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PRESTIGE, STATUS, AND ESTEEM AND THE TEACHER SHORTAGE

by

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Bachelor of Science, Valley City State University, 1995  
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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree

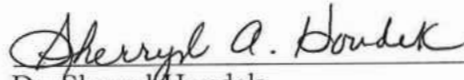
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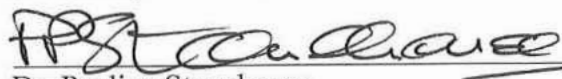
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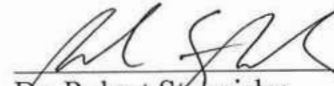
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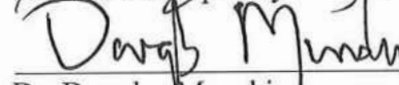
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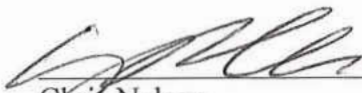
  
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## TABLE OF CONTENTS

LIST OF FIGURES .....	xiii
LIST OF TABLES .....	xiv
ACKNOWLEDGEMENTS .....	xvii
ABSTRACT.....	xx
CHAPTER	
I.    INTRODUCTION.....	1
In the Spotlight .....	2
The Scope of the Problem.....	3
A Persistent Problem .....	6
Theoretical Framework.....	8
Prestige .....	9
Status .....	11
Esteem .....	13
Semantic Status .....	15
Purpose of the Study.....	15
Research Questions.....	16

Assumptions .....	16
Importance of the Study.....	16
Definition of Terms and Acronyms.....	21
Chapter Outlines .....	32
II. LITERATURE REVIEW .....	33
Feeling the Impact of the Teacher Shortage .....	33
Specialized Teaching Fields .....	34
The Challenges in Urban Schools.....	36
The Challenges in Rural Schools.....	37
Early Attrition and Teacher Recruitment Efforts .....	38
New Teacher Induction Programs .....	40
Teacher Recruitment Bonuses .....	41
Alternative Teacher Certification .....	42
Resident Teacher Programs .....	44
The Ever Growing Teacher Workforce .....	46
Falling Preservice Teacher Enrollments .....	47
The Labor Market .....	52
Teacher Compensation .....	52
Career Advancements.....	55

More Opportunities for Women .....	55
Academic Aptitudes .....	56
Socio-Familial Factors.....	59
The Issue of Teacher Status.....	60
Lessons from Around the World .....	61
Finland.....	61
Singapore.....	63
South Korea .....	65
Canada .....	66
Taiwan .....	67
Economic Implications .....	69
Summary of Chapter II .....	72
III.    METHODOLOGY .....	73
Population .....	73
Population Locations .....	73
Urban Public School Districts .....	74
Public and Private School Systems Located in Urban Clusters .	75
Rural School Districts.....	77
University Settings .....	80



The Survey Instrument .....	83
Data Collection Procedures .....	86
Consent .....	88
Data Analysis.....	88
Chapter III Summary .....	89
IV. RESULTS.....	91
Prestige Scale.....	93
Status Scale.....	95
Esteem Scale.....	96
Policy Intervention: Prestige and Status Scales.....	98
Demographic Variables .....	101
Descriptive Statistics .....	103
Research Question 1 .....	104
High School Senior and College Undergraduate Teaching Considerations .....	104
High School Seniors Considering Other Careers .....	106
High School Senior and College Undergraduate Aspiring Teachers.....	107
Research Question 2 .....	110

The Demographic Effect .....	110
Female High School Seniors and College Undergraduates.....	110
Female High School Senior and College Undergraduate Aspiring Teachers.....	112
Hometown Classification and Teaching Considerations.....	114
Rural High School Seniors and College Undergraduates.....	114
Rural Female High School Seniors and College Undergraduates .....	116
Rural Female Aspiring Teachers .....	117
Urban High School Seniors and College Undergraduates .....	118
Female Urban High School Seniors and College Undergraduates .....	120
Household Annual Income and Teaching Considerations .....	122
Household Annual Income: \$50,000 to 100,000.....	122
Household Annual Income: \$100,000 to 150,000.....	124
Household Annual Income: 150,000 or Greater.....	126
Rural Areas and Household Annual Income: \$150,000 or Greater .....	127
Research Question 3 .....	129
Academic Aptitudes and Teaching Considerations.....	129

ACT Scores: 29 or Greater .....	130
ACT Scores: 25 to 28 .....	131
ACT Scores: 21 to 24 .....	132
ACT Scores: 18 to 20 .....	134
Research Question 4 .....	136
The Impact of International Education Policies .....	136
High School Seniors Considering Other Careers .....	139
College Undergraduates Considering Other Careers .....	142
High School Senior and College Undergraduate Aspiring Teachers.....	144
Male and Female Post-Policy Teaching Considerations .....	147
Female College Undergraduates Considering Other Careers...	147
Rural High School Seniors and College Undergraduates.....	149
Female Rural High School Seniors and College Undergraduates .....	151
Urban High School Seniors and College Undergraduates .....	153
Female Urban/Urban Cluster College Undergraduates Considering Other Careers .....	155
Household Annual Income: \$50,000 or \$100,000.....	157
Household Annual Income: \$150,000 or Greater.....	159

ACT Score: 25 to 28.....	161
ACT Score: 20 or Less .....	162
Summary of Chapter IV.....	165
Low Correlation Coefficients .....	169
Low R-Squared Values.....	169
V. DISCUSSION .....	171
Semantic Status.....	171
The Erosion of Esteem.....	175
Implications of International Policy .....	180
Implications for Practice.....	183
Recommendations for State Agencies .....	189
Recommendations for School Districts .....	191
Recommendations for Further Research .....	192
Concluding Remarks .....	192
Limitations .....	193
APPENDICES .....	194
Appendix A The Survey Instrument.....	195
Appendix B Survey Instrument Codebook.....	206
Appendix C Email Permission Letter to Superintendents .....	213

Appendix D School District Permission to Conduct Research .....	214
Appendix E Email Letter to School Counselors and Principals .....	215
Appendix F On-line Survey: High School Senior Recruitment Email .....	216
Appendix G Email Letter to University Department Chairs .....	217
Appendix H On-line Survey: Undergraduate Recruitment Email..	218
Appendix I Tables.....	219
Appendix J Figures .....	269
REFERENCES .....	276

## LIST OF FIGURES

Figure	Page
<i>Figure 1.</i> Status variable's normal distribution. ....	269
<i>Figure 2.</i> Hometown variable's normal distribution. ....	270
<i>Figure 3.</i> How much consider teaching variable's normal distribution. ....	270
<i>Figure 4.</i> Parents' income variable's normal distribution. ....	271
<i>Figure 5.</i> The effects of teaching's prestige, status, and esteem. ....	272
<i>Figure 6.</i> The effects of policy designed to improve the perceptions of teaching.....	273
<i>Figure 7.</i> Conceptual framework that was developed from the results of the study. ....	274
<i>Figure 8.</i> To what degree have you considered leaving (Klimek, 2018)?.....	275
<i>Figure 9.</i> To What Degree Would You Encourage Others to Enter Teaching (Klimek, 2018)? .....	275

## LIST OF TABLES

Table	Page
Table I.1 University Enrollment Trends in Teacher Education Programs.....	219
Table I.2 Prestige Scales.....	220
Table I.3 Variable Summary Table.....	221
Table I.4 Status Scale.....	222
Table I.5 Esteem Scale.....	223
Table I.6 Policy Intervention Prestige Scale.....	223
Table I.7 Policy Intervention Status Scale.....	224
Table I.8 Policy Intervention Esteem Scale.....	224
Table I.9 Demographics.....	225
Table I.10 ANOVA: Senior and Undergraduate Teaching Considerations.....	226
Table I.11 ANOVA Descriptive Statistics.....	226
Table I.12 Bonferroni Post-Hoc Analysis.....	227
Table I.13 Bivariate Correlation: Seniors and Undergraduates.....	228
Table I.14 Hierarchal Linear Regression: Seniors and Undergraduates.....	228
Table I.15 Bivariate Correlation: Seniors Considering Other Careers.....	229
Table I.16 Hierarchal Linear Regression: Seniors Considering Other Careers.....	230
Table I.17 Bivariate Correlation: Aspiring Teachers.....	231
Table I.18 Hierarchal Linear Regression: Aspiring Teachers.....	231
Table I.19 Independent <i>t</i> -test Results.....	232
Table I.20 Bivariate Correlation: Female Seniors and Undergraduates.....	233
Table I.21 Hierarchal Linear Regression: Female Seniors and Undergraduates.....	233
Table I.22 Bivariate Correlation: Female Aspiring Teachers.....	234
Table I.23 Hierarchal Linear Regression: Female Aspiring Teachers.....	234
Table I.24 ANOVA: Hometown Teaching Considerations.....	235
Table I.25 ANOVA Descriptive Statistics.....	235
Table I.26 ANOVA: Bonferroni Post-Hoc Analysis.....	235
Table I.27 Bivariate Correlation: Rural Seniors and Undergraduates.....	236
Table I.28 Hierarchal Linear Regression: Rural Seniors and Undergraduates.....	236
Table I.29 Bivariate Correlation: Rural Female Seniors and Undergraduates.....	237
Table I.30 Hierarchal Linear Regression: Rural Female Seniors and Undergraduates..	237
Table I.31 Bivariate Correlation: Rural Female Aspiring Teachers.....	238
Table I.32 Hierarchal Linear Regression: Rural Female Aspiring Teachers.....	238
Table I.33 Bivariate Correlation: Urban Seniors and Undergraduates.....	239
Table I.34 Hierarchal Linear Regression: Urban Seniors and Undergraduates.....	239
Table I.35 Bivariate Correlation: Female Urban Seniors and Undergraduates.....	240
Table I.36 Hierarchal Linear Regression: Female Urban Seniors and Undergraduates..	240
Table I.37 ANOVA: Household Income and Teaching Considerations.....	241

Table I.38 ANOVA Descriptive Statistics.....	241
Table I.39 Bonferroni Post-Hoc Analysis.....	241
Table I.40 Bivariate Correlation: Household Income (\$50,000 to \$100,000).....	242
Table I.41 Hierarchal Linear Regression: Household Income (\$50,000 to \$100,000)...	242
Table I.42 Bivariate Correlation: Household Income (\$100,000 to \$150,000).....	243
Table I.43 Hierarchal Linear Regression: Household Income (\$100,000 to \$150,000).	243
Table I.44 Bivariate Correlation: Household Income (\$150,000 or Greater).....	244
Table I.45 Hierarchal Linear Regression: Household Income (\$150,000 or Greater)....	244
Table I.46 Bivariate Correlation: Rural Household Income (\$150,000 Plus) .....	245
Table I.47 Hierarchal Linear Regression: Rural Household Income (\$150,000 Plus) ...	245
Table I.48 ANOVA: ACT Scores and Teaching Considerations .....	246
Table I.49 ANOVA Descriptive Statistics.....	246
Table I.50 Bonferroni Post-Hoc Analysis.....	247
Table I.51 Bivariate Correlation: ACT Scores 29 or Greater .....	248
Table I.52 Hierarchal Linear Regression: ACT Scores 29 or Greater .....	248
Table I.53 Bivariate Correlation: ACT Scores 25 to 28 .....	249
Table I.54 Hierarchal Linear Regression: ACT Scores 25 to 28 .....	249
Table I.55 Bivariate Correlation: ACT Scores 21 to 24 .....	250
Table I.56 Hierarchal Linear Regression: ACT Scores 21 to 24 .....	250
Table I.57 Bivariate Correlation: ACT Scores 18 to 20 .....	251
Table I.58 Hierarchal Linear Regression: ACT Scores 18 to 20 .....	251
Table I.59 Bivariate Correlation: Seniors and Undergraduates .....	252
Table I.60 Hierarchal Linear Regression: Seniors and Undergraduates.....	252
Table I.61 Bivariate Correlation: Seniors Considering Other Careers .....	253
Table I.62 Hierarchal Linear Regression: Seniors Considering Other Careers .....	253
Table I.63 ANOVA: ACT Score Post-Policy Teaching Considerations .....	254
Table I.64 ANOVA Descriptive Statistics.....	254
Table I.65 Bonferroni Post Hoc-Assessment.....	255
Table I.66 Bivariate Correlation: Undergraduates Considering Other Careers.....	256
Table I.67 Hierarchal Linear Regression: Undergraduates Considering Other Careers.	256
Table I.68 Bivariate Correlation: Aspiring Teachers.....	257
Table I.69 Hierarchal Linear Regression: Aspiring Teachers .....	257
Table I.70 Independent <i>t</i> -test results.....	258
Table I.71 Bivariate Correlation: Female Undergraduates Considering Other Careers .	259
Table I.72 Hierarchal Linear Regression: Female Undergraduates Considering Other Careers .....	259
Table I.73 Bivariate Correlation: Rural Seniors and Undergraduates .....	260
Table I.74 Hierarchal Linear Regression: Rural Seniors and Undergraduates.....	260
Table I.75 Bivariate Correlation: Female Rural Seniors and Undergraduates .....	261
Table I.76 Hierarchal Linear Regression: Female Rural Seniors and Undergraduates ..	261



Table I.77 Bivariate Correlation: Urban Seniors and Undergraduates .....	262
Table I.78 Hierarchal Linear Regression: Urban Seniors and Undergraduates.....	262
Table I.79 Bivariate Correlation: Female Urban and Urban Cluster Undergraduates Considering Other Careers.....	263
Table I.80 Hierarchal Linear Regression: Female Urban and Urban Cluster Undergraduates Considering Other Careers .....	263
Table I.81 Independent <i>t</i> -test results .....	264
Table I.82 Bivariate Correlation: Household Income (\$50,000 to \$100,000).....	265
Table I.83 Hierarchal Linear Regression: Household Income (\$50,000 to \$100,000)...	265
Table I.84 Bivariate Correlation: Household Income (\$150,000 or Greater).....	266
Table I.85 Hierarchal Linear Regression: Household Income (\$150,000 or Greater)....	266
Table I.86 Bivariate Correlation: ACT Score 25 to 28.....	267
Table I.87 Hierarchal Linear Regression: ACT Score 25 to 28.....	267
Table I.88 Bivariate Correlation: ACT Score 20 or Less .....	268
Table I.89 Hierarchal Linear Regression: ACT Score 20 or Less .....	268

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This work is dedicated to my family.

## ABSTRACT

Perceptions of prestige, status, and esteem of the teaching career were explored in this study. The population consisted of 1,127 high school seniors and college undergraduates. The study included 51 statements where participants rated their perceptions of teaching's prestige, status, and esteem on an 8 point Likert scale. The data was factor analyzed, and the results identified that the perceptions of teaching's prestige consisted of financial and image perceptions. A descriptive analysis found that high school senior and college undergraduate perceptions of teaching's financial component of prestige ( $M = 9.99$ ,  $SD = 2.90$ ) and esteem ( $M = 10.42$ ,  $SD = 3.05$ ) were more negative in comparison to status ( $M = 13.38$ ,  $SD = 2.74$ ).

A variety of quantitative techniques measured the effects that the perceptions of teaching's prestige, status, and esteem had on high school senior and college undergraduate teaching considerations. The results indicated that the perceptions of teaching's status may encourage high school seniors and college undergraduates to consider careers in teaching, but the perceptions of esteem may produce opposite effects. The results demonstrated that the perceptions of teaching's esteem may discourage high school seniors and college undergraduates scoring in the upper deciles of the ACT from considering teaching. The results also found that the perceptions of esteem may discourage urban female high school seniors and college undergraduates from the

teaching career. The results indicated the perceptions of teaching's esteem and its interaction with the financial perceptions of teaching's prestige may discourage aspiring teachers from teaching. This result also raises questions as to the "roots" of the early teacher attrition problem. In contrast, the results found that high school seniors and college undergraduates may be more likely to consider teaching following the establishment of international education policy designed to improve the perceptions of teaching's prestige, status, and esteem.

*Keywords:* prestige, status, esteem, teacher, shortage, attrition

## **CHAPTER I.**

### **INTRODUCTION**

Those who elect to teach in the United States frequently resign themselves to a career that is perceived to be less prestigious than other professions (Schleicher, 2012; Fwu & Wang, 2002). Education as a field is given little recognition and is repeatedly taken for granted (Struyven & Vanthournout, 2014; Weisberg, Sexton, Mulhern, & Keeling, 2009). Culturally, the position of teacher in America is commonly associated with feelings of limited status, prestige, and esteem (Pike, 2014; Schleicher, 2012; Cooley, Bicard, Bicard, & Baylot, 2008; Cochran-Smith, 2005; Fwu & Wang, 2002; Hoyle, 2001). The conditions are observable through the thousands of school districts that make up the nation's education systems (Skaalvik & Skaalvik, 2011; Leithwood & McAdie, 2007; Kukla-Acevedo, 2009; Hanushek & Rivkin, 2007). Low earnings for teachers in comparison to other professions, long hours, and limited respect for teachers are factors that have a negative impact on the perceptions of teaching in America (Martin & Mulvihill, 2016; Hanushek, 2007; Guarino, Santibañez, & Daley, 2006; Murnane & Steele, 2007; Fwu & Wang, 2002).

These factors have deterred many of the nation's high achieving college graduates from pursuing a career in education (Auguste, Kihn, & Miller, 2010; Podgursky, Monroe, & Watson, 2004). Many students are unwilling to settle into a position that offers little compensation and is not perceived to be of value (Berry & Shields, 2017; Schleicher,

2012; Murnane & Steele, 2007; Towse, Kent, Osaki, & Kirua, 2002). Some scholars contend that America's brightest graduates are drawn to a labor market that includes a wide variety of professions that carry greater status, prestige, and esteem (Murnane & Steele, 2007; Guarino et al., 2006; Corcoran, Evans, & Schwab, 2004). The consequence of this phenomenon is an ever-growing shortage of teachers, which may be threatening the vitality of the education systems in the United States (Darling-Hammond, Furger, Shields, & Sutcher, 2016; Black, 2017; Kokka, 2016; Schleicher, 2012; Ronfeldt, Loeb, Wyckoff, 2013; Murnane & Steele, 2007; Lankford, Loeb, & Wyckoff, 2014; Guin, 2004; Fwu & Wang, 2002).

### **In the Spotlight**

Consequences of teacher shortages have started to gain the attention of the media (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Numerous broadcasts at the start of the 2017–18 school year portrayed a problem that persistently interferes with the responsibilities of states and schools to provide appropriate educational opportunities for students, including:

- “Teacher Shortages Affecting Every State as 2017-18 School Year Begins” (Straus, 2017);
- “Schools Throughout the Country are Grappling with the Teacher Shortage” (Ostroff, 2017);
- “California Districts Deal with Teacher Shortage as School Year Begins” (CBS, 2017).



Headlines announcing the impact of teacher shortages are not new, and have, in a sense, become perennial (Partelow, 2016; Rich, 2015). For instance, nearly 300 news reports highlighted the challenges the teacher shortage posed for many states at the beginning of the 2015–16 school year (Sutcher et al., 2016). Attention on the teacher shortage problem has generated commentary suggesting that this shortage was more problematic than were prior shortages (Martin & Mulvihill, 2016; Carrasco, 2017; Ostroff, 2017). Despite the attention, reports signaling public concern were not found in the literature. Does this lack of public outcry signal society’s ignorance of the teacher shortage issue or indifference to the problem of teacher shortages?

### **The Scope of the Problem**

States differ in their teacher licensure requirements, local labor markets, compensation levels, working environments, geographic conditions, and more (Goldhaber & Brewer, 2000). These diverse conditions regularly lead states to experience unique differences in the levels of the teacher shortage (Martin & Mulvihill, 2016). Many schools in areas that are most affected by the problem exhibit a greater number of underqualified teachers, fewer course offerings, and larger class sizes (Sutcher et al., 2016).

Moreover, in times of national teacher shortages, states that must import teachers from other states experience greater hardships (Martin & Mulvihill, 2016). Likewise, states that are unable to offer competitive salaries are prone to experience larger problems in acquiring qualified teachers (Sutcher et al., 2016). Scholars note that certain teaching fields, geographic areas, and states may continue to be subjected to limited supplies of

licensed teachers, even in times when shortages do not persist (Martin & Mulvihill, 2016).

The nation's teacher shortages are causing hardships from coast to coast (Yaffe, 2016; Martin & Mulvihill, 2016; DeNisco, 2015). The extensive nature of the shortages has interfered with the ability of many states, such as California, to adequately staff schools. In 2015, 63% of California school districts were unable to acquire fully credentialed teachers (Darling-Hammond et al., 2016). This shortfall resulted in a reduction in licensure requirements, with nearly a third of the teachers entering California classrooms with less than adequate credentials (Sutcher et al., 2016).

Arizona reported similar problems in 2015, with 62% of Arizona school districts reporting unfilled teaching positions (Educator Recruitment & Retention Task Force, 2015). In response to this crisis, state leaders licensed 1,000 teachers as long-term substitutes. Arizona has experienced this trend for some time. However, the problem has moved into a critical stage (Sutcher et al., 2016). For example, 2013–14 data displayed a nearly 30% increase in vacant teaching positions from the year prior. These consequences have substantially reduced the number of experienced teachers in Arizona schools (Tirozzi, Carbonaro, & Winters, 2014). Recent data demonstrate that one in four Arizona teachers has one or two years of teaching experience (Sutcher et al., 2016). Moreover, students enrolled in high-poverty and minority schools are 70% more likely to receive instruction from an inexperienced teacher (Kini & Podolsky, 2016). Forecasts indicate that there is no relief in sight given Arizona's high teacher attrition rates and a

teacher workforce with a quarter of its membership retirement eligible at the end of the 2017–18 school year (Educator Recruitment & Retention Task Force, 2015).

Oklahoma schools have also struggled with teacher shortages. In 2015–16, the state reported a record number of teacher shortages, with 1,000 teaching positions left vacant (Aragon, 2016; Barth, Dillon, Hull, & Higgins, 2016). At the same time, the state experienced a rapid rise in student enrollment, which compounded the effects of the shortage. The problem compelled Oklahoma policymakers to issue a historic number of emergency teaching licenses (Sutcher et al., 2016; Nix, 2015). This rapid response resulted in a number of new hires. However, the vast majority of the new teachers were unqualified, leaving 35,000 students to receive instruction from teachers with less than adequate preparation (Sutcher et al., 2016).

Nevada school districts have experienced some of the greatest impacts of the teacher shortage (Malatras, Gais, & Wagner, 2017). In 2015, the Clark County School District reported it was unable to hire 3,000 teachers required to begin the school year (Yaffe, 2016; Martin & Mulvihill, 2016). Despite attempts to meet the staffing needs, the district remained nearly 700 teachers short at the end of the first semester (Dee & Goldhaber, 2017). Nevada’s Board of Education president called the problem “horrific,” warning that if conditions did not improve, “we’re going to all sink” (Yaffe, 2016, p. 11). Darling-Hammond (2010a) illustrated the potential fall-out of teacher shortages by warning “our future will be increasingly determined by our capacity and our will to educate all children well—a challenge we have very little time to meet if the United

States is not to enact the modern equivalent of the fall of Rome” (Darling-Hammond, 2010a, p. 25).

California, Arizona, Oklahoma, and Nevada are not the only states reeling from the effects of the teacher shortage (Sutcher et al., 2016). The U.S. Department of Education reported teacher shortages in 48 states, including the District of Columbia (Berry & Shields, 2017). This phenomenon has resulted in several states deploying a teacher workforce that includes 50% of its membership holding less than adequate credentials (Sutcher et al., 2016). Forecasts predict no relief because the number of new teachers would have to double to reverse the teacher shortage trend (Martin & Mulvihill, 2016). Furthermore, there is no indication that a mass number of teachers will enter the teacher pipeline soon, given that university teacher education programs are undergoing sharp enrollment declines (Aragon, 2016; Sawchuk, 2015). This lack of interest in teaching, coupled with a demand for 316,000 teachers by 2025, demonstrates that the shortage will impact more of the nation’s schools unless substantial changes occur (Sutcher et al., 2016).

### **A Persistent Problem**

Numerous attempts to counteract teacher shortages have been employed, with such interventions as induction programs, recruitment bonuses, alternative teacher certification, and resident teacher programs (Ronfeldt & McQueen, 2017; Darling-Hammond et al., 2016; Zhang & Zeller, 2016; Yuan, Vi-Nhuan, McCaffrey, Marsh, Hamilton, Stecher, & Springer, 2013). While some remedies have been successful, the problem is trending upward, with many states reporting greater challenges in acquiring

teachers each year (Gerckens, 2016; DeNisco, 2015; Darling-Hammond & Rothman, 2015). Despite efforts to offset the teacher shortage, a limited number of policies and research in the literature have aimed at improving the status, prestige, and esteem of the teaching career in the United States (Perda, 2013; Ingersoll & Merrill, 2011). Most studies examining these constructs have originated from other parts of the world, where teacher shortages have not been as problematic (Sahlberg, 2015; Simola, 2005, Hoyle, 2001; Fwu & Wang, 2002).

Researchers investigating occupational prestige, status, and esteem have found correlations between a career's status in society and the ability to attract talented individuals (Ingersoll & Merrill, 2011; Ingersoll & Perda, 2008; Fwu & Wang, 2002, Hoyle, 2001; Treiman, 1977). Results from several studies have revealed that careers with low status draw less talented individuals, which decreases the ability of the career to attract quality people (Barber & Mourshed, 2007; Fwu & Wang, 2002; Towse, Kent, Kent, Osaki, & Kirua, 2002). Conversely, careers that are perceived to be professions attract talented people, which elevates the status of the profession. Examples of this phenomenon are found in Singapore and South Korea, where society believes that teaching is the single most important profession (Lim, 2014; Seongja, 2008). The perception of teaching in these nations has led to a large number of highly talented individuals pursuing careers in education (Darling-Hammond, 2017; Barber & Mourshed, 2007).

Indeed, many individual teachers are well respected in U.S. schools. However, the career itself has generally been considered of a lower status than professions such as

engineering, law, and medicine (Pike, 2014; Bushaw & Lopez, 2011; Ingersoll & Merrill, 2011). For decades, educational leaders have been concerned about the career's low status and the impacts of this low status on the quality of individuals who decide to enter the field (Darling-Hammond, 2017; Lankford, Loeb, McEachin, Miller, & Wyckoff, 2014). Yet, these concerns have not yielded attempts to address the subject, since student achievement initiatives have superseded endeavors to advance the career's status (Auguste et al., 2010). Countless initiatives, such as Race to the Top, No Child Left Behind, and Common Core, have all been deployed in efforts to raise student achievement (Darling-Hammond & Rothman, 2015; Pike, 2014). While each initiative has produced some level of success, evidence indicates that most outcomes have been inconsistent (DuFour & Mattos, 2013). Scholars contend that these inconsistencies are the direct results of a teacher gap that requires intervention prior to staging further initiatives to address student learning gaps (Ronfeldt et al., 2013; Akiba, LeTendre, & Scribner, 2007; Breaux & Wong, 2003).

### **Theoretical Framework**

The United Kingdom's problems recruiting and retaining teachers prompted scholars to thoroughly examine the issue (Dolton & von der Klaauw, 1995). As a result, research emerged regarding teacher recruitment and retention. Through investigation, Hoyle adopted terminology that acknowledged prestige, status, and esteem as separate components of "status." Hoyle attests that all three—prestige, status, and esteem—directly influence individual decisions to remain in or exit the teaching career (Hoyle, 2001).

## **Prestige**

Most people have perceptions of the different vocations that make up a nation's workforce. They have a general understanding of the skills, knowledge, and abilities required to perform duties within various occupations. More importantly, people consciously place differing careers on a hierarchical list according to prestige. Treiman indicates that this conscious comparison of prestige has implications on a career's ability to attract and retain a qualified workforce (Treiman, 1977).

For decades, occupational prestige has been examined, with results indicating that considerable differences exist in the social status of careers that form the U.S. labor market (Pike, 2014; Goyder, 2005). Much of this research suggests that university graduates are generally sensitive to social perceptions and are driven to pursue more prestigious occupations. Findings also reveal that careers that support the common good of society are frequently deemed unworthy and are regularly overlooked (Hoyle, 2001). Frequently, these fields lack the tangible rewards that society uses to measure prestige (Treiman, 1977). "Thus, these occupations like teaching are given an essentially negative social standing" (Hoyle, 2001, p. 144).

The relationships between income and an occupation's prestige sheds light on the social ranking of teachers and, perhaps, the value society bestows upon the teaching career (Zhan, 2015). The Organisation for Economic Co-operation and Development (OECD) reported in 2015 that the average veteran teacher (with 15 years of experience) in the United States earned nearly 30% less than individuals working in careers requiring comparable college degrees (Startz, 2016; Organization for Economic Co-operation and

Development, 2015). In contrast, the report demonstrated that the average Finnish veteran teacher (with 15 years of experience) earned 9% less than others associated with occupations requiring similar university training (Startz, 2016; OECD, 2015). The wider gap in U.S. teacher salaries, compared to nations that exhibit high student achievement illustrates the value a country such as Finland places upon the teaching career (Startz, 2016; Dillon, 2011). In order for U.S. teacher salaries to reach Finnish teacher compensation levels, primary school teacher salaries would need to increase by 10%, elementary school teacher salaries would need to increase by 18%, and secondary teacher compensation would need to increase by 28% (Startz, 2016; OECD, 2015).

Like compensation, a career's image impacts the level of prestige a society grants it (Mensah, 2011; Hargreaves, 2009; Goyder, 2005; Hoyle 2001). Hoyle hypothesized that the image children acquire from interactions with teachers is a substantial component that subdues the teaching career's prestige (Hoyle, 2001). His claim centers on the hypothesis that prestige is gained by images clients gain from interactions with professionals (Lankford et al., 2014). In a school environment, a number of children are reluctant to participate. This reluctance leads to the potential for disorder. Hoyle affirms that the image of school as a place of disorder shapes the image of teaching as a career. The need to maintain order, and the consequences of loss of control, reduce prestige (Hoyle, 2001).

Hoyle hypothesizes that the image of teaching has been stimulated by its intermediate position (Hoyle, 2001). Hoyle illustrates this idea of intermediacy through a common canard depicting the perception of a male teacher as "a man amongst boys and a



boy amongst men” (Hoyle, 2001, p. 144). Hoyle’s use of this canard illustrates a common perception that the teacher is able to prepare students for the real world. However, teachers remain between the “world of school” and the “real world” while their students move forward (Hoyle, 2001).

Hoyle theorizes that teachers generally remain in intermediate positions because of natural ambiguities that accompany the career. This theory stems from students “accomplishing” school and moving beyond its world (Hoyle, 2001). “The teacher thus becomes a symbol of the dependent social role which they have left behind” (Hoyle, 2001, p. 144). Most importantly, Hoyle contends that the career’s ambiguities and its intermediacy will continue to limit the level of prestige teaching may be able to achieve (Hoyle, 2001).

### **Status**

Members of the education community commonly refer to teaching as a profession. However, research illustrates that it is not universally accepted as such (Ingersoll & Merrill, 2011; Hargreaves, 2009; Hoyle, 2001). Reports imply that policymakers’ decisions to initiate additional accountability measures may not have centered exclusively on student achievement, but also on teacher status concerns (Fuller, Goodwyn, & Francis-Brophy, 2013). These added expectations have been the driving force behind school districts requiring their practitioners to incorporate scripted lessons, adhere to pacing guides, use pre-determined examinations, and assure students pass high-stakes assessments. Scholars attest that the results of this standardization of education have not elevated status, but have encouraged the general public to further question the

capabilities of the U.S. teacher workforce (Croft, Roberts, & Stenhouse, 2016). Research has found that this movement toward tighter control has further crippled the status of teaching (Fuller et al., 2013). Fuller et al. assert “when autonomy and responsibility are removed through the implementation of rigid standards to be adhered to, professional status is in fact diminished” (2013, p. 470).

A career’s professional status hinges on the composition of its workforce (Fuller et al., 2013; Hoyle, 2001). Several studies demonstrate that a career is generally perceived to be a profession when it is composed of educated individuals that possess specific abilities, talents, and aptitudes (Lankford et al., 2014; Ingersoll & Merrill, 2011; Hargreaves, 2009). Workers in professions acquire higher social standing when other professional groups recognize their status (Hoyle, 2001). A career’s professional social standing is also contingent upon the perceptions of the specialized knowledge and skills that are required to perform the career (Ingersoll & Merrill, 2011). Finally, an occupation’s professional status is dependent upon the career’s “rigorous training, licensing requirements, positive working conditions, an active professional organization, substantial workplace authority, relatively high compensation, and high prestige” (Ingersoll & Merrill, 2011, p. 186).

The meaning of status lies within the perceptions of knowledgeable groups (Hargreaves, 2009; Hoyle, 2001). For teaching, these views pose roadblocks and interfere with its ability to gain professional identity and improve its status (Croft et al., 2016). This phenomenon appears to have originated from perceptions that the training preservice teachers receive at the postsecondary level is far less rigorous than training for

other fields of study (Ingersoll & Merrill, 2011; Hargreaves, 2009; Hoyle, 2001). These views regularly lead members of the public to perceive teaching as a career that ordinary individuals with a general understanding of mathematics and literacy can perform (Darling-Hammond & Rothman, 2015; Lankford et al., 2014; Mackenzie, 2007; Hargreaves, Cunningham, Hansen, McIntyre, & Oliver, 2007; Hoyle 2001; Swetnam, 1992).

### **Esteem**

Esteem refers to the perceived personal attributes a workforce brings to its core responsibilities (Hoyle, 2001). These personal characteristics are not technical. Rather, they refer to dedication, competence, and caring (Hargreaves, 2009; Hoyle, 2001). In reference to teaching, dedication concerns the amount of time teachers are perceived to devote to student learning, while competence refers to the perceptions of maintaining order, handling crisis situations, and following through with required tasks. Finally, the perceptions of caring manifest from individual teacher priorities to maintain student well-being (Hoyle, 2001).

Esteem is often associated with perceptions of prestige and status. Although relationships exist between esteem, prestige, and status, scholars say that esteem differs from prestige and status, since occupations can be esteemed but still lack prestige and status (Hoyle, 2001). This theory is demonstrated in nations such as Portugal, where teachers are perceived to embody the characteristics of esteem, but the esteem does not translate into greater status (Dolton & Marcenaro-Guiterrez, 2013; Hoyle, 2001). V.S Naipaul's literary piece captures this phenomenon through a six-year old Indian boy

explaining his perceptions of a teacher (Hoyle, 2001). The boy states “he’s like that because he’s a poor man. He’s a teacher whom one respects, but really he is a poor man” (Hoyle, 2001, p. 147).

Attempts to erode the teaching career’s esteem in the United States are frequently observed through the media’s portrayal of teaching (OECD, 2005). As with other occupations, some teachers inevitably stray from standards related to esteem. Media stories report these lapses, which produce negative images of teachers and the career (Hoyle, 2001).

Motion pictures and television shows also play a role in eroding the teaching career’s esteem (Mackenzie, 2007). Frequently, media skew the perceptions of teachers by inaccurately stereotyping the workforce (Mensah, 2011). Swetnam (1992) studied misrepresentations of teachers and found that “without personal knowledge about schools and teachers, people form their attitudes based on fictional media representations” (p. 30). Frequently, teachers are portrayed as irresponsible, untrustworthy, less than professional, or miracle workers (Swetnam, 1992). More importantly, films have reinforced the perceptions that teaching is an undemanding job and that anyone can teach. Rarely do films present teachers planning, grading papers, handling difficult behaviors, struggling with little resources, or facing other demands the career requires (Mackenzie, 2007).

Along with the media, political “bashing” and blaming teachers for society’s social ills have held the career’s esteem hostage (Goldstein, 2011; Auguste et al., 2010; Hargreaves, 2009). Scholars assert that to enhance esteem, the discourse must become

positive, so that the public can create a favorable image of teachers (Hoyle, 2001).

Nonetheless, reversing the discourse is problematic with a twenty-four hour news cycle that frequently criticizes the career (Auguste et al., 2010).

### **Semantic Status**

A career realizes semantic status when a society holds positive perceptions of its prestige, status, and esteem (Hoyle, 2001). This is a powerful ideology considering that a large number of graduates may be attracted to the idea of being a “professional worker” in a high status occupation. Many assume that the fruits of their labor will be sweeter and the rewards will be plentiful. In contrast, occupations with formal status may be given a professional label by a governing body, but its professional status may not be absolute (Hoyle, 2001). Internally, its workforce may perceive itself to be a profession, but externally, society may hold differing perceptions. Hoyle contends that careers with semantic status are considered to be highly regarded and are able to recruit larger pools of quality applicants.

### **Purpose of the Study**

The purpose of this research was two-fold. The first was to develop a set of reliable scales capable of measuring the perceptions of teaching’s prestige, status, and esteem. The second was to use the scales to measure high school senior and college undergraduate perceptions of teaching’s prestige, status, esteem, and to determine the level of influence the perceptions may have on each population’s teaching considerations.

## **Research Questions**

The following research questions guided the study:

1. How do Hoyle's occupational prestige, status, and esteem components impact high school senior and college undergraduate teaching considerations?
2. How do Hoyle's occupational prestige, status, and esteem components impact the different demographic groups of high school senior and college undergraduate teaching considerations?
3. How do Hoyle's occupational prestige, status, and esteem components impact the academic aptitudes of high schools seniors and college undergraduates considering education careers?
4. How might practices from around the world impact the perceptions of the prestige, status, and esteem of teaching as a career?

## **Assumptions**

1. The instrument will elicit valid and reliable responses.
2. The participants will be able to read and understand the questions that the instrument asks and respond honestly.

## **Importance of the Study**

Educational leaders are continuously pursuing methods to improve the quality of education in the United States (Rockoff, 2004). However, the shortage of qualified teachers continues to derail efforts, since teacher quality is the key element in raising student achievement (Sanders & Horn, 1998; Rivkin, Hanushek, & Kain, 2005;

McLeskey & Billingsley, 2008). McLeskey and Billingsley point out that “the quality of the teacher contributes more to student achievement than any other factor, including class size, class composition, or student background” (McLeskey & Billingsley, 2008, p. 294). Research demonstrates that students may score up to 50% greater on achievement tests when assigned to effective teachers three years in a row (Sanders & Rivers, 1996). Similarly, Hanushek and Rivkin found that a quality teacher can produce learning gains of 0.2 standard deviations in a year’s time. These results demonstrate that a student would move from the middle of the achievement distribution to the 58<sup>th</sup> percentile (Hanushek & Rivkin, 2010). Moreover, Podgursky & Springer (2011) reported that “the achievement gap among high-and low-socioeconomic status students could be overcome if an economically disadvantaged student encountered an above average teacher for five consecutive years” (Podgursky & Springer, p. 170).

Evidence also demonstrates the potential dangers that could result from the steady growth in the number of unqualified teachers (Hanushek & Rivkin, 2010). Research reveals that the effects of inadequate instruction can substantially impact student academic performance for multiple years (Goe, 2007; Sanders & Horn, 1998; Sanders & Rivers, 1996). A number of studies have confirmed that students assigned to an ineffective teacher for one school year are at-risk of having their learning impaired for several years (Hanushek & Rivkin, 2010). Similar investigations have generated substantial evidence revealing that entire academic careers may be marred when students are assigned to incompetent teachers for two or more years in a row (Breux & Wong, 2003; Sanders & Horn, 1998; Sanders & Rivers, 1996).

Like other areas of teaching, special education is impacted. Placing unqualified teachers into positions may place the learning of special needs children at-risk (Podgursky & Springer, 2011; Cook & Schirmer, 2003). Scholars assert that properly trained special education teachers have a much greater impact on the academic achievement of special needs students than do teachers who lack the required credentials and experience (McLeskey & Billingsley, 2008). Studies demonstrate that students with special needs require professionals with the pedagogical expertise to support student learning, growth, and development (Cook & Schirmer, 2003). The dangers of assigning underprepared special education teachers with the neediest children are substantial (Breux & Wong, 2003; Sanders & Horn, 1998; Sanders & Rivers, 1996). The absence of proper training “may inadvertently elicit challenging behaviors from students that lead to classroom disruptions, restraint and seclusion, and other outcomes that negatively impact student learning and well-being” (Carver-Thomas & Darling-Hammond, 2017, p.7).

The consequences of the teacher shortage can be observed every three years when the Programme for International Student Assessment (PISA) results are published (Darling-Hammond & Rothman, 2015; PISA, 2015; OECD, 2013; PISA, 2012; OECD, 2010b; PISA, 2009; OECD, 2001). PISA is an international assessment that was developed by the Organization for Economic Cooperation and Development (OECD) in the 1990s in response to requests from member nations searching for performance data on student and educational systems. The first PISA assessment was administered to 15 year olds in 43 different nations in 2000. Since that time, more than 70 countries have



participated in PISA, which has permitted nations to compare student knowledge and learn from one another (PISA, 2014).

For nearly two decades, PISA student achievement data have demonstrated that U.S. students consistently lag a considerable distance behind students in many of the world's major nations (Kastberg, Chan, & Murray, 2017; Hanushek, Peterson, Woessmann, 2012; Fleischman, Hopstock, Pelczar, & Shelley, 2010; Ginsburg, Cooke, Leinwand, Noell, & Pollock, 2005). The results have produced concern, leading federal and state entities to develop standards and disseminate high stakes assessments to ensure student growth (U.S. Department of Education, 2010). However, the literature reports that the era of standardized education in America has produced mixed results in student learning (Reback, 2008; Braun, Wang, Jenkins, & Weinbaum, 2006; Braun, 2004; Amrein & Berliner, 2002).

The introduction of PISA has generated a body of research about the relationships between occupational status and teacher recruitment and retention and student achievement (OECD, 2005). Since the first administration of PISA in 2000, PISA results have exposed consistent disparities between student performances in a number of the largest economies in the world (PISA, 2015; PISA, 2012; PISA, 2009; PISA, 2000). PISA results consistently confirm that the single variable top-performing nations share is the capacity to attract highly talented people to the teaching career (Sahlberg, 2015; PISA, 2015; PISA, 2012; PISA, 2009; OECD, 2005). The status, prestige, and esteem of teaching in these nations is comparable to medicine, law, and engineering (OECD, 2010a). Scholars point out that these countries “invest in the development of high quality

teachers and take steps to elevate the entire profession to a higher level of respect and regard” (Paine & Schleicher, 2010, p. 4).

Researchers have also found that student achievement is limited in nations where the teaching career is not afforded high status, prestige, and esteem. Frequently, these nations find it difficult to recruit and retain quality individuals into teaching (Paine & Schleicher, 2010). In a formal letter to former U.S. Secretary of Education Arne Duncan, OECD Secretary-General Angel Gurría wrote “careful consideration must go into making the teacher profession attractive; recruiting and selecting teachers; rewarding and training them on the job; recognizing the best performers and helping those who have merits but are struggling to grow” (Paine & Schleicher, 2010, p. 4).

There is compelling evidence that demonstrates the quality of a nation’s education system depends on a professional teacher workforce that is highly regarded (OECD, 2011a; Paine & Schleicher, 2010). In the U.S., teaching as a profession is not necessarily highly regarded, and its status frequently deters people from pursuing it as a career (Auguste et al., 2010; Podgursky et al., 2004). This has initiated considerable problems for the nation’s schools, but most importantly, it is interfering with student learning (Ronfeldt et al., 2013; Watlington, Shockley, Guglielmino & Felsher, 2010; McLeskey & Billingsley, 2008).

The rising number of untrained and inexperienced teachers entering the nation’s classrooms places the education of many of the nation’s children at-risk (Clotfelter, Ladd, & Vigdor, 2007; Darling-Hammond & Berry, 2006). Scholars note the implications these trends may have on student performance and emotional problems, and ultimately,

the ability to compete within a global economy (Guha, Hyler, & Darling-Hammond, 2017; McLeskey & Billingsley, 2008; Clotfelter, Ladd, & Vigdor, 2007; Cook & Schirmer, 2003). Leaders from around the world have recognized these detriments and have established policies to evolve teaching into a preferred career (Darling-Hammond, 2017; Sahlberg, 2015; Dolton & Marcenaro-Guiterrez, 2013). Nations such as Finland, South Korea, Taiwan, and Singapore have become the world's leaders in their ability to attract and maintain an effective teacher workforce (Sahlberg, 2015; Kang & Hong, 2008; Simola, 2005). The results have led all four nations to achieve robust student achievement scores in conjunction with rapidly growing economies (Sahlberg, 2015; OECD, 2012; OECD, 2011b; OECD, 2007; Kang & Hong, 2008).

### **Definition of Terms and Acronyms**

The following terms are used in this research study.

*Accreditation* – The U.S. Department of Education website defines accreditation as a confirmation “that the college or career school meets certain minimum academic standards, as defined by an accrediting body recognized by the U.S. Department of Education. Schools must be accredited to be eligible to participate in federal student aid programs” (U.S. Department of Education, 2017a).

*Achievement Gap* – The U.S. Department of Education website defines achievement gap as “the difference between how well low-income and minority children perform on standardized tests as compared with their peers. For many years, low-income and minority children have been falling behind their peers in terms of academic achievement” (U.S. Department of Education, 2017c).

*American College Testing (ACT)* – The American College Testing website defines the ACT test as “the nation’s most popular college entrance exam, accepted and valued by all universities and colleges in the United States. The ACT is based on what students learn in high school and provides personalized information about their strengths for education and career planning” (ACT, 2017).

*Alternative Certification Programs* – The U.S. Department of Education website defines alternative certification programs as a means “to attract older and mid-career candidates into teaching. In lieu of receiving preparation through traditional platforms, alternative programs provide coursework during evening hours, online, and on weekends. It is common practice for candidates to gain experience in the classroom while progressing through the required coursework” (U.S. Department of Education, 2017c).

*Career* – Career in this manuscript refers to an occupation that a person assumes for a period of time. A career may require training, certification, and skill, but its training, skills, and demands are perceived to be less rigorous than a profession. Society frequently perceives its workforce to be less academically than a profession’s (Hoyle, 2001).

*Daily Attendance Rate* – According to USLegal.com, the term “average daily attendance means the aggregate number of days of attendance of all students during a school year divided by the number of days school is in session during the year” (USLegal.com, 2017).

*Elementary School* – The U.S. Census Bureau website defines an “elementary school as a school inclusive of kindergarten through either eighth or ninth grade, or the first through either the eighth or ninth grade. It can include both elementary and intermediate or middle schools” (U.S. Census Bureau, 2017).

*Elementary and Secondary Education* – According to the U.S. Census Bureau website, “elementary-secondary education is defined as prekindergarten through twelfth grade regular, special, and vocational education, as well as co-curricular, community service, and adult education programs provided by a public school system. The financial activities of these systems for all instruction, support service, and non-instructional activities are included in this category” (U.S. Census Bureau, 2010).

*Every Student Succeeds Act (ESSA)* – According to the U.S. Department of Education website, “the Every Student Succeeds Act (ESSA) was signed by President Obama to reauthorize the 50-year old Elementary and Secondary Education Act (ESEA). The ESEA has been the nation’s educational law and longstanding commitment to equal opportunity for all students” (U.S. Department of Education, 2017a).

*Enrollment* – According to the U.S. Census Bureau, “enrollment is the count of pupils on pupil rolls in the fall of the school system’s fiscal year for which data are shown” (U.S. Census Bureau, 2010).

*Formal Status* – An occupation that a governing body labels as a profession. An occupation may also hold formal status when its workforce refers to the career as a profession, but society may not unequivocally consider it as such (Hoyle, 2001).

*Graduation Rate* – According to the Federal Student Aid website, graduation rate “measures the progress of students who began their studies as full-time, first-time degree-or certificate-seeking students by demonstrating the percentage of these students who complete their degree or certificate within a 150% of “normal time” for completing the program in which they are enrolled” (Federal Student Aid, 2017).

*High Performing Nations* – According to the National Education Association website, “high performing nations are those nations where students have demonstrated strong academic achievement” (National Education Association, 2016).

*High School* – The U.S. Census Bureau website defines high school as “schools that include either ninth through twelfth grade or tenth through twelfth grades” (U.S. Census Bureau, 2010).

*High-Needs Students* – According to the United States Department of Education, “high-needs students include those students at-risk of educational failure or who are otherwise in need of special assistance and support, such as students who:

- Are living in poverty
- Attend high-minority schools
- Are far below grade level
- Have left school before receiving a regular high school diploma

- Are at-risk of not graduating with a diploma on time
- Are homeless
- Are in foster care
- Have been incarcerated
- Have disabilities
- Are English learners” (U.S. Department of Education, 2017d)

*Individuals with Disabilities Education Act (IDEA)* – According to the U.S. Department of Education website, “the Individuals with Disabilities Education Act is a law ensuring services to children with disabilities throughout the United States. IDEA governs how states and public agencies provide early intervention, special education, and related services to eligible infants, toddlers, children, and youth with disabilities” (U.S. Department of Education, 2017b).

*Labor force* – The Bureau of Labor and Statistics website defines the labor force as “all persons classified as employed or unemployed” (U.S. Bureau of Labor and Statistics, 2017).

*National Center for Education Statistics (NCES)* – The National Center for Education Statistics website indicates that the NCES is “the primary federal entity for collecting and analyzing data related to education in the U.S. and other nations. NCES is located within the U.S. Department of Education and the Institute of Education Sciences. NCES fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education;

conduct and publish reports; and review and report on education activities internationally” (National Center for Education Statistics, 2017).

*National Teacher Employment Test* – The National Teacher Employment Test is a formal assessment aspiring South Korean teacher candidates are required to pass in order to earn teacher credentials (Kang & Hong, 2008).

*North Central Association of Colleges and Schools (NCA)* – The NCA website indicates that “it is an association of colleges and schools in nineteen states (Arizona, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, West Virginia, Wisconsin, and Wyoming), American Dependents’ Schools operated overseas for the children of American military and civilian personnel, and schools and colleges in sovereign U.S. tribal nations within the nineteen states. Through its Board, the Association controls the use of its name, logo, and intellectual property. Two independent corporations, the Commission on Accreditation and School Improvement (CASI) in Tempe, Arizona, and The Higher Learning Commission, in Chicago, Illinois, also hold membership in the Association. The two commissions hold the legal authority to conduct accrediting activities for educational organizations. CASI accredits schools below the postsecondary degree-granting level, and The Higher Learning Commission accredits degree-granting higher education organizations” (North Central Association of Colleges and Schools, 2003).

*Occupation* – Occupation in this manuscript refers to both a career and profession.



*Occupational Esteem* – According to Hoyle (2001), “occupational esteem is the regard in which an occupation is held by the general public by virtue of the personal qualities which members are perceived as bringing to the core tasks. Hoyle contends that esteem is generated from the general public largely due to personal experience. The majority of a given population has had experience with teachers” (p. 147).

*Occupational Prestige* – According to Hoyle (2001), “occupational prestige is the public perception of the relative position of an occupation in a hierarchy of occupations. Occupational prestige is the general recognition that some occupations are higher or lower in the hierarchy of prestige” (p. 139).

*Occupational Status* – According to Hargreaves (2009), “occupational status is the category to which knowledgeable groups allocate an occupation. In other words, do other knowledgeable or professional groups view the education occupation as a profession?” (p. 218).

*Organisation for Economic Co-operation and Development (OECD)* – The OECD website indicates that it “is a forum in which governments can work together to share experiences and seek solutions to common problems. The OECD works with nations from around the world to support economic, social, and environmental change. In addition, the OECD compares how different nations are preparing their children in mathematics, literacy, and science” (OECD, 2016).

*Profession* – Profession in this manuscript refers to an occupation that is perceived to require intensive training, certification, and special skill. Society frequently perceives its workforce to be academically inclined (Hoyle, 2001).

*Programme for International Student Achievement (PISA)* – The PISA website indicates that “it is a triennial international survey which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students” (PISA, 2014).

*Public School Systems* – The U.S. Census website defines a public school system as a group of “independent school district governments and dependent school systems. Independent school district governments are organized local entities providing public elementary, secondary, special, and vocational-technical education, which, under the law, have sufficient administrative and fiscal autonomy to qualify as governments. Dependent school systems lack sufficient autonomy to be counted as separate governments and are classified as dependent agencies of some other government – a county, municipality, township, or state government” (U.S. Census, 2010).

*Rural* – The U.S. Census Bureau website defines rural “as territory with less than 2,500 individuals” (U.S. Census Bureau, 2010).

*Salaries and Wages* – According to the U.S. Census Bureau website, “salaries and wages are amounts paid for compensation of school system officers and employees and consist of gross compensation before deductions for withheld taxes, retirement contributions, or other purposes” (U.S. Census Bureau, 2010).

*Schools and Staffing Survey (SASS)* – The Schools and Staffing Survey website indicates that SASS was a survey that was “conducted by the National Center for Education Statistics (NCES) seven times between 1987 and 2011. SASS was an integrated study of public and private school districts, schools, principals, and teachers designed to provide descriptive data on the context of elementary and secondary education. SASS covers a wide range of topics, from teacher demand, teacher and principal characteristics, general conditions in schools, principals’ and teachers’ perceptions of school climate and problems in their schools, teacher compensation, and district hiring and retention practices, to basic characteristics of the student population. After 2010–11, NCES redesigned SASS and named it the National Teacher and Principal Survey (NTPS) to reflect the redesigned study’s focus on the teacher and principal labor market and on the state of K-12 school staff. NCES first conducted NTPS in 2015–16” (National Center for Education Statistics, 2017)

*School District* – The U.S. Census Bureau website defines a school district as “the geographic entities within which state, county, or local officials provide public educational services for the area’s residents. The boundaries and names are provided by state officials” (U.S. Census Bureau, 2010).

*Semantic Status* – When an “occupation is regarded as a profession by politicians, administrators, commentators and members of other professions” (Hoyle, 2001, p. 145).

*SPSS* – Statistical Package for Social Science (SPSS) is a software package that allows statistics to be performed electronically on a computer.

*Social Capital* – Social capital is defined as “capital inherent in the relations among persons, which is separable from other forms of resources such as financial capital (e.g, income) and human capital (e.g., years of schooling)” (Byun, Meece, Irvin, & Hutchins, 2012, p. 357).

*Teacher* – The Colorado Department of Education website defines a teacher as “a staff member assigned the professional activities of instructing pupils in self-contained classes or courses” (Colorado Department of Education, 2015). For the purposes of this study, the definition of teacher does not include substitute teachers or administrators.

*Teacher Attrition* – Teacher attrition is defined as the number of teachers who do not remain in the present school the following year (Sutcher et al., 2016).

*Teacher Induction Programs* – The Massachusetts Department of Elementary and Secondary Education indicates that “teacher induction programs are intended to provide a systematic structure of support for beginning teachers. A comprehensive induction program may include new teacher orientation, mentorship relationships, support teams, new teacher professional development, and evaluation” (Massachusetts Department of Education, 2002).

*Teacher Residency Programs* – Teacher residency programs mirror those of medical residencies. Resident teachers are assigned to work side by side with an effective teacher for a year. In addition, residents are required to take coursework along

with their practice in the classroom. Resident teachers are required to hold a non-specified undergraduate degree prior to enrolling in these programs (Guha et al., 2017).

*Teacher Shortage* – Teacher shortage is defined as “the inability to staff vacancies at current wages with individuals qualified to teach in the fields needed” (Sutcher et al., 2016, p. 1).

*Teacher Status Project* – The University of Cambridge website indicates that the “Teacher Status Project was a national four-year study of the status of teachers and the teaching profession in England. It is interested in how teachers view themselves, their work and their profession, and in how teachers are viewed by other members of society. It was carried out by teams of researchers in the Universities of Cambridge and Leicester. The project began in 2002 and will continue until 2006” (University of Cambridge, 2017)

*Teacher Workforce* – Teacher workforce refers to the number of teachers who are practicing in private and public prekindergarten through grade 12 in the United States. Recent research indicates teaching is the second largest occupation behind retail sales in the United States (Ingersoll, Merrill, & Stuckey, 2014).

*Teaching Consideration* – The level of thought given to consider a career in teaching.

*Urban* – The U.S. Census Bureau website indicates that “urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. The Census Bureau indicates that an urban area is a community that consists of 50,000 or more people” (U.S. Census Bureau, 2010).

*Urban Cluster* – The U.S. Census Bureau website indicates that “urban clusters represent less densely developed territory in comparison to urban areas. Urban clusters encompass residential, commercial, and other non-residential urban land uses. The Census Bureau indicates that an urban cluster is a community that consists of 2,500 to 50,000 people” (U.S. Census Bureau, 2010).

### **Chapter Outlines**

The purpose of this section is to provide readers the opportunity to conceptualize the outline of the present study. Chapter II includes a review of the current empirical literature, which centers attention on teacher shortage mitigation practices, the growing and changing teacher workforce, labor market implications, economic impacts, falling teacher education enrollments, and lessons from around the world. Chapter III details the study’s population, data collection methods, and data analysis procedures. Chapter IV reports the data and discusses the results. Finally, Chapter V presents implications for practice and includes suggestions for future research.

## **CHAPTER II.**

### **LITERATURE REVIEW**

#### **Feeling the Impact of the Teacher Shortage**

Many school districts in the United States have been impacted by teacher shortages. Numerous reports indicate that growing teacher shortages affect rural and urban schools as well as more affluent districts (Flynt & Morton, 2009; Hammer, Hughes, McClure, Reeves, & Salgado, 2005). This development has raised concerns in suburbia, but it has produced greater tribulations for historically hard-to-staff schools (Martin & Mulvihill, 2016).

The expansion of the teacher shortage problem has made it increasingly difficult to attract teachers to rural and urban schools (Malatras et al., 2017). Research demonstrates that the consistent themes of low salary packages, unattractive working conditions, and an increased need for teachers in suburban areas have magnified the problem (Guha et al., 2017). These conditions have led to a rising number of inadequately trained teachers securing positions in rural and urban schools. While hiring unqualified teachers satisfies immediate needs, scholars contend that this practice creates a school environment where “student achievement is undermined by high rates of teacher turnover and by teachers who are inadequately prepared for the challenges they face” (Guha et al., 2017, p. 1). This instability undermines school improvement efforts and leads to additional costs of nearly \$18,000 to replace exiting teachers (Guha et al., 2017).

More importantly, this practice results in limited student achievement (Hanushek, 2016; Rockoff, 2004). The consequences of this substandard education lead to lower graduation rates and a workforce that may be unable to meet the future demands of the modern economy (Guha et al., 2017; Hanushek, 2016; Darling-Hammond & Rothman, 2015).

### **Specialized Teaching Fields**

Reports indicate that a growing teacher shortage has produced widespread shortages of science and math teachers (Moin, Dorfield, & Schunn, 2005). Several scholars attribute the math and science teacher shortage to the underproduction of teachers in these fields, while others speculate that early attrition is the root of the problem (Sutcher et al., 2016; Ingersoll, Merrill, & Stuckey, 2014). Regardless, the combination of specialized training requirements and attractive compensation packages in the non-teaching labor market has made it difficult for schools to attract these subject area teachers (Sutcher et al., 2016; Goldhaber, Krieg, Theobald, & Brown, 2015; OECD, 2005).

Schools are finding it three to four times more difficult to acquire qualified math and science teachers in comparison to other subject areas (Ingersoll & Perda, 2009). This problem has plagued a large number of the nation's schools for well over a decade (Boyd, Grossman, Hammerness, Lankford, Loeb, Ronfeldt, & Wyckoff, 2012). While this issue has alarmed educational leaders, the cause for concern has escalated, with the problem becoming more widespread each year. Scholars contend that this growing trend has exposed a greater number of schools to the difficulties in attaining qualified math and science teachers (Sutcher et al., 2016).



Acquiring science and math teachers has been particularly problematic for schools serving low-socioeconomic populations (Ingersoll & May, 2012). Significant numbers of schools serving low income and high minority groups have reported difficulties in obtaining qualified math and science teachers. Scholars hypothesize that these problems originate from the developing teacher shortages in suburban areas and the unattractive working conditions that are commonly associated with schools in low-socioeconomic areas (Jacob, 2007).

Indeed, there are teachers willing to devote their working careers to serving some of the most challenging student populations. However, the position's nobility alone is an insufficient motivator. Common trends demonstrate that teachers who accept positions in low-socioeconomic regions are choosing to retain those positions only to gain experience. Regularly, this cohort of teachers will leave teaching or migrate to more affluent districts once they have gained the necessary experience (Feng, 2009; Hanushek, Kain, & Rivkin, 2004; Boyd et al., 2005; Scafidi, Sjoquist & Stinebrickner, 2007).

As with math and science teachers, the number of credentialed special education teachers has sharply decreased, whereas the demand for practitioners persistently rises (American Association for Employment in Education, 2015; Ingersoll, Merrill, & Stuckey, 2014). This trend has led nearly 98% of the nation's public schools to encounter problems in finding qualified special education teachers (McLeskey, Tyler, & Flippin, 2004). Numerous reports recognize that special education is "the number one field with the most severe shortages" (Sutcher et al., 2016, p. 10). The 2014–15 American Association for Employment in Education (AAEE) teacher supply and demand report pointed out that each of the 10 reported special education subareas was facing

critical shortages of qualified teachers (American Association for Employment in Education, 2015).

In response to the problem, policymakers have been forced to reduce licensing requirements to fill positions (Moin, Dorfield, & Schunn, 2005). These reductions have led to the bulk of new special education teachers entering the teacher workforce without suitable preparation (Carver-Thomas & Darling-Hammond, 2017). Darling-Hammond et al. (2016) found that nearly half (48%) of the special education teachers entering California schools in 2015 were lacking the required credentials.

### **The Challenges in Urban Schools**

Teaching is a demanding career that requires a workforce that possesses a deep understanding of content knowledge and pedagogy (Hakanen, Bakker, & Schuafeli, 2006; Friedman, 2000). The career's challenges are underscored in urban environments where the student population consists largely of minority students from low-socioeconomic backgrounds (Weiner & Jerome, 2016; Jacob, 2007). Schools in urban areas require teachers who understand this student population and can form trusting relationships with this group (Goldenberg, 2014). While urban schools desire the most talented practitioners, they frequently are unable to hire qualified teachers (McKinney, Berry, Dickerson, & Campbell-Whately, 2007). Hanushek and Rivken (2007) explain that the added demands and “the relatively small average salary difference between urban and suburban schools” make it difficult to recruit teachers to accept positions in urban schools (p. 71).

For decades, the teacher shortage has become more problematic for urban school systems (Jacob, 2007). Failed teacher recruitment attempts have become the norm

(Darling-Hammond, 2010b). These outcomes have regularly pressed administrators into hiring unqualified teachers to work with some of the most difficult student populations (Freedman & Appleman, 2009). The Schools and Staffing Survey (SASS) in 2012 demonstrated that 61% of underprepared teachers were most likely to be employed in low-socioeconomic and high-minority urban schools (Sutcher et al., 2016). Moreover, urban school administrators are three times more likely to hire unqualified teachers than their suburban counterparts (Darling-Hammond, 2010b). These practices have fueled the cycle of the revolving door (Haberman, 2005). It is not unusual for urban schools to experience a 50% early attrition rate (Darling-Hammond & Rothman, 2015; Smith & Smith, 2006). This phenomenon, in conjunction with an overall shortage of qualified teachers, has led to substantial hardships for schools serving some of the neediest students in urban areas (Carver-Thomas & Darling-Hammond, 2017; Sutcher et al., 2016; Ingersoll, 2003).

### **The Challenges in Rural Schools**

Like large urban school districts, rural districts are struggling to recruit qualified teachers (Guarino et al., 2006; Murphy, DeArmond, & Guin, 2003). Many reports indicate that this problem stems from disparities in salaries and remote locations (Johnson, Showalter, Klein, & Lester, 2014; Ludlow, 2013). Moreover, scholars point to the lesser known contributions of the social and cultural dynamics of rural communities (Monk, 2007). Research demonstrates that rural areas frequently produce a lower number of high school graduates choosing to pursue higher education than their suburban counterparts (Player, 2015; Ingersoll & Perda, 2010). This phenomenon originates from the perceptions rural graduates have towards higher education and the local occupational

structure. Many graduates in rural areas have a perception that a college education will not help them find employment in the local economy. Thus, the lower number of college graduates impacts the number of teachers that rural schools may be able to draw from (Monk, 2007; Burnell, 2003).

Another problem facing rural schools is the nature of the teacher workforce itself (Eppley, 2009). Research demonstrates that teachers have historically been a localized workforce, where the average teacher chooses to work within fifty miles of where he or she graduated from high school (Player, 2015; Boyd et al., 2005). This phenomenon has produced uneven distribution of qualified teaching applicants, since the majority of teachers prefer to live in regions where they grew up (Eppley, 2009). The combination of rural areas producing fewer licensed applicants and teachers choosing to settle in areas where they were raised creates considerable problems for rural schools (Player, 2015).

### **Early Attrition and Teacher Recruitment Efforts**

Evidence suggests that the shortage of teachers is not entirely driven by upsurges in student enrollments, increases in teacher retirements, or decreases in the number of enrollees participating in university teacher preparation programs (Ingersoll, Merrill, & Stuckey, 2014; Brill & McCartney, 2008; Hanushek et al., 2004). Much of the research surrounding the teacher shortage has centered on reversing the trend in the early attrition of teachers (Ingersoll & Strong, 2011; Moir, 2009; Solomon, 2009; Humphrey & Wechsler, 2007; Shakrani, 2008; Boyd et al., 2005). Ingersoll attests that the teaching career suffers from higher turnover in comparison to other careers (Ingersoll, Merrill, & Stuckey, 2014; Ingersoll, 2003; Ingersoll, 2001). Recent reports point out that the early attrition rate of U.S. teachers has been approximately 8% for nearly a decade, which is

double the rate in comparison to high performing nations like Finland, Singapore, and Canada (Sutcher et al., 2016). The turnover has consistently been split, with half of the leavers exiting teaching altogether and the other half migrating to different schools (Ingersoll, Merrill, & Stuckey, 2014; Ingersoll, 2003). An 8% attrition rate translates into hundreds of thousands of teachers exiting schools at the conclusion of each school year, a problem that, if reversed, “would reduce the projected shortages more than any other single factor” (Ingersoll, Merrill, & Stuckey, 2014; Harris, & Adams, 2007).

Empirical evidence demonstrates that early teacher attrition is led by new teachers (Ingersoll, Merrill, & Stuckey, 2014; Perda, 2013; Ingersoll, 2003; Ingersoll, 2001). Many new teachers enter the career and find salaries disappointing, student behavior overwhelming, and working conditions subpar (Perrachione, Peterson, & Rosser, 2008; Johnson, 2006). This dissatisfaction has led to a consistent attrition rate of 20%–40% for early career teachers (Gray, Taie, & O’Rear, 2015; Perda, 2013; Ingersoll, 2003). Most concerning, nearly 20% of first-year teachers leave the career prior to completing their first year (Perda, 2013; Ingersoll & Merrill, 2011; Hammer & Williams, 2005; Breaux & Wong, 2003).

Studies find that this trend could be reversed with policy changes to improve teacher compensation, working conditions, availability of resources, accountability pressures, and public perception (Martin & Mulvihill, 2016; Ingersoll, 2003).

Commentators assert that steps to retain teachers must be employed to solve the crisis, given that public education has experienced the largest number of beginning teachers entering the workforce in two decades (Ingersoll, Merrill, & Stuckey, 2014; Goldrick, Osta, Barlin, & Burn, 2012). This “greening” of the teaching workforce has created a

considerable amount of instability in the nation's school systems (Ingersoll, Merrill, & Stuckey, 2014; Perda, 2013).

### **New Teacher Induction Programs**

Current research notes that nearly two-thirds of the nation's beginning teachers have experienced some form of induction, and almost three quarters have been assigned mentors (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009; Goldrick et al., 2012). While these statistics appear promising, the research seems to be inconclusive as to their effectiveness in reducing early attrition (Ronfeldt & McQueen, 2017).

Research points out that these inconsistencies may stem from the variability of the induction programs (Ingersoll & Strong, 2011; Cherubini, 2007). School districts report the cost burden of these programs, which leads to many school districts offering more informal and less intensive induction programs (Ronfeldt & McQueen, 2017; Ingersoll & Smith, 2004).

While comprehensive teacher induction appears to be uncommon, some school districts have the financial means to provide structured induction programs (Glazerman, Isenberg, Dolfin, Bleeker, Johnson, Grider, & Jacobus, 2010). Ingersoll and Smith's (2004) investigation found a relationship between comprehensive teacher induction programs and beginning teacher retention. Like Ingersoll and Smith's study, Kang and Berliner's (2012) analysis examining Schools and Staffing Survey Data (SASS) found that shared planning time, supportive communication, strong professional development, and regularly scheduled collaboration were associated with teachers staying in their positions. Glazerman et al. questioned the rigors of the aforementioned research, claiming that the investigations into beginning teacher induction programs did not use

experimental approaches. Moreover, the scholars employed multiple controlled studies that found beginning teacher exposure to a one-or two-year comprehensive induction program did not have “a significant impact on teacher retention over the first four years” of a teacher’s career (2010, p. 105).

### **Teacher Recruitment Bonuses**

For decades, the nation’s neediest schools have struggled to recruit and retain qualified teachers (Carver-Thomas & Darling-Hammond, 2017; Sutchter et al., 2016; Ingersoll, 2003; Jacob, 2007). This pattern continues to make hiring incredibly difficult for school leaders (Darling-Hammond, 2010a; Freedman & Appleman, 2009; Chiu & Khoo, 2005). National data highlight inequalities, demonstrating that high-poverty schools employ four times as many non-credentialed teachers as low-poverty schools (Sutchter et al., 2016).

To combat teacher shortages, a number of school districts have employed bonus programs to recruit qualified teachers (Fulbeck, 2014). These incentives have been deployed to level the playing field when competing for teachers. Evidence indicates that teacher bonuses assist leaders in their recruitment efforts (Clotfelter, Glennie, Ladd, & Vigdor, 2008). However, the literature points out that bonuses may not support retention efforts in high-poverty schools (Maranto & Shuls, 2012; Liu, Johnson, & Peske, 2004).

Liu, Johnson, and Peske examined a teacher transfer initiative that offered master teachers a \$20,000 bonus to transfer to a low-performing school for a period of two years. The investigators found that most transfers were highly effective teachers, and noted a low attrition rate during the initial two-year period, but an increase thereafter. Similarly, Steele, Murnane, and Willet (2010) examined the Governor’s Teaching Fellowship

initiative that was launched to recruit teachers into low-performing California schools. The fellowship awarded a \$20,000 scholarship to practitioners who accepted a position at a low-performing school for a period of four years. As with the teacher transfer initiative, the Governor's Teaching Fellowship attracted highly qualified teachers who were willing to accept positions in high-needs schools, but attrition rates spiked after the four-year commitment expired (Steele et al., 2010).

The State of Massachusetts also offered a \$20,000 sign-on bonus for qualified teachers to fill hard-to-staff positions. The bonus was advertised as an upfront payout, but in reality, it was paid out in four payments in efforts to retain teachers. In the end, Liu et al. found that only 5 out of the 13 Massachusetts teachers who participated in the bonus program remained in their positions (Liu et al., 2014).

### **Alternative Teacher Certification**

The need for teachers has led to a growing number of states participating in some form of alternative teacher certification (Darling-Hammond, 2010a). Instead of the traditional four-year undergraduate teaching program, participants who hold undergraduate degrees in other fields can earn a teaching certificate in a short time frame (Ovando & Trube, 2000). Further, participants can use alternative means to complete program requirements in comparison to the traditional route to licensure (Darling-Hammond, Chung, & Frelow, 2002). In 2010, data demonstrated that 125 different alternative teacher licensure pathways were in operation in the United States. Similar reports indicate that nearly 30% of new teachers receiving certification are earning credentials through alternative pathways (Kee, 2011).



The increase in the number of alternative pathways to teacher certification has prompted researchers to investigate the effectiveness of the various alternative routes to teacher licensure. Several findings have revealed inconsistencies in the effect each route produces on student achievement (Xu, Hannaway, & Taylor, 2011; Rockoff, Jacob, Kane, & Staiger 2008; Glazerman, Mayer, & Decker, 2006; Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009). Boyd et al. (2009) found insignificant relationships between student achievement and the mode teachers chose to earn credentials. Conflicting results were produced when Xu et al. (2011) found that high school teachers who earned credentials through the established Teach for America (TFA) alternative teacher licensure program generated student achievement results that were superior to traditionally prepared teachers. The findings of Glazerman et al. (2006) mirrored those of Xu et al. (2011). The researchers revealed that TFR teachers produced students with better math scores than did conventionally trained teachers. Moreover, the investigation did not find statistically significant differences in student reading performances between the two groups (Glazerman et al., 2006).

While advocates applaud alternative teacher certification, opponents question the unintended consequences unconventional routes to teacher certification may produce (Ingersoll & Perda, 2008). Several scholars feel these programs “shortchange both teacher candidates and the students they teach because preparation, particularly in pedagogy, is inadequate” (Allen, 2003, p. 3). Ingersoll and Perda (2008) contend that “traditional professions rarely resort to lowering standards to recruit and retain practitioners” (p. 109). They assert that this wide disparity toward licensure would not be tolerated in other professions such as medicine or law. More importantly, alternative

programs produce a perception that teaching is an occupation that anyone can do (Ingersoll & Perda, 2008). Consequently, this image of teaching produces an assumption that teaching is not difficult work and those who understand mathematics, literature, science, and social studies concepts can learn to teach on the job. These perceptions may unintentionally reduce the teaching career's status (Lankford et al., 2014; Ingersoll & Perda, 2008; Mackenzie, 2007; Hargreaves, 2009; Hargreaves et al., 2007; Swetnam, 1992).

### **Resident Teacher Programs**

Teacher residency programs have emerged to address the growing teacher shortage (Silva, McKie, Knechtel, Gleason, & Makowsky, 2014). The structure of these programs is comparable to the medical residency model, where residents are assigned to practice alongside an experienced teacher for a full school term (Guha et al., 2017; Petty, Fitchett, & O'Connor, 2012). Most often, in efforts to ease the burden of teacher shortages, teacher residents are assigned to regions or teaching fields where shortages exist (Hammerness, Williamson, & Kosnick, 2016; Marshall & Scott, 2015). School districts, in partnership with university programs, are charged with providing the resident with the required training to earn licensure. At the conclusion of the program, schools frequently hire former residents to fill vacancies (Papay, West, Fullerton, & Kane, 2012).

Several scholars attest that the success of teacher residency programs lies with their ability to attract high-caliber candidates with financial incentives (Petty, Fitchett, & O'Connor, 2012). While the enticements vary among programs, they frequently include living stipends, student loan repayment programs, and tuition reimbursement in exchange for a commitment to remain in a school district for a period of time (Bireda & Chait,

2011). For example, the Los Angeles Teacher Residency Program allocates a \$25,000 stipend to residents while they progress through the year-long program. Likewise, the Jacksonville, Florida, program allocates a living stipend of \$20,000, but also includes tuition reimbursement incentives to earn a master's degree (Guha et al., 2017).

Additional residencies offer smaller cost of living stipends; several choose to provide health insurance benefits and cover the entire cost of each resident's tuition (Aldeman, Carey, Dillon, Miller, & Silva, 2011).

Initial research examining residency programs indicates that 80%–90% of resident teacher graduates remain in their initial positions for three years, while 70%–80% remain after five years (Guha et al., 2017; Solomon, 2009; Berry, Montgomery, Curtis, Hernandez, Wurtzel, & Snyder, 2008). Research demonstrates that “well-designed and well-implemented teacher residency models can create long-term benefits for districts, for schools, and ultimately and most importantly, for the students they serve” (Guha et al., 2017, p. 36). These statistics are promising. However, many residency programs remain in their infancy and have yet to produce an impact on the overall teacher shortage (Guha et al., 2017; Cohen & Wyckoff, 2016).

The results of initial research investigating teacher residency programs have captured the attention of policymakers (Sawchuk, 2011). Since 2009, the federal government has invested nearly \$143 million in teacher residency programs, and has maintained its commitment of support in the newly reauthorized Elementary and Secondary Education Act (Guha et al., 2017; Franquiz & Ortiz, 2016). Further, the popularity of these programs continues to grow, with nearly 50 established residencies preparing 5 to 100 residents annually for a career in teaching (Guha et al., 2017).

## **The Ever Growing Teacher Workforce**

The media and general discourse suggest that the shortage of teachers has been exacerbated by the increase in student enrollment, the increase in teacher retirements, and the inability to retain teachers (Ingersoll et al., 2014). Indeed, these factors have contributed to the teacher shortage in certain geographic regions. Yet, scholars point out their insignificance in comparison to the ever growing size of the teacher workforce (Cowan, Goldhaber, Hayes, & Theobald, 2016; Ingersoll et al., 2014). This growth began to take shape at the onset of the baby boom. In 1945, the number of elementary and secondary teachers in the United States was estimated to be 750,000. Decades later, in 2011, that number had increased to 4 million, which was five times that of the post-World War II workforce (Ingersoll et al., 2014).

Surprisingly, evidence demonstrates that the number of teachers entering the nation's classrooms throughout this period grew two-and-a half times faster than the rate of student enrollment (Scafidi, 2012). These results demonstrate teaching as the second largest occupation behind retail sales in the United States (Ingersoll et al., 2014). The rapid rise in the number of teachers originates from efforts to reduce class sizes. From 1980 through 2005, the average teacher-student ratio fell by 18% (Barber & Mourshed, 2007). Reduced class sizes as well as additional math and science requirements, mandates to offer English Language Learner and enrichment programs, and requirements to implement full-day kindergarten classes have contributed to the rise in the teacher workforce (Ingersoll et al., 2014). Added regulations to support disabled learners have also significantly contributed to this growth (Ingersoll et al., 2014). With the passage of what was known as the Education for All Handicapped Children Act (EHA) in 1975

(reauthorized as the Individuals with Disabilities Education Act in 1990), public schools have been required to increase staff to comply with federal law, and, most importantly, provide free and appropriate public education for students with special needs (Guha et al., 2017; U.S. Department of Education, 2010). Since the passage of IDEA, U.S. public schools have increased the number of special education teachers by 102% (Ingersoll et al., 2014).

### **Falling Preservice Teacher Enrollments**

With a greater demand for teachers, the literature points to a significant downward cycle in the number of students interested in becoming educators (Sutcher et al., 2016). Several studies demonstrate this declining trend, with one study finding 5% of high school ACT test takers indicating interest in pursuing a career in teaching (ACT, 2015). Additionally, a study conducted by the Cooperative Institutional Research Program (CIRP) in 2009 found that 9.2% of its participants exhibited interest in the career (Pryor, Hurtado, DeAngelo, Palucki-Blake, & Tran, 2009). That number fell by 50% when scholars employed the CIRP study in 2016 (Eagan, Stolzenberg, Zimmerman, Aragon, Sayson, Rios-Aguilar, 2016). The results of the aforementioned study signal the lowest percentage of post-secondary students demonstrating interest to teach in the study's 45-year history (Sutcher et al., 2016).

Numerous university systems have observed the decreasing interest in teaching (Aragon, 2016). Many have reported sharp declines in the number of students enrolled in their teacher preparation programs (National Center for Education Statistics, 2016a). From 2010 through 2013, U.S. post-secondary institutions observed a 31% decrease in the number of students pursuing undergraduate degrees in education (Aragon, 2016).

This amounts to nearly a 240,000 decrease (compared with 2009) in the number of qualified teachers entering the teacher pipeline (Sutcher et al., 2016). In conjunction with falling enrollment, the number of bachelor degrees awarded to education majors fell by 34% between the years 2003 and 2014. Of the six career fields with the most graduates, education was the single area to experience a decline in degrees conferred through this period (National Center for Education Statistics, 2016a).

Historically, California has been one of the largest producers of teachers (Carver-Thomas & Darling-Hammond, 2016; Mead, Aldeman, Chuong, & Obbard, 2015). However, the state has experienced a significant decline in the number of students enrolled in its teacher education programs (Sawchuk, 2015). In 2001–02, the state’s university systems reported an enrollment of 77,705 teacher education candidates. By 2013–14, the number had decreased to 18,984 (Carver-Thomas & Darling-Hammond, 2016). The executive director of the California Commission on Teaching Credentials stated that “this is an alarming trend. We are going to see it play out with an increase in demand, and a not very deep pool of teachers to fulfill that demand” (Sawchuk, 2015, p. 10).

Several scholars hypothesize that the declining enrollment may originate from the teaching career’s limited status and prestige (Sutcher et al., 2016; OECD, 2005). Sawchuk wrote “there’s a lot of press about teacher-evaluation systems, about upheaval, and all of those things in the press are bound to have some effect on people thinking about what they want to do” (Sawchuk, p. 2015, 10-11). A 2014 study found that undergraduates with GPAs greater than 3.3 perceive teaching’s less than prestigious

position in society as a deterrent (Mead et al., 2015; Third Way National Online Survey of Education Attitudes, 2014).

Commentators also suggest that the decline stems from the poor morale and job satisfaction exhibited by current practitioners. Teacher job satisfaction is at its lowest point in more than two decades (Darling-Hammond & Rothman, 2015). The literature indicates that budget decreases, stress, environmental factors, and staff reduction policies may be a reason for this discontent (Metlife, 2013; Parham & Gordon, 2011). The career has become less than desirable, which has discouraged many graduates from pursuing a career in teaching (Malatras et al., 2017).

Like California, Indiana has experienced declines in the number of preservice teachers enrolled in its university systems (Martin & Mulvihill, 2016). These falling enrollments have resulted in a 19% drop in in-state teacher education program completers, and a 37% reduction in the total number of licenses issued to both in-state and out-of-state trained teachers between 2012 and 2015 (Sutcher et al., 2016; Aragon, 2016). And while these declines have produced strains on Indiana school districts, the problem has also affected schools in nearby states (Indiana Interim Study Committee on Education, 2015). Historically, the Indiana university system, like university systems in California, produced a surplus of teachers (Sutcher et al., 2016). However, with fewer students enrolled in its teacher education programs, Indiana is struggling to produce enough teachers to meet its own needs. More importantly, the state is in a position where it must compete with its neighboring states to attract a shrinking pool of trained in-state and out-of-state teacher candidates (Martin & Mulvihill, 2016; Sutcher et al., 2016; Title II Higher Education Reporting System, 2015).

North Carolina has experienced woes similar to those in Indiana and California (Sawchuk, 2015). Throughout the past two decades, the state has transitioned from producing a surplus of teachers to relying on out-of-state trained teachers (Barth et al., 2016; Title II Higher Education Reporting System, 2015). In 2010, 40% of the state's initial teacher licensures were issued to out-of-state prepared teachers, a 36% increase from 2000 (Sutcher et al., 2016; U.S. Department of Education, 2010). Current data indicate that this trend will continue, with the state reporting a consistent decline in the number of students enrolled in its teacher education programs (Barth et al., 2016; Sawchuk, 2015). From 2013 to the end of the academic year in 2015, North Carolina university systems experienced a 20% reduction in the number of undergraduates earning education degrees. This resulted in a loss of nearly 1,000 graduates in a two-year period (Title II Higher Education Reporting System, 2015).

Sharp declines in the number of teacher education graduates have caused North Dakota to experience challenges in hiring qualified teachers to fill the state's classrooms (Barth et al., 2016). In 2015, the North Dakota Education Standards and Practices Board (ESPB) reported that the state had issued 371 educator licenses to new North Dakota graduates compared to 416 licenses to out-of-state applicants (North Dakota Education Standards and Practices Board, 2015). This was nearly 450 fewer in-state applicants than a decade earlier. Former Education Standards and Practices Board Executive Director Janet Welk stated that "North Dakota is becoming an import state for teachers" (Nowatzki, 2015). Actions taken by the state's lawmakers indicate that the state is making efforts to look outside its borders for teachers. The 2011 North Dakota legislative session approved measures to reduce certification barriers in the state.



Essentially, the legislature dismissed the requirement for teachers who held teaching licenses in other states for five or more years to complete additional testing or coursework (Van Ells, 2012). While this legislation has allowed North Dakota school districts the flexibility to post positions nationally, it appears the shortage continues to burden many of the state's schools (North Dakota Education Standards and Practices Board, 2015; Moye, 2009; Van Ells, 2012).

Wyoming has also experienced declining numbers of pre-service teachers enrolled in its state teacher education programs (U.S. Dept. of Education Title II Report, 2016). Traditionally, the state's single college of education annually graduates nearly 300 credentialed teachers. In 2012, the university reported 1,151 pre-service teachers enrolled. However, by 2015, that number had fallen to 894. Moreover, the number of in-state program completers had fallen from nearly 300 to 234 in 2015 (U.S. Dept. of Education Title II Report, 2016).

Wyoming has traditionally relied largely on out-of-state trained teachers. On average, the Wyoming Professional Teaching Standards Board grants 75% of its initial teacher licensures to out-of-state trained practitioners (Sutcher et al., 2016). The state's reliance on out-of-state teachers has produced considerable problems for its schools (Barth et al., 2016). Wyoming schools frequently struggle to compete with Idaho, Montana, and Colorado for teacher applicants. In addition, the decreases in preservice teacher enrollments in Wyoming's college of education have resulted in teacher shortages (U.S. Dept. of Education Title II Report, 2016; Sutcher et al., 2016).

Table I.1 (p. 219) includes Title II data demonstrating the falling enrollments many state teacher preparation programs have experienced in the United States. The

table illustrates that the nation has experienced a 25.4% reduction in the number of aspiring teachers enrolled in its teacher preparation programs between the years 2012 and 2015. The data demonstrate that the State of Kentucky has experienced the greatest reduction in the number of aspiring teachers, with its state's colleges of education reporting a 56% reduction in preservice teacher enrollments. Many other states, such as Illinois, Michigan, Pennsylvania, Arizona, and Arkansas, have also observed significant enrollment declines in their teacher preparation programs (U.S. Dept. of Education Title II Report, 2016; Sawchuk, 2015).

## **The Labor Market**

### **Teacher Compensation**

The teaching career's inability to adapt to the changing labor market appears to have influenced the nationwide teacher shortage (Mitchell, & Romero, 2010; Player, 2009; Hanushek, 2007). Commentators suggest that this problem stems from schools employing traditional salary schedules that are fundamentally unable to evolve with the demands of the non-teaching labor market (Darling-Hammond & Rothman, 2015). Podgursky and Springer (2011) contend that "salaries set by the schedules take no recognition of market or performance factors" (p. 168). This phenomenon often is the reason for individuals to exit teaching early, or leads many to choose other careers rather than teaching (Podgursky & Springer, 2011; Mitchell, & Romero, 2010).

Reports indicate that 90% of the nation's school districts use salary matrices, which primarily base teacher salaries on years of experience and levels of education (Goldhaber et al., 2016; Podgursky & Springer, 2011). This means that all teachers are equally compensated, despite their specialty areas or levels of production in the

classroom (Podgursky & Springer, 2011). Scholars indicate that this practice leads to teacher shortages in content areas such as science and math, because these specialty teachers carry attractive credentials to employers outside the teaching labor force (Hanushek, 2016).

Researchers suggest that more undergraduates would be more likely to consider careers in teaching if compensation levels matched those of other professions (Baker, 2012; Podgursky & Springer, 2011; Vegas, 2007). Research demonstrates that competitive salaries are a fundamental component in efforts to draw top tier students to a career in teaching (Hough & Loeb, 2013; Certo & Fox, 2002; Feng, 2009; Hahs-Vaughn & Scherff, 2008). Scholars predict that the teacher shortage will only become greater without attempts to restructure teacher compensation (Hough & Loeb, 2013; Baker, 2012; Podgursky & Springer, 2011; Vegas, 2007).

The use of salary schedules within school districts contrasts with compensation practices in the private sector (Podgursky & Springer, 2011; Mitchell, & Romero, 2010). While school practices base teacher salary on years of experience and educational attainment, the private sector forms its compensation models around employee merit and performance (Hanushek, 2016). Moreover, the private sector is market driven, meaning that employees can seek employment with employers who will compensate them according to current market conditions (Podgursky & Springer, 2011; OECD, 2005). In contrast, teacher salaries generally center on political influences, economic forces, and governmental appropriations (Hoyle, 2001). Teacher salaries are commonly contingent upon contract negotiations between teachers, unions, and the elected members of the school board (Hanushek, 2016). Hanushek explains that “it is difficult for politicians

(school board members) to say that they have just decided on large wage increases for teachers, particularly when other workers (in the region) are seeing much more modest increases” (2016, p. 31). Moreover, contract agreements do not consider compensating teachers based upon productivity. Studies have found that this practice commonly discourages high quality candidates from considering teaching as a career (Hanushek, 2016).

The literature illustrates that the rigid teacher compensation structure has led to a substantial decline in teacher salaries in comparison to the rest of the labor market (Hanushek, 2016; Podgursky & Springer, 2011; Mitchell, & Romero, 2010). Prior to World War II, the average male teacher was earning salaries greater than 50% of the overall male population with a similar college education. Female teachers at that time were earning closer to 70% more than other female university graduates (Podgursky & Springer, 2011; Mitchell, & Romero, 2010). However, teacher earnings in comparison to other college educated graduates began to significantly slide in the 1960s. Male teachers’ earnings fell below the bottom third of the earnings distributions, while female teachers’ salaries also slipped below average. This trend continues, with current literature indicating that male and female teacher salaries are less than the salaries of 70% of Americans with similar levels of education (Hanushek & Rivkin, 2007; Podgursky & Springer, 2011). Moreover, reports demonstrate that many U.S. teachers earn salaries that are less than adequate to maintain a middle-class lifestyle in the United States. A 2014 study found that 20% of teachers support their income with additional employment. The same research demonstrated that teachers who head a family of four qualify for a number of public assistance programs in at least 30 states (Ulrich & Straus, 2014).

## **Career Advancements**

Scholars point out that the lack of pathways for veteran teachers to advance in their careers may be a factor contributing to the teacher shortage (Guarino et al., 2006). Studies have found that the teaching career's "flatness" impedes status and deters potential teacher education candidates from becoming teachers (Elfers, Plecki, St. John, & Wedel, 2008; Zuzovsky & Libman, 2006). Most of the nation's school districts do not offer advancement opportunities. Essentially, the job description of a veteran teacher is the same as that of a beginner. In most school systems, the only path forward for effective teachers to advance is to enter an administrative position (Darling-Hammond & Rothman, 2015).

## **More Opportunities for Women**

Prior to the 1960s, schools could count on a healthy supply of teachers, since education was a career field hiring educated female workers (Bacolod, 2007). This influx of female labor filled the nation's classrooms at a low cost (Corcoran et al., 2004). As time passed, the non-teaching labor market began to transform, while education policy remained stagnant (Goldin, 2004). The results of this transformation can be observed in the 2013–14 data collected from the National Center for Education Statistics. While education remains female dominant (78,500 female graduates compared to 20,400 male graduates), women graduates are beginning to surpass men in a large number of other career fields (DiPrete & Buchmann, 2013). For instance, females earned the majority of degrees in health professions (167,800 females compared to 30,900 males), psychology (90,000 females compared to 27,300 males), and biological and biomedical sciences (61,200 females compared to 43,000 for males). As for males, they earned the majority

of degrees in business (188,400 males compared to 169,700 for females) and social sciences (88,200 males compared to 84,900 females) (National Center for Education Statistics, 2016a). The data indicate that female workers are in high demand, and many are taking advantage of the opportunities the contemporary labor market outside of education offers (Ingersoll, Merrill, & Stuckey, 2014).

The basic laws of supply and demand have been leading to fewer female graduates willing to become teachers (Bacolod, 2007). In 1960, over 50% of female graduates chose education as a major course of study. Three decades later, that number had dwindled to fewer than 10%. While this trend fueled the teacher shortage in all areas, subject-specific areas of education were the most impacted. Women who attained university training in mathematics and science were able to transfer those skills to non-teaching professions that offered higher salaries (Bacolod, 2007; Goldin, 2004). It appears that expanded professional opportunities for women have disproportionately impacted the ability to fill subject specific positions with well qualified teachers at the secondary level (National Center for Education Statistics, 2016a; Ingersoll, Merrill, & Stuckey, 2014; DiPrete & Buchmann, 2013).

### **Academic Aptitudes**

The quality of the teacher labor force has also been affected by the inability of education as a field to adapt to the changing labor market (Corcoran et al., 2004). The literature reports that the academic aptitude of teachers has significantly changed, with fewer academically inclined students entering the career (Bacolod, 2007). Corcoran et al. (2004) found that women who score in the upper deciles of college entrance exams are less likely to enter teaching. The investigators also discovered a significant reduction in

the academic abilities of teachers in the final four decades of the 20th century (Corcoran et al., 2004). The scholars found that “in the 1964–71 period, 20–25 percent of all new female teachers ranked in the top 10th decile of their high school cohort; by 2000, this proportion dropped below 13 percent” (2004, p. 233). While the literature indicates that academic aptitude does not entirely define teacher quality, multiple studies have found it to be associated with student academic performance. Specifically, studies have found significant relationships between a teacher’s verbal and mathematical skills and student academic achievement (Corcoran et al., 2004). Thus, the inability of education to attract high-quality students into teaching may impede the academic growth of the nation’s students (Darling-Hammond & Rothman, 2015; OECD, 2005).

Statistics demonstrate that women are taking advantage of the opportunities the non-teaching labor market has to offer (Bacolod, 2007; Ingersoll & Smith, 2003). The days of women subsidizing education are long gone, and policymakers have not yet addressed this change (Auguste et al., 2010). In the 1960s, female high school graduates who scored in the upper quintiles on college entrance exams were two-and-a-half times more likely to enter the teacher labor market because women did not have as many other career opportunities available to them. Today, the labor market doors are wide open and top female graduates are entering more prestigious occupations, while those with lower academic aptitudes generally enter teaching (Guarino et al., 2006; Corcoran et al., 2004). In an interview, the former president of the American Federation of Teachers, Sandra Feldman, stated “you have to be in schools right now, among the teachers who are retiring, very smart people. We’re not getting in now the same kinds of people. It’s

disastrous. We've been saying for years now that we are attracting people from the bottom third" (Auguste et al., 2010, p. 12).

Several studies affirm Feldman's contentions. Students pursuing licensure in education (especially elementary education majors) demonstrate lower scores on standardized tests in comparison to students who are pursuing other career options (Malatras et al., 2017; Auguste et al., 2010). Recent ACT results demonstrate that the majority of preservice teachers regularly produce scores that are less than the national average, with significant achievement gaps in the sciences (ACT, 2015; Podgursky, Monroe, & Watson, 2004). The literature reports that this trend began to emerge in the 1980s, when 20% of the women who chose to teach scored in the upper quintiles; just a decade later, in 1992, only 3.2% of women who scored in the upper ranges chose teaching as a career (Lankford et al., 2014; Corcoran et al., 2004).

As for men, ACT data demonstrate their minority status in teaching, with nearly 75% of the ACT participants who express interest in teaching being female. When considering future educators who are interested in elementary and early childhood education, this number soars to nearly 95% female. Males interested in teaching most often express interest in pursuing a career in physical education. Moreover, the vast majority of males interested in teaching generally produce lower scores than those of females intending to pursue a career in education (ACT, 2015).

The effects of lower academic achievement in those interested in teaching have produced perceptions that individuals who excel academically choose not to become teachers (Elferes, Plecki, St. John, & Wedel, 2008). These perceptions have demoralized the status of the teaching career and have driven potential teachers away from



considering a career in teaching. This might explain why only 10% of beginning teachers enter the career from the nation's most prestigious university systems, which is a phenomenon that further diminishes the career's status (Ingersoll et al., 2014). In addition, the scrutiny from the public and, most notably, from politicians holding "public school teachers solely responsible for the documented failures" has demoralized the career's esteem (Malatras et al., 2017, p. 8). Thus, "any examination of the teacher pipeline, as well as solutions to the persistent shortage and subject matter areas, should examine the role educator and public perception play in altering the education workforce" (Malatras et al., 2017, p. 8).

### **Socio-Familial Factors**

Today's teacher is traditionally female and seeks employment close to the area where she grew up (Reininger, 2012; Boyd, Lankford, Loeb, & Wyckoff, 2004). She frequently marries a partner who generates a greater income and then has a family. This illustration of the contemporary American teacher portrays the immobility of the teaching workforce (Dwinal, 2015). This immobility stems from teachers establishing deep ties within their communities and their unwillingness to uproot families to a location where job prospects may be dismal for their spouse (Boyd et al., 2004).

These characteristics of the modern teacher pose substantial problems for rural schools, especially when job prospects are unavailable for a spouse who generates the most income. As for urban communities, schools frequently lose teachers to the area's competitive non-teaching labor market. Many credentialed teachers hold valuable skills that are marketable, and the attractiveness of employment outside of education regularly lures them from teaching positions (Dwinal, 2015; Reininger, 2012).

## **The Issue of Teacher Status**

Commentators attest that the issue of teacher status is a critical construct to consider when exploring strategies to mitigate the teacher shortage in America. Auguste et al. affirmed this importance of perception when the scholars asserted “any examination of the teacher pipeline, as well as solutions to the persistent shortage and subject matter areas, should examine the role educator and public perception play in altering the education workforce” (2010, p. 8). Previous research has found that correlations exist between teacher wealth, prestige, and authority and the amount of esteem a society affords the career (Fwu & Wang, 2002). Similar studies have demonstrated significant relationships between nations that reward and greatly respect teachers and the overarching value its populace places on education (Darling-Hammond, 2017; Sahlberg, 2015; Kang & Hong, 2008). Conversely, research has found associations between low regard for the teaching career and negative social attitudes towards education (Sahlberg, 2015; Hargreaves, 2009; Kang & Hong, 2008; Hoyle, 2001).

Commentators contend that compensation is a significant indicator of the status a society awards its teachers (Darling-Hammond, 2017). This finding suggests that U.S. teachers may be perceived as second-rate professionals, which is an idea that contrasts sharply with perceptions of teachers in many countries with high performing students (Darling-Hammond, 2017; Hargreaves, 2009; Kang & Hong, 2008; Fwu & Wang, 2002; Hoyle, 2001). Scholars contend that substantial economic, social, and professional gaps are present between the status of American teachers and their counterparts in other economies where students demonstrate strong academics. These ambiguities demonstrate the important role teacher status has in shaping a nation’s education system (Fwu &

Wang, 2002). The literature demonstrates that the social perceptions of teachers directly affect the integrity of the education system (Darling-Hammond, 2017; Sahlberg, 2015; Darling-Hammond & Rothman, 2015; Hargreaves, 2009; Kang & Hong, 2008; Fwu & Wang, 2002; Hoyle, 2001).

### **Lessons from Around the World**

While U.S. schools scramble to find teachers, nations where teachers are held in high esteem and enjoy high status and prestige are building high-performing education systems (Darling-Hammond, 2017; Sahlberg, 2015; Kang & Hong, 2008; Fwu & Wang, 2002). The differences stem from the philosophical approaches in building and nurturing a teacher workforce. Leaders in high-performing nations with diversified economies realize that the teaching career must compete with the labor market to attract talented individuals to teaching (Sahlberg, 2015; Kang & Hong, 2008; Fwu & Wang, 2002). This is why much energy is expended up front to recruit, train, and support quality teachers at the beginning stages of a teacher's career (Darling-Hammond, 2017). This approach has allowed high-performing nations to raise standards for career entry. More importantly, it has increased the career's status and prestige, even in nations where this respect is not culturally embedded. These efforts have generated a substantial interest in teaching as a career and have attracted the most academically able into teaching (Darling-Hammond & Rothman, 2015; Sahlberg, 2015; Kang & Hong, 2008; Fwu & Wang, 2002).

#### **Finland**

Finnish student performance on the PISA has placed the nation into the popular spotlight (Darling-Hammond & Rothman, 2015). According to Sahlberg (2015), Finland's successes were produced by a professional teacher workforce. Sahlberg

explained that several conditions exist in Finland that have resulted in teaching being considered a prestigious career. First and foremost, Finnish teachers are esteemed professionals, comparable to lawyers, doctors, and engineers. Second, Finnish teacher education programs are competitive and demanding. The master's degree component attracts many Finnish high school graduates, as they see teacher education as a challenging field (Sahlberg, 2015).

The aforementioned conditions have resulted in Finland's ability to attract strong candidates into teaching (Darling-Hammond & Rothman, 2017; Sahlberg, 2015). Finnish educational leaders' efforts to raise teacher status have created a situation where the teaching career is able to compete with other occupations for talent (Sahlberg, 2015; Robertson, 2012; Simola, 2005). The competition to enter education programs in Finland is robust, allowing university programs to be highly selective in choosing teacher candidates (Darling-Hammond & Rothman, 2015; Sahlberg, 2011). For instance, thousands of upper secondary students apply to the country's eight universities that specialize in preparing teachers (Sahlberg, 2015). Of the thousands who apply, only 10%–15% are accepted (Sahlberg, 2015; Darling-Hammond & Haselkorn, 2009; Niemi & Jakku-Sihvonen, 2006; Simola, 2005). In 2013, 3,200 applicants applied to study education at the University of Helsinki. Those who were selected (approximately 340) experienced a rigorous program of study, received a living stipend throughout their university experience, and had their training paid for by the government (Sahlberg, 2015).

In Finland, teacher preparation is well-designed, and study concentrates heavily on subject matter and pedagogy (Sahlberg, 2015). Candidates are ready to begin duties

once they earn an undergraduate and master's degree (Sahlberg, 2011). The transition from student to teacher involves a strong induction process, and professional development continues through retirement (Darling-Hammond, 2017). The nation's respect for teachers and relatively high compensation succeed in retaining the vast majority of Finnish teachers (Sahlberg, 2015). Many teachers pursue a PhD degree and bring that knowledge back to the classroom as a teacher (Darling-Hammond, 2017; Simola, 2005).

### **Singapore**

As in Finland, teachers in Singapore enjoy high status, prestige, and esteem (Poon, Lam, Chan, Ching, Kwek, & Tan, 2016). Adecco (2015) found that teaching was the top career choice of upper secondary students, followed by medicine. This has not always been true of education in Singapore (Lim, 2014). After declaring its independence in 1965 from Malaysia, Singapore initiated a process of massive reform of its education system (Darling-Hammond & Rothman, 2015). Philosophies shifted from "just getting teachers" to professionalizing the career to attract strong candidates into teaching (Darling-Hammond, 2017, p. 292). In 1997, Singapore Prime Minister Gok announced "every school must be a model learning organization. Teachers and principals will constantly look out for new ideas and practices, and continuously refresh their own knowledge. Teaching will itself be a learning profession, like any other knowledge-based profession of the future" (Darling-Hammond, 2017, p. 292).

In Singapore, the rise in teacher status has produced a large number of graduates aspiring to be teachers (Darling-Hammond & Rothman, 2015). Individuals who are strong academically, demonstrate a commitment to teaching, and are willing to teach in

diverse environments may be accepted into formal teacher education programs (Darling-Hammond & Rothman, 2015; Lim, 2014). The nation's university systems have stringent entrance requirements and normally accept candidates who graduate in the top one-third of their class (Lim, 2014). Like Finland, the government in Singapore provides teaching candidates with an annual salary equivalent to \$30,000 to \$50,000 while they are in school. In addition, tuition, books, and other necessary items are supplied free of charge to support candidates through their initial university training (Darling-Hammond, 2017). Acceptance of this support requires the candidate to successfully graduate from university training and teach for a period of 3 to 5 years. If the requirements are not met, the candidate must repay 100% of the funding (Darling-Hammond, 2017).

After graduation, new teachers enter comprehensive induction programs and begin to earn a salary commensurate with fields like law and engineering (Lim, 2014). The nation makes every effort to continue to attract and retain the country's most talented teachers. Leaders are conscious of the labor market and closely monitor the salaries of other career fields (Tan, 2012).

In Singapore, policymakers developed career advancement opportunities in teaching that connect theory to practice. These initial ideas originated from leaders who consciously understood that promotion opportunities influence a profession's prestige. These principles continue to be practiced today, with Singapore school leaders allocating time and training for teachers aspiring to grow into leadership positions. Likewise, similar supports have been allocated for teachers to strengthen their craft and move into senior or mentor teacher roles (Darling-Hammond, 2017).

## **South Korea**

As with Singapore, teacher status in South Korea allows the nation's schools to attract and retain highly talented teachers (Dolton & Marcenaro-Guiterrez, 2013; Kang & Hong, 2008). South Korean schools experience a 1% early attrition rate in comparison to 8-16% in the United States. Most importantly, South Korea's ability to attract and retain highly qualified teachers has allowed the country to ensure that rural and low-socioeconomic urban schools are fully staffed with credentialed teachers (Kang & Hong, 2008).

In comparison to teachers in the United States, South Korean teachers are better compensated, earning a salary that has 2.4 times more purchasing power than the salaries of U.S. teachers. When comparing other career fields requiring four-year and graduate degrees in South Korea, the medical field has an income level greater than 27% of the average income, followed by education, producing wages greater than 15%, and engineering, with salaries more than 13% above average (Kang & Hong, 2008).

The high status of teaching in South Korea annually draws large numbers of graduates to apply to the nation's university teacher education programs. This interest in teaching has led to rigorous admission requirements, where decisions for entrance rest on grade point averages, teacher recommendations, government administered college entrance exams, the National Teacher Employment Test, essay exams, and interviews. Admission into the nation's teacher education programs is highly competitive. For example, in 2007, secondary education departments associated with university systems in Busan, South Korea, produced the highest scores on the national college entrance exam (pharmacy and medicine followed) (Kang & Hong, 2008).

When South Korean teacher candidates complete the required program of study, they are granted lifetime credentials (Darling-Hammond, 2017; Kang & Hong, 2008). Once licensed, new teachers experience the rigorous competition to acquire a teaching position. However, those teachers who gain employment are granted tenure until retirement. This aspect of teaching in South Korea is attractive, since South Koreans value lifetime service. More importantly, tenure until retirement supports the retention of the nation's best teachers (Kang & Hong, 2008).

By granting new teachers tenure at inception, the South Korean government has emphasized the importance of professional development in education (Kang & Hong, 2008). New teachers are required to participate in comprehensive induction programs, but they are also eligible to earn an advanced certificate at the conclusion of their third year of teaching. The advanced certificate leads to an increase in compensation and eligibility to advance into administrative positions (Kang & Hong 2008).

## **Canada**

In an effort to improve the Canadian teacher workforce, some provinces have emulated best practices of countries with high performing students. Canadian governments have increased compensation and provided financial supports for teachers to earn graduate degrees. These policies have led to substantial increases in applicants seeking admission into the nation's teacher education programs and have created an environment where university systems can maintain high admission standards for teacher education candidates. Candidates must possess high grade point averages, participate in interviews, develop portfolios, and volunteer time in schools (Darling-Hammond, 2017).



Canada's growing teacher workforce has allowed provincial governments to increase teacher licensing requirements (Darling-Hammond, 2017). For example, Ontario policymakers passed legislation requiring teachers to earn master's degrees and participate in extended clinical experiences prior to assuming employment as a teacher (Darling-Hammond & Rothman, 2015). Recent PISA scores signal that the reforms may be leading to stronger student performance (PISA, 2015). In 2015, Canadian fifteen year olds outperformed U.S. fifteen year olds in each academic category. Further, Canadian students produced the seventh strongest means in science, tied for second in reading, and scored the ninth strongest means in mathematics (PISA, 2015; Darling-Hammond & Rothman, 2015). In a recent survey in Alberta, 89% of the province's teachers expressed a commitment to teaching and were proud of their career choice (Darling-Hammond, 2017).

### **Taiwan**

Research indicates that teacher workforces are sensitive to compensation packages and that graduates are more likely to pursue teaching as a career when salary and benefits are comparable to other careers (Podgursky & Springer, 2011; Vegas, 2007; Fwu & Wang, 2002). Taiwanese officials have embraced these findings and have employed a number of financial measures to recruit teacher candidates that hold the strongest academic aptitudes (Fwu & Wang, 2002). Taiwanese teachers generally earn 25% more compensation as compared to graduates holding similar university degrees (Fwu & Wang, 2002). Teachers also receive two months off in the summer and one month off for winter vacation. Yet, they are paid for twelve months of work and receive a bonus of 1.5 months of additional salary (Fwu & Wang, 2002). Taiwanese teachers are

exempt from paying any form of income tax and are able to tap into a government funded retirement system at the age of 50 (Fwu & Wang, 2002).

Teacher education programs in Taiwan are perceived to be academically rigorous to other discipline areas (Fwu & Wang, 2002). Scholars attest that these views stem from the high academic aptitudes teacher candidates carry into university teacher preparation programs (Fwu & Wang, 2002). These views also stem from the competitiveness that has developed to enter colleges that offer education degrees. Taiwanese university systems regularly receive a significant number of applications from graduates seeking entrance into teacher education programs. With such large numbers, university officials are able to select the most academically inclined applicants (Fwu & Wang, 2002).

While teacher training is highly regarded in Taiwan, the opposite holds true in the United States (Darling-Hammond & Rothman, 2015; Lankford et al., 2014; Mackenzie, 2007). Teacher training is regularly regarded to be a low status activity (Darling-Hammond & Rothman, 2015; Hargreaves, 2009; Hoyle, 2001). While Taiwanese university systems are flooded with high quality applicants seeking to enter teacher education programs, U.S. colleges are willing to accept mediocre candidates (Corcoran et al., 2004). This struggle to recruit academically able candidates into teaching keeps the status of teaching low in the United States (Darling-Hammond & Rothman, 2015).

The evidence from nations where teaching is an attractive career supports Ingersoll's (1999) claim that "ultimately, the way to upgrade the quality of teaching and teachers is to upgrade the quality of the teaching job. Well-paid, well-respected occupations that offer good working conditions rarely have difficulties with recruitment or retention" (p. 35). Nations that have consciously led efforts to uplift the career's status

have developed a talented teacher workforce, where the majority of teachers remain until retirement (Sahlberg, 2011; OECD, 2005). Moreover, the high academic caliber and the heightened status of teachers have produced an upward cycle leading to higher university entry requirements, higher salaries, and high quality continuing education. Thus, the cycle consistently attracts talented individuals into teaching, which further raises the status of the profession (Darling-Hammond, 2017; Hargreaves, 2009; Hargreaves et al., 2007; Hoyle, 2001; Wolfensberger, 2000). Most importantly, this upward cycle has resulted in increases in student learning (Sahlberg, 2015; OECD, 2014; Sahlberg, 2011; Kang & Hong, 2008).

### **Economic Implications**

It is a widely held contention that quality teachers are the most important element in generating student learning (Hanushek, 2016; McLeskey & Billingsley, 2008; Rockoff, 2004; Sanders & Horn, 1998). Research demonstrates that gains in student learning can significantly differ from one classroom to the next. Scholars have found that some teachers consistently produce stronger gains in student achievement than do others (Stronge, Ward, & Grant, 2011; Rockoff, 2004). Yet, with evidence establishing these assertions, a lack of consensus remains as to the appropriate policies to employ to ensure an efficient teacher workforce (Brimley, Verstegen, & Garfield, 2016; Darling-Hammond, 2010b). Proposals thus far have either called for tighter regulations to monitor quality or financial incentives to generate interest in the teaching career (Liu et al., 2014; Malen, 2003). To date, education policy research and discourse have centered on teacher quality and its impact on student learning, not on economic analyses to demonstrate the economic outputs that quality instruction produces (Brimley, et al., 2016; Rothstein,

2010; Coolahan, 2002). Generally, policymakers and the public base their decisions on quality by test scores without considering the economic returns on the investment.

Evaluating teacher quality and connecting student achievement to later economic gains shed light on the value of quality teachers (Psacharopoulos & Patrinos, 2018; Hanushek, 2011; Coolahan, 2002).

The bottom line is that the vast majority of the public perceives education as a cost and associates it with taxes (Corcoran & Evans, 2010). This perception could change if education were reframed as an investment and the public understood the implications quality instruction has on the overall economy (Psacharopoulos & Patrinos, 2018; Hanushek, Ruhose, & Woessmann, 2016). Research demonstrates that educated individuals typically enjoy higher earnings in comparison to their counterparts.

Unemployment results from a lack of education and skills that could be applied in some form of work (Brimley et al., 2016). Research does not include models or evidence demonstrating the impact a quality teacher workforce may have on unemployment.

However, research demonstrates that unemployment is a cost burden to the economy.

Scholars found that:

- “Compared to college graduates, annual losses exceed \$267,390 in federal and state income taxes for each high school dropout over his or her lifetime” (Brimley et al., 2016, p. 15).
- “The nation loses \$150 billion in combined income and tax revenue with each cohort of 18 year olds who never complete high school and \$610 billion in costs to society” (Brimley et al., 2016, p. 15).

- “Aggregate health-related losses for the estimated annual 800,000 high school dropouts total at least \$75.2 billion, or nearly \$95,000 per student” (Brimley et al., 2016, p. 15).
- “The country could save about \$50 billion in income losses and \$200 billion in social costs annually by improving educational attainment among all recipients of Temporary Assistance for Needy Families (TANF), food stamps, and housing assistance. Savings from the costs of crime could total \$198,410 per dropout, or over \$158 billion per cohort” (Brimley et al., 2016, p. 15).
- “Increasing the high school completion rate by just 5 percent would save this country as much as \$32 billion in reduced costs from crime over a lifetime” (Brimley et al., 2016, p. 15).
- “The economic benefits of participation in model preschool programs range as high as \$7–\$10 for each dollar invested” (Brimley et al., 2016, p. 15).
- “College graduates are three times more likely to vote than Americans without a high school degree; those who earn more are far more likely to be affiliated with a political organization” (Brimley et al., 2016, p. 15).

Evidence indicates that nations that have an abundance of human capital in conjunction with a wide variety of natural resources are in a better position to generate an economy that is self-sufficient and can grow (Psacharopoulos & Patrinos, 2018).

Scholars attest that nations that have invested in their human capital and developed an educated populace can overcome to some degree the lack of natural resources. However, nations with an abundance of natural resources that lack human capital cannot generate individual economic productivity (Brimley et al., 2016). Finland, Taiwan, Japan, and

Singapore have limited natural resources, but those nations have invested in their education systems to ensure that they place the very best teachers into classrooms (Brimley et al., 2016). Through education, Finland developed the technological giant Nokia; Japan has impacted the global economy with its vehicles and technology; Singapore has become the fastest growing economy in the world with its emphasis on world-wide trade; and Taiwan has grown into the fifth largest economy in Asia (Hanushek & Woessmann, 2016; Sahlberg, 2015). At the opposite end of the spectrum are nations such as Brazil, Indonesia, and Nigeria, which are rich in natural resources, but struggle to grow their economies because of the lack of human capital (Hanushek et al., 2016; Brimley et al., 2016).

### **Summary of Chapter II**

Chapter II presented a comprehensive overview of the current literature surrounding the complexities of the teacher shortage. A discussion centering on the problem's regional impacts began the chapter, with highlights portraying the tribulations U.S. schools face in procuring credentialed science, math, and special education teachers. The problems surrounding early teacher attrition followed, with discourse reviewing several mitigation strategies. Moreover, the chapter illustrated the falling enrollment trends in university teacher preparation programs, with data depicting fewer prepared teachers, and a growing demand. The inability of the teaching profession to compete for graduates in the labor market was also a source of discussion, with empirical evidence demonstrating that more opportunities for women have led to a downward trend in the academic aptitudes of new teachers entering the career field. Finally, lessons from high achieving nations were presented.

## **CHAPTER III.**

### **METHODOLOGY**

Chapter III provides information regarding population, demographics, and the instrument's framework and background. It also includes a description of the instrument and details the study's methods. Lastly, the chapter concludes with an explanation of the consent process and highlights the data analysis procedures.

#### **Population**

A total of 1,502 Midwestern high school seniors and college undergraduates participated in the study. While 375 participants reported an insufficient knowledge of the teaching career and were excluded, a total of 302 high school seniors and 825 college undergraduates were retained. This sample population represents 2% of the total possible responses (1,127 participants vs. 67,546 total possibilities).

#### **Population Locations**

The investigator made efforts to acquire a diverse population by providing multiple high school senior and university undergraduate student populations the opportunity to engage in this research. The sites were carefully considered in an attempt to secure differing regional and demographic perspectives of teaching's prestige, status, and esteem. In total, student perceptions from 5 universities, 6 rural public school systems, 4 urban cluster public school systems, 1 urban cluster private school system, and

2 urban public school systems were obtained from the Midwestern region of the United States.

### **Urban Public School Districts**

The location of the first site is in a large metropolitan area in southeastern North Dakota. It serves a community of 120,000 residents, and its attendance area encompasses nearly 60.39 square miles. The school district provides instruction for 11,022 students in three comprehensive high schools, one alternative high school, three middle schools, and sixteen elementary schools. The district's enrollment consists primarily of Caucasian students (74%); however, it includes African-American (13%), Asian (5%), Hispanic (3%), and Native American (2.5%) pupils as well. The enrollment includes 844 English Language Learners who speak 71 different languages. The school district reports that it serves nearly 1,430 students with special needs, and almost a third of its total enrollment (32%) is eligible for free or reduced meals. The district maintains an average class size of 20 students and has a 95% average daily attendance rate. The district graduates 87% of its students on time, and its students have an average ACT score of 21. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

The second location is in northeastern North Dakota. It serves a community of 55,000 residents, and its attendance area encompasses nearly 80 square miles. The school district provides instruction for 7,459 students in two comprehensive high schools, one alternative high school, two middle schools, and eleven elementary schools. The district's enrollment is composed mainly of Caucasian students (75%), but it also includes African-American (9%), Asian (4%), Hispanic (6%), and Native American (6%)



pupils. The district serves 1,078 students with special needs, and over a third of its total student population (39%) is eligible for free or reduced meals. The district maintains an average class size of 21 students and has a 96% average daily attendance rate. The district graduates 87% of its students on time, and its students have an average ACT score of 21. Finally, the district contends that all schools are accredited by the North Dakota Department of Public Instruction and the NCA of Colleges and Schools.

### **Public and Private School Systems Located in Urban Clusters**

The first school district located in an urban cluster is in northwestern North Dakota. It serves a community of 6,390 residents, and its attendance area encompasses nearly 1,679 square miles. The school district provides instruction for 1,435 students in one comprehensive high school and one elementary school. The district's enrollment consists primarily of Caucasian students (80%); however, it includes African-American (2%), Hispanic (12%), and Native American (3%) pupils as well. The school district reports that it serves 141 students (11%) with special needs, 49 English Language Learners, and almost a third of its total enrollment (31%) is eligible for free or reduced meals. The district maintains an average class size of nearly 18 students, graduates 89% of its students on time, and its students produce an average ACT score of 20. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

The second school district located in an urban cluster is situated in west central Minnesota. It serves a community of 13,419 residents, and its attendance area encompasses nearly 324 square miles. The school district provides instruction for 2,708 students in one comprehensive high school, one alternative school, one middle school,

and four elementary schools. The district's enrollment consists primarily of Caucasian students (87%); however, it includes African-American (4%), Hispanic (3%), and Native American (1%) pupils as well. The school district reports that it serves 351 students (13%) with special needs and has 22 English Language Learners; nearly a third of its total enrollment (35%) is eligible for free or reduced meals. The district maintains an average class size of 18 students and graduates 70% of its students on time, and its students produce an average ACT score of 25.

A school district in eastern North Dakota served as the third urban cluster site. It serves a community of 6,606 residents, and its attendance area encompasses nearly 354 square miles. The school district provides instruction for 1,072 students in one comprehensive high school, one alternative school, and two elementary schools. The district's enrollment consists primarily of Caucasian students (98%); however, it includes African-American (4%), Hispanic (3%), and Native American (3%) pupils as well. The school district reports that it serves 140 students (13%) with special needs and has 13 English Language Learners. Almost a third of its total enrollment (35%) is eligible for free or reduced meals. The district maintains an average class size of nearly 16 students, graduates 96% of its students on time, and its students produce an average ACT score of 20. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

A school district in central North Dakota served as the fourth urban cluster site. It serves a community of 16,000 residents, and provides instruction for 2,180 students in one comprehensive high school, one alternative school, one middle school and five

elementary schools. The district's enrollment consists primarily of Caucasian students (87%); however, it includes African-American (4%), Hispanic (4%), and Native American (3%) pupils as well. The school district reports that it serves 334 students (15%) with special needs, 23 English Language Learners, and almost a third of its (34%) total enrollment is eligible for free or reduced meals. The district maintains an average class size of nearly 18 students, graduates 90% of its students on time, and its students produce an average ACT score of 21. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

A private school system in western North Dakota served as the final urban cluster site. It serves a community of 17,787 residents, and provides instruction for 575 students in one comprehensive high school and 2 elementary schools. Because of its private status, specific student and assessment data were not publically available. However, the private system affirms that all three of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

### **Rural School Districts**

The first rural site is a school district in north-central North Dakota. The district encompasses 72 square miles and includes one comprehensive high school, one middle school, and one elementary school. The community is made up of 2,078 residents, with approximately 85% of the school district patrons living in isolated areas outside the community. The school district provides instruction for 1,747 students in one comprehensive high school, one middle school and one elementary school. The district's

enrollment consists primarily of Native American students (98%); however, it includes a small population of Caucasian pupils (2%). The school district reports that it serves 34 students (2%) with special needs, and nearly all of its students (98%) are eligible for free or reduced meals. The district maintains an average class size of nearly 11 students and graduates 70% of its students on time. Its students produce an average ACT score of 19.

The second rural site is in far south-central North Dakota. The district encompasses an area of 475 square miles and serves a community of nearly 528 residents. The school district provides instruction for 178 students in one comprehensive high school and one elementary school. The district's enrollment consists primarily of Caucasian students (91%); however, it includes African-American (2%), Hispanic (2%), and Native American (4%) pupils. The school district reports that it serves 28 (16%) students with special needs, and nearly a third of its (30%) total enrollment is eligible for free or reduced meals. The district maintains an average class size of nearly 7 students, graduates 100% of its students on time, and its students produce an average ACT score of 22. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

A site in far south-central North Dakota served as the third rural site. The school district encompasses an area of approximately 350 square miles and serves a community of nearly 1,781 residents. The district provides instruction for 498 students in one comprehensive high school and one elementary school. The district's enrollment consists primarily of Caucasian students (88%); however, it includes African-American (1%), Hispanic (9%), and Native American (2%) pupils. The school district reports that it

serves 51 (10%) students with special needs, 18 English Language Learners, and a quarter of its (25%) total enrollment is eligible for free or reduced meals. The district maintains an average class size of nearly 16 students, graduates 94% of its students on time, and its students produce an average ACT score of 21. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

The fourth rural site is in far south-central North Dakota. The school district encompasses an area of nearly 429 square miles and serves a community of 1,022 residents. The district provides instruction for 267 students in one comprehensive high school and one elementary school. The student population is homogeneously Caucasian (95%); however, it includes a small population of Native American students (2%). Further, the school district reports that 9% of its student population receive special education services, and nearly a third of its (31%) total enrollment is eligible for free or reduced meals. The district has an average daily attendance rate of 96% and graduates 100% of its students on time. Finally, the district affirms that all schools are accredited by the North Dakota Department of Public Instruction and the NCA of Colleges and Schools.

A school district in the southeastern corner of North Dakota was the fifth rural site. The district encompasses an area of nearly 220 square miles and serves a community of nearly 1,000 residents. The district serves 277 students in one high school and one elementary school. The district's enrollment consists primarily of Caucasian students (95%); however, it includes a small population of Hispanic (1%), and Native American (3%) pupils. The school district reports that it serves 44 (16%) students with

special needs, and a quarter of its (25%) total enrollment is eligible for free or reduced meals. The district maintains an average class size of nearly 10 students, graduates 100% of its students on time, and reports its students produce an average ACT score of 22. Lastly, the district affirms that all of its schools are accredited by the North Dakota Department of Public Instruction and the North Central Association NCA of Colleges and Schools.

The final rural site is located in northwestern North Dakota. The school district encompasses an area of nearly 880 square miles and serves two communities totaling 695 residents. The district provides instruction for 403 students in two comprehensive high schools and two elementary schools. The student population is homogeneously Caucasian (91%); however, it includes a population of Hispanic (5%), and Native American (2%) pupils. Further, the school district reports that 15% of its student population receive special education services, and 16% of its total enrollment is eligible for free or reduced meals. The district has an average daily attendance rate of 96%, graduates 94% of its students on time, and indicates its students produce an average ACT score of 22. Lastly, the district affirms that all schools are accredited by the North Dakota Department of Public Instruction and the NCA of Colleges and Schools.

### **University Settings**

The first site is a mid-sized, urban public university system with 5,923 students enrolled. The college is on the western border of Minnesota and employs 209 full-time and 137 part-time faculty. It offers seventy-four majors, eleven pre-professional programs, twelve graduate degrees, twenty-eight graduate and undergraduate certificates, and thirty-one areas of teacher licensure preparation. Its largest major fields of study are

elementary inclusive education, business administration, biology, social work, and nursing. In addition, it offers a number of unique fields of study, such as East Asian studies, geosciences, project management, and medical physics. The university is accredited by the Higher Learning Commission and is a member of the North Central Association of Colleges and Schools. The greater part of the student body is Caucasian (77%), female (60%), and under 24 years of age (82%). Most students are considered to be full-time, while 21% of students retain part-time status. The college offers a 19:1 student-to-faculty ratio and has a student retention rate of 76%. Finally, the university reports that 48% of its students who begin their studies as full-time, first-time, degree- or certificate-seeking students complete a degree or other award within 150% of the “normal time” it takes to complete the program.

The second site is a four year public university serving a population of 1,422 students in central North Dakota. It employs 70 full-time and 37 part-time faculty members who provide instruction in nearly 80 undergraduate degree programs. The university offers undergraduate degrees in art, business, communication arts, computer systems, software engineering, education, health and physical education. It also offers an online Master of Education (M.Ed.) and Master of Arts in Teaching (M.A.T.) program for students who have previously earned an undergraduate degree in education. Lastly, it is fully accredited by the Higher Learning Commission. The university’s student body is mainly Caucasian (83%), female (58%), and under 24 years of age (77%). Most students are considered to be full-time, while 38% retain part-time status. The college offers an 11:1 student-to-faculty ratio and has a student retention rate of 71%. Finally, the university reports that 35% of its students who begin their studies as full-time, first-time,

degree- or certificate-seeking students complete a degree or other award within 150% of the “normal time” it takes to complete the program.

The third site is a four year public university serving a population of 1,130 students in northeastern North Dakota. It employs 45 full-time and one part-time faculty to provide instruction in nearly 30 undergraduate degree programs. The university offers undergraduate degrees in biology, chemistry, mathematics, music, education, physical education, English, health, and sports management. It also offers a Master of Arts in Teaching (M.A.T.) program for students who have previously earned an undergraduate degree in education. It is fully accredited by the Higher Learning Commission. The university’s student body is mainly Caucasian (76%), female (55%), and under 24 years of age (76%). Most students are considered to be full-time, while 45% retain part-time status. The college offers a 13:1 student-to-faculty ratio and has a student retention rate of 61%. Finally, the university reports that 31% of its students who begin their studies as full-time, first-time, degree- or certificate-seeking students complete a degree or other award within 150% of the “normal time” it takes to complete the program.

The fourth site is a large four year public university serving a population of 14,358 students in southeastern North Dakota. It employs 912 full-time and 131 part-time faculty to provide instruction in 96 major fields of study, 151 degree programs, 86 masters, and 53 doctoral degree programs. The university offers undergraduate degrees in a wide range of areas, such as engineering, education, nursing, architecture, fine arts, music, and agricultural fields. In addition, it offers master and doctoral programs in areas such as software engineering, education, philosophy, pharmacy, and accountancy. The university is fully accredited by the Higher Learning Commission. The university’s



student body is mainly Caucasian (86%), male (54%), and under 24 years of age (92%). Most students are considered to be full-time, while 11% retain part-time status. The college offers a 19:1 student-to-faculty ratio and has a student retention rate of 80%. Lastly, the university reports that 55% of its students who begin their studies as full-time, first-time, degree- or certificate-seeking students complete a degree or other award within 150% of the “normal time” it takes to complete the program.

The final site is a large four year public university serving a population of 14,648 students in northeastern North Dakota. It employs 781 full-time and 429 part-time faculty to provide instruction in nearly 200 fields of study. The university offers undergraduate degrees in a wide range of areas, such as mechanical engineering, education, nursing, psychology, commercial aviation, marketing, communication, and accountancy. It also offers masters and doctoral degree programs in areas such as software engineering, education, law, medicine, biology, and chemistry. The university is fully accredited by the Higher Learning Commission. The university’s student body is mainly Caucasian (86%), male (57%), and under 24 years of age (83%). Most students are considered to be full-time, while 22% retain part-time status. The college offers a 21:1 student-to-faculty ratio and has a student retention rate of 80%. Finally, the university reports that 55% of its students who begin their studies as full-time, first-time, degree- or certificate-seeking students complete a degree or other award within 150% of the “normal time” it takes to complete the program.

### **The Survey Instrument**

The survey instrument’s framework (Appendix A) originated from the work of Hoyle and the Teacher Status Project. Its questions were formulated from Hoyle’s three

dimensions of semantic status (prestige, status, and esteem), and statements that appeared in the Teacher Status Project. While decisions were made to include a number of the original statements from the Teacher Status Project, the majority were modified to address the present study's research questions (Hargreaves et al., 2007; Hoyle, 2001). Moreover, questions were formulated specifically for the statistical methods that were used in the analysis. See Appendix B for the survey instrument codebook.

The instrument contained an eight-point Likert scale that was designed to measure participants' perceptions of the teaching career's prestige, status, and esteem (Appendix A). It included 17 questions that were divided into 6 sections, with the first seeking demographic information. In this section, participants were asked to respond to 8 questions, which ranged from family financial status to ACT score information (e.g., *Please indicate your career aspirations, Please choose one of the following that best describes your hometown, What was your act score?, Please select one of the following that best describes your parent's/family income, Select description that best describes you*). The section concluded with a question that served as a dependent variable throughout the analysis (*To what degree have you considered teaching as a career?*).

Section II asked participants to respond to questions concerning their perceptions of the teaching career's prestige. This section included 16 statements, ranging from the perceptions of teacher salaries to the image of the teaching career (e.g., *Teachers earn an appropriate salary, The public has a positive image of the teaching career, The image of the classroom environment produces positive images of teaching, The teaching career offers promotion opportunities, Teachers earn a salary that allows them to feel financially secure*). The section concluded with a question that served as a dependent

variable throughout the analysis (*To what degree do the perceptions of the teaching career encourage or discourage you to become a teacher?*).

Section III asked participants to respond to questions concerning their perceptions of the teaching career's status. This section included 13 statements ranging from the perceptions of the knowledge and abilities of the workforce and the career's professional status (e.g., *The workforce has teachers who are recognized to have expertise in certain areas, Teaching positions are competitive, Teaching is a highly sought after career, Teaching is considered a professional career, Teachers exhibit a high level of work performance, The teacher workforce is comprised of skilled individuals*). Section III concluded with a question that served as a dependent variable throughout the analysis (*To what degree do the perceptions of the teaching career's professional status encourage or discourage you to become a teacher?*).

Section IV asked participants to respond to questions concerning their perceptions of the teaching career's esteem. This section included 12 items that ranged from the media portrayal of the teaching career to respect (*The government values the teaching career, Teachers are trusted by the wider community, Teachers have the respect of their students, The public values the teaching career, Teachers have the respect of community members*).

Section V followed, asking participants to respond to questions concerning their considerations to teach if their perceptions of prestige, status, and esteem were different. This section included 18 items that addressed topics such as teacher compensation and the career's professional status (*Society has a high regard for the teaching career, The teaching career offers full-retirement at 50, The teaching career is considered a high*

*status occupation, Teaching careers offer salary levels similar to comparable professions, Teaching careers offer cost of living stipends while students attend teacher education training*). This section concluded with a question that served as a dependent variable throughout the analysis (*To what degree would you consider the teaching career if you perceived the aforementioned statements in question 15 to be true?*).

Finally, Section VI measured the knowledge each participant felt they had in answering the survey instrument's questions (e.g., *Did you feel knowledgeable in answering the survey questions?*).

### **Data Collection Procedures**

Prior to launching the study, the investigator sought written consent (Appendix C) from each public schools superintendent. The approval documents (Appendix D) that were received were included with the required Institutional Review Board forms that were submitted to the University of North Dakota's Institutional Review Board.

Immediately following approval from UND's Institutional Review Board, the investigator dispersed an email (Appendix E) to participating high school counselors and principals. The email included a brief explanation of the study and information detailing an opportunity to win one of two \$50.00 VISA cards. More importantly, the email requested principal support and high school counselor assistance in dispersing the survey link to high school seniors (Appendix F). This initial correspondence asked high school counselors to send a confirmation email to [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) once the survey link had been dispersed to a minimum of 60% of their senior populations.

The approval from UND's Institutional Review Board also set in motion undergraduate recruitment procedures. Phone contacts were made to each of the

involved study locations' Institutional Review Boards. Three of the Institutional Review Boards honored UND's Institutional Review Board's approval and allowed for the study to immediately commence. The other requested additional information specific to its university. The investigator submitted the required documents and the Institutional Review Board approved the study.

Immediately following the approval from each respective Institutional Review Boards, the investigator sent an email contact (Appendix G) to participating university department chairs requesting assistance in forwarding the student recruitment letter (Appendix H) to their undergraduate populations. The initial email highlighted an opportunity to win one of two \$50.00 VISA cards (two \$50.00 VISA cards were set aside for the department chair group). Department chairs who included the investigator's email address in the forward to undergraduates automatically were registered for the department chair drawing.

Participants (both undergraduates and high school seniors) also had an opportunity to win one of two \$50.00 VISA cards by completing the instrument. The recruitment letter (forwarded by counselors and university department chairs) and the informed consent page at the start of the survey outlined this information for students prior to the start of the study (Appendix H). Students who chose to participate were made aware of the specific registration procedures for the VISA cards at the conclusion of the study. Directions prompted interested participants to follow a link to a separate Qualtrics page. This page provided participants a space to input their first name and email address. This procedure eliminated linking identifiable information to survey data.

## **Consent**

A consent statement was the landing page for the on-line study. This allowed participants the opportunity to view a brief introduction highlighting the study's background, its purpose, and information regarding their rights as participants. The consent statement informed participants that their participation was voluntary and that they were able to exit at any time. Finally, the consent statement informed participants that their participation indicated consent.

The study did not need written consent because it was too difficult to obtain from the multiple study locations. More importantly, the study did not pose risks to participants beyond those experienced in everyday life. At no time were participants required to provide identifying data, and at no time were methods used to identify individual participants. Lastly, the study did not involve procedures for which written consent was required outside of the research context.

## **Data Analysis**

Raw data from 1,127 participants were transferred from Qualtrics and placed into SPSS. The data were subjected to a number of Principal Axis Factor Analyses with Direct oblimin rotation. Multiple bivariate correlation studies were used to examine the relationships between several populations of high school senior and college undergraduate perceptions of teaching's prestige, status, esteem, and their teaching considerations. A number of hierarchical linear regressions were also used because correlation does not suggest causation. The analyses examined several populations of high school senior and college undergraduates and their perceptions of teaching's

prestige, status, and esteem, and measured the effects that the perceptions have on their teaching considerations.

The final phase of the analysis investigated the impact of international education policy on the perceptions of teaching's prestige, status, and esteem, and whether improvements in the perceptions of teaching increase high school senior and college undergraduate interest in teaching. A number of independent *t*-tests were used throughout this segment of the study to determine if policy intended to improve teaching's prestige, status, and esteem increased interest in teaching. Multiple bivariate correlation analyses were also used to examine the relationships between several populations of high school seniors and college undergraduates and their post-policy perceptions of teaching's prestige, status, and esteem, and their post-policy teaching considerations. Lastly, numerous hierarchical linear regressions examined several populations of high school seniors and college undergraduates and their post-policy perceptions of teaching's prestige, status, and esteem, and measured the effects that the perceptions have on post-policy teaching considerations.

### **Chapter III Summary**

Chapter III detailed the survey instrument, its background, and the multi-step data collection process that required IRB approval from multiple universities, approval from multiple school districts, and the support of numerous professionals. The chapter reported that the survey instrument was dispersed electronically via Qualtrics, and consent was gained once participants commenced the study. In total, Midwestern high school seniors and college undergraduates from 5 universities, 6 rural public school systems, 4 urban cluster public school systems, and 1 urban cluster private school system

had the opportunity to participate in the study. The chapter presented that 1,502 high school seniors and college undergraduates participate in the study, but 375 were excluded due to their insufficient knowledge of teaching. The responses from 1,127 participants were retained for analysis.

Chapter III briefly outlined the methods used to measure the data, but a thorough explanation of the analysis follows in Chapter IV. Chapter IV describes the data analysis procedures and statistical techniques and reports the results. The chapter presents the results in multiple tables with narratives providing detail. The tables are presented in order as the data are discussed. The narratives include both table and page numbers for reference. This may be unusual, but due to the volume of data, the inclusion of page numbers may be necessary to support readability.



## **CHAPTER IV.**

### **RESULTS**

The data analysis used multiple Principal Axis Factor Analyses on the items that formed the prestige, status, esteem, policy intervention prestige, policy intervention status, and policy intervention esteem scales. A Kaiser-Meyer-Olkin (KMO) measure assessed the suitability of each analysis and a Bartlett's Test of Sphericity ensured that the data in each analysis were factorable. Loads with eigenvalues greater than one were retained, and a Direct oblimin was used in each analysis to support interpretability and to assure construct validity. Each of the scales' skewness and kurtosis were examined to affirm normal distribution, and Cronbach's Alphas were employed to ensure each scales' reliability.

Prior to analysis, concerns of multicollinearity led to a decision to center the independent variables (Swaminathan, Groening, Mittai, & Thomaz, 2014; Sheih, 2011). The purpose for the use of this technique was to ensure that independent variables were not excessively related. After centering, multiple bivariate correlation analyses were used to study the relationships between the perceptions of teaching's prestige, status, and esteem and high school senior and college undergraduate teaching considerations. Hierarchical linear regressions followed each correlation analysis to measure the influence teaching's prestige, status, and esteem may have on high school senior and college undergraduate teaching considerations. The standardized  $\beta$  coefficient was used

to aid the interpretability of each analysis, and particular attention was directed toward each of the  $R^2$ s that were produced. The  $R^2$ s afforded the opportunity to interpret the effects individual independent variables may have on high school senior and college undergraduate teaching considerations.

A number of ANOVAs and independent  $t$ -tests were used to determine whether international education policy intended to improve teaching's prestige, status, and esteem in the United States would increase interest in teaching. In addition, multiple bivariate correlation analyses were used to examine the relationships between high school senior and college undergraduate post-policy perceptions of teaching's prestige, status, and esteem, and their post-policy teaching considerations. Hierarchical linear regressions followed each correlation analysis to measure the effects post-policy perceptions of teaching's prestige, status, and esteem may have on high school senior and college undergraduate post-policy teaching considerations. The standardized  $\beta$  coefficient was used to aid the interpretability of each analysis, and particular attention was directed toward each of the  $R^2$ s that were produced. The  $R^2$ s afforded the opportunity to interpret the effects individual independent variables may have on high school senior and college undergraduate post-policy teaching considerations.

Finally, Tables (Appendix I) and Figures (Appendix J) present the results of the analyses and are referenced throughout the chapter in the order in which their data are discussed. Narratives also detail the results. Table and page numbers are included for reference. The decision to include page numbers in the narratives was made to support the readability of the manuscript.

## Prestige Scale

The data analysis began with a Principal Axis Factor Analysis with Direct oblimin rotation on the 16 items that formed the prestige scale (Appendix A). The suitability of the factor analysis was assessed by using a Kaiser-Meyer-Olkin (KMO) measure (KMO = .85) and a Bartlett's Test of Sphericity ( $p = .00$ ). The results of each measure found the data factorable. Subsequently, the factor analysis was employed, and four loads with eigenvalues greater than one were produced. A review of the output led to the decision to remove items that cross loaded with other factors (*promotion opportunities* [.55], *teacher's earn appropriate salary* [.80], *working with children* [.72], *working with parents* [.65], *teacher career ranking* [.49], and *appropriate hours* [.71]).

A second Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 10 items (*benefits, retirement plan, salary financially secure, compensation ranking, image of classroom, daily instruction, influence raise prestige, contract days, positive image, and general public perception*). The analysis produced three loads with eigenvalues greater than one. A review of the output led to the decision to remove two items that were unable to load with other factors (*daily instruction* [.72] and *influence raise prestige* [.72]).

A third Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 8 items (*benefits, retirement plan, salary financially secure, compensation ranking, image of classroom, contract days, positive image, and general public perception*). The analysis produced three loads with eigenvalues greater than one. A review of the output led to the decision to remove two items that cross loaded with other factors (*compensation ranking* [.64] and *contract days* [.77]).

The final factor analysis included 6 items from the prestige scale (*retirement plan, benefits, salary financially secure, general public perception, image of classroom, positive image*). A Kaiser-Meyer-Olkin (KMO) measure (KMO = .70) and a Bartlett's Test of Sphericity ( $p = .00$ ) demonstrated that the data was factorable. The analysis, using Principal Axis Factoring and Direct oblimin rotation, produced two factors with eigenvalues greater than one (Table I.2, p. 220).

The first factor (Table I.2, p. 220), prestige financials, produced an eigenvalue of 2.73 and explained 46% of the total variance. A follow-up examination (Table I.3, p. 221) of the scale's skewness (-.01) and kurtosis (.15) affirmed its normal distribution (within the acceptable +1 and -1 range) (Chan, 2003). The variable (Table I.2, p. 220) was subjected to a Cronbach's Alpha with results indicating acceptable internal reliability ( $\alpha = .76$ ).

The second factor (Table I.2, p. 220), prestige image, produced an eigenvalue of 1.2 and explained 67% of the total variance. An examination (Table I.3, p. 221) of the scale's skewness (-.31) and kurtosis (-.07) demonstrated normal distribution (within the acceptable +1 and -1 range) (Chan, 2003). The variable (Table I.2, p. 220) was subjected to a Cronbach's Alpha with results indicating acceptable internal reliability ( $\alpha = .69$ ).

The results of the factor analyses were expected considering that the items forming the factors aligned with Hoyle's theoretical framework. Hoyle theorizes that teaching's prestige is limited because salaries, benefits, and retirement are linked to public tax dollars. He also claims a career's image effects the level of prestige a society grants it. He hypothesized that the general public perceptions, the image of the classroom, and the positive or negative images of the career are formed by the images

children acquire from interactions with teachers. He theorizes that these images are a substantial component that subdues the teaching career's prestige (Hoyle, 2001).

### **Status Scale**

A Principal Axis Factor Analysis with Direct oblimin rotation was used in the analysis of the 13 items that formed the status scale. The suitability of the factor analysis was assessed by using a Kaiser-Meyer-Olkin (KMO) measure (KMO = .88) and a Bartlett's Test of Sphericity ( $p = .00$ ). The results of each measure found the data factorable. Subsequently, the factor analysis was run, and three loads with eigenvalues greater than one were produced. A review of the output led to the decision to remove items that cross loaded with other factors (*professional career* [.48], *brightest people* [.55], *competent teachers* [.57], *highly sought after* [.65], *workforce intelligence* [.67], *teacher lengthy professional training* [.63]).

A second Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 7 items (*intellectually challenging, skilled individuals, high level work performance, professional development, teacher expertise, other professions view teaching as a profession, and teaching positions competitive*). The analysis produced two loads with an eigenvalue greater than one. A review of the output led to the decision to remove four items that cross loaded with other factors (*teacher expertise* [.64], *other professions view teaching as a profession* [.39], *professional development* [.63], and *positions competitive* [.60]).

The final factor analysis (Table I.4, p. 222) included 3 items from the status scale (*intellectually demanding, skilled individuals, high level work performance*). A Kaiser-Meyer-Olkin (KMO) measure (KMO = .71) and a Bartlett's Test of Sphericity ( $p = .00$ )

indicated the data was factorable. The factor analysis using Principal Axis Factoring and Direct oblimin rotation produced a one factor load with an eigenvalue of 2.178 (Table I.4, p. 222). The items, *intellectually demanding*, *high level work performance*, and *skilled individuals* explained 73% of the total variance. A follow-up examination (Table I.4, p. 222) of the status scale's skewness (-.77) and kurtosis (1.51) demonstrated that the data was slightly outside the acceptable +1 and -1 range (Chan, 2003), but a review of the factor's histogram (Figure 1, p. 269) affirmed normal distribution. Finally, the status variable (Table I.4, p. 222) was subjected to a Cronbach's Alpha with results indicating relatively high internal reliability ( $\alpha = .81$ ).

The results of the factor analyses were expected considering that the items forming the factors aligned with Hoyle's theoretical framework. Hoyle theorizes that a career's status hinges on the composition of its workforce. He claims that a career's status is elevated when it is composed of skilled individuals who are able to meet its intellectual demands (Hoyle, 2001).

### **Esteem Scale**

A Principal Axis Factor Analysis with Direct oblimin rotation was used in the analysis of the 12 items that formed the esteem scale (Appendix A). The suitability of the factor analysis was assessed by using a Kaiser-Meyer-Olkin (KMO) measure (KMO = .86) and a Bartlett's Test of Sphericity ( $p = .00$ ). The results of each measure found the data factorable. Subsequently, the factor analysis was run, and two loads with eigenvalues greater than one were produced. A review of the output led to the removal of items that cross loaded with other factors (e.g., *trusted* [.51], *respect of parents* [.52], *respect of community* [.55], *student respect* [.67]).

A second Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 8 items (*government values, government respects, public values, media portrayal, other professionals respect the career, recognized for work, dedicated, caring teachers*). The analysis produced two loads with eigenvalues greater than one. A review of the output led to the decision to remove three items that cross loaded with other factors (*recognized for work [.71], other professionals respect the career [.73], media portrayal [.70]*).

A third Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 5 items (*government values, government respects, public values, dedicated, caring teachers*). The analysis produced two loads with eigenvalues greater than one. A review of the output led to the decision to remove two items that were only able to load together (*dedicated [.94] and caring teachers [.94]*).

The final analysis (Table I.5, p. 223) included 3 items from the esteem scale (*government values, government respects, and public values*). A Kaiser-Meyer-Olkin (KMO) measure (KMO = .66) and a Bartlett's Test of Sphericity ( $p = .00$ ) indicated that the three items were factorable. The factor analysis using Principal Axis Factoring and Direct oblimin rotation produced one load with an eigenvalue of 2.23 (Table I.5, p. 223). The factor esteem explained 74% of the total variance, and a follow-up examination (Table I.3, p. 221) of the scale's skewness (.19) and kurtosis (-.12) affirmed its normal distribution (within the acceptable +1 and -1 range) (Chan, 2003). Lastly, esteem (Table I.5, p. 223) was subjected to a Cronbach's Alpha with results indicating relatively high internal reliability ( $\alpha = .83$ ).

The results of the factor analyses were expected considering that the items *government values*, *government respects*, and *public values* aligned with Hoyle's theoretical framework. Hoyle claims that the teaching career is often esteemed, but the political "bashing" and blaming teachers for society's social ills may be limiting factors. He contends that the negative political discourse at the local, state, and national levels may be limiting the value that the public places on the teaching career (Hoyle, 2001).

### **Policy Intervention: Prestige and Status Scales**

A Principal Axis Factor Analysis with Direct oblimin rotation was used in the analysis of the 17 items that formed the policy prestige and status interventions scale (Appendix A). The suitability of the factor analysis was assessed by using a Kaiser-Meyer-Olkin (KMO) measure (KMO = .95) and a Bartlett's Test of Sphericity ( $p = .00$ ). The results of each measure indicated factorability. Subsequently, the factor analysis was run, and two loads with eigenvalues greater than one were produced. A review of the output led to the removal of items that cross loaded with other factors (*student loan* [.46], *high status* [.61], *ranks high prestige* [.65], *comprises intelligent workforce* [.49], *career advancement opportunities* [.64], *retire at 50* [.69], and *cost of living stipends* [.67]).

A second Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 10 items (*exempt from income tax*, *salaries for student teachers*, *bonuses*, *teaching offers signing bonuses*, *similar salary levels*, *free university training*, *recognize teachers*, *competitive*, *socially accepted profession*, *support for new teachers*). The analysis produced two loads with eigenvalues greater than one. A review of the output led to the decision to remove two items that cross loaded with other factors (*free university training* [.69] and *support for new teachers* [.70]).



A third Principal Axis Factor Analysis with Direct oblimin rotation was employed with the remaining 8 items (*exempt from income tax, cost of living stipends, salaries for student teachers, bonuses, retire at 50, teaching offers signing bonuses, similar salary levels, recognize teachers*). The analysis produced two loads with eigenvalues greater than one. A review of the output led to the decision to remove two items relating to bonuses (*teaching offers signing bonuses and bonuses*), since research indicates that these recruitment and retention tools may be ineffective (Liu et al., 2014; Maranto & Shuls, 2012; Steele et al., 2010).

The final factor analysis was run with 6 items from the policy intervention scale (*student teacher salaries, exempt from income tax, cost of living stipends, competitive positions, socially accepted profession, teacher recognition*). A Kaiser-Meyer-Olkin (KMO) measure (KMO = .79) and a Bartlett's Test of Sphericity ( $p = .00$ ) indicated the factorability of the six items. The factor analysis using Principal Axis Factoring and Direct oblimin rotation produced two loads with eigenvalues greater than one.

The first factor (Table I.6, p. 223), policy intervention prestige, produced an eigenvalue of 3.04 and explained 51% of the total variance. An examination (Table I.3, p. 221) of the scale's skewness (.34) and kurtosis (-.43) indicated normal distribution (within the acceptable +1 and -1 range) (Chan, 2003). The policy intervention prestige (Table I.6, p. 223) variable was subjected to a Cronbach's Alpha, with results displaying relatively high internal reliability ( $\alpha = .85$ ).

The second factor (Table I.7, p. 224), policy intervention status, produced an eigenvalue of 1.09 and explained 69% of the total variance. An examination (Table I.3, p. 221) of the scale's skewness (-.23) and kurtosis (.56) affirmed the variable's normal

distribution (within the acceptable +1 and -1 range) (Chan, 2003). Finally, policy intervention status (Table I.7, p. 224) was subjected to a Cronbach's Alpha, with results displaying acceptable internal reliability ( $\alpha = .66$ ).

The results of the factor analyses were expected considering that the items *student teacher salaries, exempt from income tax, and cost of living stipends* aligned with Hoyle's theoretical framework. Hoyle theorizes that teaching's prestige is limited because teacher compensation is linked to public tax dollars. However, the perceptions of the teaching career's prestige may elevate once education policy is implemented to address teacher compensation.

Additionally, the items *competitive positions, socially accepted profession, and teacher recognition* aligned with Hoyle's theoretical framework. Hoyle theorizes that a career's status is contingent upon the recognition of high status professions. He claims that in order for a career to elevate its status, other high status professions must recognize it as an equal. He claims that the teaching career is not unequivocally accepted as a profession, but the perceptions of teaching's status could elevate once policy addresses the rigors of its professional training. Hoyle asserts that the teaching career may become more competitive once the rigors are addressed (Hoyle, 2001).

### **Policy Intervention: Esteem Scale**

A Principal Axis Factor Analysis with Direct oblimin rotation (Appendix A) was used in the analysis of the three items (*community respect, parents respect, and high regard for the career*) that formed the policy esteem intervention scale (Table I.8, p. 224). The suitability of the factor analysis was assessed by using a Kaiser-Meyer-Olkin (KMO) measure ( $KMO = .57$ ) and a Bartlett's Test of Sphericity ( $p = .00$ ). The results of

each measure found the data factorable. Subsequently, the factor analysis was run, and one load with an eigenvalue greater than one was produced. (Table I.8, p. 224). The factor policy intervention esteem (Table I.8, p. 224) produced an eigenvalue of 1.91 and explained 64% of the total variance. An examination (Table I.3, p. 221) of the scale's skewness (-.58) and kurtosis (.96) indicated normal distribution (within the acceptable +1 and -1 range) (Chan, 2003). The policy intervention esteem (Table I.8, p. 224) variable was subjected to a Cronbach's Alpha, with results displaying adequate internal reliability ( $\alpha = .68$ ).

The results of the factor analyses were expected considering that the items *community respect, parent respect, and high regard for the career* aligned with Hoyle's theoretical framework. Hoyle claims that negative political discourse at the local, state, and national levels may be limiting the value that the public places on the teaching career. He also theorizes that the perceptions of teaching's prestige and status may also effect the perceptions of the teaching career's esteem. Hoyle claims that society may have a higher regard for the career if the political rhetoric becomes more positive, and that the perceptions of teaching's prestige and status are addressed (Hoyle, 2001).

### **Demographic Variables**

The demographic variables presented in Table I.9 (p. 225) served three essential purposes. First, they assisted in characterizing the study's population. Second, they were used as confounding variables in the multiple correlation and hierarchical linear regression analyses that were performed. And third, they provided opportunities to explore differences among groups.

The demographics in Table I.9 (p. 225) present that a total of 1,502 participants participated in the study, 375 (27%) participants reported a lack of knowledge in answering the survey instrument's questions. This result was concerning, and prompted the removal of all 375 participants from further analysis.

The demographic data (Table I.9, p. 225) demonstrate that a larger number of female (69%) than male (30%) participants participated in the study. Additionally, the results illustrate that a larger number of undergraduate students (73%) participated in the study as compared to high school seniors (27%). The demographics also (Table I.9, p. 225) present that the majority of the undergraduate (58%) and high school senior (85%) populations reported interest in careers other than teaching.

The demographics in Table I.9 (p. 225) display that a larger number of Caucasian students (86%) participated in the study as compared to students from minority backgrounds (14%). At first glance, this statistic appears concerning, but it should not cause alarm as it does resemble the ethnic make-up of the upper Midwest (North Dakota, 88% Caucasian; Minnesota, 85% Caucasian) (U.S. Census, 2018).

Further, the demographics (Table I.9, p. 225) report that the majority of participants (56%) learned about the teaching career from practitioners. Participants also indicated that family (21%) and experiences (10%) were main sources. The category *other* (13%) was developed post survey. Originally, a total of seven separate sources formulated the main sources variable, and the sources with limited number of responses were collapsed into the category labeled *other*.

The demographics in Table I.9 (p. 225) present that the majority of the study's population (40%) come from households with annual incomes greater than \$150,000.

The data also reveal that the fewest number of participants (11%) reported parent or family annual incomes ranging from \$100,000 to \$150,000. Interestingly, nearly the same number of respondents indicated family or parent annual incomes ranging from \$50,000 or less (23%) and \$50,000 to \$100,000 (24%).

The demographics in Table I.9 (p. 225) display a slight majority of the study's participants characterized their hometown as urban clusters (37%). Rural classifications followed (34%), with the least number of participants characterizing their hometown urban (29%). The demographics in Table I.9 (p. 225) also present that the majority of the study's participants scored between 21 and 24 on the ACT test (36%). The 25-28 ACT score range was the second most commonly reported (23%). This was followed by individuals scoring 29 or higher (15%). Lastly, 19% of the study's participants reported their ACT scores to be 20 or less.

### **Descriptive Statistics**

The variable summary table (Table I.3, p. 221) demonstrates the skewness and kurtosis for the majority of the items fell within the acceptable range of +1.0 and -1.0 (Chan, 2003). The data indicate that each variable was normally distributed, despite a few items such as hometown, parent's income, how much consider teaching, and status falling just outside the acceptable range. This is not cause for alarm, given that the skewness and kurtosis of each item in question are in close proximity to the +1 and -1 acceptable range (Chan, 2003). An examination of the histograms for status (Figure 1, p. 269), hometown (Figure 3, p. 270), how much consider teaching (Figure 4, p. 270), and parent's income (Figure 4, p. 271) revealed the variables to be normally distributed.

## Research Question 1

### High School Senior and College Undergraduate Teaching Considerations

This section of the analysis assessed Hoyle's occupational prestige, status, and esteem components, as well as the effects that each may have on high school senior and college undergraduate teaching considerations. An ANOVA led this segment of the study and was used to measure high school senior and college undergraduate teaching considerations. Table I.10 (p. 226) demonstrates that the analysis yielded a main effect between the independent variable, career aspirations, and the dependent variable how much consider teach.  $F(3,1123) = 429.91, p < .05$ . Table I.11 (p. 226) and Table I.12 (p. 227) presents the descriptive statistics and the results of a Bonferroni post-hoc assessment. The data illustrate statistical differences were present between participants aspiring to become teachers ( $M = 7.40, SD = 1.36$ ), college undergraduates pursuing other career fields ( $M = 3.09, SD = 2.10$ ), and high school seniors considering careers other than teaching ( $M = 2.45, SD = 2.19$ ).

A bivariate correlation analysis followed the ANOVA and was used to measure the relationships between high school senior and college undergraduate perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem and the level of consideration this population may have when considering careers in teaching. Table I.13 (p. 228) reports that the variables status, ( $r = .37$ ) and gender ( $r = .27$ ) formed sizeable relationships with the dependent variable, how much consider teach. These results suggest that the perceptions of teaching's status may have a greater relationship than gender with this population's teaching considerations. In contrast, the results in Table I.13 (p. 228) display that the independent variable, esteem

( $r = -.13$ ) formed a negative correlation with the dependent variable. This result indicates that the perceptions of teaching's esteem may have some relationship with high school seniors and college undergraduates considering careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting high school senior and college undergraduate teaching considerations. Table I.14 (p. 228) reports that gender was a significant confounding variable. The results reveal that gender contributed a robust .07 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .28$ ). Despite its robustness, the data indicate that the independent variable status may have a greater effect on this population's teaching considerations than the confounding variable gender,  $F(8,906) = 29.15$ ,  $p < .05$ . Table I.14 (p. 228) presents that status'  $R^2$  ( $R^2 = .11$ ) contribution was more robust than gender's ( $\beta = .22$ ), and that the variable was able to produce a much larger  $\beta$  coefficient ( $\beta = .34$ ). In contrast, the data demonstrate that the perceptions of esteem may be a competing variable,  $F(9,905) = 29.62$ ,  $p < .05$ . The results report that esteem's  $R^2$  ( $R^2 = .02$ ) contribution was less than gender's ( $\beta = .20$ ) and status' ( $\beta = .32$ ), but was able to produce a similar beta weight as gender ( $\beta = -.20$ ).

Status' robust  $R^2$  contribution and heavier beta suggests that the perceptions of teaching's status may be influential in causing high school seniors and college undergraduates to consider teaching. The data demonstrate that gender may also have some effect, but its influence may be comparable to esteem. The results suggest that gender may contribute to this population's teaching considerations, but the perceptions of teaching's esteem may discourage many from considering the career.

## High School Seniors Considering Other Careers

The analysis considered the high school senior population contemplating careers other than teaching. A bivariate correlation analysis initiated this segment and was used to measure the relationships between this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.15 (p. 229) demonstrates that the variables gender, ( $r = .33$ ) and status ( $r = .28$ ) formed sizeable relationships with the dependent variable, how much consider teach. This data indicate that gender and the perceptions of teaching's status may be related to this population's teaching considerations. In contrast, the results demonstrate that the independent variable, prestige financials ( $r = -.13$ ) had formed a negative relationship with the dependent variable. This result suggests that the perceptions of teaching's financial component of prestige may have some relationship with this population's decisions to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting high school senior non-aspiring teacher teaching considerations. Table I.16 (p. 230) reports that the variables, gender,  $F(4,199) = 5.43$ ,  $p < .05$ , and act score,  $F(5,198) = 7.50$ ,  $p < .05$ , were significant. The data display that gender's  $R^2$  ( $R^2 = .08$ ) contribution was slightly greater than act score's ( $R^2 = .06$ ). This result suggests that gender may have a slightly greater effect on this population's teaching considerations than act score. Table I.16 (p. 230) demonstrates that the confounding variables, gender and act score may be slightly stronger predictors than status,  $F(8,195) = 6.07$ ,  $p < .05$ . The results report that status



contributed a lesser amount to the  $R^2$  ( $R^2 = .04$ ), but generated a similar  $\beta$  coefficient ( $\beta = .22$ ) as the variables gender ( $\beta = .21$ ) and act score ( $\beta = .23$ ).

The data demonstrate that the independent variable, esteem was nonsignificant,  $F(9,194) = 5.42$ ,  $p < .05$ , but its interaction with the variables, prestige financials and prestige image produced a significant interaction variable,  $F(10,193) = 5.64$ ,  $p < .05$ . Table I.16 (p. 230) displays that the independent variable, interaction prestige image financials esteem contributed .03 to the  $R^2$ , and generated a  $\beta$  coefficient ( $\beta = -.21$ ) comparable to the variables, status ( $\beta = .26$ ), act score ( $\beta = .23$ ), and gender ( $\beta = .22$ ).

These results indicate that the perceptions of teaching's status, ACT results, and gender may contribute to this population's teaching considerations. The data also demonstrate that esteem and its interaction with the image and financial components of prestige may hold comparable but produce opposite effects. This interaction could discourage a number of this population from considering teaching.

### **High School Senior and College Undergraduate Aspiring Teachers**

The analysis continued with an investigation of the high school senior and college undergraduate aspiring teacher population. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.17 (p. 231) demonstrates that the confounding variables, gender ( $r = .15$ ) and status ( $r = .19$ ) formed similar relationships with the dependent variable, how much consider teach. In contrast, the data reveal that the independent variable, interaction esteem prestige financials ( $r = -.18$ ) formed a negative relationship with the

dependent variable. These results suggest that the perceptions of teaching's status and gender may be related to this population's teaching considerations. Table I.17 (p. 231) presents that the perceptions of esteem and its interaction with the financial component of prestige may be related to this population's decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting aspiring teacher teaching considerations. Table I.18 (p. 231) indicates that the independent variable, status was significant,  $F(8,305) = 3.16, p < .05$ . The data demonstrate that status contributed .04 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .20$ ). In addition, the results display that the independent variable, esteem was insignificant,  $F(9,304) = 2.83, p < .05$  but its interaction with the independent variable, prestige financials produced a significant variable,  $F(10,303) = 4.13, p < .05$ . Table I.18 (p. 231) presents that the independent variable, interaction esteem prestige financials'  $R^2$  ( $R^2 = .04$ ) contribution and  $\beta$  coefficient ( $\beta = -.23$ ) were comparable to the independent variable, status ( $\beta = .23$ ). These similarities demonstrate that each variable may hold comparable but produce opposite effects. While the perceptions of teaching's status may encourage this population to consider teaching, the perceptions of teaching's esteem and its interaction with the financial component of prestige may discourage a number of aspiring teachers from considering the career.

**Summary of results: High school seniors and college undergraduates.** The results displayed that high school seniors and college undergraduates' perceptions of teaching's status may contribute to their teaching considerations, and suggested that

teaching's intellectual demands, its requirements for high work performance, and the teacher workforce's intellect may contribute to this positive outcome. In contrast, the results indicated that the perceptions of teaching's esteem may discourage this population from considering teaching, and demonstrated that perceptions of limited value and respect for the career may be responsible for this phenomenon. The results also revealed that perceptions of esteem may not be as influential as those of status, but its effects may be comparable to those of gender. Data indicated that females are more likely to consider teaching than males, but the perceptions of the career's esteem may discourage many females from considering teaching.

While perceptions of esteem may negatively influence high school seniors and college undergraduates, the results demonstrated that perceptions of esteem may not have a unilateral effect on the aspiring teacher and high school senior, non-aspiring teacher population. Nonetheless, the results suggested that perceptions of esteem and its interaction with the financial component of prestige may discourage aspiring teachers and high school senior non-aspiring teachers from considering teaching. The results demonstrated that teachers' poor compensation and its effect on devaluing the career may produce this interaction, and demonstrated further that the interaction may be equally influential as perceptions of status, but discourages a number of aspiring teachers and high school senior non-aspiring teachers from considering the career.

These results may not be surprising. Teacher compensation and its effect on devaluing the career may discourage a number of high school senior non-aspiring teachers from considering teaching. What is somewhat surprising are the phenomenon's potential effects on the aspiring teacher population. The results illustrated that these two

elements of the career may lead aspiring teachers to consider careers other than teaching. These results raise questions about the number of aspiring teachers who may be discouraged by these perceptions and choose not to teach, as well as questions about the “roots” of the nation’s teacher attrition problem. Indeed, a large body of research has demonstrated that teachers in their first five years of teaching are at-risk of early attrition. However, data from this analysis provided evidence that demonstrated the early teacher attrition problem may begin before new teachers sign their first teaching contracts.

## **Research Question 2**

### **The Demographic Effect**

This section of the analysis assessed Hoyle’s occupational prestige, status, and esteem components, and their effects on various high school senior and college undergraduate populations. An independent *t*-test initiated this segment of the study, and was used to investigate whether differences exist between male and female teaching considerations. Table I.19 (p. 232) demonstrates that statistical differences were present between female ( $M = 4.95$ ,  $SD = 2.77$ ) and male ( $M = 3.23$ ,  $SD = 2.79$ ) teaching considerations. These results were expected, but portray the wide disparities between the genders.

### **Female High School Seniors and College Undergraduates**

The results of the independent *t*-test led to the study of female high school senior and college undergraduate teaching considerations. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population’s perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have

when considering teaching. Table I.20 (p. 233) presents that a moderate relationship was formed between the independent variable, status ( $r = .33$ ) and the dependent variable, how much consider teach. Additionally, the data demonstrate that the variables, prestige financials ( $r = .11$ ), prestige image ( $r = .08$ ) and parents income ( $r = .08$ ) formed smaller relationships with the dependent variable. These results suggest that the perceptions of teaching's status may hold a larger relationship with this population's teaching considerations. In contrast, Table I.20 (p. 233) presents that the independent variable, esteem ( $r = -.11$ ) and the confounding variable, act score ( $r = -.09$ ) produced small negative relationships with the dependent variable, how much consider teach. This data indicate that the perceptions of teaching's esteem and ACT results may have some relationship with this population's considerations to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting female high school senior and college undergraduate teaching considerations. Table I.21 (p. 233) presents that the independent variable, status was significant,  $F(7,634) = 15.01$ ,  $p < .05$ . The results report that the independent variable contributed a robust .11 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .34$ ). The data display that the independent variable esteem, was also significant,  $F(8,633) = 16.56$ ,  $p < .05$ , and that its  $R^2$  contribution ( $R^2 = .03$ ) and  $\beta$  coefficient ( $\beta = -.24$ ) were less than status' ( $\beta = .31$ ). These results suggest that the perceptions of teaching's status may be influential in causing this population to consider teaching, but esteem's moderate beta indicates that the perceptions of teaching's esteem may discourage some from considering the career.

## **Female High School Senior and College Undergraduate Aspiring Teachers**

The analysis considered the female aspiring teacher population's perceptions of teaching's prestige, status, and esteem, and the effects each may have on this population's teaching considerations. An examination of the descriptive statistics prior to analysis revealed that a small number of female high school senior aspiring teachers participated in the study ( $N = 30$ ). This limited number of participants led to a decision to combine the female undergraduate and female high school senior aspiring teacher populations into one. Once combined, the analysis moved forward with a bivariate correlation study that measured the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering careers in teaching. Table I.22 (p. 234) displays that the independent variables, status ( $r = .22$ ), prestige financials ( $r = .13$ ), and prestige image ( $r = .12$ ) had formed relationships with the dependent variable, how much consider teach. These results suggest that the perceptions of status may have a larger relationship with this population's teaching considerations than the image and financial components of prestige. In contrast, the data demonstrate that the interaction variable, prestige financials esteem ( $r = -.19$ ) formed a negative relationship with the dependent variable. This result indicates that the perceptions of teaching's esteem and its interaction with the perceptions of the financial component of prestige may be associated with this population's decisions to consider career's other than teaching.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting female aspiring

teacher teaching considerations. Table I.23 (p. 234) demonstrates that the independent variable, status was significant,  $F(7,304) = 2.57, p < .05$ . The data display that status contributed .03 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .21$ ). The results also present that the independent variable, esteem was insignificant,  $F(8,303) = 3.01, p < .05$ , but its interaction with the independent variable, prestige financials produced a significant variable,  $F(9,302) = 3.93, p < .05$ . Table I.23 (p. 234) indicates that the variable, interaction prestige financials esteem contributed .05 to the  $R^2$ , and produced a similar  $\beta$  coefficient ( $\beta = -.24$ ) as status ( $\beta = .24$ ). These similarities suggest that the perceptions of teaching's status and the perceptions of teaching's esteem and its interaction with the financial component of prestige may hold comparable but produce opposite effects. While the perceptions of status may encourage this population to consider teaching, the results demonstrate that esteem's interaction with the financial component of prestige may discourage female aspiring teachers from the career.

**Summary of results: Gender's impact.** The results indicated that the perceptions of teaching's status may encourage female high school seniors and college undergraduates to consider teaching. While the career's status may be attractive, the results demonstrated that the perceptions of teaching's esteem may produce adverse effects, and discourage large numbers of females from considering the career. The results also demonstrated that female aspiring teachers may not be immune from the effects of esteem, considering its interactions with the financial component of prestige

produced a negative coefficient. These perceptions may be generated by poor teacher compensation and its devaluation of the career.

### **Hometown Classification and Teaching Considerations**

An ANOVA initiated this segment of the analysis, which explored hometown classifications and the effects community size may have on high school senior and college undergraduate teaching considerations. Table I.24 (p. 235) demonstrates that the measure yielded a main effect between the independent variable, hometown, and the dependent variable, how much consider teach,  $F(2,1124) = 5.59, p < .05$ . Table I.25 (p. 235) and Table I.26 (p. 235) display descriptive statistics and the results of a Bonferroni post hoc analysis. The results demonstrate that statistical differences were present in the means of participants who classified their hometowns as rural ( $M = 4.80, SD = 2.91$ ) versus high school seniors and college undergraduates who classified their hometowns as urban ( $M = 4.10, SD = 2.83$ ).

### **Rural High School Seniors and College Undergraduates**

The results of the ANOVA led to a decision to study rural high school senior and college undergraduate teaching considerations. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.27 (p. 236) reveals that the independent variable, status ( $r = .39$ ) and the confounding variable, gender ( $r = .25$ ) formed sizeable relationships with the dependent variable, how much consider teach. Additionally, the data demonstrate that the independent variables, esteem ( $r = .11$ ), prestige financials ( $r = .17$ ), and prestige



image ( $r = .10$ ) formed relationships with the dependent variable. These results indicate that teaching's status may hold the strongest relationship with this population's teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting rural high school seniors and college undergraduates to consider careers in teaching. Table I.28 (p. 236) presents that the confounding variable, gender was significant,  $F(4,319) = 7.25$ ,  $p < .05$ . The data demonstrate that gender contributed .08 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .27$ ). The results display that the independent variable, prestige financials was also significant,  $F(5,318) = 8.26$ ,  $p < .05$ , but its  $R^2$  ( $R^2 = .03$ ) contribution and beta weight ( $\beta = .18$ ) were less than gender's ( $\beta = .29$ ).

Further, the data demonstrate that the independent variable, status was significant,  $F(7,316) = 12.89$ ,  $p < .05$ . The results report that status contributed a robust .11 to the  $R^2$ , and produced a larger  $\beta$  coefficient ( $\beta = .35$ ) than gender ( $\beta = .21$ ) and prestige financials ( $\beta = .19$ ). The data also suggest that status may be a stronger predictor than the independent variable, esteem. The results demonstrate that esteem was a significant variable,  $F(8,315) = 11.90$ ,  $p < .05$ , but its  $R^2$  ( $R^2 = .02$ ) contribution and beta weight ( $\beta = -.19$ ) were less than status' ( $\beta = .32$ ), prestige financials' ( $\beta = .24$ ), and gender's ( $\beta = .20$ ).

Status' heavier beta weight and robust  $R^2$  contribution indicates that the perceptions of teaching's status may encourage this population to consider teaching. The results also demonstrate that the perceptions of esteem and gender may hold comparable but produce opposite results. The data indicate that gender may contribute to this

population's teaching considerations, but the perceptions of teaching's esteem may discourage some from considering the career.

### **Rural Female High School Seniors and College Undergraduates**

The analysis continued by studying the rural female high school senior and college undergraduate population. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.29 (p. 237) presents that the independent variables, status ( $r = .37$ ), prestige financials ( $r = .22$ ), and prestige image ( $r = .12$ ) formed relationships with the dependent variable, how much consider teach. The results indicate that teaching's status may hold the strongest relationship with this population's teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting rural female high school senior and college undergraduate teaching considerations. Table I.30 (p. 237) displays that the independent variable, prestige financials was significant,  $F(4,242) = 3.93$ ,  $p < .05$ . The data demonstrate that the independent variable contributed .05 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .22$ ). Like prestige financials, the results present that the independent variable, status was significant,  $F(6,240) = 9.87$ ,  $p < .05$ . The data display that the independent variable contributed a robust .14 to the  $R^2$ , and produced a much larger  $\beta$  coefficient ( $\beta = .38$ ) than prestige financials ( $\beta = .24$ ). In contrast, the results reveal that the independent variable, esteem was also significant,  $F(7,239) = 9.79$ ,  $p < .05$ . Table I.30 (p. 237) demonstrates that esteem contributed .03 to

the  $R^2$ , and produced a smaller  $\beta$  coefficient ( $\beta = -.22$ ) than status ( $\beta = .35$ ) and prestige financials ( $\beta = .30$ ).

Status' robust contribution to the  $R^2$ , and its heavier beta weight suggests that the perceptions of teaching's status may have the greatest effect on this population's teaching considerations. The data reveal that prestige financials' may also have an impact and may hold more of an influence on this population than the perceptions of teaching's esteem. While esteem may not be as influential as status and prestige financials, the data indicate that the perceptions of teaching's esteem may have some effect on this population and may discourage some from considering teaching careers.

### **Rural Female Aspiring Teachers**

The analysis continued with an investigation studying rural female aspiring teacher perceptions of teaching's prestige, status, and esteem, and the effects each may have on this population's teaching considerations. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.31 (p. 238) presents that the variables, status ( $r = .26$ ), esteem ( $r = .24$ ), prestige financials ( $r = .26$ ), prestige image ( $r = .26$ ), and act score ( $r = .25$ ) formed similar relationships with the dependent variable, how much consider teach. These results indicate that the perceptions of teaching's prestige, status, esteem, and ACT results may be associated with this population's teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting rural female

high school seniors and college undergraduates to consider careers in teaching. Table I.32 (p. 238) reports that the confounding variable, act score was significant,  $F(3,109) = 2.54, p < .05$ . The results present that the variable, act score contributed .07 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .24$ ). The data also reveal that prestige image was significant,  $F(5,107) = 4.37, p < .05$ , and its  $R^2$  ( $R^2 = .04$ ) contribution was slightly less than act score's ( $\beta = .26$ ), but its  $\beta$  coefficient ( $\beta = .24$ ) was comparable.

Table I.32 (p. 238) displays that the independent variable, status was significant,  $F(6,106) = 4.89, p < .05$ . The results report that the independent variable's  $R^2$  ( $R^2 = .05$ ) contribution and  $\beta$  coefficient ( $\beta = .23$ ) was similar to prestige image ( $\beta = .24$ ) and larger than act score ( $\beta = .19$ ). The data also display that the independent variable, esteem was insignificant,  $F(7,105) = 4.25, p < .05$ , but its interaction with the variables, status and prestige financials produced a significant variable,  $F(8,104) = 4.38, p < .05$ . Table I.32 (p. 238) presents that the variable, interaction esteem status prestige financials'  $R^2$  contribution and beta weight were ( $\beta = .23$ ) similar to prestige image ( $\beta = .24$ ) and act score ( $\beta = .20$ ). These similarities suggest that the perceptions of the teaching career's image component of prestige, ACT results and the effects of the three-way interaction may encourage rural female aspiring teachers to consider teaching.

### **Urban High School Seniors and College Undergraduates**

The analysis moved forward with an investigation of urban high school senior and college undergraduate perceptions of teaching's prestige, status, and esteem, and the effects each may have on this population's teaching considerations. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their

perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.33 (p. 239) presents that the variables, status ( $r = .38$ ), gender ( $r = .31$ ), and prestige image ( $r = .12$ ) formed relationships with the dependent variable, how much consider teach. These results indicate that the perceptions of teaching's status and gender may be related to this population's teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting urban high school seniors and college undergraduates to consider teaching. Table I.34 (p. 239) reports that the confounding variable, gender was significant,  $F(4,242) = 6.13, p < .05$ . The data display that gender contributed .09 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .29$ ). Like gender, the results present that prestige image was significant,  $F(6,240) = 5.24, p < .05$ , but the independent variable's  $R^2$  contribution ( $R^2 = .02$ ) and  $\beta$  coefficient ( $\beta = .16$ ) were weaker than gender's ( $\beta = .28$ ).

The data reveal that prestige image lost its significance with the model's introduction of status,  $F(7,239) = 9.85, p < .05$ . The results present that status was significant, and its  $R^2$  ( $R^2 = .11$ ) contribution and  $\beta$  coefficient ( $\beta = .37$ ) were more robust than gender's ( $\beta = .20$ ). Additionally, the data signal that esteem may be somewhat of a competing variable,  $F(8,238) = 10.10, p < .05$ . Table I.34 (p. 239) reports that esteem's  $R^2$  ( $R^2 = .03$ ) contribution and  $\beta$  coefficient ( $\beta = -.23$ ) were greater than gender's ( $\beta = .18$ ), but less than status' ( $\beta = .35$ ).

Status' heavier beta weight and robust  $R^2$  contribution indicates that the perceptions of teaching's status may encourage this population to consider teaching. In

contrast, the results demonstrate that the perceptions of esteem may have similar effects as gender but produce opposite results. The data demonstrate that gender may contribute to this population's teaching considerations, but the perceptions of teaching's esteem may discourage some from considering the career.

### **Female Urban High School Seniors and College Undergraduates**

The analysis considered the female urban high school senior and college undergraduate population's perceptions of teaching's prestige, status, and esteem, and the effects each may have on this population's teaching considerations. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.35 (p. 240) presents that the variables, status ( $r = .28$ ) and prestige image ( $r = .14$ ) formed relationships with the dependent variable, how much consider teach. These results demonstrate that the perceptions of teaching's status may be largely associated with this population's teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.36 (p. 240) displays that the independent variable status was statistically significant,  $F(6,149) = 4.23$ ,  $p < .05$ . The results present that status contributed .09 to the  $R^2$ , and produced a sizeable  $\beta$  coefficient ( $\beta = .33$ ). Nonetheless, the data display that esteem may be a competing variable,  $F(7,148) = 5.16$ ,  $p < .05$ . Table I.36 (p. 240) reveals that esteem's  $R^2$  ( $R^2 = .05$ ) contribution was slightly

less than status, but its beta weight ( $\beta = -.30$ ) was heavier than both status ( $\beta = .29$ ) and prestige image ( $\beta = .21$ ). These results indicate that the perceptions of teaching's status and esteem may hold comparable but produce opposite effects. While the perceptions of teaching's status may encourage this population to consider teaching, the perceptions of teaching's esteem may discourage many from considering the career.

**Summary of results: Hometown classification and teaching considerations.**

The results suggested that perceptions of teaching's status may encourage rural and urban high school seniors and college undergraduates to consider teaching, and that these perceptions may have the greatest effect on the rural female high school senior and college undergraduate populations. Although perceptions of teaching's status may encourage this population to consider teaching, the results indicated that the perceptions of its esteem may discourage some rural females from considering the career. The results displayed that perceptions of teaching's status may encourage female urban high school seniors and college undergraduates to consider teaching. However, they also indicated that perceptions of esteem may have a substantial effect on this population's teaching considerations and may discourage many female urban high school seniors and college undergraduates from considering the career.

Although the results displayed that perceptions of teaching's status may encourage rural female aspiring teachers to consider teaching, unlike other populations, they demonstrated that perceptions of status may have the smallest effect on this population, and that perceptions of prestige's image component may have the greatest influence on rural female aspiring teacher teaching considerations. The results demonstrated that perceptions of esteem and its interactions with those of status and

prestige's financial component may also contribute to this population's teaching considerations.

### **Household Annual Income and Teaching Considerations**

An ANOVA led this segment that explored household annual incomes and high school senior and college undergraduate teaching considerations. Table I.37 (p. 241) reports that the measure yielded a main effect between the independent variable, parent's income, and the dependent variable, how much consider teach,  $F(3,1095) = 6.68, p = .00$ . Table I.38 (p. 241) and Table I.39 (p. 241) display descriptive statistics and the results of a Bonferroni post hoc analysis. The results demonstrate that high school seniors and college undergraduates that derive from households with annual incomes ranging from \$100,000 to \$150,000 ( $M = 3.54, SD = 2.87$ ) were statistically less likely to consider teaching than participants that derive from households with annual incomes ranging from \$50,000 or less ( $M = 4.46, SD = 2.76$ ) and households with annual incomes greater than \$150,000 ( $M = 4.79, SD = 2.92$ ).

#### **Household Annual Income: \$50,000 to 100,000**

The results of the ANOVA led to the use of a bivariate correlation analysis to investigate the high school senior population that derive from households with annual incomes ranging from \$50,000 to \$100,000. The analysis was used to measure the relationships between this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering careers in education. Table I.40 (p. 242) reports that the variables, status ( $r = .25$ ) and gender ( $r = .24$ ) formed similar relationships with the dependent variable, how much consider teach.



The data suggest that gender and the perceptions of teaching's status may be associated with this population's teaching considerations. In contrast, the results present that the confounding variable, act score ( $r = -.18$ ) formed a negative relationship with the dependent variable. The data indicate that this population's ACT results may have some association with their decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.41 (p. 242) reports that the confounding variable, gender was significant,  $F(4,226) = 3.97$ ,  $p < .05$ . The data display that gender contributed .07 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .24$ ). Additionally, the results demonstrate that prestige financials was significant,  $F(5,225) = 5.37$ ,  $p < .05$ , but its  $R^2$  contribution ( $R^2 = .04$ ) and  $\beta$  coefficient ( $\beta = .21$ ) was less than gender's ( $\beta = .28$ ).

Table I.41 (p. 242) presents that the independent variable, status was significant,  $F(7,223) = 8.23$ ,  $p < .05$ . The data display that status contributed a robust .10 to the  $R^2$ , and produced a larger  $\beta$  coefficient ( $\beta = .33$ ) than the variables, gender ( $\beta = .24$ ) and prestige financials ( $\beta = .21$ ). While status may be a robust predictor, the results demonstrate that esteem may be somewhat of a competing variable,  $F(8,222) = 8.42$ ,  $p < .05$ . The data demonstrate that esteem's  $R^2$  contribution ( $R^2 = .03$ ) and beta weight ( $\beta = -.22$ ) were smaller than status ( $\beta = .31$ ), prestige financials ( $\beta = .29$ ), and gender ( $\beta = .23$ ).

These results indicate that the perceptions of teaching's status may have the greatest influence on this population's teaching considerations. Additionally, the results demonstrate that prestige financials' beta was comparable to status, but its  $R^2$  contribution

was not as robust. This data suggest that the perceptions of the financial component of prestige may have similar effects as gender ( $\beta = .23$ ). In contrast, the results demonstrate that the perceptions of teaching's esteem may have some effect on this population's teaching considerations. The results reveal that esteem produced a beta weight comparable to gender, and an  $R^2$  similar to prestige financials. These similarities suggest that the perceptions of teaching's esteem, gender, and prestige financials may hold comparable but produce opposite effects. While gender and prestige financials may encourage this population to consider teaching, the perceptions of esteem may discourage some from considering the career.

#### **Household Annual Income: \$100,000 to 150,000**

The analysis continued with an investigation of the high school senior and college undergraduate population that derive from households with annual incomes ranging from \$100,000 to \$150,000. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.42 (p. 243) reports that the confounding variable, gender ( $r = .41$ ) and the independent variable, status ( $r = .33$ ) formed sizeable relationships with the dependent variable, how much consider teach. These relationships suggest that gender and the perceptions of teaching's status may be associated with this population's teaching considerations. In contrast, the independent variable esteem's ( $r = -.25$ ) negative correlation indicates that the perceptions of teaching's esteem may be associated with this population's decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.43 (p. 243) presents that the confounding variable, gender was significant,  $F(4,99) = 5.51, p < .05$ . The results report that gender contributed a robust .18 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .37$ ). The data also display that the independent variable, status was significant,  $F(7,96) = 4.11, p < .05$ , but the variable's  $R^2$  ( $R^2 = .05$ ) contribution and  $\beta$  coefficient ( $\beta = .23$ ) was less than gender's ( $\beta = .32$ ).

Additionally, the results demonstrate that the perceptions of teaching's esteem may have a greater effect on this population than the perceptions of status,  $F(8,95) = 4.68, p < .05$ . Table I.43 (p. 243) displays that the independent variable, esteem's  $R^2$  ( $R^2 = .05$ ) contribution was comparable to status ( $\beta = .21$ ), but its  $\beta$  coefficient ( $\beta = -.28$ ) was heavier. The results also present that status' interaction with esteem produced a negative predictor variable,  $F(9,94) = 5.22, p < .05$ . The data display that the variable, interaction status esteem's  $R^2$  contribution ( $R^2 = .05$ ) and beta weight ( $\beta = -.24$ ) was similar to status ( $\beta = .25$ ) and esteem's ( $\beta = -.26$ )  $\beta$  coefficient, but less than gender's ( $\beta = .32$ ).

These results demonstrate that gender and the perceptions of teaching's status may contribute to this population's teaching considerations, but the data also display that the perceptions of teaching's esteem could have some influence. While gender and the perceptions of teaching's status may contribute to this population's teaching considerations, the results suggest that the perceptions of teaching's esteem may deter many from considering the career. Moreover, esteem's interaction with status may also

limit status' effects, and discourage a number of this population from considering teaching.

### **Household Annual Income: 150,000 or Greater**

The analysis continued with an investigation of high school seniors and college undergraduates that derive from households with annual incomes greater than \$150,000. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.44 (p. 244) presents that the independent variable, status ( $r = .44$ ) and the confounding variable, gender ( $r = .28$ ) formed sizeable relationships with the dependent variable, how much consider teach. This data indicate that the perceptions of status may have a larger relationship with this population's teaching considerations than gender. In contrast, the independent variable, esteem's ( $r = -.11$ ) negative correlation signals that the perceptions of teaching's esteem may have some association with this population's decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.45 (p. 244) presents that the confounding variable, gender was significant,  $F(4,381) = 10.05$ ,  $p < .05$ , and that the variable contributed .10 to the  $R^2$ , and produced a sizeable  $\beta$  coefficient ( $\beta = .29$ ). The results report that gender's beta decreased with the introduction of status,  $F(7,378) = 18.30$ ,  $p < .05$ . The data demonstrate that status'  $R^2$  ( $R^2 = .14$ ) contribution was greater than

gender's ( $\beta = .21$ ), and that the independent variable was able to produce a heavier beta weight ( $\beta = .41$ ). The results demonstrate that status was able to maintain its robustness with the model's introduction of esteem,  $F(8,377) = 4.05$ ,  $p < .05$ . Table I.45 (p. 244) presents that esteem contributed .03 to the  $R^2$ , and produced a lighter beta weight ( $\beta = -.25$ ) than status ( $\beta = .40$ ).

These results indicate that the perceptions of teaching's status may have a greater effect on this population's teaching considerations than gender ( $\beta = .17$ ). While status may be more robust, the data demonstrate that gender may have some influence, but its effects may be limited. The data suggest that that the perceptions of esteem may have a greater influence than gender, and may discourage some from considering teaching.

#### **Rural Areas and Household Annual Income: \$150,000 or Greater**

The analysis continued with an investigation of the rural high school senior and college undergraduate population that derive from households with annual incomes greater than \$150,000. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.46 (p. 245) reports that the independent variable, status ( $r = .44$ ) and the confounding variable, gender ( $r = .28$ ) formed sizeable relationships with the dependent variable, how much consider teach. This data demonstrate that the perceptions of teaching's status may have a greater relationship with this population's teaching considerations than gender. In contrast, the independent variable, esteem's ( $r = -.12$ )

negative correlation demonstrates that the perceptions of teaching's esteem may have some association with this population's decisions to avoid careers in teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.47 (p. 245) presents that gender was significant,  $F(3,155) = 7.11, p < .05$ , and that the confounding variable contributed a robust .12 to the  $R^2$ , and produced a sizeable  $\beta$  coefficient ( $\beta = .32$ ). The data display that the independent variable, status was also significant,  $F(6,152) = 9.54, p < .05$ , and its  $R^2$  ( $R^2 = .13$ ) contribution and  $\beta$  coefficient ( $\beta = .39$ ) were greater than gender's ( $\beta = .21$ ).

Table I.47 (p. 245) presents that the independent variable, esteem,  $F(7,151) = 8.88, p < .05$ , was insignificant, and that the independent variable, status maintained a heavier  $\beta$  coefficient ( $\beta = .38$ ) than gender ( $\beta = .18$ ). These results suggest that the perceptions of teaching's status may have a significant effect on this population, and encourage many to consider teaching careers.

**Summary of results: Household annual income.** The results indicated that perceptions of status may have a considerable influence on the high school senior and college undergraduate population that derive from households with annual incomes exceeding \$150,000. They indicated that perceptions of teaching's status may attract this population to teaching, while the negative perceptions of its esteem may produce only minor effects. The results indicated that perceptions of teaching's status may also have a significant influence on the rural high school senior and college undergraduate population who derive from households with annual incomes exceeding \$150,000. However, unlike the population aforementioned, the results displayed that perceptions of esteem may have

no influence on this population's teaching considerations, and without the adverse effects of esteem, this rural population of high school seniors and college undergraduates may be more likely to consider teaching.

In contrast, the results indicated that perceptions of teaching's status may have a small effect on the high school senior and college undergraduate population who derive from households with annual incomes ranging from \$100,000 to \$150,000. They revealed that gender may also have some influence, but suggested that perceptions of esteem may have a greater effect, and that these perceptions may discourage a large number of this population from considering teaching. Further, the results demonstrated that esteem's interaction with perceptions of teaching's status may also have some adverse effects, and discourage some of this population from considering the career.

### **Research Question 3**

#### **Academic Aptitudes and Teaching Considerations**

This section of the study examines the academic aptitudes of high school seniors and college undergraduates considering teaching and those who are considering careers other than teaching. An ANOVA led this segment of the study and was used to measure ACT results and teaching considerations. Table I.48 (p. 246) demonstrates that the analysis yielded a main effect between the independent variable, act score and the dependent variable, how much consider teach,  $F(3,1034) = 11.10, p = .00$ . Table I.49 (p. 246) and Table I.50 (p. 247) display descriptive statistics and the results of a Bonferroni post hoc analysis. The results demonstrate that the mean teaching considerations for participants scoring 29 or greater on the ACT ( $M = 3.58, SD = 2.60$ ) were statistically less than participants scoring in the 25 to 28 ranges ( $M = 4.55, SD = 2.88$ ), the 21 to 24

ranges ( $M = 4.69$ ,  $SD = 2.87$ ), and the 18 to 20 ranges ( $M = 5.08$ ,  $SD = 2.87$ ). These results suggest that high school seniors and college undergraduates scoring in the highest deciles of the ACT may be more inclined to consider careers other than teaching.

### **ACT Scores: 29 or Greater**

The results of the ANOVA led to an analysis of the high school senior and college undergraduate population scoring 29 or greater on the ACT. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.51 (p. 248) reports that the independent variable, status ( $r = .30$ ) and confounding variable, gender ( $r = .25$ ) formed sizeable relationships with the dependent variable, how much consider teach. These results suggest that gender and the perceptions of teaching's status may be related to this population's teaching considerations. In contrast, the data display that the independent variable, esteem ( $r = -.29$ ) formed a negative correlation with the dependent variable. This data demonstrate that the perceptions of teaching's esteem may be associated with this population's decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.52 (p. 248) reports that the independent variable, status was significant,  $F(7,144) = 3.27$ ,  $p < .05$ . The data display that status contributed .06 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .28$ ). In contrast, the results present that the independent variable, esteem may be a competing variable,



$F(8,143) = 3.88, p < .05$ . The data demonstrate that esteem's  $R^2$  ( $R^2 = .04$ ) contribution was similar to status' ( $\beta = .25$ ), and that the variable was able to produce a comparable  $\beta$  coefficient ( $\beta = -.26$ ). Table I.52 (p. 248) reports that esteem's interaction with prestige financials and main source produced a significant variable. The data reveal that the variable, interaction main source esteem financials was significant,  $F(9,142) = 4.51, p < .05$ , and its  $R^2$  ( $R^2 = .04$ ) contribution and  $\beta$  coefficient ( $\beta = -.26$ ) were similar to esteem ( $\beta = -.20$ ) and status ( $\beta = .26$ ). These similarities in beta weights and  $R^2$  contributions indicate that the unilateral perceptions of esteem and its interaction with prestige financials and main source may have adverse effects on this population's teaching considerations.

#### **ACT Scores: 25 to 28**

The analysis considered the high school senior and college undergraduate population scoring 25 to 28 on the ACT. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.53 (p. 249) reports that the variables, status ( $r = .47$ ) and gender ( $r = .26$ ) formed relationships with the dependent variable, how much consider teach. The data suggest that the perceptions of teaching's status may have a larger relationship with this population's teaching considerations than gender. In contrast, the results report that the confounding variable, hometown ( $r = -.14$ ) produced a small negative correlation with the dependent variable. This result indicates that this population's hometown

classification may have some association with their considerations to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.54 (p. 249) presents that gender was a statistically significant confounding variable,  $F(4,216) = 5.60, p < .05$ . The data display that gender contributed a robust .10 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .30$ ). The results also present that the independent variable, prestige financials was significant,  $F(5,215) = 6.17, p < .05$ , but its  $R^2$  contribution and beta weight ( $\beta = .16$ ) was less than gender's ( $\beta = .32$ ). Table I.54 (p. 249) reports that the independent variable, status was a significant variable,  $F(7,213) = 12.44, p < .05$ . The data display that status contributed a robust .16 to the  $R^2$ , and produced a larger  $\beta$  coefficient ( $\beta = .42$ ) than prestige financials ( $\beta = .14$ ) and gender ( $\beta = .26$ ). The results also present that status may be a greater predictor variable than the independent esteem,  $F(8,212) = 11.18, p < .05$ . The data demonstrate that esteem was insignificant, and that the variable, status maintained a heavier beta weight ( $\beta = .41$ ) than the variables, gender ( $\beta = .24$ ) and prestige financials ( $\beta = .16$ ). Status' heavier beta weight and large  $R^2$  contribution demonstrates that the perceptions of teaching's status may encourage this population to consider teaching.

#### **ACT Scores: 21 to 24**

The analysis moved forward with a study of the high school senior and college undergraduate population scoring 21 to 24 on the ACT. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's

perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.55 (p. 250) reports that the variables, status ( $r = .32$ ), gender ( $r = .24$ ), and prestige financials ( $r = .11$ ) formed relationships with the dependent variable, how much consider teach. These results suggest that the perceptions of teaching's status may have a larger relationship with this population's teaching considerations than gender and the perceptions of the financial component of prestige. In contrast, the independent variable, esteem's ( $r = -.18$ ) negative correlation indicates that the perceptions of teaching's esteem may have some association with this population's considerations to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.56 (p. 250) presents that gender was a significant variable,  $F(4,352) = 5.89$ ,  $p < .05$ . The data display that the confounding variable contributed .06 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .25$ ). Additionally, the results present that prestige financials was significant,  $F(5,351) = 5.81$ ,  $p < .05$ , but its  $R^2$  (.01) contribution and beta weight ( $\beta = .12$ ) were less than gender's ( $\beta = .26$ ).

Table I.56 (p. 250) presents that the independent variable, status was significant,  $F(7,349) = 9.41$ ,  $p < .05$ , and that the variable's  $R^2$  ( $R^2 = .08$ ) contribution, and  $\beta$  coefficient ( $\beta = .30$ ) were greater than gender's ( $\beta = .21$ ). Yet, the data report that the independent variable, esteem may be a competing variable,  $F(8,348) = 11.35$ ,  $p < .05$ . The data demonstrate that esteem contributed .05 to the  $R^2$ , and produced a larger  $\beta$

coefficient ( $\beta = -.30$ ) than status ( $\beta = .25$ ), prestige financials ( $\beta = .24$ ), and gender ( $\beta = .19$ ). These results suggest that the perceptions of teaching's esteem may discourage a number of this population from considering teaching.

### **ACT Scores: 18 to 20**

The analysis continued with an investigation of the high school senior and college undergraduate population scoring 18 to 20 on the ACT. A bivariate correlation analysis initiated this segment and was used to measure the relationships of this population's perceptions of the financial and image components of prestige, their perceptions of status, their perceptions of esteem, and the level of consideration that this population may have when considering teaching. Table I.57 (p. 251) presents that the independent variable, status ( $r = .37$ ) and the confounding variable, gender ( $r = .38$ ) formed similar relationships with the dependent variable, how much consider teach. In contrast, Table I.57 (p. 251) displays that the confounding variable, hometown ( $r = -.20$ ) formed a negative correlation with the dependent variable. These results suggest that the perceptions of teaching's status and gender may be associated with this population's teaching considerations. In contrast, the data indicate that this population's hometown classification may be related with decisions to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's teaching considerations. Table I.58 (p. 251) reports that the variable, gender was significant,  $F(4,114) = 5.47$ ,  $p < .05$ . The data display that gender contributed a robust .12 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .36$ ). The results also present that the independent variable, status was significant,  $F(7,111) = 4.98$ ,  $p < .05$ . Table I.58

(p. 251) reports that status'  $R^2$  ( $R^2 = .06$ ) contribution was less than genders' ( $\beta = .28$ ), but the variable was able to produce a similar  $\beta$  coefficient ( $\beta = .27$ ). The data also demonstrate that the independent variable, esteem was insignificant,  $F(8,110) = 4.70$ ,  $p < .05$ , and that status ( $\beta = .27$ ) and gender ( $\beta = .26$ ) produced heavier beta weights than the confounding variable hometown ( $\beta = -.18$ ). The results demonstrate that gender and status may hold the greatest effect on this population, but hometown's beta weight signals that it may also be influential. While gender and the perceptions of teaching status may encourage this population to consider teaching, the data display that hometown size may discourage some from choosing to teach.

**Summary of results: Academic aptitudes and teaching considerations.** The results demonstrated that high school seniors and college undergraduates who score 29 or greater on the ACT may be least likely to consider teaching, and that perceptions of teaching's status may have some influence on this population's decision. However, the results suggested that perceptions of esteem may discourage many from considering the career. The results also indicated that esteem's interaction with prestige's financial component and the main sources that this population uses to learn about teaching may be deterrents. In contrast, the results illustrated that high school seniors and college undergraduates who score 25 to 28 on the ACT may have some interest in teaching, and demonstrated that perceptions of teaching's status may encourage a large number of this population to consider the career. Moreover, unlike other populations, the results revealed that perceptions of teaching's esteem may not discourage this population from considering the career.

Further, the data revealed that high school seniors and college undergraduates who score 21 to 24 on the ACT may have some interest in teaching, but that their perceptions of teaching's esteem may significantly reduce this interest. The results demonstrated that perceptions of teaching's status and prestige's financial component may contribute to this population's teaching considerations. However, the data illustrated that perceptions of teaching's esteem may be more influential, and deter a number of this population from teaching.

Finally, the results demonstrate that high school seniors and college undergraduates who score 18 to 20 on the ACT may be some of those most interested in teaching. The data indicated that perceptions of teaching's status and gender may contribute to this interest, but hometown size may have some adverse effects. The results illustrate that gender and perceptions of teaching's status may have a greater effect on this population, but hometown size may discourage some from considering teaching.

#### **Research Question 4**

##### **The Impact of International Education Policies**

This section of the analysis assessed the effects of international education policies on the perceptions of teaching's prestige, status, and esteem, and whether changes in the perceptions of teaching would increase interest in the career. An independent *t*-test led the segment and was used to measure college undergraduate teaching considerations prior to and following the implementation of international education policy designed to improve perceptions of the career. Table I.19 (p. 232) demonstrates that statistical differences were present in college undergraduate teaching considerations prior to policy

intervention ( $M = 3.10$ ,  $SD = 2.10$ ), and following the implementation of policy ( $M = 4.16$ ,  $SD = 2.19$ ).

A second independent  $t$ -test followed to measure high school senior teaching considerations prior to and following the implementation of policy designed to improve the perceptions of teaching's prestige, status, and esteem. Table I.19 (p. 232) displays that statistical differences were present in high school senior teaching considerations prior to ( $M = 3.09$ ,  $SD = 2.63$ ) and following international education policy intervention ( $M = 3.60$ ,  $SD = 2.49$ ). These results suggest that policy designed to improve the teaching career's prestige, status, and esteem may encourage a greater number of high school seniors and college undergraduates to consider teaching.

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.59 (p. 252) reports that the variables, status ( $r = .23$ ), esteem ( $r = .14$ ), gender ( $r = .21$ ), interaction policy prestige status ( $r = .17$ ), and act score ( $r = .14$ ) formed relationships with the dependent variable, policy intervention teach. The data indicate that the post-policy perceptions of teaching's esteem and status may be related to high school senior and college undergraduate post-policy teaching considerations. Additionally, the results demonstrate that ACT scores and gender may also have some relationship with this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this

population's post-policy teaching considerations. Table I.60 (p. 252) demonstrates that gender,  $F(4,917) = 11.13$ ,  $p < .05$ , and act score  $F(5,916) = 12.08$ ,  $p < .05$ , were two significant confounding variables. The data display that gender's  $R^2$  ( $R^2 = .05$ ) contribution and  $\beta$  coefficient ( $\beta = .21$ ) were greater than act score's ( $R^2 = .02$ ,  $\beta = .13$ ). Table I.60 (p. 252) reports that gender may also be a stronger predictor than the independent variable, policy intervention prestige,  $F(6,915) = 15.70$ ,  $p < .05$ . The results demonstrate that policy intervention prestige was significant, and its  $R^2$  contribution ( $R^2 = .03$ ) and  $\beta$  coefficient ( $\beta = .18$ ) were less than gender's ( $\beta = .23$ ).

The data reveal that the independent variable, policy intervention status was significant,  $F(7,914) = 16.21$ ,  $p < .05$ , and that its  $R^2$  ( $R^2 = .02$ ) contribution and  $\beta$  coefficient ( $\beta = .15$ ) were similar to policy intervention prestige's ( $\beta = .11$ ) but less than gender's ( $\beta = .22$ ). Moreover, the results demonstrate that policy intervention esteem was an insignificant variable,  $F(8,913) = 14.21$ ,  $p < .05$ . Despite this outcome, the data display that the variables, post-policy perceptions prestige and post-policy perceptions status formed a significant interaction variable,  $F(9,912) = 15.96$ ,  $p < .05$ . Table I.60 (p. 252) reports that the independent variable, interaction policy intervention prestige status'  $R^2$  contribution ( $R^2 = .03$ ) and  $\beta$  coefficient ( $\beta = .17$ ) were comparable to policy intervention status' ( $\beta = .16$ ), but less than gender's ( $\beta = .21$ ). These results suggest that gender and the interactions between the post-policy perceptions of teaching's prestige and the post-policy perceptions of teaching's status may contribute to high school senior and college undergraduate teaching considerations.



## High School Seniors Considering Other Careers

The analysis continued with an investigation of the high school senior non-aspiring teacher population's post-policy teaching considerations. The study began with an independent *t*-test investigating this population's pre-policy teaching considerations versus its post-policy teaching considerations. Table I.19 (p. 232) reports that statistical differences were present between this population's teaching considerations prior to ( $M = 2.45$ ,  $SD = 2.19$ ) and following ( $M = 3.27$ ,  $SD = 2.43$ ) the establishment of policy intended to improve the perceptions of teaching's prestige, status, and esteem. The results of the independent *t*-test suggest that the high school senior non-aspiring teacher population may give teaching more consideration once the perceptions of teaching are improved.

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.61 (p. 253) presents that the variables, act score ( $r = .38$ ), gender ( $r = .25$ ), policy intervention status ( $r = .29$ ) and policy intervention esteem ( $r = .32$ ) produced sizeable relationships with the dependent variable, policy intervention teach. The data indicate that ACT results may be largely related to this population's post-policy teaching considerations, but the results also indicate that gender, the post-policy perceptions of teaching's esteem, and the post-policy perceptions of teaching's status may also have sizeable relationships with the dependent variable.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this

population's post-policy teaching considerations. Table I.62 (p. 253) demonstrates that gender,  $F(4,202) = 2.72$ ,  $p < .05$ , and act score  $F(5,201) = 8.17$ ,  $p < .05$ , were significant confounding variables. The results indicate that act score's  $R^2$  ( $R^2 = .12$ ) contribution was more robust than gender's ( $R^2 = .05$ ), and that act score was also able to produce a heavier beta ( $\beta = .35$ ) than gender ( $\beta = .18$ ). The data also display that the independent variable, policy intervention prestige was significant,  $F(6,200) = 7.90$ ,  $p < .05$ , but its  $R^2$  ( $R^2 = .02$ ) contribution and beta weight ( $\beta = .15$ ) were less than act score's ( $\beta = .36$ ) and gender's ( $\beta = .29$ ).

Table I.62 (p. 253) demonstrates that policy intervention prestige lost its significance with the model's introduction of policy intervention status,  $F(7,199) = 7.77$ ,  $p < .05$ . The data reveal that the independent variable, policy intervention status was significant, but was unable to maintain its significance with the addition of policy intervention esteem,  $F(8,198) = 7.89$ ,  $p < .05$ . The results reveal that the independent variable's  $R^2$  ( $R^2 = .03$ ) contribution and  $\beta$  coefficient ( $\beta = .21$ ) was greater than gender's ( $\beta = .17$ ), but less than act score's ( $\beta = .34$ ). The data suggest that ACT results may contribute to this population's post-policy teaching considerations. More importantly, the results demonstrate that the post-policy perceptions of teaching's esteem may not discourage, but attract this population to teaching.

The results prompted the use of an ANOVA to study the impact policy intervention may have on high school senior non-aspiring teacher ACT participants, and their post-policy teaching considerations. Table I.63 (p. 254) presents that the measure yielded a main effect between the independent variable, act score, and the dependent policy intervention teach,  $F(4,253) = 7.99$ ,  $p = .00$ . Table I.64 (p. 254) and Table I.65 (p.

255) display descriptive statistics and the results of a Bonferroni post hoc analysis. The results demonstrate that statistical differences were present in the mean post-policy teaching considerations between high school seniors scoring 29 or higher on the ACT ( $M = 4.75$ ,  $SD = 2.71$ ) and their peers scoring 21 to 24 ( $M = 3.27$ ,  $SD = 2.25$ ), 18 to 20, ( $M = 2.97$ ,  $SD = 2.72$ ), and 17 or less ( $M = 2.42$ ,  $SD = 2.00$ ). These results indicate that high school senior non-aspiring teachers scoring 29 or greater on the ACT may have a greater desire than others to consider teaching once the perceptions of teaching have been improved.

An independent *t*-test followed to study high school senior non-aspiring teachers scoring 29 or higher on the ACT. The *t*-test was used to compare this population's pre-policy and post-policy teaching considerations. Table I.19 (p. 232) demonstrates that statistical differences were found in this population's teaching considerations prior to ( $M = 3.63$ ,  $SD = 2.62$ ) and following ( $M = 4.81$ ,  $SD = 2.72$ ) the establishment of policies designed to improve the perceptions of teaching's prestige, status, and esteem.

A second independent *t*-test followed to study high school senior non-aspiring teachers scoring 25 to 28 on the ACT. The *t*-test was used to compare this population's pre-policy and post-policy teaching considerations. Table I.19 (p. 232) demonstrates that statistical differences were found in this population's mean teaching considerations prior to ( $M = 2.54$ ,  $SD = 2.16$ ) and following ( $M = 3.26$ ,  $SD = 2.17$ ) the establishment of policies designed to improve the perceptions of teaching's prestige, status, and esteem. These results indicate that high school senior non-aspiring teachers scoring in the upper deciles of the ACT may have a greater interest in teaching once perceptions of the career have been improved.

## College Undergraduates Considering Other Careers

The analysis continued with a study of the college undergraduate non-aspiring teacher population that derive from households with annual incomes exceeding \$50,000, and those scoring 25 or greater on the ACT. The study began with an independent *t*-test to compare this population's pre-policy and post-policy teaching considerations. Table I.19 (p. 232) demonstrates that statistical differences were present between this population's mean teaching considerations prior to ( $M = 2.79$ ,  $SD = 2.18$ ) and following ( $M = 4.30$ ,  $SD = 2.23$ ) policy implementation. These results illustrate that this population may have a greater interest in teaching once the perceptions of the career's prestige, status, and esteem have been improved.

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.66 (p. 256) reports that the independent variables, policy intervention prestige ( $r = .44$ ) and policy intervention status ( $r = .39$ ) formed large relationships with the dependent variable, policy intervention teach. These relationships suggest that the post-policy perceptions of teaching's prestige and status may be largely related to this population's post-policy teaching considerations. In contrast, the data present that the confounding variable, main source ( $r = -.23$ ) formed a negative relationship with the dependent variable. This result suggests that the main sources that this population use to gain information about teaching may be related to their post-policy considerations to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.67 (p. 256) demonstrates that the confounding variable main source, was significant,  $F(5,154) = 2.69$ ,  $p < .05$ . The data display that main source contributed .06 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = -.24$ ). The results demonstrate that the independent variable, policy intervention prestige was also significant,  $F(6,153) = 8.34$ ,  $p < .05$ . Table I.67 (p. 256) presents that the independent variable contributed a robust .17 to the  $R^2$ , and produced a much larger  $\beta$  coefficient ( $\beta = .42$ ) than main source ( $\beta = -.16$ ) and gender ( $\beta = .17$ ).

The data display that main source was unable to retain its significance with the model's introduction of the independent variable, policy intervention status,  $F(7,152) = 8.07$ ,  $p < .05$ . The results reveal that policy intervention status was significant, and its  $R^2$  ( $R^2 = .02$ ) contribution and beta weight ( $\beta = .19$ ) were considerably less in comparison to policy intervention prestige ( $\beta = .33$ ). The data display that policy intervention prestige maintained its robustness with the model's introduction of policy intervention esteem,  $F(8,151) = 7.24$ ,  $p < .05$ . Table I.67 (p. 256) indicates that the independent variable was insignificant, and that policy intervention prestige continued to produce a larger  $\beta$  coefficient ( $\beta = .35$ ) than policy intervention status ( $\beta = .23$ ) and gender ( $\beta = .16$ ). These results suggest that the post-policy perceptions of teaching's prestige may be influential in causing this population to consider teaching following the implementation of policy intended to improve the perceptions of the career.

## High School Senior and College Undergraduate Aspiring Teachers

The analysis considered the aspiring teacher population that derive from households with annual incomes exceeding \$100,000, those who come from rural or urban cluster areas, and those scoring 21 or greater on the ACT. Table I.19 (p. 232) reports that an independent *t*-test produced statistical differences in this population's mean teaching considerations prior to ( $M = 7.56$ ,  $SD = 1.25$ ) and following ( $M = 6.30$ ,  $SD = 1.94$ ) the establishment of policy designed to improve perceptions of teaching's prestige, status, and esteem. Table I.19 (p. 232) reports a reduction in this population's post-policy teaching means. Despite this result, the data indicate that this population of aspiring teachers may have the greatest post-policy interests in teaching.

A bivariate correlation study continued the analysis and was used to measure the relationships between this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.68 (p. 257) displays that the independent variables, policy intervention prestige ( $r = .33$ ) and policy intervention status ( $r = .23$ ) formed large relationships with the dependent variable, policy intervention teach. The data indicate that the post-policy perceptions of teaching's prestige may have a larger relationship with this population's post-policy teaching considerations than the post-policy perceptions of status. In contrast, Table I.68 (p. 257) presents that gender ( $r = -.19$ ) formed a negative relationship with the dependent variable, policy intervention teach. This result suggests that gender may have some relationship with this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.69 (p. 257) displays that the variable, policy intervention prestige was significant,  $F(6,103) = 2.90$ ,  $p < .05$ . The data display that the independent variable contributed .08 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .31$ ). The results indicate that policy intervention status,  $F(7,102) = 2.46$ ,  $p < .05$ , and policy intervention esteem were insignificant variables,  $F(8,101) = 2.50$ ,  $p < .05$ . Yet, the data display that policy intervention prestige maintained its significance and produced a larger  $\beta$  coefficient ( $\beta = .35$ ) than the confounding variable, gender ( $\beta = -.19$ ). Despite gender's negative beta weight, the data present that its interaction with policy intervention status and policy intervention esteem produced a significant variable,  $F(9,100) = 2.55$ ,  $p < .05$ . Table I.69 (p. 257) displays that the interaction variable contributed .04 to the  $R^2$ , and produced a smaller  $\beta$  coefficient ( $\beta = .22$ ) than policy intervention prestige ( $\beta = .38$ ) and the confounding variable, gender ( $\beta = -.26$ ).

The data demonstrate that the post-policy perceptions of teaching's prestige may be influential in causing this population to consider teaching. While, gender's negative beta signals that it may encourage some to reconsider their career choice, the confounding variable's interaction with the post-policy perceptions of esteem and status may encourage a number of aspiring teachers to consider teaching.

**Summary of results: High school seniors and college undergraduates.** The results demonstrated that high school senior and college undergraduates' interest in teaching may increase following the establishment of policies designed to improve perceptions of teaching's prestige, status, and esteem. The data revealed that the

interactions between the post-policy perceptions of prestige and status may contribute to this increased interest, and that the post-policy perceptions of teaching's esteem may not be a deterrent. Moreover, the results indicated that college undergraduate non-aspiring teachers that derive from households with annual incomes exceeding \$50,000, and those who score 25 or greater on the ACT displayed a significant increase in their post-policy teaching considerations. These results illustrate that post-policy perceptions of teaching's prestige may be the reason for this population's increased interest in teaching. More importantly, the results demonstrated that policy designed to improve the perceptions of teaching may lead college undergraduates who score in the highest deciles of the ACT to have a greater interest in the career.

The results demonstrated that the post-policy perceptions of esteem may be a reason for high school senior non-aspiring teachers to have an increased interest in teaching. The results also indicated that ACT scores may have a strong effect on high school senior non-aspiring teachers' post-policy teaching considerations. These findings are substantial considering that improved perceptions of teaching's prestige, status, and esteem may encourage larger numbers of high school senior non-aspiring teachers who score in the highest deciles of the ACT to have a greater interest in teaching.

Lastly, the results revealed that the post-policy teaching interests of aspiring teachers who derive from households with annual incomes exceeding \$100,000, and those who score 21 or greater on the ACT decrease. This result may be surprising, but not alarming, given that the population's mean teaching considerations remain greater than those of the other populations. The data demonstrated that the post-policy perceptions of teaching's prestige may have a significant effect on this population's



teaching considerations. The results also indicated that the interactions between the post-policy perceptions of teaching's esteem, and status may contribute to this population's post-policy teaching considerations. More importantly, the data demonstrated that aspiring teachers who score in the upper deciles of the ACT may have a greater desire to teach, and that their post-policy perceptions of esteem may not place this population at risk of reconsidering their teaching intentions.

### **Male and Female Post-Policy Teaching Considerations**

The analysis continued with an investigation of the male and female populations' post-policy teaching considerations. An independent *t*-test initiated this segment to investigate whether differences exist between male and female teaching considerations following the establishment of policy designed to improve the perceptions of the teaching career's prestige, status, and esteem. Table I.70 (p. 258) reports that statistical differences were present between female ( $M = 4.96$ ,  $SD = 2.33$ ) and male ( $M = 3.85$ ,  $SD = 2.53$ ) post-policy teaching considerations. Despite this outcome, a follow-up independent *t*-test was employed. Table I.70 (p. 258) reports that statistical differences were present in male teaching considerations prior to ( $M = 3.23$ ,  $SD = 2.79$ ) and following policy implementation ( $M = 3.85$ ,  $SD = 2.53$ ). The results suggest that males may have a greater interest in teaching once the perceptions of teaching's prestige, status, and esteem have improved.

### **Female College Undergraduates Considering Other Careers**

The analysis moved forward with an investigation of the female college undergraduate population who are considering careers other than teaching. An independent *t*-test initiated the study to learn whether statistical differences were present

between this population's pre-policy and post-policy teaching considerations. Table I.70 (p. 258) presents that statistical differences were present in this population's mean teaching considerations prior to ( $M = 3.25$ ,  $SD = 2.12$ ) and following policy interventions ( $M = 4.29$ ,  $SD = 2.21$ ). The data indicate that female college undergraduates considering careers other than teaching may be more interested in teaching following the implementation of policy designed to improve perceptions of the teaching career's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.71 (p. 259) displays that that the independent variables, policy intervention prestige ( $r = .32$ ) and policy intervention status ( $r = .29$ ) produced sizeable relationships with the dependent variable, policy intervention teach. These results indicate that the post-policy perceptions of teaching's prestige and status may hold the largest relationships with this population's post-policy teaching considerations. The data also display that policy intervention esteem ( $r = .19$ ) and act score ( $r = .12$ ) produced smaller relationships with the dependent variable. While the relationships may not be as robust as policy intervention prestige and policy intervention status, the results indicate that the post-policy perceptions of teaching's esteem and ACT results may have some association with this population's post-policy teaching considerations. In contrast, Table I.71 (p. 259) presents that the confounding variable, main source ( $r = -.12$ ) produced a small negative correlation with the dependent variable.

The data suggest that the sources this population use to learn about teaching may have some relationship with their post-policy decisions to choose careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.72 (p. 259) reports that the independent variable, policy intervention prestige was significant,  $F(5,286) = 7.56$ ,  $p < .05$ . The data display that the independent variable contributed a robust .09 to the  $R^2$ , and produced a sizeable  $\beta$  coefficient ( $\beta = .31$ ). The results also indicate that policy intervention prestige may be a stronger predictor than policy intervention status,  $F(6,285) = 7.32$ ,  $p < .05$ . The data present that the independent variable, policy intervention status was significant, but its  $R^2$  ( $R^2 = .02$ ) contribution and beta weight ( $\beta = .15$ ) were less than policy intervention prestige ( $\beta = .24$ ).

Table I.72 (p. 259) demonstrates that the variable, policy intervention esteem was insignificant,  $F(7,284) = 6.28$ ,  $p < .05$ . Despite this outcome, the results display that the variables, policy intervention prestige ( $\beta = .25$ ) and policy intervention status ( $\beta = .17$ ) maintained significance. The data indicate that the post-policy perceptions of teaching's prestige may have the greatest impact on this population, and may influence many to gain interest in teaching once the perceptions of teaching have improved.

### **Rural High School Seniors and College Undergraduates**

The analysis moved forward with an investigation of the rural high school senior and college undergraduate population's post-policy teaching considerations. An independent  $t$ -test initiated the study to determine whether statistical differences were present between this population's pre-policy and post-policy teaching considerations.

Table I.70 (p. 258) demonstrates that statistical differences were not present in this population's mean teaching considerations prior to ( $M = 4.80$ ,  $SD = 2.91$ ) and following policy intervention ( $M = 4.71$ ,  $SD = 2.41$ ). The data demonstrate that this population may remain interested in teaching following the implementation of policy designed to improve perceptions of the teaching career's prestige, status, and esteem

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.73 (p. 260) reports that the variables, policy intervention status ( $r = .23$ ), act score ( $r = .21$ ), policy intervention esteem, ( $r = .18$ ), and gender ( $r = .19$ ) all formed similar relationships with the dependent variable, policy intervention teach. These results suggest that the post-policy perceptions of teaching's status and esteem, and the confounding variables, gender, and ACT results may be related to this population's post-policy teaching considerations. Additionally, the results present that the variable, interaction policy intervention prestige status ( $r = .15$ ) formed a small relationship with the dependent variable. This result indicates that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status may have some relationship with the rural high school senior and college undergraduate population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.74 (p. 260) reports that the confounding variables, gender,  $F(3,324) = 5.20$ ,  $p < .05$ , and act score were significant,

$F(4,323) = 7.09, p < .05$ . The data display that gender ( $R^2 = .05$ ) and act score's ( $R^2 = .04$ )  $R^2$  contributions were similar, and that each produced comparable beta weights (gender ( $\beta = .20$ ) and act score ( $\beta = .19$ )). The results also present that the independent variable, policy intervention prestige was significant,  $F(5,322) = 6.68, p < .05$ ., but was unable to maintain significance with the addition of policy intervention status,  $F(6,321) = 7.01, p < .05$ . The data display that policy intervention status was significant, but it was unable to maintain significance with the model's introduction of the variable policy intervention esteem,  $F(7,320) = 6.10, p < .05$ .

Table I.74 (p. 260) reports that policy intervention esteem was insignificant, but the interaction variable, policy intervention prestige status produced significance,  $F(8,319) = 7.19, p < .05$ . The results demonstrate that the interaction variable's  $R^2$  ( $R^2 = .04$ ) contribution was comparable to gender's ( $\beta = .19$ ) and act score's ( $\beta = .13$ ), but its beta weight ( $\beta = .21$ ) was heavier than both confounding variables. The data suggest that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status may contribute to this population's interest in teaching.

### **Female Rural High School Seniors and College Undergraduates**

The analysis continued with an investigation of the female rural high school senior and college undergraduate population deriving from households with minimum annual incomes of \$100,000. An independent  $t$ -test initiated the study to determine whether statistical differences in this population's teaching considerations were present between their pre-policy and post-policy teaching considerations. Table I.70 (p. 258) demonstrates that statistical differences were not present in this population's mean teaching considerations prior to ( $M = 5.51, SD = 2.75$ ) and following ( $M = 5.05, SD =$

2.35) the establishment of policies designed to improve the perceptions of teaching's prestige, status, and esteem. The results indicate that this population may remain interested in teaching following the implementation of policy designed to improve perceptions of the teaching career's prestige, status, and esteem

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.75 (p. 261) reports that the independent variables, policy intervention status ( $r = .30$ ), interaction policy intervention prestige status ( $r = .26$ ), policy intervention prestige ( $r = .20$ ), and policy intervention esteem ( $r = .19$ ) formed relationships with the dependent variable, policy intervention teach. The data indicate that the post-policy perceptions of teaching's status, and the interaction between the post-policy perceptions of prestige and status may be largely related to this population's post-policy teaching considerations. The results also report that the post-policy perceptions of teaching's esteem and the post-policy perceptions of teaching's prestige may be associated with this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.76 (p. 261) reports that policy intervention status was a significant variable,  $F(5,130) = 2.79$ ,  $p < .05$ . The results display that the variable contributed .05 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .26$ ). The data also demonstrate that policy intervention status may be a stronger predictor than policy intervention esteem,  $F(6,129) = 2.31$ ,  $p < .05$ . Table I.76 (p. 261)

demonstrates that the independent variable was insignificant, and that policy intervention status was able to maintain its significance ( $\beta = .27$ ). The results display that the independent variable, interaction policy intervention prestige status was also significant,  $F(7,128) = 4.26, p < .05$ . The data present that the independent variable contributed a robust .09 to the  $R^2$ , and produced a similar  $\beta$  coefficient ( $\beta = .35$ ) as status ( $\beta = .37$ ). While the beta weights may be comparable, the interaction variable's robust  $R^2$  contribution demonstrates that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status may have slightly more of an effect on this population's post-policy teaching considerations.

### **Urban High School Seniors and College Undergraduates**

The analysis continued with a study of the urban high school senior and college undergraduate population that derive from households with annual incomes exceeding \$50,000, and those that have scored a minimum of 21 on the ACT. An independent  $t$ -test initiated the investigation to determine whether statistical differences were present between this population's pre-policy and post-policy teaching considerations. Table I.70 (p. 258) demonstrates that statistical differences were not present in this population's mean teaching considerations prior to ( $M = 4.19, SD = 2.82$ ) and following ( $M = 4.67, SD = 2.45$ ) the establishment of policies designed to improve the teaching career's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships between this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.77 (p. 262) reports that the variables, gender

( $r = .38$ ) and interaction policy intervention prestige status ( $r = .29$ ) formed sizeable relationships with the dependent variable, policy intervention teach. The data indicate that gender may have a large relationship with this population's post-policy teaching considerations. Although not as robust, the results suggest that the post-policy perceptions of teaching's prestige and its interactions with the post-policy perceptions of teaching's status may also hold a sizeable relationship with this population's post-policy teaching considerations. Finally, the data indicate that that the post-policy perceptions of teaching's status ( $r = .21$ ) may also have some relationship with urban high school senior and college undergraduate post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.78 (p. 262) demonstrates that gender was significant,  $F(4,135) = 6.60$ ,  $p < .05$ , and that the confounding variable contributed a robust .12 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .35$ ). The results report that policy intervention prestige was also significant,  $F(5,134) = 6.90$ ,  $p < .05$ , but its  $R^2$  ( $R^2 = .04$ ) contribution and  $\beta$  coefficient ( $\beta = .20$ ) were less than gender's ( $\beta = .39$ ). Table I.78 (p. 262) reveals that policy intervention prestige was unable to maintain significance with the model's introduction of policy intervention status,  $F(6,133) = 6.26$ ,  $p < .05$ . The data display that policy intervention status and policy intervention esteem were insignificant,  $F(7,132) = 5.37$ ,  $p < .05$ . Despite this insignificance, the results demonstrate that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status produced a significant variable,  $F(8,131) = 5.36$ ,  $p < .05$ . The results present that the variable,



interaction policy intervention prestige status'  $R^2$  ( $R^2 = .03$ ) contribution and  $\beta$  coefficient ( $\beta = .20$ ) were less than gender's ( $\beta = .39$ ).

The data suggest that gender may have a considerable effect on this population's post-policy teaching considerations. Yet, the interaction variable's beta and  $R^2$  contribution signals that it too may hold some influence. While the interaction may not be as robust as gender, the data suggest that the post-policy perceptions of prestige and the variable's interaction with the post-policy perceptions of status may have some effect on urban high school senior and college undergraduate post-policy teaching considerations.

#### **Female Urban/Urban Cluster College Undergraduates Considering Other Careers**

The analysis moved forward with an investigation of the urban and urban cluster female college undergraduate non-aspiring teacher population that derive from households with annual incomes exceeding \$50,000, and those who have scored 21 or greater on the ACT. An independent  $t$ -test initiated the investigation to compare this population's pre-policy and post-policy teaching considerations. Table I.70 (p. 258) demonstrates that statistical differences were present in this population's mean teaching considerations prior to ( $M = 3.04$ ,  $SD = 2.09$ ) and following policy intervention ( $M = 4.32$ ,  $SD = 2.27$ ). These results suggest that this population may be more interested in teaching following the establishment of policy designed to improve the perceptions of teaching's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships between this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.79 (p. 263) reports that the variables, policy

intervention prestige ( $r = .33$ ) and policy intervention status ( $r = .31$ ) formed sizeable relationships with the dependent variable, policy intervention teach. The data indicate that the post-policy perceptions of teaching's prestige and status may be related to this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.80 (p. 263) demonstrates that the independent variable policy intervention prestige was significant,  $F(4,118) = 4.32$ ,  $p < .05$ . The data display that the independent variable contributed a robust .10 to the  $R^2$ , and produced a sizeable  $\beta$  coefficient ( $\beta = .32$ ). The results reveal that the independent variable, policy intervention status was also significant,  $F(5,117) = 4.37$ ,  $p < .05$ , but its  $R^2$  ( $R^2 = .03$ ) contribution and  $\beta$  coefficient ( $\beta = .20$ ) were less than policy intervention prestige's ( $\beta = .23$ ). Policy intervention prestige and policy intervention status remained robust with the model's introduction of policy intervention esteem,  $F(6,116) = 3.65$ ,  $p < .05$ . Table I.80 (p. 263) presents that the independent variable was insignificant, and that policy intervention prestige continued to produce a heavier beta ( $\beta = .24$ ) than policy intervention status ( $\beta = .21$ ). The data indicate that the post-policy perceptions of teaching's prestige may encourage this population to consider teaching once the perceptions of the career have been improved.

**Summary of results: Gender and hometown classifications.** The results demonstrated that males may have a greater interest in teaching following the establishment of policy designed to improve the perceptions of teaching's prestige, status, and esteem. In addition, the data indicated that the post-policy perceptions of teaching's

prestige may encourage female college undergraduates who are considering careers other than teaching to have greater interest in the career. The results revealed that post-policy perceptions of teaching's prestige may also heighten the urban/urban cluster female college undergraduate non-aspiring teacher population's interests. Moreover, the results demonstrated that post-policy perceptions of esteem may not discourage this population or others from considering teaching.

Lastly, the results suggested that the rural high school senior and college undergraduate population's pre and post-policy teaching considerations may be comparable. This phenomenon may also be true for rural females, but the results indicated that post-policy teaching considerations may be more robust for this population than for the rural high school senior and college undergraduate population, in that they demonstrated that the post-policy perceptions of teaching's prestige and status may have the most significant effect on this population, and may be the reason for a greater post-policy interest in teaching.

#### **Household Annual Income: \$50,000 or \$100,000**

The analysis considered the high school senior and college undergraduate non-aspiring teacher population that derive from households with annual incomes ranging from \$50,000 to \$100,000. An independent *t*-test initiated the investigation to determine whether statistical differences persist between this population's pre-policy and post-policy teaching considerations. Table I.81 (p. 264) demonstrates that statistical differences were present in this population's mean teaching considerations prior to ( $M = 2.93$ ,  $SD = 2.11$ ) and following policy intervention ( $M = 3.93$ ,  $SD = 2.30$ ). The data suggest that this population of high school seniors and college undergraduates may be

more interested in teaching following the establishment of policies designed to improve teaching's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships between this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.82 (p. 265) reports that the variables, policy intervention prestige ( $r = .27$ ), policy intervention status ( $r = .30$ ), and act score ( $r = .26$ ) formed similar relationships with the dependent variable, policy intervention teach. The data demonstrate that the post-policy perceptions of teaching's prestige, the post-policy perceptions of teaching's status, and ACT results may be associated with this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.83 (p. 265) presents that the confounding variable, act score was significant,  $F(4,154) = 3.89$ ,  $p < .05$ . The data display that act score contributed .06 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = .25$ ). The results also report that the independent variable, policy intervention prestige was significant,  $F(5,153) = 6.66$ ,  $p < .05$ , and that its  $R^2$  ( $R^2 = .09$ ) contribution and  $\beta$  coefficient ( $\beta = .30$ ) were greater than act score's ( $\beta = .23$ ) and gender's ( $\beta = .19$ ).

Table I.83 (p. 265) presents that the independent variables, policy intervention status,  $F(6,152) = 5.90$ ,  $p < .05$ , and policy intervention esteem were insignificant,  $F(7,151) = 5.11$ ,  $p < .05$ . Despite these outcomes, the data display that policy intervention prestige was able to maintain a heavier beta weight ( $\beta = .26$ ) than act score

( $\beta = .20$ ) and gender ( $\beta = .17$ ). These results indicate that the post-policy perceptions of teaching's prestige may encourage this population to consider teaching.

### **Household Annual Income: \$150,000 or Greater**

The analysis continued with an investigation of the high school senior and college undergraduate population that derive from households with annual incomes exceeding \$150,000, and those scoring 25 or greater on the ACT. An independent *t*-test began the study to determine whether statistical differences were present between this population's pre-policy and post-policy teaching considerations. Table I.81 (p. 264) reports that statistical differences were present in this population's mean teaching considerations prior to ( $M = 4.61$ ,  $SD = 2.92$ ) and following policy intervention ( $M = 5.25$ ,  $SD = 2.37$ ). This data indicate that this population of high school seniors and college undergraduates may be more interested in teaching following the establishment of policy designed to improve the perceptions of teaching's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.84 (p. 266) demonstrates that that the variables, policy intervention status ( $r = .41$ ), policy intervention prestige ( $r = .35$ ), and policy intervention esteem ( $r = .31$ ) formed large relationships with the dependent variable, policy intervention teach. The data display that the independent variable, interaction policy intervention prestige esteem ( $r = .27$ ) also formed a sizeable relationship with the dependent variable. These results indicate that the post-policy perceptions of teaching's status, the post-policy-perceptions of teaching's prestige, and

the post-policy perceptions of teaching's esteem may be largely related to this population's post-policy teaching considerations. The data also suggest the post-policy perceptions of teaching's prestige and its interactions with the post-policy perceptions of teaching's esteem may also be associated with this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.85 (p. 266) displays that the independent variable, policy intervention prestige was significant,  $F(5,148) = 5.91$ ,  $p < .05$ , and that the variable's  $R^2$  ( $R^2 = .12$ ) contribution and beta ( $\beta = .36$ ) were larger than gender's ( $\beta = .19$ ). The data also report that the independent variable, policy intervention status was significant,  $F(6,147) = 6.79$ ,  $p < .05$ . The results report that policy intervention status'  $R^2$  ( $R^2 = .05$ ) contribution was weaker than policy intervention prestige ( $\beta = .20$ ), but its beta weight ( $\beta = .28$ ) was heavier.

Table I.85 (p. 266) displays that the independent variable, policy intervention esteem was insignificant,  $F(7,146) = 5.86$ ,  $p < .05$ . Despite this outcome, the results demonstrate that the variable's interaction with policy intervention prestige formed a significant variable,  $F(8,145) = 6.28$ ,  $p < .05$ . The data present that the interaction variable's  $R^2$  ( $R^2 = .04$ ) contribution and  $\beta$  coefficient ( $\beta = .21$ ) were slightly less than policy intervention status ( $\beta = .26$ ). These results indicate that the post-policy perceptions of teaching's status and the interaction between the post-policy perceptions of teaching's prestige and esteem may encourage this population to consider teaching.

### **ACT Score: 25 to 28**

The analysis continued with an investigation of the college undergraduate non-aspiring teacher population scoring 25 to 28 on the ACT. An independent *t*-test began the investigation to determine whether statistical differences were present in this population's pre-policy and post-policy teaching considerations. Table I.81 (p. 264) presents that statistical differences were present in this population's mean teaching considerations prior to ( $M = 2.96$ ,  $SD = 2.18$ ) and following post-policy interventions ( $M = 4.35$ ,  $SD = 2.19$ ). These results suggest that this population of college undergraduates may be more interested in teaching following the establishment of policy designed to improve the perceptions of teaching's prestige, status, and esteem.

A bivariate correlation study continued the analysis and was used to measure the relationships between this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.86 (p. 267) reports that that the variables, policy intervention prestige ( $r = .43$ ) and policy intervention status ( $r = .32$ ) formed large relationships with the dependent variable, policy intervention teach. These results suggest that the post-policy perceptions of teaching's prestige may have a stronger relationship with this population's teaching considerations than the post-policy perceptions of teaching's status. In contrast, the data display that the confounding variable, main source formed a negative relationship ( $r = -.27$ ) with the dependent variable. This result indicates that the sources that this population uses to learn about teaching may be associated with their post-policy considerations to consider careers other than teaching.

The results of the correlation analysis led to a decision to use a hierarchical linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.87 (p. 267) reports that main source was the single significant confounding variable,  $F(4,105) = 3.03$ ,  $p < .05$ . The data display that the independent variable contributed a sizeable .08 to the  $R^2$ , and produced a moderate  $\beta$  coefficient ( $\beta = -.28$ ). Despite main source's strength, the results report that the independent variable, policy intervention prestige may be a stronger predictor,  $F(5,104) = 8.38$ ,  $p < .05$ . The data demonstrate that the independent variable's  $R^2$  ( $R^2 = .18$ ) contribution and  $\beta$  coefficient ( $\beta = .45$ ) were greater than main source's ( $\beta = -.27$ ).

Table I.87 (p. 267) displays that policy intervention status and policy intervention esteem were insignificant variables. The data display that policy intervention prestige maintained a larger  $\beta$  coefficient ( $\beta = .39$ ) than the variable main source ( $\beta = -.21$ ). These results demonstrate that the post-policy perceptions of teaching's prestige may have a stronger impact on this population's post-policy teaching considerations. Nevertheless, main source's moderate beta weight indicates that the sources this population uses to learn about teaching may discourage some of this population from teaching despite improvements to the perceptions of teaching's prestige, status, and esteem.

### **ACT Score: 20 or Less**

The final analysis studied the high school senior population scoring 20 or less on the ACT, and those that derive from households with annual incomes greater than \$50,000. An independent  $t$ -test initiated the investigation to determine whether statistical differences persist in this population's pre-policy and post-policy teaching considerations.



Table I.81 (p. 264) presents that statistical differences were not present in this population's teaching considerations prior to ( $M = 4.51$ ,  $SD = 3.06$ ) and following the establishment of policy designed to improve the teaching career's prestige, status, and esteem ( $M = 4.24$ ,  $SD = 2.68$ ).

A bivariate correlation study continued the analysis and was used to measure the relationships of this population's post-policy perceptions of the teaching career's prestige, status, and esteem, and the level this population may have when considering post-policy teaching considerations. Table I.88 (p. 268) reports that the variables, policy intervention esteem ( $r = .29$ ), policy intervention status ( $r = .22$ ), and gender ( $r = .29$ ) formed sizeable relationships with the dependent variable, policy intervention teach. These results indicate that the post-policy perceptions of teaching's esteem, the post-policy perceptions of teaching's status, and gender may be related to this population's post-policy teaching considerations.

The results of the correlation analysis led to a decision to use a hierarchal linear regression in order to study variables that may be influential in predicting this population's post-policy teaching considerations. Table I.89 (p. 268) presents that the confounding variable, gender was significant,  $F(4,132) = 3.84$ ,  $p < .05$ . The data display that gender contributed a robust .10 to the  $R^2$ , and produced a large  $\beta$  coefficient ( $\beta = .31$ ). The results also report that the independent variable, policy intervention prestige was insignificant,  $F(5,131) = 3.05$ ,  $p < .05$ .

Table I.89 (p. 268) reveals that the independent variable, policy intervention status was significant,  $F(6,130) = 4.61$ ,  $p < .05$ , and that the variable's  $R^2$  ( $R^2 = .07$ ) contribution and  $\beta$  coefficient ( $\beta = .28$ ) were less than gender's ( $\beta = .34$ ). Despite this

results, the data display that policy intervention status lost its significance with the model's introduction of policy intervention esteem,  $F(7,129) = 5.11, p < .05$ . The data demonstrate that the independent variable's  $R^2$  contribution was less than gender's ( $\beta = .29$ ), but its beta weight ( $\beta = .30$ ) was comparable.

Finally, Table I.89 (p. 268) presents that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status produced a significant variable,  $F(8,128) = 5.43, p < .05$ . The data reveal that the independent variable, interaction policy intervention prestige status contributed .04 to the  $R^2$ , and produced a smaller  $\beta$  coefficient ( $\beta = .22$ ) than policy intervention esteem ( $\beta = .34$ ) and gender ( $\beta = .26$ ). The data indicate that the post-policy perceptions of teaching's esteem and gender may have an effect on this population's post-policy teaching considerations. The results also demonstrate that the post-policy perceptions of teaching's prestige and its interaction with the post-policy perceptions of teaching's status may also have some impact on this population's post-policy teaching considerations.

**Summary of results: Household incomes and ACT scores.** The results indicated that high school seniors and college undergraduates who score 25 to 28 on the ACT may be more interested in teaching once the perceptions of teaching's prestige, status, and esteem improve, and that the post-policy perceptions of teaching's prestige may have the greatest effect on this population. Additionally, the results demonstrated that high school seniors and college undergraduates that derive from households with annual incomes exceeding \$150,000, and those who score 25 or greater on the ACT may have a greater post-policy interest in teaching than do other high school senior and college undergraduate populations. The data revealed that the post-policy perceptions of

teaching's status may be a reason for this increased interest in the career. Further, the results demonstrated that the post-policy perceptions of prestige and its interactions with the post-policy perceptions of esteem may have a secondary effect on this population's increased interest in teaching.

The data illustrated that high school seniors and college undergraduates who derive from households with annual incomes ranging from \$50,000 to \$100,000 may also have a greater interest in teaching following policy intervention. The results demonstrated that the post-policy perceptions of teaching's prestige may be a reason for this population's increased interest in teaching. Additionally, the data revealed that ACT scores may also have some influence on their post-policy teaching considerations.

Lastly, the results demonstrated that high school seniors and college undergraduates who derive from households with annual incomes exceeding \$50,000, and those who score 20 or less on the ACT may have neither an increased nor decreased interest in teaching following policy intervention. The results indicated that this population may be interested in teaching regardless of the way in which the career is perceived. Despite this outcome, the results demonstrated that the post-policy perceptions of teaching's esteem may be a reason for this population to remain interested in teaching.

#### **Summary of Chapter IV**

The arrows connecting the perceptions of teaching's status to consider teaching in Figure 5 (p. 272) represents the positive effects the career's status may have on a large number of high school senior and college undergraduate teaching considerations. For example, the results revealed that the perceptions of teaching's status may be a reason

high school seniors and college undergraduates scoring 25 to 28 on the ACT ( $r = .47$ ;  $\beta = .41$ ) would consider teaching. Similarly, the results demonstrated that the perceptions of teaching's status may be a reason high school seniors and college undergraduates from households with annual incomes greater than \$150,000 ( $r = .44$ ;  $\beta = .40$ ) would consider the career.

In contrast, the arrows flowing to the right of status represent the negative effects of teaching's esteem. The results indicated that the perceptions of esteem may discourage large numbers of high school seniors and college undergraduates from considering the career. For example, the results demonstrated that high school seniors and college undergraduates from households with annual incomes ranging from \$100,000 to \$150,000 ( $r = -.25$ ,  $\beta = -.26$ ) may be a population discouraged by the perceptions of teaching's esteem. Moreover, the results demonstrated that high school seniors and college undergraduates scoring 21 to 24 on the ACT ( $r = -.18$ ,  $\beta = -.30$ ) may also be more likely to be discouraged by the perceptions of teaching's esteem. These results may be significant considering the size of this population. In 2018, ACT reported that the national mean composite score was 21 (ACT, 2018). This data illustrates the large number of high school seniors and college undergraduates that may be discouraged by the perceptions of teaching's esteem.

The arrows linking esteem and the financial component of prestige represents an interaction. The results demonstrated that the perceptions of the financial component of prestige did not produce any effects on its own, but it did produce an interaction with the perceptions of teaching's esteem. The results demonstrated that the interaction ( $r = -.19$ ,  $\beta = -.24$ ) may have an effect on the female aspiring teacher population. The results

indicated that poor teacher compensation may limit the perception of teaching's esteem. These limited perceptions may be a reason that this population reconsiders their teaching intentions. These limited perceptions may also initiate thoughts of early attrition at the preservice teacher level and come to fruition once the realities of teaching are experienced.

The arrows linking esteem, the financial component of prestige, and main sources represent an additional interaction. The results demonstrated that high school seniors and college undergraduates scoring in the upper deciles of the ACT may learn of the limitations that the financial component of prestige may have on teaching's esteem from their own teachers. The descriptive statistics appear to support these results, with over half (56%) of this population reporting they learned about the teaching career from current faculty. The results demonstrated that this population may be discouraged by the effects teacher compensation may have on the perceptions on teaching's esteem. Moreover, the results raise additional questions as to the effects teacher morale may have on this population's teaching considerations.

The results demonstrated that the implementation of international policy had positive effects on the majority of high school seniors and college undergraduates. However, the analyses were unable to establish whether improvements in the perceptions of teaching's prestige, status, and esteem led to an increased interest for all populations. For example, males ( $M = 3.23$ ,  $SD = 2.79$ ;  $M = 3.85$ ,  $SD = 2.53$ ) may be more likely to consider teaching with the implementation of international policy, but the researcher was unable to establish whether improvements in the aforementioned perceptions had an effect on the male population's increased interest in teaching.

Figure 6 (p. 273) illustrates the effects that the improvements of the perceptions of teaching's prestige, status, and esteem may have on a number of high school senior and college undergraduate populations. The results demonstrated that improved perceptions of teaching's prestige ( $r = .44$ ,  $\beta = .35$ ) may have a significant effect on the college undergraduate non-aspiring teacher population from households with annual incomes exceeding \$50,000 and those scoring 25 or greater on the ACT ( $r = .44$ ,  $\beta = .35$ ). Additionally, improvements in the perceptions of prestige may have a significant effect on the urban and urban cluster female college undergraduate non-aspiring teacher population from households with annual incomes exceeding \$50,000, and those who have scored 21 or greater on the ACT ( $r = .33$ ,  $\beta = .24$ ). These results suggest that improvements in the perceptions of teaching's prestige could elevate teaching into being a competitive profession in the contemporary labor market. The improvements in the perceptions of teaching's prestige may be a reason that high school seniors and college undergraduates with strong academic backgrounds would consider teaching. The results also suggest that the improvements in teaching's prestige may attract a greater number of academically inclined females who would otherwise consider more prestigious professions. Finally, the results demonstrated that improvements in the perceptions of prestige may also have a significant effect on the aspiring teacher population ( $r = .33$ ,  $\beta = .38$ ) from households with annual incomes exceeding \$100,000 and those who have scored 21 or greater on the ACT. These results appear significant because they indicate that improvements in the perceptions of teaching's prestige may stabilize this population's career intentions. This population may be more likely to become teachers once the perception of teaching's prestige has improved. Moreover, these results suggest

that improvements in the perception of teaching's prestige may limit consideration of early exit and ease some of the burdens of early teacher attrition.

### **Low Correlation Coefficients**

The correlation coefficients were relatively low throughout the study. This is not uncommon considering social science research involves the study of human behavior. Human behavior is not physical in nature and the assumption that a perfect correlation (e.g.,  $r = 1.00$ ) can be formed in social science research may be unrealistic. Indeed, benchmarks have been established to illustrate the size of correlations ( $r = .10$  is small,  $r = .30$  is medium, and  $r = .50$  is large), but their use may be more realistic in research involving physical phenomena versus human behavior (Cohen, 1988). Some scholars contend that it is more optimal to let relationships serve as mental benchmarks (Meyer, Finn, Eyde, Kay, Moreland, Dies, Eisman, Kubiszyn, & Reed, 2001). Meyer and colleagues assert that relatively low positive or negative correlations in the study of human behavior can provide valuable information. For example, "the association between prominent movie critics' reviews and box office success ( $r = .17$ ) produced a small correlation, but the results proved to be valuable" (Meyer, et al., 2001, p. 133).

### **Low R-Squared Values**

Like the correlation coefficients, a number of the R-squared values were relatively low throughout the study. This is not uncommon considering the nature of this research. It is typical for any study that attempts to predict human behavior to produce lower R-squared values. Human behavior is more difficult to predict than physical phenomena and it is expected that R-squared values may be low. Despite low R-squared values, the significant  $F$  values in the regression analyses demonstrated that the effects are

statistically significant. This allows for important conclusions to be made because the predictor values are associated with changes in the response value. Regardless of the R-squared values, the significant beta weights still represent the mean change in the response for one unit of change in the predictor while holding other predictors in the model constant (Onditi, 2013).

Chapter V provides a description of formal and semantic status and describes the implications of each. An explanation of international education policy is included in the chapter, and presents the effects this policy may have on the perceptions of teaching's prestige, status, and esteem. The chapter explains that improvements to the perceptions of teaching may increase the career's status from formal to semantic. If semantic status comes to fruition, larger numbers of high school seniors and college undergraduates may be interested in teaching.



## **CHAPTER V.**

### **DISCUSSION**

Chapter V begins with an explanation of semantic status and its implications for the teacher shortage. It addresses the erosion of teaching's esteem and the limitations that perceptions of esteem place on the career's ability to realize semantic status. The chapter discusses international education policy and the effects policies designed to improve the perceptions of teaching's prestige, status, and esteem may have on teaching's semantic status in America. The suggestion is made that the burdens of the teacher shortage may ease once teaching acquires semantic status. The chapter concludes with implications for practice, recommendations for state education agencies, school districts, and for further research.

#### **Semantic Status**

An occupation realizes semantic status when a society unequivocally considers it a high-status profession. This is a powerful ideology, given that many are attracted to the idea of working in a high-status profession. Many assume that the fruits of their labor will be sweeter and that the rewards from high-status professions will be plentiful. In contrast, a governing body may afford a career a professional label, but its professional status may not be absolute (Hoyle, 2001). Internally, its workforce may perceive itself as a profession, but externally, society may hold different perceptions. This ideology may

place public service occupations such as teaching at a disadvantage (Wan, Wong, & Kong, 2014; Domenico & Jones, 2006).

The results from this study illustrated that an occupation's semantic status is unbalanced when a society holds negative perceptions of at least one of prestige's components, financial and image, as well as status and esteem (Figure 7, p. 274). This instability can lead to a limited interest in teaching and shortages in a quality workforce, which seems to be the current state of the teaching career in the United States. The data demonstrated that high school seniors and college undergraduates may hold positive perceptions of teaching's status. In fact, perceptions of teaching's status may be higher than that of other public service occupations (Hoyle, 1995, 2001). This seems to be good news, but the results also indicated that perceptions of teaching's status may plateau beneath professions perceived commonly to hold high status, and teaching's semantic status' instability may be a reason for this limitation. While perceptions of teaching's status appear promising, esteem's negative implications and its negative interaction with prestige's image and financial components may prevent teaching from achieving semantic status.

In contrast, an occupation may realize semantic status when negative perceptions of its prestige (financial and image components), status, and esteem do not persist. In fact, an occupation's semantic status may strengthen when a society holds positive perceptions of one or more of these elements. This stability can generate great interest in an occupation and lead to the development of a quality workforce. This theory appears to portray the state of teaching in nations such as Finland, Taiwan, Singapore, and South Korea, in which teaching's semantic status has afforded the opportunity to attract the

brightest and most capable students into teaching (Darling-Hammond, 2017; Sahlberg, 2015). With highly skilled teachers, these nations have developed a stable and quality teacher workforce able to produce robust student achievement. The results have generated world-wide interest, but more importantly, they demonstrate that a strong teacher workforce is an essential component of student learning (Sahlberg, 2015).

People argue that PISA scores do not tell the whole story. This may be true, but economic activity may provide additional insight. At present, Finland, Taiwan, Singapore, and South Korea's economies are continuing to grow. This economic vitality has not always existed, and leaders from these nations attribute the economic growth to their nation's education systems. Policymakers assert that the teacher is the core of their education systems, and is the single most important variable in student achievement (Sahlberg, 2015).

Although teaching is considered to hold formal status in the United States, there may be regions where the career possesses semantic status. This may be the case in wealthy rural areas. The data illustrated that perceptions of teaching's status may encourage high school seniors and college undergraduates from these regions to consider teaching. Moreover, the negative implications of teaching's esteem appear to be absent in these regions. This suggested that teaching may have realized semantic status in these areas, which may a reason that this population may be more likely to consider teaching than those in other regions.

Despite these indications of semantic status, the rural population's uniqueness should be considered as well. The literature has demonstrated the significance of social capital and its implications in this population's career decisions (Bajema, Miller, &

Williams, 2002; Byun, Meece, Irvin, & Hutchins, 2012). Byuan et al. defined social capital as "...capital inherent in the relations among persons, which is separable from other forms of resources such as financial capital (e.g., income) and human capital (e.g., years of schooling)" (p. 357). Previous research has demonstrated that higher levels of social capital may exist in rural regions compared to suburban and urban areas. Much of this research has suggested that commonly, rural community members place greater value on family and community relationships than on income or educational attainment (Byun et al., 2012). Together with semantic status, these core values may contribute to the rural high school senior and college undergraduate population's willingness to teach.

Indeed, social capital may affect rural female aspiring teachers, but perceptions of teaching's status may also be important. Additionally, the data demonstrated that rural female aspiring teachers may be the single population drawn to teaching by prestige's image component. This anomaly may stem from the relationships between this population and their teachers. Traditionally, rural students form stronger relationships with their teachers than do students in non-rural environments. This phenomenon may increase this population's perceptions of the image component of teaching's prestige and attract them to the career (Ballou & Podgursky, 1995).

These results appear to be good news for rural schools, but teachers' geographic mobility patterns may be a reason for unequal distribution. Social capital often motivates teachers to seek employment close to home (Boyd et al., 2005). The desire to live and work near family and friends may provide some rural districts with an adequate pool of qualified teachers. However, social capital may not be as prevalent in certain rural

communities. Moreover, teaching may not have acquired semantic status in some rural areas, and both can lead often to problems recruiting qualified candidates.

Lastly, the rural economy could also contribute to rural teacher shortages. Rural high school seniors often begin to work immediately following graduation. Many do not see the need to further their education because the jobs within a rural economy typically do not require one. Teaching may hold semantic status in these regions, but only a small number of rural students may see a purpose in attending college.

### **The Erosion of Esteem**

It is plausible that the media's representation of teachers, consistent political criticism, poor teacher compensation, and a public that undervalues teaching may be eroding the perceptions of teaching's esteem. Comments such as "the decline of American education has long been a national embarrassment" may sell magazines and newspapers, but the discourse may also chip away at the career's esteem (Draper, 2010, p. 1). Negative comments on the part of governmental leaders and the decades-long political war on public education could also be taking a toll (Draper, 2010; Reilly, 2018). Combined with such negative discourse, poor teacher compensation seems to be eroding teaching's esteem. Low salaries signal that a teacher's work in educating the nation's children is undervalued, which may significantly affect its ability to fill its teacher pipelines.

Esteem's implications may also be complicating efforts to recruit prospective teachers. Maslow (1943) asserted that this is a natural response because "all people in our society have a need or desire for a stable, firmly based, high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others" (p. 381). His

work illustrates that an esteemed career satisfies the needs for both professional and personal validation, and serves as a foundation in the quest for “reputation or prestige” (p. 382). This quest may be a driving force in career and personal life decisions, but it also can be a chief deterrent. It is plausible that many high school seniors and college undergraduates are unwilling to teach because they perceive teaching as a career that limits their individual abilities to reach their fullest personal and professional potentials (McClelland, 2001; Petty, 2014).

These assumptions may be the reason that high school seniors and college undergraduates who score 29 or greater on the ACT may be less likely to consider teaching than those who score in the lower deciles. Perceptions of teaching’s status may encourage this population to consider teaching, but perceptions of esteem, and its interaction with prestige’s financial component, and the main sources used to learn about teaching, may deter its members. This population often avoids teaching because they believe that the career will prevent them from reaching their fullest potential. Further, they are unwilling to sacrifice their basic financial needs for a career, and are more inclined to elect occupations consistent with their financial goals (Wan, Wong, & Kong, 2014).

Table I.9 (p. 225) presents that 56% of the total population reported that they acquired information about teaching from their own teachers, administrators, and school counselors. These data, in concert with main source’s interaction with esteem and prestige’s financial component, demonstrated that the implications of low teacher morale may negatively influence high school seniors and college undergraduates who score in the upper deciles of the ACT (Lawver & Torres, 2011). Figure 8 (p. 275) illustrates the

discontent within the teacher workforce, in which the majority of 4,275 teachers reported that they have considered leaving teaching (Klimek, 2018). This evidence supports commentary that suggests teacher morale may be at its lowest in decades. It is plausible that this discontent may be modeled in the classroom and discourage a large number of high achievers from considering teaching (Sutcher, Darling-Hammond, & Carver-Thomas, 2016).

The results displayed that low teacher morale may prompt practicing teachers to discourage those who score in the upper deciles of the ACT from considering teaching. Figure 9 (p. 275) displays the results of 4,275 teachers' reports of the degree to which they would encourage others to enter the career. The results demonstrate that 54% of teachers reported some degree of discouragement, while 45% reported some degree of encouragement. The largest differences were in the percentage of teachers who would strongly encourage others to teach (4%) versus those who would not (17%: Klimek, 2018). This may be problematic considering the occupation's nature. Teaching is the single occupation that interacts with the majority of a population. This uniqueness can serve as a strong recruitment tool, but it also can pose problems. In its current state, it appears that teachers may serve more as a deterrent than a recruitment tool.

Low teacher morale may affect the high school senior population that is considering careers other than teaching. The results indicated that teaching's image, and its interaction with perceptions of esteem and prestige's financial component may discourage this population from teaching. Like others, perceptions of teaching's status may positively influence this population's teaching considerations, but its implications may be insignificant. The images of classroom struggles, compensation that undervalues

teachers' work, and the struggles to provide basic personal needs appear to have a greater influence on this population than does status. The results suggested that high school seniors considering careers other than teaching may be unwilling to sacrifice their desires for the sake of others.

The erosion of teaching's esteem appears to considerably affect urban females. For decades, this population has been taken for granted, as it was assumed often that they would educate America's youth, and the nation always could count on them to replenish the teacher pipeline. However, as the labor markets expanded, the teacher pipeline began to run dry (Ingersoll, Merrill, & Stuckey, 2014). The contemporary labor market's expansion opened new career opportunities of which this population took advantage. At present, career opportunities continue to expand, and thus, this population can avoid careers with limited esteem (Corcoran, 2004), and choose instead those that they believe will allow them to reach their fullest professional and personal potentials (Wan, Wong, & Kong, 2014; DiPrete & Buchmann, 2013; Zhao & Zhou, 2008; Maslow, 1943).

In addition to urban females, the perceptions of teaching's esteem may deter a number of high school seniors and college undergraduates that derive from households with annual incomes ranging from \$100,000 to \$150,000. It appears that esteem's implications may be a reason that this population may be less likely to consider teaching than many others. Esteemed careers are important to this population, and they may perceive that the negative perceptions of teaching's esteem will interfere with their abilities to reach their full potential, in that teacher compensation will not reflect their work's value and provide them with the financial freedoms that they desire (Wan, Wong, & Kong, 2014; DiPrete & Buchmann, 2013; Zhao & Zhou, 2008; Maslow, 1943).



The implications of teaching's esteem also appear to negatively influence seniors and undergraduates who score 21 to 24 on the ACT. This may be problematic considering the size and academic integrity of this population. The data did display that perceptions of status and its interaction with prestige's financial component may have positive implications, but suggested that esteem's effects may be greater. While the results revealed some evidence of an academic recovery, they demonstrated that high school seniors and college undergraduates who score in the lower deciles of the ACT may be more likely to consider teaching (Podgursky, Monroe, & Watson, 2004).

The data indicated that the aspiring teacher population may not be immune from the negative implications of teaching's esteem. Like others, perceptions of teaching's status may be an attractive component, but esteem's interaction with prestige's financial component may exert similar effects. Poor compensation and its reflection of teaching's devaluation may be placing this population at-risk of choosing alternative careers.

These results raise questions as to the reasons for early teacher attrition. Previous research has reported that the foundation of early teacher attrition may be laid within the first five years of a teacher's career (Reilly, 2018; Ingersoll, Merrill, & Stuckey, 2014; Parham & Gordon, 2011). Indeed, a large body of evidence illustrates this phenomenon, but the results reported here suggest that the foundations of early teacher attrition may be found at the preservice teacher level. It could be that the perceptions of poor compensation and teaching's devaluation begin to motivate thoughts of early attrition before new teachers accept their first teaching assignment. Once exposed to the career's realities, it is plausible that thoughts of early attrition will come to fruition.

The erosion of teaching's esteem appear to destabilize teaching's semantic status. The results demonstrated consistently that positive perceptions of teaching's status may be planted firmly, but the component itself may be unable to support teaching's semantic status on its own. The evidence indicates that a career achieves semantic status when negative perceptions of its prestige (financial and image), status, and esteem do not persist. This may be the reason society has not yet granted teaching semantic status, and forecasts into the future predict that the status quo will remain unless the perceptions of teaching's esteem are addressed. Indeed, these realities appear grim, but the results may demonstrate the promise of policy that is designed to support the perceptions of teaching's prestige, status, and esteem.

### **Implications of International Policy**

Nations that expend effort in developing policy to increase the perceptions of teaching's prestige, status, and esteem are having success recruiting and retaining quality teachers, and these successes have yielded both strong academic achievement and contributed to economic growth. These experiences from around the world demonstrate that the United States can no longer stand idle in its approaches to developing a strong teacher workforce. The world is becoming more competitive than ever, and thus, public schools in America must be able to educate a populace capable of meeting global competition.

Several international education policies were embedded within this present study, and a number of analyses were performed to investigate the effect each may have on teaching's semantic status in America. Participants had the opportunity to view the perceptions of teaching's prestige, status, and esteem through a different lens, and the

results appear encouraging. The data revealed no negative implications of teaching's prestige, status, and esteem, and that greater numbers of high school seniors and college undergraduates may be interested in teaching. These results demonstrated that the implementation of international policy may be a reason for teaching to realize semantic status in the United States, which may lead high school seniors and college undergraduates to be more willing to teach, and will thereby ease the burdens of the teacher shortage.

The data revealed that the post-policy perceptions of prestige and its interaction with status may significantly affect high school senior and college undergraduates' post-policy teaching considerations. These results indicated that compensation may moderate a career's status. More importantly, they illustrated that competitive teacher compensation can no longer be left for debate, because a career's prestige and status are the primary rewards that attract individuals to any occupation (Zhao & Zhou, 2008). However, political discourse foretells that prestige may be the component that will elicit the most debate, as teacher compensation depends directly on public tax dollars (Hoyle, 2001). Regardless of the political firestorms that may erupt, the teacher workforce's quality relies on policymakers who are willing to seriously consider developing strategies to strengthen teaching's prestige. In today's contemporary labor market, policymakers no longer can afford to compensate teachers poorly, because poor compensation will not allow teaching to realize semantic status. Without semantic status, policymakers run the risk of placing large numbers of inadequate teachers in the nation's classrooms who are incapable of preparing youth for the demands of a global economy (Wan, Wong, & Kong, 2014).

The data demonstrated that competitive compensation had a significant effect on post-policy perceptions of teaching's prestige. These improvements may have some of the greatest effects on high school students and college undergraduates who score in the upper deciles of the ACT. The results indicated that those that derive from households exceeding \$50,000 and score 25 or greater on the ACT may be more interested in teaching following policy reforms that address teaching's prestige. This outcome indicated that improvements to the perceptions of teaching's prestige may improve the teacher workforce's academic integrity.

Similarly, improvements in the perceptions of teaching's prestige may encourage female undergraduates who are considering other careers to reconsider teaching. While teaching is a majority female occupation, it is losing large numbers of academically capable females to the contemporary market. With improvements in teaching's prestige, and its moderating effects on status, a larger number of female undergraduates may become interested in the career.

The results indicated that policy that addresses the perceptions of prestige, status, and esteem may significantly affect the aspiring rural and urban cluster teacher populations scoring 21 or greater on the ACT and those that derive from households with annual incomes exceeding \$100,000. Rather than being at-risk of choosing an alternative career, policy reforms may confirm this population's teaching decisions. While these results demonstrated opportunities, it will require concerted efforts on the part of policymakers, teachers, and education leaders to develop and implement policy reforms.

## **Implications for Practice**

Successful organizations strive consistently for continuous improvement.

Mediocrity has no place in their missions, as complacency most often leads to negative outcomes. Education systems are not immune to the dangers of complacency, and most would agree that public schools must continue to improve to meet the global economy's demands (Marx, 2014). While the desire for continuous improvement persists, the ability to do so may be thwarted by an unstable and unqualified teacher workforce. This is a pressing issue, and its seriousness has led policymakers from such states as Oklahoma, South Dakota, and Utah to explore additional revenue sources for teacher compensation.

Pressure from constituents persuaded Oklahoma legislators to introduce House Bill 1099XX in 2018. The legislation's intent was to secure and use online state sales tax dollars for teacher salaries. The bill, which is estimated to generate \$20.5 million, was able to pass both chambers of the state's legislature, and was signed into law. The legislation afforded Oklahoma school districts the opportunity to increase teacher salaries by an average of \$6,100 (OK Energy Today, 2018; Krehbiel–Burton, 2018).

Burdened by the teacher shortage, South Dakota policymakers considered additional revenue streams to increase teacher compensation, and in 2016, the state's governor encouraged legislators to approve a half-cent increase in the state's sales tax. The legislation was passed, and the additional revenue allowed South Dakota school districts the opportunity to increase teacher compensation by 3.9 to 14.5% (Anderson, 2016).

The State of Utah also has struggled with a teacher shortage. In response, legislators drafted a measure that was placed on the November 2018 ballot to obtain voter

approval for a 10-cent increase in the state's gas tax. Budget forecasts predicted that this increase would generate an additional \$386 million for education, but Utahans voted down the measure (*U.S News*, 2018).

More often than not, competitive teacher compensation has not been a priority in the United States. For decades, teachers have been calling for adequate compensation, but policymakers have refrained from allocating appropriate resources. Common discourse cites limited revenue sources, but when pressed, policymakers in states like Oklahoma, South Dakota, and Utah have demonstrated that additional revenue streams exist.

Some commentary has argued that competitive teacher compensation is a moral imperative (Marx, 2014). Indeed, it may be a moral issue, but competitive teacher compensation may extend beyond morality's scope. In today's rapidly changing world, it is imperative that schools are comprised of talented teachers who are able to improve their approaches consistently to meet the demands of a global economy. If competitive compensation does not come to fruition in the U.S., schools may remain inflexible in their practices, and most likely will graduate students who are ill equipped for the 21<sup>st</sup> century world's demands.

Despite these implications, competitive teacher compensation is a regular political issue, but "if we continue to unbendingly do what we've always done, we'll likely get to the top of our game" (Marx, p. 404, 2014). This leads to limited student achievement, a byproduct of mediocrity. When schools are unable to hire quality teachers, it becomes very difficult to deliver a quality product. This may be a reason for the public to lose trust in its public school systems, and opens a niche for alternative education platforms,

such as online, private, and charter schools, as well as home-schooling and others to fill the void of unmet needs (Marx, 2014).

Research demonstrates that the nation may be losing trust in its public school systems; for example, homeschooling is becoming increasingly more mainstream today (Hill, 2000), and nearly 2.2 million U.S. students are participating in some form of homeschool program (Ray, 2015). Further, the concept of virtual schools is becoming popular, with 200 online schools serving a total enrollment of nearly 200,000 students (Gill, Walsh, Wulsin, Matulewicz, Severn, Grau, Lee, & Kerwin, 2015).

The lack of trust in America's public schools serves as the most viable threat to public education's future (Gasoi & Meier, 2018). Voucher proponents argue that standards and high-stakes testing are not sufficient to improve public education. They feel that it holds a monopoly, and does not produce a strong product because of the lack of competition (Carnoy, 2017). In their opinion, competition will solve the woes of education in America. In reality, it may lead to the end of public education, widen the gap between the haves and have-nots, and put the nation's vital interests at-risk (Gasoi & Meier, 2018).

In contrast, competitive teacher compensation is a priority in nations in which teachers enjoy semantic status. These nations have discovered that competitive compensation raises teaching's prestige, but also naturally increases its status because higher quality candidates are attracted to the career. They also have experienced improvements in the perceptions of teaching's esteem. Teachers feel that competitive compensation demonstrates that their work is valued, and society and government display a genuine respect for the career. Teaching's semantic status has allowed these nations to

increase rigor at the preservice level, and many require teachers to hold Master's degrees before beginning a career in education. The increased rigor has allowed these countries to strive consistently for continuous improvement, and produce a teacher workforce capable of producing results.

This increased rigor could also come to fruition in the United States if teaching realizes semantic status. The Master's degree requirement would elevate teaching's status, but more importantly, better prepare teachers for the complexities of teaching. Teaching requires in-depth study not only in instructional methods, but in child psychology as well. Mental health concerns are on the rise in American schools, and many are ill prepared to work with students who struggle with mental illness. The Master's degree component may provide better approaches to these issues, and produce results worthy of regaining the American public's trust.

In addition to compensation, such nations have successfully raised teaching's prestige by providing teachers with income tax exemptions, tuition reimbursement, and compensating student teachers. Teaching is one of the few careers in the United States that does not compensate its interns (student teachers) or their supervisors, and universities often struggle to find practitioners willing to accept the responsibility of supervising an intern. This may result in their assignment to mediocre supervisors, which can leave them ill equipped for the career's demands. With appropriate compensation, standards can be established to ensure student teachers are assigned to master teachers, and internships can be extended to provide preservice teachers a greater opportunity to develop skills.



Evidence has demonstrated that competitive teacher compensation, income tax exemptions, and paid tuition and internships can enhance teaching's prestige. The data displayed further that improvements to the perceptions of prestige may positively influence perceptions of teaching's esteem as well. This may encourage larger numbers of high school seniors and college undergraduates to consider teaching if a teacher's work is rewarded with competitive compensation. Evidence has also suggested that respectful political rhetoric and a genuine respect for teaching may increase interest in the career (Podgursky & Springer, 2011; Vegas, 2007; Fwu & Wang, 2002). Policymakers from nations in which teachers enjoy semantic status often are at the forefront in creating education policy that supports teaching's esteem, and their governments allow teachers to participate actively in the development of education policy. Policymakers realize that teachers are the experts and must be allowed to "critique, adapt, and contribute to educational policies" (Hargreaves, 2009, p. 227).

In contrast, teaching in the United States is one of the few career fields in which individuals without teaching experience dictate policy. This practice may have devastating adverse effects not only on student learning, but on teaching's esteem. Boards of educators that are not union affiliated can be established at the state and federal levels to ensure that teachers are included in the policymaking process. Such boards would consist of teachers that constituencies and policymakers assigned by legislative bodies elect. Teachers and policymakers alike would work together to draft, critique, and propose legislation that affords American teachers the same level of prestige, status, and esteem as educators in nations in which teaching enjoys semantic status.

In addition to policy, teachers need to be provided opportunities to engage in professional discourse with a broader audience. “Teachers themselves need to inform others about their work, and enable the public to see beyond the impression that class control is their major role” (Hargreaves, 2009, p. 226). The public needs to understand instruction’s complexities, and the work that is required to properly educate the whole child.

Education leaders and teachers must take control of the media cycle, because it reports negative issues too often. This negative cycle can be reversed by sharing the many successes that occur in the nation’s classrooms. The public needs to understand that such successful outcomes outweigh the negative (Draper, 2010). The combination of success stories and teacher recognition can be shared on a variety of platforms to improve and maintain the public’s trust in, and respect for, teachers. It also is important to recognize teachers publicly for their exceptional work. This recognition should not be limited to the traditional teacher of the year award. Teacher recognition must be ongoing, so the public comes to understand the professional work that is being performed in the nation’s schools (Hargreaves, 2009).

Finally, nations in which teachers enjoy semantic status provide release time and compensation for them to participate in education research. This practice allows teachers to seek solutions for complex problems, and contribute results to the literature. Active participation in research also provides them with an additional platform to engage in professional discourse. The combination of research and discourse can have a positive influence on perceptions of teaching’s status and esteem.

## **Recommendations for State Agencies**

The data presented in this study demonstrate the need for state education agencies to inform policymakers of the effects teaching's prestige, status, and esteem have on the teacher shortage, the teacher workforce's quality, and student achievement.

Policymakers must understand that the contemporary labor market does not compel graduates to select careers that the government and general public undervalue, as reflected in poor compensation and negative rhetoric. Policymakers need to be aware that these perceptions are the current state of teaching, and are causing many high school seniors and college undergraduates to lose interest in considering the career.

Policymakers must realize that this limited interest in the career weakens the teaching workforce, limits student achievement, reduces economic prosperity, and damages the nation's health overall. Policymakers must realize that a proactive investment in its teacher workforce is wiser than spending tax dollars to mend social ills that develop when the public is inadequately educated.

Further, state task forces comprised of state policymakers and education officials, teachers, university faculty, and other public stakeholders should be assembled to review and prioritize state revenue streams. Such task forces should identify appropriate revenue sources that can be directed to teacher compensation. Once sources are identified, it is recommended that the task forces use a variety of media sources, public listening sessions, and other platforms to communicate teaching's current state, and its multiple implications.

It is critical that these taskforces emphasize teaching's complexities and demands. America's classrooms are experiencing not only growing numbers of students with

mental health concerns, but those who are impoverished and have limited English proficiency. The taskforces must communicate that these complexities require a strong teacher workforce that is able to cope effectively with these challenges, and produce high student achievement. They also must communicate that this will require an investment in teacher compensation.

An additional task force should be formed once policymakers are committed to making appropriate investments in their state's teacher workforce. This task force's primary goal would be to increase rigor in teacher education programs and teacher licensing requirements. These taskforces composed of state policymakers and education officials, teachers, university faculty, state licensing officials, and other public stakeholders combined should work with university faculty to design rigorous courses at both the undergraduate and graduate levels. In addition, it is recommended that taskforces develop policy to require preservice teachers to participate in yearlong paid internships and earn Master's degrees before receiving teacher licensure. This policy will elevate teaching's status, promote greater interest in teaching, and prepare teachers better for teaching's rigorous demands. This advanced preparation will improve teacher efficacy, and ease the burdens of early teacher attrition.

Finally, boards of educators who are not union affiliated should be established at the state and federal levels to ensure that teachers are part of the policymaking process. Such boards should consist of teachers who are elected by constituencies and policymakers assigned by legislative bodies. These boards should hold the authority to draft, critique, and propose legislation related to education.

## **Recommendations for School Districts**

School district officials should work with local media sources to share the successes that occur in their schools. They can flood the media with a combination of success stories and teacher recognition. This practice will reestablish the public's trust in its teachers, and provide the opportunity to understand the type of professional work that occurs in their children's schools.

School districts should also provide release time for teachers to participate in local chamber of commerce and city council meetings, and other appropriate events. This time will provide teachers with opportunities to engage larger audiences and hold discussions about their professional work. They will also allow teachers to clarify misconceptions, and modify the general public's perceptions of their career.

Lastly, school boards, educational leaders, and teachers are recommended to collaborate to restructure teacher salary schedules to reflect years of service, professionalism, and areas of expertise. Salary schedules could be designed to allow teachers to move both vertically and horizontally through the schedule. Vertical movements should be based on years of experience, horizontal movements on rank (e.g., instructor, master teacher). This design allows teachers to earn additional compensation for years of service, but also encourages them to strive for professional improvement. School districts should establish professional criteria for teachers to advance from one rank to the next (e.g., publishing educational research and gaining expertise in mental health), and provide significant compensation for those who earn promotion.

### **Recommendations for Further Research**

Further research should be conducted to investigate the different high school senior and college undergraduate populations that were examined in this study. The research needs to be replicated in multiple regions, but with the use of an abridged version of this study's instrument. It is recommended that future research use the independent variables that loaded in this study, so that survey fatigue does not interfere with data collection.

Further research will lead to an established body of literature that demonstrates the effects teaching's prestige, status, and esteem have on specific populations of high school seniors and college undergraduates. This research will provide policymakers and practitioners with a deep understanding of the way the aforementioned perceptions affect teaching decisions, and also will afford policymakers the opportunity to develop policy that targets specific populations and regions.

### **Concluding Remarks**

This study's results demonstrated that perceptions of teaching's status may significantly influence high school seniors and college undergraduates. Although this is indeed encouraging, perceptions of status alone may not attract large numbers of young people to careers in teaching. Status requires support from prestige and esteem, but it appears that they are perceived negatively at present, and these negative perceptions are preventing teaching from realizing semantic status. Without semantic status, the nation will continue to experience challenges in filling the nation's classrooms with quality teachers.

This lack of an effective teacher workforce may place the nation's vital interests at-risk. The inability to hire quality teachers will lead public schools to be inflexible in their approaches and prevent them from reshaping their practices to meet the demands of the 21<sup>st</sup> century. While this future appears bleak, the results indicated that policy designed to improve the perceptions of teaching's prestige, status, and esteem may be a reason for teaching to realize semantic status, which may produce a greater interest in teaching, and persuade greater numbers of talented individuals to consider a teaching career.

### **Limitations**

These results must be interpreted within the confines of its limitations. The findings reflected the outcomes of a single study that investigated the effects that the perceptions of a teaching career's prestige, status, and esteem may have on high school senior and college undergraduates' teaching considerations. The study was limited to a representative sample in the Midwest. Therefore, this population's perceptions may differ from those of high school seniors and college undergraduates who reside in other regions of the United States.

## **APPENDICES**



## Appendix A The Survey Instrument

**Thank you for your willingness to spend 15 minutes of your time participating in the study. This research aims to explore your perceptions of the teaching career. Your opinions are essential for the completion of this research, but most importantly, your perceptions will assist in gaining a better understanding of the teacher shortage. The answers you provide are strictly anonymous, and the collected data will remain confidential. At the conclusion of the study, you will find directions detailing procedures to follow if you are interested in entering the drawing for one of two \$50.00 VISA gift cards.**

**Q1 Choose a main source where you have gained information of the teaching career.**

Family  
Friends  
Teachers, Administrators  
School Counselors  
Social Media, Internet  
Television, Print News (newspapers, books, journals)  
Experiences

**Q2 Gender?**

Male  
Female  
Other

**Q3 Select description that best describes you.**

Caucasian  
Black  
American Indian  
Asian  
Pacific Islander  
Hispanic  
Other

**Q4 Please indicate your education status.**

I am currently a high school senior attending a high school.  
I am currently an undergraduate student attending a university.

**Q5 Please indicate your career aspirations.**

I am currently a high school senior planning to pursue a career in teaching.  
I am currently a high school senior planning to pursue a career OTHER than teaching.  
I am currently an undergraduate student majoring in or intending to major in education.  
I am currently an undergraduate student majoring in a field OTHER than education.

**Q6 Please choose one of the following that best describes your hometown.**

Rural (a community that consists of 2,500 or less people)  
Urban Cluster (a community that consists of 2,500 to 50,000 people)  
Urban (a community that consists of 50,000 or more people)

**Q7 Please select one of the following that best describes your parent's/family income.**

- \$50,000 or less in annual income
- \$50,000 to \$100,000 in annual income
- \$100,000 to \$150,000 in annual income
- \$150,000 or more in annual income

**Q8 What was your ACT score?**

- 17 or less
- 18 to 20
- 21 to 24
- 25 to 28
- 29 or higher
- I have not taken the ACT

**Q9 Please use the slider to answer the following question. Slide the slider from 0 to 8, with 0 indicating that you have not considered teaching, while 8 indicates that you definitely plan to pursue teaching as a career.**

0 1 2 2 3 4 5 6 6 7 8

To what degree have you considered teaching as a career?	
--	--

**Q10 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
Teachers earn an appropriate salary.								
The teaching career offers promotion opportunities.								
The public has a positive image of the teaching career.								
Providing daily instruction is a positive aspect of a teacher's job.								
The teaching career ranks high above other careers.								
Teachers put in the appropriate number of hours a week.								
Teachers receive quality benefits through their employers.								

**Q10 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
Teacher compensation positively impacts the career's ranking among other occupations.								
Working with children is a positive aspect of a teacher's job.								
Teachers work the appropriate number of contract days per year.								
Teachers receive an appropriate retirement plan.								
Working with parents is a positive aspect of a teacher's job.								
Teachers earn a salary that allows them to feel financially secure.								
The influence teachers have raises the teaching career's prestige.								

**Q10 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Some what Agree	Agree	Very Much Agree	Firmly Agree
The image of the classroom environment produces positive perceptions of teaching.								
The general public has a positive impression of the American teacher.								

**Q11 Please use the slider to answer the following question. Slide the slider from 0 to 8, with 0 indicating that your perceptions of the teaching career highly discourages you to become a teacher, while 8 indicates your perceptions highly encourage you to become a teacher.**

0 1 2 2 3 4 5 6 6 7 8

To what degree do the perceptions of the teaching career encourage or discourage you to become a teacher?	
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**Q12 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
The workforce has teachers who are recognized to have expertise in certain areas.								
The workforce is made up of teachers with lengthy professional training.								
Teaching positions are competitive.								
The professional development available for teachers is appropriate.								
Teaching is a highly sought after career.								
Teachers exhibit a high level of work performance.								
Teaching is considered a professional career.								
Many of America's brightest choose a career in teaching.								

**Q12 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
The teacher workforce is comprised of skilled individuals.								
Teaching is an intellectually demanding career								
Other professionals view teaching as a profession.								
The teaching workforce is comprised of society's most intelligent individuals.								
The teacher workforce consists of competent teachers.								

**Q13 Please use the slider to answer the following question. Slide the slider from 0 to 8, with 0 indicating that the professional status of teaching discourages you to pursue a career in teaching, while 8 indicates that teaching's professional status highly encourages you to become a teacher.**

0 1 2 2 3 4 5 6 6 7 8

<p>To what degree do the perceptions of the teaching career's professional status encourage or discourage you to become a teacher?</p>	
--	--

**Q14 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
Government officials demonstrate a respect for the teaching career.								
Teachers are trusted by the wider community.								
Teachers have the respect of their students.								
Teachers are publicly recognized for their work.								
Other professionals respect the teaching career.								
The teacher workforce consists of dedicated teachers.								
The teacher workforce consists of caring teachers.								
The media portrayal of the teaching career is accurate.								



**Q14 Please read through the following statements and indicate your level of agreement with each statement.**

	Firmly Disagree	Very Much Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Very Much Agree	Firmly Agree
The public values the teaching career.								
The government values the teaching career.								
Teachers have the respect of parents.								
Teachers have the respect of community members.								

**Q15 Indicate your perceptions of teaching if you perceived each statement to be true.**

	Extremely Low	Very Low	Low	Somewhat Low	Somewhat High	High	Very High
The teaching career is a socially accepted profession.							
Teaching careers have opportunities for career advancement.							
Teaching careers offer support for new teachers.							
The teaching career offers full-retirement at 50.							
The teaching career is competitive.							
The teaching career publicly recognizes exceptional teachers.							
The teaching workforce is comprised of society's most intelligent individuals.							
Society has a high regard for the teaching career.							
The teaching career is considered a high status occupation.							
The teaching career ranks high among other prestigious professions.							

Q16 Please use the slider to answer the following question. Slide the slider from 0 to 8, with 0 indicating that you would not consider teaching if the statements in question 15 were true, while 8 indicates that you would **definitely** pursue a career in teaching if the statements in question 15 were true.

0 1 2 2 3 4 5 6 6 7 8

To what degree would you consider the teaching career if you perceived the aforementioned statements in question 15 to be true?	
---	--

Q17 **Did you feel knowledgeable in answering the survey questions?**

yes

no

Appendix B  
Survey Instrument Codebook

<b>Demographics</b>	
<b>Information</b> inform1 inform2 inform3 inform4 inform5 inform6 inform7	<b>1. Choose a main source where you have gained information of the teaching career?</b> 1. Family 2. Friends 3. Teachers, Administrators 4. School Counselors 5. Social Media, Internet 6. Television, Print News (newspapers, books, journals) 7. Experiences Research Question(s): Question 2
<b>Gender</b> gender1 gender2 gender3	<b>2. Gender?</b> 1. male 2. female 3. other Research Question(s): Question 2
<b>Ethnicity</b> ethnicity1 ethnicity2 ethnicity3 ethnicity4 ethnicity5 ethnicity6 ethnicity7	<b>3. Select description that best describes you.</b> 1. Caucasian 2. Black 3. American Indian 4. Asian 5. Pacific Islander 6. Hispanic/Latino 7. Other Research Question(s): Question 2
<b>Education Status</b> educationstatus1 educatioinstatus2	<b>4. Please indicate your education status.</b> 1. I am currently a high school senior attending a high school. 2. I am currently an undergraduate student attending a university. Research Question(s): Questions 2
<b>Career Aspirations</b> careeraspirations1 careeraspirations2 careeraspirations3 careeraspirations4	<b>5. Please indicate your career aspirations.</b> 1. I am currently a high school senior planning to pursue a career in teaching. 2. I am currently a high school senior planning to pursue a career OTHER than teaching. 3. I am currently an undergraduate student majoring in or intending to major in education. 4. I am currently an undergraduate student majoring in a field OTHER than education. Research Question(s): Questions 2 and 4
<b>Hometown</b> hometown1 hometown2 hometown3	<b>6. Please choose one of the following that best describes your hometown.</b> 1. Rural (a community that consists of 2,500 or less people) 2. Urban Cluster (a community that consists of 2,500 to 50,000 people) 2. Urban (a community that consist of 50,000 or more people) Research Question(s): Question 2

<b>Demographics</b>	
<b>Family Income</b> income1 income2 income3 income4	<b>7. Please select one of the following that best describes your parent's/family income.</b> 1. \$50,000 or less in annual income 2. \$50,000 to \$100,000 in annual income 3. \$100,000 to \$150,000 in annual income 4. \$150,000 or more in annual income Research Question(s): Question 2
<b>ACT Score</b> actscore1 actscore2 actscore3 actscore4 actscore5 actscore6	<b>8. What was your ACT score?</b> 1. 17 or less 2. 18 to 20 3. 21 to 24 4. 25 to 28 5. 29 or higher 6. I have not taken the ACT Research Question(s): Questions 2 and 3

<b>9. Slider</b>  Research Question(s): Questions 1-4	<b>Please use the slider to answer the following question.</b> Slide the slider from 0 to 8, with 0 indicating that you have <u>not considered teaching as a career</u> , while 8 indicates that you plan <u>to pursue teaching as a career</u> .  <i>To what degree have you considered teaching as a career?</i>
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<b>Variable Name</b>	
<b>Occupational Prestige</b>	<b>Item</b>
<b>10. Please read through the following statements and indicate your level of agreement with each.</b>	Research Question(s): Questions 1-4
prestige1	Teachers earn an appropriate salary.
prestige2	The teaching career offers promotion opportunities.
prestige3	The public has a positive image of the teaching career.
prestige4	Providing daily instruction is a positive aspect of a teacher's job.
prestige5	The teaching career ranks high above other careers.
prestige6	Teachers put in the appropriate number of hours a week.
prestige7	Teachers receive quality benefits through their employers.
prestige8	Teacher compensation positively impacts the career's ranking among other occupations.
prestige9	Working with children is a positive aspect of a teacher's job.
prestige10	Teachers work the appropriate number of contract days per year.
prestige11	Teachers receive an appropriate retirement plan.
prestige12	Working with parents is a positive aspect of a teacher's job.
prestige13	Teachers earn a salary that allows them to feel financially secure.
prestige14	The influence teachers have raises the teaching career's prestige.
prestige15	The image of the classroom produces positive perceptions of teaching.
prestige16	The majority of people have a positive impression of the American teacher.

Sources: (Hargreaves et al., 2007; Hoyle, 2001)

<p><b>Slider1-8</b></p> <p>Research Question(s): Questions 1-4</p>	<p><b>11. Please use the slider to answer the following question.</b></p> <p>Please use the slider to answer the following question. Slide the slider from 0-8, with 0 indicating that your perceptions of the career <u>highly discourages</u> you to become a teacher, while 8 indicates your perceptions <u>highly encourage</u> you to become a teacher.</p> <p><i>To what degree do the perceptions of the teaching career encourage or discourage you to become a teacher?</i></p>
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Variable	Item
<b>Occupational Status</b>	
<p><b>12. Please read through the following statements and indicate your level of agreement with each.</b></p>	<p>Research Question(s): Questions 1-4</p>
<b>Occupational Status</b>	
status1	The workforce has teachers who are recognized to have expertise in certain areas.
status2	The workforce is made up of teachers with lengthy professional training.
status3	Teaching positions are competitive.
status4	The professional development available for teachers is appropriate.
status5	Teaching is a highly sought after career.
status6	Teachers exhibit a high level of work performance.
status7	Teaching is considered a professional career.
status8	Many of America's brightest choose a career in teaching.
status9	The teacher workforce is comprised of skilled individuals.
status10	Teaching is an intellectually demanding career.
status11	Other professionals view teaching as a profession.
status12	The teaching workforce is comprised of society's most intelligent individuals.
status13	The teacher workforce consists of competent teachers.

Sources: (Hargreaves et al., 2007; Hoyle, 2001)

<p><b>Slider1-8</b> Research Question(s): Questions 1-4</p>	<p><b>13. Please use the slider to answer the following question.</b> Slide the slider from 0 to 8, with 0 indicating that the professional status of teaching <u>discourages</u> you to pursue the teaching career, while 8 indicates that teaching's professional status <u>encourages</u> you to become a teacher. <i>To what degree do the perceptions of the teaching career's professional status encourage or discourage you to become a teacher?</i></p>
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Variable Name	Item
<b>Occupational Esteem</b>	
<b>14. Please read through the following statements and indicate your level of agreement with each.</b>	Research Question(s): Questions 1-4
esteem1	Government officials demonstrate a respect for the teaching career.
esteem2	Teachers are trusted by the wider community.
esteem3	Teachers have the respect of their students.
esteem4	Teachers are publicly recognized for their work.
esteem5	Other professionals respect the teaching career.
esteem6	The teacher workforce consists of dedicated teachers.
esteem7	The teacher workforce consists of caring teachers.
esteem8	The media portrayal of the teaching career is appropriate.
esteem9	The public values the teaching career.
esteem10	The government values the teaching career.
esteem11	Teachers have the respect of parents.
esteem12	Teachers have the respect of community members.

Sources: (Hargreaves et al., 2007; Hoyle, 2001)



<b>Variable Name</b>	<b>Item</b>
<b>15. Indicate your perceptions of the teaching career if you perceived the following statements to be true.</b>	Research Question(s): Questions 1-4
updatedperceptions1	Teaching careers offer signing bonuses.
updatedperceptions2	Teaching careers offer salary levels similar to comparable professions.
updatedperceptions3	Teaching careers offer student loan repayment programs.
updatedperceptions4	Teaching careers offer free university teacher training.
updatedperceptions5	Teaching careers offer salaries for student teachers.
updatedperceptions6	Teaching careers offer cost of living stipends while students attend teacher education training.
updatedperceptions7	Teachers are exempt from paying income tax.
updatedperceptions8	Teaching careers offer yearly bonuses.
updatedperceptions9	The teaching career is a socially accepted profession.
updatedperceptions10	Teaching careers have opportunities for career advancement.
updatedperceptions11	Teaching careers offer support for new teachers.
updatedperceptions12	The teaching career offers full-retirement at 50.
updatedperceptions13	The teaching career is competitive.
updatedperceptions14	The teaching career publicly recognizes exceptional teachers.
updatedperceptions15	The teaching workforce is comprised of society's most intelligent individuals.
updatedperceptions16	Society has a high regard for the teaching career.
updatedperceptions17	The teaching career is considered a high status occupation.
updatedperceptions18	The teaching career ranks high among other prestigious professions.

Sources: (Hargreaves et al., 2007; Hoyle, 2001)

<p><b>Slider1-8</b> Research Question(s): Question 4</p>	<p><b>16. Please use the slider to answer the following question.</b></p> <p>Slide the slider from 0 to 8, with 0 indicating that you <u>would not consider teaching</u>, while 8 indicates that <u>you would pursue</u> a career in teaching.</p> <p><i>To what degree would you consider the teaching career if you perceived the statements in the aforementioned question (question 15) to be true?</i></p>
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Sources: (Hargreaves et al., 2007; Hoyle, 2001)

<b>17. Question Knowledge</b>	<b>Did you feel knowledgeable in answering the survey questions?</b>
questionknowledge1	1. yes
questionknowledge2	2. no

Appendix C  
Email Permission Letter to Superintendents

Dear XXXX,

My name is Scott Klimek and I am currently a doctoral student at the University of North Dakota (UND). I am reaching out to you in hopes that you will assist me in completing my dissertation study this spring by allowing your school counselors to distribute an email (with a link to a survey) to your high school seniors.

My research is a quantitative study that will invite high school seniors and university undergraduates from across North Dakota and Minnesota to participate in an anonymous survey. The study will not attach identifying information to any retrieved data, or will not present individual data in the reported findings. The survey contains items developed from a United Kingdom study titled the Teacher Status Project. In addition, questions were generated from literature centering on teacher status, teacher shortage, and teacher retention. My hope is that the perceptions gained by high school seniors, and the results of my research will provide a better understanding of the influence teacher status, prestige, and esteem have on the teacher shortage.

Your assistance in allowing your high school counselors to disperse the study's link to seniors will be vital in obtaining a large sample size. I have attached a letter to counselors for your review as well as an agreement form. If you are willing to assist in this study, please open the attachment, sign, copy the agreement on your school district's letterhead, and email the scanned permission letter to me at [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu). If you have questions, you may reach me at the aforementioned email address, or telephone 701-373-5572.

Thank you for your assistance. Please email me at [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) if you would like a copy of the final abstract containing the results once the study is completed and approved by the University North Dakota.

With gratitude,

Scott Klimek

Appendix D  
School District Permission to Conduct Research

UND Institutional Review Board:

This letter confirms that [name of school district] permits Scott Klimek, a University of North Dakota PhD student, to conduct the study: Do the Perceptions of Prestige, Status, and Esteem Contribute to the Teacher Shortage? The [name of school district] agrees to disperse an electronic survey link (created by Mr. Klimek) to high school seniors. Other than dispersal, [name of school district] will have no other involvement in the research.

Sincerely,

School Superintendent/Designee

Appendix E  
Email Letter to School Counselors and Principals

Dear XXXXX:

My name is Scott Klimek and I am currently a doctoral student at the University of North Dakota (UND). I am reaching out to you because your school district superintendent has granted permission to disperse a survey to your high school senior student population. It is my hope that you will assist me in distributing the attached email (with link to the survey) in order to collect data from the seniors that you work with.

My research is a quantitative study that will invite high school seniors and university undergraduates from across North Dakota and Minnesota to participate in an anonymous survey. The study will not attach identifying information to any retrieved data, or will not present individual data in the reported findings. The survey contains items developed from a United Kingdom study titled the Teacher Status Project. In addition, questions were generated from literature centering on teacher status, teacher shortage, and teacher retention. My hope is that the perceptions gained by high school seniors will provide a better understanding of the influence teacher status, prestige, and esteem have on the teacher shortage.

Your assistance in dispersing the study's link to students will be vital in obtaining a large sample size. If you choose to disperse the survey, you will have an opportunity to enter into a drawing for a chance to win one of two \$50.00 VISA gift cards. In order to be eligible to win, you are required to disperse the attached recruitment email to a minimum of 60% of your senior population. Please be certain to send an email to [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) once you have met the requirements. Indeed, this drawing is on the honor system, however, the nature of your professional position does not cause me concern. If you have questions, you may reach me at the aforementioned email address, or telephone 701-373-5572.

Thank you for your assistance. Please email me at [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) if you would like a copy of the final abstract containing the results once the study is completed and approved by the University North Dakota.

With gratitude,

Scott Klimek

Appendix F  
On-line Survey: High School Senior Recruitment Email

Dear High School Senior:

My name is Scott Klimek and I am currently a doctoral student at the University of North Dakota (UND). I hope this email finds you in the midst of a great school year! I am reaching out to you because your school superintendent agreed to assist me in completing my dissertation study. My research aims to explore high school senior perceptions of the teaching career. Your opinions are essential for the completion of this research, but most importantly, your perceptions will assist in gaining a better understanding of the teacher shortage.

If you choose to participate, you will have an opportunity to enter into a drawing for a chance to win one of two \$50.00 VISA gift cards. Your participation is anonymous, and the collected data will remain confidential. The study will require approximately 10-15 minutes of your time, and will be accessible from [date] to [date]. To participate, please click the URL below:

[https://und.qualtrics.com/jfe/form/SV\\_9YnChG80Ygw7cY1](https://und.qualtrics.com/jfe/form/SV_9YnChG80Ygw7cY1)

Thank you for your time. Please email me at [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) if you would like a copy of the final abstract containing the results once the study is completed and approved by the University North Dakota.

With gratitude,

Scott Klimek

Appendix G  
Email Letter to University Department Chairs

Dear XXXXX:

My name is Scott Klimek and I am currently a doctoral student at the University of North Dakota (UND). I am reaching out to you because the university has granted permission to disperse a survey to your undergraduate population. It is my hope that you will assist me in distributing the attached email (with link to the survey) in order to collect data from the undergraduates that you work with.

My research is a quantitative study that will invite high school seniors and university undergraduates from across North Dakota and Minnesota to participate in an anonymous survey. The study will not attach identifying information to any retrieved data, or will not present individual data in the reported findings. The survey contains items developed from a United Kingdom study titled the Teacher Status Project. In addition, questions were generated from literature centering on teacher status, teacher shortage, and teacher retention. My hope is that the perceptions gained by undergraduates will provide a better understanding of the influence teacher status, prestige, and esteem have on the teacher shortage.

Your assistance in dispersing the study's link to students will be vital in obtaining a large sample size. If you choose to disperse the survey, you will have an opportunity to enter into a drawing for a chance to win one of two \$50.00 VISA gift cards. In order to be eligible to win, you are required to disperse the attached recruitment email to your undergraduate population. Please be certain to include my email address (scott.klimek@ndus.edu) in the distribution list to ensure that you are included in the drawing. If you have questions, you may reach me at the aforementioned email address, or telephone 701-373-5572.

Thank you for your assistance. Please email me at scott.klimek@ndus.edu if you would like a copy of the final abstract containing the results once the study is completed and approved by the University North Dakota.

With gratitude,

Scott Klimek

Appendix H  
On-line Survey: Undergraduate Recruitment Email

Dear University Student:

My name is Scott Klimek and I am currently a doctoral student at the University of North Dakota (UND). I hope this email finds you in the midst of a great school year! I am reaching out to you because the university has agreed to assist me in completing my dissertation study. My research aims to explore undergraduate perceptions of the teaching career. Your opinions are essential for the completion of this research, but most importantly, your perceptions will assist in gaining a better understanding of the teacher shortage.

If you choose to participate, you will have an opportunity to enter into a drawing for a chance to win one of two \$50.00 VISA gift cards. Your participation is anonymous, and the collected data will remain confidential. The study will require approximately 15 minutes of your time, and will be accessible from [date] to [date]. To participate, please click the URL below:

[https://und.qualtrics.com/jfe/form/SV\\_9YnChG80Ygw7cY1](https://und.qualtrics.com/jfe/form/SV_9YnChG80Ygw7cY1)

Thank you for your time. Please email me at [scott.klimek@ndus.edu](mailto:scott.klimek@ndus.edu) if you would like a copy of the final abstract containing the results once the study is completed and approved by the University North Dakota.

With gratitude,

Scott Klimek



Appendix I  
Tables

Table I.1  
*University Enrollment Trends in Teacher Education Programs*

State	Total Enrollment 2012-13	Total Enrollment 2013-14	Total Enrollment 2014-15	%Change 2012-13 to 2014-15
Illinois	26,045	17,934	14,699	-46.6%
Iowa	9,308	7,885	7,142	-23.3%
Michigan	18,483	14,372	11,287	-39%
Minnesota	8,856	7,300	7,549	-14.8%
Wisconsin	10,998	9,561	8,887	-19.2%
Arizona	42,251	37,564	24,591	-41.8%
Colorado	8,460	8,437	6,651	-21.4%
New York	47,872	42,361	40,048	-16.4%
Ohio	20,079	17,032	14,829	-26.2%
Pennsylvania	23,546	18,630	15,124	-35.8%
Kentucky	11,208	7,429	4,994	-56%
Oklahoma	7,887	4,916	5,488	-30.5%
Arkansas	6,161	5,258	3,944	-36%
Idaho	5,833	5,397	3,065	-47.5%
Montana	2,948	2,598	2,226	-24.5%
Nation	623,190	499,800	465,189	-25.4%

Source: U.S. Dept. of Education Title II Report (2016)

Table I.2  
*Prestige Scales*

Item	Prestige Financials	Prestige Image
benefits	.88	
retirement plan	.88	
salary financially secure	.69	
general public perception		.90
positive image		.86
image of classroom		.56
Eigenvalues	2.73	1.20
% Variation	46%	67%
<i>a</i>	.76	.69

Table I.3  
*Variable Summary Table*

Item	N	M	SD	Min	Max	Skewness	Kurtosis
males	342	1.70	.48	1	3	-.63	-.85
females	778	1.70	.48	1	3	-.63	-.85
other	7	1.70	.48	1	3	-.63	-.85
Caucasian	975	1.13	.34	1	3	2.14	2.58
minorities	152	1.13	.34	1	3	2.14	2.58
main source	1127	2.55	.94	1.00	4.00	-.55	-.78
hometown	1127	1.95	.79	1.00	3.00	.09	-1.40
parent's income	1099	2.71	1.22	1.00	4.00	-.19	-1.59
act score	1039	3.30	1.19	1.00	8.00	-.22	-.48
how much consider	1127	3.91	2.21	.00	8.00	-.13	-1.42
prestige financials	1127	9.99	2.90	2.33	18.67	-.01	.15
prestige image	1127	11.19	3.05	2.33	18.67	-.31	-.07
status	1087	13.38	2.74	2.33	18.67	-.77	1.51
esteem	1032	10.42	3.05	2.33	18.67	-.35	-.14
policy interv prestige	1028	8.41	3.97	2.33	18.67	.49	-.54
policy interv status	1028	11.76	2.97	2.33	18.67	-.29	.50
policy interv teach	1028	4.62	2.44	.00	8.00	-.26	-.93
policy interv esteem	1028	15.05	3.47	3.00	24.00	-.57	.96
prestige image x finance esteem	1032	1482.21	892.02	5.44	324.00	.95	1.54
esteem x prestige financial	1032	118.45	54.47	6.22	342.22	.33	.22
esteem x status x prestige financ	1022	1610.62	844.38	14.52	5940	.79	1.27
status x esteem	1022	143.76	53.48	5.44	384.44	.24	.30
main source x esteem prest fina.	1032	301.09	180.77	7.78	1026.7	.68	.21
policy intervention pres x status	1028	106.45	68.61	5.44	348.44	1.15	1.23
policy inter gend x status x este	1028	316.00	160.90	7.00	896.00	.66	.25

Table I.4  
*Status Scale*

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Item	Status
intellectually demanding	.87
skilled individuals	.84
high level work performance	.84
Eigenvalues	2.178
% Variation	73%
<i>a</i>	.81

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Table I.5  
*Esteem Scale*

Item	Esteem
government values	.92
government respect	.86
public values	.80
Eigenvalues	2.23
% Variation	74%
<i>a</i>	.83

Table I.6  
*Policy Intervention Prestige Scale*

Item	Intervention Prestige
income tax exempt	.92
student teacher salaries	.88
similar salary levels	.77
Eigenvalues	3.04
% Variation	51%
<i>a</i>	.85

Table I.7  
*Policy Intervention Status Scale*

Item	Intervention Status
competitive	.78
recognize teachers	.75
socially accepted profession	.75
Eigenvalues	1.09
% Variation	69%
<i>a</i>	.66

Table I.8  
*Policy Intervention Esteem Scale*

Item	Intervention Esteem
community respect	.89
parents respect	.88
high regard for the career	.58
Eigenvalues	1.91
% Variation	64%
<i>a</i>	.68

Table I.9  
*Demographics*

Item	N	Percent
Total Respondents	1,502	
Knowledge of Questions		
Yes	1,127	73%
No	375	27%
Main Source of Information		
Family	241	21%
Teachers, Administrators	631	56%
Experiences	113	10%
Other	142	13%
Gender		
Male	342	30%
Female	778	69%
Other	7	1%
Ethnicity		
Caucasian	975	86%
Minority	152	14%
Parent/Family Annual Income		
Less than \$50,000	255	23%
\$50,000 to \$100,000	266	24%
\$100,000 to \$150,000	124	11%
\$150,000 or greater	454	40%
ACT Score		
17 or less	79	7%
18 to 20	132	12%
21 to 24	402	36%
25 to 28	254	23%
29 or greater	172	15%
Career Aspirations		
High school Seniors Planning to Teach	45	15%
High School Seniors Planning on Other Career	260	85%
Undergraduates Planning to Teach	344	42%
Undergraduates Planning on Other Career	478	58%
Hometown		
Rural	383	34%
Urban Cluster	417	37%
Urban	327	29%

Table I.10

*ANOVA: Senior and Undergraduate Teaching Considerations*

Variable	SS	df	MS	F	p
how much consider teach career aspirations	5308.67	1123	1769.56	492.91	.00*

p < .05\*

Table I.11

*ANOVA Descriptive Statistics*

Variable	Mean	SD	n	Range
how much consider teach				
high school senior aspiring teachers	7.02	1.36	45	0-8
high school senior non-aspiring teachers	2.45	2.19	260	0-8
college undergraduate aspiring teachers	7.45	1.32	344	0-8
college undergraduate non-aspiring teachers	3.09	2.10	478	0-8



Table I.12  
*Bonferroni Post-Hoc Analysis*

Comparison	Mean Differences	Std. Error	CI	
			Lower Bound	Upper Bound
college undergraduate non-aspiring teachers vs. college undergraduate aspiring teachers	-4.36*	.14	-4.71	-.19
college undergraduate non-aspiring teachers vs high school senior aspiring teachers	-3.93*	.30	-4.71	-3.15
college undergraduate non-aspiring teachers vs. high school senior non-aspiring teachers	.64*	.15	.25	1.02
high school senior non-aspiring teachers vs. high school senior non-aspiring teachers	-4.99*	.16	-5.40	-4.58
high school senior non-aspiring teachers vs. high school senior aspiring teachers	-4.57*	.31	-5.38	-3.76

p < .05\*

Table I.13  
*Bivariate Correlation: Seniors and Undergraduates*

	1	2	3	4	5	6	7	8	9
1. consid teach	-								
2. prest financi	.06*	-							
3. prest image	.07*	.36*	-						
4. status	.37*	.04	.25*	-					
5. esteem	-.13*	.47*	.56*	.02	-				
6. act score	-.04	-.08*	-.09*	.00	-.06	-			
7. hometown	-.10*	.01	.05	-.05	.08*	.10*	-		
8. main source	.04	.01	-.02	-.02	-.03	-.07*	-.02	-	
9. parent inco	.05	.04	-.03	-.01	.05	.03	-.04	-.06*	-
10. gender	.27*	-.14*	-.00	.21*	-.15*	.01	-.09*	.06	-.02

p < .05\*

Table I.14  
*Hierarchal Linear Regression: Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.10	.04	.10	.03	.10	.03	.09	.04	.09	.04
gender	.20	.28*	.20	.29*	.20	.29*	.19	.22*	.19	.20*
hometown	.12	-.06	.12	-.06	.12	-.06	.11	-.04	.11	-.04
parents income	.08	.06	.08	.05	.08	.06	.07	.06*	.07	.07*
act score	.08	-.04	.08	-.03	.08	-.03	.08	-.04	.08	-.05
prestige financials			.03	.10*	.03	.08*	.03	.10*	.03	.16*
prestige image							.03	-.04	.04	.05
status							.03	.34*	.03	.32*
esteem									.04	-.20*
$R^2$		.09		.10		.10		.21		.23

p < .05\*

Table I.15  
*Bivariate Correlation: Seniors Considering Other Careers*

	1	2	3	4	5	6	7	8	9	10
1. consi tea	-									
2. prest fina	-.13*	-								
3. prest ima	-.03	.45*	-							
4. status	.28*	.06	.30*	-						
5. esteem	-.07	.38*	.51*	.25*	-					
6. act score	.28*	-.15*	-.05	.09	-.14*	-				
7. hometown	-.01	.12	.16*	.07	.14*	.08	-			
8. main sour	-.11	.11	.00	-.07	.02	-.05	-.03	-		
9. parent inc	-.08	.02	-.05	.03	.11	-.04	-.05	-.03	-	
10. gender	.33*	-.17*	-.09	.24*	-.15*	.12	-.06	.09	-.07	-
11. interact	-.07	.49*	.50*	.33*	.47*	-.07	.06	.09	.15	.02

p < .05\*

Table I.16  
*Hierarchical Linear Regression: Seniors Considering Other Careers*

Predictors	<u>Step 1</u>		<u>Step 2</u>		<u>Step 3</u>		<u>Step 4</u>	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.17	-.09	.16	-.08	.17	-.08	.17	-.08
gender	.29	.28*	.28	.26*	.28	.26*	.29	.26*
hometown	.20	-.02	.19	-.03	.19	-.03	.20	-.04
parents income	.13	-.09	.12	-.09	.13	-.09	.13	-.08
act score			.11	.25*	.11	.25*	.11	.25*
prestige financials					.06	.00	.07	-.02
prestige image							.05	.05
status								
esteem								
$R^2$		.10		.16		.16		.16

Predictors	<u>Step 5</u>		<u>Step 6</u>		<u>Step 7</u>	
	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.16	-.06	.16	-.06	.16	-.05
gender	.29	.21*	.29	.21*	.29	.22*
hometown	.19	-.03	.19	-.03	.19	-.04
parents income	.12	-.09	.12	-.09	.12	-.06
act score	.11	.23*	.11	.23*	.11	.23*
prestige financials	.07	-.01	.07	-.01	.07	.06
prestige image	.06	-.02	.07	-.01	.07	.04
status	.05	.21*	.05	.22*	.05	.26*
esteem			.06	-.05	.06	-.00
interaction					.00	-.21*
$R^2$		.21		.21		.23

p < .05\*

Table I.17  
*Bivariate Correlation: Aspiring Teachers*

	1	2	3	4	5	6	7	8	9	10
1. cons teach	-									
2. prest finan	.07	-								
3. prest imag	.02	.42*	-							
4. status	.19*	-.00	.09	-						
5. esteem	-.03	.52*	.65*	-.05	-					
6. act score	.02	-.10	-.15*	.11*	-.15*	-				
7. hometown	-.05	-.03	.08	.01	.09	.07	-			
8. main sour	.09	.01	-.06	-.03	-.05	-.01	-.00	-		
9. parent inc	.03	-.05	-.05	.07	.01	.05	-.07	-.05	-	
10. gender	.15*	-.21*	-.04	.08	.16*	-.03	-.07	.02	-.01	-
11. interact	-.18*	-.35*	-.11*	.12*	-.05	-.08	-.00	-.08	.06	-.01

p < .05\*

Table I.18  
*Hierarchal Linear Regression: Aspiring Teachers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.08	.04	.08	.04	.08	.04	.08	.05	.08	.05	.08	.03
gender	.20	.14*	.20	.17*	.20	.17*	.20	.16*	.20	.15*	.20	.14*
hometown	.10	-.04	.10	-.04	.10	-.04	.10	-.03	.10	-.03	.09	-.04
parents income	.06	.03	.06	.04	.06	.04	.06	.03	.06	.03	.06	.03
act score	.08	.03	.08	.05	.08	.05	.08	.02	.08	.02	.08	-.01
prestige financial			.03	.13*	.03	.12	.03	.14*	.03	.15*	.03	.04
prestige image					.03	.01	.03	-.03	.04	-.01	.03	-.03
status							.03	.20*	.04	.19*	.04	.23*
esteem									.03	-.04	.03	.01
interaction											.01	-.23*
R <sup>2</sup>		.03		.04		.04		.08		.08		.12

p < .05\*

Table I.19  
*Independent t-test Results*

	<i>N</i>	<i>M(SD)</i>	Range	Mean Difference	<i>t</i>	df	<i>p</i>
consider teach							
male	342	3.23(2.79)	0-8	1.72	4.59	1118	.00*
female	778	4.95(2.77)	0-8				
college							
undergraduates							
pre-policy teach	475	3.10(2.10)	0-8	1.06	7.50	917	.00*
post-policy teach	444	4.16(2.19)	0-8				
high school seniors							
pre-policy teach	299	3.09(2.63)	0-8	.51	2.35	565	.02*
post-policy teach	268	3.60(2.49)	0-8				
senior non-teachers							
pre-policy teach	260	2.45(2.19)	0-8	.81	-3.91	492	.00*
post-policy teach	234	3.27(2.43)	0-8				
senior non-teachers							
ACT 29 or higher							
pre-policy teach	60	3.63(2.62)	0-8	1.18	2.34	111	.02*
post-policy teach	53	4.81(2.72)	0-8				
senior non-teachers							
ACT 25 to 28							
pre-policy teach	128	2.54(2.16)	0-8	.72	2.60	241	.01*
post-policy teach	115	3.26(2.17)	0-8				
undergraduate non-							
teachers							
pre-policy teach	170	2.79(2.18)	0-8	1.51	-6.21	328	.00*
post-policy teach	160	4.30(2.23)	0-8				
rural/urban cluster							
aspiring teachers that							
derive from							
households with							
annual incomes							
greater than							
\$100,000/scoring 21							
or greater.							
pre-policy teach	124	7.56(1.25)	0-8	1.27	5.88	182	.00*
post-policy teach	110	6.28(1.94)	0-8				

*p* < .05\*

Table I.20  
*Bivariate Correlation: Female Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. consi teach	-							
2. prest financ	.11*	-						
3. prest image	.08*	.36*	-					
4. status	.33*	.03	.23*	-				
5. esteem	-.11*	.49*	.60*	-.01	-			
6. act score	-.09*	-.10*	-.11*	-.00	-.04	-		
7. hometown	-.06	-.01	.04	-.04	.08*	.10*	-	
8. main source	.03	-.01	-.03	-.04	-.05	-.12*	-.02	-
9. parents inco	.08*	.03	-.02	.01	.02	.06	-.06	-.02

p < .05\*

Table I.21  
*Hierarchal Linear Regression: Female Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.12	.04	.12	.04	.12	.04	.11	.05	.11	.05
hometown	.14	-.05	.14	-.06	.14	.06	.13	-.04	.13	-.04
parents income	.09	.08	.09	.08	.09	.08	.09	.08*	.08	.09*
act score	.10	-.08	.10	-.07	.10	-.07	.10	-.07*	.10	-.06
prestige financials			.04	.10*	.04	.08	.04	.11*	.04	.19*
prestige image					.04	.05	.04	-.04	.05	.09
status							.04	.34*	.04	.31*
esteem									.04	-.24*
$R^2$		.02		.03		.03		.14		.17

p < .05\*

Table I.22  
*Bivariate Correlation: Female Aspiring Teachers*

	1	2	3	4	5	6	7	8	9
1. consi teac	-								
2. prest finan	.13*	-							
3. prest imag	.12*	.45*	-						
4. status	.22*	-.03	.08	-					
5. esteem	.04	.53*	.65*	-.09	-				
6. act score	.06	-.09	-.15*	.10	-.15*	-			
7. hometown	-.04	-.01	.08	-.00	.09	.08	-		
8. main sourc	.08	.03	-.05	-.03	-.05	-.07	-.05	-	
9. paren inco	-.00	-.04	-.07	.08	-.02	.08	-.07	.01	-
10. interaction	-.19*	-.48*	-.23*	.13*	-.22	-.07	-.01	-.05	.06

p < .05\*

Table I.23  
*Hierarchal Linear Regression: Female Aspiring Teachers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.08	.04	.08	.04	.08	.05	.08	.05	.08	.05	.08	.03
hometown	.10	-.06	.10	-.06	.10	-.06	.10	-.06	.10	-.05	.10	-.05
parents income	.06	.02	.06	.03	.06	.03	.06	.02	.06	.03	.06	.03
act score	.08	.04	.08	.05	.08	.05	.08	.02	.08	.02	.08	-.02
prestige financial			.03	.09	.03	.09	.03	.10	.03	.12	.03	.01
prestige image					.03	.01	.03	-.02	.04	.01	.03	-.02
status							.04	.21*	.04	.20*	.04	.24*
esteem									.03	-.06	.03	-.00
interaction											.01	-.24*

R<sup>2</sup> .01 .02 .02 .06 .06 .11

p < .05\*



Table I.24  
*ANOVA: Hometown Teaching Considerations*

Variable	SS	df	MS	F	p
how much consider teach hometown	92.03	1124	46.01	5.59	.004*

p < .05\*

Table I.25  
*ANOVA Descriptive Statistics*

Variable	Mean	SD	n	Range
how much consider teach				
participants from rural communities	4.80	2.91	383	0-8
participants from urban clusters	4.35	2.86	417	0-8
participants from urban areas	4.10	2.83	327	0-8

Table I.26  
*ANOVA: Bonferroni Post-Hoc Analysis*

Comparison	Mean Differences in Perceptions	Std. Error	CI	
			Lower Bound	Upper Bound
participants from urban areas vs. participants from rural areas	.70*	.21	-1.22	-.19

p < .05\*

Table I.27  
*Bivariate Correlation: Rural Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. consid teach	-							
2. prest financ	.17*	-						
3. prest image	.10*	.34*	-					
4. status	.39*	.23*	.30*	-				
5. esteem	.11*	.44*	.52*	.01	-			
6. act score	.07	-.01	-.06	.08	-.05	-		
7. main source	.04	-.01	-.09	.01	-.03	.05	-	
8. gender	.25*	-.10*	.10	.27*	-.10	.03	.06	-
9. parent inco	.08	-.01	.01	-.02	-.11	.03	-.07	.02

p < .05\*

Table I.28  
*Hierarchical Linear Regression: Rural Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.16	.01	.16	.01	.16	.02	.15	-.00	.15	.00
gender	.36	.27*	.36	.29*	.36	.29*	.35	.21*	.35	.20*
parents income	.12	.07*	.12	.06	.12	.06	.11	.06	.11	.07
act score	.15	.06	.15	.06	.15	.06	.14	.02	.14	.02
prestige financials			.05	.18*	.06	.18*	.05	.19*	.05	.24*
prestige image					.06	.01	.06	-.09	.06	.00
status							.06	.35*	.06	.32*
esteem									.06	-.19*
<i>R</i> <sup>2</sup>		.08		.12		.12		.22		.24

p < .05\*

Table I.29  
*Bivariate Correlation: Rural Female Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. consider teach	-							
2. prest financial	.22*	-						
3. prest image	.12*	.37*	-					
4. status	.37*	.05	.22*	-				
5. esteem	-.06	.48*	.60*	-.01	-			
6. act score	-.01	-.02	-.09	.09	-.01	-		
7. main source	.04	-.04	-.10	.02	.10	-.09	-	
8. parent income	.13*	-.03	-.03	.05	-.01	-.04	-.05	-

p < .05\*

Table I.30  
*Hierarchical Linear Regression: Rural Female Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.19	.04	.18	.05	.18	.05	.17	.02	.17	.02
act score	.18	.01	.17	.02	.17	.02	.16	-.04	.16	-.02
parents income	.14	.10	.14	.11	.14	.11	.13	.10	.13	.10
prestige financial			.06	.22*	.06	.22*	.06	.24*	.06	.30*
prestige image					.07	.02	.06	-.07	.07	.04
status							.07	.38*	.07	.35*
esteem									.07	-.22*
$R^2$	.01		.06		.06		.20		.22	

p < .05\*

Table I.31  
*Bivariate Correlation: Rural Female Aspiring Teachers*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financial	.26*	-							
3. prest image	.26*	.47*	-						
4. status	.26*	.00	.03*	-					
5. esteem	.24*	.48*	.64*	-.01	-				
6. act score	.25*	-.09	-.09	.24*	-.02	-			
7. main source	.07	-.02	-.09	-.02	-.09	-.05	-		
8. parent incom	-.05	.02	.02	.11	.01	.04	-.03	-	
9. interaction	.18*	-.29*	-.22*	.52*	-.14	.15	-.07	.13	-

p < .05\*

Table I.32  
*Hierarchical Linear Regression: Rural Female Aspiring Teachers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.11	.07	.11	.09	.11	.11	.11	.10	.11	.10	.10	.12
act score	.12	.24*	.11	.25*	.12	.26*	.12	.19*	.12	.19*	.12	.20*
parents income	.09	-.08	.24	.02	.09	-.07	.08	-.08	.09	-.09	.08	-.10
prestige financial			.11	-.10	.04	.14	.04	.13	.05	.09	.05	.15
prestige image			.04	.26*	.04	.24*	.14	.24*	.05	.24*	.05	.24*
status							.05	.23*	.05	.23*	.06	.11
esteem									.05	.09	.05	.07
interaction											.00	.23*
<i>R</i> <sup>2</sup>		.07		.13		.17		.22		.22		.25

p < .05\*

Table I.33  
*Bivariate Correlation: Urban Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. consider teach	-							
2. prest financial	-.06	-						
3. prest image	.12*	.29*	-					
4. status	.38*	-.01	.36*	-				
5. esteem	.10	.48*	.56*	.10	-			
6. act score	.05	-.12*	-.11*	-.00	-.10	-		
7. main source	.06	-.06	-.07	-.06	-.02	-.08	-	
8. gender	.31*	-.16*	.03	.23*	-.09	.01	.08	-
9. parents income	.03	.08	.00	-.04	.08	.07	-.14*	-.06

p < .05\*

Table I.34  
*Hierarchal Linear Regression: Urban Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.19	.07	.19	.07	.19	.08	.18	.10	.17	.11
gender	.36	.29*	.36	.29*	.36	.28*	.35	.20*	.34	.18*
act score	.16	.05	.16	.05	.16	.06	.15	.05	.15	.05
parents income	.14	.07	.15	.07	.14	.07	.14	.08	.13	.10
prestige financial			.06	.01	.07	-.04	.06	-.00	.07	.07
prestige image					.06	.16*	.06	.02	.07	.13
status							.06	.37*	.06	.35*
esteem									.06	-.23*
$R^2$	.09		.09		.12		.22		.25	

p < .05\*

Table I.35  
*Bivariate Correlation: Female Urban Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. consider teach	-							
2. prest financials	.04	-						
3. prest image	.14*	.25*	-					
4. status	.28*	.03	.39*	-				
5. esteem	-.12	.47*	.54*	.10	-			
6. act score	.04	-.15*	-.12	-.06	-.13	-		
7. main source	.03	-.00	-.02	-.05	.01	-.23*	-	
8. parents income	.06	.05	-.04	-.02	.06	.19*	-.13	-

p < .05\*

Table I.36  
*Hierarchical Linear Regression: Female Urban Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.24	.10	.24	.10	.24	.11	.23	.12	.22	.12
act score	.22	.05	.22	.06	.22	.08	.21	.09	.20	.08
parents income	.18	.09	.19	.08	.18	.09	.17	.09	.17	.11
prestige financial			.08	.05	.08	-.00	.08	.03	.08	.13
prestige image					.08	.20*	.08	.06	.09	.21*
status							.08	.33*	.08	.29*
esteem									.08	-.30*
$R^2$		.02		.02		.05		.15		.20

p < .05\*

Table I.37  
ANOVA: Household Income and Teaching Considerations

Variable	SS	df	MS	F	p
how much consider teach parent's income	162.88	1095	54.29	6.68	.00*

p < .05\*

Table I.38  
ANOVA Descriptive Statistics

Variable	Mean	SD	n	Range
how much consider teach				
participants originating from families earning \$50,000 or less annual income	4.46	2.76	255	0-8
participants originating from families earning \$50,000 to \$100,000 annual income	4.27	2.81	266	0-8
participants originating from families earning \$100,000 to \$150,000 annual income	3.54	2.87	124	0-8
participants originating from families earning \$150,000 or more annual income	4.79	2.92	454	0-8

Table I.39  
Bonferroni Post-Hoc Analysis

Comparison	Mean Differences in Perceptions	Std. Error	CI	
			Lower Bound	Upper Bound
participants originating from families earning \$100,000 to \$150,000 annual income vs. participants originating from families earning \$150,000 or more annual income	-1.25*	.29	-2.01	-.48
participants originating from families earning \$100,000 to \$150,000 annual income vs. participants originating from families earning \$50,000 or less	-.92*	.31	-1.74	-.10

p < .05\*

Table I.40  
*Bivariate Correlation: Household Income (\$50,000 to \$100,000)*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financials	.04	-							
3. prest image	.02	.28*	-						
4. status	.25*	.01	.25*	-					
5. esteem	-.10	.44*	.45*	-.05	-				
6. act score	-.18*	-.14	-.12	-.08	-.05	-			
7. main source	.06	.04	.09	-.05	-.02	-.04	-		
8. gender	.24*	-.21*	-.07	.14	-.09	-.11	-.05	-	
9. hometown	.01	.19*	.05	.02	.08	.00	-.01	-.20*	-

p < .05\*

Table I.41  
*Hierarchical Linear Regression: Household Income (\$50,000 to \$100,000)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.19	-.01	.19	-.01	.19	-.01	.18	.01	.17	-.01
act score	.17	-.07	.19	-.05	.17	-.05	.18	-.04	.16	-.03
hometown	.25	-.01	.24	-.01	.24	-.01	.23	.01	.23	.01
gender	.40	.24*	.40	.28*	.40	.28*	.38	.24*	.37	.23*
prestige financials			.06	.21*	.07	.20*	.06	.21*	.07	.29*
prestige image					.07	.01	.06	-.06	.07	.03
status							.06	.33*	.06	.31*
esteem									.07	-.22*
$R^2$		.07		.11		.11		.21		.23

p < .05\*



Table I.42  
*Bivariate Correlation: Household Income (\$100,000 to \$150,000)*

	1	2	3	4	5	6	7	8	9	10
1. consider tea	-									
2. prest financi	.03	-								
3. prest image	.09	.40*	-							
4. status	.33*	-.02	.09	-						
5. esteem	-.25*	.33*	.49*	-.11	-					
6. act score	-.11	-.15	-.14	-.06	-.16	-				
7. main source	-.03	.01	-.06	-.18	.05	.04	-			
8. gender	.41*	-.05	.04	.23*	-.25*	.09	.01	-		
9. hometown	-.05	.14	.11	-.08	.00	.14	-.00	.01	-	
10. interaction	-.09	.15	-.02	.21*	-.00	.03	.04	.24*	-.11	-

p < .05\*

Table I.43  
*Hierarchical Linear Regression: Household Income (\$100,000 to \$150,000)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.28	.03	.28	.03	.30	.03	.28	.07	.27	.08	.26	.08
gender	.53	.37*	.53	.37*	.53	.37*	.53	.32*	.54	.26*	.53	.32*
hometown	.36	-.10	.36	-.10	.37	-.10	.36	-.08	.35	-.09	.34	.12
act score	.23	-.17	.24	-.16	.24	-.16	.23	-.15	.23	-.17	.22	-.15
prestige financial			.10	.02	.11	.00	.10	.01	.10	.04	.10	.09
prestige image					.12	.04	.11	.01	.12	.14	.12	.09
status							.09	.23*	.09	.21*	.09	.25*
esteem									.10	-.28*	.10	-.26*
interaction											.03	-.24*

R<sup>2</sup> .18 .18 .18 .23 .28 .33

p < .05\*

Table I.44  
*Bivariate Correlation: Household Income (\$150,000 or Greater)*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financial	.06	-							
3. prest image	.11*	.34*	-						
4. status	.44*	.05	.26*	-					
5. esteem	-.12*	.46*	.61*	.08	-				
6. act score	-.01	-.05	-.07	.03	-.04	-			
7. main source	.10*	-.02	-.05	.04	-.06	-.08	-		
8. gender	.28*	-.14*	.02	.26*	-.16*	.05	.12*	-	
9. hometown	-.11*	.01	.02	-.05	.09	.11*	-.08	-.12*	-

p < .05\*

Table I.45  
*Hierarchical Linear Regression: Household Income (\$150,000 or Greater)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.15	.06	.15	.07	.15	.08	.14	.06	.14	.06
gender	.32	.29*	.32	.30*	.32	.29*	.30	.21*	.30	.17*
hometown	.19	-.03	.19	-.03	.19	-.03	.17	-.03	.17	-.02
act score	.13	-.01	.13	-.01	.13	-.01	.12	-.02	.12	-.01
prestige financials			.05	.09	.05	.05	.05	.07	.05	.14*
prestige image					.05	.09	.05	-.02	.06	.11
status							.05	.41*	.05	.40*
esteem									.05	-.25*
$R^2$		.10		.10		.11		.25		.29

p < .05\*

Table I.46  
*Bivariate Correlation: Rural Household Income (\$150,000 Plus)*

	1	2	3	4	5	6	7	8
1. consider teach	-							
2. prest financials	.08	-						
3. prest image	.13	.33*	-					
4. status	.44*	.02	.20*	-				
5. esteem	-.12*	.44*	.53*	-.00	-			
6. act score	-.11	-.02	-.08	.05	.04	-		
7. main source	.04	-.03	-.08	.03	.02	-.09	-	
8. gender	.28*	-.14	.11	.33*	-.22*	.02	.05	-

p < .05\*

Table I.47  
*Hierarchical Linear Regression: Rural Household Income (\$150,000 Plus)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.23	.05	.23	.06	.23	.07	.22	.04	.21	.06
gender	.51	.32*	.51	.34*	.52	.23*	.50	.21*	.51	.18*
act score	.21	.12	.21	.12	.21	.13	.20	.11	.20	.09
prestige financials			.08	.12	.08	.09	.07	.11	.08	.15
prestige image					.09	.08	.08	.02	.09	.10
status							.08	.39*	.08	.38*
esteem									.08	-.17
R <sup>2</sup>	.12		.13		.14		.27		.29	

p < .05\*

Table I.48  
*ANOVA: ACT Scores and Teaching Considerations*

Variable	SS	df	MS	F	p
how much consider teach act score	356.95	1034	89.24	11.10	.00*

p < .05\*

Table I.49  
*ANOVA Descriptive Statistics*

Variable	Mean	SD	n	Range
how much consider teach				
seniors and undergraduates scoring 17 or less on the ACT	3.06	2.96	79	0-8
seniors and undergraduates scoring in the 18 to 20 range on the ACT	5.08	2.87	132	0-8
senior and undergraduates scoring in the 21 to 24 range on the ACT	4.69	2.87	402	0-8
seniors and undergraduates scoring in the 25 to 28 range on the ACT	4.55	2.88	254	0-8
seniors and undergraduates scoring 29 or higher on the ACT	3.58	2.60	172	0-8

Table I.50  
*Bonferroni Post-Hoc Analysis*

Comparison	Mean Differences in Perceptions	Std. Error	CI	
			Lower Bound	Upper Bound
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 18- 20	-1.49*	.33	-2.42	-.57
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 21- 24	-1.11*	.26	-1.84	-.39
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 25- 28	-.97*	.28	-1.75	-.18

p < .05\*

Table I.51  
*Bivariate Correlation: ACT Scores 29 or Greater*

	1	2	3	4	5	6	7	8	9	10
1. consider tea	-									
2. prest financi	-.15	-								
3. prest image	-.11	.32*	-							
4. status	.30*	-.17*	.12	-						
5. esteem	-.29*	.46	.47*	-.13	-					
6. main sourc	-.01	.08	.03	-.13	.06	-				
7. parents inco	-.00	.17*	.02	-.08	.17*	-.02	-			
8. hometown	.03	-.01	.13	.13	.10	-.01	-.09	-		
9. gender	.25*	-.13	.05	.27*	-.04	.02	.12	-.25*	-	
10. interaction	-.26*	.32*	.06	-.14	.29*	.40*	-.03	-.15	-.11	-

p < .05\*

Table I.52  
*Hierarchical Linear Regression: ACT Scores 29 or Greater*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.22	.01	.22	.01	.22	.01	.22	.05	.21	.06	.23	.15
gender	.44	.24*	.44	.23*	.45	.25	.45	.16	.44	.16*	.44	.13
hometown	.31	.05	.31	.05	.32	.08	.31	.04	.30	.06	.30	.01
parents income	.18	-.04	.18	-.02	.18	-.03	.18	.00	.18	.03	.17	.01
prestige financia			.07	-.07	.07	-.04	.07	.01	.08	.09	.08	.14
prestige image					.08	-.11	.08	-.16	.09	-.06	.08	-.07
status							.08	.28*	.08	.25*	.08	.26*
esteem									.08	-.26*	.08	-.20*
interaction											.02	-.26*
<i>R</i> <sup>2</sup>	.06		.06		.07		.14		.18		.22	

p < .05\*

Table I.53  
*Bivariate Correlation: ACT Scores 25 to 28*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financials	.09	-							
3. prest image	.06	.32*	-						
4. status	.47*	.02	.23*	-					
5. esteem	-.08	.38	.54*	.03	-				
6. main source	.02	.01	.03	-.05	-.02	-			
7. parents income	.06	-.01	-.06	-.05	-.05	-.02	-		
8. hometown	-.14*	-.02	-.08	-.21*	.10	-.00	.02	-	
9. gender	.26*	-.20*	-.05	.18*	-.04	-.23	-.08	-.08	-

p < .05\*

Table I.54  
*Hierarchical Linear Regression: ACT Scores 25 to 28*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.19	.06	.19	.07	.19	.07	.18	.03	.18	.08
gender	.43	.30*	.44	.32*	.44	.32*	.40	.26*	.41	.24*
hometown	.23	-.10	.23	-.09	.23	-.09	.21	-.01	.21	-.01
parents income	.16	.09	.16	.10	.16	.11	.15	.11	.15	.11
prestige financial			.07	.16*	.07	.13	.07	.14*	.07	.16*
prestige image					.07	.09	.06	.42*	.07	.03
status									.06	.41*
esteem									.07	-.11
$R^2$	.11		.13		.14		.29		.30	

p < .05\*

Table I.55  
*Bivariate Correlation: ACT Scores 21 to 24*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financials	.11*	-							
3. prest image	.08	.39*	-						
4. status	.32*	.01	.25*	-					
5. esteem	-.18*	.52*	.59*	-.06	-				
6. main source	.05	.01	-.02	-.01	-.03	-			
7. parents income	.05	.04	-.02	-.04	-.05	-.06	-		
8. hometown	.08	.02	-.04	-.07	-.06	-.00	-.04	-	
9. gender	.24*	.17*	-.02	.14*	-.16*	.09	-.08	-.11*	-

p < .05\*

Table I.56  
*Hierarchical Linear Regression: ACT Scores 21 to 24*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.16	.01	.16	.01	.16	.01	.15	.02	.15	.02
gender	.34	.25*	.34	.26*	.34	.26*	.33	.21*	.32	.19*
hometown	.19	-.07	.19	-.07	.19	-.07	.19	-.05	.18	-.05
parents income	.13	.09	.12	.09	.13	.09	.12	.07	.12	.09
prestige financials			.05	.12*	.06	.12*	.05	.16*	.06	.24*
prestige image					.06	.02	.06	-.07	.06	.08
status							.06	.30*	.06	.25*
esteem									.06	-.30*
<i>R</i> <sup>2</sup>	.11		.13		.14		.29		.30	

p < .05\*



Table I.57  
*Bivariate Correlation: ACT Scores 18 to 20*

	1	2	3	4	5	6	7	8	9
1. consider teach	-								
2. prest financials	.09	-							
3. prest image	.15	.34*	-						
4. status	.37*	.24	.40*	-					
5. esteem	-.02	.41*	.60*	.25*	-				
6. main source	.01	-.16	-.27*	-.01	-.22*	-			
7. parents income	.05	-.15	.12	-.01	.10	-.11	-		
8. gender	.38*	-.00	.13	.27*	-.03	.16	-.02	-	
9. hometown	-.20*	.02	.12	.00	.11	.03	-.01	-.11	-

p < .05\*

Table I.58  
*Hierarchical Linear Regression: ACT Scores 18 to 20*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.27	.04	.26	-.03	.26	-.01	.27	.02	.26	-.01	.26	-.01
hometown	.32	-.19*	.30	-.16	.30	-.17	.30	-.18*	.29	-.18*	.29	-.18*
parents income	.21	.03	.20	.04	.20	.02	.20	.01	.19	.03	.19	.03
gender			.55	.36*	.55	.35*	.56	.33*	.55	.28*	.55	.26*
prestige financial					.09	.11	.09	.08	.09	.03	.09	.06
prestige image							.11	.11	.12	.11	.12	.11
status									.09	.27*	.09	.27*
esteem											.11	-.17
<i>R</i> <sup>2</sup>	.04		.16		.17		.18		.24		.26	

p < .05\*

Table I.59  
*Bivariate Correlation: Seniors and Undergraduates*

	1	2	3	4	5	6	7	8	9
1. policy teach	-								
2. policy presti	.16*	-							
3. policy status	.23*	.46*	-						
4. policy estee	.14*	.41*	.59*	-					
5. gender	.21*	-.12*	-.02	-.06	-				
6. act score	.14*	.08*	.18*	.05	.01	-			
7. hometown	-.03	.09*	.06	.14*	-.09*	.10*	-		
8. main source	-.05	-.08*	-.12*	-.06	-.03	-.07*	-.02	-	
9. parents incom	.04	-.01	-.01	.01	.06	.03	-.04	-.06*	-
10. interaction	.17*	.27*	-.05	-.12*	.04	.08*	-.03	-.01	.01

p < .05\*

Table I.60  
*Hierarchal Linear Regression: Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.08	-.05	.08	-.04	.08	-.03	.08	-.02	.08	-.02	.08	-.02
hometown	.10	-.01	.10	-.02	.10	-.04	.10	-.03	.10	-.04	.10	-.03
parents income	.07	.04	.07	.04	.06	.04	.06	.04	.06	.04	.06	.04
gender	.17	.21*	.17	.21*	.17	.23*	.17	.22*	.17	.22*	.17	.21*
act score			.07	.13*	.07	.11*	.07	.09*	.07	.09*	.07	.08*
policy prestige					.02	.18*	.02	.11*	.02	.11*	.02	.03
policy status							.03	.15*	.03	.14*	.03	.16*
policy esteem									.03	.02	.03	.06
interaction											.01	.17*
<i>R</i> <sup>2</sup>	.05		.06		.09		.11		.11		.14	

p < .05\*

Table I.61  
*Bivariate Correlation: Seniors Considering Other Careers*

	1	2	3	4	5	6	7	8	9
1. policy teach	-								
2. policy presti	.13*	-							
3. policy status	.29*	.29*	-						
4. policy estee	.32*	.33*	.56*	-					
5. gender	.25*	-.04	.05	.06	-				
6. act score	.38*	-.09	.15*	.07	.12	-			
7. hometown	.01	-.05	.06	.18*	-.06	.08	-		
8. main source	-.07	.06	-.04	-.01	.09	-.05	-.03	-	
9. parents inco	-.02	-.05	-.03	.04	-.07	-.04	-.05	-.06*	-

p < .05\*

Table I.62  
*Hierarchical Linear Regression: Seniors Considering Other Careers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.19	-.07	.18	-.06	.18	-.08	.18	-.07	.17	-.07
hometown	.22	.02	.21	-.01	.21	-.00	.21	-.01	.21	-.04
parents income	.15	-.04	.14	-.03	.14	-.02	.13	-.01	.13	-.03
gender	.33	.22*	.31	.18*	.30	.19*	.30	.18*	.30	.17*
act score			.12	.35*	.12	.36*	.12	.34*	.12	.34*
policy prestige			.05	.15*	.05	.15*	.05	.10	.05	.05
policy status							.06	.16*	.07	.06
policy esteem									.06	.21*
<i>R</i> <sup>2</sup>	.05		.17		.19		.22		.24	

p < .05\*

Table I.63

*ANOVA: ACT Score Post-Policy Teaching Considerations*

Variable	SS	df	MS	F	p
post policy teach act score	179.69	253	44.92	7.99	.00*

p &lt; .05\*

Table I.64

*ANOVA Descriptive Statistics*

Variable	Mean	SD	n	Range
post policy teach				
seniors and undergraduates scoring 17 or less on the ACT	2.42	2.00	43	0-8
seniors and undergraduates scoring in the 18 to 20 range on the ACT	2.97	2.72	32	0-8
senior and undergraduates scoring in the 21 to 24 range on the ACT	3.27	2.22	88	0-8
seniors and undergraduates scoring in the 25 to 28 range on the ACT	4.42	2.29	43	0-8
seniors and undergraduates scoring 29 or higher on the ACT	4.75	2.21	52	0-8

Table I.65  
*Bonferroni Post Hoc-Assessment*

Comparison	Mean Differences in Perceptions	Std. Error	CI	
			Lower Bound	Upper Bound
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 18- 20	1.78*	.53	.27	3.29
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 21- 24	1.48*	.42	.30	2.65
seniors and undergraduates scoring 29 or higher vs. seniors and undergraduates scoring 17 or less	2.33*	.49	.95	3.72

p < .05\*

Table I.66  
*Bivariate Correlation: Undergraduates Considering Other Careers*

	1	2	3	4	5	6	7	8	9
1. policy teach	-								
2. policy presti	.44*	-							
3. policy status	.39*	.52*	-						
4. policy estee	.16*	.40*	.50*	-					
5. gender	.11	-.12	-.03	-.10	-				
6. act score	.03	.12	.16*	.09	-.03	-			
7. hometown	.07	.13	.05	.12	-.14	.03	-		
8. main source	-.23*	-.19*	-.27*	-.08	.05	-.00	.05	-	
9. parents inco	-.04	.00	-.11	-.01	-.03	.03	-.00	-.05	-

p < .05\*

Table I.67  
*Hierarchical Linear Regression: Undergraduates Considering Other Careers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
hometown	.25	.08	.24	.10	.22	.05	.22	.05	.22	.05
parents income	.20	-.04	.19	-.05	.17	-.05	.17	-.03	.17	-.02
gender	.38	.12	.37	.13	.34	.17*	.34	.16*	.34	.16*
act score	.36	.03	.35	.02	.32	-.02	.32	-.04	.31	-.04
main source			.18	-.24*	.17	-.16*	.17	-.13	.17	-.12
policy prestige					.04	.42*	.05	.33*	.05	.35*
policy status							.06	.19*	.06	.23*
policy esteem									.06	-.09
$R^2$		.02		.08		.25		.27		.28

p < .05\*

Table I.68  
*Bivariate Correlation: Aspiring Teachers*

	1	2	3	4	5	6	7	8	9	10
1. policy teach	-									
2. policy presti	.33*	-								
3. policy status	.23*	.69*	-							
4. policy estee	.09	.55*	.67*	-						
5. gender	-.19*	-.06	-.04	-.11	-					
6. act score	.11	.33*	.37*	.23*	.03	-				
7. hometown	.00	.12	.07	.07	-.02	.03	-			
8. main source	-.06	-.07	-.07	-.08	.06	.13	.08	-		
9. parents inco	.06	-.01	.03	-.01	-.08	.04	-.21*	.10	-	
10. interaction	.08	-.22*	-.17*	-.34*	.35*	.07	-.02	.05	-.02	-

p < .05\*

Table I.69  
*Hierarchal Linear Regression: Aspiring Teachers*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.20	-.08	.19	-.04	.19	-.04	.19	-.05	.19	-.04
parents income	.63	.06	.61	.05	.61	.05	.61	.05	.60	.05
gender	.49	-.20*	.47	-.18	.48	-.18	.47	-.19*	.49	-.26*
act score	.28	.14	.29	.03	.30	.04	.30	.03	.20	.00
hometown	.38	.01	.37	-.03	.37	-.03	.37	-.03	.36	-.04
policy prestige			.04	.31*	.05	.32*	.06	.35*	.05	.38*
policy status					.07	-.01	.08	.10	.07	-.12
policy esteem							.06	-.20	.06	.20
interaction									.03	.22*

R<sup>2</sup> .06 .14 .15 .17 .20

p < .05\*

Table I.70  
*Independent t-test results*

	<i>N</i>	<i>M(SD)</i>	Range	Mean Difference	<i>t</i>	Df	<i>p</i>
post policy teach							
males	313	3.85(2.53)	0-8	1.11	-6.86	102	.00*
females	708	4.96(2.33)	0-8				
males							
pre-policy teach	342	3.23(2.79)	0-8	.61	2.95	653	.00*
post-policy teach	313	3.85(2.53)	0-8				
female undergraduates non-							
aspiring teachers							
pre-policy teach	345	3.25(2.12)	0-8	1.04	-6.17	662	.00*
post-policy teach	319	4.29(2.21)	0-8				
female senior non-aspiring							
teachers							
pre-policy teach	121	3.24(2.16)	0-8	.70	-2.40	226	.00*
post-policy teach	107	3.94(2.28)	0-8				
rural seniors and							
undergraduates							
pre-policy teach	383	4.80(2.91)	0-8	.10	.502	721	.62
post-policy teach	346	4.71(2.41)	0-8				
rural female seniors and							
undergraduates							
pre-policy teach	154	5.51(2.75)	0-8	.46	1.55	290	.12
post-policy teach	139	5.05(2.35)	0-8				
urban seniors and							
undergraduates							
pre-policy teach	155	4.19(2.82)	0-8	.48	-1.56	293	.12
post-policy teach	140	4.67(2.45)	0-8				
female urban/urban cluster							
seniors and undergraduate							
non-aspiring teachers							
pre-policy teach	133	3.04(2.09)	0-8	1.28	4.69	254	.00*
post-policy teach	143	4.32(2.27)	0-8				

p < .05\*



Table I.71  
*Bivariate Correlation: Female Undergraduates Considering Other Careers*

	1	2	3	4	5	6	7	8
1. policy teac	-							
2. policy prest	.32*	-						
3. policy statu	.29*	.42*	-					
4. policy estee	.19*	.38*	.56*	-				
5. act score	.12*	.11	.22*	.06	-			
6. hometown	.05	.08	.09	.15*	.11	-		
7. main sourc	-.12*	-.05	-.19*	-.02	-.12	.04	-	
8. parents inc	.00	-.02	-.06	.02	.09	-.03	-.06	-

p < .05\*

Table I.72  
*Hierarchical Linear Regression: Female Undergraduates Considering Other Careers*

Predictors	Step 1		Step 2		Step 3		Step 4	
	SE	β	SE	β	SE	β	SE	β
main source	.14	-.10	.13	-.09	.14	-.07	.14	-.07
parents income	.11	.01	.10	.00	.10	.02	.10	.02
act score	.12	.10	.12	.07	.12	.04	.12	.05
hometown	.16	.02	.16	.00	.15	.00	.16	.00
policy prestige			.03	.31*	.04	.24*	.04	.25*
policy status					.05	.15*	.05	.17*
policy esteem							.04	-.03
<i>R</i> <sup>2</sup>		.02		.12		.13		.13

p < .05\*

Table I.73  
*Bivariate Correlation: Rural Seniors and Undergraduates*

	1	2	3	4	5	6	7	8	9
1. policy teach	-								
2. policy presti	.11*	-							
3. policy status	.23*	.48*	-						
4. policy estee	.18*	.43*	.64*	-					
5. act score	.21*	.10	.05	.06	-				
6. gender	.19*	-.12*	.09	-.05	.06	-			
7. main source	-.03	-.03	-.19*	-.03	-.08	.06	-		
8. parents inco	.00	-.01	-.06	.05	-.01	.02	-.07	-	
9. interaction	.15*	.20*	-.20*	-.25*	.08	.05	.01	-.03	-

p < .05\*

Table I.74  
*Hierarchical Linear Regression: Rural Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.14	-.05	.14	-.03	.14	-.03	.13	-.01	.13	-.01	.13	-.02
parents income	.11	-.01	.10	-.01	.10	-.01	.10	-.00	.10	-.01	.10	-.03
gender	.31	.21*	.30	.20*	.30	.21*	.30	.21*	.30	.21*	.30	.19*
act score			.13	.19*	.13	.18*	.13	.14*	.13	.15*	.13	.13*
policy prestige					.03	.12*	.04	.04	.07	.09	.04	-.07
policy status							.05	.17*	.06	.14	.06	.19*
policy esteem									.05	.06	.05	.11
interaction											.01	.21*
<i>R</i> <sup>2</sup>	.05		.08		.09		.12		.12		.15	

p < .05\*

Table I.75  
*Bivariate Correlation: Female Rural Seniors and Undergraduates*

	1	2	3	4	5	6	7	8
1. policy teach	-							
2. policy presti	.20*	-						
3. policy status	.30*	.52*	-					
4. policy estee	.19*	.35*	.67*	-				
5. act score	.14	.23*	.35*	.03	-			
6. main source	.08	-.15	-.15	-.07	-.05	-		
7. parents inco	-.04	-.11	-.11	-.02	.06	.06	-	
8. interaction	.26*	.30	-.15	-.20*	.01	.01	-.04	-

p < .05\*

Table I.76  
*Hierarchal Linear Regression: Female Rural Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.21	-.06	.21	-.04	.21	-.02	.21	-.02	.20	-.04
parents income	.67	-.03	.67	-.01	.65	-.01	.66	-.01	.63	.00
act score	.20	.13	.20	.04	.21	.03	.22	.03	.21	.00
policy prestige			.05	.18*	.06	.06	.06	.06	.06	-.12
policy status					.08	.26*	.10	.27*	.10	.37*
policy esteem							.08	-.02	.07	.04
interaction									.02	.35*
<i>R</i> <sup>2</sup>		.02		.05		.10		.10		.19

p < .05\*

Table I.77  
*Bivariate Correlation: Urban Seniors and Undergraduates*

	1	2	3	4	5	6	7	8	9
1. policy teach	-								
2. policy prest	.13	-							
3. policy statu	.21*	.38*	-						
4. policy este	.04	.34*	.39*	-					
5. act score	.14	.17*	.17*	-.04	-				
6. main source	-.02	-.18*	-.05	-.04	-.08	-			
7. parents inco	.15	.02	.01	-.04	-.12	-.09	-		
8. gender	.38*	-.19*	-.04	-.09	.05	-.03	.21*	-	
9. interaction	.29*	.49*	.36*	.10	.08	-.22*	.08	.07	-

p < .05\*

Table I.78  
*Hierarchical Linear Regression: Urban Seniors and Undergraduates*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.22	.01	.21	.01	.21	.05	.21	.04	.21	.04	.21	.07
parents income	.23	.16	.22	.11	.22	.10	.21	.10	.22	.09	.21	.09
act score	.28	.15	.26	.11	.26	.08	.26	.06	.27	.05	.26	.07
gender			.42	.35*	.42	.39*	.42	.39*	.42	.39*	.42	.39*
policy prestige					.05	.20*	.05	.14	.05	.15	.06	.06
policy status							.07	.16	.07	.17	.08	.12
policy esteem									.07	-.04	.07	-.01
interaction											.02	.20*
$R^2$	.05		.16		.20		.22		.22		.24	

p < .05\*

Table I.79  
*Bivariate Correlation: Female Urban and Urban Cluster Undergraduates Considering Other Careers*

	1	2	3	4	5	6	7
1. policy teach	-						
2. policy prest	.33*	-					
3. policy statu	.31*	.46*	-				
4. policy estee	.14	.38*	.43*	-			
5. act score	-.15	.19*	.17	.01	-		
6. main source	.08	-.03	-.15	.06	-.02	-	
7. parents inco	.00	.07	-.09	.05	.02	.02	-

p < .05\*

Table I.80  
*Hierarchical Linear Regression: Female Urban and Urban Cluster Undergraduates Considering Other Careers*

Predictors	Step 1		Step 2		Step 3		Step 4	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.22	-.15	.21	-.14	.21	-.12	.21	-.11
parents income	.23	.03	.22	.05	.22	.07	.22	.07
act score	.25	.04	.24	-.02	.24	-.03	.22	-.04
policy prestige			.05	.32*	.06	.23*	.06	.24*
policy status					.07	.20*	.08	.21*
policy esteem							.06	-.05
$R^2$		.03		.13		.16		.16

p < .05\*

Table I.81  
*Independent t-test results*

	<i>N</i>	<i>M(SD)</i>	Range	Mean Difference	<i>t</i>	df	<i>p</i>
senior and undergraduate non-aspiring teacher household annual incomes \$50,000 to \$100,000							
pre-policy teach	184	2.93(2.11)	0-8	1.00	-4.27	349	.00*
post-policy teach	167	3.93(2.30)	0-8				
seniors and undergraduates scoring 25 or greater on the ACT and originating from households with annual incomes \$150,000 or greater							
pre-policy teach	170	4.61(2.96)	0-8	.64	-2.20	318	.03*
post-policy teach	154	5.25(2.37)	0-8				
undergraduate non-aspiring teachers scoring 25 to 28 on the ACT							
pre-policy teach	118	2.96(2.18)	0-8	1.39	4.79	226	.00*
post-policy teach	110	4.35(2.19)	0-8				
seniors and undergraduate scoring 20 or less on the ACT							
pre-policy teach	146	4.51(3.06)	0-8	.27	-.799	280	.43
post-policy teach	137	4.24(2.68)	0-8				

p < .05\*

Table I.82  
*Bivariate Correlation: Household Income (\$50,000 to \$100,000)*

	1	2	3	4	5	6	7	8
1. policy teach	-							
2. policy prest	.27*	-						
3. policy statu	.30*	.41*	-					
4. policy estee	.14	.41*	.55*	-				
5. act score	.26*	.07	.29*	.15	-			
6. gender	.12	-.19*	.04	-.11	-.06	-		
7. main source	-.06	.11	-.02	.14	-.04	.02	-	
8. hometown	.09	.11	.14	.28*	.20*	-.14	.06	-

p < .05\*

Table I.83  
*Hierarchical Linear Regression: Household Income (\$50,000 to \$100,000)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.20	-.08	.20	-.07	.19	-.10	.19	-.09	.19	-.08
gender	.40	.14	.38	.14	.37	.19*	.38	.18*	.38	.17*
hometown	.26	.12	.25	.07	.24	.06	.24	.04	.25	.05
act score			.17	.25*	.16	.23*	.16	.20*	.17	.20*
policy prestige					.05	.30*	.05	.25*	.05	.26*
policy status							.07	.12	.08	.15
policy esteem									.06	-.07
$R^2$	.03		.09		.18		.19		.19	

p < .05\*

Table I.84  
*Bivariate Correlation: Household Income (\$150,000 or Greater)*

	1	2	3	4	5	6	7	8	9
1. policy teac	-								
2. polic prest	.35*	-							
3. polic statu	.41*	.58*	-						
4. polic estee	.31*	.50*	.61*	-					
5. act score	-.08	.00	-.01	.06	-				
6. gender	.15	-.07	.08	.01	.03	-			
7. main sour	-.09	-.20*	-.21*	-.11	.01	.09	-		
8. hometown	.05	.08	-.02	.08	.03	-.07	-.10	-	
9. interaction	.27*	.36*	.11	.05	-.08	-.06	-.04	.06	-

p < .05\*

Table I.85  
*Hierarchical Linear Regression: Household Income (\$150,000 or Greater)*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	β	SE	β	SE	β	SE	β	SE	β
main source	.20	-.10	.19	.03	.18	.00	.18	-.00	.18	-.03
gender	.41	.17*	.39	.19*	.38	.15*	.38	.15*	.38	.16*
hometown	.23	.03	.23	.03	.23	.06	.23	.05	.23	.04
act score	.40	-.08	.37	-.08	.36	-.08	.37	-.08	.36	-.07
policy prestige			.04	.36*	.05	.20*	.07	.25*	.05	.08
policy status					.06	.28*	.06	.07	.07	.26*
policy esteem									.06	.10
interaction									.01	.21*
R <sup>2</sup>		.04		.17		.22		.22		.26

p < .05\*



Table I.86  
*Bivariate Correlation: ACT Score 25 to 28*

	1	2	3	4	5	6	7	8
1. policy teach	-							
2. policy presti	.43*							
3. policy status	.32*	.45*	-					
4. policy estee	.16	.38*	.47*	-				
5. parents inco	-.11	.08	.02	.03	-			
6. gender	.10	-.20	-.09	-.21	-.20*	-		
7. main source	-.27*	-.09	-.18	.04	-.05	-.07	-	
8. hometown	.06	.16	-.03	.10	.13	-.17	.05	-

p < .05\*

Table I.87  
*Hierarchical Linear Regression: ACT Score 25 to 28*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
gender	.49	.10	.47	-.07	.43	.15	.43	.16	.44	.16
hometown	.27	.09	.26	.11	.23	.05	.23	.06	.23	.06
parents income	.19	-.11	.18	-.13	.16	-.13	.16	-.13	.16	-.13
main source			.21	-.28*	.19	-.23*	.19	-.21*	.20	-.21*
policy prestige					.05	.45*	.05	.39*	.05	.39*
policy status							.07	.13	.08	.13
policy esteem									.06	-.01
<i>R</i> <sup>2</sup>	.03		.10		.29		.29		.29	

p < .05\*

Table I.88  
*Bivariate Correlation: ACT Score 20 or Less*

	1	2	3	4	5	6	7	8	9
1. policy tea	-								
2. policy pre	-.09	-							
3. policy stat	.22*	.28*	-						
4. policy este	.29*	.40*	.67 *	-					
5. parents inc	.03	-.06	-.03	.08	-				
6. gender	.29*	-.30*	-.17	-.05	-.04	-			
7. main sour	-.10	-.07	-.18*	-.03	-.02	.12	-		
8. hometown	-.01	.11	.01	.06	-.06	-.18*	-.02	-	
9. interaction	.08	-.18*	-.44*	-.38*	.13	.17*	.13	.00	-

p < .05\*

Table I.89  
*Hierarchical Linear Regression: ACT Score 20 or Less*

Predictors	Step 1		Step 2		Step 3		Step 4		Step 5	
	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$	SE	$\beta$
main source	.24	-.13	.24	-.13	.23	-.09	.23	-.11	.23	-.13
hometown	.29	.04	.29	.04	.28	.05	.27	.03	.27	.02
parents income	.25	.05	.25	.05	.24	.05	.24	.01	.24	.00
gender	.48	.31*	.50	.31*	.48	.34*	.48	.29*	.48	.26*
policy prestige			.07	-.00	.07	-.07	.07	-.16	.07	-.16
policy status					.08	.28*	.10	.09	.10	.15
policy esteem							.09	.30*	.09	.34*
interaction									.02	.22*
$R^2$		.10		.10		.18		.22		.25*

p < .05\*

Appendix J  
Figures

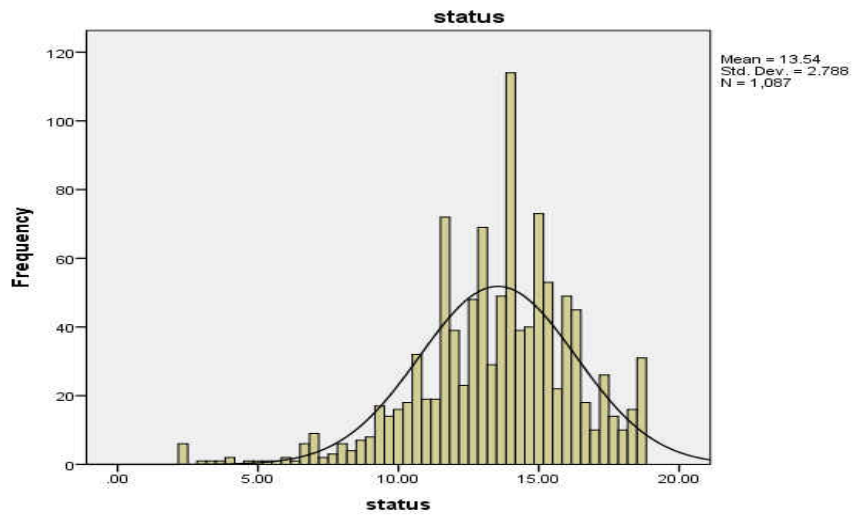


Figure 1. Status variable's normal distribution.

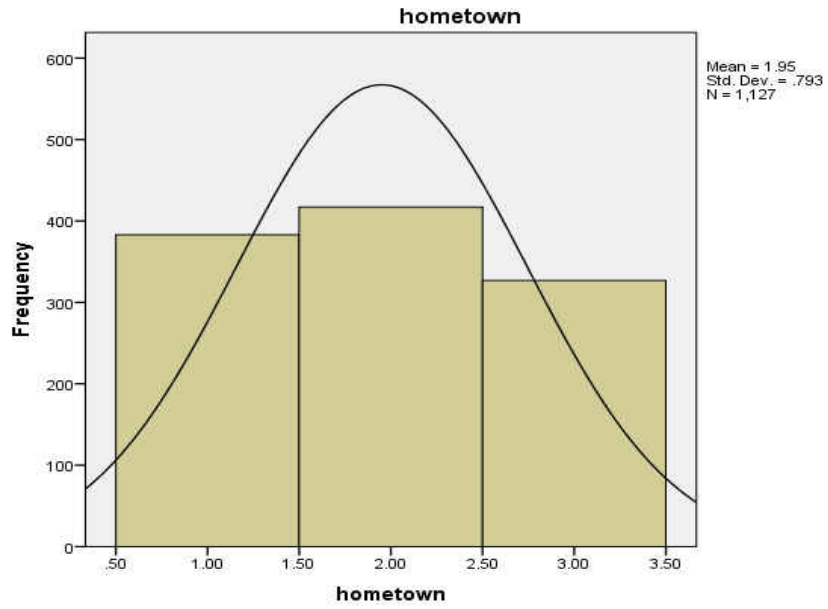


Figure 2. Hometown variable's normal distribution.

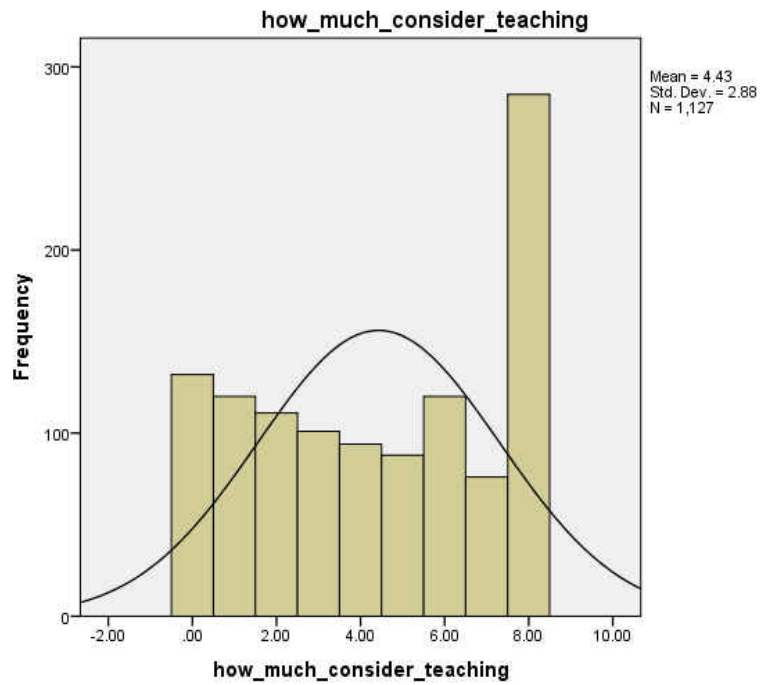


Figure 3. How much consider teaching variable's normal distribution.

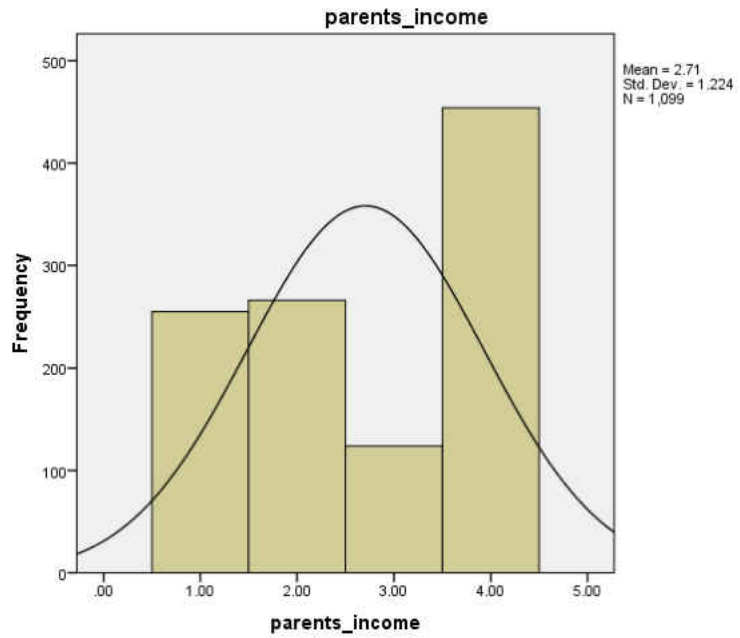
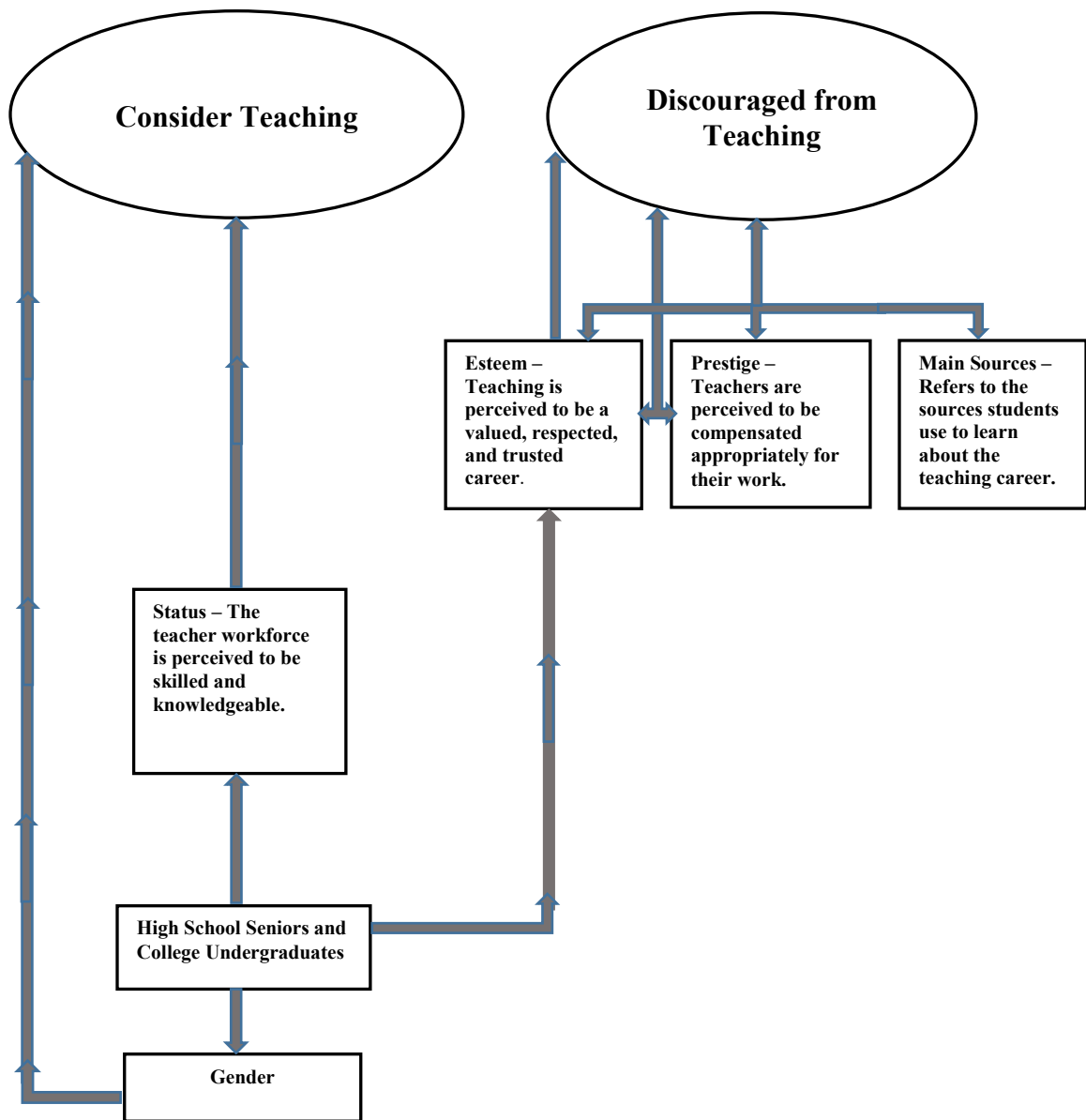
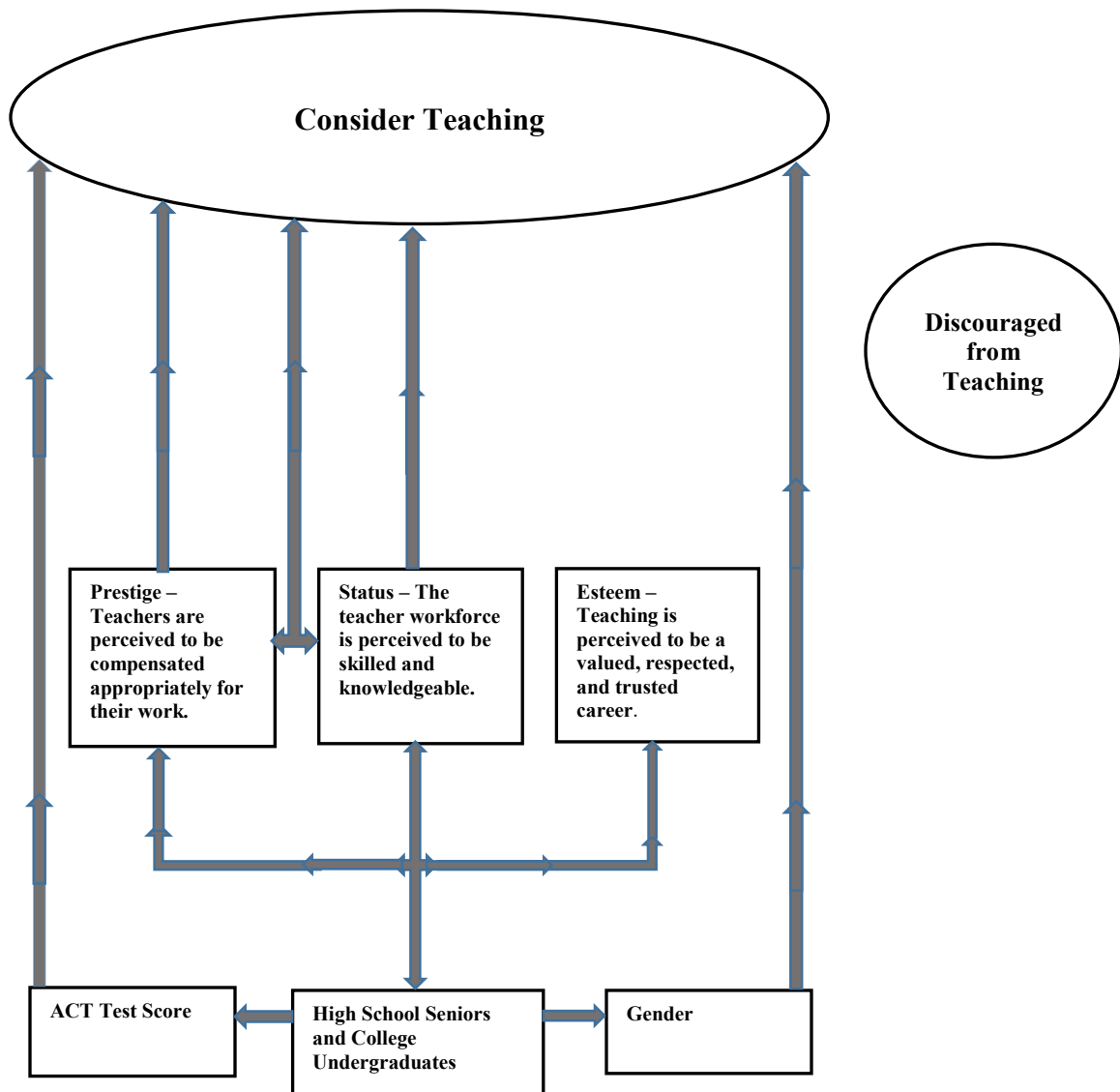


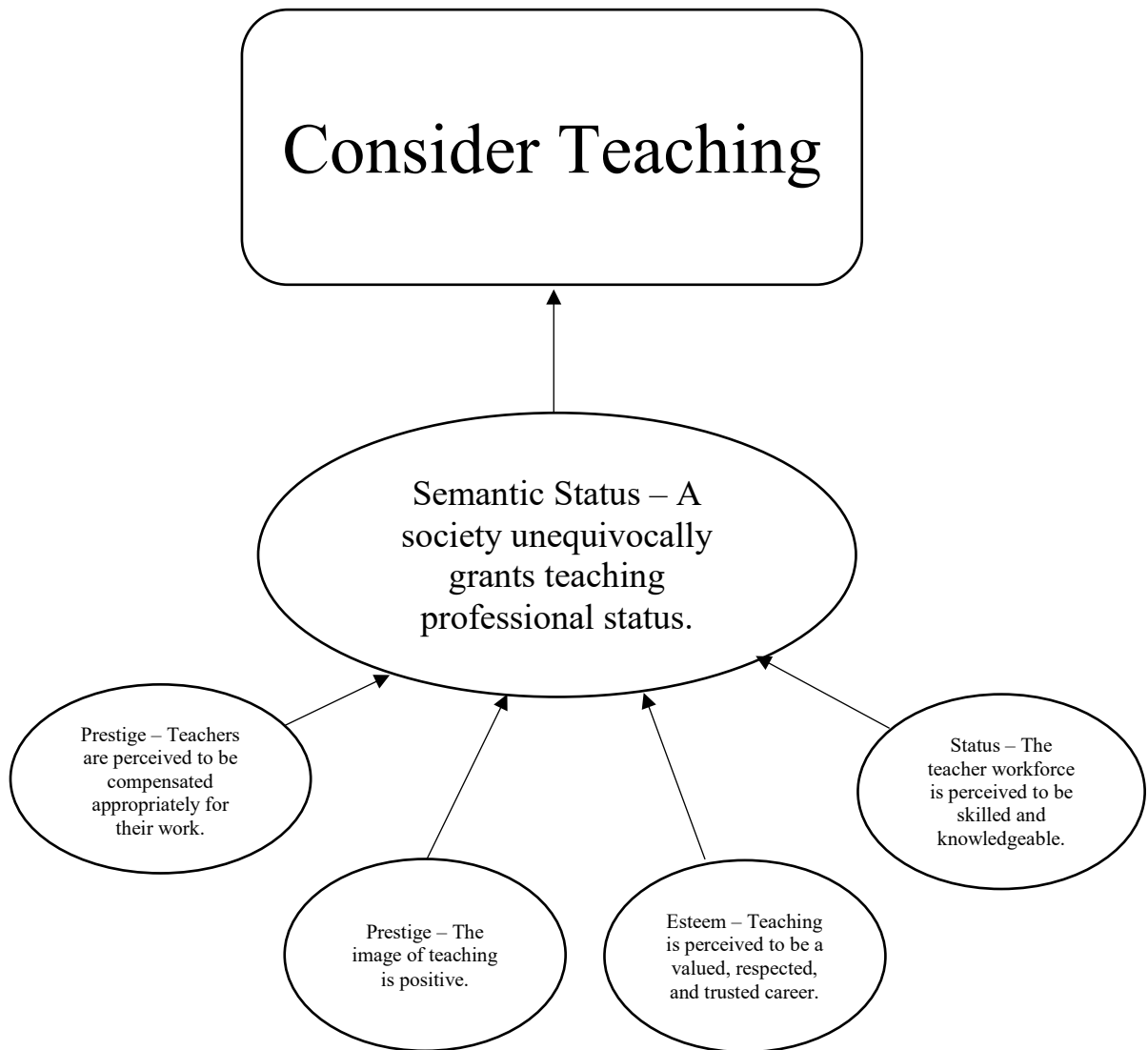
Figure 4. Parents' income variable's normal distribution.



*Figure 5.* The effects of teaching’s prestige, status, and esteem. The visual illustrates the effects that the perceptions of teaching’s prestige, status, and esteem may have on high school senior and college undergraduate teaching considerations. Additionally, the visual demonstrates that the confounding variable gender may also have an effect. The results demonstrated that females may be more likely to consider teaching than males.



*Figure 6.* The effects of policy designed to improve the perceptions of teaching. The visual illustrates the effects that the post-policy perceptions of teaching’s prestige, status, and esteem may have on high school senior and college undergraduate teaching considerations. The visual demonstrates that improved perceptions may generate greater interest in teaching, and that the perceptions of teaching’s esteem may not be a deterrent. The results demonstrated that males and high school seniors and college undergraduates scoring in the upper deciles of the ACT may also have more interest in teaching.



*Figure 7.* Conceptual framework that was developed from the results of the study. Semantic status may be similar to a four-legged stool. Semantic status becomes unsteady when one or more of its essential components are absent.



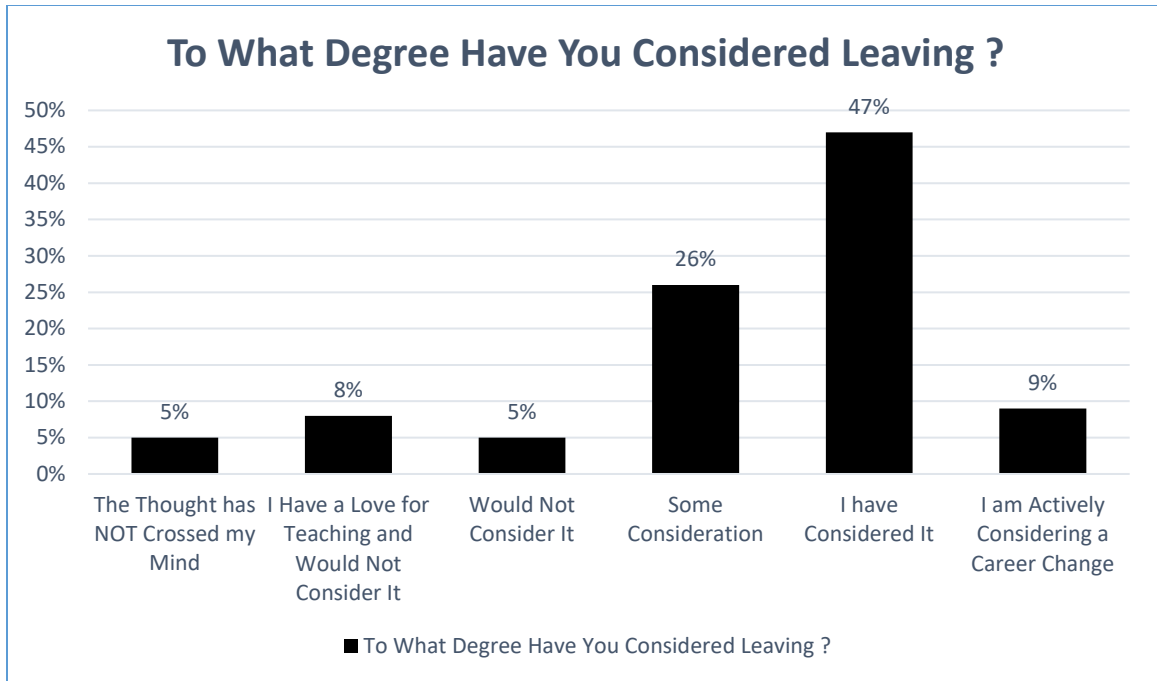


Figure 8. To what degree have you considered leaving (Klimek, 2018)?

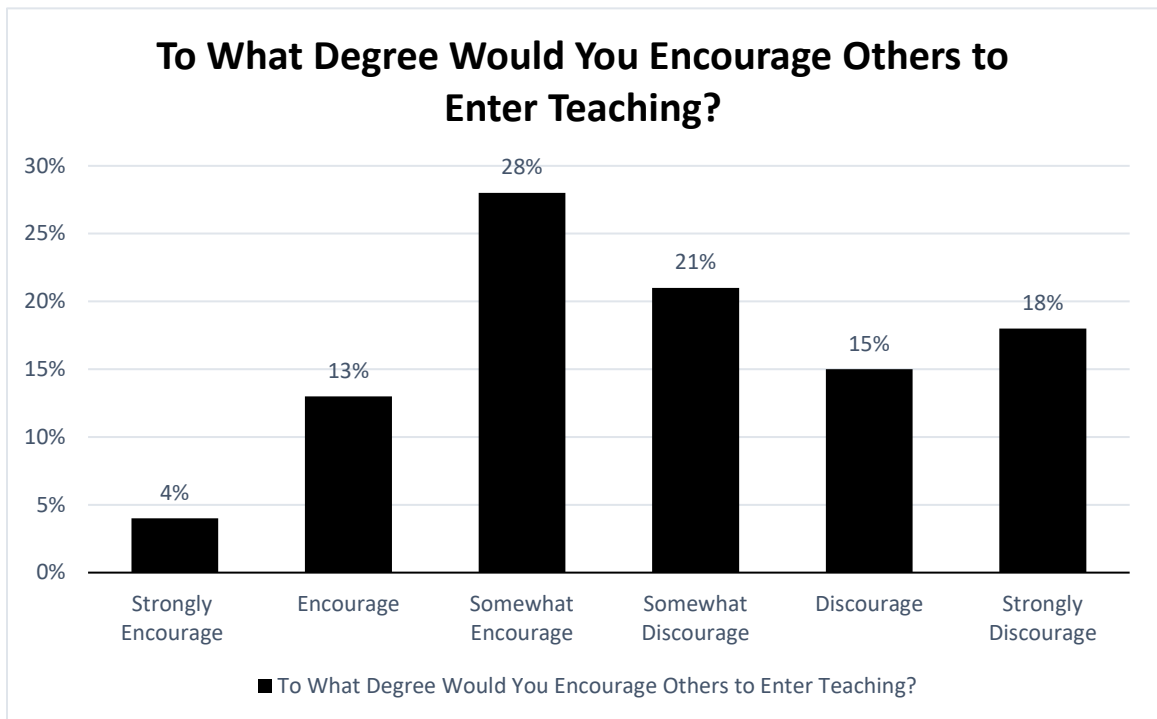


Figure 9. To What Degree Would You Encourage Others to Enter Teaching (Klimek, 2018)?

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## REFERENCES

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