	0.4	0.8	0	68.6%	82.0%
	0	0.3	0.3	0.6	0	42.1%	53.8%
	0.4	0	0	0.8	0	31.1%	39.0%
	0.4	0	0.4	0.8	0	41.2%	52.7%
	0.4	0.4	0.4	0.8	0	32.0%	41.1%
	0.3	0.1	0.6	0.7	0	41.0%	52.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	5.3%	4.9%
	0	0	0	1	0	46.9%	59.3%
	0	0	0.4	1	0	54.5%	67.2%
	0	0.3	0.3	1	0	47.9%	60.5%
	0.4	0	0	1	0	28.7%	36.3%
	0.4	0	0.4	1	0	35.1%	45.2%
	0.4	0.4	0.4	1	0	29.2%	37.3%
	0.3	0.1	0.6	1	0	42.2%	52.3%

Table D.184. t = 5, Pk = 4, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.8	0	73.6%	81.1%
	0	0	0.4	0.8	0	83.4%	89.5%
	0	0.3	0.3	0.6	0	52.8%	61.8%
	0.4	0	0	0.8	0	38.9%	45.7%
	0.4	0	0.4	0.8	0	53.0%	60.3%
	0.4	0.4	0.4	0.8	0	41.4%	48.1%
	0.3	0.1	0.6	0.7	0	53.6%	62.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.2%
	0	0	0	0.4	0	53.4%	62.5%
	0	0	0.2	0.4	0	65.1%	74.3%
	0	0.3	0.3	0.6	0	83.7%	90.2%
	0.2	0	0	0.4	0	24.3%	28.9%
	0.2	0	0.2	0.4	0	36.4%	42.7%
	0.2	0.2	0.2	0.4	0	28.9%	34.4%
	0.1	0.2	0.3	0.4	0	48.5%	56.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	58.5%	65.9%
	0	0	0.4	0.8	0	67.6%	75.3%
	0	0.3	0.3	0.6	0	40.1%	47.7%
	0.4	0	0	0.8	0	29.8%	34.5%
	0.4	0	0.4	0.8	0	39.3%	46.3%
	0.4	0.4	0.4	0.8	0	31.0%	35.5%
	0.3	0.1	0.6	0.7	0	40.5%	47.8%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.0%	4.7%
	0	0	0	1	0	46.1%	53.6%
	0	0	0.4	1	0	52.5%	61.0%
	0	0.3	0.3	1	0	47.0%	54.2%
	0.4	0	0	1	0	28.7%	32.8%
	0.4	0	0.4	1	0	34.7%	40.1%
	0.4	0.4	0.4	1	0	30.0%	34.7%
	0.3	0.1	0.6	1	0	40.7%	48.0%
	0.5	0.5	0.5	0	1	0.4%	0.3%

Table D.185. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.8	0	63.2%	80.4%
	0	0	0.4	0.8	0	72.9%	88.1%
	0	0.3	0.3	0.6	0	44.6%	59.1%
	0.4	0	0	0.8	0	31.9%	44.3%
	0.4	0	0.4	0.8	0	43.3%	58.1%
	0.4	0.4	0.4	0.8	0	34.1%	46.3%
	0.3	0.1	0.6	0.7	0	43.1%	58.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0	0	0.4	0	43.3%	60.3%
	0	0	0.2	0.4	0	54.1%	71.7%
	0	0.3	0.3	0.6	0	72.7%	88.5%
	0.2	0	0	0.4	0	18.7%	27.6%
	0.2	0	0.2	0.4	0	29.3%	42.4%
	0.2	0.2	0.2	0.4	0	23.8%	33.1%
	0.3	0.1	0.6	0.7	0	70.7%	86.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.8	0	48.2%	64.2%
	0	0	0.4	0.8	0	57.0%	73.9%
	0	0.3	0.3	0.6	0	33.5%	46.0%
	0.4	0	0	0.8	0	24.6%	33.0%
	0.4	0	0.4	0.8	0	33.0%	44.7%
	0.4	0.4	0.4	0.8	0	26.0%	35.0%
	0.3	0.1	0.6	0.7	0	32.3%	44.1%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	0	1	0	38.6%	51.9%
	0	0	0.4	1	0	44.5%	59.6%
	0	0.3	0.3	1	0	38.7%	52.5%
	0.4	0	0	1	0	23.9%	31.2%
	0.4	0	0.4	1	0	29.8%	39.4%
	0.4	0.4	0.4	1	0	24.6%	32.9%
	0.3	0.1	0.6	1	0	34.8%	47.1%
	0.5	0.5	0.5	0	1	0.6%	0.4%

Table D.186. t = 5, Pk = 4, p = 0.2, IBD = 5, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0	0	0.8	0	73.1%	73.4%
	0	0	0.4	0.8	0	82.2%	82.4%
	0	0.3	0.3	0.6	0	52.0%	52.9%
	0.4	0	0	0.8	0	38.6%	38.9%
	0.4	0	0.4	0.8	0	51.6%	51.9%
	0.4	0.4	0.4	0.8	0	40.1%	40.7%
	0.3	0.1	0.6	0.7	0	52.4%	52.0%
	0.5	0.5	0.5	0	1	0.0%	0.1%
Exponential	0	0	0	0	0	5.0%	5.3%
	0	0	0	0.4	0	51.7%	51.7%
	0	0	0.2	0.4	0	63.8%	65.0%
	0	0.3	0.3	0.6	0	83.3%	82.7%
	0.2	0	0	0.4	0	23.2%	24.2%
	0.2	0	0.2	0.4	0	35.4%	35.8%
	0.2	0.2	0.2	0.4	0	28.9%	29.6%
	0.1	0.2	0.3	0.4	0	47.4%	48.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	5.2%
	0	0	0	0.8	0	56.6%	56.3%
	0	0	0.4	0.8	0	66.8%	67.1%
	0	0.3	0.3	0.6	0	39.2%	40.2%
	0.4	0	0	0.8	0	29.3%	29.7%
	0.4	0	0.4	0.8	0	38.6%	39.1%
	0.4	0.4	0.4	0.8	0	29.7%	30.1%
	0.3	0.1	0.6	0.7	0	40.2%	40.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	4.6%	5.0%
	0	0	0	1	0	45.1%	46.1%
	0	0	0.4	1	0	52.5%	53.6%
	0	0.3	0.3	1	0	46.6%	46.8%
	0.4	0	0	1	0	26.8%	26.9%
	0.4	0	0.4	1	0	33.3%	34.0%
	0.4	0.4	0.4	1	0	29.2%	29.7%
	0.3	0.1	0.6	1	0	40.8%	41.0%
	0.5	0.5	0.5	0	1	0.3%	0.3%

Table D.187. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.9%
	0	0	0	0.8	0	51.6%	66.4%
	0	0	0.4	0.8	0	63.5%	77.9%
	0	0.3	0.3	0.6	0	36.7%	48.2%
	0.4	0	0	0.8	0	26.9%	35.7%
	0.4	0	0.4	0.8	0	35.1%	46.6%
	0.4	0.4	0.4	0.8	0	28.7%	36.8%
	0.3	0.1	0.6	0.7	0	36.3%	47.0%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.4	0	34.5%	47.1%
	0	0	0.2	0.4	0	44.8%	58.5%
	0	0.3	0.3	0.6	0	61.1%	76.8%
	0.2	0	0	0.4	0	15.6%	21.5%
	0.2	0	0.2	0.4	0	22.7%	32.0%
	0.2	0.2	0.2	0.4	0	20.0%	26.3%
	0.3	0.1	0.6	0.7	0	58.3%	74.3%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	4.6%	4.9%
	0	0	0	0.8	0	39.3%	51.4%
	0	0	0.4	0.8	0	47.6%	61.3%
	0	0.3	0.3	0.6	0	28.4%	37.0%
	0.4	0	0	0.8	0	21.5%	27.2%
	0.4	0	0.4	0.8	0	27.1%	35.3%
	0.4	0.4	0.4	0.8	0	22.5%	28.7%
	0.3	0.1	0.6	0.7	0	28.6%	36.8%
	0.5	0.5	0.5	0	1	0.3%	0.1%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	0	1	0	31.9%	41.0%
	0	0	0.4	1	0	37.2%	48.0%
	0	0.3	0.3	1	0	32.6%	42.4%
	0.4	0	0	1	0	19.6%	24.9%
	0.4	0	0.4	1	0	24.1%	31.1%
	0.4	0.4	0.4	1	0	21.1%	26.5%
	0.3	0.1	0.6	1	0	28.3%	36.6%
	0.5	0.5	0.5	0	1	0.9%	0.7%

Table D.188. t = 5, Pk = 4, p = 0.2, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.4%
	0	0	0	0.4	0	58.5%	50.1%
	0	0	0.2	0.4	0	67.1%	59.0%
	0	0.3	0.3	0.6	0	87.4%	80.2%
	0.2	0	0	0.4	0	30.5%	26.1%
	0.2	0	0.2	0.4	0	39.3%	34.4%
	0.2	0.2	0.2	0.4	0	30.7%	27.6%
	0.1	0.1	0.3	0.4	0	54.7%	47.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0	0	0.4	0	89.7%	82.0%
	0	0	0.1	0.2	0	53.3%	45.3%
	0	0.1	0.1	0.3	0	74.1%	64.3%
	0.2	0	0	0.4	0	51.7%	44.5%
	0.1	0	0.1	0.2	0	30.2%	25.6%
	0.2	0.2	0.2	0.4	0	57.3%	49.3%
	0.1	0.1	0.2	0.4	0	83.2%	74.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.4	0	44.0%	39.1%
	0	0	0.2	0.4	0	53.1%	45.2%
	0	0.3	0.3	0.6	0	72.3%	64.4%
	0.4	0	0	0.8	0	57.2%	49.5%
	0.2	0	0.2	0.4	0	30.1%	26.4%
	0.4	0.4	0.4	0.8	0	58.0%	50.7%
	0.3	0.1	0.6	0.7	0	73.4%	65.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.7%
	0	0	0	1	0	78.7%	71.4%
	0	0	0.4	1	0	86.4%	79.3%
	0	0.3	0.3	1	0	79.5%	72.6%
	0.4	0	0	1	0	51.9%	45.4%
	0.4	0	0.4	1	0	62.9%	55.6%
	0.4	0.4	0.4	1	0	55.4%	48.2%
	0.3	0.1	0.6	1	0	73.4%	65.0%
	0.5	0.5	0.5	0	1	0.1%	0.1%

Table D.189. t = 5, Pk = 4, p = 0.2, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	77.9%	88.8%
	0	0	0.4	0.8	0	86.6%	94.9%
	0	0.3	0.3	0.6	0	58.0%	70.6%
	0.4	0	0	0.8	0	42.2%	53.2%
	0.4	0	0.4	0.8	0	56.7%	68.9%
	0.4	0.4	0.4	0.8	0	45.4%	56.8%
	0.3	0.1	0.6	0.7	0	58.1%	70.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.4	0	58.4%	71.7%
	0	0	0.2	0.4	0	70.8%	83.2%
	0	0.3	0.3	0.6	0	86.4%	94.9%
	0.2	0	0	0.4	0	26.7%	35.9%
	0.2	0	0.2	0.4	0	40.1%	52.1%
	0.2	0.2	0.2	0.4	0	30.9%	39.8%
	0.3	0.1	0.6	0.7	0	84.5%	94.2%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.8	0	61.9%	74.4%
	0	0	0.4	0.8	0	72.0%	83.6%
	0	0.3	0.3	0.6	0	44.5%	55.8%
	0.4	0	0	0.8	0	31.6%	40.4%
	0.4	0	0.4	0.8	0	42.5%	53.9%
	0.4	0.4	0.4	0.8	0	33.7%	42.6%
	0.3	0.1	0.6	0.7	0	43.1%	54.7%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	4.7%	5.1%
	0	0	0	1	0	50.2%	62.1%
	0	0	0.4	1	0	57.1%	70.1%
	0	0.3	0.3	1	0	51.9%	63.9%
	0.4	0	0	1	0	30.5%	37.8%
	0.4	0	0.4	1	0	37.7%	47.5%
	0.4	0.4	0.4	1	0	31.4%	39.2%
	0.3	0.1	0.6	1	0	44.5%	56.0%
	0.5	0.5	0.5	0	1	0.4%	0.2%

D.6.3. Probability of Missing = 0.3

Table D.190. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.9%
	0	0	0	0.8	0	74.3%	84.9%
	0	0	0.4	0.8	0	83.2%	92.2%
	0	0.3	0.3	0.6	0	53.7%	65.1%
	0.4	0	0	0.8	0	39.0%	48.6%
	0.4	0	0.4	0.8	0	53.5%	64.4%
	0.4	0.4	0.4	0.8	0	41.0%	51.2%
	0.3	0.1	0.6	0.7	0	54.5%	65.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.2%
	0	0	0	0.4	0	53.4%	66.6%
	0	0	0.2	0.4	0	66.4%	78.0%
	0	0.3	0.3	0.6	0	83.5%	91.7%
	0.2	0	0	0.4	0	23.5%	31.2%
	0.2	0	0.2	0.4	0	36.5%	46.4%
	0.2	0.2	0.2	0.4	0	28.8%	36.5%
	0.1	0.2	0.3	0.4	0	48.5%	59.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.3%
	0	0	0	0.8	0	58.5%	69.9%
	0	0	0.4	0.8	0	67.3%	79.0%
	0	0.3	0.3	0.6	0	41.9%	51.1%
	0.4	0	0	0.8	0	30.5%	37.0%
	0.4	0	0.4	0.8	0	40.4%	49.3%
	0.4	0.4	0.4	0.8	0	31.5%	39.1%
	0.3	0.1	0.6	0.7	0	40.0%	49.3%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	0	0	1	0	46.4%	56.6%
	0	0	0.4	1	0	53.9%	64.7%
	0	0.3	0.3	1	0	47.4%	59.0%
	0.4	0	0	1	0	28.3%	34.6%
	0.4	0	0.4	1	0	34.2%	42.2%
	0.4	0.4	0.4	1	0	29.3%	35.8%
	0.3	0.1	0.6	1	0	40.8%	50.7%

Table D.191. t = 5, Pk = 4, p = 0.3, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0	0	0.8	0	73.2%	79.3%
	0	0	0.4	0.8	0	83.2%	87.9%
	0	0.3	0.3	0.6	0	54.4%	59.9%
	0.4	0	0	0.8	0	38.8%	43.9%
	0.4	0	0.4	0.8	0	52.4%	58.5%
	0.4	0.4	0.4	0.8	0	41.0%	46.6%
	0.3	0.1	0.6	0.7	0	52.8%	59.5%
	0.5	0.5	0.5	0	1	0.0%	0.1%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.4	0	53.5%	59.6%
	0	0	0.2	0.4	0	65.3%	71.8%
	0	0.3	0.3	0.6	0	83.3%	88.6%
	0.2	0	0	0.4	0	23.4%	27.8%
	0.2	0	0.2	0.4	0	35.9%	40.8%
	0.2	0.2	0.2	0.4	0	28.2%	31.8%
	0.1	0.2	0.3	0.4	0	48.0%	55.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	57.2%	63.5%
	0	0	0.4	0.8	0	66.5%	73.3%
	0	0.3	0.3	0.6	0	40.8%	45.3%
	0.4	0	0	0.8	0	30.1%	33.9%
	0.4	0	0.4	0.8	0	39.2%	44.2%
	0.4	0.4	0.4	0.8	0	31.7%	35.3%
	0.3	0.1	0.6	0.7	0	39.1%	44.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0	0	1	0	46.4%	51.6%
	0	0	0.4	1	0	53.2%	59.9%
	0	0.3	0.3	1	0	47.0%	53.0%
	0.4	0	0	1	0	28.5%	31.9%
	0.4	0	0.4	1	0	35.2%	38.6%
	0.4	0.4	0.4	1	0	29.7%	32.8%
	0.3	0.1	0.6	1	0	40.9%	45.0%
	0.5	0.5	0.5	0	1	0.4%	0.4%

Table D.192. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.8	0	61.7%	76.6%
	0	0	0.4	0.8	0	71.7%	85.8%
	0	0.3	0.3	0.6	0	44.1%	57.8%
	0.4	0	0	0.8	0	31.1%	41.6%
	0.4	0	0.4	0.8	0	43.0%	55.9%
	0.4	0.4	0.4	0.8	0	33.5%	43.3%
	0.3	0.1	0.6	0.7	0	42.9%	56.6%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.4	0	42.5%	56.9%
	0	0	0.2	0.4	0	53.0%	68.1%
	0	0.3	0.3	0.6	0	72.4%	85.6%
	0.2	0	0	0.4	0	18.3%	26.6%
	0.2	0	0.2	0.4	0	28.0%	39.5%
	0.2	0.2	0.2	0.4	0	23.1%	31.4%
	0.3	0.1	0.6	0.7	0	69.9%	84.4%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.8	0	46.5%	60.9%
	0	0	0.4	0.8	0	56.0%	71.1%
	0	0.3	0.3	0.6	0	33.6%	43.5%
	0.4	0	0	0.8	0	23.8%	31.4%
	0.4	0	0.4	0.8	0	31.8%	42.8%
	0.4	0.4	0.4	0.8	0	25.8%	33.4%
	0.3	0.1	0.6	0.7	0	32.0%	42.2%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.0%	5.3%
	0	0	0	1	0	37.1%	48.3%
	0	0	0.4	1	0	42.9%	56.8%
	0	0.3	0.3	1	0	38.3%	50.1%
	0.4	0	0	1	0	22.6%	29.3%
	0.4	0	0.4	1	0	28.4%	37.0%
	0.4	0.4	0.4	1	0	24.0%	31.1%
	0.3	0.1	0.6	1	0	34.3%	44.4%
	0.5	0.5	0.5	0	1	0.6%	0.3%

Table D.193. t = 5, Pk = 4, p = 0.3, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.8	0	72.7%	70.4%
	0	0	0.4	0.8	0	82.0%	80.4%
	0	0.3	0.3	0.6	0	53.1%	52.4%
	0.4	0	0	0.8	0	38.4%	36.5%
	0.4	0	0.4	0.8	0	49.8%	49.2%
	0.4	0.4	0.4	0.8	0	40.9%	40.4%
	0.3	0.1	0.6	0.7	0	52.6%	51.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.4	0	52.7%	51.7%
	0	0	0.2	0.4	0	63.8%	62.8%
	0	0.3	0.3	0.6	0	82.4%	80.4%
	0.2	0	0	0.4	0	22.9%	23.9%
	0.2	0	0.2	0.4	0	35.3%	34.5%
	0.2	0.2	0.2	0.4	0	27.6%	27.6%
	0.1	0.2	0.3	0.4	0	47.3%	46.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0	0.8	0	56.8%	55.4%
	0	0	0.4	0.8	0	66.4%	65.6%
	0	0.3	0.3	0.6	0	39.3%	38.2%
	0.4	0	0	0.8	0	28.8%	28.6%
	0.4	0	0.4	0.8	0	38.5%	37.7%
	0.4	0.4	0.4	0.8	0	30.3%	29.8%
	0.3	0.1	0.6	0.7	0	39.0%	38.9%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	0	1	0	44.3%	43.3%
	0	0	0.4	1	0	52.7%	52.1%
	0	0.3	0.3	1	0	46.0%	44.5%
	0.4	0	0	1	0	27.5%	26.8%
	0.4	0	0.4	1	0	33.4%	32.5%
	0.4	0.4	0.4	1	0	28.2%	27.9%
	0.3	0.1	0.6	1	0	40.4%	39.8%
	0.5	0.5	0.5	0	1	0.4%	0.4%

Table D.194. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.4%
	0	0	0	0.8	0	49.1%	63.4%
	0	0	0.4	0.8	0	59.4%	73.6%
	0	0.3	0.3	0.6	0	35.4%	45.3%
	0.4	0	0	0.8	0	24.7%	32.2%
	0.4	0	0.4	0.8	0	33.2%	44.0%
	0.4	0.4	0.4	0.8	0	27.1%	35.8%
	0.3	0.1	0.6	0.7	0	33.9%	45.1%
	0.5	0.5	0.5	0	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.5%	5.0%
	0	0	0	0.4	0	31.8%	43.1%
	0	0	0.2	0.4	0	41.8%	55.5%
	0	0.3	0.3	0.6	0	58.4%	73.2%
	0.2	0	0	0.4	0	14.5%	20.7%
	0.2	0	0.2	0.4	0	21.9%	30.5%
	0.2	0.2	0.2	0.4	0	18.7%	24.4%
	0.3	0.1	0.6	0.7	0	55.5%	71.1%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0	0	0.8	0	37.9%	48.8%
	0	0	0.4	0.8	0	44.9%	57.8%
	0	0.3	0.3	0.6	0	26.7%	34.5%
	0.4	0	0	0.8	0	19.9%	25.2%
	0.4	0	0.4	0.8	0	26.5%	34.4%
	0.4	0.4	0.4	0.8	0	20.4%	26.4%
	0.3	0.1	0.6	0.7	0	26.3%	33.7%
	0.5	0.5	0.5	0	1	0.4%	0.2%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	0	1	0	29.9%	39.1%
	0	0	0.4	1	0	34.9%	44.8%
	0	0.3	0.3	1	0	31.4%	40.0%
	0.4	0	0	1	0	18.7%	23.4%
	0.4	0	0.4	1	0	22.4%	29.0%
	0.4	0.4	0.4	1	0	19.7%	25.0%
	0.3	0.1	0.6	1	0	26.4%	33.3%
	0.5	0.5	0.5	0	1	0.9%	0.6%

Table D.195. t = 5, Pk = 4, p = 0.3, IBD = 5, CRD = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.0%
	0	0	0	0.4	0	58.2%	49.8%
	0	0	0.2	0.4	0	67.8%	57.4%
	0	0.3	0.3	0.6	0	87.4%	78.8%
	0.2	0	0	0.4	0	31.2%	26.6%
	0.2	0	0.2	0.4	0	39.8%	34.2%
	0.2	0.2	0.2	0.4	0	32.1%	27.7%
	0.1	0.1	0.3	0.4	0	53.7%	45.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.4%	4.9%
	0	0	0	0.4	0	89.6%	79.7%
	0	0	0.1	0.2	0	53.5%	45.5%
	0	0.1	0.1	0.3	0	73.7%	62.1%
	0.2	0	0	0.4	0	51.2%	42.4%
	0.1	0	0.1	0.2	0	29.0%	24.7%
	0.2	0.2	0.2	0.4	0	57.4%	48.3%
	0.1	0.1	0.2	0.4	0	83.7%	73.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.4	0	44.2%	37.8%
	0	0	0.2	0.4	0	52.4%	44.9%
	0	0.3	0.3	0.6	0	73.6%	63.6%
	0.4	0	0	0.8	0	56.1%	48.4%
	0.2	0	0.2	0.4	0	29.0%	24.9%
	0.4	0.4	0.4	0.8	0	58.3%	49.5%
	0.3	0.1	0.6	0.7	0	72.6%	63.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.5%
	0	0	0	1	0	79.2%	69.6%
	0	0	0.4	1	0	86.4%	78.2%
	0	0.3	0.3	1	0	81.3%	71.3%
	0.4	0	0	1	0	52.4%	44.4%
	0.4	0	0.4	1	0	64.3%	54.9%
	0.4	0.4	0.4	1	0	55.1%	47.4%
	0.3	0.1	0.6	1	0	72.9%	63.1%
	0.5	0.5	0.5	0	1	0.0%	0.1%

Table D.196. t = 5, Pk = 4, p = 0.3, IBD = 40, CRD = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	72.1%	85.1%
	0	0	0.4	0.8	0	82.2%	92.8%
	0	0.3	0.3	0.6	0	53.4%	66.1%
	0.4	0	0	0.8	0	38.9%	50.6%
	0.4	0	0.4	0.8	0	51.6%	65.3%
	0.4	0.4	0.4	0.8	0	40.7%	52.0%
	0.3	0.1	0.6	0.7	0	52.1%	65.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0	0	0.4	0	52.2%	66.2%
	0	0	0.2	0.4	0	63.9%	78.6%
	0	0.3	0.3	0.6	0	82.2%	92.5%
	0.2	0	0	0.4	0	23.4%	32.4%
	0.2	0	0.2	0.4	0	34.9%	47.2%
	0.2	0.2	0.2	0.4	0	28.7%	37.5%
	0.3	0.1	0.6	0.7	0	79.6%	91.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0	0	0.8	0	56.5%	70.2%
	0	0	0.4	0.8	0	66.5%	80.1%
	0	0.3	0.3	0.6	0	39.7%	50.9%
	0.4	0	0	0.8	0	29.1%	37.8%
	0.4	0	0.4	0.8	0	39.1%	49.6%
	0.4	0.4	0.4	0.8	0	30.7%	39.9%
	0.3	0.1	0.6	0.7	0	38.9%	49.8%
	0.5	0.5	0.5	0	1	0.2%	0.1%
Cauchy	0	0	0	0	0	5.3%	5.2%
	0	0	0	1	0	45.0%	57.5%
	0	0	0.4	1	0	52.9%	65.3%
	0	0.3	0.3	1	0	46.5%	58.3%
	0.4	0	0	1	0	28.1%	35.6%
	0.4	0	0.4	1	0	33.7%	42.8%
	0.4	0.4	0.4	1	0	28.6%	36.6%
	0.3	0.1	0.6	1	0	40.9%	52.1%
	0.5	0.5	0.5	0	1	0.5%	0.3%

D.6.4. Probability of Missing = 0.4

Table D.197. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.3%
	0	0	0	0.8	0	74.0%	81.9%
	0	0	0.4	0.8	0	83.6%	90.1%
	0	0.3	0.3	0.6	0	54.5%	63.2%
	0.4	0	0	0.8	0	39.8%	48.1%
	0.4	0	0.4	0.8	0	52.8%	60.4%
	0.4	0.4	0.4	0.8	0	42.4%	49.3%
	0.3	0.1	0.6	0.7	0	54.2%	62.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.8%
	0	0	0	0.4	0	54.4%	64.1%
	0	0	0.2	0.4	0	66.5%	75.2%
	0	0.3	0.3	0.6	0	84.8%	90.2%
	0.2	0	0	0.4	0	23.8%	31.0%
	0.2	0	0.2	0.4	0	35.7%	43.3%
	0.2	0.2	0.2	0.4	0	28.5%	34.7%
	0.1	0.2	0.3	0.4	0	49.5%	57.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.2%
	0	0	0	0.8	0	57.7%	67.1%
	0	0	0.4	0.8	0	67.5%	76.9%
	0	0.3	0.3	0.6	0	41.9%	47.9%
	0.4	0	0	0.8	0	30.1%	35.7%
	0.4	0	0.4	0.8	0	39.8%	46.2%
	0.4	0.4	0.4	0.8	0	31.5%	36.3%
	0.3	0.1	0.6	0.7	0	41.3%	48.1%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.8%
	0	0	0	1	0	46.2%	53.9%
	0	0	0.4	1	0	53.5%	62.9%
	0	0.3	0.3	1	0	46.7%	54.8%
	0.4	0	0	1	0	27.3%	32.4%
	0.4	0	0.4	1	0	34.7%	40.3%
	0.4	0.4	0.4	1	0	29.8%	34.2%
	0.3	0.1	0.6	1	0	40.9%	48.9%

Table D.198. t = 5, Pk = 4, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.3%
	0	0	0	0.8	0	72.5%	77.2%
	0	0	0.4	0.8	0	82.3%	85.9%
	0	0.3	0.3	0.6	0	53.7%	57.6%
	0.4	0	0	0.8	0	38.5%	41.1%
	0.4	0	0.4	0.8	0	51.3%	55.5%
	0.4	0.4	0.4	0.8	0	40.7%	44.3%
	0.3	0.1	0.6	0.7	0	53.2%	57.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.7%
	0	0	0	0.4	0	53.0%	56.5%
	0	0	0.2	0.4	0	65.9%	69.9%
	0	0.3	0.3	0.6	0	83.3%	85.6%
	0.2	0	0	0.4	0	23.2%	26.0%
	0.2	0	0.2	0.4	0	35.5%	39.0%
	0.2	0.2	0.2	0.4	0	28.0%	30.9%
	0.1	0.2	0.3	0.4	0	48.6%	52.2%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	56.6%	60.6%
	0	0	0.4	0.8	0	66.4%	70.9%
	0	0.3	0.3	0.6	0	40.4%	43.9%
	0.4	0	0	0.8	0	30.1%	32.3%
	0.4	0	0.4	0.8	0	38.7%	42.0%
	0.4	0.4	0.4	0.8	0	30.8%	33.3%
	0.3	0.1	0.6	0.7	0	39.8%	43.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.2%	5.3%
	0	0	0	1	0	45.3%	48.8%
	0	0	0.4	1	0	53.1%	56.6%
	0	0.3	0.3	1	0	47.3%	50.2%
	0.4	0	0	1	0	27.8%	29.4%
	0.4	0	0.4	1	0	34.6%	36.9%
	0.4	0.4	0.4	1	0	29.1%	31.2%
	0.3	0.1	0.6	1	0	40.9%	44.2%
	0.5	0.5	0.5	0	1	0.5%	0.4%

Table D.199. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.5%	4.9%
	0	0	0	0.8	0	60.5%	73.4%
	0	0	0.4	0.8	0	70.6%	82.7%
	0	0.3	0.3	0.6	0	42.8%	52.9%
	0.4	0	0	0.8	0	30.5%	39.6%
	0.4	0	0.4	0.8	0	41.5%	53.0%
	0.4	0.4	0.4	0.8	0	33.2%	41.3%
	0.3	0.1	0.6	0.7	0	43.2%	54.2%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0	0	0.4	0	41.5%	53.9%
	0	0	0.2	0.4	0	52.6%	65.2%
	0	0.3	0.3	0.6	0	71.9%	83.3%
	0.2	0	0	0.4	0	17.6%	25.3%
	0.2	0	0.2	0.4	0	26.9%	36.3%
	0.2	0.2	0.2	0.4	0	22.1%	28.7%
	0.3	0.1	0.6	0.7	0	68.3%	80.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.8%	4.9%
	0	0	0	0.8	0	46.7%	58.2%
	0	0	0.4	0.8	0	55.2%	67.1%
	0	0.3	0.3	0.6	0	32.8%	41.0%
	0.4	0	0	0.8	0	23.7%	30.1%
	0.4	0	0.4	0.8	0	31.1%	40.1%
	0.4	0.4	0.4	0.8	0	25.6%	31.5%
	0.3	0.1	0.6	0.7	0	31.9%	39.6%
	0.5	0.5	0.5	0	1	0.3%	0.1%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	0	1	0	37.9%	47.0%
	0	0	0.4	1	0	42.9%	53.9%
	0	0.3	0.3	1	0	38.1%	47.5%
	0.4	0	0	1	0	22.7%	29.0%
	0.4	0	0.4	1	0	27.8%	34.5%
	0.4	0.4	0.4	1	0	24.7%	29.9%
	0.3	0.1	0.6	1	0	32.0%	40.3%
	0.5	0.5	0.5	0	1	0.7%	0.5%

Table D.200. t = 5, Pk = 4, p = 0.4, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.8	0	71.6%	68.1%
	0	0	0.4	0.8	0	81.8%	78.7%
	0	0.3	0.3	0.6	0	52.6%	49.3%
	0.4	0	0	0.8	0	38.5%	36.1%
	0.4	0	0.4	0.8	0	50.8%	48.2%
	0.4	0.4	0.4	0.8	0	38.8%	36.9%
	0.3	0.1	0.6	0.7	0	52.3%	49.4%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.3%
	0	0	0	0.4	0	51.2%	48.9%
	0	0	0.2	0.4	0	63.6%	60.0%
	0	0.3	0.3	0.6	0	81.0%	78.6%
	0.2	0	0	0.4	0	22.5%	23.3%
	0.2	0	0.2	0.4	0	34.2%	32.9%
	0.2	0.2	0.2	0.4	0	27.9%	26.8%
	0.1	0.2	0.3	0.4	0	47.3%	44.6%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	5.0%
	0	0	0	0.8	0	55.9%	53.1%
	0	0	0.4	0.8	0	65.9%	62.8%
	0	0.3	0.3	0.6	0	39.9%	37.8%
	0.4	0	0	0.8	0	29.0%	27.7%
	0.4	0	0.4	0.8	0	37.7%	36.6%
	0.4	0.4	0.4	0.8	0	30.6%	28.7%
	0.3	0.1	0.6	0.7	0	39.1%	37.9%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	0	1	0	45.5%	42.9%
	0	0	0.4	1	0	53.1%	50.7%
	0	0.3	0.3	1	0	45.5%	43.5%
	0.4	0	0	1	0	28.4%	26.5%
	0.4	0	0.4	1	0	33.4%	32.1%
	0.4	0.4	0.4	1	0	28.6%	27.4%
	0.3	0.1	0.6	1	0	40.2%	37.9%
	0.5	0.5	0.5	0	1	0.6%	0.6%

Table D.201. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0	0	0.8	0	46.6%	59.3%
	0	0	0.4	0.8	0	57.4%	71.4%
	0	0.3	0.3	0.6	0	32.6%	41.7%
	0.4	0	0	0.8	0	23.7%	30.8%
	0.4	0	0.4	0.8	0	31.5%	40.5%
	0.4	0.4	0.4	0.8	0	25.4%	32.7%
	0.3	0.1	0.6	0.7	0	32.0%	41.9%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Exponential	0	0	0	0	0	5.2%	5.4%
	0	0	0	0.4	0	30.6%	41.2%
	0	0	0.2	0.4	0	38.9%	50.8%
	0	0.3	0.3	0.6	0	56.0%	69.4%
	0.2	0	0	0.4	0	13.4%	19.1%
	0.2	0	0.2	0.4	0	20.2%	28.0%
	0.2	0.2	0.2	0.4	0	17.6%	23.1%
	0.3	0.1	0.6	0.7	0	52.0%	66.5%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.4%
	0	0	0	0.8	0	35.6%	46.0%
	0	0	0.4	0.8	0	42.7%	53.4%
	0	0.3	0.3	0.6	0	25.0%	31.2%
	0.4	0	0	0.8	0	18.2%	23.5%
	0.4	0	0.4	0.8	0	25.5%	32.3%
	0.4	0.4	0.4	0.8	0	19.8%	24.9%
	0.3	0.1	0.6	0.7	0	25.5%	31.9%
	0.5	0.5	0.5	0	1	0.5%	0.3%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	0	0	1	0	28.7%	36.1%
	0	0	0.4	1	0	33.7%	42.8%
	0	0.3	0.3	1	0	29.5%	37.8%
	0.4	0	0	1	0	17.5%	22.3%
	0.4	0	0.4	1	0	22.5%	27.2%
	0.4	0.4	0.4	1	0	18.3%	23.4%
	0.3	0.1	0.6	1	0	25.0%	31.8%
	0.5	0.5	0.5	0	1	1.0%	0.7%

Table D.202. t = 5, Pk = 4, p = 0.4, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0	0	0.4	0	57.4%	47.9%
	0	0	0.2	0.4	0	67.5%	56.6%
	0	0.3	0.3	0.6	0	87.7%	77.6%
	0.2	0	0	0.4	0	30.8%	25.5%
	0.2	0	0.2	0.4	0	40.1%	32.8%
	0.2	0.2	0.2	0.4	0	31.4%	26.6%
	0.1	0.1	0.3	0.4	0	55.3%	45.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.4%	5.4%
	0	0	0	0.4	0	90.3%	78.6%
	0	0	0.1	0.2	0	52.7%	43.2%
	0	0.1	0.1	0.3	0	72.3%	61.2%
	0.2	0	0	0.4	0	50.9%	41.0%
	0.1	0	0.1	0.2	0	28.9%	24.6%
	0.2	0.2	0.2	0.4	0	57.3%	46.7%
	0.1	0.1	0.2	0.4	0	83.8%	72.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.5%	4.8%
	0	0	0	0.4	0	44.1%	36.5%
	0	0	0.2	0.4	0	51.7%	43.1%
	0	0.3	0.3	0.6	0	72.2%	61.5%
	0.4	0	0	0.8	0	57.1%	47.3%
	0.2	0	0.2	0.4	0	30.3%	25.1%
	0.4	0.4	0.4	0.8	0	58.7%	48.6%
	0.3	0.1	0.6	0.7	0	72.5%	61.7%
	0.5	0.5	0.5	0	1	0.0%	0.1%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	0	1	0	79.2%	68.2%
	0	0	0.4	1	0	87.2%	77.8%
	0	0.3	0.3	1	0	80.2%	70.0%
	0.4	0	0	1	0	52.0%	43.2%
	0.4	0	0.4	1	0	64.8%	54.6%
	0.4	0.4	0.4	1	0	54.3%	45.9%
	0.3	0.1	0.6	1	0	73.3%	62.6%
	0.5	0.5	0.5	0	1	0.1%	0.1%

Table D.203. t = 5, Pk = 4, p = 0.4, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.8	0	66.8%	81.8%
	0	0	0.4	0.8	0	76.5%	89.5%
	0	0.3	0.3	0.6	0	47.6%	60.8%
	0.4	0	0	0.8	0	34.9%	46.1%
	0.4	0	0.4	0.8	0	46.0%	59.3%
	0.4	0.4	0.4	0.8	0	37.6%	49.2%
	0.3	0.1	0.6	0.7	0	47.5%	61.4%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.4	0	47.2%	62.4%
	0	0	0.2	0.4	0	58.6%	73.6%
	0	0.3	0.3	0.6	0	76.7%	89.6%
	0.2	0	0	0.4	0	21.5%	30.1%
	0.2	0	0.2	0.4	0	32.1%	43.1%
	0.2	0.2	0.2	0.4	0	26.0%	34.5%
	0.3	0.1	0.6	0.7	0	75.7%	88.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0	0	0.8	0	51.4%	65.4%
	0	0	0.4	0.8	0	61.2%	76.1%
	0	0.3	0.3	0.6	0	36.5%	47.5%
	0.4	0	0	0.8	0	27.3%	35.4%
	0.4	0	0.4	0.8	0	35.8%	46.5%
	0.4	0.4	0.4	0.8	0	28.2%	36.8%
	0.3	0.1	0.6	0.7	0	35.8%	47.0%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0	0	1	0	41.9%	53.8%
	0	0	0.4	1	0	48.0%	61.7%
	0	0.3	0.3	1	0	42.3%	55.3%
	0.4	0	0	1	0	25.1%	32.4%
	0.4	0	0.4	1	0	30.6%	40.3%
	0.4	0.4	0.4	1	0	27.4%	34.7%
	0.3	0.1	0.6	1	0	37.2%	48.8%
	0.5	0.5	0.5	0	1	0.5%	0.3%

D.6.5. Probability of Missing = 0.5

Table D.204. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.8	0	73.4%	79.9%
	0	0	0.4	0.8	0	83.3%	88.6%
	0	0.3	0.3	0.6	0	53.6%	59.5%
	0.4	0	0	0.8	0	39.1%	45.1%
	0.4	0	0.4	0.8	0	52.6%	59.3%
	0.4	0.4	0.4	0.8	0	40.6%	46.5%
	0.3	0.1	0.6	0.7	0	53.7%	59.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.3%
	0	0	0	0.4	0	53.7%	60.6%
	0	0	0.2	0.4	0	65.9%	72.7%
	0	0.3	0.3	0.6	0	83.7%	88.9%
	0.2	0	0	0.4	0	23.9%	29.1%
	0.2	0	0.2	0.4	0	36.3%	41.8%
	0.2	0.2	0.2	0.4	0	28.9%	33.3%
	0.1	0.2	0.3	0.4	0	49.1%	56.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	4.9%	5.2%
	0	0	0	0.8	0	58.0%	65.2%
	0	0	0.4	0.8	0	67.4%	73.4%
	0	0.3	0.3	0.6	0	40.6%	45.8%
	0.4	0	0	0.8	0	29.7%	34.0%
	0.4	0	0.4	0.8	0	39.6%	45.4%
	0.4	0.4	0.4	0.8	0	31.7%	36.2%
	0.3	0.1	0.6	0.7	0	40.0%	46.1%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.4%
	0	0	0	1	0	45.9%	51.7%
	0	0	0.4	1	0	53.0%	60.5%
	0	0.3	0.3	1	0	47.2%	53.4%
	0.4	0	0	1	0	27.9%	31.6%
	0.4	0	0.4	1	0	34.8%	39.6%
	0.4	0.4	0.4	1	0	29.6%	33.6%
	0.3	0.1	0.6	1	0	40.8%	46.1%

Table D.205. t = 5, Pk = 4, p = 0.5, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.8	0	72.9%	74.4%
	0	0	0.4	0.8	0	81.7%	84.0%
	0	0.3	0.3	0.6	0	53.1%	55.4%
	0.4	0	0	0.8	0	38.7%	40.7%
	0.4	0	0.4	0.8	0	51.2%	53.6%
	0.4	0.4	0.4	0.8	0	41.4%	42.2%
	0.3	0.1	0.6	0.7	0	53.4%	54.7%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.1%
	0	0	0	0.4	0	53.4%	55.7%
	0	0	0.2	0.4	0	64.2%	66.4%
	0	0.3	0.3	0.6	0	82.5%	84.0%
	0.2	0	0	0.4	0	22.9%	25.8%
	0.2	0	0.2	0.4	0	35.0%	37.1%
	0.2	0.2	0.2	0.4	0	28.0%	30.0%
	0.1	0.2	0.3	0.4	0	47.9%	50.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0	0	0.8	0	58.1%	59.2%
	0	0	0.4	0.8	0	65.8%	68.1%
	0	0.3	0.3	0.6	0	40.4%	41.8%
	0.4	0	0	0.8	0	28.4%	31.0%
	0.4	0	0.4	0.8	0	39.4%	40.8%
	0.4	0.4	0.4	0.8	0	30.1%	32.5%
	0.3	0.1	0.6	0.7	0	39.8%	41.6%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	0	1	0	45.4%	47.1%
	0	0	0.4	1	0	52.8%	55.0%
	0	0.3	0.3	1	0	46.9%	48.8%
	0.4	0	0	1	0	27.2%	29.2%
	0.4	0	0.4	1	0	33.7%	35.4%
	0.4	0.4	0.4	1	0	29.3%	30.5%
	0.3	0.1	0.6	1	0	40.8%	41.8%
	0.5	0.5	0.5	0	1	0.4%	0.4%

Table D.206. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	5.1%
	0	0	0	0.8	0	59.9%	70.7%
	0	0	0.4	0.8	0	69.8%	80.1%
	0	0.3	0.3	0.6	0	41.8%	51.4%
	0.4	0	0	0.8	0	30.4%	37.8%
	0.4	0	0.4	0.8	0	40.8%	49.8%
	0.4	0.4	0.4	0.8	0	33.0%	39.5%
	0.3	0.1	0.6	0.7	0	42.4%	51.0%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.4	0	40.7%	50.3%
	0	0	0.2	0.4	0	51.8%	63.0%
	0	0.3	0.3	0.6	0	70.6%	80.1%
	0.2	0	0	0.4	0	17.8%	24.1%
	0.2	0	0.2	0.4	0	28.1%	35.8%
	0.2	0.2	0.2	0.4	0	22.4%	27.3%
	0.3	0.1	0.6	0.7	0	67.7%	78.0%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.2%
	0	0	0	0.8	0	45.3%	55.7%
	0	0	0.4	0.8	0	54.3%	64.1%
	0	0.3	0.3	0.6	0	31.9%	39.1%
	0.4	0	0	0.8	0	22.8%	28.1%
	0.4	0	0.4	0.8	0	31.7%	38.6%
	0.4	0.4	0.4	0.8	0	24.3%	30.3%
	0.3	0.1	0.6	0.7	0	31.7%	38.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	0	1	0	35.4%	43.1%
	0	0	0.4	1	0	42.3%	50.5%
	0	0.3	0.3	1	0	37.4%	45.6%
	0.4	0	0	1	0	22.1%	27.0%
	0.4	0	0.4	1	0	27.2%	33.3%
	0.4	0.4	0.4	1	0	23.2%	28.8%
	0.3	0.1	0.6	1	0	32.1%	39.0%
	0.5	0.5	0.5	0	1	0.7%	0.4%

Table D.207. t = 5, Pk = 4, p = 0.5, IBD = 5, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.4%
	0	0	0	0.8	0	72.1%	66.8%
	0	0	0.4	0.8	0	81.7%	76.2%
	0	0.3	0.3	0.6	0	53.3%	48.7%
	0.4	0	0	0.8	0	38.1%	35.2%
	0.4	0	0.4	0.8	0	51.7%	47.0%
	0.4	0.4	0.4	0.8	0	40.0%	37.6%
	0.3	0.1	0.6	0.7	0	51.4%	48.3%
	0.5	0.5	0.5	0	1	0.0%	0.1%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.4	0	51.4%	47.0%
	0	0	0.2	0.4	0	64.6%	58.6%
	0	0.3	0.3	0.6	0	82.0%	77.5%
	0.2	0	0	0.4	0	22.3%	22.0%
	0.2	0	0.2	0.4	0	35.1%	32.6%
	0.2	0.2	0.2	0.4	0	27.6%	26.1%
	0.1	0.2	0.3	0.4	0	46.9%	43.4%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	4.7%
	0	0	0	0.8	0	56.1%	51.7%
	0	0	0.4	0.8	0	66.0%	61.0%
	0	0.3	0.3	0.6	0	39.5%	36.9%
	0.4	0	0	0.8	0	28.7%	26.8%
	0.4	0	0.4	0.8	0	37.6%	35.4%
	0.4	0.4	0.4	0.8	0	30.1%	28.3%
	0.3	0.1	0.6	0.7	0	39.5%	36.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
Cauchy	0	0	0	0	0	5.3%	4.9%
	0	0	0	1	0	45.1%	41.8%
	0	0	0.4	1	0	52.1%	48.2%
	0	0.3	0.3	1	0	45.5%	42.8%
	0.4	0	0	1	0	27.3%	25.0%
	0.4	0	0.4	1	0	33.7%	31.1%
	0.4	0.4	0.4	1	0	28.3%	27.0%
	0.3	0.1	0.6	1	0	40.4%	37.6%
	0.5	0.5	0.5	0	1	0.4%	0.5%

Table D.208. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.8%
	0	0	0	0.8	0	45.4%	56.7%
	0	0	0.4	0.8	0	54.2%	65.7%
	0	0.3	0.3	0.6	0	32.8%	40.8%
	0.4	0	0	0.8	0	22.2%	28.5%
	0.4	0	0.4	0.8	0	31.0%	38.9%
	0.4	0.4	0.4	0.8	0	24.4%	31.0%
	0.3	0.1	0.6	0.7	0	30.6%	38.8%
	0.5	0.5	0.5	0	1	0.2%	0.1%
Exponential	0	0	0	0	0	4.4%	4.3%
	0	0	0	0.4	0	29.0%	38.2%
	0	0	0.2	0.4	0	37.7%	48.4%
	0	0.3	0.3	0.6	0	53.4%	66.1%
	0.2	0	0	0.4	0	13.1%	18.2%
	0.2	0	0.2	0.4	0	19.4%	26.4%
	0.2	0.2	0.2	0.4	0	16.6%	21.6%
	0.3	0.1	0.6	0.7	0	50.7%	62.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.4%
	0	0	0	0.8	0	33.5%	42.2%
	0	0	0.4	0.8	0	39.9%	50.7%
	0	0.3	0.3	0.6	0	25.0%	30.9%
	0.4	0	0	0.8	0	17.8%	22.5%
	0.4	0	0.4	0.8	0	23.8%	29.8%
	0.4	0.4	0.4	0.8	0	19.5%	24.3%
	0.3	0.1	0.6	0.7	0	23.2%	29.2%
	0.5	0.5	0.5	0	1	0.4%	0.3%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	0	0	1	0	27.4%	34.6%
	0	0	0.4	1	0	31.5%	39.4%
	0	0.3	0.3	1	0	29.1%	35.0%
	0.4	0	0	1	0	17.4%	21.3%
	0.4	0	0.4	1	0	20.9%	25.3%
	0.4	0.4	0.4	1	0	18.4%	22.0%
	0.3	0.1	0.6	1	0	24.2%	30.9%
	0.5	0.5	0.5	0	1	1.1%	0.8%

Table D.209. t = 5, Pk = 4, p = 0.5, IBD = 5, CRD = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.4	0	58.4%	48.0%
	0	0	0.2	0.4	0	67.4%	56.2%
	0	0.3	0.3	0.6	0	87.0%	76.9%
	0.2	0	0	0.4	0	30.0%	25.3%
	0.2	0	0.2	0.4	0	39.6%	32.4%
	0.2	0.2	0.2	0.4	0	31.0%	25.8%
	0.1	0.1	0.3	0.4	0	54.0%	44.3%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.4	0	89.5%	76.9%
	0	0	0.1	0.2	0	53.6%	42.8%
	0	0.1	0.1	0.3	0	73.0%	60.5%
	0.2	0	0	0.4	0	51.5%	41.6%
	0.1	0	0.1	0.2	0	29.8%	24.9%
	0.2	0.2	0.2	0.4	0	56.7%	45.3%
	0.1	0.1	0.2	0.4	0	83.8%	70.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.4	0	43.6%	35.7%
	0	0	0.2	0.4	0	51.7%	41.8%
	0	0.3	0.3	0.6	0	73.4%	61.0%
	0.4	0	0	0.8	0	57.5%	46.3%
	0.2	0	0.2	0.4	0	30.6%	25.5%
	0.4	0.4	0.4	0.8	0	58.2%	47.3%
	0.3	0.1	0.6	0.7	0	72.7%	59.9%
	0.5	0.5	0.5	0	1	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	0	1	0	79.8%	67.3%
	0	0	0.4	1	0	86.5%	75.8%
	0	0.3	0.3	1	0	80.9%	68.7%
	0.4	0	0	1	0	52.1%	41.4%
	0.4	0	0.4	1	0	64.8%	53.3%
	0.4	0.4	0.4	1	0	55.1%	45.3%
	0.3	0.1	0.6	1	0	73.8%	61.4%
	0.5	0.5	0.5	0	1	0.1%	0.1%

Table D.210. t = 5, Pk = 4, p = 0.5, IBD = 40, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.3%
	0	0	0	0.8	0	62.5%	77.9%
	0	0	0.4	0.8	0	71.6%	86.3%
	0	0.3	0.3	0.6	0	44.4%	58.2%
	0.4	0	0	0.8	0	32.4%	42.9%
	0.4	0	0.4	0.8	0	43.1%	56.4%
	0.4	0.4	0.4	0.8	0	34.3%	44.3%
	0.3	0.1	0.6	0.7	0	43.0%	57.0%
	0.5	0.5	0.5	0	1	0.1%	0.0%
Exponential	0	0	0	0	0	5.2%	5.4%
	0	0	0	0.4	0	42.1%	57.0%
	0	0	0.2	0.4	0	53.8%	69.5%
	0	0.3	0.3	0.6	0	71.2%	85.8%
	0.2	0	0	0.4	0	18.9%	27.8%
	0.2	0	0.2	0.4	0	29.4%	39.8%
	0.2	0.2	0.2	0.4	0	23.8%	32.0%
	0.3	0.1	0.6	0.7	0	69.6%	84.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.5%	5.1%
	0	0	0	0.8	0	48.2%	62.0%
	0	0	0.4	0.8	0	56.3%	71.1%
	0	0.3	0.3	0.6	0	33.4%	43.5%
	0.4	0	0	0.8	0	24.5%	32.9%
	0.4	0	0.4	0.8	0	32.7%	43.3%
	0.4	0.4	0.4	0.8	0	26.6%	34.8%
	0.3	0.1	0.6	0.7	0	33.1%	44.0%
	0.5	0.5	0.5	0	1	0.2%	0.1%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	0	0	1	0	37.6%	50.3%
	0	0	0.4	1	0	43.7%	57.3%
	0	0.3	0.3	1	0	38.5%	50.3%
	0.4	0	0	1	0	24.1%	30.9%
	0.4	0	0.4	1	0	29.1%	37.7%
	0.4	0.4	0.4	1	0	24.7%	32.4%
	0.3	0.1	0.6	1	0	34.3%	45.2%
	0.5	0.5	0.5	0	1	0.5%	0.3%

APPENDIX E. ALVO AND JT POWER COMPARISON – UNEQUAL VARIANCES

E.1. Three Treatments

E.1.1. Probability of Missing = 0.1

Table E.1. t = 3, p = 0.1, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.2	0.4	20.9%	24.4%
	0	0.4	0.8	48.4%	58.2%
	0	0.1	0.6	34.4%	41.7%
	0	0	0.8	51.2%	61.1%
	0	0.8	0.8	44.4%	55.4%
	1	0.5	0	0.0%	0.0%
Exponential	0	0	0	5.3%	5.4%
	0	0.2	0.4	36.2%	43.2%
	0	0.4	0.8	73.3%	83.7%
	0	0.1	0.6	56.4%	67.2%
	0	0	0.4	35.7%	43.3%
	0	0.5	0.5	42.4%	51.8%
	1	0.5	0	0.0%	0.0%
T with 3 df.	0	0	0	4.6%	4.7%
	0	0.2	0.4	15.6%	18.4%
	0	0.4	0.8	36.5%	44.6%
	0	0.1	0.9	44.2%	53.7%
	0	0	0.8	38.5%	47.0%
	0	0.8	0.8	34.2%	43.0%
	1	0.5	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.1%
	0	1.5	3	57.3%	76.8%
	0	1	2.5	48.8%	67.2%
	0	2	3	55.9%	75.1%
	0	0	2	36.0%	50.9%
	0	2	2	37.5%	52.2%
	3	0	1	0.1%	0.1%
	2	1	0	0.1%	0.0%

Table E.2. t = 3, p = 0.1, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.1%
	0	0.2	0.4	16.0%	22.7%
	0	0.4	0.8	34.8%	54.3%
	0	0.5	1	47.1%	71.3%
	0	0	0.6	25.3%	38.6%
	0	0.6	0.6	22.2%	36.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	4.9%
	0	0.2	0.4	26.5%	39.8%
	0	0.4	0.8	58.2%	81.2%
	0	0.5	1	71.1%	91.2%
	0	0	0.4	26.2%	38.5%
	0	0.4	0.5	33.7%	50.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.0%
	0	0.2	0.4	13.4%	17.9%
	0	0.4	0.8	27.3%	41.8%
	0	0.5	1	35.6%	55.5%
	0	0	0.6	20.0%	29.5%
	0	0.6	0.6	18.0%	27.1%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	9.9%	50.9%
	0	1	2.5	9.9%	42.2%
	0	2	3	10.6%	49.6%
	0	0	2	8.9%	32.0%
	0	2	2	8.7%	31.9%
	3	0	1	2.9%	0.2%
	2	1	0	2.8%	0.1%

Table E.3. t = 3, p = 0.1, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	17.9%	26.3%
	0	0.4	0.8	42.7%	63.7%
	0	0.5	1	57.5%	80.4%
	0	0	0.6	30.3%	45.1%
	0	0.6	0.6	27.8%	42.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.6%	5.4%
	0	0.2	0.4	33.5%	48.5%
	0	0.4	0.8	70.2%	88.6%
	0	0.5	1	82.4%	96.0%
	0	0	0.4	32.3%	46.6%
	0	0.4	0.5	40.6%	58.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.2%
	0	0.2	0.4	14.7%	20.4%
	0	0.4	0.8	32.6%	48.6%
	0	0.5	1	43.7%	64.4%
	0	0	0.6	23.3%	33.6%
	0	0.6	0.6	21.6%	32.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	5.1%
	0	1.5	3	7.7%	50.2%
	0	1	2.5	7.4%	43.0%
	0	2	3	7.9%	49.5%
	0	0	2	6.6%	31.9%
	0	2	2	7.0%	31.7%
	3	0	1	3.6%	0.3%
	2	1	0	3.6%	0.2%

Table E.4. t = 3, p = 0.1, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	19.7%	24.1%
	0	0.4	0.8	45.2%	58.8%
	0	0.5	1	61.2%	75.0%
	0	0	0.6	32.6%	40.6%
	0	0.6	0.6	29.9%	39.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.0%
	0	0.2	0.4	35.3%	43.6%
	0	0.4	0.8	74.4%	85.9%
	0	0.5	1	86.9%	94.4%
	0	0	0.4	33.6%	42.0%
	0	0.4	0.5	44.0%	53.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.4%
	0	0.2	0.4	15.5%	19.3%
	0	0.4	0.8	35.4%	44.5%
	0	0.5	1	47.2%	59.7%
	0	0	0.6	25.5%	31.9%
	0	0.6	0.6	23.9%	29.6%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	6.3%	35.7%
	0	1	2.5	5.5%	29.4%
	0	2	3	6.3%	34.6%
	0	0	2	5.9%	22.2%
	0	2	2	6.0%	22.6%
	3	0	1	4.1%	0.6%
	2	1	0	4.3%	0.4%

Table E.5. t = 3, p = 0.1, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.0%
	0	0.2	0.4	19.0%	24.7%
	0	0.4	0.8	43.5%	59.4%
	0	0.5	1	57.3%	76.0%
	0	0	0.6	31.3%	42.7%
	0	0.6	0.6	28.6%	39.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	4.8%
	0	0.2	0.4	33.3%	44.8%
	0	0.4	0.8	67.9%	84.7%
	0	0.5	1	80.4%	93.4%
	0	0	0.4	32.5%	42.9%
	0	0.4	0.5	38.5%	53.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.1%
	0	0.2	0.4	15.5%	19.4%
	0	0.4	0.8	33.2%	45.1%
	0	0.5	1	43.9%	59.9%
	0	0	0.6	23.9%	31.6%
	0	0.6	0.6	22.0%	30.2%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.0%
	0	1.5	3	39.4%	73.5%
	0	1	2.5	33.4%	63.9%
	0	2	3	38.4%	71.9%
	0	0	2	25.5%	49.4%
	0	2	2	25.9%	48.3%
	3	0	1	0.4%	0.0%
	2	1	0	0.4%	0.0%

Table E.6. t = 3, p = 0.1, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.5%	4.9%
	0	0.2	0.4	16.3%	20.6%
	0	0.4	0.8	35.6%	49.6%
	0	0.5	1	47.0%	64.7%
	0	0	0.6	26.1%	34.5%
	0	0.6	0.6	22.9%	32.3%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.6%	4.4%
	0	0.2	0.4	26.6%	35.9%
	0	0.4	0.8	56.3%	74.5%
	0	0.5	1	68.8%	86.3%
	0	0	0.4	27.2%	36.2%
	0	0.4	0.5	31.7%	43.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.2%
	0	0.2	0.4	13.3%	16.8%
	0	0.4	0.8	26.9%	37.6%
	0	0.5	1	34.9%	49.0%
	0	0	0.6	20.2%	26.3%
	0	0.6	0.6	17.8%	24.1%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.7%	5.0%
	0	1.5	3	24.2%	57.1%
	0	1	2.5	21.3%	48.1%
	0	2	3	24.5%	55.8%
	0	0	2	16.9%	36.0%
	0	2	2	16.8%	35.9%
	3	0	1	0.9%	0.2%
	2	1	0	0.8%	0.0%

Table E.7. t = 3, p = 0.1, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.6%
	0	0.2	0.4	16.2%	20.3%
	0	0.4	0.8	36.1%	49.0%
	0	0.5	1	46.9%	64.5%
	0	0	0.6	26.0%	34.1%
	0	0.6	0.6	23.4%	32.3%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.5%	5.3%
	0	0.2	0.4	27.4%	36.3%
	0	0.4	0.8	59.5%	75.5%
	0	0.5	1	72.8%	87.5%
	0	0	0.4	26.6%	35.6%
	0	0.4	0.5	33.1%	46.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.2	0.4	12.7%	16.5%
	0	0.4	0.8	26.9%	37.1%
	0	0.5	1	35.5%	49.1%
	0	0	0.6	20.7%	26.5%
	0	0.6	0.6	18.2%	23.6%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	4.5%
	0	1.5	3	7.2%	34.3%
	0	1	2.5	7.4%	30.3%
	0	2	3	6.9%	34.0%
	0	0	2	6.7%	22.4%
	0	2	2	6.6%	22.0%
	3	0	1	4.2%	0.6%
	2	1	0	3.7%	0.3%

Table E.8. t = 3, p = 0.1, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.6%
	0	0.2	0.4	17.4%	25.8%
	0	0.4	0.8	38.6%	63.1%
	0	0.5	1	52.7%	80.1%
	0	0	0.6	28.3%	44.1%
	0	0.6	0.6	25.0%	41.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	4.9%
	0	0.2	0.4	29.4%	46.3%
	0	0.4	0.8	63.8%	87.7%
	0	0.5	1	77.1%	95.3%
	0	0	0.4	28.3%	45.3%
	0	0.4	0.5	36.0%	57.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	5.3%
	0	0.2	0.4	13.7%	20.2%
	0	0.4	0.8	28.8%	47.6%
	0	0.5	1	38.6%	62.0%
	0	0	0.6	20.7%	33.2%
	0	0.6	0.6	19.6%	32.8%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.6%	5.1%
	0	1.5	3	7.6%	57.6%
	0	1	2.5	7.4%	48.2%
	0	2	3	7.5%	56.5%
	0	0	2	6.6%	36.1%
	0	2	2	6.7%	35.9%
	3	0	1	3.9%	0.2%
	2	1	0	3.6%	0.1%

Table E.9. t = 3, p = 0.1, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.2%
	0	0.2	0.4	12.0%	16.6%
	0	0.4	0.8	23.4%	36.0%
	0	0.5	1	30.9%	49.0%
	0	0	0.6	18.2%	26.2%
	0	0.6	0.6	15.5%	23.7%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.5%	5.1%
	0	0.2	0.4	18.5%	26.3%
	0	0.4	0.8	38.8%	57.4%
	0	0.5	1	49.5%	70.2%
	0	0	0.4	19.0%	25.9%
	0	0.4	0.5	22.4%	33.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	5.4%
	0	0.2	0.4	9.7%	13.2%
	0	0.4	0.8	18.2%	27.0%
	0	0.5	1	24.3%	36.7%
	0	0	0.6	15.5%	21.0%
	0	0.6	0.6	12.5%	17.8%
	1	0.5	0	0.3%	0.2%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.4%	5.7%
	0	1.5	3	12.0%	35.6%
	0	1	2.5	10.7%	30.3%
	0	2	3	11.3%	33.9%
	0	0	2	9.4%	22.5%
	0	2	2	9.2%	22.0%
	3	0	1	1.9%	0.5%
	2	1	0	1.8%	0.5%

E.1.2. Probability of Missing = 0.2

Table E.10. t = 3, p = 0.2, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.2%
	0	0.2	0.4	20.4%	24.4%
	0	0.4	0.8	48.7%	59.0%
	0	0.1	0.6	35.6%	42.5%
	0	0	0.8	50.3%	60.2%
	0	0.8	0.8	44.8%	55.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.2%
	0	0.2	0.4	35.0%	42.3%
	0	0.4	0.8	74.0%	84.2%
	0	0.1	0.6	56.6%	66.7%
	0	0	0.4	35.5%	42.9%
	0	0.5	0.5	42.0%	50.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.1%
	0	0.2	0.4	16.1%	18.8%
	0	0.4	0.8	37.1%	45.2%
	0	0.1	0.9	44.4%	53.3%
	0	0	0.8	39.2%	47.2%
	0	0.8	0.8	34.3%	42.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.0%
	0	1.5	3	55.8%	76.1%
	0	1	2.5	48.5%	66.8%
	0	2	3	55.3%	75.4%
	0	0	2	36.1%	51.3%
	0	2	2	35.9%	50.5%
	3	0	1	0.0%	0.0%
	2	1	0	0.1%	0.0%

Table E.11. t = 3, p = 0.2, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.3%
	0	0.2	0.4	15.7%	22.9%
	0	0.4	0.8	35.3%	55.3%
	0	0.5	1	47.4%	71.7%
	0	0	0.6	25.6%	39.2%
	0	0.6	0.6	23.2%	35.8%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	6.0%	5.4%
	0	0.2	0.4	27.2%	40.4%
	0	0.4	0.8	57.9%	80.7%
	0	0.5	1	71.0%	91.5%
	0	0	0.4	26.4%	39.4%
	0	0.4	0.5	33.0%	50.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.1%
	0	0.2	0.4	13.6%	18.3%
	0	0.4	0.8	27.6%	41.3%
	0	0.5	1	36.2%	55.5%
	0	0	0.6	20.7%	29.7%
	0	0.6	0.6	18.2%	26.8%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.5%	5.2%
	0	1.5	3	10.4%	50.2%
	0	1	2.5	9.8%	43.0%
	0	2	3	10.7%	49.8%
	0	0	2	9.0%	32.8%
	0	2	2	8.8%	31.6%
	3	0	1	3.2%	0.2%
	2	1	0	2.3%	0.1%

Table E.12. t = 3, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.9%
	0	0.2	0.4	19.1%	27.0%
	0	0.4	0.8	43.3%	64.1%
	0	0.5	1	57.2%	79.9%
	0	0	0.6	30.6%	45.5%
	0	0.6	0.6	28.1%	42.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.8%
	0	0.2	0.4	32.6%	48.0%
	0	0.4	0.8	70.4%	89.0%
	0	0.5	1	83.2%	96.2%
	0	0	0.4	31.5%	46.7%
	0	0.4	0.5	40.3%	58.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.9%
	0	0.2	0.4	14.9%	20.4%
	0	0.4	0.8	33.0%	49.6%
	0	0.5	1	43.6%	63.7%
	0	0	0.6	23.9%	33.9%
	0	0.6	0.6	22.1%	32.6%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.0%
	0	1.5	3	7.8%	50.5%
	0	1	2.5	7.2%	42.8%
	0	2	3	7.6%	48.8%
	0	0	2	6.9%	31.5%
	0	2	2	7.1%	31.8%
	3	0	1	3.7%	0.3%
	2	1	0	3.6%	0.1%

Table E.13. t = 3, p = 0.2, IBD = 6, CRD = 18

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	19.6%	24.1%
	0	0.4	0.8	46.4%	58.8%
	0	0.5	1	61.4%	75.6%
	0	0	0.6	32.7%	41.8%
	0	0.6	0.6	29.9%	39.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	4.9%
	0	0.2	0.4	35.0%	43.9%
	0	0.4	0.8	75.0%	85.3%
	0	0.5	1	87.1%	94.4%
	0	0	0.4	33.8%	42.9%
	0	0.4	0.5	43.9%	54.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	4.9%
	0	0.2	0.4	15.9%	19.3%
	0	0.4	0.8	35.3%	44.8%
	0	0.5	1	47.4%	59.0%
	0	0	0.6	25.2%	31.7%
	0	0.6	0.6	22.9%	29.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	5.0%
	0	1.5	3	6.1%	34.6%
	0	1	2.5	6.1%	30.2%
	0	2	3	6.4%	34.5%
	0	0	2	5.6%	22.4%
	0	2	2	5.2%	21.6%
	3	0	1	4.2%	0.4%
	2	1	0	4.0%	0.4%

Table E.14. t = 3, p = 0.2, IBD = 18, CRD = 6

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.1%
	0	0.2	0.4	19.1%	24.4%
	0	0.4	0.8	43.8%	59.8%
	0	0.5	1	57.6%	75.8%
	0	0	0.6	31.7%	42.5%
	0	0.6	0.6	28.0%	39.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	5.0%
	0	0.2	0.4	32.7%	43.9%
	0	0.4	0.8	67.9%	84.8%
	0	0.5	1	79.9%	93.3%
	0	0	0.4	32.0%	42.4%
	0	0.4	0.5	40.1%	54.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	4.9%
	0	0.2	0.4	15.4%	19.3%
	0	0.4	0.8	32.5%	45.1%
	0	0.5	1	43.7%	59.5%
	0	0	0.6	25.0%	32.5%
	0	0.6	0.6	21.4%	29.1%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.9%
	0	1.5	3	39.2%	72.7%
	0	1	2.5	33.8%	63.7%
	0	2	3	38.6%	71.9%
	0	0	2	25.4%	47.7%
	0	2	2	25.2%	47.9%
	3	0	1	0.4%	0.1%
	2	1	0	0.2%	0.0%

Table E.15. t = 3, p = 0.2, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.8%
	0	0.2	0.4	16.3%	20.3%
	0	0.4	0.8	35.0%	49.4%
	0	0.5	1	46.9%	65.1%
	0	0	0.6	26.1%	34.9%
	0	0.6	0.6	22.8%	31.6%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	5.0%
	0	0.2	0.4	26.5%	35.5%
	0	0.4	0.8	55.1%	73.9%
	0	0.5	1	68.6%	86.7%
	0	0	0.4	26.2%	35.4%
	0	0.4	0.5	32.7%	45.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	4.5%
	0	0.2	0.4	13.0%	15.9%
	0	0.4	0.8	25.9%	36.1%
	0	0.5	1	34.7%	49.0%
	0	0	0.6	20.1%	26.0%
	0	0.6	0.6	19.1%	25.4%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.8%	5.3%
	0	1.5	3	24.2%	56.7%
	0	1	2.5	21.7%	49.1%
	0	2	3	23.9%	55.6%
	0	0	2	17.4%	35.5%
	0	2	2	17.5%	35.9%
	3	0	1	1.2%	0.1%
	2	1	0	1.0%	0.1%

Table E.16. t = 3, p = 0.2, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.2	0.4	16.2%	20.7%
	0	0.4	0.8	35.7%	49.2%
	0	0.5	1	47.8%	65.4%
	0	0	0.6	26.0%	34.7%
	0	0.6	0.6	22.1%	31.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	5.0%
	0	0.2	0.4	27.4%	36.9%
	0	0.4	0.8	59.5%	75.6%
	0	0.5	1	72.6%	87.4%
	0	0	0.4	25.9%	35.5%
	0	0.4	0.5	33.5%	45.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.7%	5.1%
	0	0.2	0.4	13.2%	16.5%
	0	0.4	0.8	27.4%	36.7%
	0	0.5	1	36.2%	49.5%
	0	0	0.6	21.3%	27.0%
	0	0.6	0.6	18.5%	24.7%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.9%
	0	1.5	3	7.0%	34.7%
	0	1	2.5	7.1%	29.6%
	0	2	3	7.6%	34.7%
	0	0	2	6.5%	22.1%
	0	2	2	6.7%	22.6%
	3	0	1	3.9%	0.5%
	2	1	0	3.8%	0.3%

Table E.17. t = 3, p = 0.2, IBD = 12, CRD = 12

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.2	0.4	17.3%	26.0%
	0	0.4	0.8	39.2%	63.4%
	0	0.5	1	52.4%	79.1%
	0	0	0.6	28.4%	44.8%
	0	0.6	0.6	25.1%	42.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.5%	4.9%
	0	0.2	0.4	28.8%	46.0%
	0	0.4	0.8	64.0%	87.9%
	0	0.5	1	78.0%	95.8%
	0	0	0.4	28.9%	45.3%
	0	0.4	0.5	36.7%	57.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.5%
	0	0.2	0.4	14.0%	20.1%
	0	0.4	0.8	29.6%	47.9%
	0	0.5	1	39.1%	62.5%
	0	0	0.6	22.1%	33.3%
	0	0.6	0.6	19.5%	31.7%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	5.1%
	0	1.5	3	7.4%	57.0%
	0	1	2.5	7.7%	47.6%
	0	2	3	7.3%	55.8%
	0	0	2	6.8%	36.0%
	0	2	2	6.9%	36.2%
	3	0	1	3.9%	0.2%
	2	1	0	3.5%	0.1%

Table E.18. t = 3, p = 0.2, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.2%
	0	0.2	0.4	11.5%	16.6%
	0	0.4	0.8	24.3%	35.8%
	0	0.5	1	30.9%	48.3%
	0	0	0.6	18.5%	26.5%
	0	0.6	0.6	15.2%	23.3%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.4%	4.7%
	0	0.2	0.4	18.6%	26.6%
	0	0.4	0.8	39.3%	58.0%
	0	0.5	1	49.1%	70.1%
	0	0	0.4	18.8%	25.7%
	0	0.4	0.5	22.0%	33.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	5.3%
	0	0.2	0.4	9.8%	12.7%
	0	0.4	0.8	18.5%	26.6%
	0	0.5	1	22.9%	35.5%
	0	0	0.6	15.1%	20.6%
	0	0.6	0.6	12.6%	18.7%
	1	0.5	0	0.4%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.7%	4.9%
	0	1.5	3	12.0%	35.3%
	0	1	2.5	10.7%	29.5%
	0	2	3	11.9%	34.5%
	0	0	2	8.9%	22.3%
	0	2	2	9.0%	22.2%
	3	0	1	2.1%	0.4%
	2	1	0	1.8%	0.4%

E.1.3. Probability of Missing = 0.3

Table E.19. t = 3, p = 0.3, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.1%
	0	0.2	0.4	20.0%	23.8%
	0	0.4	0.8	49.7%	60.1%
	0	0.1	0.6	34.1%	41.5%
	0	0	0.8	51.6%	61.4%
	0	0.8	0.8	45.2%	56.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.6%	4.5%
	0	0.2	0.4	35.9%	43.4%
	0	0.4	0.8	74.0%	84.2%
	0	0.1	0.6	58.1%	68.3%
	0	0	0.4	35.2%	42.8%
	0	0.5	0.5	41.2%	50.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.7%	4.6%
	0	0.2	0.4	15.5%	18.6%
	0	0.4	0.8	36.6%	44.8%
	0	0.1	0.9	44.7%	53.3%
	0	0	0.8	38.3%	45.9%
	0	0.8	0.8	34.1%	42.2%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	4.8%
	0	1.5	3	55.8%	75.8%
	0	1	2.5	48.5%	66.8%
	0	2	3	55.6%	75.2%
	0	0	2	36.3%	50.8%
	0	2	2	36.6%	51.3%
	3	0	1	0.1%	0.0%
	2	1	0	0.1%	0.0%

Table E.20. t = 3, p = 0.3, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.7%
	0	0.2	0.4	16.4%	22.6%
	0	0.4	0.8	36.0%	55.3%
	0	0.5	1	46.4%	70.9%
	0	0	0.6	26.1%	38.7%
	0	0.6	0.6	22.5%	35.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.1%
	0	0.2	0.4	26.2%	39.9%
	0	0.4	0.8	58.3%	81.5%
	0	0.5	1	70.8%	91.1%
	0	0	0.4	26.3%	38.7%
	0	0.4	0.5	32.8%	49.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.7%
	0	0.2	0.4	12.8%	17.8%
	0	0.4	0.8	26.3%	40.6%
	0	0.5	1	36.2%	55.8%
	0	0	0.6	20.6%	29.0%
	0	0.6	0.6	17.8%	27.2%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	4.8%
	0	1.5	3	10.7%	49.7%
	0	1	2.5	10.2%	43.2%
	0	2	3	11.1%	49.3%
	0	0	2	8.9%	32.1%
	0	2	2	9.3%	31.6%
	3	0	1	2.9%	0.2%
	2	1	0	2.6%	0.2%

Table E.21. t = 3, p = 0.3, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.7%
	0	0.2	0.4	18.2%	25.8%
	0	0.4	0.8	43.4%	63.8%
	0	0.5	1	57.7%	80.3%
	0	0	0.6	30.5%	44.9%
	0	0.6	0.6	28.9%	43.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.7%
	0	0.2	0.4	32.6%	47.6%
	0	0.4	0.8	69.1%	88.6%
	0	0.5	1	82.5%	96.3%
	0	0	0.4	31.5%	46.3%
	0	0.4	0.5	41.0%	59.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.1%
	0	0.2	0.4	15.4%	20.8%
	0	0.4	0.8	32.5%	49.2%
	0	0.5	1	43.8%	64.0%
	0	0	0.6	23.5%	34.3%
	0	0.6	0.6	21.8%	33.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.7%	4.9%
	0	1.5	3	7.8%	49.9%
	0	1	2.5	7.5%	43.0%
	0	2	3	7.9%	48.0%
	0	0	2	6.8%	31.1%
	0	2	2	7.1%	31.2%
	3	0	1	3.8%	0.3%
	2	1	0	3.6%	0.2%

Table E.22. t = 3, p = 0.3, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.2%
	0	0.2	0.4	19.5%	24.3%
	0	0.4	0.8	46.9%	59.2%
	0	0.5	1	62.0%	75.9%
	0	0	0.6	31.9%	41.7%
	0	0.6	0.6	30.1%	39.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.4%
	0	0.2	0.4	34.6%	43.8%
	0	0.4	0.8	74.3%	85.5%
	0	0.5	1	86.2%	94.4%
	0	0	0.4	34.0%	42.6%
	0	0.4	0.5	45.1%	55.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.0%
	0	0.2	0.4	15.8%	19.7%
	0	0.4	0.8	35.5%	44.2%
	0	0.5	1	46.3%	58.5%
	0	0	0.6	24.8%	30.8%
	0	0.6	0.6	23.7%	30.0%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.3%
	0	1.5	3	6.0%	34.3%
	0	1	2.5	6.3%	29.7%
	0	2	3	5.8%	34.3%
	0	0	2	6.1%	22.5%
	0	2	2	6.1%	22.5%
	3	0	1	3.9%	0.4%
	2	1	0	4.0%	0.3%

Table E.23. t = 3, p = 0.3, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.5%	5.5%
	0	0.2	0.4	18.5%	23.9%
	0	0.4	0.8	44.6%	59.9%
	0	0.5	1	57.7%	75.9%
	0	0	0.6	31.9%	42.4%
	0	0.6	0.6	28.0%	39.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	4.9%
	0	0.2	0.4	32.4%	43.0%
	0	0.4	0.8	68.0%	84.1%
	0	0.5	1	80.5%	93.9%
	0	0	0.4	33.1%	43.6%
	0	0.4	0.5	40.0%	54.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.4%
	0	0.2	0.4	15.3%	19.2%
	0	0.4	0.8	33.2%	45.7%
	0	0.5	1	44.7%	60.8%
	0	0	0.6	25.6%	33.1%
	0	0.6	0.6	22.1%	29.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.3%
	0	1.5	3	39.1%	73.5%
	0	1	2.5	33.7%	63.6%
	0	2	3	38.9%	72.0%
	0	0	2	24.8%	47.6%
	0	2	2	24.9%	48.2%
	3	0	1	0.6%	0.1%
	2	1	0	0.2%	0.0%

Table E.24. t = 3, p = 0.3, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.9%
	0	0.2	0.4	16.3%	20.2%
	0	0.4	0.8	35.6%	49.1%
	0	0.5	1	46.2%	64.2%
	0	0	0.6	25.5%	34.3%
	0	0.6	0.6	22.6%	30.9%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.2%
	0	0.2	0.4	25.6%	35.7%
	0	0.4	0.8	56.5%	75.0%
	0	0.5	1	68.7%	86.3%
	0	0	0.4	26.1%	34.8%
	0	0.4	0.5	31.3%	43.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	4.7%
	0	0.2	0.4	13.2%	16.1%
	0	0.4	0.8	27.2%	37.3%
	0	0.5	1	35.6%	49.9%
	0	0	0.6	20.2%	26.4%
	0	0.6	0.6	18.5%	24.8%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.6%	5.2%
	0	1.5	3	23.9%	56.6%
	0	1	2.5	21.4%	48.2%
	0	2	3	23.5%	55.6%
	0	0	2	17.2%	36.2%
	0	2	2	17.7%	36.3%
	3	0	1	1.0%	0.2%
	2	1	0	0.9%	0.1%

Table E.25. t = 3, p = 0.3, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.1%
	0	0.2	0.4	15.7%	20.2%
	0	0.4	0.8	34.0%	49.7%
	0	0.5	1	47.1%	65.0%
	0	0	0.6	25.5%	34.3%
	0	0.6	0.6	22.4%	31.6%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.5%	5.3%
	0	0.2	0.4	26.5%	35.3%
	0	0.4	0.8	59.4%	75.9%
	0	0.5	1	72.7%	87.0%
	0	0	0.4	27.0%	35.3%
	0	0.4	0.5	33.6%	46.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.5%	5.2%
	0	0.2	0.4	13.2%	16.4%
	0	0.4	0.8	26.9%	37.1%
	0	0.5	1	36.4%	50.2%
	0	0	0.6	19.9%	27.0%
	0	0.6	0.6	18.4%	24.2%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	4.7%
	0	1.5	3	7.5%	35.7%
	0	1	2.5	7.1%	29.9%
	0	2	3	7.5%	34.9%
	0	0	2	6.9%	21.2%
	0	2	2	6.5%	22.1%
	3	0	1	4.0%	0.4%
	2	1	0	3.7%	0.4%

Table E.26. t = 3, p = 0.3, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.9%
	0	0.2	0.4	16.4%	25.5%
	0	0.4	0.8	39.0%	62.5%
	0	0.5	1	51.9%	79.4%
	0	0	0.6	27.7%	44.2%
	0	0.6	0.6	24.8%	42.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.1%
	0	0.2	0.4	30.3%	48.3%
	0	0.4	0.8	64.5%	87.8%
	0	0.5	1	77.8%	96.0%
	0	0	0.4	29.1%	46.0%
	0	0.4	0.5	36.6%	57.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.9%
	0	0.2	0.4	14.3%	20.4%
	0	0.4	0.8	29.0%	47.5%
	0	0.5	1	39.2%	63.2%
	0	0	0.6	21.2%	33.1%
	0	0.6	0.6	20.1%	31.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	4.8%
	0	1.5	3	7.5%	56.8%
	0	1	2.5	7.5%	48.6%
	0	2	3	7.6%	56.4%
	0	0	2	6.8%	36.4%
	0	2	2	6.9%	37.2%
	3	0	1	3.8%	0.1%
	2	1	0	3.5%	0.1%

Table E.27. t = 3, p = 0.3, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	10.8%	15.4%
	0	0.4	0.8	23.9%	36.4%
	0	0.5	1	31.8%	47.9%
	0	0	0.6	18.5%	25.5%
	0	0.6	0.6	14.8%	23.1%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	4.9%
	0	0.2	0.4	19.1%	26.8%
	0	0.4	0.8	39.0%	57.1%
	0	0.5	1	49.7%	71.2%
	0	0	0.4	18.6%	26.8%
	0	0.4	0.5	22.6%	33.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	5.4%
	0	0.2	0.4	9.9%	12.8%
	0	0.4	0.8	18.8%	28.1%
	0	0.5	1	23.5%	36.1%
	0	0	0.6	14.4%	19.9%
	0	0.6	0.6	12.9%	18.4%
	1	0.5	0	0.5%	0.2%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.5%	5.2%
	0	1.5	3	11.5%	34.2%
	0	1	2.5	10.6%	29.4%
	0	2	3	11.7%	34.7%
	0	0	2	9.1%	23.0%
	0	2	2	9.0%	22.9%
	3	0	1	2.3%	0.5%
	2	1	0	1.7%	0.4%

E.1.4. Probability of Missing = 0.4

Table E.28. t = 3, p = 0.4, IBD = 20, CRD = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.8%
	0	0.2	0.4	19.9%	23.4%
	0	0.4	0.8	48.6%	59.1%
	0	0.1	0.6	35.9%	42.7%
	0	0	0.8	51.4%	61.2%
	0	0.8	0.8	45.4%	56.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	4.9%
	0	0.2	0.4	35.9%	43.5%
	0	0.4	0.8	74.0%	84.1%
	0	0.1	0.6	56.4%	66.2%
	0	0	0.4	35.6%	43.2%
	0	0.5	0.5	41.6%	50.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.1%
	0	0.2	0.4	16.1%	19.4%
	0	0.4	0.8	36.2%	44.2%
	0	0.1	0.9	45.1%	53.8%
	0	0	0.8	38.1%	45.7%
	0	0.8	0.8	33.4%	41.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.3%	4.4%
	0	1.5	3	56.2%	76.9%
	0	1	2.5	48.3%	66.5%
	0	2	3	54.8%	75.6%
	0	0	2	35.9%	51.0%
	0	2	2	36.0%	50.8%
	3	0	1	0.2%	0.1%
	2	1	0	0.1%	0.0%

Table E.29. t = 3, p = 0.4, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	4.4%
	0	0.2	0.4	16.2%	22.9%
	0	0.4	0.8	34.4%	54.4%
	0	0.5	1	47.2%	71.1%
	0	0	0.6	25.3%	38.9%
	0	0.6	0.6	22.8%	36.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	4.9%
	0	0.2	0.4	26.6%	40.4%
	0	0.4	0.8	57.8%	81.0%
	0	0.5	1	71.0%	90.9%
	0	0	0.4	26.6%	40.2%
	0	0.4	0.5	32.9%	49.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.0%
	0	0.2	0.4	13.7%	17.7%
	0	0.4	0.8	26.7%	41.7%
	0	0.5	1	35.2%	55.5%
	0	0	0.6	20.0%	29.1%
	0	0.6	0.6	18.7%	28.4%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.1%	4.9%
	0	1.5	3	10.8%	50.7%
	0	1	2.5	10.2%	41.2%
	0	2	3	10.3%	49.3%
	0	0	2	9.0%	32.2%
	0	2	2	8.7%	31.5%
	3	0	1	2.9%	0.2%
	2	1	0	2.7%	0.1%

Table E.30. t = 3, p = 0.4, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.6%	5.0%
	0	0.2	0.4	18.6%	25.7%
	0	0.4	0.8	42.2%	63.3%
	0	0.5	1	57.8%	80.0%
	0	0	0.6	29.8%	44.5%
	0	0.6	0.6	27.6%	41.5%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.2%
	0	0.2	0.4	32.9%	47.6%
	0	0.4	0.8	70.0%	88.7%
	0	0.5	1	82.9%	96.2%
	0	0	0.4	31.2%	46.2%
	0	0.4	0.5	41.3%	59.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	4.9%
	0	0.2	0.4	15.3%	20.0%
	0	0.4	0.8	31.8%	48.0%
	0	0.5	1	43.9%	64.0%
	0	0	0.6	23.9%	34.8%
	0	0.6	0.6	21.8%	32.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	4.9%
	0	1.5	3	7.4%	49.8%
	0	1	2.5	7.1%	42.1%
	0	2	3	7.7%	50.2%
	0	0	2	6.9%	32.3%
	0	2	2	6.8%	32.1%
	3	0	1	3.8%	0.2%
	2	1	0	3.5%	0.1%

Table E.31. t = 3, p = 0.4, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.7%
	0	0.2	0.4	19.4%	24.4%
	0	0.4	0.8	46.7%	59.0%
	0	0.5	1	61.4%	75.3%
	0	0	0.6	33.2%	41.5%
	0	0.6	0.6	29.3%	38.4%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.3%	5.3%
	0	0.2	0.4	35.0%	44.0%
	0	0.4	0.8	73.9%	85.5%
	0	0.5	1	86.5%	94.5%
	0	0	0.4	33.0%	41.6%
	0	0.4	0.5	44.1%	55.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.0%
	0	0.2	0.4	15.4%	18.7%
	0	0.4	0.8	35.8%	46.3%
	0	0.5	1	46.5%	59.6%
	0	0	0.6	25.4%	31.2%
	0	0.6	0.6	23.6%	29.6%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	5.0%
	0	1.5	3	5.7%	34.8%
	0	1	2.5	6.0%	28.9%
	0	2	3	5.6%	33.2%
	0	0	2	5.6%	23.1%
	0	2	2	5.6%	21.8%
	3	0	1	4.4%	0.5%
	2	1	0	4.0%	0.4%

Table E.32. t = 3, p = 0.4, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.0%
	0	0.2	0.4	18.8%	24.7%
	0	0.4	0.8	44.0%	60.0%
	0	0.5	1	57.6%	76.3%
	0	0	0.6	31.9%	42.5%
	0	0.6	0.6	28.0%	39.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.2%
	0	0.2	0.4	33.0%	44.3%
	0	0.4	0.8	68.3%	85.0%
	0	0.5	1	80.0%	93.5%
	0	0	0.4	32.6%	43.7%
	0	0.4	0.5	39.9%	54.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	4.8%
	0	0.2	0.4	15.7%	19.0%
	0	0.4	0.8	33.9%	45.8%
	0	0.5	1	44.2%	60.1%
	0	0	0.6	24.6%	31.8%
	0	0.6	0.6	21.0%	29.2%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	5.0%
	0	1.5	3	39.3%	72.7%
	0	1	2.5	33.6%	63.5%
	0	2	3	38.2%	71.5%
	0	0	2	25.4%	47.9%
	0	2	2	25.3%	48.6%
	3	0	1	0.6%	0.1%
	2	1	0	0.4%	0.0%

Table E.33. t = 3, p = 0.4, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	5.0%
	0	0.2	0.4	16.2%	20.7%
	0	0.4	0.8	35.2%	49.5%
	0	0.5	1	46.2%	64.5%
	0	0	0.6	25.5%	34.3%
	0	0.6	0.6	22.3%	31.4%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	4.4%
	0	0.2	0.4	27.6%	37.1%
	0	0.4	0.8	56.4%	74.4%
	0	0.5	1	67.8%	86.0%
	0	0	0.4	26.9%	36.2%
	0	0.4	0.5	31.7%	44.7%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.6%	5.0%
	0	0.2	0.4	12.9%	16.2%
	0	0.4	0.8	27.2%	37.5%
	0	0.5	1	35.2%	49.7%
	0	0	0.6	20.1%	26.7%
	0	0.6	0.6	18.1%	24.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.6%	5.0%
	0	1.5	3	24.4%	57.8%
	0	1	2.5	21.8%	48.8%
	0	2	3	23.6%	55.1%
	0	0	2	17.3%	36.2%
	0	2	2	17.2%	35.9%
	3	0	1	1.2%	0.2%
	2	1	0	0.8%	0.1%

Table E.34. t = 3, p = 0.4, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.4%
	0	0.2	0.4	16.3%	20.4%
	0	0.4	0.8	35.2%	49.0%
	0	0.5	1	47.5%	64.6%
	0	0	0.6	25.4%	34.7%
	0	0.6	0.6	22.6%	31.8%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.1%
	0	0.2	0.4	27.5%	35.9%
	0	0.4	0.8	58.9%	74.6%
	0	0.5	1	72.9%	88.4%
	0	0	0.4	25.9%	34.2%
	0	0.4	0.5	33.5%	45.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	4.9%
	0	0.2	0.4	13.6%	17.1%
	0	0.4	0.8	26.6%	36.9%
	0	0.5	1	36.6%	50.1%
	0	0	0.6	19.5%	26.3%
	0	0.6	0.6	18.3%	24.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.9%	4.8%
	0	1.5	3	7.2%	34.2%
	0	1	2.5	6.9%	29.3%
	0	2	3	7.7%	33.5%
	0	0	2	6.8%	23.3%
	0	2	2	6.8%	22.1%
	3	0	1	3.6%	0.6%
	2	1	0	4.0%	0.3%

Table E.35. t = 3, p = 0.4, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.1%
	0	0.2	0.4	16.1%	25.3%
	0	0.4	0.8	38.7%	62.6%
	0	0.5	1	52.2%	78.8%
	0	0	0.6	28.3%	44.1%
	0	0.6	0.6	24.6%	42.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.7%	4.8%
	0	0.2	0.4	28.7%	46.0%
	0	0.4	0.8	64.1%	87.9%
	0	0.5	1	77.3%	95.8%
	0	0	0.4	29.1%	45.5%
	0	0.4	0.5	37.1%	58.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	5.0%
	0	0.2	0.4	13.9%	19.9%
	0	0.4	0.8	29.1%	48.0%
	0	0.5	1	39.5%	63.2%
	0	0	0.6	20.4%	33.2%
	0	0.6	0.6	19.7%	31.6%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	4.4%
	0	1.5	3	7.2%	56.6%
	0	1	2.5	7.2%	47.7%
	0	2	3	7.8%	56.9%
	0	0	2	6.9%	36.6%
	0	2	2	6.7%	35.9%
	3	0	1	3.9%	0.2%
	2	1	0	3.3%	0.1%

Table E.36. t = 3, p = 0.4, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	5.0%
	0	0.2	0.4	11.6%	15.9%
	0	0.4	0.8	24.3%	36.5%
	0	0.5	1	30.7%	48.4%
	0	0	0.6	18.5%	25.7%
	0	0.6	0.6	15.6%	23.2%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.5%	4.9%
	0	0.2	0.4	18.5%	27.1%
	0	0.4	0.8	38.7%	57.2%
	0	0.5	1	49.5%	71.2%
	0	0	0.4	17.6%	25.3%
	0	0.4	0.5	21.9%	32.8%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.4%	4.5%
	0	0.2	0.4	10.5%	14.0%
	0	0.4	0.8	18.4%	27.7%
	0	0.5	1	24.2%	36.0%
	0	0	0.6	15.0%	20.4%
	0	0.6	0.6	13.1%	18.6%
	1	0.5	0	0.4%	0.2%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.0%
	0	1.5	3	11.6%	35.4%
	0	1	2.5	11.1%	29.8%
	0	2	3	12.1%	35.0%
	0	0	2	9.2%	22.1%
	0	2	2	9.1%	22.6%
	3	0	1	2.2%	0.5%
	2	1	0	1.7%	0.4%

E.1.5. Probability of Missing = 0.5

Table E.37. t = 3, p = 0.5, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	5.0%
	0	0.2	0.4	19.9%	24.0%
	0	0.4	0.8	48.8%	59.1%
	0	0.1	0.6	35.1%	42.3%
	0	0	0.8	51.2%	60.7%
	0	0.8	0.8	45.0%	55.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.0%	5.1%
	0	0.2	0.4	36.7%	44.4%
	0	0.4	0.8	74.4%	84.2%
	0	0.1	0.6	58.2%	68.2%
	0	0	0.4	35.2%	42.5%
	0	0.5	0.5	42.0%	51.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.5%	4.6%
	0	0.2	0.4	15.7%	18.7%
	0	0.4	0.8	38.1%	45.9%
	0	0.1	0.9	44.1%	53.1%
	0	0	0.8	39.0%	46.9%
	0	0.8	0.8	34.4%	42.6%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.8%	4.8%
	0	1.5	3	56.2%	75.5%
	0	1	2.5	47.8%	66.3%
	0	2	3	55.7%	75.2%
	0	0	2	36.7%	52.0%
	0	2	2	36.1%	50.9%
	3	0	1	0.1%	0.0%
	2	1	0	0.1%	0.0%

Table E.38. t = 3, p = 0.5, IBD = 10, CRD = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.5%	4.9%
	0	0.2	0.4	16.0%	22.9%
	0	0.4	0.8	36.2%	55.5%
	0	0.5	1	46.5%	71.0%
	0	0	0.6	25.3%	38.4%
	0	0.6	0.6	22.7%	36.3%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.2%	5.1%
	0	0.2	0.4	26.1%	39.1%
	0	0.4	0.8	58.1%	81.4%
	0	0.5	1	71.4%	91.4%
	0	0	0.4	26.5%	39.9%
	0	0.4	0.5	33.4%	50.1%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.5%
	0	0.2	0.4	13.2%	17.7%
	0	0.4	0.8	27.4%	41.4%
	0	0.5	1	36.2%	56.0%
	0	0	0.6	20.3%	29.6%
	0	0.6	0.6	17.8%	27.0%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	4.9%
	0	1.5	3	10.8%	49.8%
	0	1	2.5	10.1%	42.0%
	0	2	3	10.6%	49.4%
	0	0	2	8.8%	31.9%
	0	2	2	8.7%	31.7%
	3	0	1	2.9%	0.2%
	2	1	0	2.6%	0.2%

Table E.39. t = 3, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.3%
	0	0.2	0.4	18.5%	26.1%
	0	0.4	0.8	42.7%	63.8%
	0	0.5	1	57.3%	80.2%
	0	0	0.6	30.9%	45.4%
	0	0.6	0.6	27.9%	42.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	5.2%
	0	0.2	0.4	33.1%	47.8%
	0	0.4	0.8	69.6%	88.6%
	0	0.5	1	82.6%	96.0%
	0	0	0.4	32.1%	46.9%
	0	0.4	0.5	40.8%	58.6%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.4%	5.2%
	0	0.2	0.4	15.0%	20.4%
	0	0.4	0.8	32.8%	49.3%
	0	0.5	1	43.7%	63.9%
	0	0	0.6	23.2%	33.8%
	0	0.6	0.6	21.7%	33.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.3%	4.9%
	0	1.5	3	7.5%	50.7%
	0	1	2.5	7.2%	42.7%
	0	2	3	7.3%	49.3%
	0	0	2	7.1%	31.9%
	0	2	2	6.9%	32.0%
	3	0	1	3.8%	0.3%
	2	1	0	3.7%	0.1%

Table E.40. t = 3, p = 0.5, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.9%
	0	0.2	0.4	20.0%	24.0%
	0	0.4	0.8	45.9%	58.8%
	0	0.5	1	62.7%	75.7%
	0	0	0.6	32.5%	41.0%
	0	0.6	0.6	29.8%	38.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	5.0%
	0	0.2	0.4	35.1%	43.8%
	0	0.4	0.8	74.9%	85.3%
	0	0.5	1	86.0%	94.3%
	0	0	0.4	34.1%	42.8%
	0	0.4	0.5	44.3%	55.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	4.9%
	0	0.2	0.4	15.9%	19.5%
	0	0.4	0.8	34.9%	44.7%
	0	0.5	1	47.9%	60.1%
	0	0	0.6	25.8%	31.2%
	0	0.6	0.6	23.6%	30.2%
	1	0.5	0	0.1%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.3%
	0	1.5	3	6.0%	34.5%
	0	1	2.5	6.5%	29.4%
	0	2	3	5.9%	34.3%
	0	0	2	5.8%	22.8%
	0	2	2	6.3%	22.6%
	3	0	1	4.7%	0.5%
	2	1	0	4.0%	0.3%

Table E.41. t = 3, p = 0.5, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.5%	5.4%
	0	0.2	0.4	18.9%	24.2%
	0	0.4	0.8	43.4%	59.1%
	0	0.5	1	57.3%	75.5%
	0	0	0.6	32.3%	43.0%
	0	0.6	0.6	28.1%	38.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.8%	5.0%
	0	0.2	0.4	32.7%	44.4%
	0	0.4	0.8	66.8%	83.8%
	0	0.5	1	80.8%	93.4%
	0	0	0.4	32.4%	43.0%
	0	0.4	0.5	39.6%	52.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.1%
	0	0.2	0.4	14.9%	19.0%
	0	0.4	0.8	32.9%	45.0%
	0	0.5	1	43.3%	59.1%
	0	0	0.6	24.6%	31.9%
	0	0.6	0.6	21.8%	29.0%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	4.9%
	0	1.5	3	39.3%	73.4%
	0	1	2.5	33.5%	62.6%
	0	2	3	39.0%	72.0%
	0	0	2	25.3%	48.5%
	0	2	2	25.2%	47.8%
	3	0	1	0.5%	0.1%
	2	1	0	0.3%	0.0%

Table E.42. t = 3, p = 0.5, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	4.9%
	0	0.2	0.4	15.8%	20.4%
	0	0.4	0.8	33.9%	47.8%
	0	0.5	1	45.7%	64.8%
	0	0	0.6	26.4%	34.9%
	0	0.6	0.6	22.5%	31.1%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.6%	5.3%
	0	0.2	0.4	26.7%	36.5%
	0	0.4	0.8	55.9%	74.8%
	0	0.5	1	69.3%	87.1%
	0	0	0.4	26.2%	34.9%
	0	0.4	0.5	32.4%	44.9%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	4.9%
	0	0.2	0.4	13.3%	16.0%
	0	0.4	0.8	27.2%	37.1%
	0	0.5	1	34.8%	49.3%
	0	0	0.6	20.4%	26.0%
	0	0.6	0.6	17.9%	24.4%
	1	0.5	0	0.3%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.5%	4.7%
	0	1.5	3	23.8%	56.6%
	0	1	2.5	21.5%	48.3%
	0	2	3	24.9%	56.6%
	0	0	2	16.9%	36.2%
	0	2	2	17.6%	36.6%
	3	0	1	1.1%	0.1%
	2	1	0	0.7%	0.1%

Table E.43. t = 3, p = 0.5, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.0%
	0	0.2	0.4	16.1%	19.9%
	0	0.4	0.8	35.6%	49.1%
	0	0.5	1	47.9%	65.0%
	0	0	0.6	26.0%	35.0%
	0	0.6	0.6	23.3%	32.4%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	5.1%	4.8%
	0	0.2	0.4	28.1%	36.9%
	0	0.4	0.8	59.2%	75.7%
	0	0.5	1	73.0%	87.9%
	0	0	0.4	26.7%	35.9%
	0	0.4	0.5	33.6%	46.2%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.3%	5.1%
	0	0.2	0.4	13.6%	16.6%
	0	0.4	0.8	26.5%	36.9%
	0	0.5	1	35.6%	49.7%
	0	0	0.6	20.1%	27.1%
	0	0.6	0.6	19.0%	25.1%
	1	0.5	0	0.2%	0.1%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.2%	5.0%
	0	1.5	3	7.1%	34.3%
	0	1	2.5	7.0%	29.2%
	0	2	3	6.8%	35.1%
	0	0	2	6.8%	23.4%
	0	2	2	6.6%	21.6%
	3	0	1	3.9%	0.3%
	2	1	0	4.0%	0.4%

Table E.44. t = 3, p = 0.5, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.8%
	0	0.2	0.4	16.6%	25.8%
	0	0.4	0.8	39.0%	62.6%
	0	0.5	1	51.1%	78.8%
	0	0	0.6	28.1%	44.2%
	0	0.6	0.6	24.9%	42.0%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.9%	4.8%
	0	0.2	0.4	29.4%	46.6%
	0	0.4	0.8	63.9%	87.8%
	0	0.5	1	77.1%	95.3%
	0	0	0.4	27.8%	44.8%
	0	0.4	0.5	36.4%	57.3%
	1	0.5	0	0.0%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.2%
	0	0.2	0.4	13.3%	19.9%
	0	0.4	0.8	28.9%	47.8%
	0	0.5	1	39.6%	62.8%
	0	0	0.6	21.8%	33.8%
	0	0.6	0.6	20.4%	32.5%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	5.0%	5.0%
	0	1.5	3	7.1%	57.3%
	0	1	2.5	7.0%	49.0%
	0	2	3	7.3%	55.6%
	0	0	2	6.6%	35.5%
	0	2	2	6.7%	36.0%
	3	0	1	4.0%	0.2%
	2	1	0	3.9%	0.1%

Table E.45. t = 3, p = 0.5, IBD = 6, CRD = 6

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.4%	4.6%
	0	0.2	0.4	12.0%	16.4%
	0	0.4	0.8	23.3%	35.5%
	0	0.5	1	31.8%	48.0%
	0	0	0.6	18.6%	26.5%
	0	0.6	0.6	14.9%	22.6%
	1	0.5	0	0.2%	0.0%
	2	1	0	0.0%	0.0%
Exponential	0	0	0	4.4%	4.8%
	0	0.2	0.4	19.3%	26.9%
	0	0.4	0.8	38.8%	57.1%
	0	0.5	1	48.8%	70.5%
	0	0	0.4	18.2%	25.5%
	0	0.4	0.5	22.0%	32.7%
	1	0.5	0	0.1%	0.0%
	2	1	0	0.0%	0.0%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.2	0.4	10.0%	13.1%
	0	0.4	0.8	18.5%	27.4%
	0	0.5	1	24.6%	37.2%
	0	0	0.6	15.1%	21.3%
	0	0.6	0.6	12.9%	18.8%
	1	0.5	0	0.4%	0.2%
	2	1	0	0.0%	0.0%
Cauchy	0	0	0	4.6%	5.0%
	0	1.5	3	12.1%	35.6%
	0	1	2.5	10.9%	29.3%
	0	2	3	11.3%	33.7%
	0	0	2	9.1%	22.6%
	0	2	2	9.0%	22.9%
	3	0	1	2.3%	0.5%
	2	1	0	1.8%	0.4%

E.2. Four Treatments

E.2.1. Probability of Missing = 0.1

Table E.46. t = 4, p = 0.1, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	45.1%	47.7%
	0	0.2	0.5	0.7	56.6%	59.4%
	0	0	0	0.8	57.6%	60.7%
	0	0	0.5	0.5	45.3%	47.7%
	0	0.5	0.5	0.5	27.3%	29.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	72.2%	75.5%
	0	0.2	0.5	0.6	75.3%	78.8%
	0	0	0	0.8	79.9%	82.8%
	0	0	0.5	0.5	71.5%	74.5%
	0	0.5	0.5	0.5	46.9%	50.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.2%
	0	0.2	0.4	0.6	33.2%	35.4%
	0	0.4	0.8	1	66.3%	70.0%
	0	0	0	0.8	44.0%	46.5%
	0	0	0.5	0.5	34.2%	36.0%
	0	0.5	0.5	0.5	21.9%	23.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.1%
	0	1	2	3	79.2%	84.9%
	0	1.5	2	3	75.7%	81.2%
	0	0	0	2	45.1%	50.2%
	0	0	2	2	66.2%	72.6%
	0	2	2	2	45.2%	50.7%
	3	1	0	2	0.3%	0.2%

Table E.47. t = 4, p = 0.1, IBD = 10, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	29.0%	42.9%
	0	0.4	0.8	1	57.1%	79.7%
	0	0	0	0.8	38.2%	54.6%
	0	0	0.5	0.5	29.7%	43.2%
	0	0.8	0.8	0.8	33.4%	50.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	4.8%
	0	0.2	0.4	0.6	50.4%	70.2%
	0	0.4	0.8	1	82.6%	95.9%
	0	0	0	0.8	58.0%	78.0%
	0	0	0.5	0.5	51.1%	70.8%
	0	0.5	0.5	0.5	30.9%	45.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	22.3%	32.7%
	0	0.4	0.8	1	43.5%	62.9%
	0	0	0	0.8	29.5%	41.6%
	0	0	0.6	0.6	28.8%	41.3%
	0	0.8	0.8	0.8	24.6%	37.5%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.8%
	0	1	2	3	14.0%	58.5%
	0	1.5	2	3	13.5%	55.5%
	0	0	0	2	9.5%	30.7%
	0	0	2	2	12.5%	46.4%
	0	2	2	2	10.2%	31.1%
	3	1	0	2	3.4%	0.7%
	3	2	1	0	1.1%	0.0%

Table E.48. t = 4, p = 0.1, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	33.1%	49.1%
	0	0.4	0.8	1	66.2%	87.3%
	0	0	0	0.8	43.8%	62.7%
	0	0	0.5	0.5	34.8%	50.4%
	0	0.8	0.8	0.8	39.1%	59.2%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0.6	59.1%	79.0%
	0	0.4	0.8	1	90.1%	98.4%
	0	0	0	0.8	67.4%	86.2%
	0	0	0.5	0.5	58.8%	78.2%
	0	0.5	0.5	0.5	36.8%	54.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.3%
	0	0.2	0.4	0.6	25.3%	36.7%
	0	0.4	0.8	1	50.7%	71.9%
	0	0	0	0.8	33.1%	47.2%
	0	0	0.6	0.6	32.9%	47.5%
	0	0.8	0.8	0.8	29.7%	44.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	5.1%
	0	1	2	3	9.0%	58.9%
	0	1.5	2	2.5	8.2%	46.7%
	0	0	0	2	7.8%	32.1%
	0	0	2	2	8.5%	47.1%
	0	2	2	2	7.2%	31.2%
	3	1	0	2	3.5%	0.8%
	3	2	1	0	2.4%	0.0%

Table E.49. t = 4, p = 0.1, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	35.7%	44.6%
	0	0.4	0.8	1	68.8%	82.3%
	0	0	0	0.8	45.4%	57.2%
	0	0	0.5	0.5	36.0%	45.5%
	0	0.8	0.8	0.8	41.6%	54.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	63.4%	74.3%
	0	0.4	0.8	1	92.4%	97.6%
	0	0	0	0.8	72.3%	82.2%
	0	0	0.5	0.5	61.9%	73.7%
	0	0.5	0.5	0.5	39.5%	50.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.7%	4.5%
	0	0.2	0.4	0.6	26.6%	34.4%
	0	0.4	0.8	1	53.7%	66.5%
	0	0	0	0.8	34.9%	42.8%
	0	0	0.6	0.6	34.8%	44.5%
	0	0.8	0.8	0.8	31.8%	41.6%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.2%
	0	1	2	3	6.8%	42.0%
	0	1.5	2	2.5	6.6%	33.3%
	0	0	0	2	5.8%	21.6%
	0	0	2	2	6.4%	32.1%
	0	2	2	2	6.2%	21.8%
	3	1	0	2	4.4%	1.1%
	3	2	1	0	3.7%	0.1%

Table E.50. t = 4, p = 0.1, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.6%
	0	0.2	0.4	0.6	39.9%	47.2%
	0	0.4	0.8	1	74.1%	84.2%
	0	0	0	0.8	51.4%	59.9%
	0	0	0.5	0.5	40.4%	48.1%
	0	0.8	0.8	0.8	44.0%	54.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	66.2%	75.9%
	0	0.2	0.5	0.7	77.6%	86.1%
	0	0	0	0.8	73.8%	82.6%
	0	0	0.5	0.5	66.0%	75.2%
	0	0.5	0.5	0.5	41.1%	48.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.7%
	0	0.2	0.4	0.6	30.6%	35.9%
	0	0.4	0.8	1	58.0%	67.8%
	0	0	0	0.8	38.9%	45.9%
	0	0	0.6	0.6	39.0%	47.0%
	0	0.8	0.8	0.8	33.5%	41.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	4.9%
	0	1	2	3	60.1%	81.7%
	0	1.5	2	2.5	47.9%	68.0%
	0	0	0	2	32.7%	47.3%
	0	0	2	2	47.0%	67.4%
	0	2	2	2	32.0%	46.5%
	3	1	0	2	0.7%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.51. t = 4, p = 0.1, IBD = 12, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	32.5%	40.2%
	0	0.4	0.8	1	60.9%	73.8%
	0	0	0	0.8	40.7%	49.9%
	0	0	0.5	0.5	31.7%	39.3%
	0	0.8	0.8	0.8	34.6%	45.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	53.1%	65.0%
	0	0.2	0.5	0.7	65.5%	77.5%
	0	0	0	0.8	61.0%	72.7%
	0	0	0.5	0.5	52.3%	63.7%
	0	0.5	0.5	0.5	31.6%	40.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.5%	5.1%
	0	0.2	0.4	0.6	24.8%	29.7%
	0	0.4	0.8	1	45.8%	57.6%
	0	0	0	0.8	31.0%	37.8%
	0	0	0.6	0.6	30.4%	37.4%
	0	0.8	0.8	0.8	26.5%	33.7%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	4.9%	4.8%
	0	1	2	3	38.2%	65.6%
	0	1.5	2	2.5	30.1%	52.7%
	0	0	0	2	21.7%	36.0%
	0	0	2	2	30.0%	53.8%
	0	2	2	2	20.7%	35.3%
	3	1	0	2	1.3%	0.4%
	3	2	1	0	0.1%	0.0%

Table E.52. t = 4, p = 0.1, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.4%
	0	0.2	0.4	0.6	27.6%	38.3%
	0	0.4	0.8	1	55.2%	72.3%
	0	0	0	0.8	35.7%	48.9%
	0	0	0.5	0.5	28.7%	38.2%
	0	0.8	0.8	0.8	31.5%	45.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	49.6%	65.2%
	0	0.2	0.5	0.7	61.2%	77.4%
	0	0	0	0.8	56.9%	72.5%
	0	0	0.5	0.5	49.2%	64.1%
	0	0.5	0.5	0.5	29.6%	40.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	21.4%	29.3%
	0	0.4	0.8	1	41.4%	57.0%
	0	0	0	0.8	27.8%	36.9%
	0	0	0.6	0.6	26.6%	36.3%
	0	0.8	0.8	0.8	24.2%	33.6%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.5%	5.3%
	0	1	2	3	8.6%	40.9%
	0	1.5	2	2.5	7.4%	32.3%
	0	0	0	2	6.6%	22.0%
	0	0	2	2	7.7%	32.7%
	0	2	2	2	7.4%	22.7%
	3	1	0	2	3.9%	1.0%
	3	2	1	0	2.7%	0.1%

Table E.53. t = 4, p = 0.1, IBD = 12, CRD = 12

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.7%
	0	0.2	0.4	0.6	31.6%	48.6%
	0	0.4	0.8	1	62.3%	86.0%
	0	0	0	0.8	42.3%	62.7%
	0	0	0.5	0.5	32.4%	49.6%
	0	0.8	0.8	0.8	36.3%	58.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.7%
	0	0.2	0.4	0.6	56.7%	79.4%
	0	0.2	0.5	0.7	69.1%	88.8%
	0	0	0	0.8	65.1%	85.9%
	0	0	0.5	0.5	56.4%	78.4%
	0	0.5	0.5	0.5	35.4%	52.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	24.9%	37.2%
	0	0.4	0.8	1	48.1%	70.7%
	0	0	0	0.8	31.6%	47.5%
	0	0	0.6	0.6	31.2%	47.6%
	0	0.8	0.8	0.8	27.8%	44.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	4.9%
	0	1	2	3	12.8%	66.0%
	0	1.5	2	2.5	11.3%	52.8%
	0	0	0	2	9.0%	34.3%
	0	0	2	2	11.7%	53.2%
	0	2	2	2	9.6%	35.2%
	3	1	0	2	3.2%	0.5%
	3	2	1	0	1.3%	0.0%

Table E.54. t = 4, p = 0.1, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	4.8%
	0	0.2	0.4	0.6	20.9%	28.4%
	0	0.4	0.8	1	41.0%	56.2%
	0	0	0	0.8	27.8%	37.0%
	0	0	0.5	0.5	22.0%	29.2%
	0	0.8	0.8	0.8	22.4%	32.0%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.5%	4.6%
	0	0.2	0.4	0.6	36.7%	49.2%
	0	0.2	0.5	0.7	45.6%	60.1%
	0	0	0	0.8	42.4%	56.0%
	0	0	0.5	0.5	36.5%	48.2%
	0	0.5	0.5	0.5	22.5%	30.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	5.1%
	0	0.2	0.4	0.6	17.4%	22.1%
	0	0.4	0.8	1	30.7%	42.5%
	0	0	0	0.8	21.5%	28.5%
	0	0	0.6	0.6	21.1%	28.1%
	0	0.8	0.8	0.8	17.9%	25.3%
	1	0.5	0	0.25	0.4%	0.2%
	2	1	0	1	0.1%	0.1%
Cauchy	0	0	0	0	4.5%	4.8%
	0	1	2	3	15.8%	42.1%
	0	1.5	2	2.5	13.3%	32.7%
	0	0	0	2	10.7%	21.6%
	0	0	2	2	13.8%	32.6%
	0	2	2	2	10.4%	22.6%
	3	1	0	2	2.3%	1.1%
	3	2	1	0	0.8%	0.0%

E.2.2. Probability of Missing = 0.2

Table E.55. t = 4, p = 0.2, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	43.4%	46.7%
	0	0.2	0.5	0.7	57.5%	61.3%
	0	0	0	0.8	56.8%	59.9%
	0	0	0.5	0.5	45.4%	48.3%
	0	0.5	0.5	0.5	28.5%	30.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0.6	72.4%	75.7%
	0	0.2	0.5	0.6	74.8%	77.8%
	0	0	0	0.8	80.3%	83.2%
	0	0	0.5	0.5	71.8%	75.0%
	0	0.5	0.5	0.5	45.9%	48.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0.6	34.4%	36.7%
	0	0.4	0.8	1	64.9%	68.4%
	0	0	0	0.8	43.7%	46.5%
	0	0	0.5	0.5	33.6%	35.6%
	0	0.5	0.5	0.5	21.7%	23.1%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.2%
	0	1	2	3	78.6%	84.9%
	0	1.5	2	3	75.6%	81.8%
	0	0	0	2	45.7%	51.0%
	0	0	2	2	67.1%	72.8%
	0	2	2	2	45.1%	50.2%
	3	1	0	2	0.4%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.56. t = 4, p = 0.2, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	5.0%
	0	0.2	0.4	0.6	28.7%	42.7%
	0	0.4	0.8	1	56.3%	78.7%
	0	0	0	0.8	37.7%	54.6%
	0	0	0.5	0.5	29.4%	43.3%
	0	0.8	0.8	0.8	31.8%	50.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	4.8%
	0	0.2	0.4	0.6	51.2%	71.1%
	0	0.4	0.8	1	82.3%	95.6%
	0	0	0	0.8	58.0%	78.2%
	0	0	0.5	0.5	51.3%	70.5%
	0	0.5	0.5	0.5	32.1%	46.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.5%	4.5%
	0	0.2	0.4	0.6	22.3%	32.6%
	0	0.4	0.8	1	43.8%	63.3%
	0	0	0	0.8	28.0%	40.2%
	0	0	0.6	0.6	28.9%	42.2%
	0	0.8	0.8	0.8	25.1%	38.0%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	5.1%	5.0%
	0	1	2	3	13.7%	59.0%
	0	1.5	2	3	13.7%	54.9%
	0	0	0	2	9.9%	31.5%
	0	0	2	2	12.0%	45.8%
	0	2	2	2	9.9%	31.0%
	3	1	0	2	3.0%	0.8%
	3	2	1	0	1.3%	0.1%

Table E.57. t = 4, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.2	0.4	0.6	34.8%	50.4%
	0	0.4	0.8	1	65.7%	86.8%
	0	0	0	0.8	43.0%	62.4%
	0	0	0.5	0.5	33.8%	50.5%
	0	0.8	0.8	0.8	38.2%	58.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	4.9%
	0	0.2	0.4	0.6	60.0%	79.5%
	0	0.4	0.8	1	90.6%	98.6%
	0	0	0	0.8	68.1%	86.2%
	0	0	0.5	0.5	59.6%	78.6%
	0	0.5	0.5	0.5	37.6%	53.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	26.4%	38.0%
	0	0.4	0.8	1	51.3%	72.0%
	0	0	0	0.8	32.9%	47.5%
	0	0	0.6	0.6	33.0%	48.0%
	0	0.8	0.8	0.8	29.2%	44.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.8%
	0	1	2	3	9.1%	59.2%
	0	1.5	2	2.5	8.3%	46.0%
	0	0	0	2	8.0%	31.5%
	0	0	2	2	8.4%	46.9%
	0	2	2	2	7.6%	31.2%
	3	1	0	2	3.6%	0.6%
	3	2	1	0	2.6%	0.0%

Table E.58. t = 4, p = 0.2, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	35.9%	45.0%
	0	0.4	0.8	1	68.3%	82.2%
	0	0	0	0.8	45.6%	57.8%
	0	0	0.5	0.5	35.9%	45.2%
	0	0.8	0.8	0.8	41.3%	54.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	63.4%	74.9%
	0	0.4	0.8	1	92.5%	97.8%
	0	0	0	0.8	71.6%	82.1%
	0	0	0.5	0.5	63.1%	74.9%
	0	0.5	0.5	0.5	41.1%	50.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	28.0%	34.8%
	0	0.4	0.8	1	54.2%	67.3%
	0	0	0	0.8	35.4%	43.5%
	0	0	0.6	0.6	34.4%	43.4%
	0	0.8	0.8	0.8	31.5%	40.7%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	4.8%
	0	1	2	3	7.0%	42.9%
	0	1.5	2	2.5	6.3%	32.1%
	0	0	0	2	6.1%	22.0%
	0	0	2	2	6.6%	32.2%
	0	2	2	2	6.0%	22.8%
	3	1	0	2	4.7%	1.2%
	3	2	1	0	3.7%	0.1%

Table E.59. t = 4, p = 0.2, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	39.5%	46.7%
	0	0.4	0.8	1	74.3%	84.2%
	0	0	0	0.8	52.0%	60.2%
	0	0	0.5	0.5	40.4%	48.1%
	0	0.8	0.8	0.8	44.7%	54.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	66.6%	75.6%
	0	0.2	0.5	0.7	77.8%	86.2%
	0	0	0	0.8	73.7%	83.1%
	0	0	0.5	0.5	65.8%	75.0%
	0	0.5	0.5	0.5	40.2%	48.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	30.5%	35.7%
	0	0.4	0.8	1	58.3%	68.2%
	0	0	0	0.8	39.5%	46.1%
	0	0	0.6	0.6	38.3%	45.6%
	0	0.8	0.8	0.8	33.7%	41.4%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	4.9%
	0	1	2	3	59.5%	81.4%
	0	1.5	2	2.5	48.4%	68.0%
	0	0	0	2	32.1%	46.4%
	0	0	2	2	47.4%	68.4%
	0	2	2	2	32.6%	47.5%
	3	1	0	2	0.7%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.60. t = 4, p = 0.2, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	32.1%	39.8%
	0	0.4	0.8	1	59.5%	73.5%
	0	0	0	0.8	40.5%	49.7%
	0	0	0.5	0.5	31.0%	38.1%
	0	0.8	0.8	0.8	34.2%	44.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	53.2%	65.0%
	0	0.2	0.5	0.7	63.6%	76.2%
	0	0	0	0.8	60.5%	71.8%
	0	0	0.5	0.5	52.9%	64.4%
	0	0.5	0.5	0.5	32.2%	39.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.6%
	0	0.2	0.4	0.6	23.5%	28.8%
	0	0.4	0.8	1	45.9%	56.7%
	0	0	0	0.8	30.1%	37.0%
	0	0	0.6	0.6	30.9%	38.5%
	0	0.8	0.8	0.8	26.6%	33.9%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	4.8%
	0	1	2	3	37.1%	65.7%
	0	1.5	2	2.5	29.8%	52.1%
	0	0	0	2	21.1%	35.4%
	0	0	2	2	30.3%	53.8%
	0	2	2	2	20.6%	34.3%
	3	1	0	2	1.6%	0.6%
	3	2	1	0	0.1%	0.0%

Table E.61. t = 4, p = 0.2, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	27.3%	37.4%
	0	0.4	0.8	1	55.0%	71.9%
	0	0	0	0.8	36.0%	48.7%
	0	0	0.5	0.5	27.9%	39.0%
	0	0.8	0.8	0.8	31.2%	45.2%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	49.5%	64.9%
	0	0.2	0.5	0.7	61.3%	77.2%
	0	0	0	0.8	57.0%	72.9%
	0	0	0.5	0.5	49.4%	64.6%
	0	0.5	0.5	0.5	30.5%	41.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.4%	5.0%
	0	0.2	0.4	0.6	21.2%	29.4%
	0	0.4	0.8	1	41.9%	57.4%
	0	0	0	0.8	27.5%	36.5%
	0	0	0.6	0.6	27.6%	36.5%
	0	0.8	0.8	0.8	23.4%	33.0%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.3%
	0	1	2	3	7.9%	40.9%
	0	1.5	2	2.5	7.8%	33.3%
	0	0	0	2	7.0%	21.9%
	0	0	2	2	7.8%	32.1%
	0	2	2	2	6.7%	21.7%
	3	1	0	2	4.0%	1.0%
	3	2	1	0	2.9%	0.1%

Table E.62. t = 4, p = 0.2, IBD = 12, CRD = 12

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.2	0.4	0.6	32.1%	48.9%
	0	0.4	0.8	1	62.6%	86.0%
	0	0	0	0.8	42.5%	62.4%
	0	0	0.5	0.5	31.4%	49.1%
	0	0.8	0.8	0.8	36.6%	57.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	55.9%	78.6%
	0	0.2	0.5	0.7	68.6%	88.9%
	0	0	0	0.8	63.7%	84.7%
	0	0	0.5	0.5	55.9%	78.0%
	0	0.5	0.5	0.5	34.4%	52.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	25.4%	38.0%
	0	0.4	0.8	1	48.1%	70.8%
	0	0	0	0.8	31.4%	47.7%
	0	0	0.6	0.6	31.0%	46.7%
	0	0.8	0.8	0.8	27.2%	43.3%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.9%
	0	1	2	3	12.8%	65.5%
	0	1.5	2	2.5	11.6%	53.1%
	0	0	0	2	9.4%	34.9%
	0	0	2	2	11.6%	52.8%
	0	2	2	2	9.2%	34.8%
	3	1	0	2	3.5%	0.6%
	3	2	1	0	1.5%	0.0%

Table E.63. t = 4, p = 0.2, IBD = 6, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	5.4%
	0	0.2	0.4	0.6	21.3%	28.8%
	0	0.4	0.8	1	41.0%	56.1%
	0	0	0	0.8	27.7%	36.6%
	0	0	0.5	0.5	22.3%	29.2%
	0	0.8	0.8	0.8	21.5%	31.1%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.1%	0.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	37.0%	49.2%
	0	0.2	0.5	0.7	45.5%	59.7%
	0	0	0	0.8	41.7%	55.1%
	0	0	0.5	0.5	35.7%	48.1%
	0	0.5	0.5	0.5	22.2%	30.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	17.2%	22.6%
	0	0.4	0.8	1	31.2%	42.8%
	0	0	0	0.8	22.0%	27.9%
	0	0	0.6	0.6	20.8%	28.0%
	0	0.8	0.8	0.8	17.5%	24.9%
	1	0.5	0	0.25	0.4%	0.2%
	2	1	0	1	0.1%	0.1%
Cauchy	0	0	0	0	4.5%	5.1%
	0	1	2	3	16.2%	42.2%
	0	1.5	2	2.5	13.8%	32.6%
	0	0	0	2	11.1%	22.5%
	0	0	2	2	13.8%	32.5%
	0	2	2	2	11.0%	22.4%
	3	1	0	2	2.6%	1.3%
	3	2	1	0	0.7%	0.1%

E.2.3. Probability of Missing = 0.3

Table E.64. t = 4, p = 0.3, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0.6	45.8%	48.5%
	0	0.2	0.5	0.7	56.6%	60.3%
	0	0	0	0.8	58.2%	61.1%
	0	0	0.5	0.5	44.7%	47.6%
	0	0.5	0.5	0.5	28.6%	30.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	72.3%	76.0%
	0	0.2	0.5	0.6	75.4%	78.5%
	0	0	0	0.8	80.4%	83.2%
	0	0	0.5	0.5	72.3%	75.4%
	0	0.5	0.5	0.5	46.7%	49.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.4%
	0	0.2	0.4	0.6	33.5%	35.7%
	0	0.4	0.8	1	64.9%	68.3%
	0	0	0	0.8	43.7%	46.2%
	0	0	0.5	0.5	33.7%	36.0%
	0	0.5	0.5	0.5	21.6%	22.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	4.9%
	0	1	2	3	79.1%	84.8%
	0	1.5	2	3	75.1%	81.3%
	0	0	0	2	45.2%	50.1%
	0	0	2	2	65.7%	71.9%
	0	2	2	2	44.3%	49.4%
	3	1	0	2	0.3%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.65. t = 4, p = 0.3, IBD = 10, CRD = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.0%
	0	0.2	0.4	0.6	29.4%	43.5%
	0	0.4	0.8	1	56.9%	79.3%
	0	0	0	0.8	38.5%	55.0%
	0	0	0.5	0.5	29.3%	43.2%
	0	0.8	0.8	0.8	32.2%	49.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	51.1%	71.2%
	0	0.4	0.8	1	82.9%	95.9%
	0	0	0	0.8	58.4%	78.2%
	0	0	0.5	0.5	50.7%	69.8%
	0	0.5	0.5	0.5	31.2%	45.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.5%	5.4%
	0	0.2	0.4	0.6	22.1%	32.2%
	0	0.4	0.8	1	43.2%	62.8%
	0	0	0	0.8	29.9%	42.6%
	0	0	0.6	0.6	28.7%	42.2%
	0	0.8	0.8	0.8	24.9%	37.8%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	5.0%
	0	1	2	3	13.9%	58.0%
	0	1.5	2	3	13.4%	55.6%
	0	0	0	2	10.1%	31.2%
	0	0	2	2	11.9%	46.0%
	0	2	2	2	9.5%	31.8%
	3	1	0	2	3.0%	0.7%
	3	2	1	0	1.1%	0.0%

Table E.66. t = 4, p = 0.3, IBD = 10, CRD = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	33.9%	49.9%
	0	0.4	0.8	1	66.2%	87.1%
	0	0	0	0.8	44.1%	62.5%
	0	0	0.5	0.5	33.5%	49.5%
	0	0.8	0.8	0.8	37.9%	58.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0.6	59.5%	79.5%
	0	0.4	0.8	1	90.1%	98.2%
	0	0	0	0.8	67.5%	86.1%
	0	0	0.5	0.5	58.2%	78.0%
	0	0.5	0.5	0.5	37.5%	54.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0.6	25.9%	38.4%
	0	0.4	0.8	1	51.6%	71.4%
	0	0	0	0.8	32.8%	46.1%
	0	0	0.6	0.6	32.7%	48.0%
	0	0.8	0.8	0.8	30.2%	45.1%
	1	0.5	0	0.25	0.2%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.8%
	0	1	2	3	9.1%	59.0%
	0	1.5	2	2.5	8.3%	46.9%
	0	0	0	2	8.0%	31.9%
	0	0	2	2	8.3%	46.9%
	0	2	2	2	7.5%	30.8%
	3	1	0	2	3.8%	0.7%
	3	2	1	0	2.7%	0.0%

Table E.67. t = 4, p = 0.3, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0.6	35.8%	45.6%
	0	0.4	0.8	1	68.9%	82.3%
	0	0	0	0.8	46.1%	57.7%
	0	0	0.5	0.5	36.7%	45.7%
	0	0.8	0.8	0.8	41.7%	54.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.7%
	0	0.2	0.4	0.6	63.6%	75.6%
	0	0.4	0.8	1	92.1%	97.3%
	0	0	0	0.8	71.4%	82.5%
	0	0	0.5	0.5	62.2%	73.4%
	0	0.5	0.5	0.5	39.8%	49.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	5.3%
	0	0.2	0.4	0.6	27.0%	33.5%
	0	0.4	0.8	1	52.8%	66.6%
	0	0	0	0.8	34.7%	43.5%
	0	0	0.6	0.6	33.9%	43.4%
	0	0.8	0.8	0.8	31.8%	40.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.6%
	0	1	2	3	6.4%	41.3%
	0	1.5	2	2.5	6.5%	32.4%
	0	0	0	2	5.9%	21.9%
	0	0	2	2	6.6%	32.8%
	0	2	2	2	6.4%	21.9%
	3	1	0	2	4.2%	1.0%
	3	2	1	0	3.8%	0.1%

Table E.68. t = 4, p = 0.3, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	40.1%	48.2%
	0	0.4	0.8	1	73.6%	83.7%
	0	0	0	0.8	51.3%	59.7%
	0	0	0.5	0.5	40.0%	47.0%
	0	0.8	0.8	0.8	44.9%	55.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	66.0%	75.9%
	0	0.2	0.5	0.7	77.6%	86.6%
	0	0	0	0.8	73.3%	81.9%
	0	0	0.5	0.5	65.7%	75.0%
	0	0.5	0.5	0.5	41.8%	49.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0.6	30.6%	35.9%
	0	0.4	0.8	1	58.6%	68.6%
	0	0	0	0.8	39.2%	45.7%
	0	0	0.6	0.6	38.6%	46.0%
	0	0.8	0.8	0.8	34.4%	41.9%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.8%	4.9%
	0	1	2	3	60.1%	81.5%
	0	1.5	2	2.5	47.4%	67.2%
	0	0	0	2	31.6%	46.7%
	0	0	2	2	46.5%	67.1%
	0	2	2	2	32.5%	47.2%
	3	1	0	2	0.6%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.69. t = 4, p = 0.3, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.7%	5.6%
	0	0.2	0.4	0.6	31.0%	38.6%
	0	0.4	0.8	1	60.2%	73.9%
	0	0	0	0.8	40.2%	49.9%
	0	0	0.5	0.5	31.0%	38.6%
	0	0.8	0.8	0.8	33.9%	44.4%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.3%
	0	0.2	0.4	0.6	52.7%	64.6%
	0	0.2	0.5	0.7	64.9%	77.1%
	0	0	0	0.8	60.5%	72.7%
	0	0	0.5	0.5	53.6%	64.9%
	0	0.5	0.5	0.5	32.0%	40.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	23.9%	29.2%
	0	0.4	0.8	1	46.3%	58.4%
	0	0	0	0.8	31.0%	38.0%
	0	0	0.6	0.6	30.2%	37.6%
	0	0.8	0.8	0.8	26.8%	34.3%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	5.0%
	0	1	2	3	36.8%	65.6%
	0	1.5	2	2.5	30.3%	53.5%
	0	0	0	2	21.0%	35.3%
	0	0	2	2	29.3%	52.6%
	0	2	2	2	21.0%	34.9%
	3	1	0	2	1.3%	0.5%
	3	2	1	0	0.1%	0.0%

Table E.70. t = 4, p = 0.3, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	27.2%	38.1%
	0	0.4	0.8	1	54.8%	73.0%
	0	0	0	0.8	36.8%	49.6%
	0	0	0.5	0.5	28.2%	38.7%
	0	0.8	0.8	0.8	30.3%	43.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	5.0%
	0	0.2	0.4	0.6	50.4%	65.6%
	0	0.2	0.5	0.7	61.4%	77.3%
	0	0	0	0.8	57.0%	72.2%
	0	0	0.5	0.5	48.7%	63.6%
	0	0.5	0.5	0.5	31.0%	41.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0.6	21.7%	29.4%
	0	0.4	0.8	1	41.6%	56.1%
	0	0	0	0.8	27.9%	37.7%
	0	0	0.6	0.6	26.3%	35.9%
	0	0.8	0.8	0.8	23.5%	33.7%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	5.0%
	0	1	2	3	7.8%	40.9%
	0	1.5	2	2.5	7.3%	32.7%
	0	0	0	2	6.5%	21.4%
	0	0	2	2	7.6%	33.1%
	0	2	2	2	7.3%	22.4%
	3	1	0	2	4.1%	0.9%
	3	2	1	0	3.0%	0.1%

Table E.71. t = 4, p = 0.3, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0.6	32.0%	49.1%
	0	0.4	0.8	1	63.0%	86.2%
	0	0	0	0.8	41.4%	61.5%
	0	0	0.5	0.5	32.5%	49.2%
	0	0.8	0.8	0.8	37.6%	58.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	4.6%
	0	0.2	0.4	0.6	56.7%	78.3%
	0	0.2	0.5	0.7	68.9%	88.9%
	0	0	0	0.8	64.0%	85.0%
	0	0	0.5	0.5	56.4%	77.6%
	0	0.5	0.5	0.5	35.8%	53.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	4.8%
	0	0.2	0.4	0.6	24.8%	37.7%
	0	0.4	0.8	1	48.4%	71.7%
	0	0	0	0.8	32.0%	47.8%
	0	0	0.6	0.6	31.5%	46.6%
	0	0.8	0.8	0.8	27.6%	43.9%
	1	0.5	0	0.25	0.2%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	4.7%
	0	1	2	3	13.0%	66.1%
	0	1.5	2	2.5	11.6%	53.2%
	0	0	0	2	9.6%	35.4%
	0	0	2	2	11.3%	52.1%
	0	2	2	2	8.8%	34.3%
	3	1	0	2	3.1%	0.5%
	3	2	1	0	1.4%	0.0%

Table E.72. t = 4, p = 0.3, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0.6	21.1%	28.4%
	0	0.4	0.8	1	40.4%	55.8%
	0	0	0	0.8	28.3%	36.9%
	0	0	0.5	0.5	22.2%	29.8%
	0	0.8	0.8	0.8	22.2%	32.0%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.7%	5.3%
	0	0.2	0.4	0.6	37.4%	50.3%
	0	0.2	0.5	0.7	46.4%	61.0%
	0	0	0	0.8	41.6%	55.2%
	0	0	0.5	0.5	36.7%	48.5%
	0	0.5	0.5	0.5	21.1%	29.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	4.7%
	0	0.2	0.4	0.6	16.8%	22.5%
	0	0.4	0.8	1	31.0%	42.6%
	0	0	0	0.8	21.2%	27.7%
	0	0	0.6	0.6	20.4%	27.9%
	0	0.8	0.8	0.8	17.3%	24.0%
	1	0.5	0	0.25	0.5%	0.2%
	2	1	0	1	0.2%	0.0%
Cauchy	0	0	0	0	5.0%	5.0%
	0	1	2	3	16.2%	41.8%
	0	1.5	2	2.5	14.1%	33.3%
	0	0	0	2	10.4%	21.9%
	0	0	2	2	14.2%	31.9%
	0	2	2	2	10.6%	22.0%
	3	1	0	2	2.6%	1.1%
	3	2	1	0	0.8%	0.1%

E.2.4. Probability of Missing = 0.4

Table E.73. t = 4, p = 0.4, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0.6	44.1%	46.8%
	0	0.2	0.5	0.7	56.0%	59.3%
	0	0	0	0.8	58.1%	61.3%
	0	0	0.5	0.5	45.5%	48.4%
	0	0.5	0.5	0.5	28.0%	29.8%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	4.7%
	0	0.2	0.4	0.6	72.8%	76.2%
	0	0.2	0.5	0.6	74.3%	77.8%
	0	0	0	0.8	80.5%	83.4%
	0	0	0.5	0.5	72.2%	75.2%
	0	0.5	0.5	0.5	46.1%	49.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0.6	33.4%	35.6%
	0	0.4	0.8	1	65.6%	69.2%
	0	0	0	0.8	43.2%	46.0%
	0	0	0.5	0.5	33.6%	35.9%
	0	0.5	0.5	0.5	22.1%	23.6%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.3%
	0	1	2	3	79.5%	85.2%
	0	1.5	2	3	75.9%	81.6%
	0	0	0	2	44.9%	50.4%
	0	0	2	2	65.1%	71.2%
	0	2	2	2	45.3%	50.9%
	3	1	0	2	0.3%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.74. t = 4, p = 0.4, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	28.9%	42.3%
	0	0.4	0.8	1	56.8%	79.4%
	0	0	0	0.8	37.8%	54.6%
	0	0	0.5	0.5	29.5%	42.0%
	0	0.8	0.8	0.8	32.2%	49.2%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	51.6%	71.4%
	0	0.4	0.8	1	82.0%	95.9%
	0	0	0	0.8	59.4%	78.7%
	0	0	0.5	0.5	50.7%	70.5%
	0	0.5	0.5	0.5	30.9%	45.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	4.5%
	0	0.2	0.4	0.6	22.8%	32.1%
	0	0.4	0.8	1	43.2%	63.3%
	0	0	0	0.8	28.5%	41.1%
	0	0	0.6	0.6	28.6%	42.0%
	0	0.8	0.8	0.8	25.0%	38.0%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	5.3%	5.2%
	0	1	2	3	13.9%	59.2%
	0	1.5	2	3	13.3%	55.5%
	0	0	0	2	9.6%	30.8%
	0	0	2	2	12.1%	45.9%
	0	2	2	2	10.4%	31.1%
	3	1	0	2	3.0%	0.8%
	3	2	1	0	1.4%	0.0%

Table E.75. t = 4, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	33.8%	49.5%
	0	0.4	0.8	1	66.4%	86.7%
	0	0	0	0.8	44.5%	62.3%
	0	0	0.5	0.5	33.9%	49.0%
	0	0.8	0.8	0.8	38.3%	58.6%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0.6	60.6%	79.7%
	0	0.4	0.8	1	90.5%	98.4%
	0	0	0	0.8	68.5%	86.7%
	0	0	0.5	0.5	58.8%	78.5%
	0	0.5	0.5	0.5	37.3%	54.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	25.9%	37.7%
	0	0.4	0.8	1	50.5%	71.0%
	0	0	0	0.8	33.0%	47.3%
	0	0	0.6	0.6	32.9%	47.8%
	0	0.8	0.8	0.8	29.8%	44.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	4.6%
	0	1	2	3	9.3%	58.8%
	0	1.5	2	2.5	8.3%	46.4%
	0	0	0	2	7.4%	30.9%
	0	0	2	2	8.6%	46.7%
	0	2	2	2	7.2%	30.9%
	3	1	0	2	4.0%	0.7%
	3	2	1	0	2.5%	0.0%

Table E.76. t = 4, p = 0.4, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.8%
	0	0.2	0.4	0.6	35.8%	45.1%
	0	0.4	0.8	1	68.3%	82.5%
	0	0	0	0.8	46.3%	57.6%
	0	0	0.5	0.5	36.0%	44.8%
	0	0.8	0.8	0.8	41.1%	53.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	63.1%	74.3%
	0	0.4	0.8	1	92.4%	97.2%
	0	0	0	0.8	71.6%	82.3%
	0	0	0.5	0.5	61.8%	74.0%
	0	0.5	0.5	0.5	39.3%	49.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	27.1%	34.3%
	0	0.4	0.8	1	53.4%	67.3%
	0	0	0	0.8	34.4%	44.4%
	0	0	0.6	0.6	34.1%	44.0%
	0	0.8	0.8	0.8	31.0%	40.3%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.9%	4.8%
	0	1	2	3	6.4%	41.5%
	0	1.5	2	2.5	6.5%	33.0%
	0	0	0	2	5.8%	21.5%
	0	0	2	2	6.8%	32.0%
	0	2	2	2	6.2%	22.3%
	3	1	0	2	4.4%	1.1%
	3	2	1	0	3.6%	0.1%

Table E.77. t = 4, p = 0.4, IBD = 18, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	39.8%	47.5%
	0	0.4	0.8	1	73.6%	84.0%
	0	0	0	0.8	51.4%	59.6%
	0	0	0.5	0.5	40.7%	47.9%
	0	0.8	0.8	0.8	45.1%	54.7%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0.6	66.6%	76.2%
	0	0.2	0.5	0.7	77.1%	86.0%
	0	0	0	0.8	74.9%	83.1%
	0	0	0.5	0.5	65.8%	75.0%
	0	0.5	0.5	0.5	40.6%	48.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	30.3%	35.9%
	0	0.4	0.8	1	58.4%	68.6%
	0	0	0	0.8	40.3%	46.8%
	0	0	0.6	0.6	38.5%	45.1%
	0	0.8	0.8	0.8	33.3%	40.5%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	4.9%
	0	1	2	3	60.1%	81.1%
	0	1.5	2	2.5	47.9%	67.9%
	0	0	0	2	32.7%	46.9%
	0	0	2	2	47.8%	67.7%
	0	2	2	2	31.2%	45.6%
	3	1	0	2	0.7%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.78. t = 4, p = 0.4, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.6%	5.5%
	0	0.2	0.4	0.6	31.6%	39.2%
	0	0.4	0.8	1	59.8%	73.3%
	0	0	0	0.8	41.2%	50.4%
	0	0	0.5	0.5	32.4%	39.7%
	0	0.8	0.8	0.8	34.4%	44.3%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	54.1%	66.0%
	0	0.2	0.5	0.7	64.8%	77.5%
	0	0	0	0.8	61.5%	72.5%
	0	0	0.5	0.5	53.4%	64.4%
	0	0.5	0.5	0.5	32.7%	40.9%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0.6	24.3%	29.3%
	0	0.4	0.8	1	45.7%	57.7%
	0	0	0	0.8	30.7%	37.3%
	0	0	0.6	0.6	30.7%	37.7%
	0	0.8	0.8	0.8	26.0%	33.7%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.2%
	0	1	2	3	37.6%	65.5%
	0	1.5	2	2.5	30.1%	53.0%
	0	0	0	2	21.2%	35.4%
	0	0	2	2	29.9%	52.7%
	0	2	2	2	20.5%	34.7%
	3	1	0	2	1.4%	0.5%
	3	2	1	0	0.1%	0.0%

Table E.79. t = 4, p = 0.4, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0.6	27.1%	37.6%
	0	0.4	0.8	1	54.2%	72.9%
	0	0	0	0.8	35.7%	48.7%
	0	0	0.5	0.5	28.2%	38.3%
	0	0.8	0.8	0.8	30.4%	44.3%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	50.3%	65.4%
	0	0.2	0.5	0.7	60.7%	77.3%
	0	0	0	0.8	56.6%	71.6%
	0	0	0.5	0.5	49.3%	64.6%
	0	0.5	0.5	0.5	30.3%	40.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	22.0%	29.9%
	0	0.4	0.8	1	42.0%	56.5%
	0	0	0	0.8	26.8%	36.3%
	0	0	0.6	0.6	27.3%	36.6%
	0	0.8	0.8	0.8	23.8%	34.1%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.1%
	0	1	2	3	7.8%	40.3%
	0	1.5	2	2.5	7.5%	33.2%
	0	0	0	2	6.9%	22.5%
	0	0	2	2	7.6%	32.4%
	0	2	2	2	7.1%	22.3%
	3	1	0	2	4.1%	1.2%
	3	2	1	0	2.5%	0.1%

Table E.80. t = 4, p = 0.4, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	4.7%
	0	0.2	0.4	0.6	31.8%	49.1%
	0	0.4	0.8	1	63.3%	86.3%
	0	0	0	0.8	41.7%	62.3%
	0	0	0.5	0.5	31.9%	49.0%
	0	0.8	0.8	0.8	36.1%	57.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.2	0.4	0.6	56.2%	78.8%
	0	0.2	0.5	0.7	68.3%	89.1%
	0	0	0	0.8	64.8%	86.3%
	0	0	0.5	0.5	55.7%	77.1%
	0	0.5	0.5	0.5	34.1%	52.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.4%	4.9%
	0	0.2	0.4	0.6	24.3%	37.5%
	0	0.4	0.8	1	48.1%	70.9%
	0	0	0	0.8	31.8%	46.6%
	0	0	0.6	0.6	30.6%	46.7%
	0	0.8	0.8	0.8	27.6%	43.6%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.2%	5.1%
	0	1	2	3	13.3%	66.2%
	0	1.5	2	2.5	11.6%	52.8%
	0	0	0	2	9.8%	34.7%
	0	0	2	2	11.0%	52.1%
	0	2	2	2	9.4%	35.5%
	3	1	0	2	3.4%	0.5%
	3	2	1	0	1.4%	0.0%

Table E.81. t = 4, p = 0.4, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	20.8%	28.6%
	0	0.4	0.8	1	40.0%	56.7%
	0	0	0	0.8	28.3%	37.4%
	0	0	0.5	0.5	21.8%	29.5%
	0	0.8	0.8	0.8	22.7%	32.6%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.0%	5.4%
	0	0.2	0.4	0.6	37.1%	49.6%
	0	0.2	0.5	0.7	45.9%	60.5%
	0	0	0	0.8	41.4%	55.3%
	0	0	0.5	0.5	37.4%	49.4%
	0	0.5	0.5	0.5	22.6%	30.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0.6	16.9%	22.1%
	0	0.4	0.8	1	30.1%	42.5%
	0	0	0	0.8	21.5%	28.8%
	0	0	0.6	0.6	21.8%	28.9%
	0	0.8	0.8	0.8	17.7%	25.1%
	1	0.5	0	0.25	0.4%	0.3%
	2	1	0	1	0.2%	0.0%
Cauchy	0	0	0	0	5.0%	5.2%
	0	1	2	3	16.7%	42.3%
	0	1.5	2	2.5	14.3%	33.4%
	0	0	0	2	11.1%	22.5%
	0	0	2	2	13.7%	32.3%
	0	2	2	2	11.2%	23.3%
	3	1	0	2	2.4%	0.9%
	3	2	1	0	0.9%	0.1%

E.2.5. Probability of Missing = 0.5

Table E.82. t = 4, p = 0.5, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.3%
	0	0.2	0.4	0.6	43.5%	46.4%
	0	0.2	0.5	0.7	56.0%	59.2%
	0	0	0	0.8	57.6%	60.5%
	0	0	0.5	0.5	44.7%	47.7%
	0	0.5	0.5	0.5	27.1%	29.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	72.4%	75.7%
	0	0.2	0.5	0.6	75.7%	78.6%
	0	0	0	0.8	80.4%	83.3%
	0	0	0.5	0.5	72.4%	75.4%
	0	0.5	0.5	0.5	45.8%	48.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.2	0.4	0.6	34.1%	36.2%
	0	0.4	0.8	1	65.5%	69.1%
	0	0	0	0.8	43.1%	45.4%
	0	0	0.5	0.5	34.6%	36.6%
	0	0.5	0.5	0.5	21.1%	22.5%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.8%	4.8%
	0	1	2	3	78.9%	84.3%
	0	1.5	2	3	75.5%	81.7%
	0	0	0	2	45.0%	50.2%
	0	0	2	2	65.8%	71.6%
	0	2	2	2	44.2%	49.5%
	3	1	0	2	0.3%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.83. t = 4, p = 0.5, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0.6	28.9%	42.6%
	0	0.4	0.8	1	56.4%	78.7%
	0	0	0	0.8	37.8%	54.6%
	0	0	0.5	0.5	29.8%	43.4%
	0	0.8	0.8	0.8	32.3%	50.1%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0.6	50.1%	70.7%
	0	0.4	0.8	1	82.0%	95.8%
	0	0	0	0.8	59.0%	80.0%
	0	0	0.5	0.5	50.3%	69.4%
	0	0.5	0.5	0.5	31.3%	46.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.2	0.4	0.6	22.8%	31.9%
	0	0.4	0.8	1	42.8%	63.0%
	0	0	0	0.8	28.8%	41.2%
	0	0	0.6	0.6	28.9%	41.3%
	0	0.8	0.8	0.8	25.2%	37.8%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.3%	5.1%
	0	1	2	3	14.1%	58.2%
	0	1.5	2	3	13.7%	55.7%
	0	0	0	2	9.8%	30.9%
	0	0	2	2	12.1%	46.3%
	0	2	2	2	9.8%	31.0%
	3	1	0	2	3.2%	0.8%
	3	2	1	0	1.3%	0.0%

Table E.84. t = 4, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	4.8%
	0	0.2	0.4	0.6	34.5%	49.9%
	0	0.4	0.8	1	65.9%	86.6%
	0	0	0	0.8	43.6%	62.5%
	0	0	0.5	0.5	34.7%	50.8%
	0	0.8	0.8	0.8	38.5%	58.8%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0.6	59.5%	79.4%
	0	0.4	0.8	1	90.0%	98.2%
	0	0	0	0.8	67.8%	86.5%
	0	0	0.5	0.5	58.6%	78.5%
	0	0.5	0.5	0.5	37.4%	53.6%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0.6	25.6%	38.1%
	0	0.4	0.8	1	51.0%	71.7%
	0	0	0	0.8	33.0%	48.2%
	0	0	0.6	0.6	33.6%	48.0%
	0	0.8	0.8	0.8	29.4%	44.8%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.0%	5.0%
	0	1	2	3	9.4%	58.6%
	0	1.5	2	2.5	8.1%	46.2%
	0	0	0	2	7.3%	30.9%
	0	0	2	2	8.6%	47.1%
	0	2	2	2	7.5%	30.8%
	3	1	0	2	3.8%	0.6%
	3	2	1	0	2.5%	0.0%

Table E.85. t = 4, p = 0.5, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.0%
	0	0.2	0.4	0.6	35.3%	45.4%
	0	0.4	0.8	1	69.2%	81.7%
	0	0	0	0.8	46.4%	56.8%
	0	0	0.5	0.5	36.2%	46.5%
	0	0.8	0.8	0.8	41.6%	53.8%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0.6	63.2%	74.9%
	0	0.4	0.8	1	92.2%	97.3%
	0	0	0	0.8	72.3%	82.5%
	0	0	0.5	0.5	62.2%	73.3%
	0	0.5	0.5	0.5	40.2%	50.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	26.4%	33.7%
	0	0.4	0.8	1	53.2%	66.7%
	0	0	0	0.8	35.5%	43.5%
	0	0	0.6	0.6	34.4%	44.4%
	0	0.8	0.8	0.8	31.5%	41.1%
	1	0.5	0	0.25	0.1%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.6%	4.9%
	0	1	2	3	6.5%	41.5%
	0	1.5	2	2.5	6.4%	33.0%
	0	0	0	2	5.8%	22.1%
	0	0	2	2	6.5%	32.6%
	0	2	2	2	6.4%	22.1%
	3	1	0	2	4.3%	1.1%
	3	2	1	0	3.8%	0.1%

Table E.86. t = 4, p = 0.5, IBD = 18, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0.6	39.7%	47.1%
	0	0.4	0.8	1	74.8%	84.5%
	0	0	0	0.8	50.7%	59.6%
	0	0	0.5	0.5	40.8%	48.0%
	0	0.8	0.8	0.8	44.8%	54.4%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0.6	66.9%	76.3%
	0	0.2	0.5	0.7	77.8%	86.3%
	0	0	0	0.8	73.7%	83.4%
	0	0	0.5	0.5	65.3%	74.6%
	0	0.5	0.5	0.5	41.8%	49.5%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0.6	29.9%	35.4%
	0	0.4	0.8	1	59.2%	69.4%
	0	0	0	0.8	38.1%	45.0%
	0	0	0.6	0.6	38.0%	44.9%
	0	0.8	0.8	0.8	34.1%	41.4%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.7%
	0	1	2	3	59.7%	81.2%
	0	1.5	2	2.5	47.8%	68.5%
	0	0	0	2	32.2%	46.7%
	0	0	2	2	47.0%	67.2%
	0	2	2	2	32.1%	46.2%
	3	1	0	2	0.7%	0.3%
	3	2	1	0	0.0%	0.0%

Table E.87. t = 4, p = 0.5, IBD = 12, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	30.9%	38.5%
	0	0.4	0.8	1	60.8%	74.4%
	0	0	0	0.8	40.9%	49.9%
	0	0	0.5	0.5	31.8%	39.0%
	0	0.8	0.8	0.8	34.8%	45.0%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.4%	5.0%
	0	0.2	0.4	0.6	52.9%	64.5%
	0	0.2	0.5	0.7	64.8%	76.7%
	0	0	0	0.8	60.5%	72.4%
	0	0	0.5	0.5	54.1%	65.0%
	0	0.5	0.5	0.5	32.9%	41.2%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	23.8%	28.8%
	0	0.4	0.8	1	45.3%	57.6%
	0	0	0	0.8	31.5%	38.4%
	0	0	0.6	0.6	30.2%	37.0%
	0	0.8	0.8	0.8	26.0%	33.7%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	5.1%	4.7%
	0	1	2	3	37.1%	66.1%
	0	1.5	2	2.5	30.8%	53.8%
	0	0	0	2	20.7%	34.7%
	0	0	2	2	29.4%	52.7%
	0	2	2	2	20.7%	35.3%
	3	1	0	2	1.3%	0.4%
	3	2	1	0	0.1%	0.0%

Table E.88. t = 4, p = 0.5, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0.6	27.5%	37.6%
	0	0.4	0.8	1	55.4%	73.1%
	0	0	0	0.8	36.2%	48.5%
	0	0	0.5	0.5	29.1%	38.5%
	0	0.8	0.8	0.8	31.3%	44.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0.6	50.3%	65.5%
	0	0.2	0.5	0.7	62.1%	77.2%
	0	0	0	0.8	57.2%	72.9%
	0	0	0.5	0.5	48.6%	63.9%
	0	0.5	0.5	0.5	30.2%	41.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.6%	4.7%
	0	0.2	0.4	0.6	21.9%	29.1%
	0	0.4	0.8	1	41.4%	57.4%
	0	0	0	0.8	26.7%	36.1%
	0	0	0.6	0.6	27.4%	37.4%
	0	0.8	0.8	0.8	23.8%	33.9%
	1	0.5	0	0.25	0.3%	0.1%
	2	1	0	1	0.0%	0.0%
Cauchy	0	0	0	0	4.7%	4.8%
	0	1	2	3	7.7%	41.8%
	0	1.5	2	2.5	7.4%	33.0%
	0	0	0	2	7.3%	23.1%
	0	0	2	2	7.3%	31.7%
	0	2	2	2	7.0%	21.8%
	3	1	0	2	4.3%	1.1%
	3	2	1	0	2.7%	0.1%

Table E.89. t = 4, p = 0.5, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.7%
	0	0.2	0.4	0.6	32.5%	49.6%
	0	0.4	0.8	1	62.4%	85.6%
	0	0	0	0.8	41.7%	61.6%
	0	0	0.5	0.5	32.3%	49.4%
	0	0.8	0.8	0.8	36.2%	57.4%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	4.9%
	0	0.2	0.4	0.6	57.0%	78.8%
	0	0.2	0.5	0.7	68.1%	88.5%
	0	0	0	0.8	64.1%	85.4%
	0	0	0.5	0.5	55.4%	77.8%
	0	0.5	0.5	0.5	35.4%	53.0%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.2	0.4	0.6	24.8%	37.5%
	0	0.4	0.8	1	48.5%	71.5%
	0	0	0	0.8	31.8%	47.2%
	0	0	0.6	0.6	31.5%	47.3%
	0	0.8	0.8	0.8	28.2%	43.7%
	1	0.5	0	0.25	0.1%	0.0%
	2	1	0	1	0.1%	0.0%
Cauchy	0	0	0	0	4.9%	5.0%
	0	1	2	3	12.8%	66.5%
	0	1.5	2	2.5	11.6%	53.7%
	0	0	0	2	9.5%	34.5%
	0	0	2	2	11.9%	53.0%
	0	2	2	2	9.6%	35.9%
	3	1	0	2	3.1%	0.5%
	3	2	1	0	1.6%	0.0%

Table E.90. t = 4, p = 0.5, IBD = 6, CRD = 6

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0.6	21.4%	28.2%
	0	0.4	0.8	1	40.9%	55.7%
	0	0	0	0.8	27.6%	37.0%
	0	0	0.5	0.5	22.0%	28.6%
	0	0.8	0.8	0.8	21.4%	30.8%
	1	0.5	0	0.25	0.2%	0.1%
	2	1	0	1	0.0%	0.0%
Exponential	0	0	0	0	5.1%	5.4%
	0	0.2	0.4	0.6	36.3%	49.0%
	0	0.2	0.5	0.7	45.8%	60.3%
	0	0	0	0.8	42.3%	55.5%
	0	0	0.5	0.5	36.6%	49.1%
	0	0.5	0.5	0.5	22.2%	30.1%
	1	0.5	0	0.25	0.0%	0.0%
	2	1	0	1	0.0%	0.0%
T with 3 df.	0	0	0	0	4.7%	5.2%
	0	0.2	0.4	0.6	16.6%	22.3%
	0	0.4	0.8	1	30.1%	42.5%
	0	0	0	0.8	21.9%	28.7%
	0	0	0.6	0.6	20.5%	27.6%
	0	0.8	0.8	0.8	18.1%	25.0%
	1	0.5	0	0.25	0.5%	0.4%
	2	1	0	1	0.2%	0.0%
Cauchy	0	0	0	0	5.4%	5.5%
	0	1	2	3	16.4%	41.8%
	0	1.5	2	2.5	13.7%	33.1%
	0	0	0	2	10.5%	21.5%
	0	0	2	2	13.7%	32.9%
	0	2	2	2	9.8%	21.7%
	3	1	0	2	2.3%	0.9%
	3	2	1	0	0.8%	0.1%

E.3. Five Treatments

E.3.1. Probability of Missing = 0.1

Table E.91. t = 5, p = 0.1, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.15	0.3	0.45	0.6	54.5%	53.3%
	0	0	0	0	0.9	67.0%	66.0%
	0	0	0	0.4	0.4	40.2%	39.6%
	0	0	0.4	0.4	0.4	40.6%	39.8%
	0	0.5	0.5	0.5	0.5	29.1%	28.6%
	1	0.5	0	0.25	1	2.5%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0.15	0.3	0.45	0.6	84.1%	83.2%
	0	0	0	0	0.9	87.3%	86.4%
	0	0	0	0.4	0.4	70.6%	69.4%
	0	0	0.4	0.4	0.4	67.2%	66.0%
	0	0.5	0.5	0.5	0.5	48.0%	47.0%
	1	0.5	0	0.25	1	0.9%	1.0%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0.15	0.3	0.45	0.6	44.9%	44.3%
	0	0	0	0	0.9	58.0%	57.2%
	0	0	0	0.8	0.8	79.5%	78.8%
	0	0	0.8	0.8	0.8	76.2%	75.3%
	0	0.5	0.5	0.5	0.5	23.5%	23.2%
	1	0.5	0	0.25	1	3.9%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	2	3	4	97.9%	97.2%
	0	0	0	0	3	67.2%	64.9%
	0	0	0	3	3	93.9%	92.5%
	0	0	3	3	3	94.0%	92.7%
	0	3	3	3	3	67.1%	64.6%
	4	3	2	1	0	0.0%	0.0%

Table E.92. t = 5, p = 0.1, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	56.2%	75.3%
	0	0	0	0	0.9	44.1%	60.1%
	0	0	0	0.8	0.8	63.4%	81.3%
	0	0	0.8	0.8	0.8	61.5%	80.3%
	0	0.8	0.8	0.8	0.8	30.9%	45.6%
	1	0.5	0	0.25	1	3.7%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	4.9%
	0	0.2	0.5	0.6	0.9	83.5%	95.3%
	0	0	0	0	0.9	65.9%	82.3%
	0	0	0	0.8	0.8	87.6%	97.0%
	0	0	0.8	0.8	0.8	83.8%	95.1%
	0	0.5	0.5	0.5	0.5	30.7%	42.7%
	1	0.5	0	0.25	1	1.0%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.0%	5.7%
	0	0.2	0.5	0.6	0.9	53.8%	67.2%
	0	0	0	0	0.9	44.6%	53.5%
	0	0	0	0.8	0.8	63.5%	75.4%
	0	0	0.8	0.8	0.8	59.3%	72.4%
	0	0.8	0.8	0.8	0.8	28.2%	38.5%
	1	0.5	0	0.25	1	5.5%	4.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	1	2	3	4	22.8%	80.3%
	0	0	0	0	3	13.2%	41.0%
	0	0	0	3	3	18.8%	68.5%
	0	0	3	3	3	20.0%	70.4%
	0	3	3	3	3	12.7%	40.0%
	4	3	2	1	0	0.5%	0.0%
	4	1	0	1	0.5	1.3%	0.1%

Table E.93. t = 5, p = 0.1, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.3%
	0	0.2	0.5	0.6	0.9	63.0%	82.9%
	0	0	0	0	0.9	50.2%	67.6%
	0	0	0	0.8	0.8	71.0%	87.8%
	0	0	0.8	0.8	0.8	68.8%	87.7%
	0	0.8	0.8	0.8	0.8	37.1%	55.3%
	1	0.5	0	0.25	1	3.5%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	4.9%
	0	0.2	0.5	0.6	0.9	90.1%	98.0%
	0	0	0	0	0.9	73.2%	89.1%
	0	0	0	0.8	0.8	92.4%	99.0%
	0	0	0.8	0.8	0.8	90.0%	98.2%
	0	0.5	0.5	0.5	0.5	35.6%	50.2%
	1	0.5	0	0.25	1	0.8%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.9%	5.5%
	0	0.2	0.5	0.6	0.9	63.4%	76.2%
	0	0	0	0	0.9	52.3%	62.7%
	0	0	0	0.8	0.8	72.6%	83.7%
	0	0	0.8	0.8	0.8	69.4%	81.1%
	0	0.8	0.8	0.8	0.8	33.6%	45.9%
	1	0.5	0	0.25	1	5.5%	4.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	4.9%
	0	1	2	3	4	12.6%	79.2%
	0	0	0	0	3	8.4%	39.4%
	0	0	0	3	3	11.2%	68.5%
	0	0	3	3	3	10.9%	69.3%
	0	3	3	3	3	8.6%	39.9%
	4	3	2	1	0	1.8%	0.0%
	4	1	0	1	0.15	2.3%	0.0%

Table E.94. t = 5, p = 0.1, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.0%
	0	0.2	0.5	0.6	0.9	65.0%	77.8%
	0	0	0	0	0.9	50.3%	62.0%
	0	0	0	0.8	0.8	72.0%	84.4%
	0	0	0.8	0.8	0.8	70.7%	82.9%
	0	0.8	0.8	0.8	0.8	40.1%	51.1%
	1	0.5	0	0.25	1	3.3%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	5.2%
	0	0.2	0.5	0.6	0.9	91.9%	96.9%
	0	0	0	0	0.9	75.3%	84.9%
	0	0	0	0.8	0.8	93.6%	98.1%
	0	0	0.8	0.8	0.8	91.4%	96.9%
	0	0.5	0.5	0.5	0.5	37.4%	46.9%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.4%
	0	0.2	0.5	0.6	0.9	65.9%	72.1%
	0	0	0	0	0.9	55.5%	59.2%
	0	0	0	0.8	0.8	75.9%	80.8%
	0	0	0.8	0.8	0.8	71.7%	78.5%
	0	0.8	0.8	0.8	0.8	36.3%	42.5%
	1	0.5	0	0.25	1	5.2%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	1	2	3	4	7.9%	60.6%
	0	0	0	0	3	7.0%	27.4%
	0	0	0	3	3	7.1%	49.4%
	0	0	3	3	3	7.3%	49.8%
	0	3	3	3	3	6.5%	27.5%
	4	3	2	1	0	3.0%	0.0%
	4	1	0	1	2	4.1%	0.6%

Table E.95. t = 5, p = 0.1, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.2	0.5	0.6	0.9	75.7%	80.3%
	0	0	0	0	0.9	61.2%	65.2%
	0	0	0	0.8	0.8	83.2%	87.0%
	0	0	0.8	0.8	0.8	81.2%	85.6%
	0	0.8	0.8	0.8	0.8	46.8%	51.9%
	1	0.5	0	0.25	1	3.1%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.7%
	0	0.2	0.5	0.6	0.9	95.4%	97.0%
	0	0	0	0	0.9	82.2%	85.8%
	0	0	0	0.5	0.5	77.6%	81.9%
	0	0	0.5	0.5	0.5	75.8%	80.2%
	0	0.5	0.5	0.5	0.5	42.7%	46.6%
	1	0.5	0	0.25	1	0.8%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.8%	5.4%
	0	0.2	0.5	0.6	0.9	66.9%	70.6%
	0	0	0	0	0.9	54.1%	56.8%
	0	0	0	0.8	0.8	74.7%	78.2%
	0	0	0.8	0.8	0.8	72.6%	76.1%
	0	0.8	0.8	0.8	0.8	37.9%	41.0%
	1	0.5	0	0.25	1	4.6%	4.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	1	2	3	4	89.8%	95.9%
	0	0	0	0	3	50.2%	60.3%
	0	0	0	3	3	81.0%	90.2%
	0	0	3	3	3	81.3%	90.0%
	0	3	3	3	3	50.3%	60.8%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.2%

Table E.96. t = 5, p = 0.1, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	4.6%
	0	0.2	0.5	0.6	0.9	61.1%	69.7%
	0	0	0	0	0.9	47.7%	55.4%
	0	0	0	0.8	0.8	69.0%	77.7%
	0	0	0.8	0.8	0.8	66.3%	75.9%
	0	0.8	0.8	0.8	0.8	33.7%	41.2%
	1	0.5	0	0.25	1	3.8%	3.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.3%
	0	0.2	0.5	0.6	0.9	86.2%	92.4%
	0	0	0	0	0.9	68.9%	76.9%
	0	0	0	0.5	0.5	63.1%	71.7%
	0	0	0.5	0.5	0.5	62.2%	70.5%
	0	0.5	0.5	0.5	0.5	32.1%	38.3%
	1	0.5	0	0.25	1	1.1%	1.0%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.3%
	0	0.2	0.5	0.6	0.9	54.2%	60.6%
	0	0	0	0	0.9	43.7%	48.4%
	0	0	0	0.8	0.8	63.8%	69.5%
	0	0	0.8	0.8	0.8	59.4%	66.5%
	0	0.8	0.8	0.8	0.8	29.2%	34.0%
	1	0.5	0	0.25	1	5.0%	4.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	1	2	3	4	63.4%	85.6%
	0	0	0	0	3	30.9%	46.2%
	0	0	0	3	3	54.7%	76.7%
	0	0	3	3	3	54.2%	76.8%
	0	3	3	3	3	30.8%	45.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

Table E.97. t = 5, p = 0.1, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0.2	0.5	0.6	0.9	52.8%	68.7%
	0	0	0	0	0.9	41.1%	53.1%
	0	0	0	0.8	0.8	60.2%	75.2%
	0	0	0.8	0.8	0.8	59.3%	75.0%
	0	0.8	0.8	0.8	0.8	29.9%	41.0%
	1	0.5	0	0.25	1	3.5%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.8%
	0	0.2	0.5	0.6	0.9	81.7%	92.3%
	0	0	0	0	0.9	62.1%	75.8%
	0	0	0	0.5	0.5	56.0%	70.3%
	0	0	0.5	0.5	0.5	54.7%	69.0%
	0	0.5	0.5	0.5	0.5	28.5%	38.5%
	1	0.5	0	0.25	1	1.0%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.0%	5.1%
	0	0.2	0.5	0.6	0.9	54.3%	62.8%
	0	0	0	0	0.9	44.4%	49.9%
	0	0	0	0.8	0.8	63.3%	70.7%
	0	0	0.8	0.8	0.8	58.6%	68.0%
	0	0.8	0.8	0.8	0.8	28.8%	35.7%
	1	0.5	0	0.25	1	5.7%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	1	2	3	4	10.5%	59.4%
	0	0	0	0	3	7.5%	28.0%
	0	0	0	3	3	10.0%	49.4%
	0	0	3	3	3	9.7%	49.8%
	0	3	3	3	3	8.1%	27.8%
	4	3	2	1	0	1.8%	0.0%
	4	1	0	1	2	3.8%	0.8%

Table E.98. t = 5, p = 0.1, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	60.7%	82.0%
	0	0	0	0	0.9	46.8%	66.2%
	0	0	0	0.8	0.8	68.9%	88.5%
	0	0	0.8	0.8	0.8	66.9%	87.2%
	0	0.8	0.8	0.8	0.8	35.5%	53.7%
	1	0.5	0	0.25	1	3.2%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0.2	0.5	0.6	0.9	88.3%	98.1%
	0	0	0	0	0.9	70.4%	88.4%
	0	0	0	0.5	0.5	65.6%	84.6%
	0	0	0.5	0.5	0.5	63.0%	82.1%
	0	0.5	0.5	0.5	0.5	34.1%	49.7%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.0%	5.5%
	0	0.2	0.5	0.6	0.9	60.0%	75.3%
	0	0	0	0	0.9	48.8%	60.4%
	0	0	0	0.8	0.8	69.6%	82.3%
	0	0	0.8	0.8	0.8	65.3%	79.5%
	0	0.8	0.8	0.8	0.8	31.5%	44.8%
	1	0.5	0	0.25	1	4.9%	3.6%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.6%	4.6%
	0	1	2	3	4	20.0%	86.0%
	0	0	0	0	3	12.1%	45.4%
	0	0	0	3	3	16.8%	76.3%
	0	0	3	3	3	18.6%	77.0%
	0	3	3	3	3	12.2%	46.3%
	4	3	2	1	0	0.8%	0.0%
	4	1	0	1	2	2.7%	0.3%

Table E.99. t = 5, p = 0.1, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	43.7%	54.4%
	0	0	0	0	0.9	34.3%	41.4%
	0	0	0	0.8	0.8	50.7%	61.3%
	0	0	0.8	0.8	0.8	47.7%	59.4%
	0	0.8	0.8	0.8	0.8	23.9%	30.9%
	1	0.5	0	0.25	1	4.3%	3.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	4.9%
	0	0.2	0.5	0.6	0.9	69.3%	80.2%
	0	0	0	0	0.9	49.7%	59.7%
	0	0	0	0.5	0.5	46.0%	55.6%
	0	0	0.5	0.5	0.5	44.9%	54.1%
	0	0.5	0.5	0.5	0.5	22.7%	28.0%
	1	0.5	0	0.25	1	1.6%	1.2%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	4.9%
	0	0.2	0.5	0.6	0.9	40.6%	46.8%
	0	0	0	0	0.9	33.9%	37.2%
	0	0	0	0.8	0.8	47.3%	53.5%
	0	0	0.8	0.8	0.8	44.0%	50.5%
	0	0.8	0.8	0.8	0.8	21.2%	26.0%
	1	0.5	0	0.25	1	5.9%	4.7%
	2	1	0	1	0.5	0.1%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	1	2	3	4	27.7%	60.7%
	0	0	0	0	3	14.3%	27.1%
	0	0	0	3	3	23.4%	49.6%
	0	0	3	3	3	22.9%	49.0%
	0	3	3	3	3	15.0%	27.8%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.8%	0.7%

E.3.2. Probability of Missing = 0.2

Table E.100. t = 5, p = 0.2, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0.15	0.3	0.45	0.6	53.3%	52.3%
	0	0	0	0	0.9	67.3%	66.2%
	0	0	0	0.4	0.4	41.9%	41.2%
	0	0	0.4	0.4	0.4	40.4%	39.7%
	0	0.5	0.5	0.5	0.5	29.0%	28.3%
	1	0.5	0	0.25	1	2.5%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.15	0.3	0.45	0.6	84.3%	83.4%
	0	0	0	0	0.9	87.6%	86.6%
	0	0	0	0.4	0.4	69.5%	68.4%
	0	0	0.4	0.4	0.4	68.4%	67.4%
	0	0.5	0.5	0.5	0.5	48.6%	47.6%
	1	0.5	0	0.25	1	0.8%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.5%
	0	0.15	0.3	0.45	0.6	45.4%	44.7%
	0	0	0	0	0.9	57.6%	57.0%
	0	0	0	0.8	0.8	79.1%	78.4%
	0	0	0.8	0.8	0.8	77.0%	76.0%
	0	0.5	0.5	0.5	0.5	23.9%	23.5%
	1	0.5	0	0.25	1	3.7%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.3%
	0	1	2	3	4	97.8%	97.0%
	0	0	0	0	3	66.1%	63.8%
	0	0	0	3	3	94.0%	92.8%
	0	0	3	3	3	93.7%	92.2%
	0	3	3	3	3	66.2%	63.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table E.101. t = 5, p = 0.2, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.4%
	0	0.2	0.5	0.6	0.9	56.0%	74.3%
	0	0	0	0	0.9	43.6%	59.5%
	0	0	0	0.8	0.8	62.9%	81.5%
	0	0	0.8	0.8	0.8	61.8%	81.3%
	0	0.8	0.8	0.8	0.8	31.6%	47.1%
	1	0.5	0	0.25	1	3.7%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	84.3%	95.4%
	0	0	0	0	0.9	64.5%	81.7%
	0	0	0	0.8	0.8	87.2%	96.6%
	0	0	0.8	0.8	0.8	83.6%	95.4%
	0	0.5	0.5	0.5	0.5	30.9%	43.6%
	1	0.5	0	0.25	1	1.0%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.5%
	0	0.2	0.5	0.6	0.9	54.8%	67.5%
	0	0	0	0	0.9	44.5%	53.6%
	0	0	0	0.8	0.8	63.7%	75.6%
	0	0	0.8	0.8	0.8	59.6%	73.1%
	0	0.8	0.8	0.8	0.8	28.7%	38.4%
	1	0.5	0	0.25	1	5.5%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.7%
	0	1	2	3	4	21.5%	79.0%
	0	0	0	0	3	13.3%	40.2%
	0	0	0	3	3	18.8%	69.3%
	0	0	3	3	3	19.5%	69.9%
	0	3	3	3	3	12.6%	39.9%
	4	3	2	1	0	0.4%	0.0%
	4	1	0	1	0.5	1.2%	0.0%

Table E.102. t = 5, p = 0.2, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0.2	0.5	0.6	0.9	63.1%	83.1%
	0	0	0	0	0.9	48.8%	67.2%
	0	0	0	0.8	0.8	70.7%	88.1%
	0	0	0.8	0.8	0.8	68.3%	87.7%
	0	0.8	0.8	0.8	0.8	36.7%	55.6%
	1	0.5	0	0.25	1	3.4%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0.2	0.5	0.6	0.9	89.9%	98.2%
	0	0	0	0	0.9	72.9%	88.4%
	0	0	0	0.8	0.8	92.2%	98.9%
	0	0	0.8	0.8	0.8	90.6%	98.2%
	0	0.5	0.5	0.5	0.5	35.5%	50.2%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.6%
	0	0.2	0.5	0.6	0.9	62.8%	75.3%
	0	0	0	0	0.9	52.4%	62.0%
	0	0	0	0.8	0.8	71.1%	83.4%
	0	0	0.8	0.8	0.8	67.9%	81.6%
	0	0.8	0.8	0.8	0.8	34.0%	46.3%
	1	0.5	0	0.25	1	5.1%	3.6%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.1%
	0	1	2	3	4	12.7%	80.2%
	0	0	0	0	3	8.5%	39.4%
	0	0	0	3	3	11.0%	70.4%
	0	0	3	3	3	10.7%	69.1%
	0	3	3	3	3	9.0%	40.2%
	4	3	2	1	0	1.6%	0.0%
	4	1	0	1	0.15	2.1%	0.0%

Table E.103. t = 5, p = 0.2, IBD = 6, CRD = 18

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	65.1%	77.8%
	0	0	0	0	0.9	50.4%	62.5%
	0	0	0	0.8	0.8	72.6%	84.7%
	0	0	0.8	0.8	0.8	70.6%	83.4%
	0	0.8	0.8	0.8	0.8	38.8%	51.0%
	1	0.5	0	0.25	1	3.4%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	91.8%	97.0%
	0	0	0	0	0.9	75.4%	84.9%
	0	0	0	0.8	0.8	94.0%	97.8%
	0	0	0.8	0.8	0.8	91.3%	97.0%
	0	0.5	0.5	0.5	0.5	37.8%	46.3%
	1	0.5	0	0.25	1	0.7%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.2%
	0	0.2	0.5	0.6	0.9	66.4%	72.5%
	0	0	0	0	0.9	53.8%	59.0%
	0	0	0	0.8	0.8	75.3%	80.8%
	0	0	0.8	0.8	0.8	71.4%	78.1%
	0	0.8	0.8	0.8	0.8	36.1%	43.0%
	1	0.5	0	0.25	1	5.0%	4.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	1	2	3	4	7.5%	60.4%
	0	0	0	0	3	6.5%	27.6%
	0	0	0	3	3	7.5%	49.8%
	0	0	3	3	3	7.6%	49.9%
	0	3	3	3	3	6.4%	27.6%
	4	3	2	1	0	3.4%	0.0%
	4	1	0	1	2	4.2%	0.7%

Table E.104. t = 5, p = 0.2, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.5%
	0	0.2	0.5	0.6	0.9	76.0%	81.0%
	0	0	0	0	0.9	61.4%	65.5%
	0	0	0	0.8	0.8	82.9%	86.7%
	0	0	0.8	0.8	0.8	81.5%	85.7%
	0	0.8	0.8	0.8	0.8	46.7%	51.5%
	1	0.5	0	0.25	1	3.2%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	95.5%	97.4%
	0	0	0	0	0.9	82.8%	86.4%
	0	0	0	0.5	0.5	78.8%	82.9%
	0	0	0.5	0.5	0.5	75.2%	79.4%
	0	0.5	0.5	0.5	0.5	42.8%	46.8%
	1	0.5	0	0.25	1	0.9%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.0%	5.6%
	0	0.2	0.5	0.6	0.9	66.3%	69.7%
	0	0	0	0	0.9	54.8%	57.6%
	0	0	0	0.8	0.8	74.7%	77.9%
	0	0	0.8	0.8	0.8	72.0%	75.5%
	0	0.8	0.8	0.8	0.8	38.1%	41.3%
	1	0.5	0	0.25	1	4.6%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.1%
	0	1	2	3	4	89.2%	95.8%
	0	0	0	0	3	50.0%	60.1%
	0	0	0	3	3	81.0%	90.4%
	0	0	3	3	3	80.3%	89.7%
	0	3	3	3	3	50.3%	60.4%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table E.105. t = 5, p = 0.2, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	60.5%	69.2%
	0	0	0	0	0.9	47.4%	55.5%
	0	0	0	0.8	0.8	68.8%	77.3%
	0	0	0.8	0.8	0.8	67.2%	76.6%
	0	0.8	0.8	0.8	0.8	34.5%	42.1%
	1	0.5	0	0.25	1	3.6%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	5.0%
	0	0.2	0.5	0.6	0.9	86.9%	92.2%
	0	0	0	0	0.9	68.1%	76.0%
	0	0	0	0.5	0.5	64.0%	72.1%
	0	0	0.5	0.5	0.5	60.5%	68.9%
	0	0.5	0.5	0.5	0.5	32.2%	38.2%
	1	0.5	0	0.25	1	1.2%	1.1%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.5%	5.6%
	0	0.2	0.5	0.6	0.9	54.2%	60.8%
	0	0	0	0	0.9	44.0%	48.8%
	0	0	0	0.8	0.8	61.8%	68.0%
	0	0	0.8	0.8	0.8	59.5%	66.5%
	0	0.8	0.8	0.8	0.8	29.1%	33.8%
	1	0.5	0	0.25	1	4.8%	4.3%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	1	2	3	4	64.1%	85.7%
	0	0	0	0	3	30.9%	45.8%
	0	0	0	3	3	52.8%	75.5%
	0	0	3	3	3	53.7%	76.7%
	0	3	3	3	3	30.0%	44.4%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

Table E.106. t = 5, p = 0.2, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	52.5%	68.1%
	0	0	0	0	0.9	41.2%	53.1%
	0	0	0	0.8	0.8	59.9%	75.5%
	0	0	0.8	0.8	0.8	58.7%	74.9%
	0	0.8	0.8	0.8	0.8	29.9%	41.6%
	1	0.5	0	0.25	1	3.6%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	82.0%	92.4%
	0	0	0	0	0.9	61.8%	75.0%
	0	0	0	0.5	0.5	56.5%	70.6%
	0	0	0.5	0.5	0.5	55.4%	69.0%
	0	0.5	0.5	0.5	0.5	29.1%	38.8%
	1	0.5	0	0.25	1	1.1%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.0%
	0	0.2	0.5	0.6	0.9	54.5%	63.5%
	0	0	0	0	0.9	43.7%	50.0%
	0	0	0	0.8	0.8	62.6%	70.7%
	0	0	0.8	0.8	0.8	59.0%	67.8%
	0	0.8	0.8	0.8	0.8	27.3%	35.0%
	1	0.5	0	0.25	1	5.5%	4.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.2%
	0	1	2	3	4	11.5%	59.8%
	0	0	0	0	3	8.1%	27.9%
	0	0	0	3	3	10.0%	50.3%
	0	0	3	3	3	10.3%	49.9%
	0	3	3	3	3	7.7%	28.1%
	4	3	2	1	0	1.9%	0.0%
	4	1	0	1	2	3.4%	0.7%

Table E.107. t = 5, p = 0.2, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	61.4%	82.4%
	0	0	0	0	0.9	48.3%	67.6%
	0	0	0	0.8	0.8	68.8%	87.8%
	0	0	0.8	0.8	0.8	66.7%	87.1%
	0	0.8	0.8	0.8	0.8	36.2%	55.0%
	1	0.5	0	0.25	1	3.7%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	87.7%	97.9%
	0	0	0	0	0.9	70.8%	88.4%
	0	0	0	0.5	0.5	63.7%	83.8%
	0	0	0.5	0.5	0.5	62.4%	81.2%
	0	0.5	0.5	0.5	0.5	33.8%	49.7%
	1	0.5	0	0.25	1	0.7%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.8%	5.5%
	0	0.2	0.5	0.6	0.9	59.3%	74.5%
	0	0	0	0	0.9	49.8%	61.8%
	0	0	0	0.8	0.8	69.1%	82.3%
	0	0	0.8	0.8	0.8	65.1%	80.5%
	0	0.8	0.8	0.8	0.8	32.7%	45.4%
	1	0.5	0	0.25	1	5.4%	4.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	2	3	4	20.4%	86.0%
	0	0	0	0	3	12.0%	45.1%
	0	0	0	3	3	17.0%	77.1%
	0	0	3	3	3	17.4%	77.0%
	0	3	3	3	3	11.7%	46.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	2	2.8%	0.3%

Table E.108. t = 5, p = 0.2, IBD = 6, CRD = 6

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.6%
	0	0.2	0.5	0.6	0.9	43.2%	53.8%
	0	0	0	0	0.9	34.4%	41.8%
	0	0	0	0.8	0.8	50.3%	60.5%
	0	0	0.8	0.8	0.8	46.6%	57.9%
	0	0.8	0.8	0.8	0.8	22.5%	29.2%
	1	0.5	0	0.25	1	4.3%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	69.4%	80.6%
	0	0	0	0	0.9	48.9%	59.1%
	0	0	0	0.5	0.5	46.4%	56.0%
	0	0	0.5	0.5	0.5	44.7%	54.4%
	0	0.5	0.5	0.5	0.5	23.7%	29.2%
	1	0.5	0	0.25	1	1.7%	1.3%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.0%	5.7%
	0	0.2	0.5	0.6	0.9	40.2%	46.1%
	0	0	0	0	0.9	33.7%	37.5%
	0	0	0	0.8	0.8	48.4%	54.3%
	0	0	0.8	0.8	0.8	44.7%	51.2%
	0	0.8	0.8	0.8	0.8	20.4%	24.9%
	1	0.5	0	0.25	1	5.8%	4.6%
	2	1	0	1	0.5	0.1%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.7%
	0	1	2	3	4	28.3%	59.5%
	0	0	0	0	3	15.1%	27.6%
	0	0	0	3	3	23.3%	49.5%
	0	0	3	3	3	23.0%	49.8%
	0	3	3	3	3	15.3%	27.8%
	4	3	2	1	0	0.2%	0.0%
	4	1	0	1	2	1.9%	0.8%

E.3.3. Probability of Missing = 0.3

Table E.109. t = 5, p = 0.3, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.15	0.3	0.45	0.6	54.0%	52.9%
	0	0	0	0	0.9	68.5%	67.6%
	0	0	0	0.4	0.4	40.9%	40.1%
	0	0	0.4	0.4	0.4	40.9%	40.2%
	0	0.5	0.5	0.5	0.5	28.9%	28.3%
	1	0.5	0	0.25	1	2.6%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.15	0.3	0.45	0.6	83.6%	82.5%
	0	0	0	0	0.9	86.9%	86.0%
	0	0	0	0.4	0.4	70.3%	69.2%
	0	0	0.4	0.4	0.4	68.4%	67.5%
	0	0.5	0.5	0.5	0.5	47.2%	46.5%
	1	0.5	0	0.25	1	0.9%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0.15	0.3	0.45	0.6	44.9%	44.3%
	0	0	0	0	0.9	58.3%	57.5%
	0	0	0	0.8	0.8	78.8%	78.1%
	0	0	0.8	0.8	0.8	75.8%	75.0%
	0	0.5	0.5	0.5	0.5	23.6%	23.3%
	1	0.5	0	0.25	1	3.8%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	1	2	3	4	97.7%	97.1%
	0	0	0	0	3	67.0%	64.4%
	0	0	0	3	3	94.2%	92.6%
	0	0	3	3	3	93.9%	92.5%
	0	3	3	3	3	67.6%	65.1%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table E.110. t = 5, p = 0.3, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.4%
	0	0.2	0.5	0.6	0.9	56.5%	75.2%
	0	0	0	0	0.9	43.7%	59.7%
	0	0	0	0.8	0.8	64.4%	82.4%
	0	0	0.8	0.8	0.8	62.5%	81.1%
	0	0.8	0.8	0.8	0.8	32.3%	47.4%
	1	0.5	0	0.25	1	3.8%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	83.9%	95.7%
	0	0	0	0	0.9	64.2%	81.4%
	0	0	0	0.8	0.8	87.4%	97.0%
	0	0	0.8	0.8	0.8	83.5%	95.4%
	0	0.5	0.5	0.5	0.5	30.2%	43.2%
	1	0.5	0	0.25	1	1.0%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.5%	5.2%
	0	0.2	0.5	0.6	0.9	54.5%	67.5%
	0	0	0	0	0.9	44.2%	54.1%
	0	0	0	0.8	0.8	63.0%	75.7%
	0	0	0.8	0.8	0.8	59.8%	72.8%
	0	0.8	0.8	0.8	0.8	29.0%	38.6%
	1	0.5	0	0.25	1	5.4%	4.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	1	2	3	4	21.9%	79.5%
	0	0	0	0	3	12.8%	39.8%
	0	0	0	3	3	19.4%	69.2%
	0	0	3	3	3	19.6%	68.8%
	0	3	3	3	3	12.9%	39.0%
	4	3	2	1	0	0.4%	0.0%
	4	1	0	1	0.5	1.2%	0.1%

Table E.111. t = 5, p = 0.3, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.6%	5.4%
	0	0.2	0.5	0.6	0.9	64.1%	83.2%
	0	0	0	0	0.9	49.2%	67.3%
	0	0	0	0.8	0.8	70.8%	88.4%
	0	0	0.8	0.8	0.8	69.9%	87.8%
	0	0.8	0.8	0.8	0.8	37.5%	55.1%
	1	0.5	0	0.25	1	3.3%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.3%
	0	0.2	0.5	0.6	0.9	89.7%	98.0%
	0	0	0	0	0.9	72.5%	88.8%
	0	0	0	0.8	0.8	92.4%	98.8%
	0	0	0.8	0.8	0.8	90.1%	98.2%
	0	0.5	0.5	0.5	0.5	35.2%	50.2%
	1	0.5	0	0.25	1	0.8%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.4%
	0	0.2	0.5	0.6	0.9	63.6%	76.3%
	0	0	0	0	0.9	51.9%	63.1%
	0	0	0	0.8	0.8	72.4%	83.7%
	0	0	0.8	0.8	0.8	68.8%	81.5%
	0	0.8	0.8	0.8	0.8	33.9%	45.7%
	1	0.5	0	0.25	1	5.7%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	1	2	3	4	12.6%	80.2%
	0	0	0	0	3	8.9%	39.5%
	0	0	0	3	3	11.1%	70.0%
	0	0	3	3	3	11.9%	69.5%
	0	3	3	3	3	9.0%	39.4%
	4	3	2	1	0	1.6%	0.0%
	4	1	0	1	0.15	2.5%	0.0%

Table E.112. t = 5, p = 0.3, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0.2	0.5	0.6	0.9	65.4%	77.8%
	0	0	0	0	0.9	50.3%	62.1%
	0	0	0	0.8	0.8	72.5%	84.1%
	0	0	0.8	0.8	0.8	70.6%	83.3%
	0	0.8	0.8	0.8	0.8	39.0%	50.0%
	1	0.5	0	0.25	1	3.3%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.7%
	0	0.2	0.5	0.6	0.9	91.4%	96.9%
	0	0	0	0	0.9	74.7%	84.2%
	0	0	0	0.8	0.8	94.0%	97.6%
	0	0	0.8	0.8	0.8	91.7%	97.1%
	0	0.5	0.5	0.5	0.5	37.1%	46.2%
	1	0.5	0	0.25	1	0.6%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.2%	5.7%
	0	0.2	0.5	0.6	0.9	66.0%	72.6%
	0	0	0	0	0.9	55.2%	59.2%
	0	0	0	0.8	0.8	74.8%	80.5%
	0	0	0.8	0.8	0.8	72.2%	78.3%
	0	0.8	0.8	0.8	0.8	36.4%	43.1%
	1	0.5	0	0.25	1	5.1%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	1	2	3	4	7.7%	59.9%
	0	0	0	0	3	6.5%	26.6%
	0	0	0	3	3	7.3%	50.7%
	0	0	3	3	3	7.5%	50.3%
	0	3	3	3	3	6.2%	28.0%
	4	3	2	1	0	3.2%	0.0%
	4	1	0	1	2	4.7%	0.8%

Table E.113. t = 5, p = 0.3, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	75.5%	79.8%
	0	0	0	0	0.9	61.3%	65.7%
	0	0	0	0.8	0.8	82.4%	86.4%
	0	0	0.8	0.8	0.8	81.8%	86.1%
	0	0.8	0.8	0.8	0.8	46.3%	51.1%
	1	0.5	0	0.25	1	3.3%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.5%	5.3%
	0	0.2	0.5	0.6	0.9	95.2%	96.9%
	0	0	0	0	0.9	82.8%	86.6%
	0	0	0	0.5	0.5	78.8%	82.8%
	0	0	0.5	0.5	0.5	76.0%	80.1%
	0	0.5	0.5	0.5	0.5	43.4%	47.1%
	1	0.5	0	0.25	1	1.1%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	67.5%	71.1%
	0	0	0	0	0.9	54.0%	56.5%
	0	0	0	0.8	0.8	74.9%	78.1%
	0	0	0.8	0.8	0.8	72.9%	76.7%
	0	0.8	0.8	0.8	0.8	38.0%	40.8%
	1	0.5	0	0.25	1	4.8%	4.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	2	3	4	89.3%	95.8%
	0	0	0	0	3	50.3%	60.2%
	0	0	0	3	3	81.0%	90.0%
	0	0	3	3	3	80.4%	90.0%
	0	3	3	3	3	50.8%	60.0%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.2%

Table E.114. t = 5, p = 0.3, IBD = 12, CRD = 6

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0.2	0.5	0.6	0.9	60.8%	70.4%
	0	0	0	0	0.9	47.5%	55.1%
	0	0	0	0.8	0.8	69.3%	77.4%
	0	0	0.8	0.8	0.8	67.3%	75.9%
	0	0.8	0.8	0.8	0.8	33.9%	41.2%
	1	0.5	0	0.25	1	3.3%	2.8%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	86.7%	92.5%
	0	0	0	0	0.9	68.9%	76.7%
	0	0	0	0.5	0.5	63.9%	72.0%
	0	0	0.5	0.5	0.5	61.1%	69.4%
	0	0.5	0.5	0.5	0.5	32.2%	38.2%
	1	0.5	0	0.25	1	1.1%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.8%
	0	0.2	0.5	0.6	0.9	53.5%	59.7%
	0	0	0	0	0.9	44.1%	48.7%
	0	0	0	0.8	0.8	62.5%	68.9%
	0	0	0.8	0.8	0.8	59.1%	66.3%
	0	0.8	0.8	0.8	0.8	29.5%	34.2%
	1	0.5	0	0.25	1	4.9%	4.1%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	2	3	4	64.1%	85.9%
	0	0	0	0	3	30.1%	45.1%
	0	0	0	3	3	54.6%	76.8%
	0	0	3	3	3	54.1%	76.3%
	0	3	3	3	3	30.5%	45.6%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.8%	0.3%

Table E.115. t = 5, p = 0.3, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.2%
	0	0.2	0.5	0.6	0.9	52.9%	68.0%
	0	0	0	0	0.9	40.7%	52.9%
	0	0	0	0.8	0.8	60.0%	75.5%
	0	0	0.8	0.8	0.8	58.0%	73.9%
	0	0.8	0.8	0.8	0.8	30.4%	41.8%
	1	0.5	0	0.25	1	3.7%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	82.5%	91.9%
	0	0	0	0	0.9	61.9%	75.3%
	0	0	0	0.5	0.5	56.1%	70.2%
	0	0	0.5	0.5	0.5	54.8%	68.3%
	0	0.5	0.5	0.5	0.5	29.9%	38.6%
	1	0.5	0	0.25	1	1.0%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.2%	5.8%
	0	0.2	0.5	0.6	0.9	54.7%	63.4%
	0	0	0	0	0.9	44.0%	49.9%
	0	0	0	0.8	0.8	62.6%	69.8%
	0	0	0.8	0.8	0.8	57.8%	67.9%
	0	0.8	0.8	0.8	0.8	28.7%	35.5%
	1	0.5	0	0.25	1	5.5%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	2	3	4	10.6%	59.3%
	0	0	0	0	3	8.0%	27.6%
	0	0	0	3	3	10.1%	49.9%
	0	0	3	3	3	10.1%	49.1%
	0	3	3	3	3	7.6%	27.4%
	4	3	2	1	0	2.0%	0.0%
	4	1	0	1	2	3.9%	0.7%

Table E.116. t = 5, p = 0.3, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.6%
	0	0.2	0.5	0.6	0.9	60.7%	82.1%
	0	0	0	0	0.9	48.4%	66.6%
	0	0	0	0.8	0.8	68.6%	87.9%
	0	0	0.8	0.8	0.8	66.9%	87.5%
	0	0.8	0.8	0.8	0.8	35.9%	53.7%
	1	0.5	0	0.25	1	3.0%	2.3%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	88.4%	97.8%
	0	0	0	0	0.9	69.9%	87.9%
	0	0	0	0.5	0.5	66.0%	84.6%
	0	0	0.5	0.5	0.5	61.9%	82.1%
	0	0.5	0.5	0.5	0.5	33.8%	49.1%
	1	0.5	0	0.25	1	1.0%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.5%
	0	0.2	0.5	0.6	0.9	59.6%	74.3%
	0	0	0	0	0.9	48.7%	60.6%
	0	0	0	0.8	0.8	68.0%	81.6%
	0	0	0.8	0.8	0.8	65.0%	79.9%
	0	0.8	0.8	0.8	0.8	31.2%	44.4%
	1	0.5	0	0.25	1	5.1%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.1%
	0	1	2	3	4	19.3%	85.2%
	0	0	0	0	3	12.6%	46.0%
	0	0	0	3	3	17.9%	76.6%
	0	0	3	3	3	17.4%	76.0%
	0	3	3	3	3	11.6%	44.8%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	2	2.6%	0.3%

Table E.117. t = 5, p = 0.3, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0.2	0.5	0.6	0.9	41.9%	52.4%
	0	0	0	0	0.9	34.3%	41.3%
	0	0	0	0.8	0.8	49.7%	60.9%
	0	0	0.8	0.8	0.8	47.8%	59.2%
	0	0.8	0.8	0.8	0.8	23.0%	30.2%
	1	0.5	0	0.25	1	4.0%	3.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	69.1%	79.9%
	0	0	0	0	0.9	49.2%	58.4%
	0	0	0	0.5	0.5	46.7%	56.3%
	0	0	0.5	0.5	0.5	44.4%	53.6%
	0	0.5	0.5	0.5	0.5	22.8%	28.2%
	1	0.5	0	0.25	1	1.6%	1.2%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.4%
	0	0.2	0.5	0.6	0.9	40.9%	47.3%
	0	0	0	0	0.9	33.5%	37.3%
	0	0	0	0.8	0.8	48.2%	54.1%
	0	0	0.8	0.8	0.8	44.6%	51.4%
	0	0.8	0.8	0.8	0.8	20.7%	24.5%
	1	0.5	0	0.25	1	6.0%	4.8%
	2	1	0	1	0.5	0.1%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	1	2	3	4	27.3%	60.3%
	0	0	0	0	3	15.4%	28.2%
	0	0	0	3	3	24.1%	50.2%
	0	0	3	3	3	23.7%	50.2%
	0	3	3	3	3	14.8%	28.2%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	2.1%	0.8%

E.3.4. Probability of Missing = 0.4

Table E.118. t = 5, p = 0.4, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.15	0.3	0.45	0.6	53.8%	52.8%
	0	0	0	0	0.9	67.2%	66.1%
	0	0	0	0.4	0.4	40.2%	39.6%
	0	0	0.4	0.4	0.4	39.6%	38.8%
	0	0.5	0.5	0.5	0.5	28.9%	28.4%
	1	0.5	0	0.25	1	3.0%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.3%
	0	0.15	0.3	0.45	0.6	83.8%	82.8%
	0	0	0	0	0.9	87.3%	86.5%
	0	0	0	0.4	0.4	70.5%	69.5%
	0	0	0.4	0.4	0.4	68.1%	66.9%
	0	0.5	0.5	0.5	0.5	47.2%	46.3%
	1	0.5	0	0.25	1	0.9%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.4%
	0	0.15	0.3	0.45	0.6	46.0%	45.4%
	0	0	0	0	0.9	57.6%	56.8%
	0	0	0	0.8	0.8	78.7%	77.9%
	0	0	0.8	0.8	0.8	76.7%	76.1%
	0	0.5	0.5	0.5	0.5	24.2%	23.8%
	1	0.5	0	0.25	1	3.8%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	2	3	4	97.6%	96.8%
	0	0	0	0	3	66.6%	64.4%
	0	0	0	3	3	94.1%	92.6%
	0	0	3	3	3	93.4%	91.8%
	0	3	3	3	3	66.6%	64.1%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table E.119. t = 5, p = 0.4, IBD = 10, CRD = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	4.4%
	0	0.2	0.5	0.6	0.9	56.4%	74.9%
	0	0	0	0	0.9	43.5%	59.0%
	0	0	0	0.8	0.8	63.9%	81.6%
	0	0	0.8	0.8	0.8	61.1%	80.4%
	0	0.8	0.8	0.8	0.8	31.9%	47.1%
	1	0.5	0	0.25	1	3.7%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	83.3%	95.6%
	0	0	0	0	0.9	65.1%	81.9%
	0	0	0	0.8	0.8	87.5%	96.8%
	0	0	0.8	0.8	0.8	83.9%	95.5%
	0	0.5	0.5	0.5	0.5	30.3%	42.8%
	1	0.5	0	0.25	1	1.2%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.3%
	0	0.2	0.5	0.6	0.9	54.8%	67.8%
	0	0	0	0	0.9	44.6%	53.3%
	0	0	0	0.8	0.8	63.0%	75.1%
	0	0	0.8	0.8	0.8	60.2%	73.2%
	0	0.8	0.8	0.8	0.8	29.2%	38.6%
	1	0.5	0	0.25	1	5.4%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.7%	4.8%
	0	1	2	3	4	21.8%	79.7%
	0	0	0	0	3	12.8%	40.3%
	0	0	0	3	3	18.7%	68.6%
	0	0	3	3	3	19.2%	68.8%
	0	3	3	3	3	13.1%	40.0%
	4	3	2	1	0	0.4%	0.0%
	4	1	0	1	0.5	1.4%	0.1%

Table E.120. t = 5, p = 0.4, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	62.6%	82.6%
	0	0	0	0	0.9	49.5%	67.9%
	0	0	0	0.8	0.8	70.6%	88.3%
	0	0	0.8	0.8	0.8	69.9%	87.5%
	0	0.8	0.8	0.8	0.8	36.7%	54.7%
	1	0.5	0	0.25	1	3.5%	2.4%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.0%
	0	0.2	0.5	0.6	0.9	90.2%	98.3%
	0	0	0	0	0.9	73.8%	89.5%
	0	0	0	0.8	0.8	92.6%	98.9%
	0	0	0.8	0.8	0.8	89.8%	98.1%
	0	0.5	0.5	0.5	0.5	36.1%	51.1%
	1	0.5	0	0.25	1	0.8%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.1%
	0	0.2	0.5	0.6	0.9	63.4%	76.1%
	0	0	0	0	0.9	51.1%	62.0%
	0	0	0	0.8	0.8	71.8%	83.8%
	0	0	0.8	0.8	0.8	67.7%	80.9%
	0	0.8	0.8	0.8	0.8	34.1%	45.9%
	1	0.5	0	0.25	1	5.5%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	2	3	4	12.7%	79.3%
	0	0	0	0	3	8.8%	40.2%
	0	0	0	3	3	11.7%	70.1%
	0	0	3	3	3	11.4%	69.4%
	0	3	3	3	3	8.8%	39.7%
	4	3	2	1	0	1.7%	0.0%
	4	1	0	1	0.15	2.2%	0.0%

Table E.121. t = 5, p = 0.4, IBD = 6, CRD = 18

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.7%
	0	0.2	0.5	0.6	0.9	64.9%	77.7%
	0	0	0	0	0.9	50.8%	62.2%
	0	0	0	0.8	0.8	72.3%	84.8%
	0	0	0.8	0.8	0.8	71.2%	83.3%
	0	0.8	0.8	0.8	0.8	39.7%	51.5%
	1	0.5	0	0.25	1	3.4%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	5.4%
	0	0.2	0.5	0.6	0.9	91.5%	96.5%
	0	0	0	0	0.9	74.5%	84.4%
	0	0	0	0.8	0.8	93.9%	98.3%
	0	0	0.8	0.8	0.8	91.7%	97.0%
	0	0.5	0.5	0.5	0.5	37.7%	46.7%
	1	0.5	0	0.25	1	0.7%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.2%	5.8%
	0	0.2	0.5	0.6	0.9	66.0%	73.0%
	0	0	0	0	0.9	55.1%	59.3%
	0	0	0	0.8	0.8	75.0%	80.1%
	0	0	0.8	0.8	0.8	71.9%	77.4%
	0	0.8	0.8	0.8	0.8	36.5%	43.0%
	1	0.5	0	0.25	1	4.9%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	1	2	3	4	7.5%	60.0%
	0	0	0	0	3	6.2%	27.3%
	0	0	0	3	3	7.4%	49.7%
	0	0	3	3	3	7.3%	49.3%
	0	3	3	3	3	6.2%	27.1%
	4	3	2	1	0	3.2%	0.0%
	4	1	0	1	2	4.6%	0.8%

Table E.122. t = 5, p = 0.4, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.2	0.5	0.6	0.9	76.0%	80.8%
	0	0	0	0	0.9	61.6%	65.9%
	0	0	0	0.8	0.8	83.0%	86.7%
	0	0	0.8	0.8	0.8	81.7%	85.9%
	0	0.8	0.8	0.8	0.8	46.6%	52.0%
	1	0.5	0	0.25	1	3.0%	2.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	95.0%	96.9%
	0	0	0	0	0.9	81.8%	85.7%
	0	0	0	0.5	0.5	78.5%	82.7%
	0	0	0.5	0.5	0.5	75.7%	79.9%
	0	0.5	0.5	0.5	0.5	42.8%	46.5%
	1	0.5	0	0.25	1	0.9%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.2%	5.8%
	0	0.2	0.5	0.6	0.9	67.5%	71.2%
	0	0	0	0	0.9	53.5%	56.2%
	0	0	0	0.8	0.8	75.2%	78.6%
	0	0	0.8	0.8	0.8	72.9%	76.5%
	0	0.8	0.8	0.8	0.8	38.1%	41.3%
	1	0.5	0	0.25	1	4.5%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	1	2	3	4	89.1%	95.5%
	0	0	0	0	3	50.1%	60.5%
	0	0	0	3	3	81.2%	90.0%
	0	0	3	3	3	80.4%	90.1%
	0	3	3	3	3	50.4%	60.6%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.2%	0.1%

Table E.123. t = 5, p = 0.4, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0.2	0.5	0.6	0.9	61.3%	70.2%
	0	0	0	0	0.9	48.1%	55.5%
	0	0	0	0.8	0.8	69.0%	77.3%
	0	0	0.8	0.8	0.8	66.8%	76.0%
	0	0.8	0.8	0.8	0.8	33.8%	40.6%
	1	0.5	0	0.25	1	3.6%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.2%	4.9%
	0	0.2	0.5	0.6	0.9	86.5%	92.1%
	0	0	0	0	0.9	67.8%	76.2%
	0	0	0	0.5	0.5	63.7%	72.8%
	0	0	0.5	0.5	0.5	62.2%	70.2%
	0	0.5	0.5	0.5	0.5	32.2%	38.4%
	1	0.5	0	0.25	1	1.3%	1.1%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	4.9%
	0	0.2	0.5	0.6	0.9	53.7%	60.5%
	0	0	0	0	0.9	43.7%	48.3%
	0	0	0	0.8	0.8	62.4%	68.6%
	0	0	0.8	0.8	0.8	59.6%	66.6%
	0	0.8	0.8	0.8	0.8	28.1%	32.8%
	1	0.5	0	0.25	1	4.9%	4.2%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.4%
	0	1	2	3	4	63.9%	86.0%
	0	0	0	0	3	30.4%	45.4%
	0	0	0	3	3	53.7%	76.8%
	0	0	3	3	3	54.3%	76.5%
	0	3	3	3	3	30.9%	45.8%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.7%	0.3%

Table E.124. t = 5, p = 0.4, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.4%
	0	0.2	0.5	0.6	0.9	52.5%	68.4%
	0	0	0	0	0.9	40.8%	53.1%
	0	0	0	0.8	0.8	61.0%	76.2%
	0	0	0.8	0.8	0.8	59.2%	75.1%
	0	0.8	0.8	0.8	0.8	29.7%	41.3%
	1	0.5	0	0.25	1	3.6%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	81.4%	92.3%
	0	0	0	0	0.9	62.1%	75.3%
	0	0	0	0.5	0.5	57.0%	70.7%
	0	0	0.5	0.5	0.5	54.0%	68.9%
	0	0.5	0.5	0.5	0.5	29.2%	39.0%
	1	0.5	0	0.25	1	1.1%	0.7%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.5%
	0	0.2	0.5	0.6	0.9	53.9%	62.5%
	0	0	0	0	0.9	44.0%	49.0%
	0	0	0	0.8	0.8	61.4%	69.9%
	0	0	0.8	0.8	0.8	58.4%	67.9%
	0	0.8	0.8	0.8	0.8	28.5%	35.1%
	1	0.5	0	0.25	1	5.5%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	1	2	3	4	11.1%	59.8%
	0	0	0	0	3	8.4%	27.7%
	0	0	0	3	3	10.5%	50.7%
	0	0	3	3	3	9.8%	49.8%
	0	3	3	3	3	8.3%	28.2%
	4	3	2	1	0	1.9%	0.0%
	4	1	0	1	2	3.5%	0.6%

Table E.125. t = 5, p = 0.4, IBD = 12, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0.2	0.5	0.6	0.9	61.9%	82.7%
	0	0	0	0	0.9	47.9%	66.8%
	0	0	0	0.8	0.8	69.1%	88.3%
	0	0	0.8	0.8	0.8	67.1%	87.5%
	0	0.8	0.8	0.8	0.8	35.8%	54.8%
	1	0.5	0	0.25	1	3.6%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	4.9%
	0	0.2	0.5	0.6	0.9	88.1%	97.9%
	0	0	0	0	0.9	70.3%	88.6%
	0	0	0	0.5	0.5	65.5%	84.5%
	0	0	0.5	0.5	0.5	62.3%	81.6%
	0	0.5	0.5	0.5	0.5	34.3%	49.8%
	1	0.5	0	0.25	1	0.9%	0.6%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.9%	5.6%
	0	0.2	0.5	0.6	0.9	60.9%	75.0%
	0	0	0	0	0.9	49.7%	60.8%
	0	0	0	0.8	0.8	68.7%	82.4%
	0	0	0.8	0.8	0.8	64.9%	79.6%
	0	0.8	0.8	0.8	0.8	32.4%	44.4%
	1	0.5	0	0.25	1	5.5%	3.9%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	1	2	3	4	20.6%	85.6%
	0	0	0	0	3	11.8%	45.2%
	0	0	0	3	3	17.6%	76.0%
	0	0	3	3	3	18.1%	76.7%
	0	3	3	3	3	12.6%	45.8%
	4	3	2	1	0	0.7%	0.0%
	4	1	0	1	2	2.6%	0.3%

Table E.126. t = 5, p = 0.4, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.6%	5.3%
	0	0.2	0.5	0.6	0.9	42.9%	52.9%
	0	0	0	0	0.9	33.6%	41.0%
	0	0	0	0.8	0.8	50.5%	60.6%
	0	0	0.8	0.8	0.8	47.6%	58.9%
	0	0.8	0.8	0.8	0.8	22.3%	29.3%
	1	0.5	0	0.25	1	4.2%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.5	0.6	0.9	69.0%	79.7%
	0	0	0	0	0.9	50.1%	59.4%
	0	0	0	0.5	0.5	46.0%	55.6%
	0	0	0.5	0.5	0.5	44.4%	53.7%
	0	0.5	0.5	0.5	0.5	22.2%	27.9%
	1	0.5	0	0.25	1	1.8%	1.3%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.8%	5.6%
	0	0.2	0.5	0.6	0.9	40.4%	46.5%
	0	0	0	0	0.9	34.7%	38.5%
	0	0	0	0.8	0.8	48.4%	54.7%
	0	0	0.8	0.8	0.8	44.7%	51.0%
	0	0.8	0.8	0.8	0.8	20.6%	25.0%
	1	0.5	0	0.25	1	5.4%	4.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	2	3	4	28.0%	59.7%
	0	0	0	0	3	14.3%	27.3%
	0	0	0	3	3	23.3%	50.6%
	0	0	3	3	3	23.5%	50.0%
	0	3	3	3	3	14.8%	27.1%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.9%	0.7%

E.3.5. Probability of Missing = 0.5

Table E.127. t = 5, p = 0.5, IBD = 20, CRD = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.15	0.3	0.45	0.6	54.8%	53.9%
	0	0	0	0	0.9	67.0%	66.0%
	0	0	0	0.4	0.4	41.8%	41.2%
	0	0	0.4	0.4	0.4	39.7%	39.0%
	0	0.5	0.5	0.5	0.5	28.6%	27.9%
	1	0.5	0	0.25	1	3.0%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0.15	0.3	0.45	0.6	83.9%	82.9%
	0	0	0	0	0.9	87.6%	86.8%
	0	0	0	0.4	0.4	70.6%	69.5%
	0	0	0.4	0.4	0.4	67.9%	66.9%
	0	0.5	0.5	0.5	0.5	48.8%	47.7%
	1	0.5	0	0.25	1	0.8%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.3%
	0	0.15	0.3	0.45	0.6	46.0%	45.2%
	0	0	0	0	0.9	57.7%	57.1%
	0	0	0	0.8	0.8	78.8%	78.0%
	0	0	0.8	0.8	0.8	76.6%	75.8%
	0	0.5	0.5	0.5	0.5	23.8%	23.4%
	1	0.5	0	0.25	1	3.7%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	1	2	3	4	98.0%	97.3%
	0	0	0	0	3	66.5%	63.9%
	0	0	0	3	3	93.8%	92.4%
	0	0	3	3	3	94.0%	92.6%
	0	3	3	3	3	66.4%	63.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	0.5	0.0%	0.0%

Table E.128. t = 5, p = 0.5, IBD = 10, CRD = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0.2	0.5	0.6	0.9	56.5%	75.0%
	0	0	0	0	0.9	44.9%	60.3%
	0	0	0	0.8	0.8	62.8%	81.2%
	0	0	0.8	0.8	0.8	61.1%	80.4%
	0	0.8	0.8	0.8	0.8	32.0%	46.6%
	1	0.5	0	0.25	1	3.4%	3.0%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.7%	4.8%
	0	0.2	0.5	0.6	0.9	83.3%	95.3%
	0	0	0	0	0.9	64.3%	81.4%
	0	0	0	0.8	0.8	87.0%	96.7%
	0	0	0.8	0.8	0.8	84.1%	95.7%
	0	0.5	0.5	0.5	0.5	31.2%	42.9%
	1	0.5	0	0.25	1	1.0%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.4%
	0	0.2	0.5	0.6	0.9	54.8%	66.6%
	0	0	0	0	0.9	44.9%	53.7%
	0	0	0	0.8	0.8	63.0%	75.5%
	0	0	0.8	0.8	0.8	59.0%	72.3%
	0	0.8	0.8	0.8	0.8	28.5%	38.2%
	1	0.5	0	0.25	1	5.6%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.3%	5.4%
	0	1	2	3	4	22.0%	78.7%
	0	0	0	0	3	12.6%	39.7%
	0	0	0	3	3	19.0%	69.3%
	0	0	3	3	3	18.2%	69.4%
	0	3	3	3	3	12.8%	40.1%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	0.5	1.3%	0.1%

Table E.129. t = 5, p = 0.5, IBD = 10, CRD = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	63.3%	83.1%
	0	0	0	0	0.9	49.2%	67.8%
	0	0	0	0.8	0.8	71.0%	88.6%
	0	0	0.8	0.8	0.8	68.4%	87.6%
	0	0.8	0.8	0.8	0.8	38.1%	56.2%
	1	0.5	0	0.25	1	3.5%	2.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.2	0.5	0.6	0.9	90.4%	98.2%
	0	0	0	0	0.9	73.3%	89.0%
	0	0	0	0.8	0.8	92.4%	98.8%
	0	0	0.8	0.8	0.8	90.2%	98.3%
	0	0.5	0.5	0.5	0.5	36.0%	50.6%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	6.2%	5.6%
	0	0.2	0.5	0.6	0.9	63.3%	76.5%
	0	0	0	0	0.9	51.7%	62.5%
	0	0	0	0.8	0.8	71.9%	83.0%
	0	0	0.8	0.8	0.8	68.3%	80.7%
	0	0.8	0.8	0.8	0.8	33.2%	45.5%
	1	0.5	0	0.25	1	5.1%	3.8%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.8%	5.0%
	0	1	2	3	4	12.4%	79.8%
	0	0	0	0	3	9.0%	40.7%
	0	0	0	3	3	11.2%	69.7%
	0	0	3	3	3	11.5%	69.3%
	0	3	3	3	3	9.0%	40.4%
	4	3	2	1	0	1.6%	0.0%
	4	1	0	1	0.15	2.1%	0.0%

Table E.130. t = 5, p = 0.5, IBD = 6, CRD = 18

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.5	0.6	0.9	65.4%	78.0%
	0	0	0	0	0.9	51.1%	62.0%
	0	0	0	0.8	0.8	72.6%	84.2%
	0	0	0.8	0.8	0.8	70.5%	83.1%
	0	0.8	0.8	0.8	0.8	39.1%	50.7%
	1	0.5	0	0.25	1	3.0%	2.6%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	91.5%	96.5%
	0	0	0	0	0.9	75.2%	84.9%
	0	0	0	0.8	0.8	94.0%	97.9%
	0	0	0.8	0.8	0.8	90.9%	97.0%
	0	0.5	0.5	0.5	0.5	37.4%	46.1%
	1	0.5	0	0.25	1	0.8%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.9%	5.5%
	0	0.2	0.5	0.6	0.9	66.1%	72.7%
	0	0	0	0	0.9	55.6%	59.2%
	0	0	0	0.8	0.8	75.1%	80.4%
	0	0	0.8	0.8	0.8	71.5%	78.1%
	0	0.8	0.8	0.8	0.8	35.7%	42.2%
	1	0.5	0	0.25	1	4.7%	3.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.8%
	0	1	2	3	4	7.8%	59.4%
	0	0	0	0	3	6.6%	28.3%
	0	0	0	3	3	7.4%	48.9%
	0	0	3	3	3	7.8%	49.8%
	0	3	3	3	3	6.2%	28.0%
	4	3	2	1	0	3.1%	0.0%
	4	1	0	1	2	4.3%	0.9%

Table E.131. t = 5, p = 0.5, IBD = 18, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.2	0.5	0.6	0.9	76.0%	80.7%
	0	0	0	0	0.9	61.1%	65.3%
	0	0	0	0.8	0.8	82.7%	86.9%
	0	0	0.8	0.8	0.8	82.2%	86.2%
	0	0.8	0.8	0.8	0.8	47.6%	52.5%
	1	0.5	0	0.25	1	3.3%	2.9%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.8%	4.7%
	0	0.2	0.5	0.6	0.9	95.1%	97.3%
	0	0	0	0	0.9	82.7%	86.5%
	0	0	0	0.5	0.5	78.4%	82.6%
	0	0	0.5	0.5	0.5	75.0%	79.4%
	0	0.5	0.5	0.5	0.5	42.6%	46.3%
	1	0.5	0	0.25	1	0.9%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.6%	5.5%
	0	0.2	0.5	0.6	0.9	66.7%	70.5%
	0	0	0	0	0.9	54.9%	57.5%
	0	0	0	0.8	0.8	74.7%	78.1%
	0	0	0.8	0.8	0.8	72.8%	76.4%
	0	0.8	0.8	0.8	0.8	38.5%	41.5%
	1	0.5	0	0.25	1	4.6%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	4.9%	4.7%
	0	1	2	3	4	89.7%	95.7%
	0	0	0	0	3	50.7%	60.6%
	0	0	0	3	3	80.1%	90.0%
	0	0	3	3	3	80.7%	90.1%
	0	3	3	3	3	49.2%	59.4%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.3%	0.1%

Table E.132. t = 5, p = 0.5, IBD = 12, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.2%
	0	0.2	0.5	0.6	0.9	60.1%	69.2%
	0	0	0	0	0.9	47.1%	54.4%
	0	0	0	0.8	0.8	69.3%	77.0%
	0	0	0.8	0.8	0.8	67.3%	76.1%
	0	0.8	0.8	0.8	0.8	34.3%	42.0%
	1	0.5	0	0.25	1	3.6%	3.2%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0.2	0.5	0.6	0.9	87.1%	92.4%
	0	0	0	0	0.9	68.2%	76.3%
	0	0	0	0.5	0.5	63.0%	71.4%
	0	0	0.5	0.5	0.5	61.1%	69.9%
	0	0.5	0.5	0.5	0.5	32.1%	37.5%
	1	0.5	0	0.25	1	1.1%	0.9%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.4%	5.0%
	0	0.2	0.5	0.6	0.9	54.7%	61.0%
	0	0	0	0	0.9	44.4%	49.1%
	0	0	0	0.8	0.8	62.4%	68.7%
	0	0	0.8	0.8	0.8	59.3%	65.6%
	0	0.8	0.8	0.8	0.8	28.6%	33.4%
	1	0.5	0	0.25	1	4.9%	4.4%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.4%	5.3%
	0	1	2	3	4	64.0%	85.6%
	0	0	0	0	3	30.7%	45.5%
	0	0	0	3	3	53.7%	76.2%
	0	0	3	3	3	54.4%	76.8%
	0	3	3	3	3	30.5%	44.9%
	4	3	2	1	0	0.0%	0.0%
	4	1	0	1	2	0.8%	0.3%

Table E.133. t = 5, p = 0.5, IBD = 6, CRD = 12

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.4%
	0	0.2	0.5	0.6	0.9	52.8%	68.2%
	0	0	0	0	0.9	40.7%	52.6%
	0	0	0	0.8	0.8	60.0%	75.2%
	0	0	0.8	0.8	0.8	57.7%	74.1%
	0	0.8	0.8	0.8	0.8	29.7%	41.5%
	1	0.5	0	0.25	1	4.2%	3.1%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0.2	0.5	0.6	0.9	81.8%	92.5%
	0	0	0	0	0.9	61.6%	76.0%
	0	0	0	0.5	0.5	56.3%	71.2%
	0	0	0.5	0.5	0.5	55.3%	68.8%
	0	0.5	0.5	0.5	0.5	29.5%	38.9%
	1	0.5	0	0.25	1	1.0%	0.8%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.8%	5.2%
	0	0.2	0.5	0.6	0.9	54.1%	63.0%
	0	0	0	0	0.9	44.1%	50.0%
	0	0	0	0.8	0.8	62.3%	70.8%
	0	0	0.8	0.8	0.8	58.5%	68.1%
	0	0.8	0.8	0.8	0.8	27.5%	35.0%
	1	0.5	0	0.25	1	5.4%	4.0%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.5%	5.0%
	0	1	2	3	4	11.2%	60.1%
	0	0	0	0	3	8.2%	28.6%
	0	0	0	3	3	10.3%	49.9%
	0	0	3	3	3	9.7%	49.3%
	0	3	3	3	3	8.0%	28.0%
	4	3	2	1	0	1.8%	0.0%
	4	1	0	1	2	3.4%	0.8%

Table E.134. t = 5, p = 0.5, IBD = 12, CRD = 12

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.9%
	0	0.2	0.5	0.6	0.9	61.4%	82.5%
	0	0	0	0	0.9	49.1%	67.7%
	0	0	0	0.8	0.8	68.5%	87.8%
	0	0	0.8	0.8	0.8	66.4%	87.0%
	0	0.8	0.8	0.8	0.8	35.9%	54.6%
	1	0.5	0	0.25	1	3.5%	2.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.2	0.5	0.6	0.9	88.1%	97.9%
	0	0	0	0	0.9	70.0%	88.1%
	0	0	0	0.5	0.5	64.2%	83.8%
	0	0	0.5	0.5	0.5	62.7%	81.6%
	0	0.5	0.5	0.5	0.5	33.2%	49.1%
	1	0.5	0	0.25	1	0.9%	0.5%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.7%	5.2%
	0	0.2	0.5	0.6	0.9	60.9%	75.3%
	0	0	0	0	0.9	48.2%	60.8%
	0	0	0	0.8	0.8	69.2%	82.3%
	0	0	0.8	0.8	0.8	65.3%	80.5%
	0	0.8	0.8	0.8	0.8	32.8%	45.4%
	1	0.5	0	0.25	1	5.2%	3.7%
	2	1	0	1	0.5	0.0%	0.0%
Cauchy	0	0	0	0	0	5.2%	5.3%
	0	1	2	3	4	20.3%	85.8%
	0	0	0	0	3	12.0%	45.3%
	0	0	0	3	3	17.6%	75.6%
	0	0	3	3	3	18.1%	76.7%
	0	3	3	3	3	12.4%	45.5%
	4	3	2	1	0	0.6%	0.0%
	4	1	0	1	2	2.4%	0.3%

Table E.135. t = 5, p = 0.5, IBD = 6, CRD = 6

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.7%
	0	0.2	0.5	0.6	0.9	43.4%	54.0%
	0	0	0	0	0.9	33.3%	40.5%
	0	0	0	0.8	0.8	49.7%	60.0%
	0	0	0.8	0.8	0.8	47.1%	58.9%
	0	0.8	0.8	0.8	0.8	23.2%	29.6%
	1	0.5	0	0.25	1	4.4%	3.5%
	2	1	0	1	0.5	0.0%	0.0%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.2	0.5	0.6	0.9	67.7%	78.9%
	0	0	0	0	0.9	50.4%	59.2%
	0	0	0	0.5	0.5	46.1%	55.7%
	0	0	0.5	0.5	0.5	44.2%	53.5%
	0	0.5	0.5	0.5	0.5	23.1%	28.8%
	1	0.5	0	0.25	1	1.4%	1.1%
	2	1	0	1	0.5	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.8%	5.2%
	0	0.2	0.5	0.6	0.9	40.9%	47.0%
	0	0	0	0	0.9	33.8%	37.4%
	0	0	0	0.8	0.8	48.8%	54.9%
	0	0	0.8	0.8	0.8	44.2%	51.5%
	0	0.8	0.8	0.8	0.8	20.8%	24.9%
	1	0.5	0	0.25	1	5.6%	5.0%
	2	1	0	1	0.5	0.1%	0.0%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	1	2	3	4	28.1%	60.4%
	0	0	0	0	3	14.6%	27.6%
	0	0	0	3	3	23.8%	50.2%
	0	0	3	3	3	22.8%	48.7%
	0	3	3	3	3	14.7%	27.6%
	4	3	2	1	0	0.3%	0.0%
	4	1	0	1	2	1.9%	0.8%

APPENDIX F. MACK – WOLFE AND ALVO POWER COMPARISON – UNEQUAL VARIANCES

F.1. Three Treatments – Peak at Two

F.1.1. Probability of Missing = 0.1

Table F.1. t = 3, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.8%
	0	0.7	0	49.2%	73.8%
	0	0.5	0.4	17.1%	24.5%
	0.4	0.5	0	16.2%	24.5%
	0.1	0.2	0.3	5.1%	4.9%
	0.6	0.2	0.8	0.4%	0.1%
Exponential	0	0	0	5.1%	5.0%
	0	0.5	0	55.3%	79.7%
	0	0.5	0.5	20.7%	31.9%
	0.4	0.5	0	27.0%	42.8%
	0.1	0.2	0.3	5.0%	5.3%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.7	0	36.5%	57.5%
	0	0.5	0.5	11.6%	16.3%
	0.4	0.5	0	13.8%	19.3%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.6%	0.2%
Cauchy	0	0	0	4.6%	4.7%
	0	1	0	35.4%	54.5%
	0	0.5	0.5	9.0%	11.5%
	0.4	0.5	0	10.6%	14.2%
	0.1	0.2	0.3	5.1%	5.4%
	0.6	0.2	0.8	1.1%	0.4%

Table F.2. t = 3, Pk = 2, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.7%
	0	0.7	0	48.4%	66.4%
	0	0.5	0.4	16.4%	22.1%
	0.4	0.5	0	16.6%	22.2%
	0.1	0.2	0.3	4.8%	4.5%
	0.6	0.2	0.8	0.3%	0.0%
Exponential	0	0	0	4.9%	5.4%
	0	0.5	0	53.1%	71.8%
	0	0.5	0.4	26.6%	37.2%
	0.4	0.5	0	26.5%	36.3%
	0.1	0.2	0.3	5.3%	5.0%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.2%
	0	0.7	0	36.3%	51.0%
	0	0.5	0.4	14.6%	18.9%
	0.4	0.5	0	14.1%	17.0%
	0.1	0.2	0.3	4.8%	5.0%
	0.6	0.2	0.8	0.6%	0.3%
Cauchy	0	0	0	5.2%	5.0%
	0	1	0	34.4%	48.3%
	0	0.5	0.4	9.6%	12.1%
	0.4	0.5	0	10.4%	12.0%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	1.3%	0.7%

Table F.3. t = 3, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.9%
	0	0.7	0	46.0%	55.1%
	0	0.5	0.4	15.8%	18.4%
	0.4	0.5	0	16.5%	18.5%
	0.1	0.2	0.3	4.8%	4.7%
	0.6	0.2	0.8	0.3%	0.2%

(continues)

Table F.3. t = 3, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 15 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.0%	5.0%
	0	0.5	0	52.0%	60.3%
	0	0.5	0.4	26.0%	30.3%
	0.4	0.5	0	24.6%	30.4%
	0.1	0.2	0.3	4.5%	4.5%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.1%	5.3%
	0	0.7	0	35.1%	41.1%
	0	0.5	0.4	13.6%	14.9%
	0.4	0.5	0	13.1%	15.4%
	0.1	0.2	0.3	5.3%	5.3%
	0.6	0.2	0.8	0.6%	0.3%
Cauchy	0	0	0	4.7%	4.8%
	0	1	0	33.9%	39.7%
	0	0.5	0.4	10.5%	11.5%
	0.4	0.5	0	10.0%	11.2%
	0.1	0.2	0.3	5.3%	5.4%
	0.6	0.2	0.8	1.4%	1.0%

Table F.4. T = 3, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.8%
	0	0.7	0	40.8%	65.8%
	0	0.5	0.5	12.9%	17.8%
	0.4	0.5	0	14.8%	22.6%
	0.1	0.2	0.3	4.8%	5.1%
	0.6	0.2	0.8	0.4%	0.1%
Exponential	0	0	0	5.1%	4.8%
	0	0.5	0	45.1%	72.0%
	0	0.5	0.5	17.8%	27.6%
	0.4	0.5	0	22.2%	36.8%
	0.1	0.2	0.3	4.7%	4.8%
	0.6	0.2	0.8	0.2%	0.0%

(continues)

Table F.4. T = 3, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 10 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.7%	4.5%
	0	0.7	0	31.5%	52.4%
	0	0.5	0.5	11.0%	14.9%
	0.4	0.5	0	12.7%	17.5%
	0.1	0.2	0.3	4.6%	4.9%
	0.6	0.2	0.8	0.7%	0.2%
Cauchy	0	0	0	5.1%	5.0%
	0	1	0	30.4%	48.6%
	0	0.5	0.5	8.7%	11.5%
	0.4	0.5	0	9.7%	12.7%
	0.1	0.2	0.3	4.7%	4.8%
	0.6	0.2	0.8	1.4%	0.7%

Table F.5. T = 3, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.0%
	0	0.7	0	39.9%	56.7%
	0	0.5	0.5	12.1%	15.0%
	0.15	0.15	0	7.0%	7.1%
	0.1	0.2	0.3	5.3%	5.1%
	0.6	0.2	0.8	0.3%	0.2%
Exponential	0	0	0	5.0%	5.0%
	0	0.5	0	43.7%	61.5%
	0	0.5	0.5	16.8%	22.9%
	0.4	0.5	0	22.1%	31.1%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.2%	0.1%
T with 3 df.	0	0	0	5.3%	5.1%
	0	0.7	0	29.8%	42.0%
	0	0.5	0.5	10.6%	13.1%
	0.4	0.5	0	11.7%	14.9%
	0.1	0.2	0.3	4.7%	4.8%
	0.6	0.2	0.8	0.6%	0.4%

(continues)

Table F.5. T = 3, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 5 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.6%	5.5%
	0	1	0	29.0%	40.2%
	0	0.5	0.5	8.6%	9.8%
	0.4	0.5	0	10.0%	12.0%
	0.1	0.2	0.3	5.2%	5.2%
	0.6	0.2	0.8	1.3%	1.0%

Table F.6. t = 3, Pk = 2, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.9%
	0	0.7	0	69.4%	82.6%
	0	0.5	0.4	24.2%	29.2%
	0.4	0.4	0	15.6%	18.4%
	0.1	0.2	0.3	4.7%	4.7%
	0.6	0.2	0.8	0.1%	0.0%
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	74.7%	86.9%
	0	0.5	0.4	39.7%	50.6%
	0.4	0.5	0	39.9%	50.5%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	4.8%	4.8%
	0	0.7	0	53.9%	67.2%
	0	0.5	0.4	18.8%	23.1%
	0.4	0.5	0	18.1%	22.3%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.2%	0.0%
Cauchy	0	0	0	5.0%	5.0%
	0	1	0	50.9%	63.8%
	0	0.5	0.4	13.4%	15.6%
	0.4	0.5	0	13.3%	15.5%
	0.1	0.2	0.3	5.0%	4.7%
	0.6	0.2	0.8	0.6%	0.3%

Table F.7. t = 3, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	80.1%	78.7%
	0	0.5	0.4	27.4%	27.8%
	0.4	0.5	0	28.8%	27.9%
	0.6	0.2	0.8	0.0%	0.0%
Exponential	0	0	0	5.0%	4.9%
	0	0.5	0	87.6%	85.4%
	0	0.5	0.4	49.6%	48.5%
	0.4	0.5	0	50.6%	48.9%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.7	0	64.5%	63.4%
	0	0.5	0.4	21.9%	21.5%
	0.4	0.5	0	22.2%	21.4%
	0.1	0.2	0.3	5.1%	4.7%
	0.6	0.2	0.8	0.1%	0.1%
Cauchy	0	0	0	4.9%	5.3%
	0	1	0	62.1%	61.2%
	0	0.5	0.4	14.3%	14.2%
	0.4	0.5	0	14.8%	14.7%
	0.1	0.2	0.3	5.3%	4.8%
	0.6	0.2	0.8	0.4%	0.5%

F.1.2. Probability of Missing = 0.2

Table F.8. t = 3, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.7%	4.9%
	0	0.7	0	48.8%	71.5%
	0	0.5	0.4	16.9%	24.4%
	0.4	0.5	0	16.9%	24.0%
	0.1	0.2	0.3	5.0%	5.4%
	0.6	0.2	0.8	0.3%	0.1%

(continues)

Table F.8. t = 3, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 15 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	4.9%	4.7%
	0	0.5	0	55.0%	77.9%
	0	0.5	0.5	20.4%	29.7%
	0.4	0.5	0	26.7%	40.4%
	0.1	0.2	0.3	4.9%	5.1%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.0%	5.1%
	0	0.7	0	36.7%	55.7%
	0	0.5	0.5	11.7%	15.6%
	0.4	0.5	0	13.7%	18.9%
	0.1	0.2	0.3	5.2%	4.8%
	0.6	0.2	0.8	0.5%	0.1%
Cauchy	0	0	0	5.0%	5.2%
	0	1	0	35.0%	52.6%
	0	0.5	0.5	9.3%	11.3%
	0.4	0.5	0	10.5%	12.7%
	0.1	0.2	0.3	4.9%	5.1%
	0.6	0.2	0.8	1.1%	0.5%

Table F.9. t = 3, Pk = 2, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.2%
	0	0.7	0	47.1%	64.0%
	0	0.5	0.4	16.7%	21.0%
	0.4	0.5	0	16.3%	21.1%
	0.1	0.2	0.3	4.8%	4.9%
	0.6	0.2	0.8	0.2%	0.0%
Exponential	0	0	0	4.8%	4.7%
	0	0.5	0	52.3%	69.2%
	0	0.5	0.4	26.0%	35.7%
	0.4	0.5	0	25.8%	35.4%
	0.1	0.2	0.3	4.9%	4.7%
	0.6	0.2	0.8	0.1%	0.0%

(continues)

Table F.9. t = 3, Pk = 2, p = 0.2, IBD = 10, CRD Sample = 15 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.1%	4.9%
	0	0.7	0	34.6%	48.9%
	0	0.5	0.4	13.5%	16.6%
	0.4	0.5	0	13.3%	17.0%
	0.1	0.2	0.3	4.8%	4.6%
	0.6	0.2	0.8	0.6%	0.2%
Cauchy	0	0	0	4.9%	5.0%
	0	1	0	33.4%	46.0%
	0	0.5	0.4	9.6%	12.0%
	0.4	0.5	0	9.8%	11.9%
	0.1	0.2	0.3	5.2%	5.0%
	0.6	0.2	0.8	1.3%	0.7%

Table F.10. T = 3, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.0%
	0	0.7	0	46.0%	53.2%
	0	0.5	0.4	15.8%	18.2%
	0.4	0.5	0	16.2%	18.0%
	0.1	0.2	0.3	4.9%	5.3%
	0.6	0.2	0.8	0.4%	0.2%
Exponential	0	0	0	5.1%	4.8%
	0	0.5	0	51.4%	57.7%
	0	0.5	0.4	25.2%	29.0%
	0.4	0.5	0	24.7%	28.5%
	0.1	0.2	0.3	4.9%	5.1%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.2%	5.3%
	0	0.7	0	34.1%	39.4%
	0	0.5	0.4	12.5%	14.3%
	0.4	0.5	0	13.3%	14.7%
	0.1	0.2	0.3	4.9%	5.3%
	0.6	0.2	0.8	0.4%	0.3%

(continues)

Table F.10. T = 3, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 15 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.2%	4.9%
	0	1	0	33.2%	37.9%
	0	0.5	0.4	10.1%	11.2%
	0.4	0.5	0	10.3%	11.2%
	0.1	0.2	0.3	4.9%	5.2%
	0.6	0.2	0.8	1.5%	1.1%

Table F.11. t = 3, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	40.1%	63.1%
	0	0.5	0.5	13.2%	17.5%
	0.4	0.5	0	14.3%	21.1%
	0.1	0.2	0.3	5.4%	5.2%
	0.6	0.2	0.8	0.3%	0.1%
Exponential	0	0	0	4.9%	4.3%
	0	0.5	0	45.0%	69.8%
	0	0.5	0.5	17.2%	26.8%
	0.4	0.5	0	21.9%	34.9%
	0.1	0.2	0.3	4.7%	4.5%
	0.6	0.2	0.8	0.2%	0.0%
T with 3 df.	0	0	0	5.7%	5.7%
	0	0.7	0	29.9%	48.2%
	0	0.5	0.5	10.8%	14.3%
	0.4	0.5	0	12.2%	17.1%
	0.1	0.2	0.3	5.1%	5.4%
	0.6	0.2	0.8	0.7%	0.3%
Cauchy	0	0	0	4.7%	4.9%
	0	1	0	29.3%	46.3%
	0	0.5	0.5	8.0%	10.3%
	0.4	0.5	0	9.6%	12.3%
	0.1	0.2	0.3	5.3%	5.0%
	0.6	0.2	0.8	1.3%	0.8%

Table F.12. t = 3, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.1%
	0	0.7	0	37.5%	53.2%
	0	0.5	0.5	12.3%	15.4%
	0.15	0.15	0	7.1%	7.7%
	0.1	0.2	0.3	5.2%	5.1%
	0.6	0.2	0.8	0.5%	0.1%
Exponential	0	0	0	5.4%	5.5%
	0	0.5	0	40.4%	58.2%
	0	0.5	0.5	15.6%	21.3%
	0.4	0.5	0	20.5%	28.6%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.2%	0.0%
T with 3 df.	0	0	0	5.0%	4.9%
	0	0.7	0	27.8%	40.2%
	0	0.5	0.5	9.9%	11.9%
	0.4	0.5	0	12.4%	15.4%
	0.1	0.2	0.3	5.2%	5.1%
	0.6	0.2	0.8	0.8%	0.4%
Cauchy	0	0	0	5.3%	5.3%
	0	1	0	27.1%	38.2%
	0	0.5	0.5	8.3%	9.5%
	0.4	0.5	0	9.5%	11.1%
	0.1	0.2	0.3	4.7%	4.9%
	0.6	0.2	0.8	1.5%	0.9%

Table F.13. t = 3, Pk = 2, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	64.8%	80.0%
	0	0.5	0.4	21.2%	27.3%
	0.4	0.4	0	14.9%	17.6%
	0.1	0.2	0.3	5.2%	4.8%
	0.6	0.2	0.8	0.1%	0.1%

(continues)

Table F.13. t = 3, Pk = 2, p = 0.2, IBD = 40, CRD Sample = 5 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.0%	4.9%
	0	0.5	0	69.8%	83.5%
	0	0.5	0.4	35.3%	46.5%
	0.4	0.5	0	36.7%	47.7%
	0.1	0.2	0.3	4.9%	4.8%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.7	0	49.4%	63.6%
	0	0.5	0.4	17.0%	20.9%
	0.4	0.5	0	17.5%	21.5%
	0.1	0.2	0.3	4.6%	4.5%
	0.6	0.2	0.8	0.2%	0.1%
Cauchy	0	0	0	4.9%	5.0%
	0	1	0	47.0%	60.2%
	0	0.5	0.4	12.5%	14.6%
	0.4	0.5	0	12.8%	15.2%
	0.1	0.2	0.3	4.8%	4.7%
	0.6	0.2	0.8	0.6%	0.3%

Table F.14. t = 3, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	80.1%	77.8%
	0	0.5	0.4	28.2%	26.8%
	0.4	0.5	0	27.3%	27.1%
	0.1	0.2	0.3	4.7%	4.9%
	0.6	0.2	0.8	0.1%	0.0%
Exponential	0	0	0	5.1%	4.7%
	0	0.5	0	87.9%	84.8%
	0	0.5	0.4	49.7%	47.3%
	0.4	0.5	0	51.0%	48.6%
	0.1	0.2	0.3	4.8%	5.0%
	0.6	0.2	0.8	0.0%	0.0%

(continues)

Table F.14. t = 3, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 40 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.3%	4.8%
	0	0.7	0	64.5%	62.7%
	0	0.5	0.4	22.0%	21.6%
	0.4	0.5	0	22.5%	21.2%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.1%	0.2%
Cauchy	0	0	0	5.3%	5.0%
	0	1	0	61.7%	59.7%
	0	0.5	0.4	15.0%	13.9%
	0.4	0.5	0	14.9%	14.3%
	0.1	0.2	0.3	5.1%	5.2%
	0.6	0.2	0.8	0.2%	0.3%

F.1.3. Probability of Missing = 0.3

Table F.15. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.5%
	0	0.7	0	47.1%	68.4%
	0	0.5	0.4	17.3%	23.2%
	0.4	0.5	0	17.6%	23.1%
	0.6	0.2	0.8	0.3%	0.0%
Exponential	0	0	0	5.1%	4.8%
	0	0.5	0	53.8%	74.6%
	0	0.5	0.5	20.1%	29.0%
	0.4	0.5	0	26.8%	38.8%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	4.7%	4.8%
	0	0.7	0	37.2%	54.4%
	0	0.5	0.5	11.7%	15.6%
	0.4	0.5	0	13.4%	18.9%
	0.1	0.2	0.3	4.7%	4.9%
	0.6	0.2	0.8	0.5%	0.2%

(continues)

Table F.15. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 15 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.1%	5.2%
	0	1	0	34.4%	51.4%
	0	0.5	0.5	8.8%	11.2%
	0.4	0.5	0	10.7%	12.7%
	0.1	0.2	0.3	4.7%	4.9%
	0.6	0.2	0.8	1.1%	0.6%

Table F.16. t = 3, Pk = 2, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.7	0	46.7%	61.4%
	0	0.5	0.4	16.2%	20.7%
	0.4	0.5	0	16.0%	20.3%
	0.1	0.2	0.3	5.2%	5.2%
	0.6	0.2	0.8	0.3%	0.1%
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	53.3%	67.7%
	0	0.5	0.4	25.5%	33.8%
	0.4	0.5	0	25.5%	34.1%
	0.1	0.2	0.3	4.8%	4.9%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.1%	5.2%
	0	0.7	0	34.8%	46.0%
	0	0.5	0.4	13.3%	17.1%
	0.4	0.5	0	13.6%	16.7%
	0.1	0.2	0.3	5.0%	4.9%
	0.6	0.2	0.8	0.6%	0.2%
Cauchy	0	0	0	4.8%	5.2%
	0	1	0	34.7%	45.0%
	0	0.5	0.4	9.9%	11.9%
	0.4	0.5	0	10.3%	12.3%
	0.1	0.2	0.3	5.0%	5.2%
	0.6	0.2	0.8	1.3%	0.9%

Table F.17. t = 3, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.0%
	0	0.7	0	45.9%	52.5%
	0	0.5	0.4	15.3%	17.7%
	0.4	0.5	0	15.6%	17.3%
	0.1	0.2	0.3	4.9%	5.1%
	0.6	0.2	0.8	0.4%	0.2%
Exponential	0	0	0	5.1%	4.9%
	0	0.5	0	51.1%	57.4%
	0	0.5	0.4	24.8%	28.3%
	0.4	0.5	0	25.6%	28.6%
	0.1	0.2	0.3	4.9%	5.2%
	0.6	0.2	0.8	0.2%	0.1%
T with 3 df.	0	0	0	4.9%	4.7%
	0	0.7	0	34.4%	38.9%
	0	0.5	0.4	13.2%	14.0%
	0.4	0.5	0	13.1%	14.0%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.5%	0.5%
Cauchy	0	0	0	5.4%	5.1%
	0	1	0	32.3%	36.3%
	0	0.5	0.4	10.3%	11.2%
	0.4	0.5	0	10.8%	10.9%
	0.1	0.2	0.3	5.2%	5.0%
	0.6	0.2	0.8	1.3%	1.0%

Table F.18. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.4%	5.6%
	0	0.7	0	39.4%	60.8%
	0	0.5	0.5	12.5%	16.9%
	0.4	0.5	0	13.9%	19.6%
	0.1	0.2	0.3	5.0%	4.8%
	0.6	0.2	0.8	0.4%	0.1%

(continues)

Table F.18. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 10 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.4%
	0	0.5	0	44.6%	67.8%
	0	0.5	0.5	17.4%	25.7%
	0.4	0.5	0	22.3%	34.4%
	0.1	0.2	0.3	5.4%	5.6%
	0.6	0.2	0.8	0.2%	0.0%
T with 3 df.	0	0	0	5.1%	5.5%
	0	0.7	0	30.8%	47.9%
	0	0.5	0.5	10.7%	14.0%
	0.4	0.5	0	12.4%	16.8%
	0.1	0.2	0.3	4.9%	4.8%
	0.6	0.2	0.8	0.7%	0.2%
Cauchy	0	0	0	5.2%	5.2%
	0	1	0	29.5%	44.9%
	0	0.5	0.5	9.3%	11.0%
	0.4	0.5	0	9.0%	11.9%
	0.1	0.2	0.3	5.3%	5.2%
	0.6	0.2	0.8	1.4%	0.7%

Table F.19. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.7	0	35.8%	52.1%
	0	0.5	0.5	11.1%	14.0%
	0.15	0.15	0	6.8%	7.8%
	0.1	0.2	0.3	5.0%	4.9%
	0.6	0.2	0.8	0.8%	0.3%
Exponential	0	0	0	4.8%	4.8%
	0	0.5	0	37.9%	54.9%
	0	0.5	0.5	15.4%	21.0%
	0.4	0.5	0	18.7%	27.8%
	0.1	0.2	0.3	4.6%	4.9%
	0.6	0.2	0.8	0.2%	0.1%

(continues)

Table F.19. t = 3, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 5 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.0%	5.0%
	0	0.7	0	27.8%	39.7%
	0	0.5	0.5	10.4%	12.7%
	0.4	0.5	0	11.4%	14.7%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	0.8%	0.5%
Cauchy	0	0	0	5.3%	5.0%
	0	1	0	26.1%	36.3%
	0	0.5	0.5	8.6%	9.6%
	0.4	0.5	0	8.9%	10.9%
	0.1	0.2	0.3	5.4%	5.4%
	0.6	0.2	0.8	1.6%	1.1%

Table F.20. t = 3, Pk = 2, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	5.1%
	0	0.7	0	60.5%	76.4%
	0	0.5	0.4	20.7%	26.7%
	0.4	0.4	0	13.5%	16.9%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.1%	0.1%
Exponential	0	0	0	4.6%	4.6%
	0	0.5	0	65.8%	80.8%
	0	0.5	0.4	33.5%	44.7%
	0.4	0.5	0	33.6%	44.6%
	0.1	0.2	0.3	4.7%	4.7%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	5.2%	5.4%
	0	0.7	0	46.6%	60.4%
	0	0.5	0.4	16.6%	21.0%
	0.4	0.5	0	17.1%	20.9%
	0.1	0.2	0.3	4.9%	5.0%
	0.6	0.2	0.8	0.3%	0.1%

(continues)

Table F.20. t = 3, Pk = 2, p = 0.3, IBD = 40, CRD Sample = 5 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.0%	5.1%
	0	1	0	43.7%	57.6%
	0	0.5	0.4	11.9%	14.2%
	0.4	0.5	0	11.7%	14.1%
	0.1	0.2	0.3	5.1%	5.2%
	0.6	0.2	0.8	0.9%	0.4%

Table F.21. t = 3, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.1%	4.8%
	0	0.7	0	79.9%	76.5%
	0	0.5	0.4	27.6%	25.9%
	0.4	0.5	0	28.0%	26.5%
	0.1	0.2	0.3	5.1%	4.7%
	0.6	0.2	0.8	0.0%	0.0%
Exponential	0	0	0	5.2%	5.5%
	0	0.5	0	87.3%	82.7%
	0	0.5	0.4	49.4%	46.7%
	0.4	0.5	0	49.5%	46.0%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	4.6%	5.0%
	0	0.7	0	64.4%	60.6%
	0	0.5	0.4	21.4%	21.0%
	0.4	0.5	0	21.3%	21.1%
	0.1	0.2	0.3	4.9%	5.4%
	0.6	0.2	0.8	0.1%	0.1%
Cauchy	0	0	0	4.9%	4.8%
	0	1	0	61.8%	59.1%
	0	0.5	0.4	14.6%	14.6%
	0.4	0.5	0	14.7%	14.5%
	0.1	0.2	0.3	4.8%	5.4%
	0.6	0.2	0.8	0.3%	0.4%

F.1.4. Probability of Missing = 0.4

Table F.22. t = 3, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.9%	4.7%
	0	0.7	0	46.9%	67.3%
	0	0.5	0.4	16.3%	23.5%
	0.4	0.5	0	16.9%	22.1%
	0.6	0.2	0.8	0.3%	0.1%
Exponential	0	0	0	5.2%	5.3%
	0	0.5	0	54.4%	73.3%
	0	0.5	0.5	20.3%	28.2%
	0.4	0.5	0	25.2%	36.9%
	0.1	0.2	0.3	5.1%	4.9%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.0%	5.2%
	0	0.7	0	35.9%	52.1%
	0	0.5	0.5	11.7%	14.8%
	0.4	0.5	0	13.9%	18.3%
	0.6	0.2	0.8	0.6%	0.3%
Cauchy	0	0	0	5.2%	5.0%
	0	1	0	34.8%	48.8%
	0	0.5	0.5	9.0%	11.1%
	0.4	0.5	0	10.3%	11.8%
	0.1	0.2	0.3	4.9%	4.8%
	0.6	0.2	0.8	1.2%	0.7%

Table F.23. t = 3, Pk = 2, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.9%
	0	0.7	0	46.7%	61.1%
	0	0.5	0.4	17.0%	20.5%
	0.4	0.5	0	16.3%	20.5%
	0.1	0.2	0.3	5.3%	5.3%
	0.6	0.2	0.8	0.3%	0.1%

(continues)

Table F.23. t = 3, Pk = 2, p = 0.4, IBD = 10, CRD Sample = 15 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	5.0%	5.0%
	0	0.5	0	52.1%	66.1%
	0	0.5	0.4	25.3%	33.6%
	0.4	0.5	0	26.0%	34.0%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.2%	4.9%
	0	0.7	0	34.8%	46.2%
	0	0.5	0.4	13.2%	16.1%
	0.4	0.5	0	13.1%	16.4%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	0.4%	0.3%
Cauchy	0	0	0	4.8%	4.9%
	0	1	0	34.1%	42.5%
	0	0.5	0.4	10.4%	11.9%
	0.4	0.5	0	9.8%	11.7%
	0.1	0.2	0.3	5.0%	5.1%
	0.6	0.2	0.8	1.0%	0.8%

Table F.24. t = 3, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.1%
	0	0.7	0	44.9%	50.0%
	0	0.5	0.4	15.9%	17.8%
	0.4	0.5	0	15.1%	16.9%
	0.1	0.2	0.3	4.7%	5.1%
	0.6	0.2	0.8	0.3%	0.2%
Exponential	0	0	0	5.0%	5.1%
	0	0.5	0	51.3%	56.2%
	0	0.5	0.4	25.7%	28.4%
	0.4	0.5	0	24.8%	28.1%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	0.1%	0.1%

(continues)

Table F.24. t = 3, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 15 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.9%	5.2%
	0	0.7	0	33.7%	37.7%
	0	0.5	0.4	13.4%	14.4%
	0.4	0.5	0	13.3%	14.4%
	0.1	0.2	0.3	5.2%	5.1%
	0.6	0.2	0.8	0.6%	0.4%
Cauchy	0	0	0	5.2%	4.8%
	0	1	0	33.5%	36.7%
	0	0.5	0.4	10.5%	10.6%
	0.4	0.5	0	10.3%	10.8%
	0.1	0.2	0.3	5.0%	5.1%
	0.6	0.2	0.8	1.2%	1.0%

Table F.25. t = 3, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	4.8%
	0	0.7	0	39.7%	60.3%
	0	0.5	0.5	12.8%	17.0%
	0.4	0.5	0	15.0%	20.3%
	0.1	0.2	0.3	4.7%	4.6%
	0.6	0.2	0.8	0.5%	0.1%
Exponential	0	0	0	5.3%	5.1%
	0	0.5	0	44.2%	65.5%
	0	0.5	0.5	17.0%	24.3%
	0.4	0.5	0	21.0%	32.6%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.2%	0.0%
T with 3 df.	0	0	0	5.2%	4.9%
	0	0.7	0	29.9%	45.5%
	0	0.5	0.5	10.1%	13.1%
	0.4	0.5	0	12.4%	16.0%
	0.1	0.2	0.3	5.3%	4.8%
	0.6	0.2	0.8	0.8%	0.3%

(continues)

Table F.25. t = 3, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 10 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	5.4%	5.1%
	0	1	0	28.1%	42.3%
	0	0.5	0.5	8.1%	9.8%
	0.4	0.5	0	9.1%	11.7%
	0.1	0.2	0.3	4.8%	4.8%
	0.6	0.2	0.8	1.5%	0.8%

Table F.26. t = 3, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.2%
	0	0.7	0	34.7%	49.3%
	0	0.5	0.5	11.5%	14.0%
	0.15	0.15	0	6.3%	6.8%
	0.1	0.2	0.3	4.8%	5.2%
	0.6	0.2	0.8	0.5%	0.3%
Exponential	0	0	0	5.2%	5.0%
	0	0.5	0	37.2%	53.5%
	0	0.5	0.5	14.9%	20.0%
	0.4	0.5	0	19.1%	26.5%
	0.1	0.2	0.3	4.9%	4.9%
	0.6	0.2	0.8	0.3%	0.1%
T with 3 df.	0	0	0	4.8%	4.7%
	0	0.7	0	26.7%	37.6%
	0	0.5	0.5	9.8%	12.2%
	0.4	0.5	0	11.1%	14.0%
	0.1	0.2	0.3	4.8%	5.1%
	0.6	0.2	0.8	0.7%	0.5%
Cauchy	0	0	0	5.2%	5.3%
	0	1	0	25.8%	35.7%
	0	0.5	0.5	8.0%	9.2%
	0.4	0.5	0	8.9%	10.5%
	0.1	0.2	0.3	5.3%	5.2%
	0.6	0.2	0.8	1.5%	1.1%

Table F.27. t = 3, Pk = 2, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.8%
	0	0.7	0	57.6%	74.2%
	0	0.5	0.4	19.6%	25.4%
	0.4	0.4	0	13.2%	15.8%
	0.1	0.2	0.3	5.5%	5.3%
	0.6	0.2	0.8	0.2%	0.1%
Exponential	0	0	0	5.4%	5.1%
	0	0.5	0	62.3%	79.1%
	0	0.5	0.4	31.2%	42.4%
	0.4	0.5	0	32.2%	42.9%
	0.1	0.2	0.3	4.6%	4.5%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.1%	5.1%
	0	0.7	0	43.4%	58.6%
	0	0.5	0.4	16.2%	20.0%
	0.4	0.5	0	15.7%	19.9%
	0.1	0.2	0.3	4.8%	4.9%
	0.6	0.2	0.8	0.4%	0.2%
Cauchy	0	0	0	4.4%	4.7%
	0	1	0	41.8%	55.4%
	0	0.5	0.4	11.5%	13.8%
	0.4	0.5	0	11.5%	13.4%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	0.9%	0.5%

Table F.28. t = 3, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.6%	4.8%
	0	0.7	0	80.5%	76.9%
	0	0.5	0.4	28.0%	26.4%
	0.4	0.5	0	27.5%	25.6%
	0.1	0.2	0.3	5.0%	5.1%
	0.6	0.2	0.8	0.0%	0.0%

(continues)

Table F.28. t = 3, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 40 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Exponential	0	0	0	5.1%	5.2%
	0	0.5	0	86.7%	82.1%
	0	0.5	0.4	49.4%	45.3%
	0.4	0.5	0	51.0%	45.7%
	0.1	0.2	0.3	4.9%	4.8%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	5.1%	4.7%
	0	0.7	0	65.7%	60.9%
	0	0.5	0.4	22.1%	20.5%
	0.4	0.5	0	21.5%	20.7%
	0.1	0.2	0.3	4.8%	4.8%
	0.6	0.2	0.8	0.1%	0.1%
Cauchy	0	0	0	4.8%	5.1%
	0	1	0	61.8%	57.6%
	0	0.5	0.4	15.0%	14.7%
	0.4	0.5	0	14.9%	14.6%
	0.1	0.2	0.3	5.5%	5.6%
	0.6	0.2	0.8	0.3%	0.3%

F.1.5. Probability of Missing = 0.5

Table F.29. t = 3, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.8%	5.2%
	0	0.7	0	47.1%	65.6%
	0	0.5	0.4	16.8%	22.6%
	0.4	0.5	0	16.3%	22.5%
	0.6	0.2	0.8	0.3%	0.1%
Exponential	0	0	0	4.8%	5.1%
	0	0.5	0	53.1%	71.8%
	0	0.5	0.5	20.2%	27.1%
	0.4	0.5	0	26.3%	36.6%
	0.1	0.2	0.3	5.0%	5.0%
	0.6	0.2	0.8	0.1%	0.0%

(continues)

Table F.29. t = 3, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 15 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	5.1%	4.9%
	0	0.7	0	35.9%	50.6%
	0	0.5	0.5	11.6%	15.0%
	0.4	0.5	0	13.4%	17.6%
	0.1	0.2	0.3	5.0%	4.8%
	0.6	0.2	0.8	0.5%	0.2%
Cauchy	0	0	0	5.5%	5.2%
	0	1	0	33.8%	48.2%
	0	0.5	0.5	9.1%	10.9%
	0.4	0.5	0	10.1%	12.1%
	0.1	0.2	0.3	4.8%	5.1%
	0.6	0.2	0.8	1.2%	0.7%

Table F.30. t = 3, Pk = 2, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	4.5%	4.9%
	0	0.7	0	46.0%	58.7%
	0	0.5	0.4	16.9%	21.1%
	0.4	0.5	0	16.0%	20.1%
	0.1	0.2	0.3	5.1%	4.7%
	0.6	0.2	0.8	0.2%	0.0%
Exponential	0	0	0	5.1%	5.1%
	0	0.5	0	51.7%	63.9%
	0	0.5	0.4	26.0%	32.4%
	0.4	0.5	0	25.7%	32.4%
	0.1	0.2	0.3	4.8%	4.7%
	0.6	0.2	0.8	0.1%	0.0%
T with 3 df.	0	0	0	5.3%	5.3%
	0	0.7	0	34.5%	45.2%
	0	0.5	0.4	13.6%	16.6%
	0.4	0.5	0	12.8%	16.6%
	0.1	0.2	0.3	5.2%	5.0%
	0.6	0.2	0.8	0.7%	0.3%

(continues)

Table F.30. t = 3, Pk = 2, p = 0.5, IBD = 10, CRD Sample = 15 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Cauchy	0	0	0	4.7%	5.0%
	0	1	0	33.3%	42.6%
	0	0.5	0.4	10.0%	11.8%
	0.4	0.5	0	10.2%	11.6%
	0.1	0.2	0.3	5.1%	5.0%
	0.6	0.2	0.8	0.8%	0.8%

Table F.31. t = 3, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.2%	4.8%
	0	0.7	0	43.9%	48.9%
	0	0.5	0.4	15.2%	17.0%
	0.4	0.5	0	15.6%	17.1%
	0.1	0.2	0.3	4.8%	4.8%
	0.6	0.2	0.8	0.4%	0.3%
Exponential	0	0	0	5.5%	5.1%
	0	0.5	0	51.2%	55.0%
	0	0.5	0.4	25.1%	28.1%
	0.4	0.5	0	24.7%	27.2%
	0.1	0.2	0.3	4.5%	5.1%
	0.6	0.2	0.8	0.2%	0.1%
T with 3 df.	0	0	0	5.1%	5.0%
	0	0.7	0	34.6%	37.8%
	0	0.5	0.4	13.6%	14.6%
	0.4	0.5	0	12.8%	13.9%
	0.1	0.2	0.3	5.1%	4.8%
	0.6	0.2	0.8	0.5%	0.4%
Cauchy	0	0	0	4.7%	4.9%
	0	1	0	33.2%	36.6%
	0	0.5	0.4	9.9%	10.7%
	0.4	0.5	0	10.3%	10.4%
	0.1	0.2	0.3	5.2%	5.1%
	0.6	0.2	0.8	1.1%	1.0%

Table F.32. t = 3, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.0%	5.1%
	0	0.7	0	38.2%	57.8%
	0	0.5	0.5	12.6%	16.0%
	0.4	0.5	0	14.8%	20.0%
	0.1	0.2	0.3	5.7%	5.3%
	0.6	0.2	0.8	0.4%	0.1%
Exponential	0	0	0	5.4%	5.1%
	0	0.5	0	42.2%	62.6%
	0	0.5	0.5	16.8%	24.6%
	0.4	0.5	0	22.1%	32.4%
	0.1	0.2	0.3	5.0%	4.8%
	0.6	0.2	0.8	0.2%	0.0%
T with 3 df.	0	0	0	5.2%	4.9%
	0	0.7	0	29.2%	43.5%
	0	0.5	0.5	10.7%	13.8%
	0.4	0.5	0	12.1%	15.6%
	0.1	0.2	0.3	4.9%	5.1%
	0.6	0.2	0.8	0.8%	0.3%
Cauchy	0	0	0	5.3%	4.7%
	0	1	0	28.8%	41.0%
	0	0.5	0.5	8.4%	10.1%
	0.4	0.5	0	9.2%	11.5%
	0.1	0.2	0.3	4.7%	4.9%
	0.6	0.2	0.8	1.5%	0.8%

Table F.33. t = 3, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	4.8%	4.6%
	0	0.7	0	34.0%	48.4%
	0	0.5	0.5	11.2%	13.7%
	0.15	0.15	0	6.6%	7.1%
	0.1	0.2	0.3	5.0%	5.1%
	0.6	0.2	0.8	0.6%	0.3%

(continues)

Table F.33. t = 3, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 5 (continued)

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Exponential	0	0	0	4.6%	5.2%
	0	0.5	0	35.4%	51.1%
	0	0.5	0.5	14.8%	20.5%
	0.4	0.5	0	18.5%	25.8%
	0.1	0.2	0.3	5.2%	5.5%
	0.6	0.2	0.8	0.4%	0.1%
T with 3 df.	0	0	0	5.0%	5.1%
	0	0.7	0	25.4%	35.6%
	0	0.5	0.5	9.8%	11.8%
	0.4	0.5	0	11.1%	13.6%
	0.1	0.2	0.3	5.3%	5.0%
	0.6	0.2	0.8	1.1%	0.6%
Cauchy	0	0	0	4.9%	4.9%
	0	1	0	24.4%	34.1%
	0	0.5	0.5	8.1%	9.4%
	0.4	0.5	0	8.6%	10.4%
	0.1	0.2	0.3	4.8%	5.1%
	0.6	0.2	0.8	1.8%	1.2%

Table F.34. t = 3, Pk = 2, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	Std. Last	Std. First
Normal	0	0	0	5.6%	5.3%
	0	0.7	0	54.4%	71.5%
	0	0.5	0.4	19.0%	24.8%
	0.4	0.4	0	13.1%	15.9%
	0.1	0.2	0.3	5.4%	5.5%
	0.6	0.2	0.8	0.1%	0.0%
Exponential	0	0	0	4.9%	5.0%
	0	0.5	0	59.8%	77.1%
	0	0.5	0.4	29.6%	41.1%
	0.4	0.5	0	30.5%	41.8%
	0.1	0.2	0.3	5.1%	5.1%
	0.6	0.2	0.8	0.0%	0.0%

(continues)

Table F.34. t = 3, Pk = 2, p = 0.5, IBD = 40, CRD Sample = 5 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
T with 3 df.	0	0	0	4.8%	4.8%
	0	0.7	0	41.2%	55.9%
	0	0.5	0.4	15.0%	18.6%
	0.4	0.5	0	15.4%	19.2%
	0.1	0.2	0.3	5.4%	5.2%
	0.6	0.2	0.8	0.3%	0.2%
Cauchy	0	0	0	5.0%	5.1%
	0	1	0	39.5%	53.0%
	0	0.5	0.4	11.4%	13.3%
	0.4	0.5	0	11.4%	13.3%
	0.1	0.2	0.3	4.9%	4.9%
	0.6	0.2	0.8	0.8%	0.5%

Table F.35. t = 3, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Normal	0	0	0	5.3%	5.2%
	0	0.7	0	79.6%	75.4%
	0	0.5	0.4	27.5%	25.7%
	0.4	0.5	0	27.7%	25.6%
	0.1	0.2	0.3	5.4%	4.9%
	0.6	0.2	0.8	0.0%	0.0%
Exponential	0	0	0	4.9%	5.3%
	0	0.5	0	87.3%	81.1%
	0	0.5	0.4	50.1%	45.7%
	0.4	0.5	0	50.6%	44.8%
	0.1	0.2	0.3	4.8%	4.9%
	0.6	0.2	0.8	0.0%	0.0%
T with 3 df.	0	0	0	4.9%	5.0%
	0	0.7	0	64.7%	60.3%
	0	0.5	0.4	21.9%	20.2%
	0.4	0.5	0	20.4%	19.8%
	0.1	0.2	0.3	5.2%	4.8%
	0.6	0.2	0.8	0.1%	0.1%

(continues)

Table F.35. t = 3, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 40 (continued)

Distribution	μ1	μ2	μ3	Std. Last	Std. First
Cauchy	0	0	0	4.9%	5.1%
	0	1	0	61.2%	57.1%
	0	0.5	0.4	14.0%	13.3%
	0.4	0.5	0	15.1%	14.2%
	0.1	0.2	0.3	4.8%	5.1%
	0.6	0.2	0.8	0.4%	0.4%

F.2. Four Treatments – Peak at Two

F.2.1. Probability of Missing = 0.1

Table F.36. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.6%
	0	0.8	0	0	55.8%	81.8%
	0.4	0.8	0.4	0	44.3%	69.1%
	0.4	0.8	0	0	44.5%	68.8%
	0.1	0.7	0.4	0.2	33.6%	53.1%
	0.5	0	0.5	0.5	0.3%	0.0%
	0	0.2	0.4	0.5	2.6%	1.7%
Exponential	0	0	0	0	5.1%	4.8%
	0	0.4	0	0	39.9%	63.0%
	0.2	0.4	0.2	0	33.5%	53.1%
	0.2	0.4	0	0	30.9%	50.4%
	0.1	0.7	0.4	0.2	59.7%	83.7%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.7%	0.8%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	43.3%	66.4%
	0.4	0.8	0.4	0	34.2%	54.5%
	0.4	0.8	0	0	33.1%	52.1%
	0.1	0.7	0.4	0.2	25.4%	39.7%
	0.5	0	0.5	0.5	0.5%	0.1%
	0	0.2	0.4	0.5	2.7%	2.0%

(continues)

Table F.36. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 15 (continued)

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	27.2%	42.1%
	0.4	1	0.4	0	29.4%	46.5%
	0.4	1	0	0	28.4%	44.6%
	0.2	1	0.4	0.2	26.3%	41.7%
	0.5	0	0.5	0.5	0.8%	0.5%
	0	0.2	0.4	0.5	3.5%	2.8%

Table F.37. t = 4, Pk = 2, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	55.0%	75.2%
	0.4	0.8	0.4	0	43.8%	61.3%
	0.4	0.8	0	0	42.5%	60.4%
	0.1	0.7	0.4	0.2	31.8%	45.5%
	0	0.2	0.4	0.5	2.5%	1.9%
Exponential	0	0	0	0	5.0%	5.2%
	0	0.4	0	0	38.7%	55.9%
	0.2	0.4	0.2	0	32.8%	46.0%
	0.2	0.4	0	0	29.8%	43.4%
	0.1	0.7	0.4	0.2	58.2%	77.2%
	0	0.2	0.4	0.5	1.8%	1.0%
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	41.5%	59.3%
	0.4	0.8	0.4	0	32.5%	47.2%
	0.4	0.8	0	0	32.0%	46.8%
	0.1	0.7	0.4	0.2	24.5%	34.4%
	0	0.2	0.4	0.5	3.0%	2.2%
Cauchy	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	24.6%	35.4%
	0.4	1	0.4	0	28.7%	40.1%
	0.4	1	0	0	26.9%	38.6%
	0.2	1	0.4	0.2	25.5%	35.3%
	0.5	0	0.5	0.5	1.4%	0.8%
	0	0.2	0.4	0.5	3.5%	3.2%

Table F.38. t = 4, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.4%
	0	0.8	0	0	47.8%	75.4%
	0.4	0.8	0.4	0	37.8%	62.5%
	0.4	0.8	0	0	37.7%	61.5%
	0.1	0.7	0.4	0.2	28.8%	47.7%
	0.5	0	0.5	0.5	0.4%	0.1%
	0	0.2	0.4	0.5	3.1%	2.1%
Exponential	0	0	0	0	5.3%	5.0%
	0	0.4	0	0	32.9%	56.9%
	0.2	0.4	0.2	0	28.3%	46.2%
	0.2	0.4	0	0	26.5%	44.6%
	0.1	0.7	0.4	0.2	49.3%	77.6%
	0.5	0	0.5	0.5	0.3%	0.0%
	0	0.2	0.4	0.5	1.8%	1.1%
T with 3 df.	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	36.6%	59.9%
	0.4	0.8	0.4	0	29.4%	48.3%
	0.4	0.8	0	0	28.3%	46.4%
	0.1	0.7	0.4	0.2	21.5%	35.3%
	0.5	0	0.5	0.5	0.6%	0.2%
	0	0.2	0.4	0.5	3.3%	2.5%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	22.3%	35.9%
	0.4	1	0.4	0	24.9%	40.5%
	0.4	1	0	0	24.9%	40.0%
	0.2	1	0.4	0.2	23.1%	36.9%
	0.5	0	0.5	0.5	1.5%	0.5%
	0	0.2	0.4	0.5	3.7%	3.1%

Table F.39. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.7%
	0	0.8	0	0	53.0%	62.5%
	0.4	0.8	0.4	0	41.7%	50.8%
	0.4	0.8	0	0	41.5%	50.3%
	0.1	0.7	0.4	0.2	31.4%	38.0%
	0.5	0	0.5	0.5	0.3%	0.2%
	0	0.2	0.4	0.5	2.2%	2.4%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.4	0	0	37.3%	44.9%
	0.2	0.4	0.2	0	30.7%	37.4%
	0.2	0.4	0	0	29.6%	35.8%
	0.1	0.7	0.4	0.2	56.7%	65.8%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.4%	1.3%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	40.4%	48.1%
	0.4	0.8	0.4	0	32.4%	38.9%
	0.4	0.8	0	0	31.7%	37.9%
	0.1	0.7	0.4	0.2	24.5%	29.1%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	3.0%	2.8%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	24.5%	29.7%
	0.4	1	0.4	0	27.0%	32.5%
	0.4	1	0	0	27.0%	32.2%
	0.2	1	0.4	0.2	25.4%	30.3%
	0.5	0	0.5	0.5	1.2%	1.1%
	0	0.2	0.4	0.5	3.2%	3.2%

Table F.40. t = 4, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	46.0%	65.2%
	0.4	0.8	0.4	0	37.0%	53.0%
	0.4	0.8	0	0	35.9%	51.0%
	0.1	0.7	0.4	0.2	27.8%	40.0%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.9%	2.5%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	31.0%	45.8%
	0.2	0.4	0.2	0	26.4%	38.9%
	0.2	0.4	0	0	23.8%	36.2%
	0.1	0.7	0.4	0.2	46.5%	66.6%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.0%	1.4%
T with 3 df.	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	34.9%	50.5%
	0.4	0.8	0.4	0	28.0%	40.0%
	0.4	0.8	0	0	27.6%	39.6%
	0.1	0.7	0.4	0.2	21.6%	29.8%
	0.5	0	0.5	0.5	0.7%	0.4%
	0	0.2	0.4	0.5	3.0%	2.6%
Cauchy	0	0	0	0	5.4%	5.2%
	0	0.8	0	0	22.4%	31.1%
	0.4	1	0.4	0	24.4%	34.2%
	0.4	1	0	0	24.2%	33.6%
	0.2	1	0.4	0.2	22.1%	30.8%
	0.5	0	0.5	0.5	1.5%	1.0%
	0	0.2	0.4	0.5	3.5%	3.2%

Table F.41. t = 4, Pk = 2, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.4%	4.7%
	0	0.5	0	0	54.5%	54.3%
	0.2	0.4	0.2	0	31.4%	31.5%
	0.2	0.4	0	0	31.0%	31.1%
	0.1	0.7	0.4	0.2	58.9%	59.1%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.8%	1.6%
Exponential	0	0	0	0	5.1%	4.7%
	0	0.2	0	0	30.3%	29.3%
	0.2	0.4	0.2	0	59.9%	58.8%
	0.2	0.4	0	0	58.9%	57.9%
	0.1	0.3	0.2	0.1	32.0%	31.3%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.9%
T with 3 df.	0	0	0	0	4.9%	4.8%
	0	0.5	0	0	41.2%	40.5%
	0.4	0.8	0.4	0	59.1%	58.3%
	0.4	0.8	0	0	59.4%	58.2%
	0.1	0.7	0.4	0.2	44.1%	44.4%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.1%	2.2%
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	45.0%	44.9%
	0.4	1	0.4	0	50.7%	50.8%
	0.4	1	0	0	51.8%	50.1%
	0.2	1	0.4	0.2	45.9%	44.9%
	0.5	0	0.5	0.5	0.5%	0.5%
	0	0.2	0.4	0.5	3.1%	3.0%

Table F.42. t = 4, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	77.2%	89.5%
	0.4	0.8	0.4	0	64.6%	79.5%
	0.4	0.8	0	0	62.6%	77.6%
	0.1	0.7	0.4	0.2	50.3%	62.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	2.0%	1.6%
Exponential	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	58.4%	73.3%
	0.2	0.4	0.2	0	48.9%	62.5%
	0.2	0.4	0	0	46.2%	59.7%
	0.1	0.7	0.4	0.2	79.7%	91.5%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.1%	0.8%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	62.2%	76.5%
	0.4	0.8	0.4	0	49.4%	62.9%
	0.4	0.8	0	0	48.8%	62.5%
	0.1	0.7	0.4	0.2	37.1%	47.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.3%	2.1%
Cauchy	0	0	0	0	5.3%	5.3%
	0	0.8	0	0	38.5%	48.9%
	0.4	1	0.4	0	43.3%	54.8%
	0.4	1	0	0	42.0%	52.9%
	0.2	1	0.4	0.2	38.0%	48.5%
	0.5	0	0.5	0.5	0.6%	0.3%
	0	0.2	0.4	0.5	2.9%	2.7%

F.2.2. Probability of Missing = 0.2

Table F.43. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	56.3%	79.1%
	0.4	0.8	0.4	0	44.4%	65.6%
	0.4	0.8	0	0	43.1%	64.8%
	0.1	0.7	0.4	0.2	33.2%	50.0%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.9%	2.0%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.4	0	0	39.4%	60.4%
	0.2	0.4	0.2	0	32.7%	51.4%
	0.2	0.4	0	0	30.8%	47.6%
	0.1	0.7	0.4	0.2	59.4%	81.9%
	0.5	0	0.5	0.5	0.3%	0.0%
	0	0.2	0.4	0.5	1.4%	1.1%
T with 3 df.	0	0	0	0	5.2%	5.5%
	0	0.8	0	0	42.5%	63.1%
	0.4	0.8	0.4	0	32.9%	51.1%
	0.4	0.8	0	0	33.3%	51.0%
	0.1	0.7	0.4	0.2	25.2%	37.8%
	0.5	0	0.5	0.5	0.5%	0.2%
	0	0.2	0.4	0.5	3.0%	2.4%
Cauchy	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	26.0%	38.4%
	0.4	1	0.4	0	28.3%	43.5%
	0.4	1	0	0	28.4%	42.0%
	0.2	1	0.4	0.2	26.7%	39.2%
	0.5	0	0.5	0.5	1.2%	0.8%
	0	0.2	0.4	0.5	3.7%	3.1%

Table F.44. t = 4, Pk = 2, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.5%	4.9%
	0	0.8	0	0	54.3%	71.0%
	0.4	0.8	0.4	0	42.8%	58.4%
	0.4	0.8	0	0	41.6%	57.5%
	0.1	0.7	0.4	0.2	32.5%	44.6%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.6%	2.1%
Exponential	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	38.7%	52.9%
	0.2	0.4	0.2	0	32.1%	43.6%
	0.2	0.4	0	0	30.2%	41.3%
	0.1	0.7	0.4	0.2	57.0%	74.6%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.8%	1.2%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	40.7%	56.2%
	0.4	0.8	0.4	0	32.2%	43.6%
	0.4	0.8	0	0	32.6%	43.9%
	0.1	0.7	0.4	0.2	24.0%	33.3%
	0.5	0	0.5	0.5	0.6%	0.3%
	0	0.2	0.4	0.5	3.0%	2.6%
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	25.3%	34.0%
	0.4	1	0.4	0	26.8%	36.8%
	0.4	1	0	0	28.2%	37.2%
	0.2	1	0.4	0.2	26.1%	34.6%
	0.5	0	0.5	0.5	1.3%	0.8%
	0	0.2	0.4	0.5	3.6%	3.1%

Table F.45. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	47.1%	71.7%
	0.4	0.8	0.4	0	37.2%	58.9%
	0.4	0.8	0	0	36.1%	58.4%
	0.1	0.7	0.4	0.2	28.3%	44.2%
	0.5	0	0.5	0.5	0.4%	0.1%
	0	0.2	0.4	0.5	2.7%	1.9%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	32.2%	53.2%
	0.2	0.4	0.2	0	28.1%	44.2%
	0.2	0.4	0	0	25.6%	42.7%
	0.1	0.7	0.4	0.2	48.3%	73.8%
	0.5	0	0.5	0.5	0.3%	0.0%
	0	0.2	0.4	0.5	1.7%	1.1%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.8	0	0	34.8%	56.5%
	0.4	0.8	0.4	0	27.8%	44.0%
	0.4	0.8	0	0	27.4%	44.7%
	0.1	0.7	0.4	0.2	22.3%	34.4%
	0.5	0	0.5	0.5	0.8%	0.3%
	0	0.2	0.4	0.5	2.9%	2.6%
Cauchy	0	0	0	0	4.8%	5.3%
	0	0.8	0	0	22.6%	34.7%
	0.4	1	0.4	0	24.7%	38.4%
	0.4	1	0	0	24.7%	37.9%
	0.2	1	0.4	0.2	21.6%	34.8%
	0.5	0	0.5	0.5	1.6%	0.9%
	0	0.2	0.4	0.5	3.6%	3.3%

Table F.46. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.3%
	0	0.8	0	0	54.0%	61.5%
	0.4	0.8	0.4	0	41.7%	48.5%
	0.4	0.8	0	0	41.3%	47.8%
	0.1	0.7	0.4	0.2	31.1%	36.0%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.8%	2.3%
Exponential	0	0	0	0	4.7%	5.2%
	0	0.4	0	0	37.3%	43.4%
	0.2	0.4	0.2	0	31.3%	35.7%
	0.2	0.4	0	0	29.2%	34.1%
	0.1	0.7	0.4	0.2	55.3%	62.7%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.7%	1.5%
T with 3 df.	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	39.2%	45.7%
	0.4	0.8	0.4	0	32.0%	36.7%
	0.4	0.8	0	0	31.4%	37.4%
	0.1	0.7	0.4	0.2	24.1%	27.5%
	0.5	0	0.5	0.5	0.6%	0.4%
	0	0.2	0.4	0.5	3.2%	3.1%
Cauchy	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	24.6%	28.2%
	0.4	1	0.4	0	28.0%	32.3%
	0.4	1	0	0	27.3%	31.1%
	0.2	1	0.4	0.2	24.9%	28.6%
	0.5	0	0.5	0.5	1.1%	1.0%
	0	0.2	0.4	0.5	3.7%	3.4%

Table F.47. t = 4, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	42.6%	61.0%
	0.4	0.8	0.4	0	34.4%	49.3%
	0.4	0.8	0	0	33.0%	48.4%
	0.1	0.7	0.4	0.2	24.6%	36.5%
	0.5	0	0.5	0.5	0.5%	0.2%
	0	0.2	0.4	0.5	2.7%	2.2%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	28.3%	42.5%
	0.2	0.4	0.2	0	25.2%	35.8%
	0.2	0.4	0	0	22.6%	33.5%
	0.1	0.7	0.4	0.2	43.2%	61.9%
	0.5	0	0.5	0.5	0.3%	0.0%
	0	0.2	0.4	0.5	2.0%	1.4%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.8	0	0	32.2%	46.9%
	0.4	0.8	0.4	0	26.9%	38.0%
	0.4	0.8	0	0	25.4%	36.9%
	0.1	0.7	0.4	0.2	19.7%	27.4%
	0.5	0	0.5	0.5	0.7%	0.3%
	0	0.2	0.4	0.5	3.2%	2.9%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	19.9%	27.7%
	0.4	1	0.4	0	22.5%	32.0%
	0.4	1	0	0	21.7%	30.3%
	0.2	1	0.4	0.2	21.0%	28.9%
	0.5	0	0.5	0.5	1.7%	0.9%
	0	0.2	0.4	0.5	3.7%	3.5%

Table F.48. t = 4, Pk = 2, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.3%
	0	0.5	0	0	53.7%	51.8%
	0.2	0.4	0.2	0	31.6%	30.0%
	0.2	0.4	0	0	30.9%	30.2%
	0.1	0.7	0.4	0.2	59.1%	56.9%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	2.2%	1.9%
Exponential	0	0	0	0	5.2%	5.2%
	0	0.2	0	0	30.5%	29.8%
	0.2	0.4	0.2	0	60.3%	57.7%
	0.2	0.4	0	0	58.6%	55.3%
	0.1	0.3	0.2	0.1	30.7%	29.4%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.9%
T with 3 df.	0	0	0	0	5.3%	5.4%
	0	0.5	0	0	41.1%	39.3%
	0.4	0.8	0.4	0	59.8%	57.4%
	0.4	0.8	0	0	59.1%	56.6%
	0.1	0.7	0.4	0.2	45.2%	43.2%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.1%	1.9%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.8	0	0	47.0%	44.6%
	0.4	1	0.4	0	52.1%	49.5%
	0.4	1	0	0	51.1%	47.8%
	0.2	1	0.4	0.2	47.5%	45.6%
	0.5	0	0.5	0.5	0.5%	0.4%
	0	0.2	0.4	0.5	2.9%	2.9%

Table F.49. t = 4, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.2%
	0	0.8	0	0	71.8%	86.1%
	0.4	0.8	0.4	0	59.1%	74.6%
	0.4	0.8	0	0	57.3%	73.7%
	0.1	0.7	0.4	0.2	43.8%	58.2%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	2.1%	1.7%
Exponential	0	0	0	0	5.5%	5.5%
	0	0.4	0	0	52.0%	68.3%
	0.2	0.4	0.2	0	43.7%	57.3%
	0.2	0.4	0	0	42.0%	56.2%
	0.1	0.7	0.4	0.2	73.1%	87.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.2%	0.7%
T with 3 df.	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	55.6%	71.2%
	0.4	0.8	0.4	0	44.9%	59.5%
	0.4	0.8	0	0	44.3%	58.5%
	0.1	0.7	0.4	0.2	33.6%	43.9%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.3%	2.0%
Cauchy	0	0	0	0	4.7%	4.9%
	0	0.8	0	0	34.8%	45.6%
	0.4	1	0.4	0	38.7%	50.5%
	0.4	1	0	0	37.0%	49.0%
	0.2	1	0.4	0.2	34.5%	45.3%
	0.5	0	0.5	0.5	0.7%	0.4%
	0	0.2	0.4	0.5	2.8%	2.7%

F.2.3. Probability of Missing = 0.3

Table F.50. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	55.2%	75.9%
	0.4	0.8	0.4	0	43.9%	63.2%
	0.4	0.8	0	0	43.2%	63.2%
	0.1	0.7	0.4	0.2	32.9%	48.1%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.6%	1.8%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	38.8%	56.9%
	0.2	0.4	0.2	0	32.3%	47.4%
	0.2	0.4	0	0	30.7%	45.6%
	0.1	0.7	0.4	0.2	58.0%	78.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.5%	1.1%
T with 3 df.	0	0	0	0	4.8%	4.7%
	0	0.8	0	0	42.0%	60.9%
	0.4	0.8	0.4	0	32.7%	48.7%
	0.4	0.8	0	0	32.6%	47.3%
	0.1	0.7	0.4	0.2	24.5%	35.5%
	0.5	0	0.5	0.5	0.5%	0.3%
	0	0.2	0.4	0.5	2.8%	2.5%
Cauchy	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	25.4%	36.7%
	0.4	1	0.4	0	27.9%	40.8%
	0.4	1	0	0	28.6%	40.8%
	0.2	1	0.4	0.2	25.1%	37.7%
	0.5	0	0.5	0.5	1.2%	0.8%
	0	0.2	0.4	0.5	3.5%	3.2%

Table F.51. t = 4, Pk = 2, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	54.3%	69.1%
	0.4	0.8	0.4	0	43.1%	56.3%
	0.4	0.8	0	0	42.3%	55.0%
	0.1	0.7	0.4	0.2	31.9%	41.9%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.6%	2.3%
Exponential	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	38.2%	50.1%
	0.2	0.4	0.2	0	31.2%	41.2%
	0.2	0.4	0	0	30.1%	39.5%
	0.1	0.7	0.4	0.2	57.4%	71.4%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.7%	1.3%
T with 3 df.	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	40.6%	54.3%
	0.4	0.8	0.4	0	31.9%	42.3%
	0.4	0.8	0	0	31.3%	42.4%
	0.1	0.7	0.4	0.2	24.4%	31.6%
	0.5	0	0.5	0.5	0.9%	0.3%
	0	0.2	0.4	0.5	2.9%	2.5%
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	24.7%	32.4%
	0.4	1	0.4	0	28.0%	36.3%
	0.4	1	0	0	27.5%	36.1%
	0.2	1	0.4	0.2	24.9%	32.2%
	0.5	0	0.5	0.5	1.3%	0.8%
	0	0.2	0.4	0.5	3.9%	3.4%

Table F.52. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.7%
	0	0.8	0	0	46.1%	69.5%
	0.4	0.8	0.4	0	35.9%	55.9%
	0.4	0.8	0	0	35.1%	55.0%
	0.1	0.7	0.4	0.2	26.7%	41.6%
	0.5	0	0.5	0.5	0.5%	0.2%
	0	0.2	0.4	0.5	2.5%	2.0%
Exponential	0	0	0	0	4.7%	4.8%
	0	0.4	0	0	31.8%	50.9%
	0.2	0.4	0.2	0	27.2%	40.9%
	0.2	0.4	0	0	24.7%	39.3%
	0.1	0.7	0.4	0.2	47.6%	70.7%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	1.9%	1.4%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.8	0	0	34.5%	52.8%
	0.4	0.8	0.4	0	27.2%	42.3%
	0.4	0.8	0	0	27.6%	41.5%
	0.1	0.7	0.4	0.2	21.1%	31.5%
	0.5	0	0.5	0.5	0.8%	0.3%
	0	0.2	0.4	0.5	3.2%	2.8%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	21.3%	32.3%
	0.4	1	0.4	0	23.6%	36.0%
	0.4	1	0	0	23.2%	35.1%
	0.2	1	0.4	0.2	21.3%	31.7%
	0.5	0	0.5	0.5	1.5%	0.9%
	0	0.2	0.4	0.5	3.7%	3.5%

Table F.53. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.9%
	0	0.8	0	0	51.9%	57.7%
	0.4	0.8	0.4	0	41.6%	46.9%
	0.4	0.8	0	0	41.2%	46.9%
	0.1	0.7	0.4	0.2	31.3%	34.5%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.3%	2.5%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.4	0	0	37.7%	41.7%
	0.2	0.4	0.2	0	31.1%	34.0%
	0.2	0.4	0	0	28.9%	31.8%
	0.1	0.7	0.4	0.2	55.1%	60.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.7%	1.5%
T with 3 df.	0	0	0	0	4.7%	5.2%
	0	0.8	0	0	39.5%	44.3%
	0.4	0.8	0.4	0	31.7%	35.4%
	0.4	0.8	0	0	31.0%	34.9%
	0.1	0.7	0.4	0.2	23.5%	26.8%
	0.5	0	0.5	0.5	0.6%	0.5%
	0	0.2	0.4	0.5	3.0%	2.8%
Cauchy	0	0	0	0	4.8%	4.9%
	0	0.8	0	0	24.9%	27.2%
	0.4	1	0.4	0	27.0%	30.5%
	0.4	1	0	0	26.9%	29.4%
	0.2	1	0.4	0.2	24.7%	26.9%
	0.5	0	0.5	0.5	1.1%	1.1%
	0	0.2	0.4	0.5	3.7%	3.4%

Table F.54. t = 4, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.4%
	0	0.8	0	0	39.8%	56.9%
	0.4	0.8	0.4	0	31.1%	46.1%
	0.4	0.8	0	0	30.8%	45.0%
	0.1	0.7	0.4	0.2	24.2%	33.9%
	0.5	0	0.5	0.5	0.6%	0.2%
	0	0.2	0.4	0.5	3.0%	2.6%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.4	0	0	27.0%	39.8%
	0.2	0.4	0.2	0	22.8%	33.1%
	0.2	0.4	0	0	21.3%	31.2%
	0.1	0.7	0.4	0.2	39.9%	58.2%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	1.9%	1.5%
T with 3 df.	0	0	0	0	5.2%	5.5%
	0	0.8	0	0	30.4%	43.2%
	0.4	0.8	0.4	0	24.8%	35.7%
	0.4	0.8	0	0	24.3%	34.6%
	0.1	0.7	0.4	0.2	18.5%	26.0%
	0.5	0	0.5	0.5	1.0%	0.4%
	0	0.2	0.4	0.5	3.5%	2.9%
Cauchy	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	19.5%	27.4%
	0.4	1	0.4	0	21.2%	29.6%
	0.4	1	0	0	21.6%	29.9%
	0.2	1	0.4	0.2	19.4%	26.6%
	0.5	0	0.5	0.5	1.5%	1.1%
	0	0.2	0.4	0.5	3.7%	3.4%

Table F.55. t = 4, Pk = 2, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.5	0	0	54.3%	50.4%
	0.2	0.4	0.2	0	31.4%	30.0%
	0.2	0.4	0	0	30.7%	29.2%
	0.1	0.7	0.4	0.2	58.3%	55.2%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.7%	1.8%
Exponential	0	0	0	0	5.1%	4.9%
	0	0.2	0	0	30.8%	28.4%
	0.2	0.4	0.2	0	59.7%	55.6%
	0.2	0.4	0	0	57.6%	53.6%
	0.1	0.3	0.2	0.1	31.1%	28.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	0.7%
T with 3 df.	0	0	0	0	4.6%	4.9%
	0	0.5	0	0	42.2%	38.9%
	0.4	0.8	0.4	0	58.9%	55.4%
	0.4	0.8	0	0	58.8%	55.0%
	0.1	0.7	0.4	0.2	44.8%	42.1%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.2%	2.4%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	46.1%	42.6%
	0.4	1	0.4	0	51.4%	47.6%
	0.4	1	0	0	50.8%	46.8%
	0.2	1	0.4	0.2	46.7%	43.6%
	0.5	0	0.5	0.5	0.4%	0.4%
	0	0.2	0.4	0.5	2.8%	2.6%

Table F.56. t = 4, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.4%
	0	0.8	0	0	64.5%	81.9%
	0.4	0.8	0.4	0	53.1%	69.7%
	0.4	0.8	0	0	52.3%	69.1%
	0.1	0.7	0.4	0.2	40.1%	54.4%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.3%	1.9%
Exponential	0	0	0	0	5.3%	5.0%
	0	0.4	0	0	46.6%	63.7%
	0.2	0.4	0.2	0	39.0%	53.8%
	0.2	0.4	0	0	36.1%	50.4%
	0.1	0.7	0.4	0.2	67.6%	84.3%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.4%	1.1%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	50.1%	66.4%
	0.4	0.8	0.4	0	40.5%	54.8%
	0.4	0.8	0	0	40.4%	54.4%
	0.1	0.7	0.4	0.2	30.3%	40.4%
	0.5	0	0.5	0.5	0.4%	0.1%
	0	0.2	0.4	0.5	2.7%	2.3%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	31.0%	41.3%
	0.4	1	0.4	0	33.8%	46.6%
	0.4	1	0	0	33.4%	45.3%
	0.2	1	0.4	0.2	30.8%	41.7%
	0.5	0	0.5	0.5	0.9%	0.5%
	0	0.2	0.4	0.5	3.3%	2.9%

F.2.4. Probability of Missing = 0.4

Table F.57. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.8%
	0	0.8	0	0	54.2%	73.5%
	0.4	0.8	0.4	0	44.0%	60.6%
	0.4	0.8	0	0	42.9%	58.9%
	0.1	0.7	0.4	0.2	31.9%	45.2%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.8%	1.9%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.4	0	0	38.2%	54.3%
	0.2	0.4	0.2	0	31.2%	44.9%
	0.2	0.4	0	0	29.9%	42.6%
	0.1	0.7	0.4	0.2	57.5%	74.9%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.9%	1.2%
T with 3 df.	0	0	0	0	4.9%	5.2%
	0	0.8	0	0	42.0%	57.3%
	0.4	0.8	0.4	0	33.1%	46.0%
	0.4	0.8	0	0	32.3%	45.1%
	0.1	0.7	0.4	0.2	25.2%	34.7%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.8%	2.2%
Cauchy	0	0	0	0	5.4%	5.2%
	0	0.8	0	0	25.0%	35.2%
	0.4	1	0.4	0	28.5%	39.5%
	0.4	1	0	0	28.0%	38.6%
	0.2	1	0.4	0.2	25.6%	34.8%
	0.5	0	0.5	0.5	1.2%	0.7%
	0	0.2	0.4	0.5	3.5%	3.0%

Table F.58. t = 4, Pk = 2, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	54.0%	67.1%
	0.4	0.8	0.4	0	42.4%	53.6%
	0.4	0.8	0	0	42.2%	53.2%
	0.1	0.7	0.4	0.2	31.6%	40.5%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.6%	2.4%
Exponential	0	0	0	0	5.1%	5.3%
	0	0.4	0	0	38.3%	48.3%
	0.2	0.4	0.2	0	31.4%	40.3%
	0.2	0.4	0	0	29.1%	37.8%
	0.1	0.7	0.4	0.2	56.6%	69.6%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	1.8%	1.3%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	40.2%	51.0%
	0.4	0.8	0.4	0	32.3%	40.7%
	0.4	0.8	0	0	31.3%	40.4%
	0.1	0.7	0.4	0.2	23.8%	30.0%
	0.5	0	0.5	0.5	0.6%	0.3%
	0	0.2	0.4	0.5	3.3%	2.9%
Cauchy	0	0	0	0	4.7%	5.1%
	0	0.8	0	0	25.4%	31.7%
	0.4	1	0.4	0	28.1%	34.7%
	0.4	1	0	0	27.8%	33.7%
	0.2	1	0.4	0.2	25.6%	32.2%
	0.5	0	0.5	0.5	1.2%	0.9%
	0	0.2	0.4	0.5	2.8%	3.1%

Table F.59. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	44.8%	65.7%
	0.4	0.8	0.4	0	35.9%	53.7%
	0.4	0.8	0	0	33.1%	51.5%
	0.1	0.7	0.4	0.2	26.8%	38.5%
	0.5	0	0.5	0.5	0.6%	0.1%
	0	0.2	0.4	0.5	2.8%	2.4%
Exponential	0	0	0	0	5.2%	5.0%
	0	0.4	0	0	30.7%	47.4%
	0.2	0.4	0.2	0	26.4%	39.2%
	0.2	0.4	0	0	24.0%	36.6%
	0.1	0.7	0.4	0.2	46.3%	67.7%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	2.0%	1.4%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	34.2%	50.9%
	0.4	0.8	0.4	0	27.2%	40.3%
	0.4	0.8	0	0	26.8%	39.7%
	0.1	0.7	0.4	0.2	20.2%	30.2%
	0.5	0	0.5	0.5	0.9%	0.4%
	0	0.2	0.4	0.5	3.1%	2.8%
Cauchy	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	21.3%	30.3%
	0.4	1	0.4	0	23.6%	34.3%
	0.4	1	0	0	23.1%	33.7%
	0.2	1	0.4	0.2	21.4%	31.3%
	0.5	0	0.5	0.5	1.4%	0.9%
	0	0.2	0.4	0.5	3.4%	3.4%

Table F.60. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.3%
	0	0.8	0	0	51.7%	55.9%
	0.4	0.8	0.4	0	40.9%	45.2%
	0.4	0.8	0	0	41.8%	44.8%
	0.1	0.7	0.4	0.2	31.2%	33.2%
	0.5	0	0.5	0.5	0.3%	0.3%
	0	0.2	0.4	0.5	2.6%	2.6%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	36.5%	39.7%
	0.2	0.4	0.2	0	30.5%	33.5%
	0.2	0.4	0	0	28.3%	30.9%
	0.1	0.7	0.4	0.2	55.9%	58.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.5%	1.7%
T with 3 df.	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	38.4%	42.6%
	0.4	0.8	0.4	0	31.2%	34.0%
	0.4	0.8	0	0	31.7%	33.8%
	0.1	0.7	0.4	0.2	24.0%	26.1%
	0.5	0	0.5	0.5	0.6%	0.5%
	0	0.2	0.4	0.5	3.0%	2.6%
Cauchy	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	25.1%	26.4%
	0.4	1	0.4	0	27.7%	29.2%
	0.4	1	0	0	26.3%	28.7%
	0.2	1	0.4	0.2	24.4%	26.2%
	0.5	0	0.5	0.5	1.3%	1.2%
	0	0.2	0.4	0.5	3.4%	3.3%

Table F.61. t = 4, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.6%
	0	0.8	0	0	37.4%	54.1%
	0.4	0.8	0.4	0	29.7%	43.3%
	0.4	0.8	0	0	29.4%	42.6%
	0.1	0.7	0.4	0.2	22.8%	32.4%
	0.5	0	0.5	0.5	0.7%	0.2%
	0	0.2	0.4	0.5	3.4%	2.6%
Exponential	0	0	0	0	5.4%	4.9%
	0	0.4	0	0	25.4%	37.3%
	0.2	0.4	0.2	0	21.9%	31.5%
	0.2	0.4	0	0	20.2%	29.3%
	0.1	0.7	0.4	0.2	38.5%	55.4%
	0.5	0	0.5	0.5	0.4%	0.1%
	0	0.2	0.4	0.5	2.3%	1.8%
T with 3 df.	0	0	0	0	4.7%	4.7%
	0	0.8	0	0	27.7%	40.0%
	0.4	0.8	0.4	0	23.1%	32.2%
	0.4	0.8	0	0	22.7%	32.1%
	0.1	0.7	0.4	0.2	18.4%	25.2%
	0.5	0	0.5	0.5	1.1%	0.5%
	0	0.2	0.4	0.5	3.5%	2.9%
Cauchy	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	17.9%	24.5%
	0.4	1	0.4	0	20.9%	28.7%
	0.4	1	0	0	20.2%	27.5%
	0.2	1	0.4	0.2	19.2%	25.5%
	0.5	0	0.5	0.5	1.7%	0.8%
	0	0.2	0.4	0.5	3.7%	3.6%

Table F.62. t = 4, Pk = 2, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.3%
	0	0.5	0	0	54.3%	49.3%
	0.2	0.4	0.2	0	30.6%	28.2%
	0.2	0.4	0	0	31.0%	28.4%
	0.1	0.7	0.4	0.2	58.8%	53.1%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	1.8%	1.8%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.2	0	0	31.0%	27.4%
	0.2	0.4	0.2	0	60.0%	54.7%
	0.2	0.4	0	0	58.5%	52.4%
	0.1	0.3	0.2	0.1	30.9%	27.4%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.7%	0.8%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.5	0	0	40.5%	38.3%
	0.4	0.8	0.4	0	59.3%	55.2%
	0.4	0.8	0	0	59.3%	53.8%
	0.1	0.7	0.4	0.2	43.6%	40.3%
	0.5	0	0.5	0.5	0.1%	0.2%
	0	0.2	0.4	0.5	2.2%	2.4%
Cauchy	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	46.1%	42.3%
	0.4	1	0.4	0	51.5%	46.4%
	0.4	1	0	0	50.7%	45.6%
	0.2	1	0.4	0.2	46.3%	42.8%
	0.5	0	0.5	0.5	0.4%	0.5%
	0	0.2	0.4	0.5	2.6%	2.8%

Table F.63. t = 4, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.2%
	0	0.8	0	0	59.5%	78.1%
	0.4	0.8	0.4	0	48.6%	66.9%
	0.4	0.8	0	0	47.8%	65.2%
	0.1	0.7	0.4	0.2	35.7%	49.3%
	0.5	0	0.5	0.5	0.2%	0.1%
	0	0.2	0.4	0.5	2.4%	2.1%
Exponential	0	0	0	0	4.8%	4.7%
	0	0.4	0	0	42.5%	59.9%
	0.2	0.4	0.2	0	36.2%	50.1%
	0.2	0.4	0	0	34.0%	47.6%
	0.1	0.7	0.4	0.2	62.0%	80.3%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.5%	1.2%
T with 3 df.	0	0	0	0	5.1%	5.4%
	0	0.8	0	0	46.4%	63.4%
	0.4	0.8	0.4	0	36.8%	51.3%
	0.4	0.8	0	0	36.7%	50.6%
	0.1	0.7	0.4	0.2	27.5%	37.8%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	3.1%	2.8%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.8	0	0	28.0%	38.0%
	0.4	1	0.4	0	32.1%	43.5%
	0.4	1	0	0	30.5%	42.3%
	0.2	1	0.4	0.2	28.6%	39.4%
	0.5	0	0.5	0.5	1.1%	0.7%
	0	0.2	0.4	0.5	3.6%	3.2%

F.2.5. Probability of Missing = 0.5

Table F.64. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	55.0%	71.2%
	0.4	0.8	0.4	0	43.5%	58.6%
	0.4	0.8	0	0	43.0%	57.9%
	0.1	0.7	0.4	0.2	31.9%	43.5%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.7%	2.2%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.4	0	0	37.9%	52.0%
	0.2	0.4	0.2	0	32.2%	43.7%
	0.2	0.4	0	0	30.3%	41.1%
	0.1	0.7	0.4	0.2	55.6%	72.4%
	0.5	0	0.5	0.5	0.2%	0.0%
	0	0.2	0.4	0.5	1.7%	1.3%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.8	0	0	40.6%	54.5%
	0.4	0.8	0.4	0	32.9%	44.7%
	0.4	0.8	0	0	32.1%	43.1%
	0.1	0.7	0.4	0.2	24.4%	32.9%
	0.5	0	0.5	0.5	0.6%	0.3%
	0	0.2	0.4	0.5	3.0%	2.6%
Cauchy	0	0	0	0	5.5%	5.0%
	0	0.8	0	0	25.4%	33.7%
	0.4	1	0.4	0	27.6%	37.2%
	0.4	1	0	0	27.1%	37.1%
	0.2	1	0.4	0.2	25.3%	33.8%
	0.5	0	0.5	0.5	1.2%	1.1%
	0	0.2	0.4	0.5	3.6%	3.2%

Table F.65. t = 4, Pk = 2, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.2%
	0	0.8	0	0	53.6%	64.3%
	0.4	0.8	0.4	0	42.0%	51.3%
	0.4	0.8	0	0	41.4%	51.0%
	0.1	0.7	0.4	0.2	31.7%	38.7%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	3.0%	2.6%
Exponential	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	38.5%	46.6%
	0.2	0.4	0.2	0	31.3%	38.8%
	0.2	0.4	0	0	29.0%	36.4%
	0.1	0.7	0.4	0.2	55.9%	66.1%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.7%	1.4%
T with 3 df.	0	0	0	0	5.4%	5.3%
	0	0.8	0	0	41.2%	50.3%
	0.4	0.8	0.4	0	31.5%	39.4%
	0.4	0.8	0	0	31.7%	38.8%
	0.1	0.7	0.4	0.2	23.3%	28.7%
	0.5	0	0.5	0.5	0.5%	0.4%
	0	0.2	0.4	0.5	2.6%	2.4%
Cauchy	0	0	0	0	4.8%	4.6%
	0	0.8	0	0	24.5%	30.2%
	0.4	1	0.4	0	27.0%	33.4%
	0.4	1	0	0	26.7%	32.8%
	0.2	1	0.4	0.2	25.0%	30.4%
	0.5	0	0.5	0.5	1.3%	1.0%
	0	0.2	0.4	0.5	3.6%	3.2%

Table F.66. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.8	0	0	43.6%	62.2%
	0.4	0.8	0.4	0	35.3%	50.7%
	0.4	0.8	0	0	34.3%	49.6%
	0.1	0.7	0.4	0.2	25.5%	37.4%
	0.5	0	0.5	0.5	0.5%	0.2%
	0	0.2	0.4	0.5	2.9%	2.4%
Exponential	0	0	0	0	4.7%	4.8%
	0	0.4	0	0	30.3%	45.1%
	0.2	0.4	0.2	0	25.5%	37.9%
	0.2	0.4	0	0	23.8%	35.3%
	0.1	0.7	0.4	0.2	45.6%	64.4%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.2%	1.7%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	32.6%	47.5%
	0.4	0.8	0.4	0	27.1%	38.2%
	0.4	0.8	0	0	26.0%	38.3%
	0.1	0.7	0.4	0.2	20.3%	29.2%
	0.5	0	0.5	0.5	0.8%	0.3%
	0	0.2	0.4	0.5	3.1%	2.8%
Cauchy	0	0	0	0	5.4%	5.4%
	0	0.8	0	0	20.4%	29.9%
	0.4	1	0.4	0	22.6%	32.3%
	0.4	1	0	0	22.9%	32.9%
	0.2	1	0.4	0.2	20.7%	30.0%
	0.5	0	0.5	0.5	1.6%	0.9%
	0	0.2	0.4	0.5	3.8%	3.5%

Table F.67. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	51.9%	54.5%
	0.4	0.8	0.4	0	41.7%	43.5%
	0.4	0.8	0	0	41.5%	43.2%
	0.1	0.7	0.4	0.2	29.9%	32.7%
	0.5	0	0.5	0.5	0.3%	0.3%
	0	0.2	0.4	0.5	2.5%	2.5%
Exponential	0	0	0	0	4.9%	4.7%
	0	0.4	0	0	37.7%	39.1%
	0.2	0.4	0.2	0	30.1%	32.9%
	0.2	0.4	0	0	28.4%	29.8%
	0.1	0.7	0.4	0.2	55.2%	56.3%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	1.6%	1.6%
T with 3 df.	0	0	0	0	4.8%	5.0%
	0	0.8	0	0	39.5%	41.3%
	0.4	0.8	0.4	0	31.7%	33.5%
	0.4	0.8	0	0	31.1%	33.1%
	0.1	0.7	0.4	0.2	24.0%	25.3%
	0.5	0	0.5	0.5	0.6%	0.6%
	0	0.2	0.4	0.5	2.9%	3.0%
Cauchy	0	0	0	0	5.5%	5.0%
	0	0.8	0	0	25.0%	25.3%
	0.4	1	0.4	0	27.0%	29.0%
	0.4	1	0	0	26.5%	27.8%
	0.2	1	0.4	0.2	24.8%	26.2%
	0.5	0	0.5	0.5	1.2%	1.2%
	0	0.2	0.4	0.5	3.3%	3.4%

Table F.68. t = 4, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	36.1%	51.2%
	0.4	0.8	0.4	0	27.2%	39.8%
	0.4	0.8	0	0	27.5%	40.5%
	0.1	0.7	0.4	0.2	21.6%	31.2%
	0.5	0	0.5	0.5	0.8%	0.5%
	0	0.2	0.4	0.5	2.9%	2.5%
Exponential	0	0	0	0	5.1%	5.1%
	0	0.4	0	0	23.8%	35.1%
	0.2	0.4	0.2	0	21.1%	30.1%
	0.2	0.4	0	0	19.2%	28.2%
	0.1	0.7	0.4	0.2	35.7%	52.6%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.1%	1.6%
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.8	0	0	27.2%	39.6%
	0.4	0.8	0.4	0	23.3%	32.1%
	0.4	0.8	0	0	22.0%	30.3%
	0.1	0.7	0.4	0.2	17.6%	23.9%
	0.5	0	0.5	0.5	1.3%	0.6%
	0	0.2	0.4	0.5	3.1%	2.8%
Cauchy	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	18.2%	24.6%
	0.4	1	0.4	0	19.6%	26.4%
	0.4	1	0	0	19.2%	26.1%
	0.2	1	0.4	0.2	18.1%	24.6%
	0.5	0	0.5	0.5	2.0%	1.4%
	0	0.2	0.4	0.5	3.6%	3.3%

Table F.69. t = 4, Pk = 2, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.5	0	0	54.7%	48.4%
	0.2	0.4	0.2	0	30.8%	28.6%
	0.2	0.4	0	0	31.5%	28.4%
	0.1	0.7	0.4	0.2	58.9%	52.9%
	0.5	0	0.5	0.5	0.0%	0.1%
	0	0.2	0.4	0.5	1.7%	2.1%
Exponential	0	0	0	0	4.9%	4.7%
	0	0.2	0	0	30.3%	27.1%
	0.2	0.4	0.2	0	60.9%	53.6%
	0.2	0.4	0	0	58.0%	51.0%
	0.1	0.3	0.2	0.1	32.4%	28.7%
	0.5	0	0.5	0.5	0.0%	0.0%
	0	0.2	0.4	0.5	0.8%	1.0%
T with 3 df.	0	0	0	0	4.9%	4.9%
	0	0.5	0	0	41.7%	37.7%
	0.4	0.8	0.4	0	59.5%	54.4%
	0.4	0.8	0	0	59.2%	53.8%
	0.1	0.7	0.4	0.2	44.6%	39.9%
	0.5	0	0.5	0.5	0.1%	0.1%
	0	0.2	0.4	0.5	2.3%	2.6%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	45.3%	40.5%
	0.4	1	0.4	0	51.1%	46.3%
	0.4	1	0	0	50.6%	45.2%
	0.2	1	0.4	0.2	46.9%	41.6%
	0.5	0	0.5	0.5	0.4%	0.5%
	0	0.2	0.4	0.5	2.7%	2.9%

Table F.70. t = 4, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	55.3%	74.6%
	0.4	0.8	0.4	0	44.8%	62.5%
	0.4	0.8	0	0	44.2%	61.9%
	0.1	0.7	0.4	0.2	33.2%	46.4%
	0.5	0	0.5	0.5	0.3%	0.1%
	0	0.2	0.4	0.5	2.4%	2.0%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	39.7%	56.6%
	0.2	0.4	0.2	0	32.1%	46.1%
	0.2	0.4	0	0	30.5%	43.8%
	0.1	0.7	0.4	0.2	56.8%	76.6%
	0.5	0	0.5	0.5	0.1%	0.0%
	0	0.2	0.4	0.5	1.4%	1.2%
T with 3 df.	0	0	0	0	5.6%	5.2%
	0	0.8	0	0	42.4%	58.4%
	0.4	0.8	0.4	0	34.1%	48.3%
	0.4	0.8	0	0	33.9%	47.2%
	0.1	0.7	0.4	0.2	26.4%	36.8%
	0.5	0	0.5	0.5	0.4%	0.2%
	0	0.2	0.4	0.5	2.8%	2.3%
Cauchy	0	0	0	0	4.9%	4.6%
	0	0.8	0	0	26.5%	37.0%
	0.4	1	0.4	0	28.6%	39.8%
	0.4	1	0	0	28.0%	40.0%
	0.2	1	0.4	0.2	26.7%	37.1%
	0.5	0	0.5	0.5	1.0%	0.6%
	0	0.2	0.4	0.5	3.4%	2.9%

F.3. Four Treatments – Peak at Three

F.3.1. Probability of Missing = 0.1

Table F.71. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	57.0%	82.4%
	0	0.4	0.8	0.4	45.0%	69.4%
	0	0	0.8	0	55.8%	81.4%
	0	0.3	0.5	0.1	28.1%	44.2%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.2%	18.1%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0	42.1%	65.7%
	0	0.2	0.4	0.2	32.6%	52.6%
	0	0	0.4	0	40.3%	63.3%
	0	0.3	0.4	0.1	37.0%	58.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.4%	28.3%
T with 3 df.	0	0	0	0	5.2%	5.3%
	0	0.4	0.8	0	42.3%	66.9%
	0	0.4	0.8	0.4	34.9%	55.6%
	0	0	0.8	0	43.2%	66.3%
	0	0.3	0.5	0.1	21.8%	33.7%
	0.5	0.5	0	0.5	0.5%	0.2%
	0	0	0.4	0.5	11.8%	14.8%
Cauchy	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	27.4%	42.6%
	0	0.4	0.8	0.4	22.0%	33.0%
	0	0	0.8	0	26.7%	41.5%
	0	0.3	0.5	0.1	14.9%	21.6%
	0.5	0.5	0	0.5	1.0%	0.5%
	0	0	0.4	0.5	9.2%	11.1%

Table F.72. t = 4, Pk = 3, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.4	0.8	0	55.1%	75.1%
	0	0.4	0.8	0.4	43.3%	61.0%
	0	0	0.8	0	54.9%	75.3%
	0	0.3	0.5	0.1	27.2%	39.6%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	12.9%	16.1%
Exponential	0	0	0	0	4.9%	4.9%
	0	0.2	0.4	0	40.7%	57.6%
	0	0.2	0.4	0.2	32.5%	45.8%
	0	0	0.4	0	38.7%	54.9%
	0	0.3	0.4	0.1	36.9%	51.8%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.1%	25.3%
T with 3 df.	0	0	0	0	4.7%	4.9%
	0	0.4	0.8	0	41.6%	58.3%
	0	0.4	0.8	0.4	33.5%	47.7%
	0	0	0.8	0	41.3%	59.0%
	0	0.3	0.5	0.1	20.7%	28.5%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	11.2%	13.4%
Cauchy	0	0	0	0	5.2%	4.8%
	0	0.4	0.8	0	25.2%	36.1%
	0	0.4	0.8	0.4	21.2%	29.0%
	0	0	0.8	0	25.2%	36.0%
	0	0.3	0.5	0.1	14.3%	19.1%
	0.5	0.5	0	0.5	1.2%	0.9%
	0	0	0.4	0.5	8.7%	9.6%

Table F.73. t = 4, Pk = 3, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	48.4%	76.7%
	0	0.4	0.8	0.4	38.9%	63.2%
	0	0	0.8	0	47.5%	74.6%
	0	0.3	0.5	0.1	23.7%	39.4%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	11.7%	15.6%
Exponential	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0	36.4%	59.0%
	0	0.2	0.4	0.2	27.0%	46.1%
	0	0	0.4	0	33.2%	56.5%
	0	0.3	0.4	0.1	31.4%	51.9%
	0.5	0.5	0	0.5	0.2%	0.0%
	0	0	0.4	0.5	16.3%	25.9%
T with 3 df.	0	0	0	0	4.6%	4.6%
	0	0.4	0.8	0	36.8%	60.6%
	0	0.4	0.8	0.4	29.1%	47.5%
	0	0	0.8	0	36.7%	60.3%
	0	0.3	0.5	0.1	20.0%	30.3%
	0.5	0.5	0	0.5	0.7%	0.2%
	0	0	0.4	0.5	10.0%	13.6%
Cauchy	0	0	0	0	5.6%	5.1%
	0	0.4	0.8	0	22.9%	36.8%
	0	0.4	0.8	0.4	19.5%	29.2%
	0	0	0.8	0	22.3%	35.9%
	0	0.3	0.5	0.1	13.2%	19.1%
	0.5	0.5	0	0.5	1.2%	0.6%
	0	0	0.4	0.5	8.3%	10.3%

Table F.74. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	54.2%	63.3%
	0	0.4	0.8	0.4	42.1%	51.1%
	0	0	0.8	0	53.5%	63.0%
	0	0.3	0.5	0.1	26.4%	32.5%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	12.7%	14.3%
Exponential	0	0	0	0	4.8%	5.1%
	0	0.2	0.4	0	38.6%	46.2%
	0	0.2	0.4	0.2	31.3%	37.4%
	0	0	0.4	0	37.2%	44.8%
	0	0.3	0.4	0.1	34.4%	42.8%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.6%	20.9%
T with 3 df.	0	0	0	0	5.6%	5.4%
	0	0.4	0.8	0	41.4%	49.0%
	0	0.4	0.8	0.4	32.0%	38.4%
	0	0	0.8	0	39.9%	48.4%
	0	0.3	0.5	0.1	20.5%	24.3%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.7%	11.8%
Cauchy	0	0	0	0	5.1%	5.0%
	0	0.4	0.8	0	24.0%	29.1%
	0	0.4	0.8	0.4	19.8%	23.7%
	0	0	0.8	0	23.8%	28.4%
	0	0.3	0.5	0.1	13.8%	16.7%
	0.5	0.5	0	0.5	1.3%	1.0%
	0	0	0.4	0.5	9.3%	9.7%

Table F.75. t = 4, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.9%
	0	0.4	0.8	0	46.0%	65.9%
	0	0.4	0.8	0.4	36.4%	53.1%
	0	0	0.8	0	45.7%	65.1%
	0	0.3	0.5	0.1	22.8%	32.7%
	0.5	0.5	0	0.5	0.5%	0.2%
	0	0	0.4	0.5	11.7%	14.8%
Exponential	0	0	0	0	5.3%	5.1%
	0	0.2	0.4	0	33.6%	49.3%
	0	0.2	0.4	0.2	25.7%	37.9%
	0	0	0.4	0	31.0%	46.2%
	0	0.3	0.4	0.1	30.1%	43.4%
	0.5	0.5	0	0.5	0.2%	0.0%
	0	0	0.4	0.5	15.1%	20.5%
T with 3 df.	0	0	0	0	5.3%	5.0%
	0	0.4	0.8	0	34.6%	49.8%
	0	0.4	0.8	0.4	27.8%	40.4%
	0	0	0.8	0	34.6%	50.2%
	0	0.3	0.5	0.1	18.9%	25.6%
	0.5	0.5	0	0.5	0.8%	0.3%
	0	0	0.4	0.5	9.9%	12.8%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	22.9%	31.6%
	0	0.4	0.8	0.4	18.3%	24.7%
	0	0	0.8	0	21.9%	30.1%
	0	0.3	0.5	0.1	13.5%	16.6%
	0.5	0.5	0	0.5	1.4%	0.8%
	0	0	0.4	0.5	8.2%	9.5%

Table F.76. t = 4, Pk = 3, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.0%
	0	0.2	0.4	0	40.1%	40.0%
	0	0.2	0.4	0.2	32.2%	32.0%
	0	0	0.5	0	54.0%	53.1%
	0	0.3	0.5	0.1	49.6%	49.2%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	20.5%	20.1%
Exponential	0	0	0	0	5.1%	5.4%
	0	0.1	0.2	0	31.7%	30.4%
	0	0.2	0.4	0.2	59.9%	58.7%
	0	0	0.2	0	31.5%	30.4%
	0	0.3	0.4	0.1	66.6%	65.3%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	33.9%	32.6%
T with 3 df.	0	0	0	0	4.7%	4.8%
	0	0.2	0.4	0	30.3%	29.8%
	0	0.4	0.8	0.4	59.1%	58.4%
	0	0	0.4	0	29.9%	29.3%
	0	0.3	0.5	0.1	37.5%	36.7%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	16.8%	15.9%
Cauchy	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	47.1%	46.0%
	0	0.4	0.8	0.4	36.3%	36.1%
	0	0	0.8	0	46.0%	44.8%
	0	0.3	0.5	0.1	23.2%	22.9%
	0.5	0.5	0	0.5	0.5%	0.5%
	0	0	0.4	0.5	10.9%	11.5%

Table F.77. t = 4, Pk = 3, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.9%
	0	0.4	0.8	0	78.2%	90.3%
	0	0.4	0.8	0.4	64.8%	78.9%
	0	0	0.8	0	77.7%	90.4%
	0	0.3	0.5	0.1	41.0%	53.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.9%	21.7%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0	61.3%	75.6%
	0	0.2	0.4	0.2	49.7%	62.8%
	0	0	0.4	0	58.3%	73.0%
	0	0.3	0.4	0.1	53.7%	68.4%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	26.1%	34.3%
T with 3 df.	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	61.5%	76.3%
	0	0.4	0.8	0.4	50.1%	63.8%
	0	0	0.8	0	62.2%	76.0%
	0	0.3	0.5	0.1	31.3%	40.4%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.1%	16.9%
Cauchy	0	0	0	0	5.1%	5.3%
	0	0.4	0.8	0	38.1%	49.0%
	0	0.4	0.8	0.4	30.8%	39.2%
	0	0	0.8	0	38.0%	48.5%
	0	0.3	0.5	0.1	20.3%	25.2%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	10.7%	12.2%

F.3.2. Probability of Missing = 0.2

Table F.78. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	4.8%
	0	0.4	0.8	0	57.0%	80.1%
	0	0.4	0.8	0.4	43.4%	65.6%
	0	0	0.8	0	56.6%	78.8%
	0	0.3	0.5	0.1	27.6%	42.7%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	12.7%	17.5%
Exponential	0	0	0	0	5.0%	4.8%
	0	0.2	0.4	0	41.7%	62.2%
	0	0.2	0.4	0.2	33.4%	50.7%
	0	0	0.4	0	39.5%	60.5%
	0	0.3	0.4	0.1	36.5%	55.9%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.2%	27.1%
T with 3 df.	0	0	0	0	5.5%	4.9%
	0	0.4	0.8	0	42.4%	64.5%
	0	0.4	0.8	0.4	34.1%	52.0%
	0	0	0.8	0	42.3%	63.3%
	0	0.3	0.5	0.1	21.6%	31.4%
	0.5	0.5	0	0.5	0.6%	0.2%
	0	0	0.4	0.5	11.3%	14.5%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	25.5%	39.0%
	0	0.4	0.8	0.4	20.2%	30.5%
	0	0	0.8	0	25.5%	38.2%
	0	0.3	0.5	0.1	14.2%	19.1%
	0.5	0.5	0	0.5	1.1%	0.7%
	0	0	0.4	0.5	9.3%	11.2%

Table F.79. t = 4, Pk = 3, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	4.9%
	0	0.4	0.8	0	54.4%	71.5%
	0	0.4	0.8	0.4	43.2%	58.5%
	0	0	0.8	0	54.7%	71.7%
	0	0.3	0.5	0.1	26.3%	35.9%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.0%	15.6%
Exponential	0	0	0	0	5.3%	5.2%
	0	0.2	0.4	0	40.1%	55.3%
	0	0.2	0.4	0.2	31.7%	43.5%
	0	0	0.4	0	39.4%	54.2%
	0	0.3	0.4	0.1	36.2%	49.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.2%	23.3%
T with 3 df.	0	0	0	0	4.8%	4.6%
	0	0.4	0.8	0	41.2%	56.8%
	0	0.4	0.8	0.4	32.6%	44.0%
	0	0	0.8	0	41.2%	56.2%
	0	0.3	0.5	0.1	20.7%	27.8%
	0.5	0.5	0	0.5	0.6%	0.2%
	0	0	0.4	0.5	10.5%	13.1%
Cauchy	0	0	0	0	4.7%	4.5%
	0	0.4	0.8	0	25.4%	33.7%
	0	0.4	0.8	0.4	21.2%	27.9%
	0	0	0.8	0	25.2%	34.6%
	0	0.3	0.5	0.1	14.4%	17.6%
	0.5	0.5	0	0.5	1.3%	0.9%
	0	0	0.4	0.5	8.4%	9.8%

Table F.80. t = 4, Pk = 3, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	0	47.2%	71.7%
	0	0.4	0.8	0.4	0	37.1%	58.6%
	0	0	0.8	0	0	46.1%	71.4%
	0	0.3	0.5	0.1	0	23.3%	36.9%
	0.5	0.5	0	0.5	0	0.6%	0.2%
	0	0	0.4	0.5	0	12.0%	16.4%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0.2	0.4	0	0	33.5%	53.6%
	0	0.2	0.4	0.2	0	27.7%	43.9%
	0	0	0.4	0	0	32.4%	52.8%
	0	0.3	0.4	0.1	0	30.5%	48.6%
	0.5	0.5	0	0.5	0	0.1%	0.0%
	0	0	0.4	0.5	0	15.2%	24.1%
T with 3 df.	0	0	0	0	0	5.1%	5.5%
	0	0.4	0.8	0	0	36.0%	57.8%
	0	0.4	0.8	0.4	0	27.9%	44.3%
	0	0	0.8	0	0	35.1%	56.3%
	0	0.3	0.5	0.1	0	18.1%	28.1%
	0.5	0.5	0	0.5	0	0.6%	0.3%
	0	0	0.4	0.5	0	9.9%	12.7%
Cauchy	0	0	0	0	0	4.7%	4.8%
	0	0.4	0.8	0	0	22.8%	35.1%
	0	0.4	0.8	0.4	0	18.1%	27.1%
	0	0	0.8	0	0	22.4%	34.2%
	0	0.3	0.5	0.1	0	12.7%	17.6%
	0.5	0.5	0	0.5	0	1.5%	0.8%
	0	0	0.4	0.5	0	8.0%	10.1%

Table F.81. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.2%
	0	0.4	0.8	0	0	53.3%	61.1%
	0	0.4	0.8	0.4	0	42.1%	49.1%
	0	0	0.8	0	0	53.3%	60.9%
	0	0.3	0.5	0.1	0	26.4%	30.3%
	0.5	0.5	0	0.5	0	0.3%	0.2%
	0	0	0.4	0.5	0	12.0%	13.3%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0.2	0.4	0	0	38.9%	43.9%
	0	0.2	0.4	0.2	0	30.9%	36.3%
	0	0	0.4	0	0	37.5%	43.6%
	0	0.3	0.4	0.1	0	35.7%	40.3%
	0.5	0.5	0	0.5	0	0.1%	0.1%
	0	0	0.4	0.5	0	17.5%	19.7%
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0.4	0.8	0	0	40.6%	46.8%
	0	0.4	0.8	0.4	0	31.0%	36.8%
	0	0	0.8	0	0	40.1%	46.1%
	0	0.3	0.5	0.1	0	20.9%	23.5%
	0.5	0.5	0	0.5	0	0.6%	0.4%
	0	0	0.4	0.5	0	10.8%	11.8%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	0.4	0.8	0	0	24.1%	27.6%
	0	0.4	0.8	0.4	0	20.7%	22.6%
	0	0	0.8	0	0	24.9%	28.2%
	0	0.3	0.5	0.1	0	14.3%	16.2%
	0.5	0.5	0	0.5	0	1.1%	0.9%
	0	0	0.4	0.5	0	8.9%	9.4%

Table F.82. t = 4, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.4	0.8	0	43.0%	61.7%
	0	0.4	0.8	0.4	34.2%	49.4%
	0	0	0.8	0	41.8%	60.3%
	0	0.3	0.5	0.1	21.7%	30.8%
	0.5	0.5	0	0.5	0.5%	0.2%
	0	0	0.4	0.5	11.4%	14.2%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0	29.9%	44.3%
	0	0.2	0.4	0.2	24.7%	36.0%
	0	0	0.4	0	29.2%	43.6%
	0	0.3	0.4	0.1	27.9%	39.9%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	14.3%	19.6%
T with 3 df.	0	0	0	0	5.1%	4.9%
	0	0.4	0.8	0	32.8%	47.6%
	0	0.4	0.8	0.4	26.6%	37.4%
	0	0	0.8	0	31.9%	46.9%
	0	0.3	0.5	0.1	17.3%	23.8%
	0.5	0.5	0	0.5	0.9%	0.5%
	0	0	0.4	0.5	10.1%	11.9%
Cauchy	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	20.3%	28.7%
	0	0.4	0.8	0.4	16.5%	22.3%
	0	0	0.8	0	20.0%	27.8%
	0	0.3	0.5	0.1	13.0%	16.6%
	0.5	0.5	0	0.5	1.6%	0.8%
	0	0	0.4	0.5	7.7%	8.9%

Table F.83. t = 4, Pk = 3, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0	39.6%	38.6%
	0	0.2	0.4	0.2	31.8%	30.5%
	0	0	0.5	0	54.3%	52.4%
	0	0.3	0.5	0.1	49.8%	47.7%
	0.5	0.5	0	0.5	0.0%	0.1%
	0	0	0.4	0.5	20.3%	19.7%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.1	0.2	0	31.5%	29.6%
	0	0.2	0.4	0.2	60.1%	56.4%
	0	0	0.2	0	30.1%	28.6%
	0	0.3	0.4	0.1	65.2%	62.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	32.9%	31.2%
T with 3 df.	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0	30.6%	29.4%
	0	0.4	0.8	0.4	59.9%	58.3%
	0	0	0.4	0	30.3%	28.7%
	0	0.3	0.5	0.1	37.6%	36.4%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	16.6%	16.0%
Cauchy	0	0	0	0	4.9%	4.9%
	0	0.4	0.8	0	46.0%	44.9%
	0	0.4	0.8	0.4	36.1%	34.6%
	0	0	0.8	0	45.1%	43.1%
	0	0.3	0.5	0.1	23.7%	22.7%
	0.5	0.5	0	0.5	0.4%	0.4%
	0	0	0.4	0.5	11.7%	11.3%

Table F.84. t = 4, Pk = 3, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.7%	5.5%
	0	0.4	0.8	0	72.3%	87.1%
	0	0.4	0.8	0.4	57.0%	73.6%
	0	0	0.8	0	71.9%	86.5%
	0	0.3	0.5	0.1	37.4%	49.1%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.0%	21.0%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0	55.1%	71.1%
	0	0.2	0.4	0.2	43.6%	58.5%
	0	0	0.4	0	52.5%	68.9%
	0	0.3	0.4	0.1	49.4%	64.1%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	22.9%	30.7%
T with 3 df.	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	55.9%	71.9%
	0	0.4	0.8	0.4	44.1%	58.9%
	0	0	0.8	0	55.0%	70.5%
	0	0.3	0.5	0.1	28.2%	36.6%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.3%	16.1%
Cauchy	0	0	0	0	5.1%	4.8%
	0	0.4	0.8	0	35.2%	46.3%
	0	0.4	0.8	0.4	27.2%	35.3%
	0	0	0.8	0	34.2%	44.5%
	0	0.3	0.5	0.1	18.2%	23.5%
	0.5	0.5	0	0.5	0.8%	0.5%
	0	0	0.4	0.5	10.3%	11.9%

F.3.3. Probability of Missing = 0.3

Table F.85. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.4	0.8	0	55.4%	77.2%
	0	0.4	0.8	0.4	43.6%	63.1%
	0	0	0.8	0	55.6%	76.5%
	0	0.3	0.5	0.1	27.1%	40.7%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.0%	17.2%
Exponential	0	0	0	0	5.0%	5.1%
	0	0.2	0.4	0	41.0%	59.4%
	0	0.2	0.4	0.2	31.6%	47.5%
	0	0	0.4	0	38.5%	56.1%
	0	0.3	0.4	0.1	36.4%	52.9%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.8%	25.9%
T with 3 df.	0	0	0	0	4.9%	5.3%
	0	0.4	0.8	0	42.6%	60.8%
	0	0.4	0.8	0.4	33.2%	48.3%
	0	0	0.8	0	41.3%	59.9%
	0	0.3	0.5	0.1	21.5%	30.3%
	0.5	0.5	0	0.5	0.7%	0.3%
	0	0	0.4	0.5	10.7%	14.0%
Cauchy	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	25.8%	38.6%
	0	0.4	0.8	0.4	20.5%	28.8%
	0	0	0.8	0	25.6%	36.5%
	0	0.3	0.5	0.1	14.8%	19.4%
	0.5	0.5	0	0.5	1.1%	0.7%
	0	0	0.4	0.5	8.9%	10.4%

Table F.86. t = 4, Pk = 3, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.4%
	0	0.4	0.8	0	54.0%	69.5%
	0	0.4	0.8	0.4	43.1%	55.9%
	0	0	0.8	0	53.5%	68.1%
	0	0.3	0.5	0.1	26.5%	35.1%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.0%	15.7%
Exponential	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0	40.4%	52.4%
	0	0.2	0.4	0.2	32.4%	41.5%
	0	0	0.4	0	38.4%	50.5%
	0	0.3	0.4	0.1	36.6%	47.5%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	17.4%	23.0%
T with 3 df.	0	0	0	0	5.8%	5.5%
	0	0.4	0.8	0	40.5%	52.6%
	0	0.4	0.8	0.4	31.8%	42.8%
	0	0	0.8	0	41.0%	53.4%
	0	0.3	0.5	0.1	20.3%	26.9%
	0.5	0.5	0	0.5	0.7%	0.3%
	0	0	0.4	0.5	11.1%	12.7%
Cauchy	0	0	0	0	5.4%	5.2%
	0	0.4	0.8	0	25.3%	33.1%
	0	0.4	0.8	0.4	20.2%	25.9%
	0	0	0.8	0	25.1%	32.6%
	0	0.3	0.5	0.1	14.3%	17.2%
	0.5	0.5	0	0.5	1.2%	0.9%
	0	0	0.4	0.5	9.0%	9.3%

Table F.87. t = 4, Pk = 3, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	5.5%
	0	0.4	0.8	0	45.7%	69.0%
	0	0.4	0.8	0.4	36.1%	56.1%
	0	0	0.8	0	44.8%	68.4%
	0	0.3	0.5	0.1	23.0%	35.3%
	0.5	0.5	0	0.5	0.5%	0.2%
	0	0	0.4	0.5	11.2%	14.8%
Exponential	0	0	0	0	5.3%	5.5%
	0	0.2	0.4	0	33.2%	51.9%
	0	0.2	0.4	0.2	26.6%	40.9%
	0	0	0.4	0	30.4%	49.3%
	0	0.3	0.4	0.1	30.0%	46.6%
	0.5	0.5	0	0.5	0.2%	0.0%
	0	0	0.4	0.5	15.9%	22.9%
T with 3 df.	0	0	0	0	5.5%	4.9%
	0	0.4	0.8	0	34.9%	54.1%
	0	0.4	0.8	0.4	27.4%	41.9%
	0	0	0.8	0	34.0%	53.3%
	0	0.3	0.5	0.1	18.4%	26.9%
	0.5	0.5	0	0.5	0.8%	0.4%
	0	0	0.4	0.5	10.1%	12.7%
Cauchy	0	0	0	0	5.5%	5.2%
	0	0.4	0.8	0	21.9%	33.5%
	0	0.4	0.8	0.4	17.7%	25.6%
	0	0	0.8	0	21.1%	32.4%
	0	0.3	0.5	0.1	12.5%	17.1%
	0.5	0.5	0	0.5	1.7%	1.0%
	0	0	0.4	0.5	8.5%	10.1%

Table F.88. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.4%
	0	0.4	0.8	0	53.1%	59.4%
	0	0.4	0.8	0.4	41.9%	47.3%
	0	0	0.8	0	52.0%	57.9%
	0	0.3	0.5	0.1	26.0%	29.7%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	12.7%	13.6%
Exponential	0	0	0	0	4.9%	5.1%
	0	0.2	0.4	0	38.6%	43.7%
	0	0.2	0.4	0.2	30.8%	34.3%
	0	0	0.4	0	36.3%	40.2%
	0	0.3	0.4	0.1	34.6%	38.4%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.3%	18.8%
T with 3 df.	0	0	0	0	4.8%	5.1%
	0	0.4	0.8	0	40.2%	45.0%
	0	0.4	0.8	0.4	31.8%	34.5%
	0	0	0.8	0	40.4%	44.6%
	0	0.3	0.5	0.1	19.9%	21.9%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.0%	11.0%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.4	0.8	0	24.4%	27.7%
	0	0.4	0.8	0.4	20.5%	22.8%
	0	0	0.8	0	25.2%	27.3%
	0	0.3	0.5	0.1	13.7%	15.3%
	0.5	0.5	0	0.5	1.3%	1.2%
	0	0	0.4	0.5	8.5%	8.8%

Table F.89. t = 4, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	5.0%
	0	0.4	0.8	0	40.0%	57.9%
	0	0.4	0.8	0.4	32.0%	46.4%
	0	0	0.8	0	40.9%	57.8%
	0	0.3	0.5	0.1	20.3%	28.6%
	0.5	0.5	0	0.5	0.7%	0.3%
	0	0	0.4	0.5	10.6%	13.4%
Exponential	0	0	0	0	5.1%	5.3%
	0	0.2	0.4	0	28.4%	41.7%
	0	0.2	0.4	0.2	22.9%	33.5%
	0	0	0.4	0	26.8%	39.8%
	0	0.3	0.4	0.1	25.7%	37.6%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	13.0%	18.4%
T with 3 df.	0	0	0	0	4.9%	5.0%
	0	0.4	0.8	0	30.6%	44.5%
	0	0.4	0.8	0.4	24.6%	34.5%
	0	0	0.8	0	30.7%	44.5%
	0	0.3	0.5	0.1	17.0%	22.4%
	0.5	0.5	0	0.5	0.8%	0.5%
	0	0	0.4	0.5	9.0%	10.9%
Cauchy	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	19.4%	27.2%
	0	0.4	0.8	0.4	16.4%	21.3%
	0	0	0.8	0	18.6%	26.1%
	0	0.3	0.5	0.1	12.3%	15.3%
	0.5	0.5	0	0.5	1.6%	1.3%
	0	0	0.4	0.5	8.0%	8.8%

Table F.90. t = 4, Pk = 3, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.2	0.4	0	40.0%	37.7%
	0	0.2	0.4	0.2	31.5%	29.8%
	0	0	0.5	0	54.2%	50.1%
	0	0.3	0.5	0.1	50.7%	46.7%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	20.2%	18.7%
Exponential	0	0	0	0	5.4%	5.2%
	0	0.1	0.2	0	30.4%	29.0%
	0	0.2	0.4	0.2	59.2%	55.4%
	0	0	0.2	0	30.9%	28.3%
	0	0.3	0.4	0.1	66.6%	61.7%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	33.4%	31.1%
T with 3 df.	0	0	0	0	5.2%	5.2%
	0	0.2	0.4	0	30.2%	28.9%
	0	0.4	0.8	0.4	59.5%	55.1%
	0	0	0.4	0	31.4%	28.6%
	0	0.3	0.5	0.1	36.1%	34.5%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	16.1%	15.1%
Cauchy	0	0	0	0	4.7%	5.1%
	0	0.4	0.8	0	46.1%	43.1%
	0	0.4	0.8	0.4	37.3%	35.1%
	0	0	0.8	0	45.1%	43.3%
	0	0.3	0.5	0.1	23.0%	21.6%
	0.5	0.5	0	0.5	0.5%	0.5%
	0	0	0.4	0.5	11.7%	10.9%

Table F.91. t = 4, Pk = 3, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.0%
	0	0.4	0.8	0	65.4%	82.6%
	0	0.4	0.8	0.4	53.0%	69.9%
	0	0	0.8	0	65.7%	82.5%
	0	0.3	0.5	0.1	33.2%	45.2%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.9%	18.6%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.2	0.4	0	49.4%	65.5%
	0	0.2	0.4	0.2	39.9%	54.2%
	0	0	0.4	0	46.9%	64.1%
	0	0.3	0.4	0.1	44.0%	59.6%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	21.2%	28.1%
T with 3 df.	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	51.1%	68.5%
	0	0.4	0.8	0.4	40.2%	55.3%
	0	0	0.8	0	50.1%	66.7%
	0	0.3	0.5	0.1	25.7%	34.8%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	12.2%	15.1%
Cauchy	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	32.3%	43.4%
	0	0.4	0.8	0.4	25.5%	33.8%
	0	0	0.8	0	30.3%	41.4%
	0	0.3	0.5	0.1	17.1%	22.2%
	0.5	0.5	0	0.5	0.8%	0.5%
	0	0	0.4	0.5	9.3%	10.8%

F.3.4. Probability of Missing = 0.4

Table F.92. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.6%	5.1%
	0	0.4	0.8	0	55.4%	74.0%
	0	0.4	0.8	0.4	42.8%	60.4%
	0	0	0.8	0	54.5%	73.7%
	0	0.3	0.5	0.1	27.0%	37.8%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	12.6%	15.9%
Exponential	0	0	0	0	5.0%	5.2%
	0	0.2	0.4	0	41.0%	57.4%
	0	0.2	0.4	0.2	32.4%	45.8%
	0	0	0.4	0	38.4%	54.8%
	0	0.3	0.4	0.1	36.5%	49.6%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.8%	25.3%
T with 3 df.	0	0	0	0	4.5%	5.1%
	0	0.4	0.8	0	41.9%	58.5%
	0	0.4	0.8	0.4	33.3%	46.4%
	0	0	0.8	0	40.3%	57.6%
	0	0.3	0.5	0.1	21.1%	28.3%
	0.5	0.5	0	0.5	0.6%	0.2%
	0	0	0.4	0.5	11.0%	13.7%
Cauchy	0	0	0	0	4.8%	5.0%
	0	0.4	0.8	0	25.7%	35.7%
	0	0.4	0.8	0.4	20.7%	28.9%
	0	0	0.8	0	24.9%	35.4%
	0	0.3	0.5	0.1	13.9%	18.2%
	0.5	0.5	0	0.5	1.2%	0.7%
	0	0	0.4	0.5	8.8%	10.1%

Table F.93. t = 4, Pk = 3, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	5.4%
	0	0.4	0.8	0	54.1%	68.0%
	0	0.4	0.8	0.4	41.3%	53.6%
	0	0	0.8	0	53.8%	66.5%
	0	0.3	0.5	0.1	26.7%	34.1%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	12.5%	14.8%
Exponential	0	0	0	0	4.9%	5.5%
	0	0.2	0.4	0	39.8%	50.5%
	0	0.2	0.4	0.2	32.4%	40.4%
	0	0	0.4	0	37.4%	48.7%
	0	0.3	0.4	0.1	35.2%	45.0%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.2%	22.2%
T with 3 df.	0	0	0	0	5.1%	4.4%
	0	0.4	0.8	0	40.9%	52.0%
	0	0.4	0.8	0.4	32.5%	40.5%
	0	0	0.8	0	41.0%	51.4%
	0	0.3	0.5	0.1	20.8%	26.0%
	0.5	0.5	0	0.5	0.5%	0.3%
	0	0	0.4	0.5	10.9%	12.5%
Cauchy	0	0	0	0	4.6%	4.8%
	0	0.4	0.8	0	25.0%	31.8%
	0	0.4	0.8	0.4	20.4%	25.1%
	0	0	0.8	0	24.2%	30.3%
	0	0.3	0.5	0.1	14.1%	16.9%
	0.5	0.5	0	0.5	1.4%	1.0%
	0	0	0.4	0.5	9.0%	9.4%

Table F.94. t = 4, Pk = 3, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.0%	5.1%
	0	0.4	0.8	0	45.5%	66.5%
	0	0.4	0.8	0.4	35.0%	52.9%
	0	0	0.8	0	44.4%	65.8%
	0	0.3	0.5	0.1	22.1%	33.3%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	10.6%	14.6%
Exponential	0	0	0	0	5.4%	5.3%
	0	0.2	0.4	0	33.3%	49.6%
	0	0.2	0.4	0.2	25.9%	39.1%
	0	0	0.4	0	30.9%	47.4%
	0	0.3	0.4	0.1	29.4%	43.8%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.9%	21.3%
T with 3 df.	0	0	0	0	4.6%	5.2%
	0	0.4	0.8	0	34.0%	51.5%
	0	0.4	0.8	0.4	26.8%	40.8%
	0	0	0.8	0	33.0%	50.3%
	0	0.3	0.5	0.1	18.5%	25.3%
	0.5	0.5	0	0.5	0.7%	0.3%
	0	0	0.4	0.5	10.1%	12.6%
Cauchy	0	0	0	0	5.1%	5.2%
	0	0.4	0.8	0	22.0%	31.0%
	0	0.4	0.8	0.4	18.4%	24.9%
	0	0	0.8	0	20.8%	29.3%
	0	0.3	0.5	0.1	12.4%	16.9%
	0.5	0.5	0	0.5	1.4%	0.9%
	0	0	0.4	0.5	8.0%	9.4%

Table F.95. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	53.2%	57.7%
	0	0.4	0.8	0.4	41.1%	44.8%
	0	0	0.8	0	52.3%	56.6%
	0	0.3	0.5	0.1	26.3%	29.1%
	0.5	0.5	0	0.5	0.4%	0.3%
	0	0	0.4	0.5	12.7%	13.3%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0	39.2%	42.2%
	0	0.2	0.4	0.2	31.0%	33.0%
	0	0	0.4	0	37.6%	40.5%
	0	0.3	0.4	0.1	34.5%	37.1%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.6%	18.6%
T with 3 df.	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	39.6%	43.7%
	0	0.4	0.8	0.4	31.1%	34.2%
	0	0	0.8	0	40.5%	43.6%
	0	0.3	0.5	0.1	20.4%	22.3%
	0.5	0.5	0	0.5	0.7%	0.5%
	0	0	0.4	0.5	11.0%	11.8%
Cauchy	0	0	0	0	5.1%	4.9%
	0	0.4	0.8	0	24.7%	27.1%
	0	0.4	0.8	0.4	20.1%	21.0%
	0	0	0.8	0	25.2%	26.5%
	0	0.3	0.5	0.1	13.8%	14.7%
	0.5	0.5	0	0.5	1.4%	1.2%
	0	0	0.4	0.5	8.5%	8.7%

Table F.96. t = 4, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.1%
	0	0.4	0.8	0	38.0%	55.1%
	0	0.4	0.8	0.4	30.3%	43.0%
	0	0	0.8	0	37.9%	53.9%
	0	0.3	0.5	0.1	19.1%	26.5%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	10.6%	13.4%
Exponential	0	0	0	0	4.9%	5.0%
	0	0.2	0.4	0	26.7%	38.9%
	0	0.2	0.4	0.2	21.8%	31.8%
	0	0	0.4	0	25.3%	37.2%
	0	0.3	0.4	0.1	24.8%	34.7%
	0.5	0.5	0	0.5	0.4%	0.1%
	0	0	0.4	0.5	12.7%	17.3%
T with 3 df.	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	28.4%	41.6%
	0	0.4	0.8	0.4	23.6%	32.8%
	0	0	0.8	0	28.0%	40.1%
	0	0.3	0.5	0.1	15.6%	20.6%
	0.5	0.5	0	0.5	1.0%	0.5%
	0	0	0.4	0.5	8.7%	10.5%
Cauchy	0	0	0	0	4.8%	4.6%
	0	0.4	0.8	0	18.5%	26.2%
	0	0.4	0.8	0.4	16.0%	20.8%
	0	0	0.8	0	18.1%	25.5%
	0	0.3	0.5	0.1	12.0%	14.5%
	0.5	0.5	0	0.5	1.9%	1.3%
	0	0	0.4	0.5	7.7%	8.8%

Table F.97. t = 4, Pk = 3, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0	40.3%	37.5%
	0	0.2	0.4	0.2	31.7%	29.2%
	0	0	0.5	0	53.0%	48.8%
	0	0.3	0.5	0.1	48.4%	44.8%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	20.4%	18.8%
Exponential	0	0	0	0	5.0%	5.0%
	0	0.1	0.2	0	31.8%	28.9%
	0	0.2	0.4	0.2	59.7%	53.8%
	0	0	0.2	0	29.9%	27.4%
	0	0.3	0.4	0.1	67.0%	61.3%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	33.5%	30.1%
T with 3 df.	0	0	0	0	4.4%	4.4%
	0	0.2	0.4	0	30.1%	27.3%
	0	0.4	0.8	0.4	58.4%	52.8%
	0	0	0.4	0	30.8%	28.7%
	0	0.3	0.5	0.1	37.3%	34.9%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	15.8%	14.7%
Cauchy	0	0	0	0	5.2%	5.0%
	0	0.4	0.8	0	47.2%	42.3%
	0	0.4	0.8	0.4	36.4%	33.0%
	0	0	0.8	0	45.6%	42.2%
	0	0.3	0.5	0.1	23.3%	21.4%
	0.5	0.5	0	0.5	0.6%	0.5%
	0	0	0.4	0.5	11.7%	11.1%

Table F.98. t = 4, Pk = 3, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.4%	5.2%
	0	0.4	0.8	0	60.9%	80.0%
	0	0.4	0.8	0.4	48.3%	66.8%
	0	0	0.8	0	59.7%	77.9%
	0	0.3	0.5	0.1	30.3%	42.1%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	14.4%	18.2%
Exponential	0	0	0	0	5.1%	5.0%
	0	0.2	0.4	0	44.9%	61.8%
	0	0.2	0.4	0.2	35.4%	50.0%
	0	0	0.4	0	41.8%	58.9%
	0	0.3	0.4	0.1	41.2%	56.6%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	20.0%	27.4%
T with 3 df.	0	0	0	0	5.3%	5.3%
	0	0.4	0.8	0	46.8%	63.9%
	0	0.4	0.8	0.4	37.3%	51.1%
	0	0	0.8	0	45.4%	63.3%
	0	0.3	0.5	0.1	23.6%	31.9%
	0.5	0.5	0	0.5	0.4%	0.2%
	0	0	0.4	0.5	12.1%	15.0%
Cauchy	0	0	0	0	5.1%	4.9%
	0	0.4	0.8	0	27.8%	39.3%
	0	0.4	0.8	0.4	23.6%	31.6%
	0	0	0.8	0	27.7%	37.9%
	0	0.3	0.5	0.1	15.6%	20.3%
	0.5	0.5	0	0.5	0.9%	0.6%
	0	0	0.4	0.5	9.4%	11.0%

F.3.5. Probability of Missing = 0.5

Table F.99. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	54.8%	72.2%
	0	0.4	0.8	0.4	42.8%	56.8%
	0	0	0.8	0	55.0%	71.2%
	0	0.3	0.5	0.1	27.4%	36.9%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	12.6%	15.3%
Exponential	0	0	0	0	5.1%	5.2%
	0	0.2	0.4	0	39.9%	53.6%
	0	0.2	0.4	0.2	32.5%	43.4%
	0	0	0.4	0	38.8%	53.1%
	0	0.3	0.4	0.1	36.3%	48.6%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.7%	23.9%
T with 3 df.	0	0	0	0	4.8%	4.9%
	0	0.4	0.8	0	42.0%	55.9%
	0	0.4	0.8	0.4	33.5%	45.1%
	0	0	0.8	0	41.6%	56.1%
	0	0.3	0.5	0.1	21.3%	27.9%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	10.4%	12.6%
Cauchy	0	0	0	0	5.0%	5.2%
	0	0.4	0.8	0	25.0%	34.3%
	0	0.4	0.8	0.4	20.3%	27.4%
	0	0	0.8	0	24.5%	33.1%
	0	0.3	0.5	0.1	14.1%	17.8%
	0.5	0.5	0	0.5	1.0%	0.8%
	0	0	0.4	0.5	8.5%	9.8%

Table F.100. t = 4, Pk = 3, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.9%	5.2%
	0	0.4	0.8	0	54.3%	64.9%
	0	0.4	0.8	0.4	42.6%	51.7%
	0	0	0.8	0	53.4%	64.7%
	0	0.3	0.5	0.1	25.4%	32.2%
	0.5	0.5	0	0.5	0.4%	0.3%
	0	0	0.4	0.5	12.9%	14.8%
Exponential	0	0	0	0	5.4%	5.1%
	0	0.2	0.4	0	40.2%	49.0%
	0	0.2	0.4	0.2	31.7%	38.6%
	0	0	0.4	0	37.5%	45.4%
	0	0.3	0.4	0.1	35.6%	42.8%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	18.1%	21.9%
T with 3 df.	0	0	0	0	5.4%	5.1%
	0	0.4	0.8	0	41.2%	49.9%
	0	0.4	0.8	0.4	32.0%	39.8%
	0	0	0.8	0	40.7%	49.3%
	0	0.3	0.5	0.1	21.2%	25.8%
	0.5	0.5	0	0.5	0.6%	0.4%
	0	0	0.4	0.5	10.9%	12.2%
Cauchy	0	0	0	0	5.3%	5.1%
	0	0.4	0.8	0	25.0%	30.2%
	0	0.4	0.8	0.4	20.2%	24.2%
	0	0	0.8	0	25.2%	29.8%
	0	0.3	0.5	0.1	14.4%	16.4%
	0.5	0.5	0	0.5	1.3%	1.0%
	0	0	0.4	0.5	8.1%	9.3%

Table F.101. t = 4, Pk = 3, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	5.3%	5.3%
	0	0.4	0.8	0	44.0%	64.1%
	0	0.4	0.8	0.4	35.3%	50.2%
	0	0	0.8	0	43.3%	62.7%
	0	0.3	0.5	0.1	21.4%	31.9%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	11.0%	14.5%
Exponential	0	0	0	0	5.4%	5.4%
	0	0.2	0.4	0	31.5%	46.5%
	0	0.2	0.4	0.2	24.9%	36.3%
	0	0	0.4	0	30.0%	45.3%
	0	0.3	0.4	0.1	29.1%	41.3%
	0.5	0.5	0	0.5	0.2%	0.1%
	0	0	0.4	0.5	14.3%	19.4%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	33.1%	48.3%
	0	0.4	0.8	0.4	26.3%	38.2%
	0	0	0.8	0	32.8%	47.3%
	0	0.3	0.5	0.1	17.0%	23.8%
	0.5	0.5	0	0.5	0.8%	0.3%
	0	0	0.4	0.5	9.3%	11.9%
Cauchy	0	0	0	0	5.0%	5.0%
	0	0.4	0.8	0	21.0%	29.7%
	0	0.4	0.8	0.4	16.7%	23.3%
	0	0	0.8	0	21.4%	29.9%
	0	0.3	0.5	0.1	13.5%	16.1%
	0.5	0.5	0	0.5	1.6%	0.9%
	0	0	0.4	0.5	8.2%	9.3%

Table F.102. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.7%	4.9%
	0	0.4	0.8	0	53.1%	55.4%
	0	0.4	0.8	0.4	40.6%	43.7%
	0	0	0.8	0	52.6%	54.3%
	0	0.3	0.5	0.1	26.3%	27.9%
	0.5	0.5	0	0.5	0.3%	0.2%
	0	0	0.4	0.5	12.3%	13.3%
Exponential	0	0	0	0	4.8%	4.9%
	0	0.2	0.4	0	38.4%	40.4%
	0	0.2	0.4	0.2	30.7%	31.9%
	0	0	0.4	0	36.1%	37.9%
	0	0.3	0.4	0.1	35.2%	35.9%
	0.5	0.5	0	0.5	0.1%	0.1%
	0	0	0.4	0.5	17.4%	18.7%
T with 3 df.	0	0	0	0	5.0%	5.1%
	0	0.4	0.8	0	39.5%	41.8%
	0	0.4	0.8	0.4	31.8%	33.2%
	0	0	0.8	0	38.7%	41.2%
	0	0.3	0.5	0.1	19.7%	21.2%
	0.5	0.5	0	0.5	0.4%	0.5%
	0	0	0.4	0.5	10.8%	10.8%
Cauchy	0	0	0	0	4.6%	4.8%
	0	0.4	0.8	0	24.3%	25.4%
	0	0.4	0.8	0.4	19.5%	21.8%
	0	0	0.8	0	25.4%	26.4%
	0	0.3	0.5	0.1	14.0%	14.7%
	0.5	0.5	0	0.5	1.3%	1.1%
	0	0	0.4	0.5	8.6%	8.9%

Table F.103. t = 4, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.7%
	0	0.4	0.8	0	36.9%	53.1%
	0	0.4	0.8	0.4	28.2%	40.5%
	0	0	0.8	0	35.9%	51.0%
	0	0.3	0.5	0.1	19.6%	26.2%
	0.5	0.5	0	0.5	0.7%	0.4%
	0	0	0.4	0.5	10.1%	12.3%
Exponential	0	0	0	0	5.0%	4.9%
	0	0.2	0.4	0	25.5%	37.2%
	0	0.2	0.4	0.2	20.9%	29.8%
	0	0	0.4	0	24.0%	35.1%
	0	0.3	0.4	0.1	23.2%	33.0%
	0.5	0.5	0	0.5	0.6%	0.2%
	0	0	0.4	0.5	12.4%	16.8%
T with 3 df.	0	0	0	0	5.0%	4.8%
	0	0.4	0.8	0	27.7%	38.4%
	0	0.4	0.8	0.4	22.7%	31.1%
	0	0	0.8	0	26.8%	38.6%
	0	0.3	0.5	0.1	15.6%	20.6%
	0.5	0.5	0	0.5	1.0%	0.6%
	0	0	0.4	0.5	9.5%	10.8%
Cauchy	0	0	0	0	4.8%	4.8%
	0	0.4	0.8	0	18.2%	24.3%
	0	0.4	0.8	0.4	14.9%	20.1%
	0	0	0.8	0	17.8%	23.9%
	0	0.3	0.5	0.1	11.0%	13.6%
	0.5	0.5	0	0.5	2.0%	1.4%
	0	0	0.4	0.5	7.9%	8.8%

Table F.104. t = 4, Pk = 3, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	Std. Last	Std. First
Normal	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0	39.5%	34.9%
	0	0.2	0.4	0.2	31.5%	28.5%
	0	0	0.5	0	54.1%	48.9%
	0	0.3	0.5	0.1	49.8%	44.7%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	20.0%	18.5%
Exponential	0	0	0	0	4.9%	4.7%
	0	0.1	0.2	0	32.1%	28.4%
	0	0.2	0.4	0.2	59.4%	53.0%
	0	0	0.2	0	30.4%	27.8%
	0	0.3	0.4	0.1	65.2%	58.3%
	0.5	0.5	0	0.5	0.0%	0.0%
	0	0	0.4	0.5	33.5%	29.1%
T with 3 df.	0	0	0	0	5.5%	5.1%
	0	0.2	0.4	0	31.1%	27.8%
	0	0.4	0.8	0.4	59.7%	53.7%
	0	0	0.4	0	30.7%	28.4%
	0	0.3	0.5	0.1	37.5%	33.6%
	0.5	0.5	0	0.5	0.1%	0.2%
	0	0	0.4	0.5	16.1%	14.2%
Cauchy	0	0	0	0	5.2%	5.1%
	0	0.4	0.8	0	47.9%	42.4%
	0	0.4	0.8	0.4	36.9%	32.1%
	0	0	0.8	0	45.8%	40.7%
	0	0.3	0.5	0.1	23.5%	21.3%
	0.5	0.5	0	0.5	0.3%	0.5%
	0	0	0.4	0.5	12.5%	10.9%

Table F.105. t = 4, Pk = 3, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	Std. Last	Std. First
Normal	0	0	0	0	5.2%	5.2%
	0	0.4	0.8	0	57.3%	76.2%
	0	0.4	0.8	0.4	44.1%	61.5%
	0	0	0.8	0	55.9%	75.2%
	0	0.3	0.5	0.1	28.5%	39.8%
	0.5	0.5	0	0.5	0.3%	0.1%
	0	0	0.4	0.5	13.0%	16.3%
Exponential	0	0	0	0	4.8%	4.8%
	0	0.2	0.4	0	40.9%	57.9%
	0	0.2	0.4	0.2	32.9%	46.6%
	0	0	0.4	0	38.2%	55.2%
	0	0.3	0.4	0.1	37.1%	52.2%
	0.5	0.5	0	0.5	0.1%	0.0%
	0	0	0.4	0.5	18.2%	26.1%
T with 3 df.	0	0	0	0	5.0%	4.9%
	0	0.4	0.8	0	43.1%	60.5%
	0	0.4	0.8	0.4	32.2%	47.1%
	0	0	0.8	0	42.9%	59.4%
	0	0.3	0.5	0.1	22.4%	30.0%
	0.5	0.5	0	0.5	0.6%	0.3%
	0	0	0.4	0.5	11.3%	14.4%
Cauchy	0	0	0	0	4.9%	4.7%
	0	0.4	0.8	0	25.6%	36.1%
	0	0.4	0.8	0.4	21.6%	29.0%
	0	0	0.8	0	26.1%	35.9%
	0	0.3	0.5	0.1	15.0%	19.4%
	0.5	0.5	0	0.5	1.1%	0.7%
	0	0	0.4	0.5	8.7%	10.4%

F.4. Five Treatments – Peak at Two

F.4.1. Probability of Missing = 0.1

Table F.106. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0.8	0	0	0	52.2%	78.1%
	0	0.8	0.4	0	0	61.6%	86.8%
	0	0.6	0.3	0.3	0	35.4%	58.5%
	0.4	0.8	0	0	0	43.0%	67.5%
	0.4	0.8	0.4	0	0	52.5%	79.0%
	0.4	0.8	0.4	0.4	0	44.0%	69.1%
	0.3	0.7	0.6	0.1	0	48.9%	74.8%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0.4	0	0	0	36.3%	59.2%
	0	0.4	0.2	0	0	44.8%	71.1%
	0	0.6	0.3	0.3	0	63.7%	87.7%
	0.2	0.4	0	0	0	30.5%	50.2%
	0.2	0.4	0.2	0	0	39.2%	62.2%
	0.2	0.4	0.2	0.2	0	33.1%	53.4%
	0.1	0.4	0.3	0.2	0	39.6%	62.8%
T with 3 df.	0	0	0	0	0	5.0%	5.4%
	0	0.8	0	0	0	39.1%	62.8%
	0	0.8	0.4	0	0	47.1%	72.4%
	0	0.6	0.3	0.3	0	27.8%	44.0%
	0.4	0.8	0	0	0	32.6%	52.8%
	0.4	0.8	0.4	0	0	39.7%	62.8%
	0.4	0.8	0.4	0.4	0	33.3%	53.3%
	0.3	0.7	0.6	0.1	0	37.3%	59.8%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	1	0	0	0	32.3%	50.1%
	0	1	0.4	0	0	36.5%	58.8%
	0	1	0.3	0.3	0	32.5%	51.9%
	0.4	1	0	0	0	28.0%	44.3%
	0.4	1	0.4	0	0	32.6%	51.2%
	0.4	1	0.4	0.4	0	29.0%	46.1%
	0.3	1	0.6	0.1	0	34.2%	53.9%

Table F.107. t = 5, Pk = 2, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	0	51.3%	71.0%
	0	0.8	0.4	0	0	59.3%	80.1%
	0	0.6	0.3	0.3	0	34.1%	50.5%
	0.4	0.8	0	0	0	43.5%	60.7%
	0.4	0.8	0.4	0	0	51.6%	71.9%
	0.4	0.8	0.4	0.4	0	43.4%	61.1%
	0.3	0.7	0.6	0.1	0	47.0%	67.1%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	0	35.5%	52.2%
	0	0.4	0.2	0	0	44.4%	63.1%
	0	0.6	0.3	0.3	0	62.1%	82.1%
	0.2	0.4	0	0	0	29.4%	43.0%
	0.2	0.4	0.2	0	0	38.6%	55.6%
	0.2	0.4	0.2	0.2	0	32.8%	47.5%
	0.1	0.4	0.3	0.2	0	39.0%	55.3%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	38.2%	55.2%
	0	0.8	0.4	0	0	45.2%	64.0%
	0	0.6	0.3	0.3	0	26.4%	38.2%
	0.4	0.8	0	0	0	31.4%	45.0%
	0.4	0.8	0.4	0	0	38.4%	55.9%
	0.4	0.8	0.4	0.4	0	32.6%	47.2%
	0.3	0.7	0.6	0.1	0	36.2%	51.8%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	1	0	0	0	30.7%	44.2%
	0	1	0.4	0	0	35.8%	50.5%
	0	1	0.3	0.3	0	31.5%	45.0%
	0.4	1	0	0	0	27.3%	39.1%
	0.4	1	0.4	0	0	30.9%	44.6%
	0.4	1	0.4	0.4	0	28.0%	40.1%
	0.3	1	0.6	0.1	0	34.1%	48.8%
	0.5	0	0.5	0.5	1	0.4%	0.1%
	0	0.4	0.6	0.8	1	1.6%	1.1%

Table F.108. t = 5, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	43.5%	71.9%
	0	0.8	0.4	0	0	51.4%	80.9%
	0	0.6	0.3	0.3	0	31.2%	51.9%
	0.4	0.8	0	0	0	37.1%	61.0%
	0.4	0.8	0.4	0	0	44.7%	72.6%
	0.4	0.8	0.4	0.4	0	37.5%	62.6%
	0.3	0.7	0.6	0.1	0	40.7%	67.2%
Exponential	0	0	0	0	0	4.7%	4.9%
	0	0.4	0	0	0	30.1%	51.9%
	0	0.4	0.2	0	0	38.1%	64.2%
	0	0.6	0.3	0.3	0	54.3%	82.8%
	0.2	0.4	0	0	0	25.6%	44.1%
	0.2	0.4	0.2	0	0	32.5%	54.4%
	0.2	0.4	0.2	0.2	0	28.3%	47.8%
	0.3	0.7	0.6	0.1	0	69.7%	93.3%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	0	33.9%	56.1%
	0	0.8	0.4	0	0	40.6%	65.9%
	0	0.6	0.3	0.3	0	24.0%	39.0%
	0.4	0.8	0	0	0	28.2%	47.3%
	0.4	0.8	0.4	0	0	34.0%	56.6%
	0.4	0.8	0.4	0.4	0	28.7%	48.5%
	0.3	0.7	0.6	0.1	0	30.8%	52.4%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	1	0	0	0	27.5%	44.5%
	0	1	0.4	0	0	31.2%	51.7%
	0	1	0.3	0.3	0	28.2%	46.0%
	0.4	1	0	0	0	24.0%	39.0%
	0.4	1	0.4	0	0	27.8%	45.8%
	0.4	1	0.4	0.4	0	24.5%	40.4%
	0.3	1	0.6	0.1	0	29.7%	49.3%
	0.5	0	0.5	0.5	1	0.4%	0.1%
	0	0.4	0.6	0.8	1	2.0%	1.2%

Table F.109. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.8%
	0	0.8	0	0	0	49.1%	59.4%
	0	0.8	0.4	0	0	58.2%	69.3%
	0	0.6	0.3	0.3	0	33.4%	41.2%
	0.4	0.8	0	0	0	40.8%	48.6%
	0.4	0.8	0.4	0	0	49.4%	60.0%
	0.4	0.8	0.4	0.4	0	41.2%	52.0%
	0.3	0.7	0.6	0.1	0	45.8%	55.6%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	0	33.8%	41.4%
	0	0.4	0.2	0	0	42.1%	51.5%
	0	0.6	0.3	0.3	0	61.4%	71.0%
	0.2	0.4	0	0	0	28.6%	34.2%
	0.2	0.4	0.2	0	0	37.0%	45.2%
	0.2	0.4	0.2	0.2	0	32.2%	38.1%
	0.1	0.4	0.3	0.2	0	37.8%	45.1%
T with 3 df.	0	0	0	0	0	4.9%	5.0%
	0	0.8	0	0	0	36.3%	44.5%
	0	0.8	0.4	0	0	43.8%	53.2%
	0	0.6	0.3	0.3	0	26.5%	31.2%
	0.4	0.8	0	0	0	31.6%	37.7%
	0.4	0.8	0.4	0	0	37.3%	45.0%
	0.4	0.8	0.4	0.4	0	31.0%	38.3%
	0.3	0.7	0.6	0.1	0	34.8%	42.5%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	1	0	0	0	30.9%	36.4%
	0	1	0.4	0	0	33.8%	40.6%
	0	1	0.3	0.3	0	29.9%	35.9%
	0.4	1	0	0	0	26.5%	30.9%
	0.4	1	0.4	0	0	30.1%	36.2%
	0.4	1	0.4	0.4	0	27.1%	32.4%
	0.3	1	0.6	0.1	0	33.1%	40.0%
	0.5	0	0.5	0.5	1	0.4%	0.3%
	0	0.4	0.6	0.8	1	1.9%	1.5%

Table F.110. t = 5, Pk = 2, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	42.4%	61.3%
	0	0.8	0.4	0	0	50.2%	70.5%
	0	0.6	0.3	0.3	0	30.6%	43.9%
	0.4	0.8	0	0	0	36.2%	52.4%
	0.4	0.8	0.4	0	0	43.6%	62.7%
	0.4	0.8	0.4	0.4	0	36.2%	53.0%
	0.3	0.7	0.6	0.1	0	39.6%	57.9%
	0.5	0	0.5	0.5	1	0.1%	0.0%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0.4	0	0	0	28.6%	43.3%
	0	0.4	0.2	0	0	36.3%	53.3%
	0	0.6	0.3	0.3	0	51.6%	72.1%
	0.2	0.4	0	0	0	24.1%	36.2%
	0.2	0.4	0.2	0	0	31.1%	45.9%
	0.2	0.4	0.2	0.2	0	26.4%	39.5%
	0.3	0.7	0.6	0.1	0	66.0%	85.3%
T with 3 df.	0	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	0	31.9%	46.9%
	0	0.8	0.4	0	0	37.9%	55.9%
	0	0.6	0.3	0.3	0	22.6%	32.3%
	0.4	0.8	0	0	0	26.3%	38.4%
	0.4	0.8	0.4	0	0	32.5%	48.0%
	0.4	0.8	0.4	0.4	0	27.5%	40.3%
	0.3	0.7	0.6	0.1	0	30.2%	44.4%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	0	0	0	25.9%	37.0%
	0	1	0.4	0	0	29.8%	43.4%
	0	1	0.3	0.3	0	26.7%	38.3%
	0.4	1	0	0	0	22.6%	32.7%
	0.4	1	0.4	0	0	26.4%	37.4%
	0.4	1	0.4	0.4	0	24.0%	33.8%
	0.3	1	0.6	0.1	0	29.1%	41.5%
	0.5	0	0.5	0.5	1	0.6%	0.2%

Table F.111. t = 5, Pk = 2, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	5.0%
	0	0.4	0	0	0	37.3%	37.2%
	0	0.4	0.2	0	0	43.2%	43.5%
	0	0.6	0.3	0.3	0	63.5%	62.2%
	0.2	0.4	0	0	0	31.3%	30.5%
	0.2	0.4	0.2	0	0	36.6%	36.5%
	0.2	0.4	0.2	0.2	0	31.1%	30.9%
	0.1	0.4	0.3	0.1	0	40.3%	40.3%
Exponential	0	0	0	0	0	5.6%	5.4%
	0	0.4	0	0	0	66.9%	65.8%
	0	0.2	0.1	0	0	33.5%	33.1%
	0	0.3	0.1	0.1	0	48.8%	48.1%
	0.2	0.4	0	0	0	56.1%	55.0%
	0.1	0.2	0.1	0	0	29.0%	29.0%
	0.2	0.4	0.2	0.2	0	60.0%	58.8%
	0.1	0.4	0.2	0.1	0	69.9%	69.1%
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0.4	0	0	0	27.6%	28.1%
	0	0.4	0.2	0	0	32.6%	32.6%
	0	0.6	0.3	0.3	0	48.3%	48.7%
	0.4	0.8	0	0	0	58.1%	57.9%
	0.2	0.4	0.2	0	0	28.2%	28.2%
	0.4	0.8	0.4	0.4	0	58.7%	58.3%
	0.3	0.7	0.6	0.1	0	64.2%	63.6%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	56.4%	56.3%
	0	1	0.4	0	0	64.0%	63.6%
	0	1	0.3	0.3	0	57.1%	57.4%
	0.4	1	0	0	0	49.0%	49.1%
	0.4	1	0.4	0	0	58.0%	57.9%
	0.4	1	0.4	0.4	0	50.5%	50.3%
	0.3	1	0.6	0.1	0	60.8%	60.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.9%	0.9%

Table F.112. t = 5, Pk = 2, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0.8	0	0	0	72.4%	86.3%
	0	0.8	0.4	0	0	82.4%	93.3%
	0	0.6	0.3	0.3	0	54.7%	68.4%
	0.4	0.8	0	0	0	63.5%	78.1%
	0.4	0.8	0.4	0	0	74.5%	87.3%
	0.4	0.8	0.4	0.4	0	64.1%	78.3%
	0.3	0.7	0.6	0.1	0	70.4%	84.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.1%
Exponential	0	0	0	0	0	5.2%	5.2%
	0	0.4	0	0	0	55.6%	70.6%
	0	0.4	0.2	0	0	65.9%	80.5%
	0	0.6	0.3	0.3	0	83.5%	93.9%
	0.2	0.4	0	0	0	47.2%	61.1%
	0.2	0.4	0.2	0	0	58.2%	72.5%
	0.2	0.4	0.2	0.2	0	48.9%	62.8%
	0.3	0.7	0.6	0.1	0	93.5%	98.7%
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	0	57.6%	72.3%
	0	0.8	0.4	0	0	68.2%	82.4%
	0	0.6	0.3	0.3	0	40.4%	52.3%
	0.4	0.8	0	0	0	49.6%	62.9%
	0.4	0.8	0.4	0	0	59.0%	73.8%
	0.4	0.8	0.4	0.4	0	50.1%	63.7%
	0.3	0.7	0.6	0.1	0	55.3%	69.4%
Cauchy	0	0	0	0	0	5.3%	5.2%
	0	1	0	0	0	46.7%	58.9%
	0	1	0.4	0	0	54.6%	68.5%
	0	1	0.3	0.3	0	47.9%	61.2%
	0.4	1	0	0	0	40.4%	52.6%
	0.4	1	0.4	0	0	48.5%	61.7%
	0.4	1	0.4	0.4	0	42.2%	55.1%
	0.3	1	0.6	0.1	0	50.6%	63.9%

F.4.2. Probability of Missing = 0.2

Table F.113. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.5%
	0	0.8	0	0	0	50.9%	74.6%
	0	0.8	0.4	0	0	60.6%	83.7%
	0	0.6	0.3	0.3	0	34.6%	54.3%
	0.4	0.8	0	0	0	42.7%	64.8%
	0.4	0.8	0.4	0	0	52.7%	76.4%
	0.4	0.8	0.4	0.4	0	43.9%	65.9%
	0.3	0.7	0.6	0.1	0	48.3%	71.9%
Exponential	0	0	0	0	0	4.7%	5.1%
	0	0.4	0	0	0	35.8%	56.4%
	0	0.4	0.2	0	0	44.6%	67.6%
	0	0.6	0.3	0.3	0	62.9%	85.1%
	0.2	0.4	0	0	0	29.4%	47.5%
	0.2	0.4	0.2	0	0	38.4%	59.8%
	0.2	0.4	0.2	0.2	0	32.5%	49.9%
	0.1	0.4	0.3	0.2	0	39.7%	60.0%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0.8	0	0	0	39.3%	59.7%
	0	0.8	0.4	0	0	46.7%	69.6%
	0	0.6	0.3	0.3	0	26.9%	41.3%
	0.4	0.8	0	0	0	32.3%	50.1%
	0.4	0.8	0.4	0	0	39.0%	60.6%
	0.4	0.8	0.4	0.4	0	32.8%	50.7%
	0.3	0.7	0.6	0.1	0	36.0%	55.2%
Cauchy	0	0	0	0	0	5.1%	5.5%
	0	1	0	0	0	30.3%	47.4%
	0	1	0.4	0	0	36.2%	55.2%
	0	1	0.3	0.3	0	32.0%	49.5%
	0.4	1	0	0	0	28.0%	42.5%
	0.4	1	0.4	0	0	32.4%	49.0%
	0.4	1	0.4	0.4	0	28.0%	43.5%
	0.3	1	0.6	0.1	0	34.8%	52.2%
	0.5	0	0.5	0.5	1	0.3%	0.1%

Table F.114. t = 5, Pk = 2, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	50.0%	67.6%
	0	0.8	0.4	0	0	59.0%	77.1%
	0	0.6	0.3	0.3	0	33.9%	47.5%
	0.4	0.8	0	0	0	41.6%	57.1%
	0.4	0.8	0.4	0	0	51.0%	68.4%
	0.4	0.8	0.4	0.4	0	42.5%	58.4%
	0.3	0.7	0.6	0.1	0	48.2%	64.3%
Exponential	0	0	0	0	0	5.3%	5.1%
	0	0.4	0	0	0	35.4%	49.0%
	0	0.4	0.2	0	0	43.7%	59.4%
	0	0.6	0.3	0.3	0	61.2%	79.0%
	0.2	0.4	0	0	0	29.5%	40.8%
	0.2	0.4	0.2	0	0	37.9%	52.3%
	0.2	0.4	0.2	0.2	0	31.8%	44.6%
	0.1	0.4	0.3	0.2	0	38.9%	53.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.2%	4.9%
	0	0.8	0	0	0	37.2%	52.2%
	0	0.8	0.4	0	0	45.0%	61.8%
	0	0.6	0.3	0.3	0	26.6%	37.2%
	0.4	0.8	0	0	0	31.4%	43.9%
	0.4	0.8	0.4	0	0	37.9%	53.4%
	0.4	0.8	0.4	0.4	0	32.7%	44.4%
	0.3	0.7	0.6	0.1	0	35.9%	49.6%
Cauchy	0	0	0	0	0	5.3%	5.3%
	0	1	0	0	0	30.5%	42.3%
	0	1	0.4	0	0	35.1%	48.3%
	0	1	0.3	0.3	0	30.9%	42.3%
	0.4	1	0	0	0	27.0%	36.1%
	0.4	1	0.4	0	0	31.8%	43.3%
	0.4	1	0.4	0.4	0	27.4%	37.5%
	0.3	1	0.6	0.1	0	33.8%	45.3%

Table F.115. t = 5, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.3%
	0	0.8	0	0	0	42.1%	67.6%
	0	0.8	0.4	0	0	51.6%	77.8%
	0	0.6	0.3	0.3	0	30.3%	49.2%
	0.4	0.8	0	0	0	35.3%	58.6%
	0.4	0.8	0.4	0	0	42.7%	67.9%
	0.4	0.8	0.4	0.4	0	36.1%	58.8%
	0.3	0.7	0.6	0.1	0	38.5%	63.1%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	0	28.6%	48.2%
	0	0.4	0.2	0	0	37.9%	60.4%
	0	0.6	0.3	0.3	0	53.7%	79.1%
	0.2	0.4	0	0	0	24.8%	41.7%
	0.2	0.4	0.2	0	0	31.1%	51.2%
	0.2	0.4	0.2	0.2	0	28.4%	45.0%
	0.3	0.7	0.6	0.1	0	67.9%	91.0%
T with 3 df.	0	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	0	32.5%	52.2%
	0	0.8	0.4	0	0	39.4%	62.0%
	0	0.6	0.3	0.3	0	23.4%	37.4%
	0.4	0.8	0	0	0	27.5%	45.2%
	0.4	0.8	0.4	0	0	33.3%	53.6%
	0.4	0.8	0.4	0.4	0	27.7%	44.6%
	0.3	0.7	0.6	0.1	0	29.8%	49.2%
	0.5	0	0.5	0.5	1	0.2%	0.0%
	0	0.4	0.6	0.8	1	0.9%	0.5%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	1	0	0	0	26.5%	41.7%
	0	1	0.4	0	0	30.1%	48.2%
	0	1	0.3	0.3	0	26.3%	42.6%
	0.4	1	0	0	0	23.1%	36.1%
	0.4	1	0.4	0	0	28.5%	44.5%
	0.4	1	0.4	0.4	0	24.8%	38.9%
	0.3	1	0.6	0.1	0	29.6%	47.0%

Table F.116. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	49.2%	56.1%
	0	0.8	0.4	0	0	57.9%	66.0%
	0	0.6	0.3	0.3	0	34.2%	40.1%
	0.4	0.8	0	0	0	40.1%	47.4%
	0.4	0.8	0.4	0	0	48.8%	56.6%
	0.4	0.8	0.4	0.4	0	41.1%	48.5%
	0.3	0.7	0.6	0.1	0	45.6%	53.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.5%	0.4%
Exponential	0	0	0	0	0	5.3%	5.0%
	0	0.4	0	0	0	32.8%	39.3%
	0	0.4	0.2	0	0	41.8%	48.4%
	0	0.6	0.3	0.3	0	59.9%	67.3%
	0.2	0.4	0	0	0	28.4%	33.0%
	0.2	0.4	0.2	0	0	35.7%	42.0%
	0.2	0.4	0.2	0.2	0	30.9%	34.7%
	0.1	0.4	0.3	0.2	0	38.0%	43.2%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	36.7%	42.9%
	0	0.8	0.4	0	0	44.5%	52.2%
	0	0.6	0.3	0.3	0	25.3%	29.5%
	0.4	0.8	0	0	0	31.2%	35.9%
	0.4	0.8	0.4	0	0	36.7%	42.5%
	0.4	0.8	0.4	0.4	0	31.0%	36.7%
	0.3	0.7	0.6	0.1	0	35.0%	40.1%
Cauchy	0	0	0	0	0	5.0%	5.3%
	0	1	0	0	0	29.4%	34.5%
	0	1	0.4	0	0	34.3%	39.8%
	0	1	0.3	0.3	0	30.7%	35.0%
	0.4	1	0	0	0	26.5%	30.2%
	0.4	1	0.4	0	0	30.1%	34.6%
	0.4	1	0.4	0.4	0	27.1%	31.8%
	0.3	1	0.6	0.1	0	33.0%	37.9%

Table F.117. t = 5, Pk = 2, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	4.8%
	0	0.8	0	0	0	39.1%	57.2%
	0	0.8	0.4	0	0	47.6%	67.2%
	0	0.6	0.3	0.3	0	27.6%	39.6%
	0.4	0.8	0	0	0	32.3%	48.2%
	0.4	0.8	0.4	0	0	39.7%	58.5%
	0.4	0.8	0.4	0.4	0	33.3%	49.1%
	0.3	0.7	0.6	0.1	0	36.0%	54.4%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	0	27.3%	40.4%
	0	0.4	0.2	0	0	32.9%	50.3%
	0	0.6	0.3	0.3	0	47.6%	68.2%
	0.2	0.4	0	0	0	21.8%	32.9%
	0.2	0.4	0.2	0	0	28.5%	41.8%
	0.2	0.4	0.2	0.2	0	24.7%	36.8%
	0.3	0.7	0.6	0.1	0	62.5%	82.6%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.2%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	29.8%	43.7%
	0	0.8	0.4	0	0	35.8%	52.8%
	0	0.6	0.3	0.3	0	21.5%	30.8%
	0.4	0.8	0	0	0	25.4%	36.6%
	0.4	0.8	0.4	0	0	30.4%	44.5%
	0.4	0.8	0.4	0.4	0	26.1%	37.9%
	0.3	0.7	0.6	0.1	0	28.4%	40.7%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	1	0	0	0	24.6%	34.3%
	0	1	0.4	0	0	27.9%	40.0%
	0	1	0.3	0.3	0	24.9%	35.9%
	0.4	1	0	0	0	21.2%	29.6%
	0.4	1	0.4	0	0	25.1%	35.9%
	0.4	1	0.4	0.4	0	22.4%	31.9%
	0.3	1	0.6	0.1	0	26.7%	38.9%

Table F.118. t = 5, Pk = 2, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	0	37.2%	35.4%
	0	0.4	0.2	0	0	43.9%	42.0%
	0	0.6	0.3	0.3	0	62.9%	61.2%
	0.2	0.4	0	0	0	31.2%	29.7%
	0.2	0.4	0.2	0	0	37.8%	36.8%
	0.2	0.4	0.2	0.2	0	31.0%	30.5%
	0.1	0.4	0.3	0.1	0	40.6%	39.0%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.2%
Exponential	0	0	0	0	0	5.2%	4.8%
	0	0.4	0	0	0	67.5%	63.9%
	0	0.2	0.1	0	0	33.5%	32.6%
	0	0.3	0.1	0.1	0	48.9%	47.6%
	0.2	0.4	0	0	0	57.1%	54.7%
	0.1	0.2	0.1	0	0	29.6%	27.9%
	0.2	0.4	0.2	0.2	0	60.0%	57.3%
	0.1	0.4	0.2	0.1	0	69.5%	67.1%
T with 3 df.	0	0	0	0	0	4.9%	4.7%
	0	0.4	0	0	0	28.8%	27.9%
	0	0.4	0.2	0	0	33.4%	32.2%
	0	0.6	0.3	0.3	0	48.0%	46.3%
	0.4	0.8	0	0	0	58.4%	56.8%
	0.2	0.4	0.2	0	0	28.3%	27.7%
	0.4	0.8	0.4	0.4	0	59.0%	56.9%
	0.3	0.7	0.6	0.1	0	64.4%	62.2%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	0	0	0	56.3%	53.7%
	0	1	0.4	0	0	63.5%	60.9%
	0	1	0.3	0.3	0	57.6%	55.4%
	0.4	1	0	0	0	49.1%	48.1%
	0.4	1	0.4	0	0	56.5%	54.6%
	0.4	1	0.4	0.4	0	49.8%	47.7%
	0.3	1	0.6	0.1	0	60.7%	58.0%

Table F.119. t = 5, Pk = 2, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.9%
	0	0.8	0	0	0	66.7%	82.6%
	0	0.8	0.4	0	0	76.9%	90.6%
	0	0.6	0.3	0.3	0	47.7%	62.8%
	0.4	0.8	0	0	0	58.1%	74.1%
	0.4	0.8	0.4	0	0	67.5%	83.3%
	0.4	0.8	0.4	0.4	0	58.2%	74.1%
	0.3	0.7	0.6	0.1	0	62.8%	79.5%
Exponential	0	0	0	0	0	5.2%	5.4%
	0	0.4	0	0	0	48.5%	65.5%
	0	0.4	0.2	0	0	59.4%	76.1%
	0	0.6	0.3	0.3	0	78.3%	91.6%
	0.2	0.4	0	0	0	40.6%	55.0%
	0.2	0.4	0.2	0	0	51.5%	67.9%
	0.2	0.4	0.2	0.2	0	43.6%	58.1%
	0.3	0.7	0.6	0.1	0	89.9%	97.9%
T with 3 df.	0	0	0	0	0	4.6%	4.6%
	0	0.8	0	0	0	52.9%	68.5%
	0	0.8	0.4	0	0	61.1%	77.0%
	0	0.6	0.3	0.3	0	35.9%	48.4%
	0.4	0.8	0	0	0	43.1%	57.7%
	0.4	0.8	0.4	0	0	52.8%	68.3%
	0.4	0.8	0.4	0.4	0	44.1%	58.8%
	0.3	0.7	0.6	0.1	0	49.0%	64.1%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	1	0	0	0	41.9%	55.4%
	0	1	0.4	0	0	47.9%	63.1%
	0	1	0.3	0.3	0	42.9%	56.8%
	0.4	1	0	0	0	36.6%	49.0%
	0.4	1	0.4	0	0	42.8%	56.3%
	0.4	1	0.4	0.4	0	37.1%	50.2%
	0.3	1	0.6	0.1	0	45.0%	60.2%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	1.1%	0.8%

F.4.3. Probability of Missing = 0.3

Table F.120. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.9%
	0	0.8	0	0	0	51.7%	71.7%
	0	0.8	0.4	0	0	59.4%	80.7%
	0	0.6	0.3	0.3	0	35.6%	52.4%
	0.4	0.8	0	0	0	42.6%	61.1%
	0.4	0.8	0.4	0	0	51.3%	72.1%
	0.4	0.8	0.4	0.4	0	42.6%	62.7%
	0.3	0.7	0.6	0.1	0	47.1%	67.5%
Exponential	0	0	0	0	0	4.7%	5.2%
	0	0.4	0	0	0	35.5%	52.9%
	0	0.4	0.2	0	0	44.4%	64.1%
	0	0.6	0.3	0.3	0	62.8%	83.4%
	0.2	0.4	0	0	0	29.3%	43.7%
	0.2	0.4	0.2	0	0	37.6%	54.7%
	0.2	0.4	0.2	0.2	0	32.3%	48.0%
	0.1	0.4	0.3	0.2	0	38.6%	56.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	5.2%
	0	0.8	0	0	0	39.2%	55.8%
	0	0.8	0.4	0	0	46.1%	65.5%
	0	0.6	0.3	0.3	0	26.6%	38.3%
	0.4	0.8	0	0	0	31.5%	46.8%
	0.4	0.8	0.4	0	0	38.5%	56.6%
	0.4	0.8	0.4	0.4	0	32.6%	47.9%
	0.3	0.7	0.6	0.1	0	35.6%	53.0%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	0	0	0	30.6%	43.6%
	0	1	0.4	0	0	36.1%	52.1%
	0	1	0.3	0.3	0	31.2%	46.0%
	0.4	1	0	0	0	27.8%	39.9%
	0.4	1	0.4	0	0	33.2%	46.8%
	0.4	1	0.4	0.4	0	27.4%	40.1%

Table F.121. t = 5, Pk = 2, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0.8	0	0	0	50.1%	64.0%
	0	0.8	0.4	0	0	57.5%	73.2%
	0	0.6	0.3	0.3	0	34.4%	45.7%
	0.4	0.8	0	0	0	41.5%	54.2%
	0.4	0.8	0.4	0	0	50.2%	65.0%
	0.4	0.8	0.4	0.4	0	42.5%	55.5%
	0.3	0.7	0.6	0.1	0	46.0%	60.5%
Exponential	0	0	0	0	0	5.5%	5.1%
	0	0.4	0	0	0	35.4%	47.1%
	0	0.4	0.2	0	0	43.7%	57.3%
	0	0.6	0.3	0.3	0	61.3%	76.2%
	0.2	0.4	0	0	0	29.0%	38.3%
	0.2	0.4	0.2	0	0	37.0%	49.4%
	0.2	0.4	0.2	0.2	0	31.2%	41.5%
	0.1	0.4	0.3	0.2	0	37.8%	49.2%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0.8	0	0	0	37.3%	48.8%
	0	0.8	0.4	0	0	43.9%	58.3%
	0	0.6	0.3	0.3	0	26.8%	35.2%
	0.4	0.8	0	0	0	31.0%	41.7%
	0.4	0.8	0.4	0	0	38.0%	50.7%
	0.4	0.8	0.4	0.4	0	31.9%	42.8%
	0.3	0.7	0.6	0.1	0	35.7%	47.0%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	1.0%	0.7%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	1	0	0	0	30.2%	39.9%
	0	1	0.4	0	0	34.3%	46.4%
	0	1	0.3	0.3	0	31.3%	40.8%
	0.4	1	0	0	0	26.6%	34.9%
	0.4	1	0.4	0	0	30.8%	40.9%
	0.4	1	0.4	0.4	0	28.0%	35.4%
	0.3	1	0.6	0.1	0	33.0%	43.5%

Table F.122. t = 5, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	0	41.6%	65.0%
	0	0.8	0.4	0	0	49.8%	74.6%
	0	0.6	0.3	0.3	0	29.2%	45.5%
	0.4	0.8	0	0	0	35.6%	55.1%
	0.4	0.8	0.4	0	0	43.1%	64.8%
	0.4	0.8	0.4	0.4	0	35.6%	55.9%
	0.3	0.7	0.6	0.1	0	39.0%	60.7%
Exponential	0	0	0	0	0	4.7%	4.7%
	0	0.4	0	0	0	27.4%	45.2%
	0	0.4	0.2	0	0	36.1%	56.9%
	0	0.6	0.3	0.3	0	51.3%	75.5%
	0.2	0.4	0	0	0	24.0%	37.6%
	0.2	0.4	0.2	0	0	30.4%	48.0%
	0.2	0.4	0.2	0.2	0	27.1%	41.5%
	0.3	0.7	0.6	0.1	0	66.2%	88.6%
T with 3 df.	0	0	0	0	0	4.7%	5.0%
	0	0.8	0	0	0	31.7%	48.9%
	0	0.8	0.4	0	0	37.1%	57.7%
	0	0.6	0.3	0.3	0	23.2%	35.3%
	0.4	0.8	0	0	0	26.3%	41.2%
	0.4	0.8	0.4	0	0	33.2%	50.5%
	0.4	0.8	0.4	0.4	0	27.3%	41.5%
	0.3	0.7	0.6	0.1	0	29.2%	46.6%
Cauchy	0	0	0	0	0	4.8%	5.2%
	0	1	0	0	0	26.1%	39.3%
	0	1	0.4	0	0	29.9%	46.2%
	0	1	0.3	0.3	0	25.4%	41.0%
	0.4	1	0	0	0	22.6%	33.8%
	0.4	1	0.4	0	0	26.7%	41.0%
	0.4	1	0.4	0.4	0	23.7%	35.5%
	0.3	1	0.6	0.1	0	28.3%	43.8%
	0.5	0	0.5	0.5	1	0.5%	0.2%
	0	0.4	0.6	0.8	1	1.9%	1.4%

Table F.123. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0.8	0	0	0	48.7%	54.6%
	0	0.8	0.4	0	0	57.1%	63.5%
	0	0.6	0.3	0.3	0	33.1%	37.3%
	0.4	0.8	0	0	0	40.0%	44.5%
	0.4	0.8	0.4	0	0	49.8%	55.5%
	0.4	0.8	0.4	0.4	0	41.0%	45.8%
	0.3	0.7	0.6	0.1	0	46.0%	51.4%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	0	33.3%	38.2%
	0	0.4	0.2	0	0	42.4%	47.6%
	0	0.6	0.3	0.3	0	59.5%	65.0%
	0.2	0.4	0	0	0	28.3%	31.7%
	0.2	0.4	0.2	0	0	36.0%	40.5%
	0.2	0.4	0.2	0.2	0	31.4%	34.4%
	0.1	0.4	0.3	0.2	0	37.0%	42.4%
T with 3 df.	0	0	0	0	0	4.7%	4.9%
	0	0.8	0	0	0	36.4%	40.7%
	0	0.8	0.4	0	0	42.8%	47.9%
	0	0.6	0.3	0.3	0	25.5%	28.3%
	0.4	0.8	0	0	0	30.5%	33.9%
	0.4	0.8	0.4	0	0	36.7%	42.3%
	0.4	0.8	0.4	0.4	0	31.6%	35.1%
	0.3	0.7	0.6	0.1	0	33.6%	38.2%
	0.5	0	0.5	0.5	1	0.2%	0.1%
	0	0.4	0.6	0.8	1	1.1%	0.8%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	0	0	0	29.6%	32.7%
	0	1	0.4	0	0	33.4%	37.3%
	0	1	0.3	0.3	0	29.7%	33.8%
	0.4	1	0	0	0	25.7%	28.8%
	0.4	1	0.4	0	0	31.6%	34.7%
	0.4	1	0.4	0.4	0	27.1%	30.0%
	0.3	1	0.6	0.1	0	33.3%	36.5%

Table F.124. t = 5, Pk = 2, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	0	35.7%	53.2%
	0	0.8	0.4	0	0	43.7%	62.5%
	0	0.6	0.3	0.3	0	25.5%	37.3%
	0.4	0.8	0	0	0	30.1%	44.6%
	0.4	0.8	0.4	0	0	37.1%	54.2%
	0.4	0.8	0.4	0.4	0	31.7%	46.6%
	0.3	0.7	0.6	0.1	0	33.5%	50.2%
	0.5	0	0.5	0.5	1	0.1%	0.0%
	0	0.4	0.6	0.8	1	0.9%	0.4%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0.4	0	0	0	23.5%	35.7%
	0	0.4	0.2	0	0	30.9%	46.1%
	0	0.6	0.3	0.3	0	43.6%	62.8%
	0.2	0.4	0	0	0	21.0%	31.1%
	0.2	0.4	0.2	0	0	26.5%	38.8%
	0.2	0.4	0.2	0.2	0	23.3%	34.0%
	0.3	0.7	0.6	0.1	0	57.8%	77.9%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	27.3%	39.9%
	0	0.8	0.4	0	0	32.9%	48.6%
	0	0.6	0.3	0.3	0	20.0%	28.1%
	0.4	0.8	0	0	0	23.0%	33.3%
	0.4	0.8	0.4	0	0	27.9%	40.8%
	0.4	0.8	0.4	0.4	0	23.9%	34.6%
	0.3	0.7	0.6	0.1	0	26.2%	37.9%
Cauchy	0	0	0	0	0	5.3%	5.2%
	0	1	0	0	0	22.9%	32.4%
	0	1	0.4	0	0	25.6%	36.7%
	0	1	0.3	0.3	0	23.7%	33.0%
	0.4	1	0	0	0	20.2%	28.0%
	0.4	1	0.4	0	0	23.1%	33.1%
	0.4	1	0.4	0.4	0	20.5%	29.2%
	0.3	1	0.6	0.1	0	25.2%	35.8%

Table F.125. t = 5, Pk = 2, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0.4	0	0	0	37.4%	35.2%
	0	0.4	0.2	0	0	43.7%	40.9%
	0	0.6	0.3	0.3	0	63.4%	60.0%
	0.2	0.4	0	0	0	30.4%	28.5%
	0.2	0.4	0.2	0	0	37.8%	35.0%
	0.2	0.4	0.2	0.2	0	30.9%	29.7%
	0.1	0.4	0.3	0.1	0	40.3%	37.4%
Exponential	0	0	0	0	0	5.3%	4.9%
	0	0.4	0	0	0	67.4%	61.9%
	0	0.2	0.1	0	0	34.1%	31.7%
	0	0.3	0.1	0.1	0	48.6%	45.2%
	0.2	0.4	0	0	0	56.6%	51.7%
	0.1	0.2	0.1	0	0	28.2%	27.4%
	0.2	0.4	0.2	0.2	0	59.5%	55.4%
	0.1	0.4	0.2	0.1	0	70.7%	65.5%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0.4	0	0	0	28.6%	27.0%
	0	0.4	0.2	0	0	32.8%	30.7%
	0	0.6	0.3	0.3	0	48.7%	45.9%
	0.4	0.8	0	0	0	58.2%	54.2%
	0.2	0.4	0.2	0	0	28.8%	26.8%
	0.4	0.8	0.4	0.4	0	59.7%	56.5%
	0.3	0.7	0.6	0.1	0	64.7%	60.4%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.3%	0.4%
Cauchy	0	0	0	0	0	4.6%	4.7%
	0	1	0	0	0	55.4%	51.3%
	0	1	0.4	0	0	63.9%	60.3%
	0	1	0.3	0.3	0	57.6%	53.1%
	0.4	1	0	0	0	49.3%	45.6%
	0.4	1	0.4	0	0	56.9%	54.2%
	0.4	1	0.4	0.4	0	50.0%	47.2%
	0.3	1	0.6	0.1	0	60.4%	56.2%

Table F.126. t = 5, Pk = 2, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	0	61.2%	78.5%
	0	0.8	0.4	0	0	70.8%	87.5%
	0	0.6	0.3	0.3	0	43.0%	58.6%
	0.4	0.8	0	0	0	50.6%	67.6%
	0.4	0.8	0.4	0	0	62.0%	79.6%
	0.4	0.8	0.4	0.4	0	52.7%	70.1%
	0.3	0.7	0.6	0.1	0	56.3%	74.4%
Exponential	0	0	0	0	0	4.6%	5.1%
	0	0.4	0	0	0	41.9%	58.6%
	0	0.4	0.2	0	0	52.8%	71.1%
	0	0.6	0.3	0.3	0	71.3%	87.5%
	0.2	0.4	0	0	0	35.5%	50.3%
	0.2	0.4	0.2	0	0	46.4%	62.8%
	0.2	0.4	0.2	0.2	0	39.1%	54.1%
	0.3	0.7	0.6	0.1	0	85.3%	96.2%
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0.8	0	0	0	46.7%	63.2%
	0	0.8	0.4	0	0	54.0%	72.1%
	0	0.6	0.3	0.3	0	31.7%	43.9%
	0.4	0.8	0	0	0	39.5%	53.8%
	0.4	0.8	0.4	0	0	46.7%	63.8%
	0.4	0.8	0.4	0.4	0	39.2%	54.0%
	0.3	0.7	0.6	0.1	0	44.1%	60.0%
	0.5	0	0.5	0.5	1	0.1%	0.0%
	0	0.4	0.6	0.8	1	0.7%	0.4%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	1	0	0	0	37.9%	50.9%
	0	1	0.4	0	0	43.9%	58.8%
	0	1	0.3	0.3	0	36.8%	51.2%
	0.4	1	0	0	0	32.6%	44.2%
	0.4	1	0.4	0	0	37.4%	51.5%
	0.4	1	0.4	0.4	0	33.3%	46.4%
	0.3	1	0.6	0.1	0	40.9%	55.7%

F.4.4. Probability of Missing = 0.4

Table F.127. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.8%
	0	0.8	0	0	0	49.8%	67.6%
	0	0.8	0.4	0	0	58.7%	77.9%
	0	0.6	0.3	0.3	0	34.9%	48.9%
	0.4	0.8	0	0	0	41.3%	57.5%
	0.4	0.8	0.4	0	0	51.0%	69.9%
	0.4	0.8	0.4	0.4	0	43.4%	60.1%
	0.3	0.7	0.6	0.1	0	47.1%	64.0%
Exponential	0	0	0	0	0	5.2%	4.9%
	0	0.4	0	0	0	34.7%	49.6%
	0	0.4	0.2	0	0	43.7%	60.1%
	0	0.6	0.3	0.3	0	62.0%	79.7%
	0.2	0.4	0	0	0	29.3%	41.7%
	0.2	0.4	0.2	0	0	37.7%	52.8%
	0.2	0.4	0.2	0.2	0	32.0%	44.0%
	0.1	0.4	0.3	0.2	0	37.9%	53.5%
	0	0.4	0.6	0.8	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	4.7%	5.1%
	0	0.8	0	0	0	38.0%	53.8%
	0	0.8	0.4	0	0	45.8%	62.6%
	0	0.6	0.3	0.3	0	27.0%	36.8%
	0.4	0.8	0	0	0	31.1%	44.2%
	0.4	0.8	0.4	0	0	38.5%	53.6%
	0.4	0.8	0.4	0.4	0	32.4%	45.1%
	0.3	0.7	0.6	0.1	0	35.3%	50.1%
Cauchy	0	0	0	0	0	5.1%	4.9%
	0	1	0	0	0	30.8%	42.5%
	0	1	0.4	0	0	36.3%	50.2%
	0	1	0.3	0.3	0	31.5%	43.2%
	0.4	1	0	0	0	27.2%	37.9%
	0.4	1	0.4	0	0	30.6%	43.4%
	0.4	1	0.4	0.4	0	27.2%	38.4%
	0.3	1	0.6	0.1	0	33.8%	46.2%

Table F.128. t = 5, Pk = 2, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.6%
	0	0.8	0	0	0	49.5%	61.6%
	0	0.8	0.4	0	0	58.2%	71.4%
	0	0.6	0.3	0.3	0	33.7%	41.7%
	0.4	0.8	0	0	0	41.7%	52.1%
	0.4	0.8	0.4	0	0	49.9%	62.1%
	0.4	0.8	0.4	0.4	0	42.4%	53.4%
	0.3	0.7	0.6	0.1	0	46.2%	58.2%
Exponential	0	0	0	0	0	5.4%	5.0%
	0	0.4	0	0	0	35.1%	44.3%
	0	0.4	0.2	0	0	43.1%	53.9%
	0	0.6	0.3	0.3	0	60.7%	72.3%
	0.2	0.4	0	0	0	29.0%	37.2%
	0.2	0.4	0.2	0	0	36.5%	46.3%
	0.2	0.4	0.2	0.2	0	32.0%	40.0%
	0.1	0.4	0.3	0.2	0	36.7%	47.2%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0.8	0	0	0	37.7%	47.4%
	0	0.8	0.4	0	0	44.7%	55.6%
	0	0.6	0.3	0.3	0	26.2%	32.6%
	0.4	0.8	0	0	0	31.4%	38.9%
	0.4	0.8	0.4	0	0	38.0%	47.4%
	0.4	0.8	0.4	0.4	0	32.1%	40.2%
	0.3	0.7	0.6	0.1	0	35.3%	44.2%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	0	0	0	30.3%	37.3%
	0	1	0.4	0	0	35.2%	43.6%
	0	1	0.3	0.3	0	30.0%	38.4%
	0.4	1	0	0	0	26.3%	32.9%
	0.4	1	0.4	0	0	31.4%	39.9%
	0.4	1	0.4	0.4	0	26.9%	33.3%
	0.3	1	0.6	0.1	0	32.3%	40.6%
	0.5	0	0.5	0.5	1	0.4%	0.2%
	0	0.4	0.6	0.8	1	1.8%	1.4%

Table F.129. t = 5, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.6%
	0	0.8	0	0	0	40.1%	61.1%
	0	0.8	0.4	0	0	47.4%	69.9%
	0	0.6	0.3	0.3	0	27.8%	42.2%
	0.4	0.8	0	0	0	33.5%	50.6%
	0.4	0.8	0.4	0	0	41.8%	61.9%
	0.4	0.8	0.4	0.4	0	33.9%	51.3%
	0.3	0.7	0.6	0.1	0	38.1%	57.3%
Exponential	0	0	0	0	0	4.6%	4.9%
	0	0.4	0	0	0	26.9%	42.2%
	0	0.4	0.2	0	0	35.3%	52.6%
	0	0.6	0.3	0.3	0	49.8%	70.9%
	0.2	0.4	0	0	0	23.0%	36.0%
	0.2	0.4	0.2	0	0	30.1%	46.1%
	0.2	0.4	0.2	0.2	0	26.4%	38.8%
	0.3	0.7	0.6	0.1	0	65.0%	85.2%
T with 3 df.	0	0	0	0	0	4.6%	5.1%
	0	0.8	0	0	0	31.2%	47.4%
	0	0.8	0.4	0	0	37.4%	55.2%
	0	0.6	0.3	0.3	0	21.8%	32.2%
	0.4	0.8	0	0	0	26.5%	38.3%
	0.4	0.8	0.4	0	0	31.3%	46.7%
	0.4	0.8	0.4	0.4	0	26.7%	39.9%
	0.3	0.7	0.6	0.1	0	29.2%	43.0%
	0.5	0	0.5	0.5	1	0.1%	0.0%
	0	0.4	0.6	0.8	1	1.4%	0.9%
Cauchy	0	0	0	0	0	5.4%	4.8%
	0	1	0	0	0	24.8%	36.6%
	0	1	0.4	0	0	28.9%	42.3%
	0	1	0.3	0.3	0	25.9%	37.7%
	0.4	1	0	0	0	22.5%	32.3%
	0.4	1	0.4	0	0	25.7%	37.5%
	0.4	1	0.4	0.4	0	23.3%	32.8%
	0.3	1	0.6	0.1	0	26.9%	40.5%

Table F.130. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.1%
	0	0.8	0	0	0	48.5%	51.3%
	0	0.8	0.4	0	0	57.0%	61.4%
	0	0.6	0.3	0.3	0	33.9%	35.9%
	0.4	0.8	0	0	0	39.9%	42.4%
	0.4	0.8	0.4	0	0	48.4%	52.2%
	0.4	0.8	0.4	0.4	0	41.5%	44.7%
	0.3	0.7	0.6	0.1	0	44.9%	48.6%
Exponential	0	0	0	0	0	5.3%	5.3%
	0	0.4	0	0	0	33.9%	36.2%
	0	0.4	0.2	0	0	42.1%	45.1%
	0	0.6	0.3	0.3	0	59.4%	62.9%
	0.2	0.4	0	0	0	27.8%	29.9%
	0.2	0.4	0.2	0	0	37.0%	38.9%
	0.2	0.4	0.2	0.2	0	31.3%	33.3%
	0.1	0.4	0.3	0.2	0	37.6%	40.0%
T with 3 df.	0	0	0	0	0	4.8%	4.9%
	0	0.8	0	0	0	35.1%	37.6%
	0	0.8	0.4	0	0	43.8%	46.5%
	0	0.6	0.3	0.3	0	25.5%	27.9%
	0.4	0.8	0	0	0	30.8%	32.3%
	0.4	0.8	0.4	0	0	36.6%	39.8%
	0.4	0.8	0.4	0.4	0	30.9%	33.3%
	0.3	0.7	0.6	0.1	0	34.1%	37.0%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	1	0	0	0	30.1%	31.5%
	0	1	0.4	0	0	34.0%	35.9%
	0	1	0.3	0.3	0	30.0%	32.5%
	0.4	1	0	0	0	26.3%	27.5%
	0.4	1	0.4	0	0	30.6%	32.3%
	0.4	1	0.4	0.4	0	27.1%	28.0%
	0.3	1	0.6	0.1	0	31.8%	34.5%
	0.5	0	0.5	0.5	1	0.4%	0.4%
	0	0.4	0.6	0.8	1	1.7%	1.7%

Table F.131. t = 5, Pk = 2, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.2%
	0	0.8	0	0	0	33.2%	49.1%
	0	0.8	0.4	0	0	40.5%	58.2%
	0	0.6	0.3	0.3	0	24.1%	34.7%
	0.4	0.8	0	0	0	28.7%	41.9%
	0.4	0.8	0.4	0	0	34.5%	50.4%
	0.4	0.8	0.4	0.4	0	28.5%	42.3%
	0.3	0.7	0.6	0.1	0	32.0%	45.9%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0.4	0	0	0	22.5%	33.7%
	0	0.4	0.2	0	0	28.8%	42.9%
	0	0.6	0.3	0.3	0	40.9%	59.2%
	0.2	0.4	0	0	0	19.4%	28.4%
	0.2	0.4	0.2	0	0	24.8%	36.9%
	0.2	0.4	0.2	0.2	0	22.1%	31.7%
	0.3	0.7	0.6	0.1	0	54.1%	74.2%
T with 3 df.	0	0	0	0	0	4.9%	5.1%
	0	0.8	0	0	0	25.6%	37.2%
	0	0.8	0.4	0	0	30.5%	44.6%
	0	0.6	0.3	0.3	0	19.2%	26.8%
	0.4	0.8	0	0	0	22.5%	31.7%
	0.4	0.8	0.4	0	0	26.7%	37.5%
	0.4	0.8	0.4	0.4	0	22.6%	32.4%
	0.3	0.7	0.6	0.1	0	24.4%	35.0%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	1	0	0	0	21.5%	29.7%
	0	1	0.4	0	0	24.1%	34.2%
	0	1	0.3	0.3	0	21.7%	30.7%
	0.4	1	0	0	0	18.8%	26.1%
	0.4	1	0.4	0	0	21.2%	30.1%
	0.4	1	0.4	0.4	0	19.6%	27.1%
	0.3	1	0.6	0.1	0	23.3%	32.2%
	0.5	0	0.5	0.5	1	0.8%	0.4%
	0	0.4	0.6	0.8	1	2.3%	1.9%

Table F.132. t = 5, Pk = 2, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0.4	0	0	0	37.1%	33.7%
	0	0.4	0.2	0	0	43.6%	39.3%
	0	0.6	0.3	0.3	0	62.9%	57.6%
	0.2	0.4	0	0	0	31.3%	28.0%
	0.2	0.4	0.2	0	0	37.5%	34.6%
	0.2	0.4	0.2	0.2	0	30.6%	27.8%
	0.1	0.4	0.3	0.1	0	39.6%	35.7%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.4	0	0	0	66.9%	60.7%
	0	0.2	0.1	0	0	33.2%	29.9%
	0	0.3	0.1	0.1	0	50.2%	44.6%
	0.2	0.4	0	0	0	57.0%	50.6%
	0.1	0.2	0.1	0	0	29.4%	26.8%
	0.2	0.4	0.2	0.2	0	60.0%	54.6%
	0.1	0.4	0.2	0.1	0	70.1%	64.2%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.0%	0.0%
T with 3 df.	0	0	0	0	0	5.3%	4.9%
	0	0.4	0	0	0	29.2%	25.9%
	0	0.4	0.2	0	0	33.7%	30.8%
	0	0.6	0.3	0.3	0	48.0%	44.7%
	0.4	0.8	0	0	0	58.8%	54.0%
	0.2	0.4	0.2	0	0	28.3%	26.4%
	0.4	0.8	0.4	0.4	0	58.5%	52.6%
	0.3	0.7	0.6	0.1	0	63.1%	58.7%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	1	0	0	0	56.5%	51.2%
	0	1	0.4	0	0	63.0%	58.4%
	0	1	0.3	0.3	0	57.6%	51.8%
	0.4	1	0	0	0	49.0%	43.9%
	0.4	1	0.4	0	0	57.8%	52.1%
	0.4	1	0.4	0.4	0	49.9%	44.7%
	0.3	1	0.6	0.1	0	60.7%	56.7%

Table F.133. t = 5, Pk = 2, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.8%
	0	0.8	0	0	0	53.8%	73.5%
	0	0.8	0.4	0	0	63.6%	83.0%
	0	0.6	0.3	0.3	0	38.3%	53.9%
	0.4	0.8	0	0	0	46.2%	64.5%
	0.4	0.8	0.4	0	0	54.8%	74.5%
	0.4	0.8	0.4	0.4	0	46.0%	64.8%
	0.3	0.7	0.6	0.1	0	51.2%	70.2%
Exponential	0	0	0	0	0	5.1%	5.3%
	0	0.4	0	0	0	37.3%	54.4%
	0	0.4	0.2	0	0	46.7%	65.6%
	0	0.6	0.3	0.3	0	64.9%	83.8%
	0.2	0.4	0	0	0	31.4%	45.6%
	0.2	0.4	0.2	0	0	40.5%	57.8%
	0.2	0.4	0.2	0.2	0	34.6%	49.3%
	0.3	0.7	0.6	0.1	0	79.6%	93.8%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0.8	0	0	0	41.0%	57.1%
	0	0.8	0.4	0	0	48.9%	67.2%
	0	0.6	0.3	0.3	0	29.1%	41.0%
	0.4	0.8	0	0	0	34.6%	48.8%
	0.4	0.8	0.4	0	0	42.0%	58.7%
	0.4	0.8	0.4	0.4	0	34.8%	49.8%
	0.3	0.7	0.6	0.1	0	39.1%	55.3%
Cauchy	0	0	0	0	0	5.3%	5.0%
	0	1	0	0	0	33.7%	47.0%
	0	1	0.4	0	0	38.4%	54.4%
	0	1	0.3	0.3	0	33.6%	47.9%
	0.4	1	0	0	0	29.0%	40.7%
	0.4	1	0.4	0	0	34.1%	48.0%
	0.4	1	0.4	0.4	0	29.7%	41.9%
	0.3	1	0.6	0.1	0	36.6%	51.3%
	0.5	0	0.5	0.5	1	0.3%	0.2%
	0	0.4	0.6	0.8	1	1.7%	1.2%

F.4.5. Probability of Missing = 0.5

Table F.134. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.6%
	0	0.8	0	0	0	49.8%	65.7%
	0	0.8	0.4	0	0	58.9%	74.7%
	0	0.6	0.3	0.3	0	34.8%	47.4%
	0.4	0.8	0	0	0	41.6%	55.7%
	0.4	0.8	0.4	0	0	51.0%	66.4%
	0.4	0.8	0.4	0.4	0	42.2%	56.7%
	0.3	0.7	0.6	0.1	0	47.2%	62.5%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0.4	0	0	0	34.2%	47.1%
	0	0.4	0.2	0	0	43.7%	57.4%
	0	0.6	0.3	0.3	0	60.3%	76.2%
	0.2	0.4	0	0	0	29.3%	39.6%
	0.2	0.4	0.2	0	0	36.4%	49.3%
	0.2	0.4	0.2	0.2	0	31.8%	42.4%
	0.1	0.4	0.3	0.2	0	38.1%	50.9%
T with 3 df.	0	0	0	0	0	4.6%	5.0%
	0	0.8	0	0	0	37.4%	50.4%
	0	0.8	0.4	0	0	45.4%	59.6%
	0	0.6	0.3	0.3	0	26.2%	35.0%
	0.4	0.8	0	0	0	32.6%	42.3%
	0.4	0.8	0.4	0	0	38.3%	51.2%
	0.4	0.8	0.4	0.4	0	32.7%	43.4%
	0.3	0.7	0.6	0.1	0	35.2%	47.2%
Cauchy	0	0	0	0	0	5.0%	4.8%
	0	1	0	0	0	30.4%	40.7%
	0	1	0.4	0	0	34.2%	46.0%
	0	1	0.3	0.3	0	30.5%	40.7%
	0.4	1	0	0	0	27.0%	35.5%
	0.4	1	0.4	0	0	31.9%	41.6%
	0.4	1	0.4	0.4	0	27.5%	35.9%
	0.3	1	0.6	0.1	0	33.1%	43.7%
	0.5	0	0.5	0.5	1	0.4%	0.2%

Table F.135. t = 5, Pk = 2, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.4%
	0	0.8	0	0	0	49.1%	58.9%
	0	0.8	0.4	0	0	58.0%	68.5%
	0	0.6	0.3	0.3	0	33.9%	41.5%
	0.4	0.8	0	0	0	40.9%	50.0%
	0.4	0.8	0.4	0	0	49.5%	59.1%
	0.4	0.8	0.4	0.4	0	41.2%	50.4%
	0.3	0.7	0.6	0.1	0	45.7%	55.4%
Exponential	0	0	0	0	0	5.0%	5.5%
	0	0.4	0	0	0	33.6%	41.2%
	0	0.4	0.2	0	0	42.7%	50.9%
	0	0.6	0.3	0.3	0	60.7%	70.4%
	0.2	0.4	0	0	0	28.1%	34.4%
	0.2	0.4	0.2	0	0	36.2%	44.1%
	0.2	0.4	0.2	0.2	0	30.9%	37.4%
	0.1	0.4	0.3	0.2	0	36.9%	44.8%
T with 3 df.	0	0	0	0	0	5.3%	5.4%
	0	0.8	0	0	0	37.0%	45.0%
	0	0.8	0.4	0	0	44.4%	53.4%
	0	0.6	0.3	0.3	0	26.3%	31.2%
	0.4	0.8	0	0	0	31.8%	37.4%
	0.4	0.8	0.4	0	0	37.3%	44.8%
	0.4	0.8	0.4	0.4	0	31.4%	38.1%
	0.3	0.7	0.6	0.1	0	34.8%	42.1%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	0.8%	0.9%
Cauchy	0	0	0	0	0	4.9%	5.3%
	0	1	0	0	0	30.5%	35.6%
	0	1	0.4	0	0	34.4%	41.2%
	0	1	0.3	0.3	0	29.9%	35.8%
	0.4	1	0	0	0	26.4%	30.2%
	0.4	1	0.4	0	0	30.5%	36.5%
	0.4	1	0.4	0.4	0	27.3%	32.7%
	0.3	1	0.6	0.1	0	33.3%	39.8%

Table F.136. t = 5, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0.8	0	0	0	38.8%	56.2%
	0	0.8	0.4	0	0	47.4%	67.2%
	0	0.6	0.3	0.3	0	27.8%	40.5%
	0.4	0.8	0	0	0	32.8%	47.3%
	0.4	0.8	0.4	0	0	40.3%	57.6%
	0.4	0.8	0.4	0.4	0	33.5%	47.8%
	0.3	0.7	0.6	0.1	0	37.2%	53.3%
Exponential	0	0	0	0	0	5.4%	5.5%
	0	0.4	0	0	0	27.7%	39.8%
	0	0.4	0.2	0	0	34.2%	49.6%
	0	0.6	0.3	0.3	0	48.9%	67.3%
	0.2	0.4	0	0	0	23.4%	33.6%
	0.2	0.4	0.2	0	0	30.4%	43.3%
	0.2	0.4	0.2	0.2	0	25.8%	37.0%
	0.3	0.7	0.6	0.1	0	64.2%	83.0%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0.8	0	0	0	31.5%	43.7%
	0	0.8	0.4	0	0	36.3%	52.3%
	0	0.6	0.3	0.3	0	21.8%	30.6%
	0.4	0.8	0	0	0	26.0%	36.6%
	0.4	0.8	0.4	0	0	30.9%	44.6%
	0.4	0.8	0.4	0.4	0	26.0%	36.8%
	0.3	0.7	0.6	0.1	0	28.9%	41.1%
	0.5	0	0.5	0.5	1	0.3%	0.1%
	0	0.4	0.6	0.8	1	1.4%	0.8%
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	1	0	0	0	24.4%	33.7%
	0	1	0.4	0	0	28.3%	40.8%
	0	1	0.3	0.3	0	24.8%	34.8%
	0.4	1	0	0	0	22.7%	30.8%
	0.4	1	0.4	0	0	24.8%	34.9%
	0.4	1	0.4	0.4	0	22.1%	31.0%
	0.3	1	0.6	0.1	0	26.6%	37.3%

Table F.137. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.4%
	0	0.8	0	0	0	48.0%	49.6%
	0	0.8	0.4	0	0	55.9%	58.8%
	0	0.6	0.3	0.3	0	32.7%	34.7%
	0.4	0.8	0	0	0	40.0%	41.2%
	0.4	0.8	0.4	0	0	48.8%	51.1%
	0.4	0.8	0.4	0.4	0	40.8%	42.4%
	0.3	0.7	0.6	0.1	0	45.3%	46.9%
Exponential	0	0	0	0	0	4.7%	4.8%
	0	0.4	0	0	0	33.5%	35.3%
	0	0.4	0.2	0	0	41.3%	42.3%
	0	0.6	0.3	0.3	0	59.9%	59.5%
	0.2	0.4	0	0	0	28.2%	29.1%
	0.2	0.4	0.2	0	0	35.8%	36.8%
	0.2	0.4	0.2	0.2	0	31.3%	31.5%
	0.1	0.4	0.3	0.2	0	36.8%	38.1%
	0.5	0	0.5	0.5	1	0.0%	0.0%
	0	0.4	0.6	0.8	1	0.2%	0.2%
T with 3 df.	0	0	0	0	0	5.4%	5.3%
	0	0.8	0	0	0	36.3%	37.8%
	0	0.8	0.4	0	0	42.9%	44.8%
	0	0.6	0.3	0.3	0	25.4%	26.2%
	0.4	0.8	0	0	0	30.3%	31.6%
	0.4	0.8	0.4	0	0	36.9%	38.9%
	0.4	0.8	0.4	0.4	0	31.1%	31.9%
	0.3	0.7	0.6	0.1	0	35.0%	35.4%
Cauchy	0	0	0	0	0	5.3%	5.4%
	0	1	0	0	0	29.1%	30.0%
	0	1	0.4	0	0	34.1%	34.9%
	0	1	0.3	0.3	0	29.6%	31.4%
	0.4	1	0	0	0	26.1%	27.6%
	0.4	1	0.4	0	0	29.7%	31.0%
	0.4	1	0.4	0.4	0	26.5%	27.3%
	0.3	1	0.6	0.1	0	31.4%	33.0%

Table F.138. t = 5, Pk = 2, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0.8	0	0	0	30.5%	45.0%
	0	0.8	0.4	0	0	37.2%	54.3%
	0	0.6	0.3	0.3	0	22.6%	32.0%
	0.4	0.8	0	0	0	26.2%	38.0%
	0.4	0.8	0.4	0	0	32.5%	46.9%
	0.4	0.8	0.4	0.4	0	26.6%	39.2%
	0.3	0.7	0.6	0.1	0	30.2%	43.7%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0.4	0	0	0	22.0%	31.7%
	0	0.4	0.2	0	0	26.7%	39.6%
	0	0.6	0.3	0.3	0	38.9%	55.5%
	0.2	0.4	0	0	0	18.3%	26.2%
	0.2	0.4	0.2	0	0	23.0%	34.1%
	0.2	0.4	0.2	0.2	0	20.7%	29.8%
	0.3	0.7	0.6	0.1	0	50.5%	70.0%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0.8	0	0	0	24.1%	33.6%
	0	0.8	0.4	0	0	29.3%	41.6%
	0	0.6	0.3	0.3	0	18.1%	24.9%
	0.4	0.8	0	0	0	20.6%	28.7%
	0.4	0.8	0.4	0	0	24.6%	35.8%
	0.4	0.8	0.4	0.4	0	22.2%	30.6%
	0.3	0.7	0.6	0.1	0	23.0%	33.0%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	1	0	0	0	19.9%	27.0%
	0	1	0.4	0	0	23.8%	32.1%
	0	1	0.3	0.3	0	20.7%	28.4%
	0.4	1	0	0	0	18.1%	24.9%
	0.4	1	0.4	0	0	20.9%	29.0%
	0.4	1	0.4	0.4	0	18.5%	25.8%
	0.3	1	0.6	0.1	0	22.0%	31.0%
	0.5	0	0.5	0.5	1	0.9%	0.5%
	0	0.4	0.6	0.8	1	2.3%	2.2%

Table F.139. t = 5, Pk = 2, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0.4	0	0	0	37.2%	32.6%
	0	0.4	0.2	0	0	43.7%	37.8%
	0	0.6	0.3	0.3	0	62.9%	56.1%
	0.2	0.4	0	0	0	31.6%	27.8%
	0.2	0.4	0.2	0	0	36.8%	32.9%
	0.2	0.4	0.2	0.2	0	31.0%	28.1%
	0.1	0.4	0.3	0.1	0	40.3%	36.3%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0.4	0	0	0	67.0%	58.6%
	0	0.2	0.1	0	0	33.6%	29.9%
	0	0.3	0.1	0.1	0	49.2%	42.4%
	0.2	0.4	0	0	0	56.9%	49.8%
	0.1	0.2	0.1	0	0	28.9%	26.1%
	0.2	0.4	0.2	0.2	0	59.7%	52.8%
	0.1	0.4	0.2	0.1	0	69.8%	62.5%
T with 3 df.	0	0	0	0	0	5.1%	5.5%
	0	0.4	0	0	0	28.1%	25.6%
	0	0.4	0.2	0	0	32.9%	29.0%
	0	0.6	0.3	0.3	0	47.4%	42.5%
	0.4	0.8	0	0	0	57.9%	51.5%
	0.2	0.4	0.2	0	0	28.7%	25.3%
	0.4	0.8	0.4	0.4	0	58.3%	51.6%
	0.3	0.7	0.6	0.1	0	64.9%	56.9%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	1	0	0	0	56.9%	49.3%
	0	1	0.4	0	0	63.7%	56.5%
	0	1	0.3	0.3	0	57.4%	49.9%
	0.4	1	0	0	0	49.5%	43.6%
	0.4	1	0.4	0	0	56.9%	50.6%
	0.4	1	0.4	0.4	0	50.8%	44.6%
	0.3	1	0.6	0.1	0	60.3%	53.4%
	0.5	0	0.5	0.5	1	0.1%	0.1%
	0	0.4	0.6	0.8	1	0.8%	0.8%

Table F.140. t = 5, Pk = 2, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.2%
	0	0.8	0	0	0	48.9%	68.9%
	0	0.8	0.4	0	0	58.3%	78.8%
	0	0.6	0.3	0.3	0	34.5%	49.3%
	0.4	0.8	0	0	0	41.7%	59.8%
	0.4	0.8	0.4	0	0	49.3%	69.8%
	0.4	0.8	0.4	0.4	0	41.7%	60.0%
	0.3	0.7	0.6	0.1	0	46.2%	66.2%
Exponential	0	0	0	0	0	4.9%	4.8%
	0	0.4	0	0	0	34.3%	50.4%
	0	0.4	0.2	0	0	41.9%	60.4%
	0	0.6	0.3	0.3	0	59.3%	79.6%
	0.2	0.4	0	0	0	28.4%	41.4%
	0.2	0.4	0.2	0	0	35.6%	52.7%
	0.2	0.4	0.2	0.2	0	31.8%	45.3%
	0.3	0.7	0.6	0.1	0	73.5%	91.1%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0.8	0	0	0	36.4%	53.0%
	0	0.8	0.4	0	0	44.2%	62.9%
	0	0.6	0.3	0.3	0	26.7%	37.8%
	0.4	0.8	0	0	0	31.9%	45.7%
	0.4	0.8	0.4	0	0	38.1%	54.8%
	0.4	0.8	0.4	0.4	0	32.0%	46.1%
	0.3	0.7	0.6	0.1	0	34.3%	49.3%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	1	0	0	0	29.9%	42.5%
	0	1	0.4	0	0	34.3%	49.4%
	0	1	0.3	0.3	0	31.4%	44.6%
	0.4	1	0	0	0	26.3%	37.3%
	0.4	1	0.4	0	0	30.9%	44.1%
	0.4	1	0.4	0.4	0	27.5%	38.5%
	0.3	1	0.6	0.1	0	32.3%	47.5%
	0.5	0	0.5	0.5	1	0.4%	0.1%
	0	0.4	0.6	0.8	1	1.7%	1.3%

F.5. Five Treatments – Peak at Three

F.5.1. Probability of Missing = 0.1

Table F.141. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.5%	5.1%
	0	0	0.6	0	0	39.2%	62.7%
	0	0.4	0.6	0.4	0	41.2%	65.1%
	0	0.3	0.6	0	0	39.5%	63.2%
	0.3	0.3	0.6	0	0	26.7%	43.7%
	0	0	0.6	0.4	0.4	23.4%	37.3%
	0	0.5	0.8	0.4	0.3	44.5%	69.2%
	1	1	0.6	0	0	7.4%	8.5%
Exponential	0	0	0	0	0	5.0%	5.0%
	0	0	0.4	0	0	41.0%	65.7%
	0	0.2	0.4	0.2	0	43.4%	69.2%
	0	0.2	0.4	0	0	43.2%	68.2%
	0.3	0.3	0.6	0	0	46.0%	72.8%
	0	0	0.6	0.4	0.4	39.4%	63.5%
	0	0.2	0.5	0.4	0.1	51.1%	76.2%
	1	1	0.6	0	0	7.5%	8.9%
T with 3 df.	0	0	0	0	0	4.9%	4.8%
	0	0	0.6	0	0	30.8%	48.7%
	0	0.4	0.6	0.4	0	29.9%	48.8%
	0	0.3	0.6	0	0	30.0%	48.5%
	0.3	0.3	1	0	0	47.5%	72.6%
	0	0	1	0.4	0.4	43.7%	67.5%
	0	0.5	0.8	0.4	0.3	34.4%	53.7%
	1	1	0.6	0	0	6.7%	7.4%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	1	0	0	35.1%	55.7%
	0	0.4	1.5	0.4	0	57.9%	83.1%
	0	0.3	1.5	0	0	58.0%	82.2%
	0.3	0.3	1.5	0	0	51.2%	75.8%
	0	0	1.5	0.4	0.4	48.7%	72.5%
	0	0.5	1.5	0.4	0.3	51.3%	76.8%

Table F.142. t = 5, Pk = 3, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0.6	0	0	38.5%	55.1%
	0	0.4	0.6	0.4	0	38.7%	55.4%
	0	0.3	0.6	0	0	38.7%	56.2%
	0.3	0.3	0.6	0	0	26.9%	38.0%
	0	0	0.8	0.4	0.4	38.3%	55.4%
	0	0.5	0.8	0.4	0.3	43.2%	62.5%
	1	1	0.6	0	0	7.3%	7.9%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0.4	0	0	39.3%	58.2%
	0	0.2	0.4	0.2	0	42.6%	61.0%
	0	0.2	0.4	0	0	40.8%	58.9%
	0.3	0.3	0.6	0	0	45.7%	65.2%
	0	0	0.6	0.4	0.4	36.7%	53.8%
	0	0.2	0.5	0.4	0.1	49.6%	68.7%
	1	1	0.6	0	0	7.0%	8.1%
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	29.4%	42.3%
	0	0.4	0.6	0.4	0	29.7%	43.1%
	0	0.3	0.6	0	0	29.5%	42.7%
	0.3	0.3	1	0	0	46.2%	64.9%
	0	0	1	0.4	0.4	42.6%	61.3%
	0	0.5	0.8	0.4	0.3	32.2%	47.0%
	1	1	0.6	0	0	6.7%	7.1%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	1	0	0	34.8%	49.1%
	0	0.4	1.5	0.4	0	57.1%	76.1%
	0	0.3	1.5	0	0	56.7%	75.9%
	0.3	0.3	1.5	0	0	49.8%	68.1%
	0	0	1.5	0.4	0.4	47.6%	65.3%
	0	0.5	1.5	0.4	0.3	51.0%	69.6%
	1	1	0.6	0	0	6.6%	6.7%
	1	1	0.6	1	1	1.5%	0.9%
	0	0.3	0.6	0.7	1	5.9%	6.5%

Table F.143. t = 5, Pk = 3, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.0%
	0	0	0.6	0	0	33.6%	56.6%
	0	0.4	0.6	0.4	0	34.1%	57.9%
	0	0.3	0.6	0	0	33.1%	56.4%
	0.3	0.3	0.7	0	0	30.5%	51.5%
	0	0	0.6	0.4	0.4	20.3%	32.8%
	0	0.5	0.8	0.4	0.3	38.3%	63.0%
	1	1	0.6	0	0	6.7%	7.7%
Exponential	0	0	0	0	0	5.3%	5.5%
	0	0	0.4	0	0	33.7%	58.9%
	0	0.2	0.4	0.2	0	36.7%	61.4%
	0	0.2	0.4	0	0	36.2%	60.5%
	0.3	0.3	0.6	0	0	37.3%	64.9%
	0	0	0.6	0.4	0.4	32.2%	55.1%
	0	0.2	0.5	0.4	0.1	41.9%	69.2%
	1	1	0.6	0	0	6.7%	7.6%
T with 3 df.	0	0	0	0	0	4.8%	4.5%
	0	0	0.6	0	0	25.5%	43.7%
	0	0.4	0.6	0.4	0	25.9%	42.8%
	0	0.3	0.6	0	0	26.4%	43.7%
	0.3	0.3	1	0	0	40.1%	65.6%
	0	0	1	0.4	0.4	36.8%	61.3%
	0	0.5	0.8	0.4	0.3	28.5%	48.4%
	1	1	0.6	0	0	6.2%	7.3%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	1	0	0	29.6%	49.7%
	0	0.4	1.5	0.4	0	50.6%	77.5%
	0	0.3	1.5	0	0	49.6%	76.4%
	0.3	0.3	1.5	0	0	43.1%	68.4%
	0	0	1.5	0.4	0.4	40.5%	65.3%
	0	0.5	1.5	0.4	0.3	44.1%	70.2%
	1	1	0.6	0	0	6.0%	6.4%
	1	1	0.6	1	1	1.7%	1.0%
	0	0.3	0.6	0.7	1	6.2%	6.6%

Table F.144. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	37.1%	45.7%
	0	0.4	0.6	0.4	0	37.1%	45.3%
	0	0.3	0.6	0	0	37.3%	45.6%
	0.3	0.3	0.6	0	0	25.8%	30.9%
	0	0	0.6	0.4	0.4	22.4%	26.3%
	0	0.5	0.8	0.4	0.3	42.6%	51.0%
	1	1	0.6	0	0	7.1%	7.4%
	1	1	0.6	1	1	0.6%	0.3%
	0	0.3	0.6	0.7	1	7.6%	7.5%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0	0.4	0	0	38.9%	46.6%
	0	0.2	0.4	0.2	0	41.1%	49.4%
	0	0.2	0.4	0	0	40.4%	48.4%
	0.3	0.3	0.6	0	0	44.3%	53.2%
	0	0	0.6	0.4	0.4	36.0%	43.5%
	0	0.2	0.5	0.4	0.1	46.6%	57.1%
	1	1	0.6	0	0	7.1%	7.4%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0.6	0	0	28.4%	34.4%
	0	0.4	0.6	0.4	0	29.1%	35.4%
	0	0.3	0.6	0	0	28.8%	34.6%
	0.3	0.3	1	0	0	44.0%	53.6%
	0	0	1	0.4	0.4	41.0%	49.6%
	0	0.5	0.8	0.4	0.3	31.8%	38.7%
	1	1	0.6	0	0	7.0%	6.8%
Cauchy	0	0	0	0	0	5.2%	5.4%
	0	0	1	0	0	32.8%	39.3%
	0	0.4	1.5	0.4	0	55.2%	65.3%
	0	0.3	1.5	0	0	54.8%	63.7%
	0.3	0.3	1.5	0	0	47.4%	56.3%
	0	0	1.5	0.4	0.4	45.4%	53.2%
	0	0.5	1.5	0.4	0.3	49.0%	58.9%
	1	1	0.6	0	0	6.4%	6.3%

Table F.145. t = 5, Pk = 3, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0	0.6	0	0	33.2%	48.1%
	0	0.4	0.6	0.4	0	33.3%	48.1%
	0	0.3	0.6	0	0	33.0%	48.5%
	0.3	0.3	0.8	0	0	36.2%	52.6%
	0	0	0.8	0.4	0.4	31.9%	46.4%
	0	0.5	0.8	0.4	0.3	36.1%	53.4%
	1	1	0.6	0	0	6.8%	7.4%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0	0.4	0	0	32.0%	48.2%
	0	0.2	0.4	0.2	0	35.0%	51.4%
	0	0.2	0.4	0	0	34.2%	50.3%
	0.3	0.3	0.6	0	0	35.7%	53.4%
	0	0	0.8	0.4	0.4	51.1%	72.8%
	0	0.2	0.5	0.4	0.1	40.4%	59.6%
	1	1	0.6	0	0	6.3%	7.2%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	1	0	0	46.8%	66.9%
	0	0.4	0.8	0.4	0	35.7%	52.1%
	0	0.3	0.8	0	0	36.1%	52.8%
	0.3	0.3	1	0	0	38.6%	56.1%
	0	0	1	0.4	0.4	34.8%	51.1%
	0	0.5	1	0.4	0.3	39.8%	57.9%
	1	1	0.6	0	0	6.1%	6.7%
Cauchy	0	0	0	0	0	5.3%	5.3%
	0	0	1.5	0	0	46.0%	64.8%
	0	0.4	1.5	0.4	0	47.7%	66.7%
	0	0.3	1.5	0	0	47.3%	65.9%
	0.3	0.3	1.5	0	0	40.8%	58.1%
	0	0	1.5	0.4	0.4	39.9%	56.3%
	0	0.5	1.5	0.4	0.3	41.9%	59.6%
	1	1	0.6	0	0	6.2%	6.6%
	1	1	0.6	1	1	1.9%	1.3%
	0	0.3	0.6	0.7	1	6.6%	6.6%

Table F.146. t = 5, Pk = 3, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	68.7%	68.5%
	0	0.4	0.6	0.4	0	68.9%	69.1%
	0	0.3	0.6	0	0	68.3%	68.1%
	0.3	0.3	0.6	0	0	47.6%	47.9%
	0	0	0.6	0.4	0.4	40.6%	40.3%
	0	0.5	0.8	0.4	0.3	75.2%	74.9%
	1	1	0.6	0	0	9.1%	8.9%
	1	1	0.6	1	1	0.1%	0.1%
	0	0.3	0.6	0.7	1	9.5%	9.0%
Exponential	0	0	0	0	0	5.5%	5.5%
	0	0	0.4	0	0	75.2%	73.2%
	0	0.2	0.4	0.2	0	75.4%	74.3%
	0	0.2	0.4	0	0	75.5%	74.3%
	0.3	0.3	0.6	0	0	80.8%	79.5%
	0	0	0.6	0.4	0.4	71.3%	69.5%
	0	0.1	0.3	0.2	0.1	43.3%	42.1%
	1	1	0.6	0	0	10.0%	9.3%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	52.6%	53.8%
	0	0.4	0.6	0.4	0	53.7%	53.0%
	0	0.3	0.6	0	0	53.6%	53.7%
	0.3	0.3	1	0	0	77.9%	77.9%
	0	0	1	0.4	0.4	73.5%	73.5%
	0	0.5	0.8	0.4	0.3	58.8%	58.1%
	1	1	0.6	0	0	8.6%	8.2%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	61.6%	61.0%
	0	0.4	0.8	0.4	0	47.0%	48.1%
	0	0.3	0.8	0	0	47.5%	47.0%
	0.3	0.3	1.5	0	0	81.6%	81.2%
	0	0	1.5	0.4	0.4	79.0%	77.6%
	0	0.5	0.8	0.4	0.3	36.3%	36.1%
	1	1	0.6	0	0	6.9%	7.0%

Table F.147. t = 5, Pk = 3, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0	0.6	0	0	59.4%	74.1%
	0	0.4	0.6	0.4	0	59.1%	74.0%
	0	0.3	0.6	0	0	58.5%	73.7%
	0.3	0.3	0.6	0	0	40.2%	52.5%
	0	0	1	0.4	0.4	78.4%	91.1%
	0	0.5	0.8	0.4	0.3	65.3%	79.4%
	1	1	0.6	0	0	8.1%	9.1%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0	0.4	0	0	60.6%	76.3%
	0	0.2	0.4	0.2	0	63.5%	78.8%
	0	0.2	0.4	0	0	62.6%	78.2%
	0.3	0.3	0.6	0	0	67.3%	82.4%
	0	0	0.6	0.4	0.4	57.8%	73.3%
	0	0.2	0.5	0.4	0.1	72.0%	85.5%
	1	1	0.6	0	0	8.4%	9.7%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	44.9%	57.5%
	0	0.4	0.6	0.4	0	46.0%	58.6%
	0	0.3	0.6	0	0	44.7%	57.8%
	0.3	0.3	1	0	0	68.7%	82.8%
	0	0	1	0.4	0.4	63.6%	78.2%
	0	0.5	0.8	0.4	0.3	50.2%	64.0%
	1	1	0.6	0	0	7.0%	7.6%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	0	1	0	0	51.8%	65.1%
	0	0.4	1.5	0.4	0	79.8%	90.9%
	0	0.3	1.5	0	0	77.9%	89.7%
	0.3	0.3	1.5	0	0	70.5%	83.7%
	0	0	1.5	0.4	0.4	68.3%	81.6%
	0	0.5	1.5	0.4	0.3	72.2%	85.3%
	1	1	0.6	0	0	7.3%	7.7%
	1	1	0.6	1	1	1.0%	0.7%
	0	0.3	0.6	0.7	1	7.1%	7.4%

F.5.2. Probability of Missing = 0.2

Table F.148. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.1%
	0	0	0.6	0	0	38.6%	59.9%
	0	0.4	0.6	0.4	0	39.1%	60.0%
	0	0.3	0.6	0	0	39.7%	60.7%
	0.3	0.3	0.6	0	0	26.4%	40.9%
	0	0	0.6	0.4	0.4	22.7%	35.1%
	0	0.5	0.8	0.4	0.3	44.0%	66.2%
	1	1	0.6	0	0	7.0%	8.4%
Exponential	0	0	0	0	0	5.4%	4.7%
	0	0	0.4	0	0	40.7%	63.8%
	0	0.2	0.4	0.2	0	43.5%	66.0%
	0	0.2	0.4	0	0	41.9%	64.6%
	0.3	0.3	0.6	0	0	46.1%	69.2%
	0	0	0.6	0.4	0.4	37.5%	59.7%
	0	0.2	0.5	0.4	0.1	49.8%	73.1%
	1	1	0.6	0	0	7.1%	8.1%
	0	0.3	0.6	0.7	1	8.4%	9.9%
T with 3 df.	0	0	0	0	0	5.0%	5.2%
	0	0	0.6	0	0	30.0%	45.6%
	0	0.4	0.6	0.4	0	30.1%	46.0%
	0	0.3	0.6	0	0	29.7%	46.2%
	0.3	0.3	1	0	0	46.7%	69.2%
	0	0	1	0.4	0.4	42.7%	64.9%
	0	0.5	0.8	0.4	0.3	33.2%	51.7%
	1	1	0.6	0	0	6.6%	7.4%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	0	1	0	0	35.0%	53.2%
	0	0.4	1.5	0.4	0	58.3%	80.5%
	0	0.3	1.5	0	0	57.7%	79.9%
	0.3	0.3	1.5	0	0	49.6%	71.9%
	0	0	1.5	0.4	0.4	48.0%	69.4%
	0	0.5	1.5	0.4	0.3	52.1%	73.9%
	1	1	0.6	0	0	6.0%	6.6%

Table F.149. t = 5, Pk = 3, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0	0.6	0	0	37.9%	52.1%
	0	0.4	0.6	0.4	0	38.0%	53.4%
	0	0.3	0.6	0	0	38.8%	53.9%
	0.3	0.3	0.6	0	0	26.4%	35.6%
	0	0	0.8	0.4	0.4	38.1%	51.9%
	0	0.5	0.8	0.4	0.3	41.9%	58.3%
	1	1	0.6	0	0	7.4%	8.1%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0	0.4	0	0	39.1%	54.8%
	0	0.2	0.4	0.2	0	42.0%	57.5%
	0	0.2	0.4	0	0	40.5%	56.8%
	0.3	0.3	0.6	0	0	44.7%	61.8%
	0	0	0.6	0.4	0.4	37.6%	52.6%
	0	0.2	0.5	0.4	0.1	48.6%	65.1%
	1	1	0.6	0	0	7.3%	7.8%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	28.3%	39.7%
	0	0.4	0.6	0.4	0	29.0%	40.5%
	0	0.3	0.6	0	0	28.1%	39.8%
	0.3	0.3	1	0	0	46.7%	62.6%
	0	0	1	0.4	0.4	41.9%	57.2%
	0	0.5	0.8	0.4	0.3	32.0%	44.5%
	1	1	0.6	0	0	6.6%	7.6%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	0	1	0	0	33.7%	46.6%
	0	0.4	1.5	0.4	0	56.5%	73.1%
	0	0.3	1.5	0	0	55.4%	72.7%
	0.3	0.3	1.5	0	0	49.0%	64.8%
	0	0	1.5	0.4	0.4	46.8%	62.0%
	0	0.5	1.5	0.4	0.3	50.5%	67.0%
	1	1	0.6	0	0	6.0%	6.7%
	1	1	0.6	1	1	1.5%	1.0%
	0	0.3	0.6	0.7	1	6.2%	6.3%

Table F.150. t = 5, Pk = 3, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.5%
	0	0	0.6	0	0	32.9%	52.5%
	0	0.4	0.6	0.4	0	33.7%	53.6%
	0	0.3	0.6	0	0	33.1%	53.3%
	0.3	0.3	0.7	0	0	29.7%	48.0%
	0	0	0.6	0.4	0.4	19.8%	30.6%
	0	0.5	0.8	0.4	0.3	36.8%	59.4%
	1	1	0.6	0	0	6.4%	7.6%
Exponential	0	0	0	0	0	5.1%	5.4%
	0	0	0.4	0	0	33.1%	55.3%
	0	0.2	0.4	0.2	0	36.1%	58.5%
	0	0.2	0.4	0	0	33.7%	55.8%
	0.3	0.3	0.6	0	0	37.6%	62.1%
	0	0	0.6	0.4	0.4	31.4%	52.7%
	0	0.2	0.5	0.4	0.1	40.7%	65.6%
	1	1	0.6	0	0	6.7%	8.1%
	1	1	0.6	1	1	0.4%	0.1%
	0	0.3	0.6	0.7	1	7.1%	8.8%
T with 3 df.	0	0	0	0	0	4.8%	5.3%
	0	0	0.6	0	0	25.0%	39.6%
	0	0.4	0.6	0.4	0	25.2%	40.9%
	0	0.3	0.6	0	0	25.3%	40.5%
	0.3	0.3	1	0	0	38.4%	63.1%
	0	0	1	0.4	0.4	36.1%	58.2%
	0	0.5	0.8	0.4	0.3	27.5%	45.0%
	1	1	0.6	0	0	6.4%	7.7%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	29.9%	46.9%
	0	0.4	1.5	0.4	0	49.8%	74.2%
	0	0.3	1.5	0	0	49.1%	72.9%
	0.3	0.3	1.5	0	0	41.4%	64.5%
	0	0	1.5	0.4	0.4	40.3%	62.1%
	0	0.5	1.5	0.4	0.3	42.6%	65.8%
	1	1	0.6	0	0	6.3%	6.4%

Table F.151. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	5.1%
	0	0	0.6	0	0	37.1%	43.5%
	0	0.4	0.6	0.4	0	37.5%	44.6%
	0	0.3	0.6	0	0	37.4%	43.3%
	0.3	0.3	0.6	0	0	25.2%	29.8%
	0	0	0.6	0.4	0.4	21.6%	25.5%
	0	0.5	0.8	0.4	0.3	41.1%	48.1%
	1	1	0.6	0	0	7.1%	7.2%
	1	1	0.6	1	1	0.6%	0.4%
	0	0.3	0.6	0.7	1	6.8%	7.1%
Exponential	0	0	0	0	0	5.3%	4.8%
	0	0	0.4	0	0	39.0%	44.9%
	0	0.2	0.4	0.2	0	40.2%	46.3%
	0	0.2	0.4	0	0	39.2%	45.9%
	0.3	0.3	0.6	0	0	43.7%	50.4%
	0	0	0.6	0.4	0.4	35.5%	42.7%
	0	0.2	0.5	0.4	0.1	47.0%	54.2%
	1	1	0.6	0	0	6.8%	7.1%
T with 3 df.	0	0	0	0	0	5.6%	5.4%
	0	0	0.6	0	0	28.5%	32.6%
	0	0.4	0.6	0.4	0	27.7%	32.7%
	0	0.3	0.6	0	0	28.6%	33.1%
	0.3	0.3	1	0	0	44.1%	51.5%
	0	0	1	0.4	0.4	40.4%	46.8%
	0	0.5	0.8	0.4	0.3	31.7%	36.9%
	1	1	0.6	0	0	6.2%	7.1%
Cauchy	0	0	0	0	0	5.2%	5.0%
	0	0	1	0	0	32.5%	37.6%
	0	0.4	1.5	0.4	0	55.0%	62.2%
	0	0.3	1.5	0	0	54.3%	62.1%
	0.3	0.3	1.5	0	0	47.7%	55.2%
	0	0	1.5	0.4	0.4	44.9%	52.2%
	0	0.5	1.5	0.4	0.3	48.4%	55.9%
	1	1	0.6	0	0	6.2%	6.2%

Table F.152. t = 5, Pk = 3, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.9%
	0	0	0.6	0	0	29.8%	43.6%
	0	0.4	0.6	0.4	0	29.8%	43.8%
	0	0.3	0.6	0	0	31.4%	44.9%
	0.3	0.3	0.8	0	0	32.9%	48.0%
	0	0	0.8	0.4	0.4	29.5%	42.5%
	0	0.5	0.8	0.4	0.3	34.3%	49.8%
	1	1	0.6	0	0	6.8%	7.6%
	1	1	0.6	1	1	0.9%	0.4%
	0	0.3	0.6	0.7	1	7.4%	7.8%
Exponential	0	0	0	0	0	4.8%	4.9%
	0	0	0.4	0	0	29.0%	44.2%
	0	0.2	0.4	0.2	0	32.4%	48.2%
	0	0.2	0.4	0	0	30.9%	46.9%
	0.3	0.3	0.6	0	0	31.9%	49.4%
	0	0	0.8	0.4	0.4	47.2%	69.0%
	0	0.2	0.5	0.4	0.1	37.1%	53.7%
	1	1	0.6	0	0	6.2%	7.1%
T with 3 df.	0	0	0	0	0	5.0%	4.8%
	0	0	1	0	0	45.1%	63.9%
	0	0.4	0.8	0.4	0	34.0%	49.4%
	0	0.3	0.8	0	0	33.9%	49.1%
	0.3	0.3	1	0	0	35.0%	51.4%
	0	0	1	0.4	0.4	32.5%	47.8%
	0	0.5	1	0.4	0.3	36.3%	53.1%
	1	1	0.6	0	0	6.8%	7.2%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1.5	0	0	42.5%	60.4%
	0	0.4	1.5	0.4	0	44.7%	63.5%
	0	0.3	1.5	0	0	44.0%	61.3%
	0.3	0.3	1.5	0	0	38.1%	54.8%
	0	0	1.5	0.4	0.4	36.7%	52.6%
	0	0.5	1.5	0.4	0.3	39.2%	56.4%
	1	1	0.6	0	0	6.0%	6.0%

Table F.153. t = 5, Pk = 3, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.9%
	0	0	0.6	0	0	68.8%	67.2%
	0	0.4	0.6	0.4	0	69.1%	66.9%
	0	0.3	0.6	0	0	68.7%	66.2%
	0.3	0.3	0.6	0	0	47.8%	46.3%
	0	0	0.6	0.4	0.4	41.0%	40.0%
	0	0.5	0.8	0.4	0.3	74.9%	72.5%
	1	1	0.6	0	0	9.2%	9.6%
	1	1	0.6	1	1	0.1%	0.1%
	0	0.3	0.6	0.7	1	9.3%	9.3%
Exponential	0	0	0	0	0	5.0%	4.7%
	0	0	0.4	0	0	73.8%	70.5%
	0	0.2	0.4	0.2	0	75.6%	73.1%
	0	0.2	0.4	0	0	74.5%	71.1%
	0.3	0.3	0.6	0	0	80.5%	76.9%
	0	0	0.6	0.4	0.4	71.5%	67.8%
	0	0.1	0.3	0.2	0.1	43.7%	42.2%
	1	1	0.6	0	0	9.7%	8.8%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0	0.6	0	0	52.8%	50.6%
	0	0.4	0.6	0.4	0	52.9%	51.8%
	0	0.3	0.6	0	0	53.2%	51.1%
	0.3	0.3	1	0	0	78.6%	76.7%
	0	0	1	0.4	0.4	73.6%	71.1%
	0	0.5	0.8	0.4	0.3	59.5%	57.6%
	1	1	0.6	0	0	7.9%	8.0%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0	1	0	0	61.4%	59.2%
	0	0.4	0.8	0.4	0	48.0%	46.3%
	0	0.3	0.8	0	0	47.6%	45.4%
	0.3	0.3	1.5	0	0	81.7%	79.3%
	0	0	1.5	0.4	0.4	80.2%	76.9%
	0	0.5	0.8	0.4	0.3	37.3%	35.4%
	1	1	0.6	0	0	7.5%	6.9%

Table F.154. t = 5, Pk = 3, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.2%
	0	0	0.6	0	0	52.1%	68.3%
	0	0.4	0.6	0.4	0	53.6%	69.7%
	0	0.3	0.6	0	0	53.2%	69.2%
	0.3	0.3	0.6	0	0	35.7%	47.3%
	0	0	1	0.4	0.4	72.3%	87.5%
	0	0.5	0.8	0.4	0.3	58.2%	74.6%
	1	1	0.6	0	0	7.5%	8.5%
Exponential	0	0	0	0	0	5.3%	5.3%
	0	0	0.4	0	0	54.7%	71.9%
	0	0.2	0.4	0.2	0	57.1%	74.5%
	0	0.2	0.4	0	0	55.4%	72.2%
	0.3	0.3	0.6	0	0	60.2%	77.5%
	0	0	0.6	0.4	0.4	51.6%	68.7%
	0	0.2	0.5	0.4	0.1	64.3%	80.8%
	1	1	0.6	0	0	7.9%	9.1%
	1	1	0.6	1	1	0.2%	0.1%
	0	0.3	0.6	0.7	1	9.3%	11.1%
T with 3 df.	0	0	0	0	0	5.3%	5.2%
	0	0	0.6	0	0	39.9%	53.3%
	0	0.4	0.6	0.4	0	40.5%	53.9%
	0	0.3	0.6	0	0	40.4%	53.8%
	0.3	0.3	1	0	0	61.4%	77.2%
	0	0	1	0.4	0.4	55.8%	72.1%
	0	0.5	0.8	0.4	0.3	45.2%	60.1%
	1	1	0.6	0	0	7.3%	7.8%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	1	0	0	46.4%	61.0%
	0	0.4	1.5	0.4	0	73.5%	87.8%
	0	0.3	1.5	0	0	72.0%	86.2%
	0.3	0.3	1.5	0	0	64.5%	80.0%
	0	0	1.5	0.4	0.4	61.4%	77.2%
	0	0.5	1.5	0.4	0.3	66.5%	81.4%
	1	1	0.6	0	0	6.2%	6.7%

F.5.3. Probability of Missing = 0.3

Table F.155. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0	0.6	0	0	38.3%	56.2%
	0	0.4	0.6	0.4	0	38.9%	56.8%
	0	0.3	0.6	0	0	38.9%	57.1%
	0.3	0.3	0.6	0	0	26.6%	39.2%
	0	0	0.6	0.4	0.4	22.9%	32.5%
	0	0.5	0.8	0.4	0.3	42.8%	62.8%
	1	1	0.6	0	0	7.4%	8.1%
Exponential	0	0	0	0	0	5.6%	5.6%
	0	0	0.4	0	0	39.3%	59.4%
	0	0.2	0.4	0.2	0	43.3%	62.5%
	0	0.2	0.4	0	0	41.7%	61.6%
	0.3	0.3	0.6	0	0	44.9%	65.2%
	0	0	0.6	0.4	0.4	38.4%	56.4%
	0	0.2	0.5	0.4	0.1	49.1%	69.6%
	1	1	0.6	0	0	7.3%	8.4%
T with 3 df.	0	0	0	0	0	4.8%	5.2%
	0	0	0.6	0	0	29.6%	43.5%
	0	0.4	0.6	0.4	0	29.5%	43.8%
	0	0.3	0.6	0	0	30.7%	43.6%
	0.3	0.3	1	0	0	45.8%	65.7%
	0	0	1	0.4	0.4	42.0%	60.8%
	0	0.5	0.8	0.4	0.3	32.7%	47.7%
	1	1	0.6	0	0	6.6%	7.6%
	0	0.3	0.6	0.7	1	7.3%	8.0%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	0	1	0	0	33.8%	50.8%
	0	0.4	1.5	0.4	0	57.9%	78.1%
	0	0.3	1.5	0	0	57.1%	76.7%
	0.3	0.3	1.5	0	0	50.1%	69.1%
	0	0	1.5	0.4	0.4	47.6%	66.3%
	0	0.5	1.5	0.4	0.3	50.2%	70.4%
	1	1	0.6	0	0	5.8%	6.6%

Table F.156. t = 5, Pk = 3, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	37.6%	49.6%
	0	0.4	0.6	0.4	0	38.8%	51.5%
	0	0.3	0.6	0	0	37.6%	50.6%
	0.3	0.3	0.6	0	0	26.3%	33.9%
	0	0	0.8	0.4	0.4	37.6%	50.4%
	0	0.5	0.8	0.4	0.3	42.1%	55.7%
	1	1	0.6	0	0	6.8%	7.7%
Exponential	0	0	0	0	0	5.1%	5.4%
	0	0	0.4	0	0	38.2%	51.7%
	0	0.2	0.4	0.2	0	42.3%	54.1%
	0	0.2	0.4	0	0	40.4%	53.1%
	0.3	0.3	0.6	0	0	44.9%	57.9%
	0	0	0.6	0.4	0.4	37.0%	49.7%
	0	0.2	0.5	0.4	0.1	47.2%	62.0%
	1	1	0.6	0	0	7.0%	7.6%
T with 3 df.	0	0	0	0	0	5.3%	5.1%
	0	0	0.6	0	0	28.4%	37.5%
	0	0.4	0.6	0.4	0	29.3%	38.3%
	0	0.3	0.6	0	0	28.7%	38.4%
	0.3	0.3	1	0	0	45.1%	58.7%
	0	0	1	0.4	0.4	42.0%	54.6%
	0	0.5	0.8	0.4	0.3	32.3%	43.1%
	1	1	0.6	0	0	6.5%	7.3%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	0	1	0	0	34.3%	44.3%
	0	0.4	1.5	0.4	0	56.5%	71.0%
	0	0.3	1.5	0	0	54.8%	69.3%
	0.3	0.3	1.5	0	0	48.2%	61.4%
	0	0	1.5	0.4	0.4	45.9%	59.7%
	0	0.5	1.5	0.4	0.3	49.1%	63.4%
	1	1	0.6	0	0	6.0%	6.1%
	1	1	0.6	1	1	1.5%	1.3%
	0	0.3	0.6	0.7	1	6.8%	7.0%

Table F.157. t = 5, Pk = 3, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.7%
	0	0	0.6	0	0	31.5%	50.2%
	0	0.4	0.6	0.4	0	32.2%	50.2%
	0	0.3	0.6	0	0	31.7%	49.5%
	0.3	0.3	0.7	0	0	27.9%	44.7%
	0	0	0.6	0.4	0.4	19.6%	29.5%
	0	0.5	0.8	0.4	0.3	36.5%	56.1%
	1	1	0.6	0	0	7.0%	8.0%
Exponential	0	0	0	0	0	5.0%	5.3%
	0	0	0.4	0	0	31.2%	51.8%
	0	0.2	0.4	0.2	0	34.5%	54.5%
	0	0.2	0.4	0	0	32.7%	52.8%
	0.3	0.3	0.6	0	0	35.9%	57.3%
	0	0	0.6	0.4	0.4	30.0%	49.1%
	0	0.2	0.5	0.4	0.1	39.2%	61.3%
	1	1	0.6	0	0	6.5%	7.3%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0	0.6	0	0	24.7%	38.3%
	0	0.4	0.6	0.4	0	25.1%	39.2%
	0	0.3	0.6	0	0	24.4%	37.8%
	0.3	0.3	1	0	0	38.6%	59.3%
	0	0	1	0.4	0.4	34.4%	54.3%
	0	0.5	0.8	0.4	0.3	26.4%	41.3%
	1	1	0.6	0	0	6.3%	6.6%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	0	1	0	0	28.5%	43.7%
	0	0.4	1.5	0.4	0	47.6%	69.9%
	0	0.3	1.5	0	0	47.6%	69.4%
	0.3	0.3	1.5	0	0	41.4%	62.0%
	0	0	1.5	0.4	0.4	38.5%	58.9%
	0	0.5	1.5	0.4	0.3	42.2%	63.1%
	1	1	0.6	0	0	5.9%	6.2%
	1	1	0.6	1	1	2.0%	1.3%
	0	0.3	0.6	0.7	1	6.4%	7.1%

Table F.158. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.8%
	0	0	0.6	0	0	37.4%	41.5%
	0	0.4	0.6	0.4	0	36.5%	41.5%
	0	0.3	0.6	0	0	37.6%	41.8%
	0.3	0.3	0.6	0	0	25.3%	28.0%
	0	0	0.6	0.4	0.4	21.9%	24.0%
	0	0.5	0.8	0.4	0.3	40.9%	46.1%
	1	1	0.6	0	0	6.7%	7.3%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0.4	0	0	38.0%	42.0%
	0	0.2	0.4	0.2	0	40.7%	45.5%
	0	0.2	0.4	0	0	39.2%	44.3%
	0.3	0.3	0.6	0	0	43.0%	47.8%
	0	0	0.6	0.4	0.4	36.9%	40.6%
	0	0.2	0.5	0.4	0.1	46.3%	51.8%
	1	1	0.6	0	0	6.9%	7.4%
T with 3 df.	0	0	0	0	0	5.4%	5.2%
	0	0	0.6	0	0	28.1%	31.5%
	0	0.4	0.6	0.4	0	28.0%	32.1%
	0	0.3	0.6	0	0	28.5%	32.3%
	0.3	0.3	1	0	0	43.6%	48.9%
	0	0	1	0.4	0.4	40.6%	45.4%
	0	0.5	0.8	0.4	0.3	30.5%	34.8%
	1	1	0.6	0	0	6.8%	6.9%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	1	0	0	32.3%	37.1%
	0	0.4	1.5	0.4	0	54.8%	60.8%
	0	0.3	1.5	0	0	54.5%	60.3%
	0.3	0.3	1.5	0	0	47.3%	51.3%
	0	0	1.5	0.4	0.4	44.6%	49.9%
	0	0.5	1.5	0.4	0.3	48.8%	54.8%
	1	1	0.6	0	0	6.4%	6.3%
	1	1	0.6	1	1	1.6%	1.7%
	0	0.3	0.6	0.7	1	6.5%	6.3%

Table F.159. t = 5, Pk = 3, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	27.5%	40.6%
	0	0.4	0.6	0.4	0	28.3%	41.4%
	0	0.3	0.6	0	0	27.9%	40.7%
	0.3	0.3	0.8	0	0	31.4%	45.5%
	0	0	0.8	0.4	0.4	27.4%	40.3%
	0	0.5	0.8	0.4	0.3	32.1%	46.7%
	1	1	0.6	0	0	6.4%	6.7%
Exponential	0	0	0	0	0	5.3%	5.3%
	0	0	0.4	0	0	26.9%	41.1%
	0	0.2	0.4	0.2	0	30.1%	44.9%
	0	0.2	0.4	0	0	27.7%	42.4%
	0.3	0.3	0.6	0	0	30.2%	46.0%
	0	0	0.8	0.4	0.4	43.2%	64.1%
	0	0.2	0.5	0.4	0.1	33.7%	49.5%
	1	1	0.6	0	0	6.2%	7.2%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	1	0	0	40.4%	58.7%
	0	0.4	0.8	0.4	0	31.2%	45.1%
	0	0.3	0.8	0	0	30.7%	45.2%
	0.3	0.3	1	0	0	32.7%	48.1%
	0	0	1	0.4	0.4	30.4%	44.0%
	0	0.5	1	0.4	0.3	34.3%	49.5%
	1	1	0.6	0	0	6.5%	7.1%
Cauchy	0	0	0	0	0	5.3%	5.1%
	0	0	1.5	0	0	39.6%	56.9%
	0	0.4	1.5	0.4	0	41.0%	59.5%
	0	0.3	1.5	0	0	40.3%	57.6%
	0.3	0.3	1.5	0	0	35.5%	51.5%
	0	0	1.5	0.4	0.4	32.8%	47.8%
	0	0.5	1.5	0.4	0.3	35.5%	51.6%
	1	1	0.6	0	0	6.1%	6.3%
	1	1	0.6	1	1	2.4%	1.5%
	0	0.3	0.6	0.7	1	6.0%	6.4%

Table F.160. t = 5, Pk = 3, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.3%
	0	0	0.6	0	0	68.1%	64.8%
	0	0.4	0.6	0.4	0	68.1%	65.0%
	0	0.3	0.6	0	0	68.9%	65.6%
	0.3	0.3	0.6	0	0	47.6%	44.7%
	0	0	0.6	0.4	0.4	41.3%	38.6%
	0	0.5	0.8	0.4	0.3	74.2%	71.2%
	1	1	0.6	0	0	9.0%	8.8%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0.4	0	0	74.8%	68.7%
	0	0.2	0.4	0.2	0	76.0%	71.1%
	0	0.2	0.4	0	0	74.7%	69.6%
	0.3	0.3	0.6	0	0	80.8%	74.6%
	0	0	0.6	0.4	0.4	71.6%	66.4%
	0	0.1	0.3	0.2	0.1	43.1%	40.2%
	1	1	0.6	0	0	9.9%	9.9%
	1	1	0.6	1	1	0.0%	0.0%
	0	0.3	0.6	0.7	1	11.1%	10.1%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0	0.6	0	0	53.2%	50.4%
	0	0.4	0.6	0.4	0	53.7%	51.0%
	0	0.3	0.6	0	0	54.3%	51.1%
	0.3	0.3	1	0	0	77.8%	73.7%
	0	0	1	0.4	0.4	74.0%	70.2%
	0	0.5	0.8	0.4	0.3	59.1%	55.8%
	1	1	0.6	0	0	8.2%	7.8%
Cauchy	0	0	0	0	0	4.9%	5.1%
	0	0	1	0	0	61.3%	57.6%
	0	0.4	0.8	0.4	0	48.4%	45.0%
	0	0.3	0.8	0	0	46.4%	43.4%
	0.3	0.3	1.5	0	0	82.8%	78.2%
	0	0	1.5	0.4	0.4	79.7%	74.7%
	0	0.5	0.8	0.4	0.3	36.7%	34.4%
	1	1	0.6	0	0	7.6%	7.2%

Table F.161. t = 5, Pk = 3, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0	0.6	0	0	47.3%	63.7%
	0	0.4	0.6	0.4	0	47.0%	63.6%
	0	0.3	0.6	0	0	47.5%	64.3%
	0.3	0.3	0.6	0	0	31.8%	43.6%
	0	0	1	0.4	0.4	65.8%	83.9%
	0	0.5	0.8	0.4	0.3	52.1%	70.2%
	1	1	0.6	0	0	7.1%	7.9%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0	0.4	0	0	47.6%	65.6%
	0	0.2	0.4	0.2	0	49.6%	68.0%
	0	0.2	0.4	0	0	50.3%	67.7%
	0.3	0.3	0.6	0	0	53.7%	72.8%
	0	0	0.6	0.4	0.4	45.0%	62.6%
	0	0.2	0.5	0.4	0.1	58.3%	76.4%
	1	1	0.6	0	0	7.9%	9.1%
	1	1	0.6	1	1	0.2%	0.1%
	0	0.3	0.6	0.7	1	8.1%	10.1%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	36.1%	49.3%
	0	0.4	0.6	0.4	0	35.9%	49.6%
	0	0.3	0.6	0	0	36.0%	49.7%
	0.3	0.3	1	0	0	55.7%	73.5%
	0	0	1	0.4	0.4	51.0%	68.6%
	0	0.5	0.8	0.4	0.3	39.7%	55.2%
	1	1	0.6	0	0	7.3%	8.1%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	1	0	0	41.3%	56.3%
	0	0.4	1.5	0.4	0	67.0%	84.2%
	0	0.3	1.5	0	0	66.4%	82.1%
	0.3	0.3	1.5	0	0	57.6%	74.9%
	0	0	1.5	0.4	0.4	54.9%	71.9%
	0	0.5	1.5	0.4	0.3	59.8%	76.8%
	1	1	0.6	0	0	6.5%	7.0%

F.5.4. Probability of Missing = 0.4

Table F.162. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	38.4%	54.0%
	0	0.4	0.6	0.4	0	37.9%	53.9%
	0	0.3	0.6	0	0	39.5%	54.1%
	0.3	0.3	0.6	0	0	26.6%	37.4%
	0	0	0.6	0.4	0.4	22.4%	30.6%
	0	0.5	0.8	0.4	0.3	43.0%	60.1%
	1	1	0.6	0	0	7.2%	8.0%
	1	1	0.6	1	1	0.8%	0.3%
Exponential	0	0	0	0	0	5.4%	5.0%
	0	0	0.4	0	0	39.1%	55.2%
	0	0.2	0.4	0.2	0	41.7%	58.3%
	0	0.2	0.4	0	0	41.5%	57.1%
	0.3	0.3	0.6	0	0	44.9%	62.2%
	0	0	0.6	0.4	0.4	37.7%	52.9%
	0	0.2	0.5	0.4	0.1	49.2%	66.5%
	1	1	0.6	0	0	7.4%	8.2%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0	0.6	0	0	28.3%	40.5%
	0	0.4	0.6	0.4	0	28.5%	40.4%
	0	0.3	0.6	0	0	28.9%	41.9%
	0.3	0.3	1	0	0	45.9%	62.5%
	0	0	1	0.4	0.4	42.7%	58.3%
	0	0.5	0.8	0.4	0.3	32.1%	45.2%
	1	1	0.6	0	0	6.9%	7.7%
Cauchy	0	0	0	0	0	5.2%	5.6%
	0	0	1	0	0	34.5%	47.1%
	0	0.4	1.5	0.4	0	57.5%	74.8%
	0	0.3	1.5	0	0	56.1%	73.5%
	0.3	0.3	1.5	0	0	50.1%	66.1%
	0	0	1.5	0.4	0.4	46.2%	62.8%
	0	0.5	1.5	0.4	0.3	50.4%	67.2%
	1	1	0.6	0	0	6.3%	6.7%

Table F.163. t = 5, Pk = 3, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.1%
	0	0	0.6	0	0	37.8%	48.1%
	0	0.4	0.6	0.4	0	38.0%	48.2%
	0	0.3	0.6	0	0	36.4%	46.7%
	0.3	0.3	0.6	0	0	25.3%	31.6%
	0	0	0.8	0.4	0.4	37.1%	47.2%
	0	0.5	0.8	0.4	0.3	42.5%	53.4%
	1	1	0.6	0	0	7.5%	8.0%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0	0.4	0	0	39.2%	49.7%
	0	0.2	0.4	0.2	0	41.5%	53.2%
	0	0.2	0.4	0	0	40.8%	51.1%
	0.3	0.3	0.6	0	0	44.0%	55.3%
	0	0	0.6	0.4	0.4	36.3%	45.8%
	0	0.2	0.5	0.4	0.1	47.2%	58.7%
	1	1	0.6	0	0	7.6%	8.2%
T with 3 df.	0	0	0	0	0	5.1%	4.8%
	0	0	0.6	0	0	29.0%	36.6%
	0	0.4	0.6	0.4	0	28.3%	36.4%
	0	0.3	0.6	0	0	28.9%	36.5%
	0.3	0.3	1	0	0	44.9%	56.0%
	0	0	1	0.4	0.4	41.2%	51.4%
	0	0.5	0.8	0.4	0.3	31.6%	40.4%
	1	1	0.6	0	0	6.4%	6.9%
	1	1	0.6	1	1	1.0%	0.6%
	0	0.3	0.6	0.7	1	7.0%	7.4%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	0	1	0	0	33.0%	40.8%
	0	0.4	1.5	0.4	0	56.7%	68.4%
	0	0.3	1.5	0	0	55.0%	67.0%
	0.3	0.3	1.5	0	0	48.0%	59.2%
	0	0	1.5	0.4	0.4	45.8%	55.9%
	0	0.5	1.5	0.4	0.3	49.6%	60.2%
	1	1	0.6	0	0	6.4%	6.9%

Table F.164. t = 5, Pk = 3, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0.6	0	0	30.6%	46.6%
	0	0.4	0.6	0.4	0	31.7%	48.1%
	0	0.3	0.6	0	0	31.9%	48.1%
	0.3	0.3	0.7	0	0	27.2%	41.2%
	0	0	0.6	0.4	0.4	18.4%	26.6%
	0	0.5	0.8	0.4	0.3	34.3%	52.3%
	1	1	0.6	0	0	6.8%	7.6%
Exponential	0	0	0	0	0	4.8%	5.2%
	0	0	0.4	0	0	30.8%	47.8%
	0	0.2	0.4	0.2	0	33.5%	51.1%
	0	0.2	0.4	0	0	31.9%	49.7%
	0.3	0.3	0.6	0	0	35.1%	53.6%
	0	0	0.6	0.4	0.4	28.5%	45.7%
	0	0.2	0.5	0.4	0.1	39.3%	58.4%
	1	1	0.6	0	0	6.4%	7.3%
	1	1	0.6	1	1	0.5%	0.2%
	0	0.3	0.6	0.7	1	7.4%	8.5%
T with 3 df.	0	0	0	0	0	5.0%	5.4%
	0	0	0.6	0	0	24.0%	35.7%
	0	0.4	0.6	0.4	0	24.1%	36.0%
	0	0.3	0.6	0	0	24.0%	36.4%
	0.3	0.3	1	0	0	38.1%	55.7%
	0	0	1	0.4	0.4	33.2%	50.0%
	0	0.5	0.8	0.4	0.3	27.1%	40.0%
	1	1	0.6	0	0	6.4%	7.2%
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0	1	0	0	28.0%	41.2%
	0	0.4	1.5	0.4	0	46.6%	66.5%
	0	0.3	1.5	0	0	46.1%	65.3%
	0.3	0.3	1.5	0	0	39.7%	57.8%
	0	0	1.5	0.4	0.4	38.0%	54.7%
	0	0.5	1.5	0.4	0.3	41.1%	60.4%
	1	1	0.6	0	0	5.7%	6.1%

Table F.165. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.2%
	0	0	0.6	0	0	36.1%	38.8%
	0	0.4	0.6	0.4	0	37.3%	40.6%
	0	0.3	0.6	0	0	36.7%	40.1%
	0.3	0.3	0.6	0	0	25.5%	27.1%
	0	0	0.6	0.4	0.4	21.9%	22.5%
	0	0.5	0.8	0.4	0.3	41.2%	44.8%
	1	1	0.6	0	0	7.0%	7.4%
Exponential	0	0	0	0	0	5.1%	4.9%
	0	0	0.4	0	0	38.0%	40.5%
	0	0.2	0.4	0.2	0	40.3%	43.4%
	0	0.2	0.4	0	0	39.4%	42.1%
	0.3	0.3	0.6	0	0	43.2%	46.2%
	0	0	0.6	0.4	0.4	36.4%	38.2%
	0	0.2	0.5	0.4	0.1	46.5%	50.1%
	1	1	0.6	0	0	7.5%	7.6%
T with 3 df.	0	0	0	0	0	5.0%	5.1%
	0	0	0.6	0	0	27.9%	29.9%
	0	0.4	0.6	0.4	0	28.7%	31.1%
	0	0.3	0.6	0	0	28.1%	29.8%
	0.3	0.3	1	0	0	43.9%	47.1%
	0	0	1	0.4	0.4	39.7%	43.6%
	0	0.5	0.8	0.4	0.3	31.1%	33.6%
	1	1	0.6	0	0	6.5%	6.7%
Cauchy	0	0	0	0	0	4.9%	4.9%
	0	0	1	0	0	33.7%	35.4%
	0	0.4	1.5	0.4	0	55.2%	58.6%
	0	0.3	1.5	0	0	53.6%	57.0%
	0.3	0.3	1.5	0	0	47.7%	49.9%
	0	0	1.5	0.4	0.4	44.8%	47.6%
	0	0.5	1.5	0.4	0.3	48.1%	50.4%
	1	1	0.6	0	0	6.0%	6.5%
	1	1	0.6	1	1	1.7%	1.5%
	0	0.3	0.6	0.7	1	6.6%	6.6%

Table F.166. t = 5, Pk = 3, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0.6	0	0	26.2%	38.6%
	0	0.4	0.6	0.4	0	26.6%	38.3%
	0	0.3	0.6	0	0	26.3%	37.9%
	0.3	0.3	0.8	0	0	28.8%	42.5%
	0	0	0.8	0.4	0.4	26.4%	38.4%
	0	0.5	0.8	0.4	0.3	29.0%	42.7%
	1	1	0.6	0	0	6.5%	6.8%
Exponential	0	0	0	0	0	5.1%	5.3%
	0	0	0.4	0	0	24.7%	37.3%
	0	0.2	0.4	0.2	0	27.0%	40.5%
	0	0.2	0.4	0	0	26.7%	39.8%
	0.3	0.3	0.6	0	0	28.9%	43.1%
	0	0	0.8	0.4	0.4	40.4%	59.2%
	0	0.2	0.5	0.4	0.1	31.1%	46.1%
	1	1	0.6	0	0	6.1%	7.0%
T with 3 df.	0	0	0	0	0	4.8%	4.8%
	0	0	1	0	0	37.9%	54.1%
	0	0.4	0.8	0.4	0	29.7%	42.9%
	0	0.3	0.8	0	0	28.9%	42.2%
	0.3	0.3	1	0	0	30.7%	44.9%
	0	0	1	0.4	0.4	28.5%	40.9%
	0	0.5	1	0.4	0.3	31.4%	44.7%
	1	1	0.6	0	0	5.9%	6.5%
Cauchy	0	0	0	0	0	4.8%	5.0%
	0	0	1.5	0	0	37.3%	52.5%
	0	0.4	1.5	0.4	0	38.5%	54.2%
	0	0.3	1.5	0	0	37.6%	53.1%
	0.3	0.3	1.5	0	0	32.8%	46.6%
	0	0	1.5	0.4	0.4	32.1%	45.1%
	0	0.5	1.5	0.4	0.3	33.9%	48.6%
	1	1	0.6	0	0	6.3%	6.0%
	1	1	0.6	1	1	2.3%	1.7%
	0	0.3	0.6	0.7	1	6.1%	6.4%

Table F.167. t = 5, Pk = 3, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.3%
	0	0	0.6	0	0	68.7%	63.4%
	0	0.4	0.6	0.4	0	68.3%	62.5%
	0	0.3	0.6	0	0	68.3%	63.5%
	0.3	0.3	0.6	0	0	48.5%	44.6%
	0	0	0.6	0.4	0.4	41.6%	37.5%
	0	0.5	0.8	0.4	0.3	74.5%	69.3%
	1	1	0.6	0	0	8.8%	8.4%
	1	1	0.6	1	1	0.1%	0.2%
	0	0.3	0.6	0.7	1	10.0%	9.8%
Exponential	0	0	0	0	0	5.0%	5.2%
	0	0	0.4	0	0	73.9%	66.3%
	0	0.2	0.4	0.2	0	75.7%	68.6%
	0	0.2	0.4	0	0	75.4%	68.8%
	0.3	0.3	0.6	0	0	81.0%	74.2%
	0	0	0.6	0.4	0.4	71.4%	63.3%
	0	0.1	0.3	0.2	0.1	43.3%	38.1%
	1	1	0.6	0	0	9.5%	9.2%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0.6	0	0	53.3%	49.1%
	0	0.4	0.6	0.4	0	53.4%	49.1%
	0	0.3	0.6	0	0	53.3%	48.6%
	0.3	0.3	1	0	0	78.2%	72.0%
	0	0	1	0.4	0.4	73.5%	67.8%
	0	0.5	0.8	0.4	0.3	58.8%	54.0%
	1	1	0.6	0	0	8.2%	8.1%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	0	1	0	0	62.2%	56.7%
	0	0.4	0.8	0.4	0	47.8%	43.6%
	0	0.3	0.8	0	0	47.3%	43.4%
	0.3	0.3	1.5	0	0	82.2%	76.4%
	0	0	1.5	0.4	0.4	79.6%	74.1%
	0	0.5	0.8	0.4	0.3	36.9%	33.8%
	1	1	0.6	0	0	6.9%	6.7%

Table F.168. t = 5, Pk = 3, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.3%
	0	0	0.6	0	0	41.8%	58.8%
	0	0.4	0.6	0.4	0	41.9%	58.8%
	0	0.3	0.6	0	0	41.8%	58.9%
	0.3	0.3	0.6	0	0	28.5%	41.0%
	0	0	1	0.4	0.4	59.9%	78.7%
	0	0.5	0.8	0.4	0.3	46.4%	64.8%
	1	1	0.6	0	0	7.6%	8.3%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0.4	0	0	43.0%	60.6%
	0	0.2	0.4	0.2	0	44.8%	64.2%
	0	0.2	0.4	0	0	43.1%	61.5%
	0.3	0.3	0.6	0	0	48.3%	68.0%
	0	0	0.6	0.4	0.4	39.8%	57.2%
	0	0.2	0.5	0.4	0.1	52.5%	70.9%
	1	1	0.6	0	0	7.3%	8.3%
T with 3 df.	0	0	0	0	0	4.8%	5.0%
	0	0	0.6	0	0	31.8%	44.3%
	0	0.4	0.6	0.4	0	32.3%	45.5%
	0	0.3	0.6	0	0	32.3%	46.0%
	0.3	0.3	1	0	0	50.4%	69.1%
	0	0	1	0.4	0.4	45.4%	63.2%
	0	0.5	0.8	0.4	0.3	34.8%	49.6%
	1	1	0.6	0	0	7.2%	8.1%
	1	1	0.6	1	1	0.8%	0.4%
	0	0.3	0.6	0.7	1	6.9%	7.8%
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	0	1	0	0	35.9%	50.8%
	0	0.4	1.5	0.4	0	60.1%	78.3%
	0	0.3	1.5	0	0	59.0%	77.9%
	0.3	0.3	1.5	0	0	52.6%	69.3%
	0	0	1.5	0.4	0.4	50.3%	68.0%
	0	0.5	1.5	0.4	0.3	54.0%	72.1%
	1	1	0.6	0	0	6.4%	7.1%

F.5.5. Probability of Missing = 0.5

Table F.169. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.6%
	0	0	0.6	0	0	37.5%	50.2%
	0	0.4	0.6	0.4	0	37.2%	50.4%
	0	0.3	0.6	0	0	38.0%	51.4%
	0.3	0.3	0.6	0	0	26.0%	34.2%
	0	0	0.6	0.4	0.4	22.3%	29.1%
	0	0.5	0.8	0.4	0.3	42.3%	56.9%
	1	1	0.6	0	0	7.2%	8.4%
Exponential	0	0	0	0	0	4.8%	4.8%
	0	0	0.4	0	0	39.0%	52.5%
	0	0.2	0.4	0.2	0	41.7%	56.0%
	0	0.2	0.4	0	0	39.8%	53.7%
	0.3	0.3	0.6	0	0	44.2%	59.0%
	0	0	0.6	0.4	0.4	36.7%	49.5%
	0	0.2	0.5	0.4	0.1	48.2%	62.3%
	1	1	0.6	0	0	6.8%	7.9%
T with 3 df.	0	0	0	0	0	5.1%	5.2%
	0	0	0.6	0	0	28.9%	37.8%
	0	0.4	0.6	0.4	0	29.3%	38.6%
	0	0.3	0.6	0	0	28.3%	38.1%
	0.3	0.3	1	0	0	45.4%	58.7%
	0	0	1	0.4	0.4	42.0%	54.9%
	0	0.5	0.8	0.4	0.3	32.8%	43.7%
	1	1	0.6	0	0	6.7%	7.3%
Cauchy	0	0	0	0	0	4.7%	5.0%
	0	0	1	0	0	34.1%	44.6%
	0	0.4	1.5	0.4	0	56.8%	71.1%
	0	0.3	1.5	0	0	55.7%	70.4%
	0.3	0.3	1.5	0	0	47.8%	61.7%
	0	0	1.5	0.4	0.4	46.5%	60.7%
	0	0.5	1.5	0.4	0.3	50.0%	64.7%
	1	1	0.6	0	0	6.2%	6.7%
	1	1	0.6	1	1	1.7%	1.0%

Table F.170. t = 5, Pk = 3, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.5%	4.6%
	0	0	0.6	0	0	36.6%	45.2%
	0	0.4	0.6	0.4	0	36.8%	45.3%
	0	0.3	0.6	0	0	37.3%	45.2%
	0.3	0.3	0.6	0	0	25.2%	30.9%
	0	0	0.8	0.4	0.4	37.6%	45.3%
	0	0.5	0.8	0.4	0.3	41.9%	50.5%
	1	1	0.6	0	0	6.9%	7.7%
Exponential	0	0	0	0	0	5.6%	5.1%
	0	0	0.4	0	0	37.8%	46.8%
	0	0.2	0.4	0.2	0	40.7%	49.0%
	0	0.2	0.4	0	0	40.1%	47.4%
	0.3	0.3	0.6	0	0	44.0%	53.0%
	0	0	0.6	0.4	0.4	36.0%	44.3%
	0	0.2	0.5	0.4	0.1	47.7%	56.5%
	1	1	0.6	0	0	7.2%	7.7%
T with 3 df.	0	0	0	0	0	4.6%	5.3%
	0	0	0.6	0	0	28.2%	34.3%
	0	0.4	0.6	0.4	0	28.8%	35.0%
	0	0.3	0.6	0	0	28.5%	34.0%
	0.3	0.3	1	0	0	43.0%	51.9%
	0	0	1	0.4	0.4	41.0%	49.6%
	0	0.5	0.8	0.4	0.3	32.0%	38.2%
	1	1	0.6	0	0	7.0%	7.3%
Cauchy	0	0	0	0	0	5.4%	5.2%
	0	0	1	0	0	33.6%	39.9%
	0	0.4	1.5	0.4	0	55.8%	65.7%
	0	0.3	1.5	0	0	55.4%	64.4%
	0.3	0.3	1.5	0	0	47.9%	56.4%
	0	0	1.5	0.4	0.4	46.5%	54.1%
	0	0.5	1.5	0.4	0.3	48.3%	57.3%
	1	1	0.6	0	0	5.8%	6.3%
	1	1	0.6	1	1	1.8%	1.4%
	0	0.3	0.6	0.7	1	6.2%	6.5%

Table F.171. t = 5, Pk = 3, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0.6	0	0	30.5%	43.7%
	0	0.4	0.6	0.4	0	30.7%	44.0%
	0	0.3	0.6	0	0	30.8%	45.0%
	0.3	0.3	0.7	0	0	26.0%	39.1%
	0	0	0.6	0.4	0.4	18.2%	25.0%
	0	0.5	0.8	0.4	0.3	34.8%	49.5%
	1	1	0.6	0	0	6.5%	7.6%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0	0.4	0	0	30.4%	44.6%
	0	0.2	0.4	0.2	0	32.9%	47.7%
	0	0.2	0.4	0	0	31.6%	45.9%
	0.3	0.3	0.6	0	0	35.1%	50.9%
	0	0	0.6	0.4	0.4	28.9%	42.6%
	0	0.2	0.5	0.4	0.1	37.2%	54.3%
	1	1	0.6	0	0	6.7%	7.5%
T with 3 df.	0	0	0	0	0	4.6%	4.8%
	0	0	0.6	0	0	23.1%	32.9%
	0	0.4	0.6	0.4	0	23.8%	33.6%
	0	0.3	0.6	0	0	24.1%	33.0%
	0.3	0.3	1	0	0	36.0%	51.2%
	0	0	1	0.4	0.4	33.9%	47.8%
	0	0.5	0.8	0.4	0.3	26.6%	37.6%
	1	1	0.6	0	0	6.5%	7.1%
Cauchy	0	0	0	0	0	5.1%	5.3%
	0	0	1	0	0	25.7%	37.1%
	0	0.4	1.5	0.4	0	46.3%	63.2%
	0	0.3	1.5	0	0	44.6%	61.1%
	0.3	0.3	1.5	0	0	39.2%	54.2%
	0	0	1.5	0.4	0.4	37.4%	52.5%
	0	0.5	1.5	0.4	0.3	39.7%	55.8%
	1	1	0.6	0	0	6.1%	6.4%
	1	1	0.6	1	1	1.9%	1.3%
	0	0.3	0.6	0.7	1	5.8%	6.4%

Table F.172. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	4.9%
	0	0	0.6	0	0	36.7%	37.8%
	0	0.4	0.6	0.4	0	36.4%	39.4%
	0	0.3	0.6	0	0	37.7%	39.1%
	0.3	0.3	0.6	0	0	25.6%	26.3%
	0	0	0.6	0.4	0.4	22.1%	23.0%
	0	0.5	0.8	0.4	0.3	41.4%	42.7%
	1	1	0.6	0	0	6.7%	7.0%
Exponential	0	0	0	0	0	5.0%	4.9%
	0	0	0.4	0	0	37.2%	38.2%
	0	0.2	0.4	0.2	0	40.6%	42.9%
	0	0.2	0.4	0	0	38.7%	40.7%
	0.3	0.3	0.6	0	0	43.0%	44.5%
	0	0	0.6	0.4	0.4	35.3%	36.9%
	0	0.2	0.5	0.4	0.1	47.2%	47.7%
	1	1	0.6	0	0	7.3%	7.8%
T with 3 df.	0	0	0	0	0	5.2%	5.4%
	0	0	0.6	0	0	28.6%	29.7%
	0	0.4	0.6	0.4	0	27.6%	29.1%
	0	0.3	0.6	0	0	28.3%	29.7%
	0.3	0.3	1	0	0	44.4%	45.5%
	0	0	1	0.4	0.4	40.1%	41.0%
	0	0.5	0.8	0.4	0.3	31.8%	32.6%
	1	1	0.6	0	0	6.8%	6.7%
	1	1	0.6	1	1	0.9%	0.8%
	0	0.3	0.6	0.7	1	7.3%	7.1%
Cauchy	0	0	0	0	0	4.9%	5.2%
	0	0	1	0	0	32.9%	33.8%
	0	0.4	1.5	0.4	0	55.1%	57.1%
	0	0.3	1.5	0	0	53.3%	54.0%
	0.3	0.3	1.5	0	0	47.2%	48.7%
	0	0	1.5	0.4	0.4	44.8%	46.2%
	0	0.5	1.5	0.4	0.3	47.5%	49.6%
	1	1	0.6	0	0	6.1%	6.1%

Table F.173. t = 5, Pk = 3, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0.6	0	0	24.7%	35.1%
	0	0.4	0.6	0.4	0	24.7%	35.3%
	0	0.3	0.6	0	0	25.1%	35.4%
	0.3	0.3	0.8	0	0	27.3%	39.1%
	0	0	0.8	0.4	0.4	24.6%	34.8%
	0	0.5	0.8	0.4	0.3	27.9%	39.3%
	1	1	0.6	0	0	6.2%	6.7%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0.4	0	0	23.2%	35.7%
	0	0.2	0.4	0.2	0	26.1%	37.7%
	0	0.2	0.4	0	0	25.5%	36.7%
	0.3	0.3	0.6	0	0	26.4%	40.0%
	0	0	0.8	0.4	0.4	37.2%	55.5%
	0	0.2	0.5	0.4	0.1	30.1%	43.4%
	1	1	0.6	0	0	5.7%	6.8%
T with 3 df.	0	0	0	0	0	4.8%	5.0%
	0	0	1	0	0	35.6%	50.6%
	0	0.4	0.8	0.4	0	26.2%	38.7%
	0	0.3	0.8	0	0	27.4%	39.4%
	0.3	0.3	1	0	0	29.0%	41.0%
	0	0	1	0.4	0.4	26.9%	37.7%
	0	0.5	1	0.4	0.3	29.6%	43.0%
	1	1	0.6	0	0	6.1%	6.6%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	0	1.5	0	0	34.6%	48.9%
	0	0.4	1.5	0.4	0	36.8%	51.1%
	0	0.3	1.5	0	0	37.2%	51.8%
	0.3	0.3	1.5	0	0	31.0%	43.1%
	0	0	1.5	0.4	0.4	30.7%	41.7%
	0	0.5	1.5	0.4	0.3	31.0%	44.2%
	1	1	0.6	0	0	6.2%	6.0%
	1	1	0.6	1	1	2.4%	1.9%
	0	0.3	0.6	0.7	1	5.8%	6.6%

Table F.174. t = 5, Pk = 3, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0.6	0	0	68.3%	61.5%
	0	0.4	0.6	0.4	0	67.8%	61.5%
	0	0.3	0.6	0	0	67.6%	61.1%
	0.3	0.3	0.6	0	0	47.3%	41.8%
	0	0	0.6	0.4	0.4	41.7%	36.6%
	0	0.5	0.8	0.4	0.3	74.4%	67.7%
	1	1	0.6	0	0	9.4%	8.5%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0	0.4	0	0	74.8%	65.5%
	0	0.2	0.4	0.2	0	75.5%	67.2%
	0	0.2	0.4	0	0	74.5%	65.9%
	0.3	0.3	0.6	0	0	81.8%	72.6%
	0	0	0.6	0.4	0.4	71.7%	62.6%
	0	0.1	0.3	0.2	0.1	43.2%	37.2%
	1	1	0.6	0	0	9.6%	9.9%
T with 3 df.	0	0	0	0	0	5.0%	4.9%
	0	0	0.6	0	0	53.2%	47.1%
	0	0.4	0.6	0.4	0	53.4%	47.0%
	0	0.3	0.6	0	0	52.9%	46.7%
	0.3	0.3	1	0	0	78.6%	70.5%
	0	0	1	0.4	0.4	73.9%	66.3%
	0	0.5	0.8	0.4	0.3	58.7%	52.4%
	1	1	0.6	0	0	8.4%	7.9%
	1	1	0.6	1	1	0.2%	0.3%
	0	0.3	0.6	0.7	1	8.3%	7.9%
Cauchy	0	0	0	0	0	4.8%	4.7%
	0	0	1	0	0	61.5%	54.8%
	0	0.4	0.8	0.4	0	46.9%	42.3%
	0	0.3	0.8	0	0	46.9%	41.3%
	0.3	0.3	1.5	0	0	81.9%	74.9%
	0	0	1.5	0.4	0.4	79.2%	71.6%
	0	0.5	0.8	0.4	0.3	36.4%	31.6%
	1	1	0.6	0	0	6.8%	6.7%

Table F.175. t = 5, Pk = 3, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.1%
	0	0	0.6	0	0	37.1%	53.5%
	0	0.4	0.6	0.4	0	39.1%	55.7%
	0	0.3	0.6	0	0	37.0%	53.2%
	0.3	0.3	0.6	0	0	26.0%	36.7%
	0	0	1	0.4	0.4	53.6%	74.0%
	0	0.5	0.8	0.4	0.3	42.7%	60.4%
	1	1	0.6	0	0	7.0%	8.2%
	1	1	0.6	1	1	0.6%	0.2%
	0	0.3	0.6	0.7	1	7.6%	8.5%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0	0.4	0	0	38.3%	56.4%
	0	0.2	0.4	0.2	0	41.9%	59.6%
	0	0.2	0.4	0	0	39.7%	57.3%
	0.3	0.3	0.6	0	0	42.3%	61.7%
	0	0	0.6	0.4	0.4	35.8%	52.6%
	0	0.2	0.5	0.4	0.1	47.2%	66.7%
	1	1	0.6	0	0	7.0%	7.9%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0.6	0	0	28.6%	40.9%
	0	0.4	0.6	0.4	0	29.0%	41.8%
	0	0.3	0.6	0	0	28.1%	40.8%
	0.3	0.3	1	0	0	43.8%	63.0%
	0	0	1	0.4	0.4	41.5%	58.6%
	0	0.5	0.8	0.4	0.3	32.6%	47.1%
	1	1	0.6	0	0	6.9%	7.4%
Cauchy	0	0	0	0	0	5.6%	4.8%
	0	0	1	0	0	32.5%	47.5%
	0	0.4	1.5	0.4	0	55.1%	74.3%
	0	0.3	1.5	0	0	53.6%	73.5%
	0.3	0.3	1.5	0	0	47.2%	65.6%
	0	0	1.5	0.4	0.4	45.6%	63.5%
	0	0.5	1.5	0.4	0.3	48.6%	67.3%
	1	1	0.6	0	0	6.3%	6.8%

F.6. Five Treatments – Peak at Four

F.6.1. Probability of Missing = 0.1

Table F.176. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.8	0	51.7%	78.8%
	0	0	0.4	0.8	0	61.8%	87.2%
	0	0.3	0.3	0.6	0	36.9%	58.4%
	0.4	0	0	0.8	0	26.9%	43.9%
	0.4	0	0.4	0.8	0	35.9%	57.6%
	0.4	0.4	0.4	0.8	0	27.9%	45.7%
	0.3	0.1	0.6	0.7	0	36.2%	57.7%
Exponential	0	0	0	0	0	4.9%	5.5%
	0	0	0	0.4	0	36.6%	60.2%
	0	0	0.2	0.4	0	45.4%	70.6%
	0	0.3	0.3	0.6	0	64.1%	88.6%
	0.2	0	0	0.4	0	17.4%	28.0%
	0.2	0	0.2	0.4	0	25.0%	41.6%
	0.2	0.2	0.2	0.4	0	20.6%	32.6%
	0.1	0.2	0.3	0.4	0	34.1%	54.3%
T with 3 df.	0	0	0	0	0	5.2%	5.4%
	0	0	0	0.8	0	39.4%	62.9%
	0	0	0.4	0.8	0	47.4%	72.9%
	0	0.3	0.3	0.6	0	27.4%	44.1%
	0.4	0	0	0.8	0	21.4%	32.6%
	0.4	0	0.4	0.8	0	27.1%	43.5%
	0.4	0.4	0.4	0.8	0	21.7%	33.8%
	0.3	0.1	0.6	0.7	0	27.2%	43.9%
Cauchy	0	0	0	0	0	4.6%	5.0%
	0	0	0	1	0	31.2%	50.8%
	0	0	0.4	1	0	37.0%	58.4%
	0	0.3	0.3	1	0	32.4%	51.0%
	0.4	0	0	1	0	20.5%	30.7%
	0.4	0	0.4	1	0	23.9%	38.7%
	0.4	0.4	0.4	1	0	21.1%	32.4%
	0.3	0.1	0.6	1	0	28.2%	45.7%

Table F.177. t = 5, Pk = 4, p = 0.1, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.8	0	51.4%	71.0%
	0	0	0.4	0.8	0	59.5%	79.8%
	0	0.3	0.3	0.6	0	34.6%	50.2%
	0.4	0	0	0.8	0	26.1%	37.6%
	0.4	0	0.4	0.8	0	33.4%	49.5%
	0.4	0.4	0.4	0.8	0	27.9%	39.5%
	0.3	0.1	0.6	0.7	0	34.2%	50.2%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.4	0	35.9%	51.9%
	0	0	0.2	0.4	0	44.4%	63.1%
	0	0.3	0.3	0.6	0	62.2%	82.1%
	0.2	0	0	0.4	0	16.8%	24.6%
	0.2	0	0.2	0.4	0	23.8%	34.9%
	0.2	0.2	0.2	0.4	0	19.5%	28.5%
	0.1	0.2	0.3	0.4	0	32.1%	46.8%
T with 3 df.	0	0	0	0	0	4.9%	4.7%
	0	0	0	0.8	0	38.8%	54.5%
	0	0	0.4	0.8	0	44.9%	64.1%
	0	0.3	0.3	0.6	0	26.9%	38.7%
	0.4	0	0	0.8	0	20.8%	28.5%
	0.4	0	0.4	0.8	0	26.8%	38.0%
	0.4	0.4	0.4	0.8	0	21.7%	30.2%
	0.3	0.1	0.6	0.7	0	25.8%	37.8%
	0.5	0.5	0.5	0	1	0.3%	0.1%
	0	0.8	0.6	0.4	1	6.6%	7.1%
Cauchy	0	0	0	0	0	4.8%	4.8%
	0	0	0	1	0	30.4%	43.9%
	0	0	0.4	1	0	36.7%	52.0%
	0	0.3	0.3	1	0	31.2%	44.8%
	0.4	0	0	1	0	19.8%	27.4%
	0.4	0	0.4	1	0	23.7%	33.3%
	0.4	0.4	0.4	1	0	20.3%	27.8%
	0.3	0.1	0.6	1	0	26.3%	38.7%

Table F.178. t = 5, Pk = 4, p = 0.1, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.2%
	0	0	0	0.8	0	44.5%	71.5%
	0	0	0.4	0.8	0	52.1%	80.9%
	0	0.3	0.3	0.6	0	30.2%	51.4%
	0.4	0	0	0.8	0	22.8%	38.1%
	0.4	0	0.4	0.8	0	29.7%	50.9%
	0.4	0.4	0.4	0.8	0	24.1%	40.0%
	0.3	0.1	0.6	0.7	0	30.0%	51.1%
Exponential	0	0	0	0	0	4.9%	5.3%
	0	0	0	0.4	0	30.3%	52.1%
	0	0	0.2	0.4	0	38.2%	63.0%
	0	0.3	0.3	0.6	0	54.4%	82.7%
	0.2	0	0	0.4	0	14.7%	24.3%
	0.2	0	0.2	0.4	0	20.5%	35.7%
	0.2	0.2	0.2	0.4	0	16.3%	28.3%
	0.3	0.1	0.6	0.7	0	51.9%	80.3%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	8.7%	9.6%
T with 3 df.	0	0	0	0	0	5.3%	5.1%
	0	0	0	0.8	0	33.3%	55.9%
	0	0	0.4	0.8	0	40.6%	65.8%
	0	0.3	0.3	0.6	0	23.2%	38.9%
	0.4	0	0	0.8	0	18.6%	29.9%
	0.4	0	0.4	0.8	0	22.8%	38.0%
	0.4	0.4	0.4	0.8	0	19.0%	30.8%
	0.3	0.1	0.6	0.7	0	22.8%	38.3%
Cauchy	0	0	0	0	0	4.7%	4.9%
	0	0	0	1	0	27.1%	44.1%
	0	0	0.4	1	0	31.2%	50.8%
	0	0.3	0.3	1	0	28.1%	45.6%
	0.4	0	0	1	0	18.2%	27.6%
	0.4	0	0.4	1	0	20.6%	33.4%
	0.4	0.4	0.4	1	0	18.1%	29.3%
	0.3	0.1	0.6	1	0	23.7%	39.3%

Table F.179. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.8	0	48.6%	58.8%
	0	0	0.4	0.8	0	57.5%	69.1%
	0	0.3	0.3	0.6	0	34.4%	41.8%
	0.4	0	0	0.8	0	24.8%	30.1%
	0.4	0	0.4	0.8	0	32.5%	39.7%
	0.4	0.4	0.4	0.8	0	26.2%	32.1%
	0.3	0.1	0.6	0.7	0	33.0%	40.8%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0	0	0.4	0	34.4%	42.0%
	0	0	0.2	0.4	0	41.8%	50.8%
	0	0.3	0.3	0.6	0	60.3%	70.6%
	0.2	0	0	0.4	0	15.8%	19.7%
	0.2	0	0.2	0.4	0	23.2%	28.5%
	0.2	0.2	0.2	0.4	0	19.4%	22.7%
	0.1	0.2	0.3	0.4	0	31.3%	37.7%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	8.3%	8.2%
T with 3 df.	0	0	0	0	0	5.2%	5.3%
	0	0	0	0.8	0	36.4%	44.3%
	0	0	0.4	0.8	0	43.4%	52.4%
	0	0.3	0.3	0.6	0	25.9%	30.5%
	0.4	0	0	0.8	0	20.2%	23.8%
	0.4	0	0.4	0.8	0	25.6%	30.5%
	0.4	0.4	0.4	0.8	0	19.8%	23.7%
	0.3	0.1	0.6	0.7	0	26.0%	30.5%
Cauchy	0	0	0	0	0	4.6%	4.8%
	0	0	0	1	0	29.5%	36.0%
	0	0	0.4	1	0	34.6%	41.4%
	0	0.3	0.3	1	0	30.1%	36.8%
	0.4	0	0	1	0	19.4%	21.6%
	0.4	0	0.4	1	0	22.5%	27.4%
	0.4	0.4	0.4	1	0	19.2%	24.3%
	0.3	0.1	0.6	1	0	27.0%	32.1%

Table F.180. t = 5, Pk = 4, p = 0.1, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.6%	5.5%
	0	0	0	0.8	0	43.3%	61.4%
	0	0	0.4	0.8	0	50.4%	70.8%
	0	0.3	0.3	0.6	0	30.4%	44.5%
	0.4	0	0	0.8	0	21.4%	31.5%
	0.4	0	0.4	0.8	0	28.6%	42.3%
	0.4	0.4	0.4	0.8	0	22.6%	32.4%
	0.3	0.1	0.6	0.7	0	29.2%	42.6%
Exponential	0	0	0	0	0	5.3%	5.4%
	0	0	0	0.4	0	28.1%	42.3%
	0	0	0.2	0.4	0	35.4%	52.6%
	0	0.3	0.3	0.6	0	51.2%	72.7%
	0.2	0	0	0.4	0	13.6%	19.6%
	0.2	0	0.2	0.4	0	19.5%	28.9%
	0.2	0.2	0.2	0.4	0	16.0%	23.4%
	0.3	0.1	0.6	0.7	0	48.3%	69.9%
T with 3 df.	0	0	0	0	0	5.4%	5.2%
	0	0	0	0.8	0	32.3%	46.5%
	0	0	0.4	0.8	0	37.5%	55.3%
	0	0.3	0.3	0.6	0	22.8%	33.0%
	0.4	0	0	0.8	0	17.2%	24.7%
	0.4	0	0.4	0.8	0	22.8%	32.8%
	0.4	0.4	0.4	0.8	0	18.8%	26.5%
	0.3	0.1	0.6	0.7	0	23.1%	33.0%
Cauchy	0	0	0	0	0	4.7%	4.7%
	0	0	0	1	0	25.4%	36.2%
	0	0	0.4	1	0	29.8%	42.7%
	0	0.3	0.3	1	0	27.2%	38.5%
	0.4	0	0	1	0	16.4%	22.7%
	0.4	0	0.4	1	0	20.1%	28.3%
	0.4	0.4	0.4	1	0	17.6%	24.6%
	0.3	0.1	0.6	1	0	23.9%	33.7%
	0.5	0.5	0.5	0	1	1.1%	0.5%
	0	0.8	0.6	0.4	1	5.8%	6.2%

Table F.181. t = 5, Pk = 4, p = 0.1, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	4.9%
	0	0	0	0.4	0	36.3%	36.4%
	0	0	0.2	0.4	0	44.1%	43.6%
	0	0.3	0.3	0.6	0	63.3%	63.5%
	0.2	0	0	0.4	0	20.6%	19.9%
	0.2	0	0.2	0.4	0	24.9%	25.5%
	0.2	0.2	0.2	0.4	0	20.4%	20.7%
	0.1	0.1	0.3	0.4	0	33.2%	34.0%
Exponential	0	0	0	0	0	5.0%	4.7%
	0	0	0	0.4	0	67.8%	66.9%
	0	0	0.1	0.2	0	34.1%	33.6%
	0	0.1	0.1	0.3	0	49.1%	48.3%
	0.2	0	0	0.4	0	33.3%	32.4%
	0.1	0	0.1	0.2	0	19.5%	19.5%
	0.2	0.2	0.2	0.4	0	37.2%	36.3%
	0.1	0.1	0.2	0.4	0	59.8%	58.7%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.4	0	28.6%	29.1%
	0	0	0.2	0.4	0	32.9%	33.5%
	0	0.3	0.3	0.6	0	48.8%	48.1%
	0.4	0	0	0.8	0	37.3%	36.2%
	0.2	0	0.2	0.4	0	20.0%	19.9%
	0.4	0.4	0.4	0.8	0	37.5%	37.9%
	0.3	0.1	0.6	0.7	0	47.7%	48.0%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	8.1%	8.2%
Cauchy	0	0	0	0	0	5.3%	5.3%
	0	0	0	1	0	56.4%	55.0%
	0	0	0.4	1	0	63.8%	63.5%
	0	0.3	0.3	1	0	57.6%	56.5%
	0.4	0	0	1	0	34.5%	33.5%
	0.4	0	0.4	1	0	42.9%	42.4%
	0.4	0.4	0.4	1	0	36.0%	35.3%
	0.3	0.1	0.6	1	0	49.5%	48.7%

Table F.182. t = 5, Pk = 4, p = 0.1, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.5%
	0	0	0	0.8	0	73.9%	87.5%
	0	0	0.4	0.8	0	83.0%	93.9%
	0	0.3	0.3	0.6	0	54.3%	68.5%
	0.4	0	0	0.8	0	40.3%	52.1%
	0.4	0	0.4	0.8	0	52.7%	67.2%
	0.4	0.4	0.4	0.8	0	42.0%	54.4%
	0.3	0.1	0.6	0.7	0	54.1%	67.8%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.4	0	54.6%	70.2%
	0	0	0.2	0.4	0	65.9%	80.5%
	0	0.3	0.3	0.6	0	84.0%	94.6%
	0.2	0	0	0.4	0	25.4%	33.9%
	0.2	0	0.2	0.4	0	37.5%	49.8%
	0.2	0.2	0.2	0.4	0	30.5%	39.9%
	0.3	0.1	0.6	0.7	0	82.3%	93.3%
T with 3 df.	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.8	0	58.6%	72.8%
	0	0	0.4	0.8	0	68.2%	82.2%
	0	0.3	0.3	0.6	0	40.9%	52.7%
	0.4	0	0	0.8	0	30.0%	38.9%
	0.4	0	0.4	0.8	0	39.4%	51.1%
	0.4	0.4	0.4	0.8	0	31.3%	41.2%
	0.3	0.1	0.6	0.7	0	40.8%	52.5%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	47.1%	59.3%
	0	0	0.4	1	0	54.1%	68.1%
	0	0.3	0.3	1	0	47.6%	61.0%
	0.4	0	0	1	0	28.1%	36.1%
	0.4	0	0.4	1	0	35.1%	45.4%
	0.4	0.4	0.4	1	0	29.2%	38.1%
	0.3	0.1	0.6	1	0	41.0%	52.8%

F.5.2. Probability of Missing = 0.2

Table F.183. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.9%
	0	0	0	0.8	0	51.0%	75.0%
	0	0	0.4	0.8	0	60.8%	84.0%
	0	0.3	0.3	0.6	0	36.7%	55.7%
	0.4	0	0	0.8	0	26.2%	40.7%
	0.4	0	0.4	0.8	0	35.4%	54.6%
	0.4	0.4	0.4	0.8	0	26.7%	42.2%
	0.3	0.1	0.6	0.7	0	35.8%	54.7%
	0.5	0.5	0.5	0	1	0.2%	0.0%
Exponential	0	0	0	0	0	5.1%	5.4%
	0	0	0	0.4	0	36.1%	56.4%
	0	0	0.2	0.4	0	45.5%	67.9%
	0	0.3	0.3	0.6	0	63.0%	85.6%
	0.2	0	0	0.4	0	17.4%	27.1%
	0.2	0	0.2	0.4	0	24.7%	38.6%
	0.2	0.2	0.2	0.4	0	19.5%	30.2%
	0.1	0.2	0.3	0.4	0	33.0%	50.5%
T with 3 df.	0	0	0	0	0	5.3%	5.4%
	0	0	0	0.8	0	39.8%	60.0%
	0	0	0.4	0.8	0	47.2%	70.2%
	0	0.3	0.3	0.6	0	28.0%	42.4%
	0.4	0	0	0.8	0	20.7%	30.9%
	0.4	0	0.4	0.8	0	26.5%	40.7%
	0.4	0.4	0.4	0.8	0	21.3%	31.8%
	0.3	0.1	0.6	0.7	0	27.0%	41.6%
Cauchy	0	0	0	0	0	4.6%	4.9%
	0	0	0	1	0	31.1%	47.6%
	0	0	0.4	1	0	36.6%	55.5%
	0	0.3	0.3	1	0	32.9%	49.9%
	0.4	0	0	1	0	19.7%	29.3%
	0.4	0	0.4	1	0	24.5%	35.9%
	0.4	0.4	0.4	1	0	20.5%	30.3%
	0.3	0.1	0.6	1	0	28.4%	43.8%

Table F.184. t = 5, Pk = 4, p = 0.2, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.8	0	50.3%	68.1%
	0	0	0.4	0.8	0	58.8%	77.7%
	0	0.3	0.3	0.6	0	34.6%	48.3%
	0.4	0	0	0.8	0	25.7%	35.4%
	0.4	0	0.4	0.8	0	34.4%	47.9%
	0.4	0.4	0.4	0.8	0	26.5%	36.9%
	0.3	0.1	0.6	0.7	0	34.4%	47.7%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.4	0	34.4%	49.6%
	0	0	0.2	0.4	0	45.1%	60.7%
	0	0.3	0.3	0.6	0	62.7%	79.4%
	0.2	0	0	0.4	0	16.3%	22.4%
	0.2	0	0.2	0.4	0	23.5%	32.8%
	0.2	0.2	0.2	0.4	0	19.4%	26.5%
	0.1	0.2	0.3	0.4	0	31.8%	44.4%
T with 3 df.	0	0	0	0	0	4.9%	5.2%
	0	0	0	0.8	0	38.2%	52.3%
	0	0	0.4	0.8	0	44.6%	61.5%
	0	0.3	0.3	0.6	0	26.8%	37.0%
	0.4	0	0	0.8	0	21.0%	27.7%
	0.4	0	0.4	0.8	0	26.1%	35.3%
	0.4	0.4	0.4	0.8	0	20.5%	28.0%
	0.3	0.1	0.6	0.7	0	26.3%	36.2%
Cauchy	0	0	0	0	0	5.0%	5.3%
	0	0	0	1	0	31.0%	41.5%
	0	0	0.4	1	0	35.6%	48.2%
	0	0.3	0.3	1	0	31.3%	43.5%
	0.4	0	0	1	0	19.4%	25.9%
	0.4	0	0.4	1	0	22.6%	32.2%
	0.4	0.4	0.4	1	0	20.1%	26.9%
	0.3	0.1	0.6	1	0	26.9%	36.8%
	0.5	0.5	0.5	0	1	0.8%	0.5%
	0	0.8	0.6	0.4	1	6.3%	6.7%

Table F.185. t = 5, Pk = 4, p = 0.2, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	4.9%
	0	0	0	0.8	0	42.7%	67.8%
	0	0	0.4	0.8	0	51.1%	78.0%
	0	0.3	0.3	0.6	0	29.7%	48.1%
	0.4	0	0	0.8	0	22.0%	36.3%
	0.4	0	0.4	0.8	0	29.5%	48.4%
	0.4	0.4	0.4	0.8	0	22.9%	37.5%
	0.3	0.1	0.6	0.7	0	29.2%	48.2%
Exponential	0	0	0	0	0	4.4%	4.5%
	0	0	0	0.4	0	29.9%	50.1%
	0	0	0.2	0.4	0	36.9%	60.5%
	0	0.3	0.3	0.6	0	52.2%	78.5%
	0.2	0	0	0.4	0	13.7%	22.5%
	0.2	0	0.2	0.4	0	20.4%	34.0%
	0.2	0.2	0.2	0.4	0	16.5%	26.7%
	0.3	0.1	0.6	0.7	0	50.6%	76.5%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.8	0	33.0%	53.4%
	0	0	0.4	0.8	0	37.9%	62.2%
	0	0.3	0.3	0.6	0	23.2%	36.7%
	0.4	0	0	0.8	0	17.7%	27.2%
	0.4	0	0.4	0.8	0	21.9%	35.8%
	0.4	0.4	0.4	0.8	0	18.6%	29.0%
	0.3	0.1	0.6	0.7	0	23.8%	36.8%
Cauchy	0	0	0	0	0	5.1%	5.2%
	0	0	0	1	0	26.5%	42.6%
	0	0	0.4	1	0	30.2%	48.5%
	0	0.3	0.3	1	0	26.6%	42.5%
	0.4	0	0	1	0	16.9%	26.0%
	0.4	0	0.4	1	0	20.2%	31.6%
	0.4	0.4	0.4	1	0	18.3%	27.1%
	0.3	0.1	0.6	1	0	23.7%	37.8%
	0.5	0.5	0.5	0	1	1.1%	0.5%
	0	0.8	0.6	0.4	1	6.3%	6.7%

Table F.186. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	48.5%	56.2%
	0	0	0.4	0.8	0	56.7%	66.5%
	0	0.3	0.3	0.6	0	34.4%	39.6%
	0.4	0	0	0.8	0	24.9%	29.6%
	0.4	0	0.4	0.8	0	33.2%	38.4%
	0.4	0.4	0.4	0.8	0	25.9%	30.0%
	0.3	0.1	0.6	0.7	0	34.1%	38.6%
	0.5	0.5	0.5	0	1	0.1%	0.1%
	0	0.8	0.6	0.4	1	7.1%	7.4%
Exponential	0	0	0	0	0	4.4%	4.6%
	0	0	0	0.4	0	33.8%	40.0%
	0	0	0.2	0.4	0	42.9%	48.9%
	0	0.3	0.3	0.6	0	59.9%	68.5%
	0.2	0	0	0.4	0	16.0%	18.7%
	0.2	0	0.2	0.4	0	23.7%	26.7%
	0.2	0.2	0.2	0.4	0	19.1%	21.8%
	0.1	0.2	0.3	0.4	0	31.3%	35.9%
T with 3 df.	0	0	0	0	0	4.9%	4.8%
	0	0	0	0.8	0	37.1%	43.3%
	0	0	0.4	0.8	0	43.2%	50.6%
	0	0.3	0.3	0.6	0	25.7%	30.4%
	0.4	0	0	0.8	0	19.9%	22.6%
	0.4	0	0.4	0.8	0	25.1%	29.0%
	0.4	0.4	0.4	0.8	0	20.6%	23.5%
	0.3	0.1	0.6	0.7	0	25.7%	30.1%
Cauchy	0	0	0	0	0	4.6%	4.8%
	0	0	0	1	0	30.2%	34.9%
	0	0	0.4	1	0	35.5%	40.6%
	0	0.3	0.3	1	0	29.9%	34.8%
	0.4	0	0	1	0	19.1%	21.9%
	0.4	0	0.4	1	0	22.3%	25.9%
	0.4	0.4	0.4	1	0	20.3%	22.9%
	0.3	0.1	0.6	1	0	26.7%	31.2%

Table F.187. t = 5, Pk = 4, p = 0.2, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	39.3%	57.6%
	0	0	0.4	0.8	0	47.2%	67.7%
	0	0.3	0.3	0.6	0	27.6%	40.3%
	0.4	0	0	0.8	0	21.0%	30.0%
	0.4	0	0.4	0.8	0	26.6%	39.4%
	0.4	0.4	0.4	0.8	0	21.8%	30.6%
	0.3	0.1	0.6	0.7	0	26.6%	39.8%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	6.0%	6.8%
Exponential	0	0	0	0	0	5.5%	5.4%
	0	0	0	0.4	0	26.0%	38.9%
	0	0	0.2	0.4	0	32.9%	49.9%
	0	0.3	0.3	0.6	0	46.9%	68.1%
	0.2	0	0	0.4	0	13.7%	18.9%
	0.2	0	0.2	0.4	0	17.9%	27.2%
	0.2	0.2	0.2	0.4	0	16.0%	23.0%
	0.3	0.1	0.6	0.7	0	44.1%	65.1%
T with 3 df.	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	30.3%	44.3%
	0	0	0.4	0.8	0	36.3%	53.0%
	0	0.3	0.3	0.6	0	21.0%	30.4%
	0.4	0	0	0.8	0	16.3%	22.6%
	0.4	0	0.4	0.8	0	20.7%	29.8%
	0.4	0.4	0.4	0.8	0	17.3%	24.2%
	0.3	0.1	0.6	0.7	0	21.2%	30.7%
Cauchy	0	0	0	0	0	5.3%	4.9%
	0	0	0	1	0	24.6%	35.3%
	0	0	0.4	1	0	27.4%	40.2%
	0	0.3	0.3	1	0	24.7%	35.6%
	0.4	0	0	1	0	16.2%	21.7%
	0.4	0	0.4	1	0	19.1%	26.7%
	0.4	0.4	0.4	1	0	16.6%	22.8%
	0.3	0.1	0.6	1	0	22.9%	32.1%

Table F.188. t = 5, Pk = 4, p = 0.2, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.4	0	37.7%	35.7%
	0	0	0.2	0.4	0	44.1%	42.9%
	0	0.3	0.3	0.6	0	63.5%	61.5%
	0.2	0	0	0.4	0	19.8%	19.7%
	0.2	0	0.2	0.4	0	25.1%	23.5%
	0.2	0.2	0.2	0.4	0	20.8%	19.9%
	0.1	0.1	0.3	0.4	0	34.8%	34.1%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	8.2%	7.9%
Exponential	0	0	0	0	0	5.3%	5.3%
	0	0	0	0.4	0	67.0%	64.1%
	0	0	0.1	0.2	0	34.2%	33.3%
	0	0.1	0.1	0.3	0	48.7%	46.9%
	0.2	0	0	0.4	0	33.0%	31.5%
	0.1	0	0.1	0.2	0	19.9%	19.2%
	0.2	0.2	0.2	0.4	0	36.1%	35.0%
	0.1	0.1	0.2	0.4	0	59.4%	56.2%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.4	0	27.9%	27.1%
	0	0	0.2	0.4	0	33.8%	33.1%
	0	0.3	0.3	0.6	0	47.8%	46.7%
	0.4	0	0	0.8	0	37.0%	35.3%
	0.2	0	0.2	0.4	0	20.1%	20.4%
	0.4	0.4	0.4	0.8	0	37.2%	35.8%
	0.3	0.1	0.6	0.7	0	48.3%	47.0%
Cauchy	0	0	0	0	0	5.1%	5.6%
	0	0	0	1	0	56.1%	53.8%
	0	0	0.4	1	0	63.8%	60.6%
	0	0.3	0.3	1	0	57.3%	55.4%
	0.4	0	0	1	0	34.7%	32.9%
	0.4	0	0.4	1	0	42.3%	40.6%
	0.4	0.4	0.4	1	0	35.6%	35.0%
	0.3	0.1	0.6	1	0	50.6%	48.5%

Table F.189. t = 5, Pk = 4, p = 0.2, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.8	0	66.2%	82.5%
	0	0	0.4	0.8	0	77.2%	90.8%
	0	0.3	0.3	0.6	0	47.1%	62.7%
	0.4	0	0	0.8	0	36.9%	48.5%
	0.4	0	0.4	0.8	0	46.5%	62.0%
	0.4	0.4	0.4	0.8	0	36.8%	49.8%
	0.3	0.1	0.6	0.7	0	46.9%	62.6%
Exponential	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.4	0	48.4%	65.2%
	0	0	0.2	0.4	0	59.8%	76.2%
	0	0.3	0.3	0.6	0	78.1%	91.5%
	0.2	0	0	0.4	0	22.8%	31.5%
	0.2	0	0.2	0.4	0	32.5%	44.9%
	0.2	0.2	0.2	0.4	0	26.1%	36.2%
	0.3	0.1	0.6	0.7	0	75.9%	90.5%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	9.1%	9.8%
T with 3 df.	0	0	0	0	0	4.7%	4.5%
	0	0	0	0.8	0	52.2%	68.1%
	0	0	0.4	0.8	0	60.9%	77.1%
	0	0.3	0.3	0.6	0	36.2%	48.6%
	0.4	0	0	0.8	0	27.3%	35.7%
	0.4	0	0.4	0.8	0	35.5%	47.9%
	0.4	0.4	0.4	0.8	0	28.6%	38.0%
	0.3	0.1	0.6	0.7	0	35.8%	48.4%
Cauchy	0	0	0	0	0	5.1%	5.0%
	0	0	0	1	0	41.6%	55.2%
	0	0	0.4	1	0	48.2%	63.6%
	0	0.3	0.3	1	0	42.8%	57.1%
	0.4	0	0	1	0	25.0%	33.4%
	0.4	0	0.4	1	0	30.7%	41.5%
	0.4	0.4	0.4	1	0	26.4%	35.5%
	0.3	0.1	0.6	1	0	37.8%	49.8%

F.5.3. Probability of Missing = 0.3

Table F.190. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.6%	4.9%
	0	0	0	0.8	0	51.4%	71.8%
	0	0	0.4	0.8	0	59.9%	80.7%
	0	0.3	0.3	0.6	0	35.3%	51.8%
	0.4	0	0	0.8	0	26.3%	38.9%
	0.4	0	0.4	0.8	0	34.4%	51.3%
	0.4	0.4	0.4	0.8	0	27.0%	40.5%
	0.3	0.1	0.6	0.7	0	35.3%	51.7%
Exponential	0	0	0	0	0	5.0%	5.3%
	0	0	0	0.4	0	35.1%	52.9%
	0	0	0.2	0.4	0	45.3%	65.1%
	0	0.3	0.3	0.6	0	62.3%	83.0%
	0.2	0	0	0.4	0	16.4%	24.8%
	0.2	0	0.2	0.4	0	23.8%	35.8%
	0.2	0.2	0.2	0.4	0	20.6%	29.5%
	0.1	0.2	0.3	0.4	0	32.5%	47.8%
T with 3 df.	0	0	0	0	0	4.7%	5.0%
	0	0	0	0.8	0	38.7%	56.2%
	0	0	0.4	0.8	0	45.5%	65.4%
	0	0.3	0.3	0.6	0	26.9%	39.2%
	0.4	0	0	0.8	0	21.2%	29.7%
	0.4	0	0.4	0.8	0	26.1%	38.5%
	0.4	0.4	0.4	0.8	0	21.1%	29.9%
	0.3	0.1	0.6	0.7	0	26.3%	39.3%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	31.8%	45.4%
	0	0	0.4	1	0	36.0%	52.0%
	0	0.3	0.3	1	0	31.1%	45.3%
	0.4	0	0	1	0	19.9%	28.0%
	0.4	0	0.4	1	0	22.9%	33.9%
	0.4	0.4	0.4	1	0	20.0%	28.3%
	0.3	0.1	0.6	1	0	28.1%	40.0%
	0.5	0.5	0.5	0	1	0.9%	0.5%

Table F.191. t = 5, Pk = 4, p = 0.3, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.8	0	49.0%	64.4%
	0	0	0.4	0.8	0	59.1%	74.9%
	0	0.3	0.3	0.6	0	35.3%	47.4%
	0.4	0	0	0.8	0	25.9%	34.2%
	0.4	0	0.4	0.8	0	33.3%	44.7%
	0.4	0.4	0.4	0.8	0	26.7%	35.8%
	0.3	0.1	0.6	0.7	0	34.2%	45.2%
Exponential	0	0	0	0	0	4.8%	4.6%
	0	0	0	0.4	0	34.2%	46.4%
	0	0	0.2	0.4	0	43.5%	57.4%
	0	0.3	0.3	0.6	0	61.1%	76.2%
	0.2	0	0	0.4	0	16.5%	22.3%
	0.2	0	0.2	0.4	0	23.6%	32.1%
	0.2	0.2	0.2	0.4	0	19.6%	25.5%
	0.1	0.2	0.3	0.4	0	32.3%	42.8%
	0.5	0.5	0.5	0	1	0.1%	0.0%
	0	0.8	0.6	0.4	1	8.9%	9.1%
T with 3 df.	0	0	0	0	0	5.3%	5.3%
	0	0	0	0.8	0	37.6%	48.8%
	0	0	0.4	0.8	0	45.4%	59.6%
	0	0.3	0.3	0.6	0	27.0%	35.1%
	0.4	0	0	0.8	0	19.5%	25.6%
	0.4	0	0.4	0.8	0	25.0%	33.8%
	0.4	0.4	0.4	0.8	0	20.4%	27.3%
	0.3	0.1	0.6	0.7	0	26.9%	34.6%
Cauchy	0	0	0	0	0	5.0%	4.6%
	0	0	0	1	0	31.2%	39.7%
	0	0	0.4	1	0	34.8%	45.5%
	0	0.3	0.3	1	0	31.5%	40.5%
	0.4	0	0	1	0	18.7%	23.9%
	0.4	0	0.4	1	0	22.6%	30.2%
	0.4	0.4	0.4	1	0	20.1%	25.1%
	0.3	0.1	0.6	1	0	26.8%	34.2%

Table F.192. t = 5, Pk = 4, p = 0.3, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.2%
	0	0	0	0.8	0	41.2%	63.4%
	0	0	0.4	0.8	0	49.7%	74.5%
	0	0.3	0.3	0.6	0	28.7%	44.9%
	0.4	0	0	0.8	0	22.2%	34.4%
	0.4	0	0.4	0.8	0	28.3%	44.2%
	0.4	0.4	0.4	0.8	0	21.9%	35.1%
	0.3	0.1	0.6	0.7	0	28.8%	45.3%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.4	0	28.9%	46.3%
	0	0	0.2	0.4	0	35.4%	56.3%
	0	0.3	0.3	0.6	0	51.2%	76.1%
	0.2	0	0	0.4	0	13.8%	21.9%
	0.2	0	0.2	0.4	0	19.3%	30.6%
	0.2	0.2	0.2	0.4	0	16.6%	25.3%
	0.3	0.1	0.6	0.7	0	49.1%	73.7%
	0.5	0.5	0.5	0	1	0.2%	0.0%
	0	0.8	0.6	0.4	1	8.2%	8.2%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.8	0	31.7%	49.4%
	0	0	0.4	0.8	0	38.1%	58.5%
	0	0.3	0.3	0.6	0	22.5%	34.7%
	0.4	0	0	0.8	0	17.4%	26.1%
	0.4	0	0.4	0.8	0	21.5%	33.4%
	0.4	0.4	0.4	0.8	0	18.2%	26.8%
	0.3	0.1	0.6	0.7	0	22.2%	34.2%
Cauchy	0	0	0	0	0	4.9%	5.0%
	0	0	0	1	0	26.6%	39.8%
	0	0	0.4	1	0	29.0%	45.7%
	0	0.3	0.3	1	0	26.3%	40.5%
	0.4	0	0	1	0	16.8%	24.0%
	0.4	0	0.4	1	0	19.8%	29.6%
	0.4	0.4	0.4	1	0	18.2%	26.1%
	0.3	0.1	0.6	1	0	22.8%	34.9%

Table F.193. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.8	0	48.0%	54.0%
	0	0	0.4	0.8	0	57.3%	63.7%
	0	0.3	0.3	0.6	0	33.6%	38.0%
	0.4	0	0	0.8	0	25.4%	28.7%
	0.4	0	0.4	0.8	0	32.4%	36.4%
	0.4	0.4	0.4	0.8	0	25.9%	29.4%
	0.3	0.1	0.6	0.7	0	33.6%	37.5%
	0.5	0.5	0.5	0	1	0.2%	0.2%
	0	0.8	0.6	0.4	1	6.4%	6.9%
Exponential	0	0	0	0	0	5.2%	4.9%
	0	0	0	0.4	0	34.0%	38.1%
	0	0	0.2	0.4	0	42.2%	47.3%
	0	0.3	0.3	0.6	0	59.6%	64.9%
	0.2	0	0	0.4	0	15.6%	18.0%
	0.2	0	0.2	0.4	0	22.7%	25.7%
	0.2	0.2	0.2	0.4	0	18.8%	21.3%
	0.1	0.2	0.3	0.4	0	30.8%	34.9%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0	0.8	0	36.8%	41.0%
	0	0	0.4	0.8	0	43.8%	48.3%
	0	0.3	0.3	0.6	0	25.7%	28.9%
	0.4	0	0	0.8	0	19.6%	21.9%
	0.4	0	0.4	0.8	0	25.6%	28.4%
	0.4	0.4	0.4	0.8	0	19.7%	23.1%
	0.3	0.1	0.6	0.7	0	25.7%	28.8%
Cauchy	0	0	0	0	0	5.0%	5.2%
	0	0	0	1	0	30.1%	32.3%
	0	0	0.4	1	0	34.7%	39.0%
	0	0.3	0.3	1	0	30.8%	34.1%
	0.4	0	0	1	0	19.7%	20.9%
	0.4	0	0.4	1	0	22.5%	24.4%
	0.4	0.4	0.4	1	0	20.0%	21.8%
	0.3	0.1	0.6	1	0	25.6%	29.0%

Table F.194. t = 5, Pk = 4, p = 0.3, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.5%	4.8%
	0	0	0	0.8	0	36.3%	53.4%
	0	0	0.4	0.8	0	43.3%	62.9%
	0	0.3	0.3	0.6	0	25.3%	36.8%
	0.4	0	0	0.8	0	19.1%	27.6%
	0.4	0	0.4	0.8	0	24.6%	35.7%
	0.4	0.4	0.4	0.8	0	19.8%	28.8%
	0.3	0.1	0.6	0.7	0	24.7%	36.4%
	0.5	0.5	0.5	0	1	0.3%	0.2%
	0	0.8	0.6	0.4	1	6.3%	7.1%
Exponential	0	0	0	0	0	4.8%	5.2%
	0	0	0	0.4	0	24.7%	36.9%
	0	0	0.2	0.4	0	31.0%	46.0%
	0	0.3	0.3	0.6	0	43.2%	63.6%
	0.2	0	0	0.4	0	12.1%	17.3%
	0.2	0	0.2	0.4	0	16.8%	24.4%
	0.2	0.2	0.2	0.4	0	14.2%	20.0%
	0.3	0.1	0.6	0.7	0	41.3%	60.7%
T with 3 df.	0	0	0	0	0	4.9%	4.8%
	0	0	0	0.8	0	27.9%	40.5%
	0	0	0.4	0.8	0	33.2%	48.9%
	0	0.3	0.3	0.6	0	20.3%	29.5%
	0.4	0	0	0.8	0	15.6%	21.2%
	0.4	0	0.4	0.8	0	19.5%	27.9%
	0.4	0.4	0.4	0.8	0	16.3%	22.4%
	0.3	0.1	0.6	0.7	0	19.9%	28.3%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	0	1	0	22.7%	32.8%
	0	0	0.4	1	0	25.7%	37.7%
	0	0.3	0.3	1	0	22.7%	33.1%
	0.4	0	0	1	0	15.1%	20.4%
	0.4	0	0.4	1	0	17.4%	24.3%
	0.4	0.4	0.4	1	0	15.1%	21.4%
	0.3	0.1	0.6	1	0	20.6%	29.2%

Table F.195. t = 5, Pk = 4, p = 0.3, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.8%	5.0%
	0	0	0	0.4	0	36.5%	34.5%
	0	0	0.2	0.4	0	42.7%	40.6%
	0	0.3	0.3	0.6	0	63.3%	58.7%
	0.2	0	0	0.4	0	20.3%	19.5%
	0.2	0	0.2	0.4	0	25.3%	23.5%
	0.2	0.2	0.2	0.4	0	20.8%	19.7%
	0.1	0.1	0.3	0.4	0	34.5%	32.9%
Exponential	0	0	0	0	0	5.2%	5.0%
	0	0	0	0.4	0	66.6%	61.5%
	0	0	0.1	0.2	0	33.4%	31.8%
	0	0.1	0.1	0.3	0	49.1%	45.6%
	0.2	0	0	0.4	0	32.7%	30.1%
	0.1	0	0.1	0.2	0	18.4%	18.2%
	0.2	0.2	0.2	0.4	0	36.8%	34.0%
	0.1	0.1	0.2	0.4	0	58.6%	54.2%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	10.7%	9.9%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.4	0	28.0%	26.3%
	0	0	0.2	0.4	0	32.8%	31.7%
	0	0.3	0.3	0.6	0	48.5%	44.8%
	0.4	0	0	0.8	0	36.6%	34.1%
	0.2	0	0.2	0.4	0	19.0%	18.9%
	0.4	0.4	0.4	0.8	0	37.8%	35.1%
	0.3	0.1	0.6	0.7	0	47.9%	44.7%
Cauchy	0	0	0	0	0	5.2%	4.8%
	0	0	0	1	0	56.7%	52.9%
	0	0	0.4	1	0	63.4%	59.4%
	0	0.3	0.3	1	0	56.1%	53.3%
	0.4	0	0	1	0	34.2%	31.6%
	0.4	0	0.4	1	0	42.5%	39.1%
	0.4	0.4	0.4	1	0	35.3%	33.4%
	0.3	0.1	0.6	1	0	48.8%	46.3%

Table F.196. t = 5, Pk = 4, p = 0.3, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.8%
	0	0	0	0.8	0	61.0%	79.0%
	0	0	0.4	0.8	0	69.6%	87.1%
	0	0.3	0.3	0.6	0	43.5%	59.1%
	0.4	0	0	0.8	0	31.7%	44.2%
	0.4	0	0.4	0.8	0	41.2%	57.3%
	0.4	0.4	0.4	0.8	0	33.1%	46.2%
	0.3	0.1	0.6	0.7	0	42.4%	58.5%
	0.5	0.5	0.5	0	1	0.1%	0.1%
	0	0.8	0.6	0.4	1	7.5%	8.4%
Exponential	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.4	0	42.9%	60.0%
	0	0	0.2	0.4	0	53.0%	71.3%
	0	0.3	0.3	0.6	0	70.9%	87.8%
	0.2	0	0	0.4	0	20.8%	29.5%
	0.2	0	0.2	0.4	0	28.9%	41.7%
	0.2	0.2	0.2	0.4	0	24.0%	33.2%
	0.3	0.1	0.6	0.7	0	69.2%	86.1%
T with 3 df.	0	0	0	0	0	4.9%	4.9%
	0	0	0	0.8	0	46.7%	63.0%
	0	0	0.4	0.8	0	55.4%	72.9%
	0	0.3	0.3	0.6	0	33.4%	45.8%
	0.4	0	0	0.8	0	23.5%	32.3%
	0.4	0	0.4	0.8	0	32.0%	44.6%
	0.4	0.4	0.4	0.8	0	24.7%	34.0%
	0.3	0.1	0.6	0.7	0	32.5%	45.3%
Cauchy	0	0	0	0	0	5.0%	4.9%
	0	0	0	1	0	37.2%	50.9%
	0	0	0.4	1	0	43.1%	58.2%
	0	0.3	0.3	1	0	37.8%	51.6%
	0.4	0	0	1	0	23.3%	31.3%
	0.4	0	0.4	1	0	28.1%	38.5%
	0.4	0.4	0.4	1	0	23.6%	32.9%
	0.3	0.1	0.6	1	0	33.4%	46.4%

F.5.4. Probability of Missing = 0.4

Table F.197. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	4.9%
	0	0	0	0.8	0	50.1%	68.2%
	0	0	0.4	0.8	0	58.3%	77.9%
	0	0.3	0.3	0.6	0	34.4%	49.4%
	0.4	0	0	0.8	0	25.9%	36.8%
	0.4	0	0.4	0.8	0	33.6%	47.4%
	0.4	0.4	0.4	0.8	0	27.0%	38.0%
	0.3	0.1	0.6	0.7	0	33.6%	48.3%
Exponential	0	0	0	0	0	5.0%	5.1%
	0	0	0	0.4	0	34.2%	49.4%
	0	0	0.2	0.4	0	44.2%	61.1%
	0	0.3	0.3	0.6	0	61.4%	80.2%
	0.2	0	0	0.4	0	16.2%	24.1%
	0.2	0	0.2	0.4	0	24.4%	34.6%
	0.2	0.2	0.2	0.4	0	19.4%	27.4%
	0.1	0.2	0.3	0.4	0	32.3%	45.4%
	0.5	0.5	0.5	0	1	0.1%	0.0%
T with 3 df.	0	0	0	0	0	5.0%	5.7%
	0	0	0	0.8	0	37.9%	53.2%
	0	0	0.4	0.8	0	45.2%	62.1%
	0	0.3	0.3	0.6	0	26.4%	37.1%
	0.4	0	0	0.8	0	20.7%	27.9%
	0.4	0	0.4	0.8	0	26.6%	37.1%
	0.4	0.4	0.4	0.8	0	20.3%	28.3%
	0.3	0.1	0.6	0.7	0	26.8%	37.4%
Cauchy	0	0	0	0	0	5.2%	5.5%
	0	0	0	1	0	30.5%	42.5%
	0	0	0.4	1	0	34.6%	47.8%
	0	0.3	0.3	1	0	31.1%	43.3%
	0.4	0	0	1	0	19.8%	26.6%
	0.4	0	0.4	1	0	24.0%	32.2%
	0.4	0.4	0.4	1	0	20.5%	27.6%
	0.3	0.1	0.6	1	0	27.6%	38.3%

Table F.198. t = 5, Pk = 4, p = 0.4, IBD = 10, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.4%	5.1%
	0	0	0	0.8	0	49.2%	61.5%
	0	0	0.4	0.8	0	58.4%	70.7%
	0	0.3	0.3	0.6	0	33.7%	42.8%
	0.4	0	0	0.8	0	25.8%	32.1%
	0.4	0	0.4	0.8	0	33.6%	41.6%
	0.4	0.4	0.4	0.8	0	26.7%	34.0%
	0.3	0.1	0.6	0.7	0	33.9%	43.3%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	6.6%	7.4%
Exponential	0	0	0	0	0	5.1%	4.7%
	0	0	0	0.4	0	34.3%	43.9%
	0	0	0.2	0.4	0	43.1%	54.8%
	0	0.3	0.3	0.6	0	60.3%	73.5%
	0.2	0	0	0.4	0	15.2%	20.1%
	0.2	0	0.2	0.4	0	23.3%	29.8%
	0.2	0.2	0.2	0.4	0	18.9%	23.8%
	0.1	0.2	0.3	0.4	0	31.8%	39.7%
T with 3 df.	0	0	0	0	0	5.1%	5.1%
	0	0	0	0.8	0	36.7%	46.8%
	0	0	0.4	0.8	0	44.1%	54.7%
	0	0.3	0.3	0.6	0	25.7%	32.2%
	0.4	0	0	0.8	0	20.1%	25.0%
	0.4	0	0.4	0.8	0	25.5%	32.5%
	0.4	0.4	0.4	0.8	0	20.9%	26.3%
	0.3	0.1	0.6	0.7	0	26.1%	33.2%
Cauchy	0	0	0	0	0	5.0%	5.0%
	0	0	0	1	0	30.2%	38.3%
	0	0	0.4	1	0	35.0%	43.6%
	0	0.3	0.3	1	0	31.5%	39.0%
	0.4	0	0	1	0	19.8%	24.0%
	0.4	0	0.4	1	0	23.0%	28.1%
	0.4	0.4	0.4	1	0	19.9%	24.0%
	0.3	0.1	0.6	1	0	26.3%	32.7%

Table F.199. t = 5, Pk = 4, p = 0.4, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.9%
	0	0	0	0.8	0	40.8%	60.9%
	0	0	0.4	0.8	0	48.7%	70.3%
	0	0.3	0.3	0.6	0	28.6%	43.3%
	0.4	0	0	0.8	0	22.5%	33.1%
	0.4	0	0.4	0.8	0	27.1%	42.1%
	0.4	0.4	0.4	0.8	0	23.2%	33.6%
	0.3	0.1	0.6	0.7	0	28.8%	43.2%
Exponential	0	0	0	0	0	5.5%	5.4%
	0	0	0	0.4	0	27.2%	42.8%
	0	0	0.2	0.4	0	35.3%	53.6%
	0	0.3	0.3	0.6	0	51.1%	72.5%
	0.2	0	0	0.4	0	13.6%	21.3%
	0.2	0	0.2	0.4	0	19.6%	30.2%
	0.2	0.2	0.2	0.4	0	16.0%	23.7%
	0.3	0.1	0.6	0.7	0	47.4%	69.3%
T with 3 df.	0	0	0	0	0	5.3%	5.0%
	0	0	0	0.8	0	30.9%	46.0%
	0	0	0.4	0.8	0	36.7%	54.9%
	0	0.3	0.3	0.6	0	21.3%	32.5%
	0.4	0	0	0.8	0	17.0%	24.5%
	0.4	0	0.4	0.8	0	21.5%	31.8%
	0.4	0.4	0.4	0.8	0	18.3%	25.6%
	0.3	0.1	0.6	0.7	0	21.1%	31.2%
	0.5	0.5	0.5	0	1	0.7%	0.2%
	0	0.8	0.6	0.4	1	6.4%	7.5%
Cauchy	0	0	0	0	0	4.7%	5.0%
	0	0	0	1	0	24.8%	36.9%
	0	0	0.4	1	0	28.7%	42.3%
	0	0.3	0.3	1	0	26.2%	38.2%
	0.4	0	0	1	0	16.5%	22.6%
	0.4	0	0.4	1	0	19.8%	28.0%
	0.4	0.4	0.4	1	0	17.6%	24.7%
	0.3	0.1	0.6	1	0	22.8%	33.2%

Table F.200. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD Sample = 10

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0	0	0.8	0	48.6%	52.3%
	0	0	0.4	0.8	0	56.7%	61.4%
	0	0.3	0.3	0.6	0	34.0%	36.1%
	0.4	0	0	0.8	0	24.6%	26.5%
	0.4	0	0.4	0.8	0	33.0%	35.9%
	0.4	0.4	0.4	0.8	0	25.7%	28.4%
	0.3	0.1	0.6	0.7	0	33.3%	35.8%
Exponential	0	0	0	0	0	5.1%	5.0%
	0	0	0	0.4	0	33.9%	36.8%
	0	0	0.2	0.4	0	42.1%	45.0%
	0	0.3	0.3	0.6	0	59.0%	62.3%
	0.2	0	0	0.4	0	15.7%	17.3%
	0.2	0	0.2	0.4	0	22.3%	24.7%
	0.2	0.2	0.2	0.4	0	18.3%	19.7%
	0.1	0.2	0.3	0.4	0	31.2%	32.9%
T with 3 df.	0	0	0	0	0	4.8%	5.2%
	0	0	0	0.8	0	36.2%	39.4%
	0	0	0.4	0.8	0	43.4%	46.2%
	0	0.3	0.3	0.6	0	25.6%	27.7%
	0.4	0	0	0.8	0	19.8%	20.7%
	0.4	0	0.4	0.8	0	24.9%	27.1%
	0.4	0.4	0.4	0.8	0	20.3%	22.1%
	0.3	0.1	0.6	0.7	0	26.0%	28.0%
	0.5	0.5	0.5	0	1	0.4%	0.3%
	0	0.8	0.6	0.4	1	6.7%	6.6%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	0	1	0	30.0%	31.0%
	0	0	0.4	1	0	33.9%	36.9%
	0	0.3	0.3	1	0	30.8%	32.6%
	0.4	0	0	1	0	19.3%	20.6%
	0.4	0	0.4	1	0	22.6%	25.0%
	0.4	0.4	0.4	1	0	19.3%	20.4%
	0.3	0.1	0.6	1	0	26.3%	28.4%

Table F.201. t = 5, Pk = 4, p = 0.4, IBD = 15, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	4.8%
	0	0	0	0.8	0	34.1%	50.0%
	0	0	0.4	0.8	0	39.9%	58.7%
	0	0.3	0.3	0.6	0	24.4%	34.8%
	0.4	0	0	0.8	0	18.3%	26.1%
	0.4	0	0.4	0.8	0	23.5%	34.3%
	0.4	0.4	0.4	0.8	0	19.3%	26.9%
	0.3	0.1	0.6	0.7	0	23.3%	34.1%
Exponential	0	0	0	0	0	4.9%	4.9%
	0	0	0	0.4	0	22.1%	33.6%
	0	0	0.2	0.4	0	28.6%	42.5%
	0	0.3	0.3	0.6	0	41.0%	59.4%
	0.2	0	0	0.4	0	11.6%	16.4%
	0.2	0	0.2	0.4	0	16.5%	24.2%
	0.2	0.2	0.2	0.4	0	14.3%	20.0%
	0.3	0.1	0.6	0.7	0	38.7%	56.4%
T with 3 df.	0	0	0	0	0	4.8%	5.0%
	0	0	0	0.8	0	25.6%	36.9%
	0	0	0.4	0.8	0	32.1%	46.3%
	0	0.3	0.3	0.6	0	18.1%	25.9%
	0.4	0	0	0.8	0	15.1%	20.9%
	0.4	0	0.4	0.8	0	18.5%	25.8%
	0.4	0.4	0.4	0.8	0	15.5%	21.2%
	0.3	0.1	0.6	0.7	0	18.9%	26.3%
Cauchy	0	0	0	0	0	5.2%	5.2%
	0	0	0	1	0	21.0%	29.1%
	0	0	0.4	1	0	24.7%	35.4%
	0	0.3	0.3	1	0	21.1%	31.0%
	0.4	0	0	1	0	14.6%	19.3%
	0.4	0	0.4	1	0	16.2%	22.6%
	0.4	0.4	0.4	1	0	14.9%	19.7%
	0.3	0.1	0.6	1	0	19.3%	27.1%
	0.5	0.5	0.5	0	1	1.6%	0.9%
	0	0.8	0.6	0.4	1	5.5%	5.7%

Table F.202. t = 5, Pk = 4, p = 0.4, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	4.7%
	0	0	0	0.4	0	36.5%	33.9%
	0	0	0.2	0.4	0	44.2%	40.1%
	0	0.3	0.3	0.6	0	62.4%	57.6%
	0.2	0	0	0.4	0	20.2%	18.7%
	0.2	0	0.2	0.4	0	25.8%	24.3%
	0.2	0.2	0.2	0.4	0	21.2%	19.5%
	0.1	0.1	0.3	0.4	0	34.0%	31.4%
Exponential	0	0	0	0	0	5.1%	5.5%
	0	0	0	0.4	0	67.2%	60.1%
	0	0	0.1	0.2	0	33.2%	30.6%
	0	0.1	0.1	0.3	0	48.9%	44.8%
	0.2	0	0	0.4	0	32.7%	29.4%
	0.1	0	0.1	0.2	0	20.0%	18.9%
	0.2	0.2	0.2	0.4	0	36.5%	33.2%
	0.1	0.1	0.2	0.4	0	59.4%	53.1%
T with 3 df.	0	0	0	0	0	5.0%	5.4%
	0	0	0	0.4	0	28.2%	26.6%
	0	0	0.2	0.4	0	33.0%	30.6%
	0	0.3	0.3	0.6	0	47.8%	43.7%
	0.4	0	0	0.8	0	36.6%	32.9%
	0.2	0	0.2	0.4	0	20.4%	17.9%
	0.4	0.4	0.4	0.8	0	36.9%	33.8%
	0.3	0.1	0.6	0.7	0	47.5%	43.2%
Cauchy	0	0	0	0	0	4.9%	4.8%
	0	0	0	1	0	55.8%	50.6%
	0	0	0.4	1	0	62.9%	58.2%
	0	0.3	0.3	1	0	57.0%	52.2%
	0.4	0	0	1	0	34.8%	31.6%
	0.4	0	0.4	1	0	42.0%	38.4%
	0.4	0.4	0.4	1	0	36.2%	33.2%
	0.3	0.1	0.6	1	0	49.8%	45.7%
	0.5	0.5	0.5	0	1	0.2%	0.3%
	0	0.8	0.6	0.4	1	6.7%	7.0%

Table F.203. t = 5, Pk = 4, p = 0.4, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.8	0	54.3%	73.9%
	0	0	0.4	0.8	0	63.2%	83.1%
	0	0.3	0.3	0.6	0	37.9%	53.2%
	0.4	0	0	0.8	0	28.5%	39.8%
	0.4	0	0.4	0.8	0	36.4%	52.1%
	0.4	0.4	0.4	0.8	0	29.7%	42.3%
	0.3	0.1	0.6	0.7	0	38.3%	54.6%
	0.5	0.5	0.5	0	1	0.1%	0.1%
	0	0.8	0.6	0.4	1	7.2%	8.4%
Exponential	0	0	0	0	0	4.8%	5.1%
	0	0	0	0.4	0	37.7%	54.9%
	0	0	0.2	0.4	0	47.9%	66.4%
	0	0.3	0.3	0.6	0	64.8%	83.4%
	0.2	0	0	0.4	0	18.0%	26.7%
	0.2	0	0.2	0.4	0	26.2%	38.0%
	0.2	0.2	0.2	0.4	0	21.7%	30.4%
	0.3	0.1	0.6	0.7	0	62.2%	82.0%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.8	0	41.4%	58.1%
	0	0	0.4	0.8	0	48.9%	67.7%
	0	0.3	0.3	0.6	0	29.3%	41.7%
	0.4	0	0	0.8	0	23.1%	31.3%
	0.4	0	0.4	0.8	0	28.8%	40.9%
	0.4	0.4	0.4	0.8	0	22.5%	31.7%
	0.3	0.1	0.6	0.7	0	28.8%	40.6%
Cauchy	0	0	0	0	0	5.1%	5.1%
	0	0	0	1	0	33.0%	46.7%
	0	0	0.4	1	0	38.5%	54.1%
	0	0.3	0.3	1	0	33.6%	47.2%
	0.4	0	0	1	0	21.0%	28.1%
	0.4	0	0.4	1	0	25.4%	35.4%
	0.4	0.4	0.4	1	0	21.7%	29.7%
	0.3	0.1	0.6	1	0	29.9%	42.4%

F.5.5. Probability of Missing = 0.5

Table F.204. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.8	0	50.0%	65.7%
	0	0	0.4	0.8	0	58.5%	74.8%
	0	0.3	0.3	0.6	0	34.4%	45.9%
	0.4	0	0	0.8	0	25.6%	33.9%
	0.4	0	0.4	0.8	0	33.2%	45.2%
	0.4	0.4	0.4	0.8	0	26.5%	35.2%
	0.3	0.1	0.6	0.7	0	34.1%	46.7%
Exponential	0	0	0	0	0	4.9%	5.1%
	0	0	0	0.4	0	34.7%	47.6%
	0	0	0.2	0.4	0	43.4%	57.2%
	0	0.3	0.3	0.6	0	61.8%	76.6%
	0.2	0	0	0.4	0	16.5%	23.3%
	0.2	0	0.2	0.4	0	23.8%	33.6%
	0.2	0.2	0.2	0.4	0	18.5%	25.5%
	0.1	0.2	0.3	0.4	0	32.9%	43.7%
T with 3 df.	0	0	0	0	0	5.0%	5.0%
	0	0	0	0.8	0	36.9%	49.9%
	0	0	0.4	0.8	0	45.1%	59.4%
	0	0.3	0.3	0.6	0	25.3%	34.4%
	0.4	0	0	0.8	0	20.4%	26.2%
	0.4	0	0.4	0.8	0	26.9%	35.2%
	0.4	0.4	0.4	0.8	0	20.5%	28.1%
	0.3	0.1	0.6	0.7	0	26.7%	35.8%
	0.5	0.5	0.5	0	1	0.4%	0.1%
Cauchy	0	0	0	0	0	4.8%	5.3%
	0	0	0	1	0	29.7%	40.9%
	0	0	0.4	1	0	35.6%	47.1%
	0	0.3	0.3	1	0	31.3%	41.1%
	0.4	0	0	1	0	19.3%	24.5%
	0.4	0	0.4	1	0	23.3%	30.9%
	0.4	0.4	0.4	1	0	20.3%	26.3%
	0.3	0.1	0.6	1	0	26.7%	35.9%

Table F.205. t = 5, Pk = 4, p = 0.5, IBD = 10, CRD Sample = 15

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	5.1%
	0	0	0	0.8	0	48.4%	58.3%
	0	0	0.4	0.8	0	57.5%	68.5%
	0	0.3	0.3	0.6	0	33.1%	41.2%
	0.4	0	0	0.8	0	24.7%	31.2%
	0.4	0	0.4	0.8	0	33.1%	39.9%
	0.4	0.4	0.4	0.8	0	26.2%	31.9%
	0.3	0.1	0.6	0.7	0	34.2%	41.4%
Exponential	0	0	0	0	0	4.7%	5.4%
	0	0	0	0.4	0	34.1%	42.1%
	0	0	0.2	0.4	0	43.4%	51.4%
	0	0.3	0.3	0.6	0	60.7%	70.4%
	0.2	0	0	0.4	0	16.4%	20.7%
	0.2	0	0.2	0.4	0	23.6%	29.1%
	0.2	0.2	0.2	0.4	0	19.3%	23.3%
	0.1	0.2	0.3	0.4	0	30.2%	37.0%
T with 3 df.	0	0	0	0	0	5.1%	5.3%
	0	0	0	0.8	0	37.9%	44.8%
	0	0	0.4	0.8	0	44.0%	52.9%
	0	0.3	0.3	0.6	0	25.8%	31.1%
	0.4	0	0	0.8	0	19.5%	23.6%
	0.4	0	0.4	0.8	0	25.6%	31.8%
	0.4	0.4	0.4	0.8	0	20.7%	25.2%
	0.3	0.1	0.6	0.7	0	26.2%	32.3%
Cauchy	0	0	0	0	0	4.8%	4.9%
	0	0	0	1	0	30.4%	35.9%
	0	0	0.4	1	0	35.1%	42.3%
	0	0.3	0.3	1	0	30.8%	36.5%
	0.4	0	0	1	0	19.4%	22.2%
	0.4	0	0.4	1	0	22.9%	27.8%
	0.4	0.4	0.4	1	0	20.3%	24.0%
	0.3	0.1	0.6	1	0	26.1%	32.0%
	0.5	0.5	0.5	0	1	1.0%	0.8%
	0	0.8	0.6	0.4	1	5.9%	6.1%

Table F.206. t = 5, Pk = 4, p = 0.5, IBD = 5, CRD Sample = 15

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.1%
	0	0	0	0.8	0	40.1%	56.9%
	0	0	0.4	0.8	0	46.5%	65.6%
	0	0.3	0.3	0.6	0	27.7%	40.4%
	0.4	0	0	0.8	0	20.7%	30.2%
	0.4	0	0.4	0.8	0	26.7%	39.0%
	0.4	0.4	0.4	0.8	0	22.5%	31.6%
	0.3	0.1	0.6	0.7	0	27.6%	40.5%
	0.5	0.5	0.5	0	1	0.3%	0.1%
	0	0.8	0.6	0.4	1	6.2%	7.0%
Exponential	0	0	0	0	0	5.1%	4.8%
	0	0	0	0.4	0	26.8%	40.8%
	0	0	0.2	0.4	0	34.1%	50.2%
	0	0.3	0.3	0.6	0	49.7%	68.5%
	0.2	0	0	0.4	0	12.5%	19.3%
	0.2	0	0.2	0.4	0	18.9%	27.7%
	0.2	0.2	0.2	0.4	0	15.6%	22.3%
	0.3	0.1	0.6	0.7	0	46.3%	65.9%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.8	0	30.0%	43.2%
	0	0	0.4	0.8	0	34.8%	51.1%
	0	0.3	0.3	0.6	0	21.2%	30.3%
	0.4	0	0	0.8	0	17.0%	23.1%
	0.4	0	0.4	0.8	0	21.8%	29.7%
	0.4	0.4	0.4	0.8	0	17.9%	24.6%
	0.3	0.1	0.6	0.7	0	21.5%	30.5%
Cauchy	0	0	0	0	0	5.0%	5.1%
	0	0	0	1	0	25.4%	35.9%
	0	0	0.4	1	0	27.3%	40.3%
	0	0.3	0.3	1	0	25.1%	35.9%
	0.4	0	0	1	0	16.8%	21.7%
	0.4	0	0.4	1	0	19.5%	26.9%
	0.4	0.4	0.4	1	0	16.6%	23.2%
	0.3	0.1	0.6	1	0	21.8%	31.2%

Table F.207. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD Sample = 10

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.3%	5.7%
	0	0	0	0.8	0	48.0%	50.0%
	0	0	0.4	0.8	0	55.7%	57.7%
	0	0.3	0.3	0.6	0	33.8%	35.1%
	0.4	0	0	0.8	0	25.4%	26.5%
	0.4	0	0.4	0.8	0	32.2%	33.8%
	0.4	0.4	0.4	0.8	0	25.3%	27.1%
	0.3	0.1	0.6	0.7	0	32.8%	33.9%
	0.5	0.5	0.5	0	1	0.2%	0.2%
	0	0.8	0.6	0.4	1	6.2%	7.0%
Exponential	0	0	0	0	0	5.1%	5.2%
	0	0	0	0.4	0	33.0%	34.5%
	0	0	0.2	0.4	0	41.1%	43.2%
	0	0.3	0.3	0.6	0	59.0%	60.7%
	0.2	0	0	0.4	0	15.7%	16.8%
	0.2	0	0.2	0.4	0	22.6%	24.0%
	0.2	0.2	0.2	0.4	0	18.7%	19.9%
	0.1	0.2	0.3	0.4	0	30.3%	31.7%
T with 3 df.	0	0	0	0	0	5.1%	4.9%
	0	0	0	0.8	0	36.5%	37.9%
	0	0	0.4	0.8	0	42.8%	44.6%
	0	0.3	0.3	0.6	0	25.7%	27.2%
	0.4	0	0	0.8	0	19.9%	20.6%
	0.4	0	0.4	0.8	0	24.4%	26.1%
	0.4	0.4	0.4	0.8	0	20.2%	21.6%
	0.3	0.1	0.6	0.7	0	25.5%	27.2%
Cauchy	0	0	0	0	0	5.2%	5.1%
	0	0	0	1	0	29.8%	31.1%
	0	0	0.4	1	0	34.0%	35.8%
	0	0.3	0.3	1	0	28.9%	31.3%
	0.4	0	0	1	0	18.6%	19.0%
	0.4	0	0.4	1	0	22.8%	23.4%
	0.4	0.4	0.4	1	0	19.4%	20.2%
	0.3	0.1	0.6	1	0	27.2%	28.2%

Table F.208. t = 5, Pk = 4, p = 0.5, IBD = 15, CRD Sample = 5

Distribution	µ1	µ2	µ3	µ4	µ5	Std. Last	Std. First
Normal	0	0	0	0	0	5.1%	5.4%
	0	0	0	0.8	0	31.5%	45.1%
	0	0	0.4	0.8	0	38.6%	55.4%
	0	0.3	0.3	0.6	0	22.9%	32.1%
	0.4	0	0	0.8	0	17.5%	24.5%
	0.4	0	0.4	0.8	0	22.5%	31.7%
	0.4	0.4	0.4	0.8	0	18.4%	25.0%
	0.3	0.1	0.6	0.7	0	23.1%	32.1%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.4	0	20.8%	31.5%
	0	0	0.2	0.4	0	27.0%	39.2%
	0	0.3	0.3	0.6	0	38.1%	55.4%
	0.2	0	0	0.4	0	11.0%	16.0%
	0.2	0	0.2	0.4	0	14.8%	21.4%
	0.2	0.2	0.2	0.4	0	12.8%	17.8%
	0.3	0.1	0.6	0.7	0	36.5%	54.0%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	7.8%	8.2%
T with 3 df.	0	0	0	0	0	5.5%	5.4%
	0	0	0	0.8	0	24.8%	35.2%
	0	0	0.4	0.8	0	28.9%	41.7%
	0	0.3	0.3	0.6	0	17.9%	24.3%
	0.4	0	0	0.8	0	14.7%	19.2%
	0.4	0	0.4	0.8	0	17.7%	24.4%
	0.4	0.4	0.4	0.8	0	15.0%	19.6%
	0.3	0.1	0.6	0.7	0	18.0%	24.6%
Cauchy	0	0	0	0	0	5.3%	5.2%
	0	0	0	1	0	19.6%	27.3%
	0	0	0.4	1	0	22.0%	31.9%
	0	0.3	0.3	1	0	20.8%	28.5%
	0.4	0	0	1	0	13.1%	17.5%
	0.4	0	0.4	1	0	16.1%	21.7%
	0.4	0.4	0.4	1	0	14.2%	19.0%
	0.3	0.1	0.6	1	0	18.2%	25.7%

Table F.209. t = 5, Pk = 4, p = 0.5, IBD = 40, CRD Sample = 5

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.7%	4.8%
	0	0	0	0.4	0	37.1%	32.2%
	0	0	0.2	0.4	0	43.3%	38.4%
	0	0.3	0.3	0.6	0	61.6%	56.3%
	0.2	0	0	0.4	0	19.7%	18.6%
	0.2	0	0.2	0.4	0	26.0%	23.5%
	0.2	0.2	0.2	0.4	0	20.5%	19.4%
	0.1	0.1	0.3	0.4	0	33.4%	30.0%
Exponential	0	0	0	0	0	4.8%	5.4%
	0	0	0	0.4	0	67.3%	57.8%
	0	0	0.1	0.2	0	33.7%	30.4%
	0	0.1	0.1	0.3	0	49.4%	43.4%
	0.2	0	0	0.4	0	32.5%	28.6%
	0.1	0	0.1	0.2	0	19.7%	17.9%
	0.2	0.2	0.2	0.4	0	37.2%	32.6%
	0.1	0.1	0.2	0.4	0	58.8%	51.8%
	0.5	0.5	0.5	0	1	0.0%	0.0%
	0	0.8	0.6	0.4	1	11.0%	10.1%
T with 3 df.	0	0	0	0	0	5.2%	5.2%
	0	0	0	0.4	0	28.5%	25.3%
	0	0	0.2	0.4	0	33.0%	29.6%
	0	0.3	0.3	0.6	0	48.3%	43.1%
	0.4	0	0	0.8	0	36.1%	32.1%
	0.2	0	0.2	0.4	0	20.2%	17.9%
	0.4	0.4	0.4	0.8	0	37.1%	32.8%
	0.3	0.1	0.6	0.7	0	47.7%	43.6%
Cauchy	0	0	0	0	0	4.8%	5.1%
	0	0	0	1	0	56.2%	50.0%
	0	0	0.4	1	0	63.9%	56.7%
	0	0.3	0.3	1	0	56.5%	50.0%
	0.4	0	0	1	0	34.9%	30.4%
	0.4	0	0.4	1	0	42.5%	37.7%
	0.4	0.4	0.4	1	0	36.0%	32.0%
	0.3	0.1	0.6	1	0	49.5%	43.6%

Table F.210. t = 5, Pk = 4, p = 0.5, IBD = 5, CRD Sample = 40

Distribution	μ1	μ2	μ3	μ4	μ5	Std. Last	Std. First
Normal	0	0	0	0	0	4.9%	5.0%
	0	0	0	0.8	0	48.9%	68.9%
	0	0	0.4	0.8	0	57.6%	78.8%
	0	0.3	0.3	0.6	0	34.9%	49.9%
	0.4	0	0	0.8	0	25.8%	37.2%
	0.4	0	0.4	0.8	0	33.4%	47.9%
	0.4	0.4	0.4	0.8	0	26.2%	37.7%
	0.3	0.1	0.6	0.7	0	34.2%	49.8%
	0.5	0.5	0.5	0	1	0.2%	0.1%
	0	0.8	0.6	0.4	1	6.7%	7.6%
Exponential	0	0	0	0	0	5.2%	5.1%
	0	0	0	0.4	0	34.0%	50.5%
	0	0	0.2	0.4	0	42.3%	61.1%
	0	0.3	0.3	0.6	0	59.9%	79.7%
	0.2	0	0	0.4	0	16.1%	24.3%
	0.2	0	0.2	0.4	0	23.3%	35.1%
	0.2	0.2	0.2	0.4	0	19.6%	28.0%
	0.3	0.1	0.6	0.7	0	56.2%	77.5%
T with 3 df.	0	0	0	0	0	4.8%	4.9%
	0	0	0	0.8	0	37.5%	54.3%
	0	0	0.4	0.8	0	44.8%	63.6%
	0	0.3	0.3	0.6	0	25.4%	37.6%
	0.4	0	0	0.8	0	20.6%	28.1%
	0.4	0	0.4	0.8	0	26.0%	37.4%
	0.4	0.4	0.4	0.8	0	21.4%	30.1%
	0.3	0.1	0.6	0.7	0	25.9%	37.3%
Cauchy	0	0	0	0	0	5.0%	4.8%
	0	0	0	1	0	30.5%	43.7%
	0	0	0.4	1	0	34.4%	49.8%
	0	0.3	0.3	1	0	30.9%	44.8%
	0.4	0	0	1	0	18.9%	26.5%
	0.4	0	0.4	1	0	22.9%	33.0%
	0.4	0.4	0.4	1	0	19.8%	27.9%
	0.3	0.1	0.6	1	0	26.5%	38.6%