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# An Evaluation Study: Does the Workforce Investment Act Impact Secondary Student Retention in Selected Mississippi Delta Communities?

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of requirements for a degree of
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## ABSTRACT

This study used a quasi-experimental cross-sectional quantitative model to evaluate the Youth Development Program, a component of the federal Workforce Investment Program. This evaluation study determines whether participation in the Youth Development Program reduced dropout rates among youth in secondary schools in seven school districts in the southeast Arkansas Delta. The impact of the Youth Development Program was examined in the following school districts: Dollarway, Pine Bluff, Watson Chapel, White Hall, Stuttgart, Dewitt, and Star City. The cross-sectional analysis covered the 2006 through 2008 program years.

The evaluation model consisted of a comparison group that included 437 youth randomly drawn from the total population of youth and a treatment group of 147 youth which comprised the total population of youth receiving services in the seven districts. In addition to participation in the retention program, other key independent variables such as gender, age, race, grade level and test scores were analyzed through the use of both descriptive and inferential statistics. An ordinary least squares regression model was tested to determine whether the Workforce Investment Act's Youth Development Program achieved its goal of increasing high school retention rates. The analyses reveal initially that the program does seem to have an impact. Students who participate in the program are less likely to drop out of school. However, when student abilities are taken into consideration (and included in the OLS model in the form of test scores), the initial effect that program participation has on the likelihood of dropping out disappears. In other words, no statistically significant relationship exists between program participation and dropout rates. The findings of this evaluation shed light on the methods used for

program selection and allude to possible defects within the structure of the agency. This study recommends future research in those areas.

This dissertation is approved for
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## ACKNOWLEDGEMENTS

It was Newton who once famously said, “If I have seen further than others, it is because I have stood on the shoulders of giants.” I am no Isaac Newton, but it is my firm hope that my research will advance the field of public policy and of community development in some small way and perhaps shed some insight into the plight of millions of poor people struggling in this country. The shoulders on which Newton stood were Copernicus, Bruno, Kepler, and Descartes. The giants on whose shoulders I stand are equally important to me and are my mother, my wife, and my dissertation chair.

To my mother, Cherry Owens, I just want to thank you for all of the support and your belief in me, even when I did not believe in myself. Momma, I love you. To my wonderful wife Tessica, without you, I am not sure I could have accomplished this. Your love and attention is precious and cherished. You are better than I deserve. To my dissertation chair, Dr. Schreckhise, sir, I thank you for your understanding, dedication, and extraordinary advice and input in the creation of this study. To my Aunt Cheryl Glover, whose elegance and grace is an inspiration to me. To my friends who have always stood by me, Sean Langston, with your big heart, and Lonnie Parker and your great work ethic. There are others, Grandma Gibby, my father, my Uncle Barrie, Earl Smith; thanks to each of you. It really does take a village. You have all helped me in your own way.

And finally, I have to acknowledge, my grandmother Melzine Glover. Grandma, I finished. I love you and I miss you.

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# CHAPTER 1:
# INTRODUCTION TO THE STUDY

## Introduction

This dissertation is designed to focus upon a key segment of the Workforce Investment Act (the, "WIA"), the At-Risk Youth component, as implemented by the Youth Development Program in seven school districts in the southeast Arkansas Delta. The dissertation will examine the degree to which the WIA program has reduced secondary education dropout rates in these communities from 2006 to 2008. Further, the dissertation will evaluate the influence of key factors for predicting high school dropout rates. This is an extremely important research goal because rural communities face tremendous challenges in providing for and educating at risk youth.

Poverty in the United States has been a remarkably persistent phenomenon with which both policy makers and policy scientists have grappled. "Poverty may well be America's most serious and costly social problem. Each year millions of Americans live in poverty, and hundreds of billions of public and private dollars are spent annually on efforts to assist the poor" (Rodgers, 2000, p.3). Social scientists have been studying the phenomena of poverty and various policy solutions designed to combat it. Poverty abatement strategies have included the passage of the AFDC (Aid to Families with Dependent Children) of the 1930s, President Johnson's "Great Society" initiatives in the 1960s, and the reform movements of the 1990s. The literature on poverty contains many assertions that poverty has had, and continues to have, a profound effect on American society, in both social and cultural terms (Hacker, 2004, p. 250).

Rural communities in the Arkansas Delta are struggling economically (Gnuschke, Hyland, Wallace, Hanson, & Smith, 2008). Further, rural communities lack the capacity

and resources to adequately address their economic difficulties (Lobao, 2004). As a result, more of these rural communities are facing higher rates of unemployment (Jensen, 2006). This issue in turn, indirectly leads to higher levels of poverty (Alspaugh, 1998; Hale, 1998; Martin et al., 2002). To combat these rising levels of poverty the Workforce Investment Act (the, WIA) was created nationally by Public Law 105-220, 112 Statute 959 on August 7th 1998 and in the state of Arkansas via Arkansas Act 1125[1] in 1999. The WIA offers a comprehensive range of workforce development activities through statewide and local organizations. Available workforce development activities are provided in local communities for the benefit of job seekers, laid off workers, youth, incumbent workers, new entrants to the workforce, veterans, persons with disabilities, and employers. This dissertation will focus on the At-Risk Youth component program with particular emphasis on the program's ability to retain secondary school participants.

The goals of the youth component of the WIA were to improve the quality of the workforce, reduce welfare dependency, and enhance the productivity and competitiveness of the state of Arkansas.

The WIA legislation focused on 3 targeted populations. Those targeted populations were economically disadvantaged adults, dislocated workers, and at-risk youth. The primary focus of this evaluation is on the population of at-risk youth. At-Risk Youth are defined in the WIA legislation as individuals ranging in age from 14 to 21 who have at least one of the following characteristics: those deficient in basic literacy skills; school dropouts, homeless, individual runaways, or foster children; individuals who are pregnant or a parent; criminal offenders; and/or individuals who require

[1] Arkansas statute was passed in order to implement the federal legislation in the state of Arkansas.

additional assistance to complete an educational program, or to secure and hold employment.

The types of services received by At-Risk Youth under the WIA are study skills training and instruction, tutoring, and dropout prevention counseling services. In addition, leadership development, guidance counseling, team building and occupational skills development are components of the youth program (further details of the program will be provided later in this dissertation).

## Statement of the Problem

Limited research has been conducted examining the impact of the Workforce Investment Act's ability to decrease secondary school dropout rates within the Arkansas Delta. The central problem addressed within the scope of this study was whether or not the youth component of the Workforce Investment Act's impacts secondary school dropout rate.

## Purpose of the Study

The focus of this study centered on attempts to increase human capital via the Workforce Investment Act as a means to reduce high school dropout rate in seven school districts in the Arkansas Delta. Certain groups have limited access to employment based on educational skill attainment and are disproportionately represented in lower income strata. The WIA targets at-risk youth that can be identified as being represented within the lower income strata.

Human capital components, such as educational attainment, have been shown to reduce an individual's likelihood of living in poverty (Psacharopoulos, 1990). Programs,

such as the WIA, seek to assist at-risk youth in attaining educational skill components identified by social cognitive learning philosophies.

## Scope of the Study

This dissertation contained a research design that utilized quantitative methods that provided substantive insights into whether the Workforce Investment Act had reached its program goals in reducing secondary school dropout rates. To determine the youth component's impact on the data were collected on the dropout rates of participants in the program and compared to individuals who did not participate. In addition, demographic characteristics such as race, age, gender, and grade-level were collected, as were individual standardized test scores.

Program participation for youth consist of the development of study skills, homework skills, tutoring, how to interface with a professional environment, counseling and support. These are provided by both counselors on site at high schools and off site at specific locations in within the school district examined.

Members of the treatment group began participating in the WIA program during the 2006 school year. Program participants were selected by WIA program administrators via an application process, in which prospective students filled out application materials, took a TABE (Tests of Adult Basic Education) examination and were placed into the program. There are a limited number of slots for the program, 95 percent of program participants must be considered economically disadvantaged.[2] Additional criteria are left to the discretion of program administrators.

[2]Public Law 105-220 August 7th 1998. 112 Statute 959, Section 1.

This study compared individual-level data, obtained from the Arkansas Research Center, a division of the Arkansas Department of Education to individual-level treatment group data, obtained from the Youth Development Program.

The comparison group consisted of youth not receiving WIA related services (n=437). This group was randomly drawn from the total population of youth attending school in the seven school districts listed in Appendix A. The treatment group consisted of youth who were receiving WIA related services, over the period 2006 to 2008. The population size of the treatment group consisted of the entire population of Youth Development Program (YDP) participants for the 2006 to 2008 program years, in the seven school districts listed in Appendix A. This constitutes a treatment group population of 147 (n=147).

This constitutes a program impact evaluation. "The purpose of program evaluation often is to establish the effect of programs or policies on outcomes" (Berman, 2007, p. 38). Within that context, this research design was arrived at after careful consideration of design strategies.

## Significance of the Study

The purpose of this study is to evaluate the effectiveness of the At-Risk Youth section of the WIA relative to retention as implemented in the school districts in the southeast Arkansas Delta. The WIA targets youth age 14 to 21 that are at-risk of dropping out of school. The linkages to educational retention and community development are fairly well documented. However, few if any studies had been conducted to evaluate this particular program as implemented in the southeast Arkansas

Delta. This study sought to rectify this oversight. Thus, the focus of the study centered on a particular component of the WIA. The goal is to examine the interaction between secondary school dropout rate and program participation.

The research question was designed to contribute to the community development literature with a specific focus on rural community development. The logic model is as follows: The utilization of social cognitive theory (SCT) techniques in teaching at-risk youth in secondary school will lead to a reduction in dropout rates within select rural secondary schools. This, in turn, will lead to an overall increase in the population of at-risk youth that will have greater education and skills training. These increases in education and skills among at-risk youth will lead to an overall increase in human capital for that group. Increases in human capital among at-risk youth will in turn lead to greater employment opportunities for that population. Those employment opportunities will in turn lead to an overall increase in income, which will reduce the rate of poverty and can be used as a measure of community development.

In 2004 the General Accounting Office (the "GAO") recommended that the Department of Labor provide technical assistance to local workforce boards so that they could monitor and address implementation issues associated with the in-school youth component of the WIA (U. S. General Accounting Office, 2004). This impact evaluation is designed to address that need outlined by the GAO. This evaluation study also offers practical benefits to program providers. Program providers could benefit from a systematic investigation of the Youth piece of the WIA to determine if the intended effects of the program are being implemented (Rossi, Freeman, & Lipsey, 2004). Further, since the Youth piece of the WIA is delivered by five contracted service

providers in Southeast Arkansas there is a need among WIA program administrators to have objective monitoring of service utilization. This evaluation study assists in fulfilling that need.

## Research Question and Hypotheses

The study primarily addressed the following research question:

> Research Question: To what extent did the At-Risk Youth program, implemented under the WIA and applied in seven school districts in the southeast Arkansas Delta, meet program goals and objectives relative to secondary school dropout rate for the 2006-2008 program years?

The following hypotheses were informed by the theory previously mentioned.

Hypothesis 1: Individuals participating in the At-Risk Youth program will have lower secondary school dropout rates than similar youths who have not participated in the program.

Hypothesis 2: Individuals who participate in the At-Risk Youth program will have lower secondary school dropout rates than other youth of the same gender.

Hypothesis 3: Individuals who participate in the At-Risk Youth program will have lower secondary school dropout rates than other youth of the same race.

Hypothesis 4: Individuals who participate in the At-Risk Youth program will have lower secondary school dropout rates than other youth of the same age.

Hypothesis 5: Individuals who participate in the At-Risk Youth program will have lower secondary school dropout rates than other youth at the same grade level.

Hypothesis 6: When controlling for student ability (in the form of standardized test scores), individuals who participate in the At-Risk Youth program will have lower secondary school dropout rates than other youth at the same grade level.

## Limitations of the Study

There are a number of limitations to this evaluation. This longitudinal evaluation study targets program years 2006-2008 and sought to show how the WIA Youth Development Program performed during that time period. However, other external social factors could impact the relative effectiveness of the WIA intervention. Examples of those other factors include: youth involvement in other scholastic or after-school programs, a youth residing in single family household, the contextual impacts of an economic downturn. These are just a few of the factors not accounted for in this evaluation and could be significant. Second, this evaluation seeks to study only a small portion of a poverty abatement program. Future research should be geared toward evaluating other portions of the WIA to see if there are any interactive effects. A third limitation of the study is that it examines program participants from seven school districts in 3 counties within the Arkansas Delta.[3] Future studies should expand the number of school districts and counties selected. Another limitation is that this study evaluates only one contract service provider, future studies should expand to include multiple service providers within the Arkansas Delta.

Ultimately, the limitations related to this evaluation and most others within the realm of science are that "our fundamental problem is that we are trying to match two dissimilar worlds. We superimpose the world of quantitative techniques based on

[3] During the 2006-2008 timeframe 4 contracted service providers delivered youth services.

objective, structured, scientific reasoning, on a largely unstructured, subjective world of public policy analysis. This incongruity raises two important issues: 1) a model is by definition a truncated version of reality. Can we trust it to shed light on real-world problems? 2) Models that seek to maximize social welfare assume agreement on the goal of society. How relevant are such models in a pluralistic, democratic society in which policy goals may be diverse and multiple?" (Gupta, 2001, p. 85). To quote Campbell and Stanley, ultimately "every experiment is imperfect" (Campbell and Stanley, 1963, p. 34).

## Definitions

One-stop operator – An entity created by the Workforce Investment Act that allows employment and training services to be provided via a single service delivery system. Each local area must have at least one one-stop operator to provide core services for employment and training.[4] Youth related services in the Arkansas Delta are provided via the one-stop along with contract service providers.

SEADD – Southeast Arkansas Economic Development District, is an entity created by the Arkansas General Assembly in 1969, with Act 118 designating the Economic Development Districts. This measure was passed in order for Arkansas to be in compliance with Public Law 89-136, known as the Public Works and Economic Development Act, created by the United States Congress in 1965 to foster economic growth through a multi-county approach to coordinate planning, investment, and development. SEADD provides audit and administrative support for youth related services under the WIA for southeast Arkansas as directed by the local workforce investment board (WIB).

[4] 29 USC 2864 section 134(c);

CAPDD – Similar to the SEADD, the Central Arkansas Planning and Development District is an entity created by Arkansas Act 118 of 1965. CAPDD is one of the contracted service providers that delivers youth related services in the southeast Arkansas delta under the Workforce Investment Act.

TABE – Test of Adult Basic Education is an evaluative tool used by contract youth service providers in Southeast Arkansas that are designed to measure basic skills of achievement that are most commonly found in adult basic education curriculum. The areas measured by the TABE are reading, language, mathematics and spelling.

SAT-10 – Stanford Achievement Test Series Tenth Addition is an evaluative tool used by school districts in the state of Arkansas after 2007. The test is designed to measure youth knowledge in literature, math and reading.

ITBS – Iowa Test of Basic Skills is an evaluative tool used by school districts in the state of Arkansas prior to 2008. This assessment tool measures youth knowledge in literature and math.

Persistently poor counties – These are counties having poverty rates of at least twenty percent of their populations over the past thirty years based on United States Census Bureau data.[5]

Human capital - This term is used to describe human beings from a productivity perspective and what role individuals can have in impacting a community economically (Shultz, 1961).

[5]Terminology provided by the Economic Research Service, a division of the United States Department of Agriculture.

## Organization of the Study

The study is organized into five chapters. In chapter two, the researcher, supplies a summary of the literature related to poverty abatement policy that is consistent with the basis of this evaluation. The literature will include studies that address the independent variables related to this dissertation, the theoretical frameworks of educating youth, along with policy approaches related to that issue. In chapter three, the researcher will detail the methods used for data collection and analysis. Additionally, in chapter three, the researcher will outline the data sources that form the basis of the evaluation, as well as addressing issues of reliability, generalization, and confidentiality. In chapter four, the researcher will analyze the findings utilizing social cognitive theory, along with logistic regression and analysis. In chapter five, the researcher will summarize the findings of the study, discuss any limitations, and outline areas of future research.

# CHAPTER TWO:
# LITERATURE REVIEW

## Introduction

The pervasiveness and complexity of the problem of poverty in the United States, particularly in the Mississippi River Delta, of which the Arkansas Delta is a part, have prompted numerous studies by researchers who have sought to examine it from a variety of perspectives (Slack et. al., 2009; Hyland, 2008; Neaves, 2008; Clay & Mirvis, 2008; Gnuschke et. al., 2008) Some of those perspectives include examinations into the causes of poverty, the development of models and frames to best understand poverty, and strategies to combat and eliminate poverty. This chapter provides an examination of past studies examining rural community poverty abatement strategies relevant to the At-Risk Youth program portion of the federal Workforce Investment Act (1998). This chapter also focuses on the historical context of the WIA, the Arkansas Delta, rural poverty, variables related to secondary school dropout rate, and Social Cognitive Theory.

## Historical Context - The Workforce Investment Act

The statutory landscape of workforce training and development relative to poverty abatement historically was made up of a number of overlapping policy initiatives. Those initiatives ranged from the Wagner-Peyser Act of 1933 to the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, with a number of other policy initiatives in between. The Wagner-Peyser Act established a national United States Employment Service (USES), as part of the New Deal legislation passed in 1933. During the Great Depression, the program focused on helping people find employment. The key functions of the act were to provide 1) federal matching funds for the operation

of state employment offices, 2) federal supervision of operations, 3) state administration of services, and 4) employment services to veterans. The act also benefited employers, working with them to identify their employment needs and connect them with potential workers.[6]

From the Wagner-Peyser Act of 1933, the federal government crafted several other acts and programs to address the needs of employment services, workforce training and development. One of those programs, the Trade Adjustment Assistance Act of 1974 provides relocation, training, and employment assistance to workers who lost their jobs as a result of unfair practices related to import competition (Bancroft, 2002).

Another program created by the Social Security Act of 1935 was the Aid to Families with Dependent Children (the "AFDC"). The passage of the AFDC came in response to the economic upheaval created by the Great Depression. The AFDC program was the most visible poverty abatement program until the passage of the PRWORA (Page & Larner, 1997). The AFDC was designed to provide direct monetary assistance to families with children that had been deprived of parental support due to the absence of either parent (House of Representatives, 1994). The practical implementation of the program had the effect that only very poor families composed of single mothers and their children qualified for AFDC (Page & Larner, 1997).

A program created in 1983 and relevant to the discussion of the WIA was known as the Job Training and Partnership Act (JTPA). The JTPA was directly related to training and development. JTPA was signed into law on October 13, 1983. The JTPA created a system of employment training programs that was designed to provide training

[6] 29 U.S.C. 49. See also Bancroft (2002).

to disadvantaged youth and adults. Like Wagner-Peyser, the JTPA focused specifically on the unemployed, primarily economically disadvantaged Americans. However, unlike Wagner-Peyser, the JTPA did not provide employment services. Instead JTPA provided integral training and education needed for employment opportunities not previously attainable by the target population. The purpose of the JTPA was to train and provide employment opportunities for displaced, disadvantaged, unemployed workers so as to reduce welfare dependency (McKinney, 1985). The JTPA created a partnership among the federal government, which funded the program, state governments, who administered the program, and the private sector, which received money to train eligible workers (McKinney, 1995).

The relationship between welfare delivery and workforce training and education was complicated by the passage of the JOBS training program authorized by the Family Support Act of 1988. The Job Opportunities and Basic Skills Training (JOBS) program was designed to encourage families receiving AFDC assistance to find employment. Under the program, welfare agencies where directed to assess the needs of welfare recipients and provide services to prepare the recipients for work. Once the recipients were considered ready for work, under the JOBS program, welfare agencies would link recipients with employers. However, the JOBS program was not very successful in encouraging AFDC recipients to find employment. According to a 1994 General Accounting Office overall the AFDC was not focused on employment as a goal and

lacked the capacity to provide participants with the services and assistance that they needed to secure employment and training (GAO, 1994).[7]

A changing political environment led to a major policy shift in job training and education with the passage of the Personal Responsibilities and Work Opportunity Reconciliation Act (the "PRWORA") of 1996.[8] The PRWORA replaced the AFDC with Temporary Aid to Needy Families (TANF) and was designed to provide for recipients primary employment and training, as opposed to direct monetary assistance. Under TANF, there were two major stipulations related to receiving monetary assistance. First, states were required to make adult recipients work or volunteer. Second, recipients of TANF assistance were restricted to a lifetime limit of sixty months of receiving benefits.

The various policy initiatives, legislative acts, and programs became quite complex. While each act and program provided the necessary response to the societal needs at the time of enactment, what developed was an often overlapping and unorganized, yet diverse network of services for the economically disadvantaged in need of employment and training. This network of services was not formed into a user-friendly system for the target population of the poor. Instead those searching for assistance had to move through a variety of bureaucratic steps to find services for which they might be eligible. In the event that a current participant in one program found that another program provided a service that was also useful, that participant would again be required to go through the application process at the new agency. This lack of coordination added to inefficiency and confusion. Often an individual was unable to

[7] U. S. General Accounting Office. (1994). *Welfare to work: Current AFDC Program not sufficiently focused on employment.* Report to the Committee Chairman, Committee on Finance, U.S. Senate. Washington: Government Printing Office. p. 1-6.
[8] Public Law 104–193

ascertain what services were available and for which they might qualify. What resulted was that many individuals in need of poverty abatement assistance were missing out on services which were valuable and available. This is not atypical because complex policy environments are characteristic of implementation programs (Levin & Ferman, 1986; Tabor, 2002).

The Workforce Investment Act (the "WIA") was the answer provided by Congress to address the inefficiency of the network of services previously addressed. The WIA created by P.L. 105-220, was enacted in August 1998. The goal of the WIA was to create a universal system of one-stop career centers. These one-stop centers would provide access to training and employment services for a range of workers, including low-income adults, dislocated workers, and low-income youth.

> With the enactment of the Workforce Investment Act of 1998 (WIA), the Congress made sweeping changes to federal employment and training programs. WIA sought to unify previously fragmented programs and create a more comprehensive workforce investment system by bringing together most federally funded employment and training services into a single service delivery system known as the one-stop center system. In July 2002, most states had just completed their second full year of implementation. With a program year 2002 authorization of about $3.6 billion, WIA serves the nation's adults, dislocated workers, and youth (U. S. General Accounting Office, 2002, p. 1).

The myriad of training and cash assistance programs that came before the Workforce Investment Act of 1998 set the stage for how it would be implemented. The WIA replaced these existing job training and development programs administered under the JTPA with three block grants to the states funding adult employment and training, adult education, and disadvantaged youth. One of the major goals of the WIA was to

streamline education, training, placement services and provide "one-stop" shopping for individuals seeking assistance.

Operating within the Arkansas Delta, the Workforce Investment Act Title I-B At-Risk Youth Program provides services to youth ages 14-21. The primary purpose of the youth component is to increase the focus on long-term academic and occupational learning opportunities and to provide a long-term comprehensive service strategy. Youth services are provided to in-school youth ages 14-21 and out-of-school youth ages 16-21. The in-school youth are subdivided into youth, ages 14 to 18, and older youth, ages 18 to 21. The youth component is designed to educate, train, and retain at-risk youth who are in danger of dropping out of secondary school while the older youth component is designed to train and find employment for youth no longer in secondary school.

There are ten program elements that comprise the Workforce Investment Act's Youth Program.[9] Youth program elements consist of: tutoring, alternative secondary school services, summer employment, paid and unpaid work experiences, occupational skill training, leadership development, supportive services, adult mentoring, follow up services, and comprehensive guidance counseling. In the seven school districts that are the subject of this evaluation, the Youth Development Program, working in concert with the Southeast Arkansas Economic Development District, is responsible for providing the services outlined in the ten program elements. The following is a brief discussion of each of these ten program elements (Callahan & Massey, n. d.; Wagner, Sturko-Grossman, Wonacott, & Jackson, 2007).

Tutoring and study skills training – This element is designed to provide instruction to improve academic knowledge and the skills of youth in specific areas. The study skills

[9] 29 USC 2854

component is designed to improve a youth's ability to learn by studying independently. These coupled with dropout prevention strategies provided by the contract service provider are intended to keep youth in secondary school until graduation.

Alternative secondary schools services – The statute mandates curriculum services, either inside or outside of the public school system, for at-risk youth with behavioral problems or mental disabilities.

Summer employment opportunities – Local workforce investment boards are required under the statute to provide summer employment opportunities as part of a strategy to address an at-risk youth's employment and training needs.

Paid and unpaid employment – Work experiences are short-term structured learning experiences that occur in a workplace that fosters work development and career exploration. Work experiences may be paid or unpaid, in the private, public or non-profit sector.

Occupational skill training – This consists of an organized program of study providing vocational skills that lead to proficiency in performing work related tasks. A key component of occupational skill training is that training must result in attainment of a certificate or credential.

Leadership development – This consists of exposing at-youth to community service opportunities and life skills training. Life skills training would include parenting, work-behavior, budgeting, mentoring and tutoring, organizational training, prioritizing, and citizenship training.

Supportive services – Under the statute these services could include transportation, child care, or other services to allow at-risk youth to participate in the At-Risk Youth Program.

Adult mentoring – The service provider, through the use of trained staff and program counselors, provide positive role models for at-risk youth by adults.

Follow-up services – Service providers monitor participants after they complete secondary school, participants are during their transition to employment or continued education.

Each of the previously mentioned program elements are designed to keep youth in school and to prepare them for the job market. Adult mentoring, tutoring, supportive services are designed to build self-esteem (Bandura, 1989). The occupational work experience, summer work opportunities, and paid and unpaid employment are designed to provide youth with usable skills that would serve them well in the workforce (Callahan & Massey, n. d.).

Implementing the ten program elements to serve a diverse youth community requires a fairly complex framework. The infrastructure developed, under the WIA statute, to deliver youth related services provide is complex. The statute[10] creates local youth councils which are established by the local workforce investment board. Members of the local workforce board who are interested in youth policy may serve on the youth council. Former youth participants may also serve on the youth council. Additionally, membership on the youth council encompasses a broad cross-section of the community. Other community organizations which have an expertise in youth related activities may serve on the youth council. Further, as directed by statute, public youth service agencies, such as juvenile justice and local law enforcement are to be represented on the youth council. Other representation on the youth council includes; representation from public

[10] 29 USC Section 2832

housing authorities, representatives from the Job Corp, and other individuals appointed by the chairperson of the local workforce board.[11]

The purpose of these youth councils are to identify eligible providers of youth activities that are consistent with the goals of the Workforce Investment Act and make recommendations to the Local Workforce Board (WIB) who will then, in turn, award grants to contracted service providers on a competitive basis.[12] The local workforce board also has the responsibility for selecting the program, the organization that provides an audit and expertise function for the contracted service providers. The Southeast Arkansas Economic Development District (SEAEDD) is the program administrator for the local workforce board in the three counties and seven school districts that are the subject of this evaluation study. Another role of SEAEDD is the selection of contract youth service providers that deliver retention and training services to at-risk youth populations in southeast Arkansas. Over the time frame covered by this evaluation study there were five contract youth service providers in 2006, four in 2007 and four contract youth service providers in 2008.

## Arkansas Delta

The geographical context of this study is the Arkansas portion of the Mississippi River Delta. All seven of the school districts examined are located in the Arkansas Delta. According to the Delta Regional Authority (DRA) which is a federal-state partnership created in 2000 to enhance and develop economically Mississippi River Delta

[11] 29 USC Section 2832 (h)1-2
[12] 29 USC 2832 (d) 2(B)

communities,[13] the Arkansas Delta covers the eastern portion of Arkansas. The counties that comprise the Arkansas Delta are primarily rural, have higher than average poverty, low academic achievement levels, and a large African American population. The counties that comprise the Arkansas Delta are: Arkansas, Bradley, Clay, Crittenden, Desha, Grant, Izard, Lawrence, Lonoke, Monroe, Poinsett, Randolph, Stone, Van Buren, Ashley, Calhoun, Cleveland, Cross, Drew, Greene, Jackson, Lee, Marion, Ouachita, Prairie, Searcy, St. Francis, White, Baxter, Chicot, Craighead, Dallas, Fulton, Independence, Jefferson, Lincoln, Mississippi, Phillips, Pulaski, Sharp, Union, Woodruff.

A number of Arkansas Delta counties have been classified as "persistently poor." The U.S. Economic Research Service[14] defined counties as being persistently poor if at least twenty percent of their populations had been living in poverty over the past thirty years based on United States Census Bureau data (Jolliffe, 2004).[15] This definition yielded 386 persistently poor counties in the United States and twelve in the Arkansas Delta.[16] Most researchers agree poverty has had and continues to have a profound effect on American society in both social and cultural terms. "The rise in economic inequality and the changing character of the poor and bankrupt are each strongly suggestive of the changing composition of social risks that citizens face" (Hacker, 2004, p. 250).

**Arkansas Delta Counties**

[13] Delta Regional Authority website accessed January 23, 2010. http://www.dra.gov/.
[14] A division of the United States Department of Agriculture.
[15] In the United States, poverty is defined as a family of four earning $22,207 per year. This figure is based on United States Census Bureau poverty threshold table for 2008 year. The original poverty index provided a range of income cutoffs or thresholds adjusted by such factors as family size, sex of the family head, number of children under 18 years old, and farm, non-farm residence.
[16] The twelve Arkansas Delta persistently poor counties are: Bradley, Chicot, Crittenden, Desha, Jefferson, Lee, Mississippi, Monroe, Phillips, Poinsett, St. Francis, Woodruff.

Table 2.1 lists the poverty rates for selected counties within the Arkansas Delta and for comparison purposes several counties not within the Arkansas Delta. The table also lists state level and national level rates of poverty over the duration of this evaluation for comparison, along with the non-Delta Arkansas counties of Pulaski (the location of Little Rock) and the more affluent Benton and Washington counties in northwest Arkansas. The following tables are based on figures obtained from the U.S. Census Bureau.

**Table 2.1**
**Percent Poverty Rate by Year in Select Delta Counties**[17]

| | 2006 | 2007 | 2008 |
|---|---|---|---|
| Arkansas (Co.) | 20.1 | 17.9 | 20.1 |
| Desha | 31.4 | 26.6 | 29.0 |
| Jefferson | 23.8 | 25.0 | 20.6 |
| Lincoln | 25.1 | 26.8 | 29.0 |
| Phillips | 35.4 | 37.2 | 34.9 |
| Pulaski | 14.2 | 15.5 | 16.5 |
| Washington | 15.1 | 15.4 | 15.0 |
| Benton | 10.5 | 11.3 | 11.1 |
| Arkansas | *17.3* | *17.6* | 17.3 |
| United States | *13.3* | *13.0* | 13.2 |

*Source:* U.S. Census Bureau (2009)

Note the poverty rates for the Delta counties of Arkansas, Jefferson, and Lincoln which are the counties that are the focus of this evaluation. When evaluating rates of poverty in these portions of the Arkansas Delta, one sees the magnitude of the problem that poverty poses in the Arkansas Delta. The poverty rate in Arkansas is well above the national average; however, in the Delta region of Arkansas rates of poverty far exceed the national average, in some instances doubling it. Even more alarming are the rates of

[17] The Census Bureau routinely employs 90% confidence intervals.

poverty of those under 18 years of age, presented in Table 2.2. Over a quarter of children in all Delta counties listed are living in poverty, with over a third in Desha County, and nearly half in Phillips County.

**Table 2.2**
**Percent Poverty Rate under 18 Years of Age by Year in Select Delta Counties**[18]

| | 2006 | 2007 | 2008 |
|---|---|---|---|
| Arkansas | 27.2 | 26.5 | 26.7 |
| Desha | 41.5 | 36.3 | 38.8 |
| Jefferson | 33.8 | 37.4 | 28.8 |
| Lincoln | 31.0 | 30.9 | 29.7 |
| Phillips | 48.2 | 49.3 | 49.3 |
| Pulaski | 20.2 | 22.5 | 25.4 |
| Washington | 18.4 | 19.1 | 18.8 |
| Benton | 15.0 | 14.9 | 15.1 |
| Arkansas | 24.6 | 25.3 | 24.7 |
| United States | 18.3 | 18.0 | 18.2 |

*Source:* U.S. Census Bureau (2009)

Rates of poverty among youth are in excess of forty percent in some Delta counties. Complicating those elevated youth rates of poverty are the unique challenges of the rural areas that characterize Arkansas Delta communities. In the United States, the poor in rural areas have not fared as well as those in urban areas. While poverty in general has a negative impact on society, rural poverty is even more of a social problem. Of the 500 poorest counties in the United States 459 of them are rural (Jensen, 2006). Several of those counties are located within the Arkansas Delta.

Rural poverty is a persistent systemic form of poverty, due in part to the ways in which policymaking occurs at the national level. In the allocation of resources at both the

[18] The Census Bureau routinely employs 90% confidence intervals.

national and state levels, urban interests typically are favored over rural interests (Wilkinson, 1999).

Poverty exhibited in rural communities is quite distinctive from poverty found in urban areas. Rural areas have fewer economic resources available (Bloomquist, 1990; Wilkinson, 1999). The lack of economic resources in rural areas can be attributed to the transformation of rural labor markets in the United States from an agricultural farming based economy into a service based economy (Nelson, 1999). As a result of this ongoing transition, rural communities have a definite competitive disadvantage relative to urban communities (Wilkinson, 1999, p. 94). One distinct disadvantage that rural communities face would be the lack of adequate physical infrastructure, such as roads and bridges. (Siegel & Waxman, 2001). This coupled with the reality that rural areas are more likely to have a declining local tax base and reduced revenues from federal and state sources (Lobao, 2004) leaves rural populations with limited access to resources required to compete successfully for private industry (Siegel & Waxman, 2001). What is left for poor workers, in rural areas, are high rates of unemployment and underemployment coupled with low per capita income and limited employment opportunities (Duncan, 1999). This overall lack of resources leads to reductions overall in the level of community capacity characterized by an undertrained human capital base (Siegel & Waxman, 2001, p. 11).

The goal of the At-Risk Youth component of the WIA is to prevent at-risk youth from dropping out of secondary school. This is because dropping out of school has very notable poverty-related consequences. The impact of rising levels in secondary school dropout rate, have had an extremely negative effect on communities. Policy scholars have

found that high school dropouts are more likely to become dependent on social services and other governmental programs (Hale, 1998; Rumberger, 1995). In addition, secondary school dropouts make up nearly half of the heads of households on welfare (Hale, 1998). Further, there is a relationship between increases in dropout rates and rates of unemployment. Alspaugh (1998) found that as dropout rates increase so do rates of unemployment. Even dropouts that do find employment are typically employed in low-wage, semi-skilled positions (Martin et al., 2002). Ultimately, secondary school dropouts constitute a major issue for American society. According to one study, the social costs associated with secondary school dropouts are in excess of $200 billion in lost earnings and tax receipts (Hale, 1998).

In looking to address rural community development strategies there is an ongoing debate relative to bringing about increases in human capital. Some have favored strategies designed to increase the amount of disposable income available to the impoverished person, such that the excess income can be used to strengthen the family unit (Uccelli, 1997; Rodgers, 2000). Others have favored an approach designed to provide educational training opportunities to individuals, to increase human capital in order to make individuals attractive to corporate interests (Psacharopoulos, 1990; Demery & Addison, 1987). "Beyond general economic growth, one could tackle the worst aspects of poverty…at a faster pace by…improving human capital, through education and training." (Psacharopoulos, 1990, p. 17). Research has found that appropriately designed programs can reduce poverty rates (Blank, 2000). This dissertation focuses on the later strategy of increasing human capital via education due to the policy shift that transitioned the United States government's focus for poverty abatement, in the 1990's from a cash

assistance policy to a policy designed to increase human capital via education and training (Rodgers, 2000).

## Human Capital

Human capital is a term used to describe the economic productivity capabilities of individuals and what role individuals can have in impacting a community economically (Schultz, 1961). More specifically, human capital is an array of personal assets and resources belonging to an individual, such as skills, education, and intellectual ability that influence future monetary outcomes. (Becker, 1964) References to human capital are as old as the founding of this nation. Adam Smith in *Wealth of Nations* referred to human capital as:

> …acquired and useful abilities of all such inhabitants or members of society. The acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expence (sic), which is a capital, fixed and realized, as it were, in his person. Those talents, as they make a part of his fortune, so do they likewise of that of the society to which he belongs (Smith, 1956, p. 186).

In Smith's view, individual skills and abilities could be improved through the application of education and training.

Similarly, a principle objective in the modern-day study of human capital is to determine how individual training and education can impact a community's development. Modern policy scholars have examined the relationship between education and individual human capital development (Becker, 1964; Schultz, 1961). Specifically, research suggests increases in aggregate education levels lead to increases in overall human capital (Becker, 1964; Schultz, 1961).

In order to evaluate the impact of a particular governmental program's effect on a specific locale or region, a community capacity model is useful. Robert Chaskin (2001) suggests a framework that can be effective in understanding community development from the perspective of capacity building. Human capital fits within a community capacity model, which identifies various capitals: human, social, and natural. Community capacity is defined as "the interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of a given community" (Chaskin, 2001, p. 295). Further, community capacity development operates through both informal and formalized social processes and organized efforts (Chaskin, 2001).

These processes, when effective, can be utilized to develop a particular capital type which in turn can impact overall community capacity (Fey, Bregendahl, & Flora, 2006). Thus, human capital development is a function of both individual and social factors. With individual and social factors having such a critical role in impacting human capital, youth-related programs that focus on enhancing individual skills via tutoring and instruction can bring about increases in human capital (Christenson & Thurlow, 2004). In addition, youth-related programs that engage in positive social development proficiencies, such as counseling and mentoring may also have a positive impact on human capital (Christenson & Thurlow, 2004). The following sections discuss methods and programs for enhancing social capital employing social cognitive theory (SCT) which combat students dropping out of secondary school.

## Key Factors Related to Secondary School Dropout Rates

Before we turn our attention to the role social cognitive theory can play in keeping children in school, it would be useful to discuss other factors associated with school retention. The factors associated with secondary school dropout among at-risk students are complex. Among other things, past research reveals that an individual's race, gender, socioeconomic status, degree of academic engagement and the influence they receive from their peers are very important predictors of whether or not a youth will drop out of secondary school (Colman et al., 1966, McCall, 2003; Kleinfeld, 2009; Rumberger, 1983; Farkas, 2003). These predictors of dropout rate tend to fall into two categories: individual and social. The individual factors are indicators such as race, gender, and socioeconomic status. Social factors that impact retention are academic disengagement and peer influence.

*Individual Factors*

Research on youth dropout has been well documented. While a number of different factors can impact a youth dropout, race, gender and socioeconomic status are three of the major predictors of youth dropout (Rumberger, 1983). One of the first major studies examining the link between race and dropout rates was the product of an extensive study commissioned as a result of the passage of the Civil Rights Act of 1964. The report documented the availability of resources for, and the performance of, secondary school youth based on the demographic feature of race. The report found that the race of the student was directly related to his or her level of academic achievement (Coleman et al., 1966). Black and other minority students had significantly lower levels of achievement as compared to their white counterparts (Coleman et al., 1966, Rumberger, 1983). Several recent studies have illustrated the continuing relationship

between race and secondary school dropout rates as minority students, African-American students in particular, continue have higher levels of secondary school dropout rate in comparison to their white peers (McCall, 2003; Brown, Carnoy, Currie, Duster, Oppenheimer, Shultz, & Wellman, 2003). It should be noted that when comparing African-American youth to youth of other races studies have shown that African-Americans, with the same socioeconomic background characteristics, have similar rates of secondary school dropout (Hill, 1979; Rumberger, 1983; Fitzpatrick & Yoels, 1992).

Another factor that impacts secondary school dropout rate is gender. Researchers have found that male students have an increased likelihood of dropping out when compared to their female counterparts (Alexander, Entwisle, & Horsey, 1997; Marjoribanks, 2002; Lagana, 2004; Kleinfeld, 2009). These studies found that male dropout rates are higher than their female counterparts.

Socioeconomic status affects secondary school dropout rate. Linkages between socioeconomic status and secondary school dropout rates are well documented in the literature (Hill, 1979; Rumberger, 1983; Velez, 1989; Fitzpatrick & Yoels, 1992). These studies have found that as levels of socioeconomic status increase the likelihood that a youth will dropout decreases. Socioeconomic status is not merely a measure of family income; instead it is based on the relative position of an individual based on their access to, or control over, wealth, prestige, and power. In sum, socioeconomic status is a composite measure of income, level of education, and occupational prestige (Mueller & Parcel, 1981). Other studies drew linkages between race, socioeconomic status and academic achievement (Farkas, 2003; Mickelson, 2003). The findings were fairly consistent. Socioeconomically advantaged youth achieved at the highest levels in

secondary school that were largely white and middle-class; in contrast, youth that were ethnic minorities and had low-income, typically went to low performing secondary schools with a weaker academic environment and as a consequence, had lower levels of academic achievement (Farkas, 2003).

*Social Factors*

School engagement has been linked to academic achievement and retention (Rumberger & Thomas, 2000). School engagement refers to the extent to which a youth is cognitively or behaviorally committed to learning (Rumberger & Thomas, 2000). Academic engagement refers to the perception in the attitudes and behaviors of a youth toward their academic success both within the classroom and with other peers in school (Rumberger & Thomas, 2000). In a study, Baker (1999) analyzed the relationship between teachers and students and found that students who had positive feelings toward their teachers tended to stay in school. Conversely, students that had negative feelings toward their teacher had a tendency to engage in behavior that contributed to school dropout (Kleinfeld, 2009). That negative behavior was characterized as not showing respect for the teacher, reduced participation by the student in the classroom, and not attending school (Kleinfeld, 2009).

Peer influence refers to the influence that a peer has on youth decision making relative to the types of activities in which they participate (Farmer, Estell, Leung, Trott, Biship, & Cairns, 2003). One aspect of peer influence is peer support. A recent study found that peer support, was extremely important during adolescence (Lagana, 2004). This, according to the study, is because many youth spend a majority of their time with their peers as opposed to their families. The study suggests that a positive peer

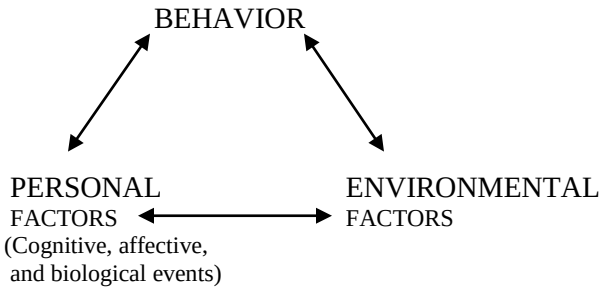
relationship could impact academic achievement in a positive way while at the same time deterring negative social behaviors (Byrk, 2004). Conversely, a negative peer relationship could have the opposite effect and contribute to secondary school dropout rate (Lagana, 2004).

Although a number of forces, both individual characteristics and environmental conditions, may impact the probability a student will stay in school, how the individual reacts to their environment may also have an impact. If a student is given the tools cope with a disadvantaged environment -- such as positive role models, relationships with mentors, and a positive sense of self-efficacy -- might they be less likely to leave school? This is the approach that researchers employing social cognitive theory have adopted, and it the topic of the following section.

## Social Cognitive Theory

Social cognitive theory is a theoretical model that provides useful insight into the way that learning occurs and is the theoretical frame around which this dissertation is based. Social cognitive theory is a model of human development that posits that development his not some monolithic process rather human development is characterized by many different types and patterns of changes (Bandura, 1989). Individuals therefore have varying social practices that produce differences in capabilities. Central to social cognitive theory is the triadic model of reciprocal determinism (Bandura, 1989). Triadic reciprocal determinism views human behavior as an interaction among environmental, cognitive, and personal factors that all act as interacting determinants that influence each other bi-directionally (Bandura, 1986, 1989). Figure 2.1 illustrates this relationship.

**Figure 2.1: Triadic Model of Reciprocal Determinism**




Youth, therefore, are not merely products of their environment; they are also the producers of it. This interplay among personal, behavioral, and environmental factors is central to learning and cognition.

According to social cognitive theory, a person's behavior is learned largely by observation and modeling. "Learning from models may take varied forms, including new behavior patterns, judgmental standards, cognitive competencies, and generative rules for creating new forms of behavior" (Bandura, 1989, p. 23). Researchers have found that youth observe and model the attitudes and behaviors of those that have significant influence upon them such as peers, family, friends and teachers (Bandura, 1977; Schunk, 1999). In their 2002 study, Zimmerman, Bingenheimer, and Notaro found that youth with mentors were less likely to drop out of school and engage in bad behavior. Thus, decisions related to dropping out of school by at-risk youth are impacted, to a degree, by those closest to them.

A key component of learned behavior centers on the concept of self-efficacy. Self-efficacy is an individual's self-perception of competence that directly impacts motivation (Pajares, 1996a). The development of a youth's efficacy generally requires goals that are task specific and situational (Bandura, 1986, 1989). Consequently, youth with high levels of self-efficacy are more likely to set larger goals for themselves and

develop strategies to acquire skills and knowledge (Pajares, 1996a). The knowledge and skills acquired serve youth during difficult time periods in their academic careers and reduce the likelihood that they will dropout (Pajares, 1996a). Schunk (1999) also found that in the early stages of learning, social influences are dominant. A youth will internalize skills and strategies learned via modeling to enhance academic achievement.

While policy scholars have identified various social factors that impact secondary school dropout rates (Zimmerman et al., 2002; Walberg, 1991; Pajeres, 1996a) those factors alone do not explain why at-risk youth dropout of secondary school. On the one hand, social factors such as peer influence and academic disengagement explain why youth struggle academically and may become disengaged from school, but do not in and of themselves, account for why a youth drops out of school. Conversely, environmental factors, such as race, gender, and socioeconomic status that have been shown to impact dropout rate play a major role; they fail to explain all of the variance in secondary school dropout rate.

Through the application of social cognitive theory, the decision by a youth to drop out of school can be better understood. According to the reciprocal deterministic model, the decision to drop out of school by a youth can be understood as an interaction of processes related to secondary school involvement and the self-esteem of a youth over a long period of time as opposed to an isolated event (Finn, 1989). Learning occurs within a social context through observation, imitation, and modeling (Bandura, 1976). Social cognitive theory attributes a central role to cognitive processes. The theory states that youth are not mere subjects of their environment or genetic traits; rather, youth can act as agents, on their own, via their own cognitive processes (Bandura, 1986; Grusec, 1992;

Pajares, 2002) and it is through those cognitive processes that a youth will make the decision whether or not to dropout of secondary school.

The cognitive process within social cognitive theory is based on the principle that youth observe others, observe their environment, reflect upon that stimulus in combination with their own behaviors, with those behaviors being influenced by their physical characteristics and through this reciprocal process, gain knowledge (Bandura, 1986). In sum, these cognitive processes are impacted by a mix of environment, genetic traits and self-efficacy. Self-efficacy refers to an individual's belief in his or her ability to perform a certain task (Bandura, 2006) and that belief can be influenced by teachers and counselors who model positive behavior (McCall, 2003). This is a key measurement in evaluating whether teachers and counselors are effective in modeling positive behavior. In sum, a youth's motivation to stay in school can be seen as a combination of the youth's self-efficacy influenced by observation of behavior modeled by teachers and counselors and filtered through a lens of individual (gender, race, socioeconomic status) and social (peer influence, academic disengagement) characteristics. One of the ways that communities can retain at-risk youth within secondary educational institutions is to provide in-school service learning opportunities (Bandura, 1976).

## Effectiveness of Youth Dropout Programs

What is the state of the evidence on the effectiveness of Youth Dropout Programs? While great variations in program content, size, goals, and research design prevent simple answers, prior evaluation studies related to dropout prevention indicate positive effects in only a few areas. Past evaluation research in examining secondary

school dropout is fairly well documented (Larrivee & Bourque, 1991; Reyes & Jason, 1991; O'Donnell, Michalak & Ames, 1997; Fashola & Slavin,1998; Dynarski, Gleason, Rangarajan, & Wood, 1998; Dynarski & Gleason, 2002; McCall, 2003; Somers & Pilawsky, 2004; Jang, 2004; Christenson & Thurlow, 2004; Somers, Owens, & Piliawsky, 2009). Generally speaking, these studies suggest that programs that focus primarily on tutoring and instruction have limited to no effect on dropout rates. (Reyes & Jason, 1991; Dynarski, Gleason, Rangarajan, & Wood, 1998; Dynarski & Gleason, 2002). For example, Somers, Owens, and Piliawsky (2009) used a self-reported performance indicator for 140 Grade-9 youth in a linear model that included gender, race, and educational attitudes as well as a grade point average performance indicator. The researchers found that academic tutoring with supplemental enrichment activities were not an effective method of improving youth attitudes towards staying in school or producing better achievement outcomes as measured by grade point average. Similarly, in their analysis of dropout prevention programs Christenson and Thurlow (2004) found that dropout prevention programs had only a moderate effect in reducing dropout rates for students at risk. Those programs provided early reading programs, tutoring, counseling and mentoring that focused on changing the at-risk student.

Focusing on tutoring and instruction is not enough. Programs with favorable outcomes typically have an early intervention component. Early intervention in the literature refers to the early school age or a lower grade level of the student (Lehr, Hansen, Sinclair, & Christenson, 2003, Suh & Suh 2007). In looking a variety of dropout prevention programs Perna (2002) found that despite variation in program design and

funding, interventions programs are more effective when they target pre-high school or early high school students.

The literature also shows that counseling combined with academic instruction is effective in reducing dropout rates according to a study by Somers and Pilawsky (2004). In their study the researchers examined a program composed of 50 control group youth and 46 treatment group youth. They found that the treatment group, which received tutoring and counseling for 2 hours each day after school, had higher retention rates as compared to the control group. When look at the specifics of the counseling and instruction, Lauer et al. (2006) found that that academic assistance and counseling should include individualized attention, tutoring, and mentoring; particularly in the areas of reading and math and effective programs should extend across school years (Christenson & Thurlow, 2004).

Student engagement is another critical component found in successful dropout prevention programs (Rumberger, 1987; Finn, 1989; Perna, 2002; Christenson & Thurlow, 2004; Suh & Suh, 2007; Somers et al., 2009). Student engagement has a number of features. One feature of student engagement is the development of an expectation to attend school the next year by an at-risk youth (Finn, 1989; Suh & Suh, 2007; Rumberger, 1987). Another feature of student engagement was illustrated in a study of 1,800 at-risk youth by Finn and Rock (1997) who found that successful youth had measurably higher levels of self-esteem and were more engaged in the academic process. In their study, Somers et al. (2009) found that successful intervention programs employed strategies that drew connections between school and employment. Christenson and Thurlow (2004) said that The most effective intervention programs were designed to

address indicators of student engagement, such as enthusiasm for school and motivation to learn.

For this evaluation study of the Youth Development Program, the expectation for successful implementation focuses on finding early implementation, counseling combined with tutoring, and students engaged and motivated to learn.

Looking specifically at evaluation studies, no program evaluation studies exist that examine the impact that social cognitive theory-orientated programs have on retention rates. However, studies that have used social cognitive theory as a framework for analysis offer clues regarding the impact a SCT-inspired program might have on retention rates. In his study Herman McCall (2003) explored the factors that led alternative education participants to drop out of school. In his study, McCall compared 16 in-school youth to 16 youth who had dropped out of school. He found that positive teacher-student relationships and personalized attention for the students were key indicators that kept students from dropping out. This is consistent with the social cognitive framework that youth learn through imitation and modeling (Bandura, 1986, 1989). Jang (2004) also used social cognitive theory as an underlying model in his evaluation of the determinates of delinquent behavior in adolescent youth. His findings suggested that dropout prevention programs that focused on youth relationships with family, school, and peer relationships that also promoted social cognitive ability had an increase likelihood of keeping youth in school.

Although much of the school retention program evaluation literature suggests little can be done to improve dropout rates, empirical studies using SCT as the theoretical framework offer hope that retention rates can be improved. Thus, this dissertation will be

the first to test this premise. An empirical test of the At-Risk Youth Component of the Workforce Investment Act, a program employing social cognitive theory, will be conducted in the following chapters.

## Chapter Summary

In this chapter, literature was presented related to poverty policy in the United States. The WIA is a product of a long line of poverty abatement programs that sought to address the deficiencies of its predecessors. The Arkansas Delta is a region strongly impacted by poverty where childhood poverty is especially high. Related to childhood poverty are dropout rates that are a function of both individual and environmental factors. Poverty can be combated by increasing human capital, which are the skills that each of us possess, and can be accomplished according to social cognitive theory. Social cognitive theory focuses on the interaction among environmental, cognitive, and personal factors. Thus, the WIA's Youth Program is aimed at combating poverty by employing a social cognitive strategy that hopes to ultimately reduce an at-risk individual's probability of dropping out and enhancing that individual's human capital.

# CHAPTER 3:
# RESEARCH METHODOLOGY AND DATA COLLECTION

*Research Question*

This study seeks to evaluate the effectiveness of a poverty abatement program as implemented in the Arkansas Delta. The research addresses the following question: To what extent did the At-Risk Youth program, implemented under the WIA, as applied in seven school districts in the southeast Arkansas Delta, meet program goals and objectives relative to secondary school dropout rate for the 2006-2008 program years?

*Introduction*

This study evaluates, in a systematic way, the effectiveness of a poverty abatement program, the Workforce Investment Act Youth Development Program, utilizing multiple data collection techniques. Program evaluation is the utilization of social research methods to investigate systematically the effectiveness of social intervention programs in ways that inform social action so as to improve social conditions (Rossi et al., 2004, p. 16). The techniques utilized for this dissertation include the collection of individual-level data and the administration of a survey. Social research methodology was utilized and a binomial logistic regression was developed, employing the individual-level data presented. Because the dependent variable was dichotomous, the influence of various factors on the probability of dropout was evaluated utilizing logistic regression analysis. The administration of the survey provided program participants the opportunity to demonstrate their perceptions of the WIA youth program and how it impacted their self-efficacy.

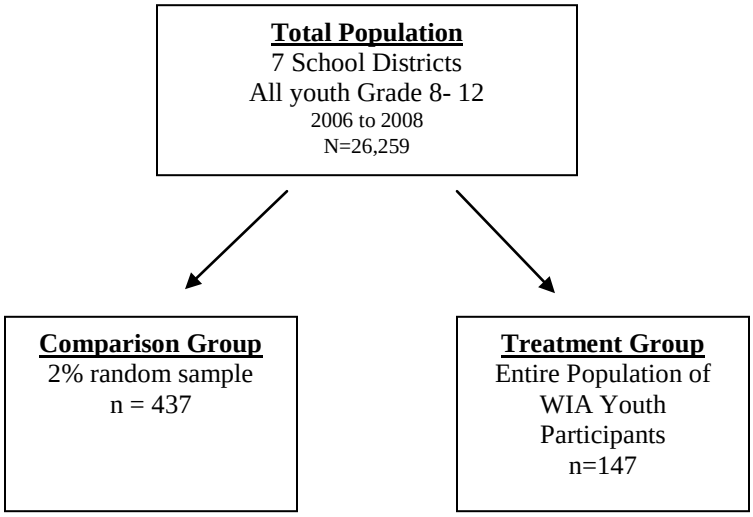
## Research Methodology

The research design used quantitative methods that provided substantive and theoretical insights into whether the Workforce Investment Act (WIA) had reached its program goals as they related to high school dropout rates in the seven school districts that were the focus of this study. This constituted a program impact evaluation. "The purpose of program evaluation often is to establish the effect of programs or policies on outcomes" (Berman, 2007, p. 38). Program evaluations often involve a systematic collection of information to inform decisions about future goals or to improve the effectiveness of a program (Patton, 1997). Within that context, this study design was arrived at after careful consideration of both quantitative and qualitative strategies. Singularly, quantitative research tries to make generalizations concerning large populations by examining subsets of that population. A quantitative approach has the strength of being able to measure, describe, and show levels of correlation among population descriptors as well as making suppositions as to whether those relationships are causal or associational (Berman, 2007). According to Patton (1997) utilizing quantitative measurements "strive for precision" by emphasizing things that can be counted, gathered and subjected to statistical analysis. Issues related to secondary school dropout and the WIA's attempt to address them required a statistical model. Quantitative data are derived from questionnaires, tests, and program records (Patton, 1997). This is the strength of a quantitative approach. The quantitative aspect of the evaluation can be used to show the relative strength of correlation between the independent and depend variables (Weiss, 1998).

## Research Design

The design of the study was a longitudinal quasi-experimental nonequivalent comparison evaluation study focusing on the 2006-2008 program years. A nonequivalent comparison model is one in which groups are not formed based on random assignment of members between groups (Rossi et al., 2004). A testing instrument was used to measure performance and control for selection bias in this evaluation and is a key part of the design. This evaluation primarily used a quantitative approach to address the research question. This study constituted an impact evaluation. Much of the complexity in this design approach was associated with obtaining an estimate of what would have occurred if the intervention (the WIA sponsored youth related learning component) did not occur (Rossi et al., 2004, p. 58). The study used individual level data. Figure 3.1 provides a graphical representation of the underlying framework on which this evaluation study was based.

**Figure 3.1: Framework for analyzing dropout rates**



The evaluation framework consisted of a comparison group and a treatment group constructed from the total population of youth that attend secondary school in the seven school districts in Southeast Arkansas outlined in Appendix A. The total population, treatment and comparison groups are detailed below.

*Total Population*

The seven school districts had a total population of 26,259 students in grades 8 through 12 from 2006 to 2008. The 2006-2008 program years were selected due to the availability of empirical data derived from the Arkansas Research Service and access to individual-level treatment youth data obtained from the Youth Development Program. Because there have been multiple contract service providers since the implementation of WIA youth services, in the school districts that are the subject of this evaluation, the researcher could not obtain a complete individual-level treatment data set for program years prior to 2006.

*Treatment Group*

The treatment group consisted of youth who were receiving WIA related services [19], over the period 2006 to 2008. The population size of the treatment group consisted of the entire population of YDP program participants for the 2006 to 2008 program years, in the seven school districts listed in Appendix A. The population of the treatment group was 147. This group was selected by the researcher to evaluate levels of secondary school dropout rate over the 2006 to 2008 timeframe. Treatment group youth participants were selected by WIA program administrators, via an application process in

[19] Services consisted of the development of study skills, homework skills, tutoring, how to interface with a professional environment, counseling and support. These services were provided by both counselors, on site, at high schools, and off site, at specific locations, across the three counties that form the basis for this evaluation.

which prospective youth filled out application materials, completed a TABE examination, were assessed, and were placed into the program. There were a limited number of slots for the program. Ninety-five percent of program participants were considered economically disadvantaged. Not all youth who completed the application process were placed in the WIA youth program. Youth selection was left to the discretion of the program administrator. Because the selection process was not based on random assignment, selection bias may be an issue in this evaluation. Attempts were made to approximate the quasi-experimental design of this study to that of a randomized design so as to reduce issues related to selection bias. However, no quasi-experimental design can produce the effect of a randomized design study (Campbell and Stanley, 1963). The implications of selection bias in this study will be addressed in further detail in Chapter 5.

*Comparison Group*

The comparison group was composed of youth not receiving WIA related services (n=437). The comparison group consisted of a random 2 percent sample derived from the total population of youth grades 8 through 12 who attended one of the seven school districts from 2006 to 2008. The comparison group provides a control that reduces issues related to internal validity. The inclusion of a comparison group provides assurances that the WIA program, as implemented, caused the observed effects (Weiss, 1998, p. 199). The two-percent sample size was selected to control for any double counts that might occur when random cases were selected for the creation of the comparison group. The two-percent sample size was also selected so that a large enough sample size could be utilized for logistic regression and the inclusion of the performance data within

that model. Each youth in the comparison group completed either the ITBS or the SAT-10 in the spring of their ninth grade year.

## Data Analysis

To address the primary research question, quantitative data was gathered by examining 147 youth participants who received in-school or out-of-school services provided by the WIA. This group of 147 comprised the treatment group. The dependent variable, dropout rate, was evaluated relative to how the independent variables of age, gender, race, grade-level, and program participation impact it. These variables were selected as independent variables due to previous studies that have shown relatively strong relationships between them and the probability dropout rate.[20] The unit of analysis for the treatment and comparison group was individual level student participant data.

Both descriptive and inferential statistics were used to address the research question. The descriptive statistics used for this evaluation were frequency distribution and cross tabulation. Frequency distributions are a type of univariate analysis that measure dispersion and are useful in analyzing ordinal and nominal datasets (Berman, 2007). A cross tabulation is a useful tool to test hypotheses that explores the relationship between two categorical variables. "A cross-tabulation is a table that shows the distribution of cases across the values of a dependent variable for cases that have different values on an independent variable" (Pollock, 2005, p. 62). Inferential statistics that are used for this evaluation are chi-square and logistic regression. Chi-square was selected because it is a statistical method used to determine if a relationship exists

[20]Ethnicity – (Colman et al, 1966), Socioeconomic status – (Hill, 1979; Rumberger, 1983; Velez, 1989)

between two categorical variables (Berman, 2007). Chi-square analysis seeks to determine if the observed dispersal of cases departs from what is expected from the null hypothesis when correct (Pollock, 2005).

Logistic regression analysis was selected because members of the treatment group, at the individual level, either did or did not drop out of secondary school during the program years in the study. Logistic regression analysis, by definition, is a natural log transformation of odds (Polluck, 2005, p. 184). Logistic regression can be used to measure the varying magnitude of correlation. The variable dropout rate is a binary dependent variable. We can therefore "use a linear model to estimate the effect of an independent variable on the logged odds of a binary dependent variable" (Polluck, 2005, p. 184). The quantitative data analyzed the use of both descriptive and inferential statistical models which were compiled and examined in SPSS.

The specific outcome indicators measured were the secondary school dropout rate for treatment and comparison group and performance scores in grade level equivalence format, for both the treatment and comparison group. These outcome indicators served to address the primary research question regarding WIA's impact on dropout rate in the school districts that are the focus of this evaluation. Those outcome indicators were specifically: the Test of Adult Basic Education (TABE) scores for treatment group participants; Stanford Achievement Test tenth edition (SAT-10) and Iowa Test of Basic Skills (ITBS) scores for comparison group participants.

In addressing the underlying social cognitive theory, data collection was gathered and compiled through the use of survey instruments found in Appendix C. The targeted population for the survey instrument consisted of surveying a selected group of current

YDP program participants. The survey was designed to measure participant self-efficacy.

## Duration

The duration of the study would take place over the course of a six-month period beginning in September of 2009. This allowed for three months for data collection, two months for transcription, and one month for data analysis.

## Identification of Variables

The unit of analysis for this evaluation was at the individual level. There was one dependent variable and several independent variables used to test the research question in this dissertation. The following sections address the formation, source, and detail of these variables.

*Dependent variable*

The variable of key importance in this analysis is secondary school dropout rate. Operationally, 0 indicated that the youth was still enrolled in secondary school and 1 indicated that the youth had dropped out. The dependent variable secondary school dropout rate was calculated based on whether or not a student was still enrolled at their school at the end of the academic year for the particular year in question. There are 15 reasons identified in Appendix D for why a student would be classified as dropped or withdrawn from a school district; for this analysis if any of those reasons were met by either the treatment or comparison group the students were considered to have dropped out of school.[21] Performance outcomes among youth at different grade levels are

[21] This is a very inclusive definition for dropout rate. In the sample constructed for this study there where five reasons identified for why a student dropped out: Enrolled in another school, failing grades,

compared through the use of the performance outcome indicator variable P which is constructed from the youths reading and math scores divided by grade level.

*Independent Variables*

Several demographic and performance related variables were used as independent or control variables. Those variables consisted of: wia program participation, race, gender, grade level, age, and performance for math and reading. Gender, age, and race are all demographic factors that have been shown through previous literature review to be factors in secondary school dropout. The performance variables for math and reading are control variables.

## Testing

The WIA Youth Program is a program in which participation is voluntary. This raises the concern that bias could have occurred in the selection of youth participants (Rossi et al., 2004). At-risk youth who participated in the WIA program could have been inherently different from those that had not participated in the WIA program. The testing metric for both the treatment and comparison groups sought to identify what if any selection bias had occurred. There were three tests that were used in the model to measure youth performance and control for selection bias. Those tests were the Test of Adult Basic Education (TABE), the Iowa Test of Basic Skills (ITBS), and the Stanford Achievement Test – Tenth Edition (SAT-10). For the three tests used to assess performance, test outputs were converted to a grade-level equivalence value.

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suspended/expelled, lack of interest, enrolled in GED program and other. The regression models were also run with a conservative definition of secondary school dropout rate which included only failing grades, suspended/expelled, lack of interest and other. This alternate model was consistent with the findings of the inclusive model relative to the significance of the independent variable WIA program participation.

Youth in the treatment group were tested by the contract service provider for the YDP, upon entry into the program to assess their basic skills in reading and math. The Test of Adult Basic Education (TABE) was used for that assessment and provided a grade-level equivalence measure for youth participants. This grade-level equivalence score was used by YDP as an assessment tool to help determine what services were needed for at-risk youth. The TABE grade-level equivalence scores were obtained from YDP for the 147 at-risk youth participants that comprised the treatment group for the 2006 to 2008 program years.

Youth in the comparison group were composed of a 2 percent random sample selected from the entire population of youth who attended Grade 8 through Grade 12 for the 2006, 2007, and 2008 academic years for the school districts examined. Youth in the comparison group during their ninth grade term were administered assessment exams in both reading and mathematics. The ITBS was used by the Arkansas Department of Education for the 2006 and 2007 academic years. In 2008, the Arkansas Department of Education used the SAT-10. The score results for both the SAT-10 and the ITBS were stated in terms of National Percentile Rank (NPR).

*Score Conversion*

The treatment group was comprised of youth who have entered the WIA program in Grade 9, Grade 10, Grade 11, and Grade 12 of their secondary school education. At the time of entrance into the program, youth are assessed and complete a TABE examination in reading and math, which provides a grade-level equivalence score. This grade-level equivalence score was used to help the YDP determine which services were needed for the at-risk youth.

The youth that comprised the comparison population ranged from Grade 8 to Grade 12. In 2008 the assessment tool used was the SAT-10 to test Grade 9 youth in reading and math. The state provided SAT-10 youth performance scores to the researcher in both scaled score format and national percentile rank. For the 2006 and 2007 academic years, the ITBS was used to assess Grade 9 youth in Reading and Math. The output for the ITBS Reading and Math was presented in National Percentile Rank (NPR). ITBS scores were obtained by the researcher from the Arkansas Research Service and have an output in NPR. The ITBS NPR scores were converted into their SAT-10 scaled score equivalents. These scores were then converted to grade equivalency scores through the use of a conversion table obtained from NSC Pearson Inc., found in the Spring 2007 Multi-level Norms Book (NSC Pearson, 2007). TABE scores in Reading and Math were also presented in grade equivalency format.

*Examination Output Indicator Score formats*

There were three examination score formats that were used to analyze the performance data in this study. They were National Percentile Rank (NPR), scaled scores, (SS), and Grade level Equivalency scores (GE). The NPR score compared the achievement of a student or a group of students to the achievement of a national sample of students who were in the same grade and who were tested at the same time of the year. According to the Arkansas Research Center, a division of the Arkansas Department of Education, the NPR can be used as a consistent measure of performance regardless of the test source (G. Holland, personal communication, March 15, 2010). Since both SAT-10 and ITBS had an NPR performance output, the researcher was able to convert ITBS scores to their SAT-10 scaled score equivalent.

Scaled scores represented a conversion of a youth's raw score on the SAT-10 into a common scale that allowed for numerical comparisons between youth. Because there were multiple versions of the SAT-10, the scaled score was used to control for slight variations from one version of the SAT-10 to another. This means that scaled scores can be used to compare test scores over time, which is useful for this evaluation in that youth scores from one year to the next can be compared. Scaled scores for both the SAT-10 and ITBS were converted into a grade-level equivalency score.

Grade-level equivalency scores, in reading and math, are the typical performance output for the TABE. Grade-level equivalency scores allow for a comparison of youth performance as compared to other youth as adjusted for school year. The grade-level equivalency score output is based on a nine month school year and is provided in terms of year and month. Grade-level equivalency scores are an estimate of the performance of what an average student at grade level would display at a particular time in the academic year.

*Performance Outcome Indicator*

Thus, in the model used presented later in this chapter to evaluate performance of both treatment and control groups, a grade-level equivalency score was generated or obtained. The populations in the model range from Grade 8 to Grade 12. The comparison group youth completed the Grade 9 SAT-10 or ITBS, in reading and math, during the spring term of their ninth-grade year in secondary school. The output score for this model has been converted into a grade-level equivalency score. All treatment group youth are assessed via the TABE and given a grade-level equivalency score. To adjust for the differences in grade-level within the model a performance indicator variable was

constructed to provide a useful comparison tool to compare youth across grade-levels. The constructed performance indicator was created according to the following equation:

$$P = S / G$$

Where P stands for performance outcome indicator, S represents grade equivalency score, and G represents grade-level.

## Survey Instrument

In addition to the collection of individual demographic and performance data for YDP participants over the 2006 to 2008 program years, 2009 YDP participants received a survey aimed at assessing perceptions of program effectiveness. The survey consisted of 8 questions designed to measure perceptions of program effectiveness by the youth participant. Specifically, the survey instrument was designed to measure youth participant self-efficacy, a key component of social cognitive theory. Participation in completing the survey instrument was voluntary.

The survey instrument was structured in accordance with a Likert-type scale. Likert scales are a common type of ordinal scale that have been widely tested and are easy to use and adapt for the researcher (Berman, 2007). The survey was administered onsite by YDP administrators and staff. Administering the survey onsite insures a high rate of response (Berman, 2007, p. 82). High rates of response aid in the validity of the instrument. The total number of youth participants that responded to the survey was 51 out of 71 possible for a response rate of 71.8 percent.

Quantitative socioeconomic data were collected through document review of files on site, at the YDP offices in Monticello. Quantitative demographic data for the treatment group was also collected onsite.

## Validity and Reliability

In order for research to be relevant, to make a contribution to the broader academic community, and have a meaningful impact upon future policymaking, it is necessary that other scholars have confidence in the rigor of a study's methodology and design. In order for this to be the case, a researcher must consider and make adjustments for issues of both external and internal validity as well as questions of reliability.

External validity[22] refers to what extent are the results of this study likely to be generalized to a broader population, setting or operation (Campbell and Stanley, 1963, p. 5). The design of this study was structured to diminish issues related to external validity. Quasi-experimental designs have fewer issues with external validity than purely experimental designs.

When it comes to questions of internal validity in the research design there are some significant areas of concern. Internal validity references the relationship between dependent and independent variables. "Internal validity is concerned with whether the program is the agent responsible for the observed effects" (Weiss, 1998, p. 185).

Of the threats to internal validity[23] only one, selection bias (which refers to the selection of a participant for treatment either by administrator or participant through non-random means), may be an issue. The threat of selection bias was addressed by employing controls in the logistic regression model, notably student achievement, as

[22] Threats to external validity include: testing, selection and dependent variable interaction, experimental arrangement, and multiple treatment interference. (Campbell & Stanley, 1963, p. 5-6)
[23]Threats to internal validity include: history, maturation, testing, instrumentation, statistical regression, selection bias, experimental mortality, and selection-maturation interaction. (Campbell & Stanley, 1963, p. 5)

measured by the standardized test scores. Doing so eliminates (or at least considerably restricts) the possibility students who self-select into the YDP are somehow different form the overall population before they receive YDP services. If more capable students are more likely to seek YDP services, the student performance data should minimize this impact.

Reliability refers to what is recorded by a study relative to what actually occurs. "Reliability has to do with whether repeated efforts to measure the same phenomenon come up with the same answer" (Weiss, 1998, p. 146). For this evaluation an analysis was run on the quantitative data inputted into SPSS to obtain a Cronbach's alpha coefficient. The Cronbach's alpha coefficient is a common statistical measure of internal reliability that is often cited in policy research (Berman, 2007, p. 54).

## Limitations

There are limitations to a quantitative approach. First, no matter how exhaustive the methodology, when seeking to explain and understand behavior, quantitative approaches can only control for a portion of the behavior. Additionally, no approach can account for every independent variable that might impact secondary school dropout rate nor can quantitative methodology explain completely how independent variable interactions might contribute to the phenomena observed. Finally, a quantitative design model cannot normatively address whether or not the program goals created by the WIA are appropriate.

# CHAPTER 4:
# RESULTS OF THE STUDY

## Introduction

The percentage of youth living in poverty, in the Arkansas Delta, is extremely high. It is essential that the educational system take steps to keep these youth in school. Linkages between youth living in poverty and increased levels of secondary school dropout rate have previously been detailed (Hill, 1979; Rumberger, 1983; Velez, 1989; McGranhan, 2004; McCall, 2003). Poverty abatement programs, like the WIA, are public sector attempts to combat this problem. Examining the impact of the WIA's ability to decrease secondary school dropout rates, within select Arkansas Delta communities, is the goal of this study.

The focus of this study centers on attempts to increase human capital via the Workforce Investment Act as a means to reduce high school dropout rate. Demographic factors, such as gender and race (Kleinfeld, 2009; Marjoribanks, 2003; McCall, 2003; Brown et al., 2003) have been linked to secondary school dropout rate. Researchers have concluded that males have an increased likelihood of dropping out when compared to females (Kleinfeld, 2009; Marjoribanks, 2003) and blacks have a greater likelihood of dropping out when compared to their white peers (McCall, 2003; Brown et al., 2003).

This study has also identified human capital components, such as educational attainment, that have been shown to reduce a youth's likelihood of living in poverty (Psacharopoulos, 1990). Programs, such as the WIA, seek to assist at-risk youth in staying in school through the use of social cognitive learning philosophies.

This study compares the individual-level treatment group data to individual-level comparison treatment group data. The comparison group data was obtained from the Arkansas Research Center, a division of the Arkansas Department of Education. The comparison group data is composed of the total youth population over the 2006, 2007, and 2008 academic years within a 3 county area. The treatment group consisted of data gathered from the Youth Development Program, the contract service provider that administers the At-Risk Youth Program for Jefferson, Arkansas, and Lincoln counties.

The quantitative data analysis consisted of data gathered from the Youth Development Program for 147 WIA at-risk youth participants, over the 2006 through 2008 academic years. The 147 WIA at-risk youth participants are part of a larger population of all youth participants who attended secondary school in Jefferson, Arkansas, and Lincoln counties, from the 2006 to 2008 academic years. This constitutes the treatment group. The total population of youth who attended secondary school in Jefferson, Arkansas, and Lincoln counties, from 2006 to 2008 academic years was 26,472. This dataset was obtained from the Economic Research Service, a division of the Arkansas Department of Education. A 2 percent random sample was obtained from this dataset. That sample constituted the comparison group. The comparison, treatment, and total population consisted of youth, ages 14-21, who attended one of 7 school districts (the Dollarway, Pine Bluff, Watson Chapel, and White Hall school districts in Jefferson County; the Stuttgart and Dewitt school districts in Arkansas County; and the Star City School District in Lincoln County). The collection of individual-level data entailed program participation, race, gender, age, grade-level, performance, and diploma completion.

This chapter also presents the results of a survey instrument that was administered to YDP 2009 program participants. The survey sought to measure self-efficacy among YDP program participants.

## Organization of Data Analysis

This chapter provides an overview of how the data was analyzed. First, the researcher examined the overall distribution of self-efficacy related data collected via survey. Next, the distribution is examined of the following variables: race, age, gender, grade level, school district, and program participation. The purpose of running the frequency distributions in Tables 4.2 through 4.5 is to learn about the content of both the comparison and treatment populations and to indicate the similarities or differences within those populations. Next, a bi-variate analysis was conducted between the treatment and control groups to measure the strength of correlation. Finally, a multivariate analysis was presented through the use of a binomial logistic regression model. All computations for analyzing the quantitative individual-level data were conducted with Statistical Package for Social Science (SPSS). The null hypothesis is rejected at the $p< 0.05$ level of significance. This chapter concludes with the presentation of the research question and hypotheses followed by a detailed analysis and discussion of the data related to each of the hypotheses.

## Survey of 2009 YDP Participants

The underlying component of the YDP hinges on its ability to increase self-efficacy among youth so as to keep them in school thereby reducing secondary school

dropout. Self-efficacy is a key component of learned behavior. Self-efficacy is an individual's self-perception of competence that directly impacts motivation (Pajares, 1996a). A youth's self-efficacy beliefs are generally task specific and situational in relation to a goal (Bandura, 1986, 1989). YDP program participants with high levels of self-efficacy are more likely to set high goals for themselves and develop strategies to acquire skills and knowledge so that they can continue during difficult time periods in their academic careers (Pajares, 1996a). Researchers have found that youth observe and model the attitudes and behaviors of those that have significant influence upon them like teachers and counselors (Bandura, 1977; Schunk, 1999).

A survey instrument was created to measure self-efficacy among YDP program participants active for the 2009 program year. A total of 51 youth participants responded to the survey out of 71 youth participants active for the 2009 program year. The survey was administered by the YDP staff and consisted of eight questions measuring self-efficacy among participants. The evaluation was anonymous; however youth did provide demographic information. The demographic information consisted of school district, race, gender, age, and number of years in the program. The responses are listed in the Table 4.1. The data presented in Table 4.1 serves as a preliminary indication that the YDP program is operating consistent with the features of social cognitive theory outlined previously.

**Table 4.1**
**Frequency Distribution of 2009 YDP Participants**
**Self-efficacy Survey Responses**
**(N=51)**

| Question | Response | Count | Percent |
|---|---|---|---|
| I benefit academically from Participation in this program. | Strongly Agree | 14 | 27.5 |
| | Agree | 28 | 54.9 |
| | Neutral | 9 | 17.6 |
| This youth program has been effective in helping me stay in school. | Strongly Agree | 12 | 23.5 |
| | Agree | 30 | 58.8 |
| | Neutral | 5 | 9.8 |
| | Disagree | 3 | 5.9 |
| | Strongly Disagree | 1 | 2.0 |
| I like the counselors that instruct me in the youth program. | Strongly Agree | 27 | 52.9 |
| | Agree | 21 | 41.2 |
| | Neutral | 3 | 5.9 |
| I go to school for the pleasure I get when I accomplish something. | Strongly Agree | 13 | 25.5 |
| | Agree | 18 | 35.3 |
| | Neutral | 14 | 27.5 |
| | Disagree | 6 | 11.8 |
| I feel that I am wasting my time in school. | Agree | 1 | 2.0 |
| | Neutral | 5 | 9.8 |
| | Disagree | 10 | 19.6 |
| | Strongly Disagree | 35 | 68.6 |
| I participate in class discussions. | Strongly Agree | 9 | 17.6 |
| | Agree | 28 | 54.9 |
| | Neutral | 10 | 19.6 |
| | Disagree | 3 | 5.9 |
| | Strongly Disagree | 1 | 2.0 |
| I am motivated to do my homework. | Strongly Agree | 15 | 29.4 |
| | Agree | 26 | 51.0 |
| | Neutral | 9 | 17.6 |
| | Strongly Disagree | 1 | 2.0 |
| The teachers here respect me. | Strongly Agree | 15 | 29.4 |
| | Agree | 21 | 41.2 |
| | Neutral | 14 | 27.5 |
| | Disagree | 1 | 2.0 |

The survey instrument is located in Appendix C. The first question of the survey was related to the participant's belief that YDP had helped them. Forty-two of the 51 survey participants constituting 82.4 percent of the respondents either agreed or strongly agreed that the YDP benefited them academically. The second question was very important in that it dealt with YDP participant perceptions of whether or not the YDP program was effective in helping program participants stay in school. Again 82.4 percent of the respondents agreed or strongly agreed that the YDP helped them stay in school while only 4 respondents or 7.9 percent indicated that the YDP was not effective in helping them stay in school. The other six questions specifically measure the participant's perception of their own self-efficacy. As can be seen in Table 4.1 participants exhibited high levels of self-efficacy and indicated that the YDP overall had helped them. This survey's result seems to suggest that the YDP has been effective in increasing participant self-efficacy.

**Frequency Distribution of Comparison and Treatment Group**

In this section, the researcher utilized a common type of univariate analysis, frequency distributions, to describe the dataset. Frequency distributions measure dispersion and are useful in analyzing ordinal and nominal datasets (Berman, 2007). Table 4.2 details the combined comparison and treatment group frequencies by county.

**Table 4.2**
**Frequency Distribution of**
**Combined Comparison and Treatment Groups**
**by County**
**(N=584)***

| | Percentage | Total |
|---|---|---|
| Jefferson | 71.6 | 418 |
| Arkansas | 17.6 | 103 |
| Lincoln | 10.6 | 62 |

*1 non coded case (equals 0.2 percent of total)

The distribution of the combined comparison and treatment groups in Table 4.2 reflects the larger population of Jefferson County. Table 4.3 details the treatment and comparison groups separately.

**Table 4.3**
**Frequency Distribution of**
**Treatment and Comparison Groups**
**by County**
**(N=584)***

| | Treatment | Comparison | Total |
|---|---|---|---|
| Jefferson | 108 | 310 | 418 |
| Arkansas | 18 | 85 | 103 |
| Lincoln | 20 | 42 | 62 |

*1 non coded case

Because Jefferson County is the most populous county in southeast Arkansas, dropout prevention programs that seek to reduce dropout rates would want to target the county. The frequency distribution indicated above reflect that strategy. Table 4.3 also illustrates the ratio between the comparison group and treatment population is approximately two to one which is consistent with the construction of this model.

**Table 4.4**
**Frequency Distribution of**
**Combined Comparison and Treatment Groups**
**by School District**
**(N=584)***

| | Percentage | Total |
|---|---|---|
| Pine Bluff | 27.4 | 160 |
| White Hall | 12.3 | 72 |
| Watson Chapel | 17.8 | 104 |
| Dollarway | 13.2 | 77 |
| Stuttgart | 10.1 | 59 |
| Dewitt | 7.0 | 41 |
| Star City | 10.6 | 62 |

*9 non coded cases (equals 1.5 percent of total)

Table 4.4 examines the distribution of the total population across school districts. Four school districts (Pine Bluff, White Hall, Watson Chapel, and Dollarway) contain a significant majority of the population. This is consistent with Table 4.2 in that these four school districts are in Jefferson County.

**Table 4.5**
**Frequency Distribution of**
**Comparison and Treatment Groups**
**by School District**
**(N=584)***

| | Treatment | Comparison | Total |
|---|---|---|---|
| Pine Bluff | 48 | 112 | 160 |
| White Hall | 0 | 72 | 72 |
| Watson Chapel | 33 | 79 | 112 |
| Dollarway | 30 | 47 | 77 |
| Stuttgart | 15 | 44 | 59 |
| Dewitt | 0 | 41 | 41 |
| Star City | 20 | 42 | 62 |

*9 non coded cases (equals 1.5 percent of total)

Table 4.5 shows the frequency distribution between the comparison and treatment groups by school district. In both the treatment and comparison groups the largest populations of youth are found in the Pine Bluff school district. The comparison population across school districts does not maintain a consistent ratio of population when compared to the treatment population.

## Demographic Characteristics of Population and Sample

This section reports the demographic characteristics of both the treatment and non-treatment populations. Table 4.6 identifies the demographic characteristics of the combined comparison and treatment groups. Those characteristics are gender, grade level, age, and race/ethnicity.

**Table 4.6**
**Demographic Characteristics**
**of Combined Comparison and Treatment Group**
**(N=584)**

| | Percentage | Total |
|---|---|---|
| **Gender** | | |
| Male | 49.7 | 290 |
| Female | 50.3 | 294 |
| **Grade Level*** | | |
| 8 | 17.0 | 99 |
| 9 | 20.2 | 118 |
| 10 | 18.3 | 107 |
| 11 | 22.3 | 130 |
| 12 | 18.8 | 110 |
| **Age**** | | |
| 14 | 9.1 | 53 |
| 15 | 20.0 | 117 |
| 16 | 21.7 | 127 |
| 17 | 22.9 | 134 |
| 18 | 18.2 | 106 |
| 19-21 | 7.3 | 43 |
| **Race/Ethnicity** | | |
| Asian | 0.9 | 5 |
| Caucasian | 32.5 | 190 |
| Hispanic | 1.0 | 6 |
| African American | 65.6 | 383 |

*20 non coded cases (equals 3.4 percent of total), **3 missing cases (equals 0.5 percent of total)

Table 4.6 identifies the demographic characteristics of the total population. The population is almost evenly divided by gender. From a race/ethnicity perspective the population is overwhelmingly minority. African Americans in the sample outnumber Caucasians by a two to one margin. The mode (23.7 %) is age 17. The median age is 16. With respect to grade level, the table illustrates that a plurality of youth in the population are Grade 11. The median grade level for the youth population is Grade 10.

Table 4.7 identifies the demographic features found in the treatment and comparison populations separately. The comparison population is roughly three times

the size of the treatment population based on gender. However, there is wide dispersion in the ration between the treatment and comparison groups when looking at the independent variables grade level, age, and race/ethnicity.

**Table 4.7**
**Demographic Characteristics**
**Of Treatment and Comparison Group**
**(N=584)**

| | Treatment | Comparison | Total |
|---|---|---|---|
| **Gender** | | | |
| Male | 73 | 217 | 290 |
| Female | 74 | 220 | 294 |
| **Grade Level*** | | | |
| 8 | 0 | 99 | 99 |
| 9 | 11 | 107 | 118 |
| 10 | 16 | 91 | 107 |
| 11 | 34 | 96 | 130 |
| 12 | 66 | 44 | 110 |
| **Age**** | | | |
| 14 | 6 | 47 | 53 |
| 15 | 20 | 97 | 117 |
| 16 | 32 | 95 | 127 |
| 17 | 46 | 88 | 134 |
| 18 | 29 | 77 | 106 |
| 19-21 | 10 | 33 | 43 |
| **Race/Ethnicity** | | | |
| Asian | 0 | 5 | 5 |
| Caucasian | 7 | 185 | 192 |
| Hispanic | 0 | 6 | 6 |
| African American | 206 | 241 | 447 |

*20 missing cases (equals 3.49 percent of total), **3 missing cases (equals 0.51 percent of total)

The treatment population relative, to grade-level, is skewed towards grades 11 and 12. The comparison group, relative to grade-level, is skewed towards grades 8 and 9.

Table 4.8 details counts and measures of central tendency for the reading and math grade equivalency scores. The mean and median treatment population reading

scores are significantly higher than the reading scores in the comparison population. Conversely the math scores are consistently lower for the treatment population as compared to the comparison group.

**Table 4.8**
**Counts and Measures of Central Tendency of Reading and Math Grade Equivalent Score for Treatment and Comparison Groups**
**(N=584)**

| | Treatment | Comparison | Total |
|---|---|---|---|
| **Counts*** | | | |
| Reading | 144 | 179 | 323 |
| Math | 144 | 180 | 324 |
| **Mean** | | | |
| Reading | 8.80 | 8.03 | |
| Math | 8.67 | 9.76 | |
| **Median** | | | |
| Reading | 8.60 | 7.90 | |
| Math | 8.80 | 9.70 | |
| **Mode** | | | |
| Reading | 12.90 | 12.90 | |
| Math | 12.90 | 12.90 | |

*261 missing cases for reading (equals 44.7 percent of total), 260 missing cases for math (equals 44.5 percent of total)

## Cross tabulation

A cross tabulation was conducted on the independent variables relative to the dependent variable to examine the relationship that exists between each independent variable relative to the dependent variable. A cross tabulation is a type of inferential statistic that is a useful tool to test hypotheses and to explore the relationship between two categorical variables. This analysis seeks to determine if the observed dispersal of cases departs from what is expected from the null hypothesis (Pollock, 2005). Tables 4.9

through 4.12 detail the results of the chi-square analysis used to evaluate the relationship between the dependent and independent variables.

Table 4.9 examines the relationship between key demographic features of gender, race, and age on secondary school dropout.

**Table 4.9**
**Cross tabulation**
**of Youth Dropout versus Gender, Race, and Age**
**(N=584)**

| | Percentage | Count | % of Total N |
|---|---|---|---|
| **Gender** | | | |
| *Male* | | | |
| In school | 83.5 | 242 | 41.4 |
| Dropped out | 16.5 | 48 | 8.2 |
| *Female* | | | |
| In school | 83.0 | 244 | 41.8 |
| Dropped out | 17.0 | 50 | 8.6 |
| **Race/Ethnicity** | | | |
| *Asian* | | | |
| In school | 80.0 | 4 | 0.7 |
| Dropped out | 20.0 | 1 | 0.1 |
| *Caucasian* | | | |
| In school | 83.2 | 158 | 27.1 |
| Dropped out | 16.8 | 32 | 5.5 |
| *Hispanic* | | | |
| In school | 66.7 | 4 | 0.7 |
| Dropped out | 33.3 | 2 | 0.3 |
| *African American* | | | |
| In school | 83.5 | 320 | 54.8 |
| Dropped out | 16.5 | 63 | 10.8 |
| **Age*** | | | |
| *14* | | | |
| In school | 91.5 | 48 | 8.3 |
| Dropped out | 8.5 | 5 | 0.9 |
| *15* | | | |
| In school | 85.0 | 99 | 17.0 |
| Dropped out | 15.0 | 19 | 3.3 |
| *16* | | | |
| In school | 89.4 | 112 | 19.2 |
| Dropped out | 10.6 | 15 | 2.6 |
| *17* | | | |
| In school | 87.0 | 116 | 19.9 |
| Dropped out | 13.0 | 18 | 3.1 |
| *18* | | | |
| In school | 84.4 | 88 | 15.1 |
| Dropped out | 15.6 | 18 | 3.1 |
| *19-21* | | | |
| In school | 46.7 | 20 | 3.4 |
| Dropped out | 53.3 | 23 | 3.9 |

*5 missing cases (equals 0.9 percent of total)

After running the cross tabulation in SPSS, the researcher found this result relative to gender: $\chi^2$ (1, N= 584) = .022, p = .883. Gender is not statistically significant at p < .05 and the null hypothesis cannot be rejected. There is not a relationship between gender and secondary school dropout. Relative to race/ethnicity, the researcher found this result - Race/ethnicity: $\chi^2$ (3, N= 584) = 1.245, p = .742. Race is not statistically significant at p < .05 and null hypothesis cannot be rejected. There is not a relationship between race/ethnicity and secondary school dropout. The researcher found that the results of the cross tabulation of the demographic feature of Age as being: $\chi^2$ (9, N=581) = 52.463, p = .000. Age is statistically significant at p < .05 and the null hypothesis is rejected. There is a relationship between age and secondary school dropout. Among youth who dropped out 19.4% of the time they were age 15, 15.3% of the time when they were age 16, 18.4% of the time when they were age 17, and 18.4% of the time they were 18. The effect of age on secondary school dropout is moderate at 0.189.

Table 4.10 examines the relationship between grade level and secondary school dropout rate.

**Table 4.10**
**Cross tabulation**
**of Youth Dropout versus Grade Level**
**(N=564)***

| | Percentage | Count | % of Total N |
|---|---|---|---|
| **Grade Level** | | | |
| *Grade 8* | | | |
| In school | 81.8 | 81 | 14.4 |
| Dropped out | 18.2 | 18 | 3.2 |
| *Grade 9* | | | |
| In school | 78.8 | 93 | 16.5 |
| Dropped out | 21.2 | 25 | 4.4 |
| *Grade 10* | | | |
| In school | 86.0 | 92 | 16.3 |
| Dropped out | 14.0 | 15 | 2.7 |
| *Grade 11* | | | |
| In school | 80.0 | 104 | 18.4 |
| Dropped out | 20.0 | 26 | 4.6 |
| *Grade 12* | | | |
| In school | 87.3 | 96 | 17.0 |
| Dropped out | 12.7 | 14 | 2.5 |

*20 cases missing (equals 3.4% of total)

After running the cross tabulation in SPSS, the researcher found this result relative to Grade level: $\chi^2$ (4, N=564) = 4.357, p = .360. Grade level was not statistically significant at $p < .05$ and the null hypothesis cannot be rejected.

Table 4.11 explores the relationship between WIA program participation and its relationship to secondary school dropout.

**Table 4.11**
**Cross tabulation**
**of Youth Dropout versus WIA Program Participation**
**(N=584)**

| | Percentage | Count | % of Total N |
|---|---|---|---|
| **WIA Youth Program** | | | |
| *Comparison* | | | |
| In school | 79.2 | 346 | 59.3 |
| Dropped out | 20.8 | 91 | 15.5 |
| *Treatment* | | | |
| In school | 95.2 | 140 | 24.0 |
| Dropped out | 4.8 | 7 | 1.2 |

After running the cross tabulation in SPSS, the researcher found this result relative to WIA Program Participation: $\chi^2$ (1, N=584) = 20.321, p = .000. It appears as if WIA Program Participation is statistically significant at $p < .05$ and it may be possible to reject the null hypothesis. There seems to be a relationship between program participation and secondary school dropout. The proportion of drop-outs in the treatment group was much smaller than the proportion of dropouts in the comparison group. Only 5.6% of the individuals in the treatment group dropped out, compared to 20.8% in the comparison group.

After running the chi-square analysis models it appeared that age, and WIA program participation were statistically significant and that each impacted secondary school dropout. Chi-square analysis is limited in that it compares each independent variable separately to the dependent variable. When including all independent variables within an overall binomial regression model will the effects of age and WIA program participation hold? Table 4.12 examined that question.

## Binomial Logistic Regression

In this section binomial logistic regression analysis was conducted on the dataset. Because the variable dropout rate is a binary dependent variable, a logistic regression model was used to estimate the effect of independent covariates on the logged odds of a binary dependent variable (Polluck, 2005). Table 4.12 details the results of the logistic regression analysis with the inclusion of the independent variables of age, race, gender, grade-level, and WIA program participation.

**Table 4.12**
**Binomial Logistic Regression Analysis of Independent Variables on Secondary School Dropout**

| *Variable* | *B* | *Std. Error* | *Wald* | *df.* | *Sig.* | *Exp(B)* |
|---|---|---|---|---|---|---|
| Constant | -8.662 | 1.410 | 37.740 | 1 | .000 | .000 |
| Race | -.045 | .087 | .268 | 1 | .605 | .956 |
| Gender | -.017 | .242 | .005 | 1 | .944 | .983 |
| Grade level | -.918 | .167 | 30.043 | 1 | .000 | .399 |
| Age | .993 | .139 | 51.101 | 1 | .000 | 2.698 |
| WIA Program | -.920 | .491 | 3.515 | 1 | .061 | .399 |

With the inclusion of the independent covariates of race, gender grade-level, age, and WIA program participation into an overall binomial logistic regression model the researcher found that age and grade-level were significant at $p < .05$ relative to secondary school dropout. Controlling for the other variables in the equation, age is positively related to dropping out, specifically that older youth in the model or more likely to drop out. Grade level had an inverse relationship, as grade level increased dropout rate decreased. As youth advanced in grade they had a decreasing likelihood of dropping out.

Gender and race were statistically insignificant at $p < .05$ and the null hypothesis could not be rejected for those variables.

The most significant finding in this binomial logistic regression model was that WIA participation was not statistically significant at $p < .05$. The p value for WIA participation was .061 just outside the significance level at $p < .05$. It appears the null hypothesis cannot be rejected. The direction of the relationship between WIA participation and drop out was inverse; meaning that as youth who participated in the WIA program were less likely to drop out of school, even when controlling for their individual characteristics. This finding was inconsistent with the chi-square analysis conducted previously.

Although it appears that the WIA program is marginally not a success, there still exists the possibility that there may be something else at work. One distinct possibility is that the WIA students are somehow different than the rest of the population. WIA program participation is voluntary. This raises the concern that bias could have occurred in the selection of youth participants (Rossi et al., 2004). At-risk youth who participated in the WIA program could have been inherently different from those that had not participated in the WIA program. The testing metric for both the treatment and comparison groups sought to identify what if any selection bias had occurred. To ensure that selection bias has not played a role in the demonstrated significance, the researcher included the independent performance variables for Reading and Math. The performance variables for Reading and Math were selected because they were the only consistent measures of performance that could be obtained for both the treatment and comparison

groups for the 2006 to 2008 program years. The Reading and Math scores have been included into the binomial logistic regression model in Table 4.13 below.

**Table 4.13**
**Binomial Logistic Regression Analysis of Independent Variables plus Performance on Secondary School Dropout**

| *Variable* | *B* | *Std. Error* | *Wald* | *df.* | *Sig.* | *Exp(B)* |
|---|---|---|---|---|---|---|
| Constant | -7.705 | 3.004 | 6.578 | 1 | .010 | .000 |
| Race | .033 | .169 | .038 | 1 | .845 | 1.034 |
| Gender | - .370 | .419 | .780 | 1 | .377 | .690 |
| Grade level | - .257 | .296 | .753 | 1 | .386 | .773 |
| Age | .522 | .147 | 6.003 | 1 | .014 | 1.685 |
| Math Score | 1.946 | 1.077 | 3.263 | 1 | .071 | 7.003 |
| Reading Score | -2.627 | 1.022 | 6.603 | 1 | .010 | .072 |
| WIA Program | - .622 | .718 | .751 | 1 | .386 | .537 |

With the inclusion of the independent performance variables of Math Score and Reading Score into the regression model, grade level is no longer statistically significant at the $p < .05$ level of significance. Further, in the previous model WIA program participation fell just outside of the statistically significant margin; with the inclusion of the performance variables WIA participation is far outside of the level of significance equaling .386. Only age continues to be significant. Most notably, when student abilities are included in the model, WIA participation has no impact on high school retention.[24] The implications of these finding are discussed in greater detail in Chapter 5.

[24] To address the possibility that the significance of WIA program participation from the logistic model could be impacted due to the treatment population having counts skewed toward grade 11 and 12 as

The researcher also conducted the Hosmer-Lemeshow test of statistical significance. The Hosmer-Lemeshow test compares the observed values in a model with the predicted values (Berman, 2007, p. 238). A good model should produce a statistically insignificant chi-square value for the test. According to the Hosmer-Lemeshow test of the model $\chi 2$ (8) = 7.888, p = 0.444; the data fit the model well.

## Analysis of Data

All computations for analyzing the data were conducted with Statistical Package for Social Science (SPSS). Logistic regression was used to measure the varying magnitude of correlation. The null hypothesis is rejected at the $p< 0.05$ level of significance. This evaluation was designed to address the following research question: To what extent did the At-Risk Youth program, implemented under the WIA, as applied in seven school districts in the southeast Arkansas Delta, meet program goals and objectives relative to secondary school dropout rate for the 2006-2008 program years?

In addressing the research question 6 hypotheses were informed by the theories presented in Chapter II of this evaluation. In this section each hypothesis was examined relative to the results of the statistical data analyses conducted previously in this chapter.

In examining Hypothesis 1 which states that there is a statistically significant relationship between participating in the At-Risk Youth program and lower rates of secondary school dropout when compared to similar youth who have not participated in

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indicated in Table 4.7, the researcher ran the regression model excluding grade 8. Next, the researcher ran the regression model excluding grade 8, 9, and 10. In each instance, program participation was not significant. Additionally, the researcher created a dummy variable, grade zone, which was constructed to determine if youth participating in the program were age appropriate to grade-level. Grade zone was not significant within the model. Participants appeared to be age appropriate for their grade-level.

the program; the null hypothesis could not be rejected. When examining the first logistic model, WIA program participation fell just outside of the statistically significant margin (Table 4:12); with the inclusion of performance variables, WIA program participation was not statistically significant (Table 4.13). As a consequence, there is not a statistically significant relationship between participation in the WIA program and reduced secondary school dropout.

In examining Hypothesis 2 which states that there is a statistically significant relationship for individuals who participate in the At-Risk Youth program; those individuals will have lower secondary school dropout rates than other youth of the same gender. The null hypothesis could not be rejected in this instance. Gender was not statistically significant in either of the two logistic regression models.

In examining Hypothesis 3 which states that there is a statistically significant relationship for individuals who participate in the At-Risk Youth program; those individuals will have lower secondary school dropout rates than other youth of the same race. The null hypothesis could not be rejected. In both logistic regression models race was not statistically significant.

In examining Hypothesis 4 which states that there is a statistically significant relationship for individuals who participate in the At-Risk Youth program; those individuals will have lower secondary school dropout rates than other youth of the same age. There was a statistically significant relationship found in the first logistic regression model (Table 4.12) and also the second regression model (Table 4.13) when the performance data were included. The null hypothesis was rejected.

In examining Hypothesis 5 which states that there is a statistically significant relationship for individuals who participate in the At-Risk Youth program; those individuals will have lower secondary school dropout rates than other youth at the same grade-level. The null hypothesis could not be rejected. In both logistic regression models (Tables 4.12 and 4.13) there was not a statistically significant relationship relative to grade-level.

In examining Hypothesis 6 which states that there is a statistically significant relationship for individuals who participate in the At-Risk Youth program, those individuals will have lower secondary school dropout rates when controlling for student ability. The null hypothesis could not be rejected. The logistic regression model that included student performance variables for reading and math (Table 4.13) found that there was not a statistically significant relationship relative to dropout and program participation.

## Chapter Summary

This chapter presented data gathered from the Youth Development Program and the Arkansas Research Service for youth populations that attended secondary school in the 7 school districts detailed in Appendix A for the 2006 to 2008 timeframe. The data was analyzed using a variety of quantitative statistical techniques. The chi-square analysis initially showed a relationship between WIA program participation and secondary school dropout. With the inclusion of WIA program participation into a broader logistic regression model which contained independent variables related to performance; WIA program participation was found to not be statistically significant.

# CHAPTER 5:
# FINDINGS, IMPLICATIONS, AND CONCLUSION

Rural communities in the Arkansas Delta are struggling economically (Gnuschke et al., 2008). The nature of this struggle indirectly leads to higher levels of poverty (Alspaugh, 1998; Hale, 1998; Martin et al., 2002). The youth piece of the Workforce Investment Act (the, "WIA"), was designed to combat poverty by reducing secondary school dropout.

This chapter summarizes the evaluation study. Previous chapters have outlined the impact of poverty on rural communities and governmental attempts to combat poverty by reducing secondary school dropout rates. The findings presented in Chapter IV build on previous research in the areas of poverty, program evaluation, and education policy. This chapter will compare the findings from the statistical analysis in Chapter IV. Practical considerations are explored to address the implications raised by the statistical analysis in this evaluation. The implications raised are examined in the literature and a rationale for additional areas of research articulated. The limitations of this study conclude the chapter.

## Findings and Implications of the Study

The primary aim of this evaluation study was to assess whether the WIA as implemented by the YDP in seven school districts in Southeast Arkansas met program goals and objectives relative to secondary school dropout rate for the 2006-2008 program years. The findings from this study initially indicated that a statistically significant relationship did exist between YDP program participation and decreases in secondary school dropout rate. When the chi-square analysis was conducted (Table 4.11) there was

a relationship found between YDP program participation and dropout rate. When the independent variable, program participation, was placed into a broader model with other independent covariates, (Table 4.12) a relationship between YDP program participation and secondary school dropout rate fell just outside of the statistically significant margin. Moreover, when performance data, in terms of grade adjusted Reading and Math scores, was introduced into the logistic regression model for both the comparison and treatment groups, (Table 4.13) the relationship between YDP program participation and secondary school dropout became statistically insignificant. This result suggests that selection bias had occurred during the 2006 to 2008 program years. The selection bias suggested in this study occurred either through participant self-selection or through administrative selection of participants.

A possible future area of research to explain the rationale around selection bias would focus on issues related to symbolic functionality within an agency and how it might impact implementation. There are a number of theoretical paradigms that policy scholars have used to explain the function of agencies as they attempt to implement social policy. Chief among these theorists are Lindblom (1959) and Lowi (1979) who articulated the combative nature of redistributive policies that agencies like those created under the WIA are a part (Tatalovich, Raymond & Byron Daynes, 2005). Some argue that agencies of this type seek incremental or symbolic implementation over actual social benefit (Van Horn, Baumer, & Gormley, 2001).

> "[A]dminstrative policies, either purposefully or unwittingly, are designed not to solve problems, but to appease or legitimate certain interests and to provide an institutional forum in which recognized interests can compete for influence over policy" (Van Horn et al. p. 106).

There is a tendency for public agencies to make only marginal changes (Van Horn et al., 2001). Further supporting this notion of incremental or symbolic implementation of the WIA youth piece in the Arkansas Delta are individual goal expectations that may conflict with the program goals of the WIA (Meyer & Zucker, 1989). Individuals within positions necessary for the successful implementation of the WIA in southeast Arkansas (YDP) may believe based on their position as a contract service provider that they have a vested interest in maintaining their position within the bureaucracy created by the WIA statute and may develop a concern relative to maintaining that position (Huse, 1980). According to research in the area (Kaufman, 1971; Meyers & Zucker, 1989; Van Horn et al., 2001) those who have vested interests within the WIA may feel threatened and be less likely to implement changes.[25]

When analyzing the influence of symbolic implementation it is important to understand the options available for dealing with problems in the public arena. "Bureaucracies engage in co-optive strategies to protect themselves and aid their survival." (Meier & O'Toole, 2006, p. 4). Thus, effective implementation of program goals can be viewed as marginal at best, from the perspective of the agency administrator, based on the assumption that program administrators are interested actors whose behavior "is likely to generate 'rent seeking' as opposed to public-interested action" (Meier & O'Toole, 2004, p. 4). Here 'rent seeking' refers to the symbolic functionality of interested administrative actors who will act only incrementally relative to program implementation. This incremental implementation strategy can be viewed another way from the perspective of individual goal expectations of administrative actors. These goal

[25] An example would be administrators and counselors working actively to reduce dropout rate thus lessening the need for the program.

expectations could create a vested interest, by YDP administrators and counselors, to maintain their position at the expense of overall program goals related to the youth program (Huse, 1980). Thus, YDP counselors, administrators, and staffers could keep program outputs below program goals so as to insure their continued employment within the agency. Further, implementers or WIA youth services may feel threatened and be less likely to implement changes (Kaufman, 1971; Meyers & Zucker, 1989; Van Horn et al., 2001).

In sum, symbolic implementation could be impacting the way in which services are delivered by the YDP in the seven school districts of the southeast Arkansas Delta. This constitutes an area for future research.

## Limitations

There are a number of limitations to this evaluation. This longitudinal evaluation study targets program years 2006-2008 and seeks to show how the WIA Youth Development Program performed during that time period. However, other external social factors could have impacted the relative effectiveness of the WIA intervention. Examples of those other factors include: youth involvement in other scholastic or after-school programs, a youth residing in a single family household, the contextual impacts of an economic downturn. These are just a few of the factors not accounted for in this evaluation and could be significant. Second, the evaluation studied only a small part of the youth program implemented under WIA in the seven school districts in southeast Arkansas. Future research should evaluate multiple contract service providers and more school districts. Another limitation concerns the survey instrument. The survey, which

gauged levels of self-efficacy among program participants, should be expanded to include all program participants within the treatment group and youth randomly assigned to the comparison group. A fourth limitation of this dissertation concern selection bias. Because selection into either the treatment or comparison group was not determined through random assignment, the research cannot determine whether or not bias played a role in the results of this evaluation. Future studies in this area should employ random assignment to account for this issue. A final area for future research would center on a matched comparison group design. A matched comparison group design could serve as additional verification as to the effectiveness of the YDP on dropout.

## Conclusion

This study used a quasi-experimental cross-sectional quantitative model to evaluate, over the 2006 to 2008 program years, the Youth Development Program, a contract service provider responsible for implementing youth related services under the Workforce Investment Act in seven school districts in the Arkansas Delta. The findings of this evaluation indicated that a statistically significant relationship did not exist between participation in the Youth Development Program and reduced rates of secondary school dropout. This evaluation explored the methods used for program selection and alludes to possible defects within the structure of the agency. This study recommends future research in those areas.

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# APPENDICES

## APPENDIX A

### Population
### Counties and School Districts List

| Counties | School Districts |
|---|---|
| | |
| Arkansas | Dewitt<br>Stuttgart |
| | |
| Jefferson | Dollarway<br>Pine Bluff<br>Watson Chapel<br>White Hall |
| | |
| Lincoln | Star City |
| | |
| **Total Counties = 3** | **Total School Districts = 7** |

## APPENDIX B

### Survey Protocol for Youth Participants
### An Evaluation Study of the Workforce Investment Act an its Impact on Secondary School Retention in Selected Delta Communities

Thank you for participating in this study. The purpose of this study is to identify ways in which your participation in the WIA program contributes to your academic success. By identifying these contributions we hope to improve the WIA youth program. Please answer the survey questions to the best of your ability.

Your participation is voluntary. You do not have to complete the survey if you do not want to.

Your name will never be used and your identity will be protected.

If you have questions or concerns about this study, you may contact Price Dooley or Bill Schrekhise at (479) 575-3356 or by e-mail at tdooley@uark.edu. For questions or concerns about your rights as a participant, please contact Ro Windwalker, the University's Compliance Coordinator, at (479) 575-2208 or by e-mail at irb@uark.edu.

Thank you very much for your time and input.

Cordially,

Price Dooley
Public Policy Ph.D. Candidate
University of Arkansas

## APPENDIX C

### Survey questions for program participants.

This youth evaluation document is designed to provide a brief and standard source of information about student perceptions of the youth program, program staff, and program instructors.

Date completed_____

Student Information

Number of years enrolled the youth program: _____

High School Classification: _____

1. I benefit academically from participating in this youth program.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

2. This youth program has been effective in helping me stay in school.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

3. I like the counselors that instruct me in the youth program.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

4. I go to school for the pleasure I get when I accomplish something.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

5. I feel that I am wasting my time in school.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

6. I participate in class discussions.

1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

7. I am motivated to do my school work.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

8. The teachers here respect me.

   1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

## APPENDIX D

## Data Code Book

*Codebook created 1/10/2010*

**General Characteristics**

Year – School year ending 2006, 2007, or 2008

LEA4 – the first 4 digits of the LEA (Local Education Agency), corresponds to a school district

County – one of the 10 counties requested

School – one of the 21 school districts requested

**County Code**

| |
|---|
| Arkansas = 1 |
| Ashley = 2 |
| Bradley = 6 |
| Chicot = 9 |
| Cleveland = 13 |
| Desha = 21 |
| Drew = 22 |
| Grant = 27 |
| Jefferson = 35 |
| Lincoln = 40 |

**School District**

No response = 99

| |
|---|
| Dewitt = 0101<br>Stuttgart = 0104 |
| Crosett = 0201<br>Hamburg = 0203 |
| Hermitage = 0601<br>Warren = 0602 |
| Dermott = 0901<br>Lakeside = 0903 |
| Cleveland County = 1305<br>Woodlawn = 1304 |
| Dumas = 2104<br>McGehee = 2105 |
| Drew Central = 2202 |

| |
|---|
| Monticello = 2203 |
| Poyen = 2703<br>Sheridan = 2705 |
| Dollarway = 3502<br>Pine Bluff = 3505<br>Watson Chapel =3509<br>White Hall = 3510 |
| Star City = 4003 |

**Race**

0 = No Response
1 = Asian or Pacific Islander
2 = Black
3 = Hispanic
4 = American Indian or Alaskan Native
5 = White

**Gender**

0 = female
1 = male

**Grade level**

99 = no response
00 = kindergarten
grades 01 to 12.

**Meal**

1 = Free
2 = Reduced
3 = Full-price Paid

**WIA**

0 = not in program
1 = in program

**Date of Birth**

Student age in birth year and month

**LEA – Local education agency**

Full 7 digit code - The first two digits represent the county, the second two digits represent the district, and the last three digits represent the individual school.

**Drop withdrawal code**

| | |
|---|---|
| 0 = N/A | 8 = Economic Hardship |
| 1 = Enrolled in another school | 9 = Pregnancy/Marriage |
| 2 = Incarcerated | 10 = Peer Conflict |
| 3 = Deceased | 11 = Enrolled in GED |
| 4 = Failing Grades | 12 = Alcohol/Drugs |
| 5 = Suspended or Expelled | 13 = Health Problems |
| 6 = Lack of Interest | 14 = Other |
| 7 = Conflict with School | 15= Early Graduates |

For the purposes of this evaluation study if the student withdrew for any reason that student was coded as having dropped out.

**Drop date**

If applicable, the date on which the student permanently withdraws from school.

**Individual ID**

An identifier assigned to the same student anytime the student appears in the data set, essentially a temporary entity (student) identifier with no value outside of this particular data set.

**APPENDIX G**

November 23, 2009

MEMORANDUM

| | |
|---|---|
| TO: | Price Dooley<br>Bill Schreckhise |
| FROM: | Ro Windwalker<br>IRB Coordinator |
| RE: | New Protocol Approval |
| IRB Protocol #: | 09-11-205 |
| Protocol Title: | *An Evaluation Study: Does WIA Impact Retention in Selected Delta Communities?* |
| Review Type: | ☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB |
| Approved Project Period: | Start Date: 11/20/2009 Expiration Date: 11/19/2010 |

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Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Compliance website (http://www.uark.edu/admin/rsspinfo/compliance/index.html). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

If you wish to make *any* modifications in the approved protocol, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 120 Ozark Hall, 5-2208, or irb@uark.edu.