JOBS FOR AMERICA'S GRADUATES: A SCHOOL-TO-CAREER PROGRAM

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The purpose of this study was to examine a school-to-career program created and operated by a non-profit called Jobs for America’s Graduates, Inc. (JAG). During the school year 2003-2004 they provided this service to 12,205 students in 426 schools and 21 states. Data was collected to measure the following: (a) were they successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) how many of the youth were still employed 12 months after graduation; and (c) did school demographic and socioeconomic factors affect JAG’s performance.

JAG is a 25 year old organization that works with at-risk youth to help them graduate from high school and move into gainful employment, further education or the military. They provide students with nine months of in school instruction, mentoring, career connections and 12 months of follow-up service. Data was collected by job specialists through job placement reports and 12 month follow-up reports. School demographic and socioeconomic information was collected via the Internet.

This study discovered that JAG students are graduating from high school at levels well above the national rates, attaining 90% graduation rather than the average of 68% (Swanson, 2004a). A year after graduation the data revealed similar good news: 25% were enrolled in college, 5% in the military and 55% were working full time. Another interesting revelation showed that neither high school socioeconomic or
A demographic factor affected the high school graduation rate for JAG participants, which is contrary to most current research.
ACKNOWLEDGMENTS

Once there was a little ole ant, thought he’d move a rubber tree plant. Everyone knows that ant, can’t, move a rubber tree plant....

It seems like such a long time ago and perhaps a dream away, but, I enrolled in the only course available for a certain time slot in my department, realized I had a fabulous professor and the rest is history. Dr. Michelle Wircenski, mentor, guiding light and committee chair has provided me with a backpack of goodies. Not only has she managed to infiltrate my life so profoundly, but everyone I come in contact with celebrates in someway the rewards of my Mickey encounters. The second most important woman in this dissertation journey has been my mom. Oh my mom, she held, played and rocked Samantha since birth, then dropped off copies for editors and committee members and passed away suddenly the day after she delivered my last revision.

The list of contributions could continue forever. There is my father who believed in my ability from day one. Two wonderful professors Dr. Jerry Wircenski and Dr. Michael Beyerlein both guided and inspired thoughts through classroom interaction and committee suggestions. Also, are three dear friends that cheered me on through all seasons: Janet Richardson, Donna McDowell and Jennifer Barnard. And of course, my little daughter, Sam, who I hope will always follow her dreams.

I would also like to pass on my sincere thanks to Dr. Jim Koeninger, Executive Vice President of Jobs for America’s Graduates, who made available both JAG data and access to key personnel, specifically John McConnell, without whom this journey would have been practically impossible to complete.
The final and most significant piece of the appreciation pie goes to my darling husband, Tony. He has managed to live with me and my research for the last five years. Not only has he been cleaning up after me, feeding me healthy dinners, using vacation time to watch Samantha, but loving and believing in me even when I didn’t. We celebrate the finality of this research as we look forward to the beginning of new possibilities.
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CHAPTER 1

INTRODUCTION

*The young generation constitutes the basis of a society’s future.*

*Lenin*

Background

Two defining events of a life are to successfully complete school and to build a prosperous future through work. However, one segment of society, at-risk or disadvantaged youth, often fails to accomplish either of these two actions. The social and emotional costs of leaving school early can be devastating for young people, their families, and their communities. Educators have been concerned over the last decade about why students drop out of the educational system and what the relative costs to society will be (Lerman, 2000). Currently, the high school graduation rate is estimated at 68% (Swanson, 2004a). According to Swanson (2004a), “Even more disturbing is the finding that little more than one-half of students from historically disadvantaged racial and ethnic groups finish high school” (p. 31). Swanson (2004b) also noted that “the situation appears to be even more dire for students in our nation’s largest high poverty urban districts, where as few as one-third of all students graduate” (p. 1). Compounding the problem for dropouts is their high rate of unemployment. Research has consistently shown that people with the fewest years of education suffer from the highest rates of unemployment and that workers who have failed to complete high school generally have unemployment rates 50% to 100% higher than the national average (McFate, Lawson, & Wilson, 1996).
This is a national crisis; more students are dropping out of school, and their high levels of unemployment are stifling communities and local economies (Freeland & Tucci, 2003; Sum 2004b).

Significance of Study

The focus of this study was to examine a school-to-career transition program that deals exclusively with the at-risk population. Jobs for America’s Graduates (JAG) is a 25-year old nonprofit organization that provides training and support within public schools to youth who face significant obstacles for graduating. JAG has scrutinized the types of barriers that at-risk students face when trying to graduate or find employment and uses this information as the selection criteria for participants in the School-to-Career program (see Appendix F). School administrators, guidance counselors, and teachers identify which students would benefit the most from the JAG course, and students are then selected based on their commitment to the program.

The primary objective of JAG is to provide young people with “relevant, interesting and personally rewarding learning experiences that will encourage them to stay in school and find jobs that fit their career interests and capabilities or to pursue postsecondary education” (Koeninger, n.d., p. 1). According to Koeninger, the secondary objective is to provide the community with “qualified, motivated and career-oriented entry-level employees” (p. 1). The ultimate goal is to provide at-risk youth with economic safety through education and training. Through the years, JAG has managed to tap into a portion of this at-risk pool of young adults and has helped over 500,000 participants transition into the labor market upon graduation.
The JAG model is based on years of testing and continuous improvement; this model is explained in detail in chapter 2. The essential elements of a JAG program include classroom instruction, employability skills training, adult mentoring, guidance and counseling, summer employment training, leadership development, job and postsecondary education placement services, linkages to school and community-based services, 12-month follow-up services, and professional development. These components are delivered to students through group and individual instruction, as well as a peer-to-peer conduit, the student-led career association.

This study had the following objectives: (a) to determine whether JAG was successful in helping students graduate, locate employment, or enter postsecondary education; (b) to analyze the job placement status of JAG participants 12 months after graduation; and (c) to discover the relationship between high school demographics or socioeconomic factors and JAG outcome measures.

Statement of the Problem

Annually, thousands of young people are dropping out of the education system to face a future of employment failures. This creates a burden on many, including employers who have untrained or uneducated employees; workers who have to support the unemployed through social and welfare programs; and society, which endures the costs incurred when people fail to meet their potential. JAG offers a program to help students with a disproportionate likelihood of academic and career failure called the School-to Career Transition Program. Therefore, the focus of this study was to analyze the JAG program across schools, states and other social and demographic factors to
determine whether they have any influence on the success of the JAG participants.

Purpose of the Study

The purpose of this study was (a) to determine whether Jobs for America’s Graduates, Inc. (JAG) was successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) to analyze the job placement status of JAG graduates 12 months after graduation; and (c) to determine whether high school demographic and socioeconomic factors affect JAG’s performance.

Theoretical Framework

The framework for this study is based on evidence that if individuals can be helped to achieve their academic potential there would be far-reaching social and economic advantages (Karoly & Panis, 2004; Rothstein, 2004; Schweke, 2004). The costs to society swell when students drop out of high school because the chances of finding employment that generates livable wages worsen when students are undereducated. “In principle, everyone agrees that any society which is unable to provide productive employment for its new generations is historically doomed” (UNESCO, 1977, p. 43).

Rosenbaum (2002) stated that high school is often the last societal institution that all students attend; therefore, the high school must be the one place where young people are prepared for productive careers. He argued that if schools fail, youths will have difficulty becoming self-sufficient adults; in fact, many spend 2 to 10 years floundering in dead-end, high-turnover jobs, with numerous spells of unemployment and strong enticements to criminal activity. Additional studies have shown a clear link
between youth unemployment and social exclusion; basically, an “inability to find a job creates a sense of vulnerability, uselessness, and idleness among young people and can heighten the attraction of engaging in illegal activities” (Elder & Schmidt, 2004, p. 2). Schweke (2004) observed, “About 82% of all Americans in prison are high school dropouts, and it costs an average of $20,000 annually to maintain each prisoner” (p. 13). Economist Richard Freeman’s research has indicated that the social costs of crime and incarceration are so high that almost any public intervention would pass a cost-benefit test (as cited in Schweke, 2004). The average cost to implement the JAG School-to-Career program is approximately $1,200 to $1,600 per participant, which includes 9 months of in-school instruction and 12 months of follow-up services.

According to Nobel laureate Amartya Sen (1997) the emotional side of unemployment can be felt by the entire society when there are millions of people who want to work but have neither the skills nor knowledge. Additional studies of JAG could provide insight into programs that are used to help at-risk students stay in school and strategies for helping them secure employment.

The following were the hypotheses for the present study:

Ho1. There is no statistically significant difference in the graduation rates for students in the JAG program between states.

Ho2. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation.

Ho3. There is no statistically significant difference in the employment, military
service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation by state.

Ho4. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate among different ethnic groups within the JAG student population.

Ho5. There is no statistically significant correlation between graduation rates for JAG seniors and minority enrollments of the school.

Ho6. There is no statistically significant correlation between graduation rates for JAG seniors and the Title 1 status of the school.

Limitations

The sample in this study was not random and relied on self-report data from JAG participants. Furthermore, limited resources were available for JAG program specialists to collect data on participants; therefore, some data might be missing or not available. Only responses from students who were contacted by phone calls and/or interviews will be included in the 12-month follow-up reports. There are no methods in place to control for both the labor market and economy, which varies from state to state at the time of graduation.

Delimitations

This study was limited to students labeled as at-risk who participated in the JAG School-to-Career program during the school year 2003-2004. Only high schools that offered this particular JAG program were included.
Assumptions

Data collected by JAG will be valid and representative of JAG students. Students selected from the different states will be similar in backgrounds and educational attainment. It was assumed that data collected directly from students at their 12-month follow-up will be honestly and accurately provided. Furthermore, it was assumed that all JAG students had the same services available to them and used them in a similar manner.

Definition of Terms

At-risk youth — term applied to students who are at risk of educational failure due to extenuating circumstances.

Barriers — obstacles a student might face when trying to graduate or find a job.

Competency reports — a student’s detailed record of completed competencies.

Core competencies — the 37 instructional modules that students must complete in the dropout program. These teach a variety of knowledge, skills, and behaviors that JAG and employers have deemed important in finding and holding a job.

Curriculum — a plan of instruction that details what students need to know and how best to deliver the material for the JAG core competencies.

Disconnected youth — the description often used for out-of-work or school youth.

Dropout prevention programs — those that serve young people who are likely to drop out of school before graduation.

electronic National Data Management System — eNDMS, database for JAG that tracks students’ progress through competency completion, job placement, and other
measurements that are utilized by the nonprofit.

High school — a secondary school offering the final years of education necessary for graduation; usually includes Grades 10 through 12.

Jobs for America’s graduates — JAG, a nonprofit program operating in over 27 states and the United Kingdom. The students served by this program are selected based on the types of barriers they face in graduating from school and finding work.

Labor force — the number of people aged 16 or older who are either working or looking for work. This does not include members of the active-duty military or institutionalized workers.

Modules — individual pieces of the competencies that make up the JAG curriculum.

Job placement reports — detailed records kept concerning the placement of students from the JAG program. These describe the type of industry, employer distribution, job classification, and other details.

School-to-career transition — on-the-job training, apprenticeships, cooperative education agreements, or other such programs designed to prepare students to enter the job market.

Specialists — individuals who provide instruction and guidance to participants in the JAG school-to-career program.

Technical/career centers — education programs that focus on training students for workforce preparation.
Title 1—federal funds used by school districts to help disadvantaged students by narrowing the gap between high-poverty and low-poverty schools.

Twelve-month follow-up report—detailed report that records a student’s activities for the year following graduation, including changes in status by tracking work history, wages, hours worked, and promotions received.

Vocational education—educational programs or services that help prepare people for employment.

Summary

The United States faces a daunting situation, with large numbers of young people dropping out of school and expanding the unemployment rolls. The greatest percentages of these dropouts are youth who fall into the at-risk category. This segment of society often comes from low socioeconomic and disadvantaged backgrounds and has many obstacles to surmount before graduating from high school, finding a job, and starting college or a training program. According to Gabbard (2000), states that at-risk youth are products of their environments and face many obstacles to leading a productive life. Some of the hurdles these youth must deal with include: broken homes, parents who failed to graduate and are unemployed, homelessness, lack of motivation, low academic performance, living in crime-ridden neighborhoods, having a low socioeconomic status, being a minority, suffering from poor health, and having inadequate housing.

One of the most important ways to address this problem is to help young people graduate and provide them with tools for entering and sustaining their place in the
workforce. Preparing students for their future with job-readiness training and improved personal skills is the aim of JAG’s School-to-Career program. In a country where youth unemployment is high and at-risk students are affected the most, JAG attempts to address this imbalance.

The remainder of this study includes chapter 2, which contains a discussion of the literature related to at-risk young people, youth unemployment, and the Jobs for America’s Graduates’ School-to-Career program. Chapter 3 describes the research methodology used to gather and analyze the data. Chapter 4 contains the data findings and analysis, and chapter 5 sets forth the discussion, conclusions, and recommendations.
CHAPTER 2
LITERATURE REVIEW

This chapter reviews literature relating to at-risk youth and the defining characteristics exhibited by this group. The focus then moves to the high cost of youth unemployment, exploring this from the context of both economic and social costs. Finally, attention shifts to Jobs for America’s Graduates (JAG), a nonprofit organization that helps to remove the barriers to graduation and employment that many disadvantaged youths encounter. High youth unemployment and weak systems of career preparation are continuing concerns for a modern society, according to Lerman (2000). Vernez, Krop, and Rydell (1999) observed that “the social and emotional costs of uneducated and jobless youths are too great and the disproportionate impact on individuals with little or no education can be seen in the unemployed lines” (p. 25).

The purpose of this study was (a) to determine whether JAG was successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) to analyze the job placement status of JAG graduates 12 months after graduation; and (c) to determine whether high school demographic and socioeconomic factors affect JAG’s performance. If the United States truly cannot afford an unprepared, unproductive, or unemployed workforce, perhaps JAG’s program can help in identifying a defined and repeatable way of reducing the risk of this undesirable outcome.

The following were the hypotheses for the present study:

Ho1. There is no statistically significant difference in the graduation rates for
students in the JAG program between states.

Ho2. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation.

Ho3. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation by state.

Ho4. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate among different ethnic groups within the JAG student population.

Ho5. There is no statistically significant correlation between graduation rates for JAG seniors and minority enrollments of the school.

Ho6. There is no statistically significant correlation between graduation rates for JAG seniors and the Title 1 status of the school.

At-Risk Youth

At-risk youth have been identified as a group for many years and were originally branded “lower class” until American sociologists became uncomfortable with that label and new euphemisms such as disadvantaged, at-risk, inner-city, or students of “low socioeconomic status” became in vogue (Rothstein, 2004). According to Rothstein, “The occupational, psychological, personality, health and economic traits that make up the family of at-risk youth differ significantly from families of higher classes” (p. 4).
“What conditions predict whether a student will be at risk or dropout before graduation?” is the question that researchers Druian and Butler (1987) explored. The factors they uncovered were based on demographic, socioeconomic, and institutional characteristics, including the following: living in high-growth states, being a member of a low-income family, having parents who are not high school graduates, being single-parent children, and having a negative self-perception. The National Dropout Prevention Center (2005) wrote that, “At any given time in a student’s life he/she can become at-risk of dropping out of the education system as this multidimensional concept has no rules.” They have categorized circumstances that put students at risk in the following ways: individual-rated (friends have dropped out and poor school attitude); family-rated (low socioeconomic status, low parental involvement, and high mobility); school-rated (lack of adequate counseling, disregard of student learning styles and passive instructional strategies); and community-related factors (lack of school and community linkages meaning that schools need to enter into collaborative arrangements with health and social service agencies and other relevant organizations to bring resources to these youth) (National Dropout Prevention Center, 2005). The U.S. Department of Education (2005) described students to be at-risk for educational failure because of several factors, including English proficiency, poverty, race, geographic location, or economic disadvantage.

Socioeconomic segregation, a leading indicator of who is at risk, is a stubborn, multidimensional, and deeply important cause of educational inequality (Orfield & Lee, 2005, p.5). The National Center for Children in Poverty (NCCP, 2005) reported on the
state of youth from birth to 18 for the year 2003; their findings are that 27 million children (38%) live in low-income families and more than 11 million (17%) live in poor families. A family of four is classed as low-income if annual household income is at or near $38,700 a year, with a poor family of four having an annual salary of $19,350.

Within low-income families, 50% are headed by single parents; 20% of children live with parents who have less than a high school education; and 36% of children live with parents who have only a high school diploma. Minority children are affected disproportionately in these figures as well: 62% of Latino children and 60% of Black children live in low-income families. The geography of low-income children is broken down as follows: 43% of all children in the South; 40% of all children in the West; 33% of all children in the Northeast; and 33% of all children in the Midwest. These details draw attention to the large number of children who fall under at least one of the conditions associated with at-risk youth. In addition to having socioeconomic issues, researchers Orfield and Lee (2005) recognized that the most important issue with disadvantaged children is the level of concentrated poverty at their school. Rothstein (2004) observed that, on the whole, those children from lower classes as well as many racial and ethnic minorities will achieve less than will middle-class children.

Understanding the challenges faced by the at-risk population is paramount to helping them go through the education system and successfully transition into the labor market. Young persons who fit into any of the above categories and find themselves on this trajectory of malfunction often fail to complete high school only to begin a life
marked by poverty, unemployment, and crime. Schorr pointed out that “high school dropouts are three and a half times as likely as high school graduates to be arrested and six times as likely to be unwed parents” (as cited in Olson, 1997, p.17).

The High Costs of Youth Unemployment

Unemployment affects individuals in many different ways, ranging from the noticeable fiscal consequences to the less obvious psychological implications. Besides the unemployed individual, families and communities also suffer when work is not available. The International Labour Organization (2004) has estimated that around 88.2 million young women and men (15 to 25 years of age) are unemployed throughout the world, accounting for 47% of all the unemployed persons globally. Sen (1997) observed that unemployment decreases the national output and increases the share of the output that must be devoted to income transfers. This simply means that there are fewer workers to pay into a tax system, leaving a greater burden on employees and businesses.

Sum (2004b), at the Center for Labor Market Studies, stated that in 2003, only 35% of high school dropouts were employed. Freeland and Tucci (2003) observed that “what’s most alarming about this trend is how high school dropouts are faring in the contemporary economy in 2004 . . . 5.5 million youth between the ages of 16 and 25 are unemployed, . . . 2.2 million of them are high school dropouts” (p. 42). In fact, according to Mangum and Walsh (1978), the consequences of youth unemployment are profound and far reaching. They are usually condemned to a life of low-paying jobs where employer benefits are scarce.
A recent study in the U.K. concurred with other scholars on the devastation that youth unemployment can cause. Gregg and Tominey (2004) found that youth unemployment imposes a sizeable wage scar that can last in excess of 10 years, and this assumes that no other spell of unemployment occurs within that timeframe.

The psychological implications of unemployment on youth are numerous. Communities that house jobless youth are often infested with high crime, lack of adequate medical care, and fewer social services. Fryer’s (1995) studies revealed that anxiety, depression, dissatisfaction with one’s present life, experienced strain, negative self-esteem, hopelessness regarding the future, and other negative emotional states have been demonstrated in studies to be higher in unemployed than in employed people. In addition to those ailments the vicious cycle of not being able to break out of poverty can lead to further despair and hence make criminal activity more appealing. Jobs for America’s Graduates (JAG, 2005) stated that young people in prison are most likely to be school dropouts. In 1997, of state prison inmates, 68 percent, failed to graduate from high school and 75% of young people under 18 in adult prisons had not completed 10th grade (Wald & Losen, 2003).

It is for these reasons that a society should be compelled to seek more effective methods to help students graduate from school. The Youth Employment Network (2004) has said that a generation without the hope of stable employment is a burden for all of society and that poor employment in the early stages of a young person’s career can harm job prospects for the whole of his or her life.
Jobs for America’s Graduates

Education, self-exploration, and work are vital to a person's lifetime economic prospects and also to his or her talent and interest development. Jobs for America’s Graduates (JAG) is a nonprofit program that has aimed to improve the employability and earnings potential of at-risk youth for 25 years. It is tailored to aid students who face significant barriers to academic (high school diploma or GED) and career success (securing an entry-level job leading to a career). The selection process for participants begins with identifying the types and magnitudes of the potential stumbling blocks a student might face. “Research has shown that those who come from one parent families, . . . live in low-income groups, have below average academic achievement and have limited work experience during high school are most likely to experience severe employment and earnings problems” (JAG, 1993, p. 6.10). JAG has categorized these barriers into groups: (a) academic, (b) personal, (c) environmental, and (d) income and work related (see Appendix F). Students are then interviewed and selected by school personnel (an advisory committee) and JAG specialists.

The JAG model provides eight levels of service to each learner. The first is classroom instruction in which specialists teach employability competencies from the JAG national curriculum in both classroom settings and one-on-one. The basis of the curriculum is a set of lessons designed to teach a broad range of employability skills. The second area involves adult mentoring by a specialist. The third are opportunities for both guidance and counseling for career and life decisions based on a student’s needs. The fourth element is the summer employment training program, which is a
vehicle to place students in summer jobs. The Career Association, the fifth component, provides both leadership training opportunities and community service development. The sixth component is job and postsecondary education placement services under the direction of the JAG specialist. The seventh component is the linkages to school and community services; JAG provides a “one-stop center” to ensure that participants receive academic and social services. The eighth and last part of this program is the 12-month follow-up services in which students are contacted monthly and supported on the job or while pursuing postsecondary education. The fundamental objectives that JAG strives to accomplish are for students to finish school and obtain a quality job or further their education. According to Carr, Wright, and Brody (1996), for some young people, the work experience they acquire during adolescence has a positive effect on later employment status and earnings.

The JAG curriculum focuses on a series of job-related competencies that have been developed in cooperation with the private sector and validated on a regular basis. A survey of employers (400 firms in the service, manufacturing and nonprofit and government sector) conducted in 2003 found that the most important qualities sought were communication skills, honesty and integrity, interpersonal skills, motivation and initiative, a strong work ethic and teamwork skills, in that order (Rothstein, 2004).

Competencies in the JAG program include the following sections: Career Development, Job Attainment, Job Survival, Basic Communication, Leadership and Self Development, Personal Skills, Life Survival Skills and Work Place (see Appendix E). Each module consists of six activities that have a 6 to 10 hour implementation schedule
for the classroom: instructional outline; facilitated learning activities, pre-and post-assessments, student worksheets, and math and reading activities.

One of the benefits of the JAG curriculum is that lessons are intended to deliver noncognitive types of information that are not usually part of a school’s agenda. Rosenbaum’s (2002) analysis of national high school and beyond data indicated that students’ earnings 9 years after graduating from high school are significantly affected by their noncognitive behaviors in high school – their sociability, discipline, leadership, and attendance – even after controlling for background characteristics and academic achievement. If an individual’s likelihood of career success depends so much on these noncognitive competencies, there should be some benefit to a program that increases awareness and development of these important social skills. One of the essential elements of the JAG program is to develop and foster these basics.

In addition to teaching participants important skills, each school specialist actively markets the JAG program to local businesses for student resources and job placement. “Students who got jobs through school help had better career trajectories. Nine years after graduating, they had 17% higher earnings than students who got jobs through direct applications” (Rosenbaum, 2002, p. 14). JAG research shows that its graduates have increased earnings by more than 20% in the first year and nearly 50% for minority youths (JAG, 1993, p. 3.3). According to Sum (2004a), the need for comprehensive, school-to-career transition services for high school students, such as those provided by the JAG program, is greater than at any time since the early 1980s when the national JAG network was established.
Why JAG Works

Recently, J.E. Koeninger, executive vice president of JAG (personal communication, December 4, 2005) was asked what factors contribute to the success of this program. According to Koeninger, these factors are as follows;

Accountability – meaning that specialists have several clearly defined responsibilities; helping students complete the program, delivering training, and tracking outcomes. A statewide strategy – setting up nonprofits within each state to direct programs there; these are managed by local board of directors.

Visionary leadership – the founder of JAG, Ken Smith and the board of directors have clear visions to help at-risk youth succeed in the marketplace. Numerous funding sources that are committed to serving at-risk youth. Technical assistance provided by the staff and consultants. Participating of governors, school personnel, and employers who support the program model. Low cost per participant. High level outcomes and a 90% graduation rate. Finally, national staff development events – training seminars, workshops and development programs. National curriculum that focuses on experiential learning methods, cognitive learning styles and continuous assessment.

Summary

In a perfect world, students would stay in high school and find a satisfying job when they graduate. However, researchers Karoly and Panis (2004) have reported that it is not necessarily the number of years a student attends school that equates with the
types of skills that workers need. The “United States can still prosper in a world where its labor costs are higher than the competition’s, but it cannot do that if the cheaper workers abroad are also better educated. Business leaders warn that this country could become a third-rate economic power” (“Back to School, Thinking Globally,” 2005).

In a perfect world, productivity would be a buzz word that all employers bragged about, and people would be able to live “a better life” based on their hard work and effort. JAG is one of the answers to the youth unemployment and dropout crisis. Its program provides alternatives for at-risk populations while teaching skills for success in the labor force. It is the goal of JAG to secure this benefit for its students and thus provide that first stepping-stone to future prosperity for those most at risk.
CHAPTER 3

METHODOLOGY

Overview

The purpose of this study was (a) to determine whether Jobs for America’s Graduates, Inc. (JAG) was successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) to analyze the job placement status of JAG graduates 12 months after graduation; and (c) to determine whether high school demographic and socioeconomic factors affect JAG’s performance.

This chapter describes the design of the study and provides a description of the procedures used in collecting and analyzing the data as well as a summary. The JAG organization has given permission for the use of the available program data used in this study. The following were the hypotheses investigated:

Ho1. There is no statistically significant difference in the graduation rates for students in the JAG program between states.

Ho2. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation.

Ho3. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation by state.

Ho4. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate among
different ethnic groups within the JAG student population.

Ho5. There is no statistically significant correlation between graduation rates for JAG seniors and minority enrollments of the school.

Ho6. There is no statistically significant correlation between graduation rates for JAG seniors and the Title 1 status of the school.

Ethical Standards

Participation in this study was voluntary, and subjects were not exposed to any unreasonable discomforts, risks, or violations of their human rights. Approval to conduct this study was obtained from the Institutional Review Board at the University of North Texas (see Appendix D). By requirement of the review board, the participating organization will sign a letter of Informed Consent (see Appendix A). As shown in Table 1, the population of this study will consist of all senior high school students who were enrolled in an active JAG School-to-Career program in the following states during the school year 2003-2004:
<table>
<thead>
<tr>
<th>State</th>
<th>No. of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>24</td>
</tr>
<tr>
<td>Arizona</td>
<td>5</td>
</tr>
<tr>
<td>Arkansas</td>
<td>10</td>
</tr>
<tr>
<td>California</td>
<td>19</td>
</tr>
<tr>
<td>Connecticut</td>
<td>5</td>
</tr>
<tr>
<td>Florida</td>
<td>15</td>
</tr>
<tr>
<td>Georgia</td>
<td>24</td>
</tr>
<tr>
<td>Kentucky</td>
<td>6</td>
</tr>
<tr>
<td>Louisiana</td>
<td>15</td>
</tr>
<tr>
<td>Maine</td>
<td>32</td>
</tr>
<tr>
<td>Minnesota</td>
<td>6</td>
</tr>
<tr>
<td>Mississippi</td>
<td>32</td>
</tr>
<tr>
<td>Montana</td>
<td>10</td>
</tr>
<tr>
<td>Ohio</td>
<td>143</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>7</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 (continued).

<table>
<thead>
<tr>
<th>State</th>
<th>No. of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>34</td>
</tr>
<tr>
<td>Virginia</td>
<td>14</td>
</tr>
<tr>
<td>West Virginia</td>
<td>25</td>
</tr>
</tbody>
</table>

Sample

The unit of analysis in this study was senior high school students enrolled in the JAG School-to-Career program for the school year 2003-2004 from 19 states. The total sample size was 9,912. These students received 9 months of services in addition to 12 months of post-graduation follow-up services.

Instrumentation

The instruments used to collect data from JAG students are the job placement (Appendix C) and 12-month follow-up reports (Appendix B). Job specialists at each JAG-affiliated school record student information into the electronic National Data Management System (e-NDMS).
The job placement report gives explicit detail regarding employment, postsecondary training, or military service after graduation. The 12-month follow-up report (see Appendix B) is tracked on a monthly basis by the specialist and is intended to capture the number of graduates who have progressed in their careers, education, or the military.

Institutional Review Board

This proposed study was submitted with the IRB application on-line via the UNT IRB Web site for review and approval (see Appendix D).

Reliability and Validity

The JAG reports do not warrant a formal measure of reliability in the classical sense. Huck (2000) described reliability as consistency. He noted that researchers can and do evaluate the reliability of their instruments from different perspectives, but that the basic question cutting across these various perspectives (and techniques) is always the same: To what extent can we say that the data are consistent? All JAG specialists consistently record the student information with the use of e-NDMS. JAG is federally funded and is required to report data in an accurate and consistent matter. Data will be drawn from these reports for this study.

Face validity was established by JAG's content experts, Andrew Sum and Jim Koeninger. Sum is the director of the Center for Labor Market Studies at Northeastern University and a tenured full professor in the Department of Economics. Koeninger has been involved with JAG since its inception in 1980 and serves as executive vice president of JAG. In addition, JAG used a panel of judges to assure content validity. The
panelists are usually managers/supervisors or e-NDMS training facilitators across the JAG National Network.

Data Collection

The data for this study were provided and collected by Jobs for America’s Graduates, Inc. (1729 King Street, Suite 100, Alexandria, VA 22314, (703) 684-9479, contact – Jim Koeninger, Ph.D.). JAG specialists collect student data through face-to-face and telephone interviews and then record the details in the e-NDMS system. The JAG specialist at each high school also conducts a 12-Month Follow-up survey and records data in the e-NDMS system. The researcher obtained demographics through telephone interviews and school Web sites.

Analysis of Data

This study used descriptive and nonparametric tests to analyze JAG impact variables on high school students. The data collected and sampled for the purpose of this study were analyzed using the Statistical Package for the Social Sciences (SPSS) version 14. The following are the hypotheses tested:

Hypotheses

Ho1. There is no statistically significant difference in the graduation rates for students in the JAG program between states.

Ho2. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate between JAG graduates and nongraduates one year after graduation.

Ho3. There is no statistically significant difference in the employment, military
service status, or enrollment in a postsecondary institution rate between
JAG graduates and nongraduates one year after graduation by state.

Ho4. There is no statistically significant difference in the employment, military
service status, or enrollment in a postsecondary institution rate among
different ethnic groups within the JAG student population.

Ho5. There is no statistically significant correlation between graduation rates for
JAG seniors and minority enrollments of the school.

Ho6. There is no statistically significant correlation between graduation rates
for JAG seniors and the Title 1 status of the school.

The procedures used to investigate the above six hypotheses were as follows:

Ho1. was measured by using chi-square analysis. Huck (2000) noted that “a chi-square
test of independence is simply a test to see whether a relationship (or association)
exists between the study’s two variables” (p. 626). This nonparametric statistical test is
used to determine whether research data are distributed differently for different
samples (Gall, Borg & Gall, 1996). The chi-square test tells whether scores on the two
variables are independent or related. This is a parametric procedure that analyses a
single independent variable against a single dependent variable. The first hypothesis
will examine the entire data set to test whether or not there is a difference in the
graduation rates among states. The independent variable was states, and the
dependent variable was graduation rate.

Ho2., Ho3, and Ho4 were investigated using chi-square analysis. The second
hypothesis examined the differences in the levels of employment, career advancement,
or enrollment in another educational institution between JAG graduates and nongraduates. The independent variables were JAG graduates and nongraduates, and the dependent variables were follow-up reports. The third hypothesis was identical to the second except that each state will be analyzed independently. The fourth hypothesis is similar to the second and third but looked at the difference among ethnic groups.

Ho5 and Ho6 were investigated by using a linear regression. The fifth hypothesis examined whether there was a difference between the graduation rates and the percentage of minority students at the school. The last hypotheses checked whether there was a difference between graduates and the Title 1 status of their schools.

Summary

This study involved the testing of six hypotheses using chi-square and linear regression. The independent variables included states, JAG graduates and nongraduates, ethnicity of JAG students, minority population, and Title 1 status of schools. The dependent variables included graduation rates and job/education improvements. The population of interest will include all school to career students \((n=9912)\) enrolled in an active school-to-career program in 19 states for the school year 2003-2004. The instruments used to collect data were the job placement and 12-month follow-up reports.
CHAPTER 4

FINDINGS

Overview

The purpose of this study was (a) to determine whether Jobs for America’s Graduates, Inc. (JAG) was successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) to analyze the job placement status of JAG graduates 12 months after graduation; and (c) to determine whether high school demographic and socioeconomic factors affect JAG’s performance.

This chapter includes the following sections: (a) Population of Interest, (b) Study Data and Statistical Analysis, (c) Analysis of Hypotheses, and (d) Summary. The Population of Interest section describes the number and make-up of the JAG School-to-Career program for the 2003 graduating class. The Study Data and Statistical Analysis section describes the data collected to support this study and describes the methods and tools used to analyze the data. The Analysis of Hypotheses section contains the results of the statistical analyses performed on the data sample and a notation about whether the null hypotheses had been retained or discarded. The data and results for each hypothesis are discussed following the stated hypotheses. SPSS 14 was used for all statistical analyses. An alpha level of .05 was used for all statistical tests. The analysis for Hypotheses 3 and 4 includes the results of a post hoc analysis. The Summary section provides a précis of the content of Chapter 4.
Population of Interest

The population for this study was 12,205 students in 21 states enrolled in the JAG School-to-Career program for 2003. The sample for this study consisted of 9,912 students for whom follow-up data was collected in the 12 month period following graduation. Illinois ($n = 2,239$) and Wisconsin ($n = 14$) were excluded from the study as no follow-up data were available due to withdrawal of the funding for the JAG program in these states during this period. The sample participants came from 426 schools in 19 different states (see Table 1, page 25).

The JAG program collected follow-up reports monthly for the graduates. However, for the May 2004 period, only 6,193 students could be tracked (62% of the sample). The remaining 3,718 students could not be reached. Students were provided similar services and curricula in all schools. The 2003 graduation rate for the program was 89.9% ($n = 9,912$). A majority of students (55%) were females; the ethnic mix was primarily Caucasian (49%) and African American (39%), with American Indian, Asian, Hispanic, Multi-Racial and Other making up the remaining (12%). Almost half of the students were eligible for a free or subsidized lunch program (45%) (see Table 2 below).
<table>
<thead>
<tr>
<th>Demographic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>5,443</td>
<td>55</td>
</tr>
<tr>
<td>Male</td>
<td>4,468</td>
<td>45</td>
</tr>
<tr>
<td>Caucasian</td>
<td>4,861</td>
<td>49</td>
</tr>
<tr>
<td>African America</td>
<td>3,890</td>
<td>39</td>
</tr>
<tr>
<td>Hispanic</td>
<td>724</td>
<td>7</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>169</td>
<td>2</td>
</tr>
<tr>
<td>Asian</td>
<td>115</td>
<td>1</td>
</tr>
<tr>
<td>American Indian</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Other/No Response</td>
<td>101</td>
<td>1</td>
</tr>
<tr>
<td>Free Lunch</td>
<td>3997</td>
<td>40</td>
</tr>
<tr>
<td>Not Eligible</td>
<td>4666</td>
<td>47</td>
</tr>
<tr>
<td>Subsidized Lunch</td>
<td>514</td>
<td>5</td>
</tr>
<tr>
<td>Other/No Response</td>
<td>735</td>
<td>8</td>
</tr>
</tbody>
</table>
In coding the JAG participant data for analysis it was decided to treat all part-time workers as working; it was also decided that if a participant was both employed (part-time or full-time) and engaged in education activities, that the students would be classified as working.

**Study Data and Statistical Analysis**

This study used 12-month follow-up reports and job placement summaries (see Appendixes B & C) to track students’ work or military service and further education status. The Center for Interdisciplinary Research and Analysis at the University of North Texas assisted in coding and analyzing the data for this study. The data were evaluated using SPSS 14. Testing of the first four hypotheses was accomplished using chi-square test of independence; the alpha level was set at .05. The fifth and sixth hypotheses utilized a simple linear regression. For all post hoc tests, a Bonferroni-corrected alpha was applied ($\alpha / n$ post hoc tests) to control for experiment-wise error.

Due to the way that the data were analyzed for Ho3 and Ho4 there are circumstances where the expected frequencies are less than 5. According to Huck (2000), “The most conservative of rules says that none of the expected frequencies should be smaller than 5; the most liberal rules stipulates that chi-square can be used so long as the average expected frequency is at least 2” (pp. 634-635). Steps were taken to improve the expected frequencies for Ho3 and Ho4 by combining work statuses and eliminating student results where work status was unknown.
Analysis of Hypotheses

Ho1. There is no statistically significant difference in graduation for students in the JAG program between states.

A chi-square test using states (AL, AR, AZ, etc.) as the independent variable and student graduation status (drop out/graduate) as the dependent variable demonstrated that there was a statistically significant difference in the graduation rates for students in the JAG program between participating states $\chi^2 (18, N = 9912) = 275.04, \ p < 0.05$. Rhode Island, for example had a graduation rate of only 71% compared to an overall rate of 90%. Table 3 below shows the variance between the states regarding the dropout and graduate status. The null hypothesis was discarded.
Table 3

*Student Graduation Status by State*

<table>
<thead>
<tr>
<th>State</th>
<th>$n$</th>
<th>% drop out</th>
<th>% graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>535</td>
<td>16</td>
<td>84</td>
</tr>
<tr>
<td>AR</td>
<td>143</td>
<td>6</td>
<td>94</td>
</tr>
<tr>
<td>AZ</td>
<td>340</td>
<td>6</td>
<td>94</td>
</tr>
<tr>
<td>CA</td>
<td>480</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>CT</td>
<td>188</td>
<td>4</td>
<td>96</td>
</tr>
<tr>
<td>FL</td>
<td>544</td>
<td>14</td>
<td>86</td>
</tr>
<tr>
<td>GA</td>
<td>916</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>IA</td>
<td>41</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>KY</td>
<td>68</td>
<td>1</td>
<td>99</td>
</tr>
<tr>
<td>LA</td>
<td>531</td>
<td>19</td>
<td>81</td>
</tr>
<tr>
<td>ME</td>
<td>594</td>
<td>4</td>
<td>96</td>
</tr>
<tr>
<td>MI</td>
<td>105</td>
<td>3</td>
<td>97</td>
</tr>
<tr>
<td>MS</td>
<td>534</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>MT</td>
<td>74</td>
<td>3</td>
<td>97</td>
</tr>
<tr>
<td>OH</td>
<td>3015</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>RI</td>
<td>217</td>
<td>29</td>
<td>70</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 3 (continued).

<table>
<thead>
<tr>
<th>State</th>
<th>n</th>
<th>% drop out</th>
<th>% graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>TN</td>
<td>768</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>VI</td>
<td>420</td>
<td>3</td>
<td>97</td>
</tr>
<tr>
<td>WV</td>
<td>399</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>9912</td>
<td>10</td>
<td>90</td>
</tr>
</tbody>
</table>

In order to arrive at a measure of the degree of association between state and graduation status a Cramer’s V value of 0.167 was calculated (see Table 4 below). The square of the Cramer’s V value can be interpreted as the amount of variance of the variable graduation status that has been explained by state, or simply how good a predictor state membership is of graduation status. This would indicate that there are one or more variables still undetected which would account for and predict approximately 97% of the variance of graduation status of the participant 12 months following graduation.

Table 4

*Measure of Association Between States and Graduation Status for Ho1*

<table>
<thead>
<tr>
<th>Measure of association</th>
<th>Value</th>
<th>Square of value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramer’s V</td>
<td>0.167</td>
<td>0.0278</td>
</tr>
</tbody>
</table>
Ho2. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution status between JAG graduates and nongraduates one year after graduation.

A chi-square test using student graduation status (drop out/graduate) as the independent variable and work status (college/military/not working/not known/working) as the dependent variable demonstrated that there was a statistically significant difference in the rates. $\chi^2 (4, N = 9,912) = 580.268, p < 0.05$.

An analysis of the result set in more detail revealed that work status for approximately 40% of the sample was unknown. In order to ensure that the significance of the chi-square result was not related to this segment of the sample, a second chi-square was run with the category of students who could not be reached for the May 2004 follow-up report excluded ($N = 6,193$). $\chi^2 (3, N = 6,193) = 205.052, p < 0.05$. Table 5 below illustrates the variance due to graduating or dropping out of high school. Approximately 6% of dropouts were enrolled in further education compared to 26% of the graduates. Also, 46% of the dropouts were not working versus 16% of the graduates. Consequently, the null hypothesis was discarded for that case as well.
Table 5

*Work Status by Graduation Status – Excluding Not Known*

<table>
<thead>
<tr>
<th>Graduation Status</th>
<th>n</th>
<th>% College or University</th>
<th>% Military</th>
<th>% Non Working</th>
<th>% Working</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop Out</td>
<td>308</td>
<td>6</td>
<td>1</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>Graduate</td>
<td>5885</td>
<td>26</td>
<td>4</td>
<td>16</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>6193</td>
<td>25</td>
<td>4</td>
<td>18</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 6 below shows the Cramer’s V value 0.182. This would indicate that there are one or more variables still undetected which would account for and predict approximately 96.5% of the relationship between graduations status within state and the working status of the JAG participant 12 months following graduation.

Table 6

*Measure of Association Between Graduation Status and Work Status for Ho2*

<table>
<thead>
<tr>
<th>Measure of association</th>
<th>Value</th>
<th>Square of value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramer’s V</td>
<td>0.182</td>
<td>0.033124</td>
</tr>
</tbody>
</table>
Ho3 There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution status between JAG graduates and nongraduates one year after graduation by state.

A chi-square test using student graduation status (drop out/graduate) by state (AL, AR, AZ, etc.) as the independent variable and work status (college/military/not working/not known/working) as the dependent variable demonstrated that the graduation status did appear to influence work status for students who had graduated, but due to violation of chi-square assumptions as explained below there was no statistical significance to student work status between states for students who had dropped-out. Due to the low frequency of students enlisted in the military (see Table 5, page 39) it was decided to combine the military and working work statuses. The drop-out $\chi^2 (54, N = 9,912) = 401.204, p < 0.05$ suggested a statistically significant result based purely on the chi-square value; however, 45 cells had an expected count of less than 5 and the minimum expected count of just 0.02. Because this violates even the liberal guidelines for expected count, this result could not be considered statistically significant. The graduate $\chi^2 (54, N = 9,912) = 3776.008, p < 0.05$ suggested a statistically significant result based on the chi-square value; however, 1 cell had an expected count less than 5 and the minimum expected count of just 3.62; this fails to meet the conservative guideline of all cells having an expected count $\geq 5$ but does meet the liberal guideline with the average expected frequency being at least 2.
Table 7

*Graduate, Work Status Percentages, Within State (Excluding Not Known)*

<table>
<thead>
<tr>
<th>State</th>
<th>n</th>
<th>% College or University</th>
<th>% Non Working</th>
<th>% Working or Military</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>331</td>
<td>46</td>
<td>10</td>
<td>44</td>
</tr>
<tr>
<td>AR</td>
<td>105</td>
<td>7</td>
<td>13</td>
<td>80</td>
</tr>
<tr>
<td>AZ</td>
<td>242</td>
<td>20</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>CA</td>
<td>48</td>
<td>15</td>
<td>21</td>
<td>64</td>
</tr>
<tr>
<td>CT</td>
<td>128</td>
<td>53</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>GA</td>
<td>842</td>
<td>26</td>
<td>22</td>
<td>52</td>
</tr>
<tr>
<td>IA</td>
<td>40</td>
<td>13</td>
<td>5</td>
<td>82</td>
</tr>
<tr>
<td>LA</td>
<td>179</td>
<td>25</td>
<td>18</td>
<td>57</td>
</tr>
<tr>
<td>ME</td>
<td>569</td>
<td>18</td>
<td>11</td>
<td>71</td>
</tr>
<tr>
<td>MI</td>
<td>93</td>
<td>10</td>
<td>4</td>
<td>86</td>
</tr>
<tr>
<td>MS</td>
<td>433</td>
<td>54</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>MT</td>
<td>47</td>
<td>47</td>
<td>8</td>
<td>45</td>
</tr>
<tr>
<td>OH</td>
<td>1814</td>
<td>20</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>TN</td>
<td>553</td>
<td>20</td>
<td>27</td>
<td>53</td>
</tr>
<tr>
<td>VI</td>
<td>402</td>
<td>17</td>
<td>13</td>
<td>70</td>
</tr>
<tr>
<td>WV</td>
<td>367</td>
<td>22</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>Total</td>
<td>6193</td>
<td>25</td>
<td>17</td>
<td>58</td>
</tr>
</tbody>
</table>
An analysis of the result set in more detail again revealed that the work status for approximately 40% of the sample was unknown and that this would affect the expected cell counts. In order to better explain the variance in work status for graduates and drop outs it was decided to exclude the participants for whom there were no May 2004 follow-up stats and to analyze the graduate and drop out populations independently of each other.

A chi-square test was run on just the drop-out segment of the sample population; on this test the college, working and military results were combined to improve the accuracy of the test. This resulted in $\chi^2 (15, N = 308) = 21.602$, $p > 0.05$, with again 50% of the cells having an expected count of less than 5 and a minimum expected count of just 0.46. Although an improvement on the prior result set, this demonstrates that there is no statistically significant relationship between graduation status and work status for the drop-out population.

An equivalent chi-square test was run against the graduate population, yielding the $\chi^2 (30, N = 5,885) = 591.997$, $p < 0.05$, indicating that there is a statistically significant difference in the work statuses of JAG participants between states for the graduated population.

In order to arrive at a measure of the degree of association between graduation status within states and work status, a Cramer’s V value of 0.224 was calculated (see Table 8 below).
Table 8

*Measure of Association Between Graduation Status Within States and Work Status for Ho3*

<table>
<thead>
<tr>
<th>Measure of association</th>
<th>Value</th>
<th>Square of value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramer’s V</td>
<td>0.224</td>
<td>0.05</td>
</tr>
</tbody>
</table>

A review of the actual frequencies of JAG participant work status against their expected frequencies identified several states where the observed outcome was fairly large and appeared to be driving the results of the chi-square analysis. Sixteen states were selected for a post hoc analysis (see Table 9 below) to determine if their frequencies for each category differed sizably from the marginal frequencies for all states. The revised alpha for these post hoc tests was calculated to be 0.05/16, giving a value of 0.003125.
Table 9

*Post Hoc Analysis of Ho3*

<table>
<thead>
<tr>
<th>State</th>
<th>Chi-square ($\chi^2$)</th>
<th>Cramer’s V</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>$\chi^2 (2, N = 5,885) = 72.991, p &lt; 0.003125$</td>
<td>0.111</td>
<td>0.000</td>
</tr>
<tr>
<td>AR</td>
<td>$\chi^2 (2, N = 5,885) = 25.635, p &lt; 0.003125$</td>
<td>0.066</td>
<td>0.000</td>
</tr>
<tr>
<td>AZ</td>
<td>$\chi^2 (2, N = 5,885) = 72.991, p &gt; 0.003125$</td>
<td>0.027</td>
<td>0.125</td>
</tr>
<tr>
<td>CA</td>
<td>$\chi^2 (2, N = 5,885) = 2.917, p &gt; 0.003125$</td>
<td>0.022</td>
<td>0.233</td>
</tr>
<tr>
<td>CT</td>
<td>$\chi^2 (2, N = 5,885) = 55.340, p &lt; 0.003125$</td>
<td>0.097</td>
<td>0.000</td>
</tr>
<tr>
<td>GA</td>
<td>$\chi^2 (2, N = 5,885) = 13.568, p &lt; 0.003125$</td>
<td>0.048</td>
<td>0.001</td>
</tr>
<tr>
<td>IA</td>
<td>$\chi^2 (2, N = 5,885) = 8.676, p &gt; 0.003125$</td>
<td>0.038</td>
<td>0.013</td>
</tr>
<tr>
<td>LA</td>
<td>$\chi^2 (2, N = 5,885) = 0.053, p &gt; 0.003125$</td>
<td>0.003</td>
<td>0.974</td>
</tr>
<tr>
<td>ME</td>
<td>$\chi^2 (2, N = 5,885) = 43.546, p &lt; 0.003125$</td>
<td>0.086</td>
<td>0.000</td>
</tr>
<tr>
<td>MI</td>
<td>$\chi^2 (2, N = 5,885) = 30.613, p &lt; 0.003125$</td>
<td>0.072</td>
<td>0.000</td>
</tr>
<tr>
<td>MS</td>
<td>$\chi^2 (2, N = 5,885) = 216.591, p &lt; 0.003125$</td>
<td>0.192</td>
<td>0.000</td>
</tr>
<tr>
<td>MT</td>
<td>$\chi^2 (2, N = 5,885) = 12.946, p &lt; 0.003125$</td>
<td>0.047</td>
<td>0.002</td>
</tr>
<tr>
<td>OH</td>
<td>$\chi^2 (2, N = 5,885) = 51.528, p &lt; 0.003125$</td>
<td>0.094</td>
<td>0.000</td>
</tr>
<tr>
<td>TN</td>
<td>$\chi^2 (2, N = 5,885) = 48.357, p &lt; 0.003125$</td>
<td>0.091</td>
<td>0.000</td>
</tr>
<tr>
<td>VI</td>
<td>$\chi^2 (2, N = 5,885) = 22.755, p &lt; 0.003125$</td>
<td>0.062</td>
<td>0.000</td>
</tr>
<tr>
<td>WV</td>
<td>$\chi^2 (2, N = 5,885) = 32.685, p &lt; 0.003125$</td>
<td>0.075</td>
<td>0.000</td>
</tr>
</tbody>
</table>
A review of the results of these post hoc assessments reveals that work status for graduates from Arizona (AZ), California (CA), Iowa (IA), and Louisiana (LA) does not differ statistically from the work status of all states as an aggregate. Results from the other post hoc tests indicate that there is a statistically significant difference between the work status of graduates from within the state being assessed all states combined; the most significant deviation looks to be related to the state of Mississippi (MS) where far more than expected of the state’s students progressed to a college or university (see Table 7, page 41). The not working category was in alignment with all other states and the working students made up far less of the Mississippi population than expected.

In conclusion, the null Ho3 cannot be discarded in its entirety because the work status of dropouts does not indicate a statistically significant difference between states. However, in the case of the graduate population, there is a statistically significant difference in the work status of students between states, and in regard to this analysis, Ho3 can be discarded.

Ho4. There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution rate among different ethnic groups within the JAG student population.

A chi-square test using JAG student ethnicity (White, African American, etc.) as the independent variable and work status (college/military, not working, working) as the dependent variable demonstrated that there was a statistically significant difference between the ethnic groups and work status \( \chi^2 (21, N = 9,896) = 480.896, p < 0.05 \).
Table 10 below proves the variance. Therefore, the null hypothesis was discarded.

Table 10

*Race by Work Status (Military & Working Combined)*

<table>
<thead>
<tr>
<th>Race</th>
<th>n</th>
<th>% College or University</th>
<th>% Non Working</th>
<th>% Not Known</th>
<th>% Working or Military</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>52</td>
<td>13</td>
<td>8</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>Asian</td>
<td>115</td>
<td>11</td>
<td>10</td>
<td>56</td>
<td>22</td>
</tr>
<tr>
<td>Black African America</td>
<td>3,890</td>
<td>22</td>
<td>12</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Hispanic</td>
<td>724</td>
<td>8</td>
<td>7</td>
<td>58</td>
<td>27</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>169</td>
<td>13</td>
<td>13</td>
<td>43</td>
<td>31</td>
</tr>
<tr>
<td>Not Known</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>84</td>
<td>11</td>
<td>6</td>
<td>62</td>
<td>21</td>
</tr>
<tr>
<td>White</td>
<td>4,861</td>
<td>12</td>
<td>10</td>
<td>34</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>9,896</td>
<td>15</td>
<td>11</td>
<td>38</td>
<td>36</td>
</tr>
</tbody>
</table>
Another chi-square was conducted (see Table 11 below), eliminating the category of students who could not be reached for the May 2004 follow-up report ($n = 6,184$), resulting in $\chi^2(30, N = 6,184) = 268.863, p < 0.05$. The null hypothesis was discarded for that case as well. The $n$ for both of these studies was different from other hypotheses because the race group contained 16 participants in the not known category.

Table 11

*Race by Work Status (Military & Working Combined)*

*Excluding Not Known*

<table>
<thead>
<tr>
<th>Race</th>
<th>$n$</th>
<th>% College or University</th>
<th>% Non Working</th>
<th>% Working or Military</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>25</td>
<td>28</td>
<td>16</td>
<td>56</td>
</tr>
<tr>
<td>Asian</td>
<td>50</td>
<td>26</td>
<td>22</td>
<td>52</td>
</tr>
<tr>
<td>Black African America</td>
<td>2,464</td>
<td>34</td>
<td>20</td>
<td>46</td>
</tr>
<tr>
<td>Hispanic</td>
<td>304</td>
<td>20</td>
<td>17</td>
<td>63</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>96</td>
<td>23</td>
<td>23</td>
<td>54</td>
</tr>
<tr>
<td>Other</td>
<td>32</td>
<td>28</td>
<td>16</td>
<td>56</td>
</tr>
<tr>
<td>White</td>
<td>3,213</td>
<td>18</td>
<td>16</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>6,184</td>
<td>25</td>
<td>17</td>
<td>58</td>
</tr>
</tbody>
</table>
In order to arrive at a measure of the degree of association between participant ethnicity and work status a Cramer’s V value of 0.147 was calculated (see Table 12 below). This would indicate that there are one or more variables still undetected which would account for and predict approximately 97.8% of the relationship between participant ethnicity and the working status of the JAG participant 12 months following graduation.

Table 12

<table>
<thead>
<tr>
<th>Measure of association</th>
<th>Value</th>
<th>Square of value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramer’s V</td>
<td>0.147</td>
<td>0.021609</td>
</tr>
</tbody>
</table>

A post hoc analysis (Table 13, page 49) was run on these data to assess whether any specific ethnic group looked to be driving the variance between ethnic groups and work status. The Bonferroni-corrected alpha for this analysis was 0.05/7 = 0.007143. This analysis indicated that the American Indian, Asian, Hispanic, Multi-Racial and Other ethnic groups had no statistically significant difference between ethnic group and work status when compared to the combined effect of all other races. The White and African American groups, however, differed starkly from the blended effect of all other ethnic groups, leading to the conclusion that the primary drivers in this analysis are that the African American and White populations are responsible for the differences between ethnic groups. It should be noted that African American and White populations make
up the majority of the study sample. The differences being picked up in the study are really driven by the fact that black and white students differ in regard to work status.

Table 13

*Post Hoc Analysis of Ho4*

<table>
<thead>
<tr>
<th>Race</th>
<th>chi-square ($X^2$)</th>
<th>Cramer’s V</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>$X^2 (2, N = 6,184) = 0.159, p &gt; 0.007143$</td>
<td>0.005</td>
<td>0.924</td>
</tr>
<tr>
<td>Asian</td>
<td>$X^2 (2, N = 6,184) = 0.895, p &gt; 0.007143$</td>
<td>0.012</td>
<td>0.639</td>
</tr>
<tr>
<td>African American</td>
<td>$X^2 (2, N = 6,184) = 254.817, p &gt; 0.007143$</td>
<td>0.203</td>
<td>0.000</td>
</tr>
<tr>
<td>Hispanic</td>
<td>$X^2 (2, N = 6,184) = 4.491, p &gt; 0.007143$</td>
<td>0.027</td>
<td>0.106</td>
</tr>
<tr>
<td>Other</td>
<td>$X^2 (2, N = 5, 6,184) = 0.234, p &lt; 0.007143$</td>
<td>0.006</td>
<td>0.890</td>
</tr>
<tr>
<td>White</td>
<td>$X^2 (2, N = 6,184) = 225.031, p &lt; 0.007143$</td>
<td>0.191</td>
<td>0.000</td>
</tr>
<tr>
<td>Multi-Racial</td>
<td>$X^2 (2, N = 6,184) = 1.946, p &gt; 0.007143$</td>
<td>0.018</td>
<td>0.378</td>
</tr>
</tbody>
</table>

A reference to Table 14 (page 51) to determine what might be the main cause of these differences reveals that the African America population has a larger than expected representation at college or university (accounting for 55% of all college or university students instead of the expected 25%) and a lower than expected number of students engaged in work (accounting for 32% of all working participants instead of the expected 58%). This differed considerably from the White participants, where the college or university enrollment was less than expected (accounting for 38% of all
college or university students instead of the expected 25%), and working participants numbered much closer to the expected (accounting for 60% of all working participants instead of the expected 58%).

Table 14

*Work Status by Race*

<table>
<thead>
<tr>
<th>Work Status</th>
<th>$n$</th>
<th>% American Indian</th>
<th>% Asian</th>
<th>% Black African American</th>
<th>% Hispanic</th>
<th>% Multi-Racial</th>
<th>% Other</th>
<th>% White</th>
</tr>
</thead>
<tbody>
<tr>
<td>College or University</td>
<td>1,527</td>
<td>0</td>
<td>1</td>
<td>55</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>Non Working</td>
<td>1,085</td>
<td>0</td>
<td>1</td>
<td>45</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>46</td>
</tr>
<tr>
<td>Working or Military</td>
<td>3,572</td>
<td>0</td>
<td>1</td>
<td>32</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>6,184</td>
<td>0</td>
<td>1</td>
<td>40</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>51</td>
</tr>
</tbody>
</table>

Ho5. There is no statistically significant correlation between graduation rates for JAG seniors and minority enrollments of the school.

A linear regression equation was generated to predict whether a high minority enrollment at the school would affect graduation rates for JAG participants (see Figure 1, page 52). The independent variable was minority population percentage from school, and the dependent variable was graduation rates. Minority population percentage of the school is a school-level variable; graduation rates were calculated for
each school, and the analysis was conducted at the school level. The linear regression failed to reveal a statistical relationship between the two variables. The $R = .021^a$, $R^2 = .000$, Adjusted $R^2 = -.002$ and the Std. Error of the Estimate = 18.47480.

Therefore, this study retained the null hypothesis. The scatter plot in Figure 1 (page 53) provides a good graphical view of the result of this analysis. The graph shows that there is no clear change in graduation percentage as the minority population in the school increases.
Figure 1. Non-White population percentage versus participant graduation percentage.

Ho6. There is no statistically significant correlation between graduation rates for JAG seniors and the Title 1 status of the school.

A linear regression equation was generated to predict whether a Title 1 status at the school would affect graduation rates for JAG participants (see Figure 2, page 53). The independent variable was Title 1 status of school, and the dependent variable was graduation rates. Title 1 status of school is a school-level variable; graduation rates were calculated for each school, and the analysis was conducted at the school level. The linear regression failed to reveal a statistically significant relationship between the
two variables. The $R = .021$, $R^2 = .000$, $Adjusted\: R^2 = -.002$ and the 
Std. Error of the Estimate = 18.53321.

Therefore, this study retained the null hypothesis. The scatter plot in Figure 2 
provides a good graphical view of the result of this analysis. The graph shows that 
there is no clear change in graduation percentage as the Title 1 participation of the 
school increases.

Figure 2. School Title 1 enrollment percentage versus participant graduation 
percentage.
Summary

This chapter included the following sections: Population of Interest, Study Data and Statistical Analysis, Analysis of Hypotheses, and Summary. In the Population of Interest section the number and make-up of the JAG School-to-Career program for the 2003 graduating class was discussed. In the Study Data and Statistical Analysis section the data collected to support this study and the methods and tools used to analyze the data were described. In the Analysis of Hypotheses section the results of the statistical analyses performed on the data sample and a notation of whether each of the null hypotheses was retained or discarded was completed.

In chapter 5 the results of this study are discussed in detail as well as the significance of the findings and recommendations for future research.
CHAPTER 5
SUMMARY OF FINDINGS
CONCLUSIONS AND RECOMMENDATIONS

Overview

This chapter includes a summary of the study, a discussion of the findings concerning Jobs for America’s Graduates School to Career Program 2003-2004, and recommendations for future research.

Discussion

The purpose of this study was (a) to determine whether Jobs for America’s Graduates, Inc. (JAG) was successful in helping students graduate from high school, find a career, enter postsecondary education or the military; (b) to analyze the job placement status of JAG graduates 12 months after graduation; and (c) to determine whether high school demographic and socioeconomic factors affect JAG’s performance.

The population for this study was 12,205 students in 21 states enrolled in the JAG School-to-Career program. The sample for this study consisted of 9,912 students who were provided follow-up services through May 2004. Illinois (n = 2239) and Wisconsin (n = 14) were excluded from the study because follow-up services were not provided. The sample participants came from 426 schools in 19 different states (see Table 1). Follow up reports were collected on approximately 62% of this group for the May 2004 period. During that time, 3,718 students could not be reached. Students were provided similar services and curriculum in all schools. The 2003 graduation rate
for the program was 89.9% \( n = 9912 \). A majority of students (54%) were females; the ethnic mix was primarily Caucasian (49%) and African American (39%). Almost half of the students were eligible for a free lunch program (40%).

Ho1. There is no statistically significant difference in graduation status for students in the JAG program between states.

This study found there was a statistically significant relationship between the states and graduation rates \( \chi^2 (18, N = 9912) = 275.04, p<0.05 \). Therefore, the null hypothesis was discarded. Graduation rates ranged from a high of 99% in Kentucky to a low of 70% in Rhode Island (see Table 3). The other 16 states were in the 80s and 90s. Approximately 90% \( n = 9,912 \) of the participants graduated from high school while enrolled in the JAG School-to-Career program. Swanson (2004) stated that the public graduation rate is close to 68%. He added that minorities have just a 50% chance of earning a diploma. The minority graduation rate for the school-to-career program was 89%, which even at face value is a significant improvement over the national trend.

These results live up to the first part of JAG’s stated activities, “The JAG mission is to assist at-risk and disadvantaged youth in graduating from high school” (2003 JAG Annual Report, p. 2). Participation in the JAG School-to-Career program would appear to have greatly improved the graduation rates for the analyzed population. Although there is variation between states in the graduation rates achieved, the differences could be due to a multitude of factors: curriculum delivery, the student’s life circumstances, peer group associations or simply differences in the way that the JAG participants are
selected from school to school, and from state to state. Because there was no control
group, it is difficult to conclusively ascertain whether participation in the JAG program is
the driver behind these high graduation rates.

Ho2. There is no statistically significant difference in the employment, military service
status, or enrollment in a postsecondary institution status between JAG
graduates and nongraduates one year after graduation.

This study found a statistically significant relationship between the graduation
status and work status of the JAG participants with a \( \chi^2 \) (4, \( N = 9912 \)) = 580.268, \( p < 0.05 \). Therefore, the null hypothesis was discarded. Another chi-square was run
eliminating the category of students who could not be reached for the May 2004 follow-
up report (\( n = 6193 \)). \( \chi^2 \) (3, \( N = 6193 \)) = 205.052, \( p < 0.05 \). The null hypothesis was
discarded for that case as well. The percentage of graduated youth who were working,
serving in the military, or enrolled in further education was considerable higher than the
drop-out group. At the time of the May 2004 follow-up assessment, of the participants
who were contacted 85% of the high school graduates were engaged in further
education, the military, or employment, as opposed to 57% of drop outs.

The prevailing research (Schweke, 2004) indicating the advantages that high
school graduates have in regard to finding employment and enrolling in further
education is reinforced by the results of this study. Lerman (2000) discussed a random
study of high school seniors in New York State who actively participated in school-to-
work activities, stating they were more likely than non participants to work in
challenging jobs that involve problem-solving, creativity, and learning new skills were
more likely to have jobs that are connected with schooling and courses, were more likely to have definite career goals, and were slightly more likely to attend 4-year colleges (p. 26)

The variance in employment opportunities that may be witnessed by students graduating into strong and vibrant local economies could skew these results in favor of students who drop out and are still able to find employment. Regardless of this possibility the results of the analysis on this hypothesis still appear to be in alignment with current research that supports the benefits associated with successful high school graduation.

It would appear that, based upon these results, the second part of JAG’s mission - “and thereafter to find and keep quality jobs through a state supported education and employment system” (JAG, 2003) has also been achieved. Although the quality of the jobs attained has not been assessed, there is clear evidence that JAG graduates have fared better than their drop-out colleagues. It is of interest to note that as of May 2004, of those participants who graduated high school and for whom a follow-up report was collected, 1,445 (25% of graduates) were enrolled in full-time college or university, 262 (5% of graduates) were enlisted in the armed services, 3,129 (55% of graduates) were in full- or part-time employment, and 828 (15% of graduates) were not working. The drop-out population did not fare as well with 17 (6% of drop-outs) who were enrolled in full time college or university; 3 (1% of drop-outs) who were enlisted in the armed services; 146 (50% of drop-outs) were in full or part time employment, and 127 (43.% of drop-outs) were not working. Over the whole JAG population these numbers
were as follows: 1,462 (25%) were enrolled in full-time college or university; 265 (4%) were enlisted in the military, 3,275 (55%) were in full- or part-time employment; and 955 (16%) were not working.
Ho3 There is no statistically significant difference in the employment, military service status, or enrollment in a postsecondary institution status between JAG graduates and nongraduates one year after graduation by state.

This study found there was a statistically significant relationship between the states in the work status of participants when the graduation status of the participant was considered. The more detailed analysis undertaken identified that the results for the Drop-Out population were inconclusive, whereas for the graduated population there was a statistically significant difference in the work status between the states, $\chi^2 (30, N = 5,885) = 591.997$, $p < 0.05$. One of the key factors that made it difficult to arrive at a conclusive assessment of relationship between states and work status for the drop-out community was simply that there were not enough drop-outs to ensure that a valid test could even be performed. In essence, JAG’s success in helping students’ graduate from high school made it difficult to amass enough data to analyze the impact of dropping out on the work status of those who failed to graduate.

It was interesting to discover that, on average, 16% of participants who had obtained their high school diploma were not working at the May 2004 follow-up assessment (reviewing only the data for students with a May 2004 report). In comparison, the extremes were that 27% of the students assessed in West Virginia (WV) and 3.3% of those in Michigan (MI) were not engaged in a positive employment or education outcome at this time, clearly showing a significant drift in outcomes between states.
It was also interesting to see that in the post hoc test, Mississippi (MS) had the most significant chi-square value $\chi^2 (2, N = 5,885) = 216.591, p < 0.003125$, with the key drivers appearing to be the variance of the college or university attendees (55% in MS as compared to 24% elsewhere) and those working (29% in MS as opposed to 61% elsewhere), both differing significantly from the expected frequencies derived from the balance of the states.

Clearly, many factors could influence the variance in employment opportunities between states, with the local market economy playing a significant role. Even in a booming national economy there will undoubtedly be employment black spots in regional and state locations. Job opportunities in those locations would be limited and could influence not only the variances in job placement successes between states, but could also have an impact between schools within states. This study did not investigate the intra-school job placement results, so it is not clear if a definite trend would be detected. Conversely, a flagging national economy would most likely dampen job opportunities at all levels, but still there will almost certainly be booming local economies that again may fuel a state-driven variance in employment status. The number of students participating from state to state varies greatly, as does the funding for the JAG program – a good or bad year in any state, particularly in those with low participation, could be due to random variance.
There is no difference in the employment, military service status, or enrollment in a postsecondary institution rate among different ethnic groups within the JAG student population.

This study found that there was a statistically significant relationship between the ethnic groups and work status $\chi^2 (21, N = 9896) = 480.896, p < 0.05$. Therefore, the null hypothesis was discarded. Another chi-square was run eliminating the category of students who could not be reached for the May 2004 follow-up report and the ethnicity of the participant was known ($n = 6184$). $\chi^2 (12, N = 6184) = 268.863, p < 0.05$. The null hypothesis was discarded for that case as well.

The interesting results from this analysis were that both the White and African American JAG participants achieved higher than expected involvement in college or university enrollment, and the African American participants had significantly fewer than expected in the working category. The differences in these two sample populations seem to drive the significance of the differences between ethnic groups and work statuses. As stated in chapter 4, students identified on the follow up reports as working and in school, for the purpose of this study, were considered to be working. It would be interesting to investigate whether one of the variables driving the variation between the African American and White populations’ work status was that more of the White participants were working their way through College than attending full-time college classes. It would also be interesting to investigate whether there is better assistance, both financial and educational, for disadvantaged African Americans than for similarly disadvantaged White students.
Ho5 There is no statistically significant correlation between graduation rates for JAG seniors and minority enrollments of the school. This study found that there was not a statistically significant relationship between JAG graduation rates and the minority enrollment of the school. Therefore the study retained the null hypothesis.

The results were surprising because research shows that high minority schools are more likely to have higher dropout rates than low minority schools. Researchers Orfield and Lee (2005) stated that “achievement scores are strongly linked to school racial composition and so it the presence of highly qualified and experienced teachers (p. 5). For the high school class of 2002 almost a third of the high schools that were more than 50% minority graduated less than half of their class. In this study there were 427 schools for which student results were available, of which 138 had more than half of their students in minority ethnic groups and 42 schools had no ethnic data at all; the remainder had at least 50% of the students who were of White/Caucasian ethnicity.

Perhaps this is an indicator that JAG is successfully helping participants overcome this impediment, because all research indicates that this is not what was expected. There could be several reasons to explain this discrepancy. The manner in which schools identify students to participate in the JAG program may “select” only those with a higher than normal chance of success. This may mean that the JAG participants are attaining results that are better than national statistics would suggest; however, if the JAG “selection” process does tend to identify only those most likely to benefit from the
program, rather than those most in need of the program, then the JAG success may not
provide a universal benefit to all at-risk youth. Further analysis would be required to
investigate the manner in which different schools and states select the JAG program
participants to assess whether the program could benefit all students or whether it has
any inherent traits that bias the program to exclude segments of the at-risk population
that are less likely to respond favorably to the program.

There is no statistically significant correlation between graduation rates for JAG
seniors and the Title 1 status of the school.

The independent variable was Title 1 status of school, and the dependent
variable was graduation rates. Title 1 status of school is a school-level variable;
graduation rates were calculated for each school, and the analysis was conducted at the
school level. Linear regression failed to reveal a statistical relationship between the two
variables. Therefore, the study retained the null hypothesis.

This study had surprising results as well. Research over “four decades have
found a strong relationship between concentrated school poverty and low achievement
(Orfield & Lee, 2005, p. 7). The teaching staff is often less qualified in high poverty
schools. According to Orfield and Lee, a “2004 U.S. Department of Education report
showed that in schools where at least 75% of the students were low-income, there
were three times as many uncertified or out-of-field teachers in both English and
science” (p. 7).
Conclusions

The initial question asked in the purpose of this study about the effectiveness of JAG’s School-to-Career program can be answered by looking at the results. The overall graduation rate for the program is 89%, while the public school rate is close to 68% (Swanson, 2004). Swanson stated that minorities have only a 50% chance of earning a diploma. The next question asked how students are holding up after graduation. As can be seen from the fact that the null hypotheses have been discarded for hypotheses 2, 3 and 4, indications are that JAG graduates continue to benefit from their participation in the program well after the point at which they graduate. Certainly for the African American community their participation in college or university programs one year after graduation seems particularly rewarding. The last question dealt with demographic and socioeconomic factors and their effects on the performance of JAG. Contrary to research and current trends, students in the JAG program succeeded whether their schools had high minority populations or high Title 1 status. As stated above, it could well be that it is the JAG intervention itself that has been the key in beating this trend.

The blend of training that JAG provides participants in their school-to-career program seems to be effective in helping youth graduate from high school, advance into further education or military service, or to enter the workforce. One year later, including the drop-out population, almost 84% of participants had been classed as having a positive outcome to their involvement and were still successful. In essence, according to Schweke (2004),
There is a growing consensus that money spent wisely on education pays off not only for workers but also for communities and businesses. Educational attainment raises incomes and increases productivity, while failures in educating the workforce are associated with higher levels of crime and welfare dependency. (p. 1).

This study, via the first four hypotheses, demonstrated that the JAG School-to-Career program is successful in helping students graduate from high school and move into the workforce (including military) and further education. The fifth hypothesis showed that there was no correlation between a school’s minority enrollment and the graduation rates. Typically, in the United States, schools with high minority enrollment also have a high percentage of dropouts. The sixth hypothesis showed that there was no correlation between high schools that had high Title 1 enrollment and the graduation rates. This statistic also ran contrary to current research which indicates that youth in high poverty areas have high dropout rates. This information should provide any prospective school with enough detail to justify the cost. Schweke (2004) stated that spending on education can improve the success of at-risk students, whose “contributions to the economy are critical for achieving a high-value/high-wage economy in the 21st century” (p. 18).
Recommendations

There are a few directions for further research on the school-to-career program that Jobs for America’s Graduates operates.

1. Set up a random control group with non-JAG students in a number of the JAG schools for comparison to the JAG results within that school.
2. Set up an “at-risk” control groups with non-JAG students in a number of the JAG schools for comparison to the JAG results within that school.
3. Try to determine whether graduation and work status variance was due to the manner of JAG curriculum delivery and consistency of follow-up or other external variables.
4. Study the results from another year and compare to this study to determine whether results were consistent.
5. Evaluate local market economies in cities where JAG students did not have high employment.
6. Evaluate whether school minority enrollment predicts the rates at which different ethnic groups graduate from the JAG program and whether a student of the same ethnic mix as the predominant ethnic group within the school fares better or worse than their peers.
APPENDIX A

LETTER FROM JAG
March 25, 2006

To Whomever It May Concern:

I hereby provide authorization to Ms. Jay Calloway, a doctoral student at the University of North Texas (UNT) to use any and all data provided to her by Jobs for America’s Graduates, Inc. in the research and production of her doctoral dissertation titled “Jobs for America’s Graduates: A School-to-Career Program”. This authorization includes the permission for Ms. Calloway to analyze any and all of this data and publish her findings within her doctoral dissertation.

In addition to this, Jobs for America’s Graduates, Inc. gives Jay Calloway in pursuit of her Doctorate from UNT full permission to reproduce any information from the JAG SPECIALIST HANDBOOK, that she deems necessary to provide clarity or insight into the methods employed by JAG in delivering the JAG National Curriculum to program participants.

Finally, Jobs for America’s Graduates, Inc. acknowledges that the University of North Texas (UNT) will publish the dissertation completed by Dr. Jay Calloway in pursuit of her Doctorate; that the dissertation will be available in its entirety, for review online; and that an electronic copy will be available via ProQuest for sale on demand. In regard to each of these, Jobs for America’s Graduates, Inc. grants Jay Calloway and UNT permission to allow publication of this doctoral dissertation, inclusive of any material reproduced from the JAG SPECIALIST HANDBOOK, the JAG Annual Report(s), the JAG Website and any other information source provided by or copyrighted by JAG that was freely provided by JAG in support of this Research project.

Regards,

[Signature]

Jim Koeninger, Ph.D.
Executive Vice President
APPENDIX B

12 - MONTH FOLLOW-UP REPORT
### FOLLOW-UP STATUS SUMMARY

<table>
<thead>
<tr>
<th>Gender:</th>
<th>Race:</th>
<th>Data Status:</th>
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<tr>
<td>Gov't Assistance:</td>
<td>Barrier:</td>
<td>Date Range:</td>
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State(s):
Roster Type(s):
Roster Year(s):

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<th>Total Seniors Deceased</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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<tbody>
<tr>
<td></td>
<td>Totals</td>
<td>Percentages</td>
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</tbody>
</table>

#### POSITIVE OUTCOMES

- Full-Time Job with no School/Training
- Full-Time Job with School/Training
- Part-Time Job with no School/Training
- Part-Time Job with School/Training
- Total Civilian Job Placements
- Military Service

**Total Civilian Job Placements and Military Service**

- 4 Year College Enrollments (High School for NG)
- 2 Year College Enrollments (GED for
<table>
<thead>
<tr>
<th>NG</th>
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Other Education or Training Program Enrollments (Includes C4/C2 for NG)

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<th>Total Positive Outcomes</th>
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<table>
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<tr>
<th>NON-POSITIVE OUTCOMES</th>
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Unavailable for Employment (As Per JAG Standard)

Unable to Contact During the Reporting Period

Available/Unemployed

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<th>Total Non-Positive Outcomes</th>
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<th></th>
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<th>PLACEMENT ANALYSIS</th>
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Total in Full-Time Outcomes (FTN + FTW + MS + PTW + C4 + C2 + OE / Graduates)

Total in Full-Time Placement (FTN + FTW + MS + PTW / Employed Graduates)

Total in Full-Time Jobs (FTN + FTW + MS)

Further Education Rate (C4 + C2 + OE)
APPENDIX C

JOB PLACEMENT SUMMARY
JOB PLACEMENT
SUMMARY

Gender: [ ]
Race: [ ]
Gov't Assistance: [ ]
Barrier: [ ]

State(s):
Site(s):
Roster Type(s):
Roster Year(s):

JOB PLACEMENT REPORT

<table>
<thead>
<tr>
<th>Total Participants</th>
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<th>Non-Graduates</th>
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<th>Total that Held a Job During High School</th>
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<th>Non-Graduates</th>
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<th>Average Number of Jobs Held During the Reporting Period</th>
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<table>
<thead>
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<th>No School to Work Transition During the Reporting Period</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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Current Job - Industry Category

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<thead>
<tr>
<th>Accommodation and Food Services</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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<table>
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<tr>
<th>Administrative and Support and Waste Management and Remediation Services</th>
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<th>Non-Graduates</th>
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<table>
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<tr>
<th>Agriculture, Forestry, Fishing and Hunting</th>
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<th>Non-Graduates</th>
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<table>
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<tr>
<th>Arts, Entertainment, and Recreation</th>
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<th>Non-Graduates</th>
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<th>Construction</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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<table>
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<th>Educational Services</th>
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<th>Non-Graduates</th>
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<th>Finance and Insurance</th>
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<th>Non-Graduates</th>
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<th>Health Care and Social Assistance</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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<th>Information</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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<th>Management of Companies and Enterprises</th>
<th>Graduates</th>
<th>Non-Graduates</th>
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73
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<thead>
<tr>
<th>Current Job - Employer Distribution</th>
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</thead>
<tbody>
<tr>
<td>Local</td>
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<td>Regional</td>
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<tr>
<td>National</td>
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<table>
<thead>
<tr>
<th>Current Job - Job Type Classification</th>
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</thead>
<tbody>
<tr>
<td>Agriculture, Forestry, Fishing and Related</td>
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<tr>
<td>Managerial and Professional Specialty</td>
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<tr>
<td>Military</td>
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<tr>
<td>Operators, Fabricators, and Laborers</td>
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<tr>
<td>Precision Production, Craft, and Repair</td>
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<tr>
<td>Service Occupations</td>
</tr>
<tr>
<td>Technical, Sales, and Administrative Support</td>
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<table>
<thead>
<tr>
<th>Current Job - Details</th>
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</thead>
<tbody>
<tr>
<td>Average Hourly Wage</td>
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<td>Average Hours/Week</td>
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<tr>
<td>Health Insurance</td>
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<tr>
<td>Employer Provided Training</td>
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<tr>
<td>Employer Financed Education</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Promotions</td>
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<tr>
<td>Salary Increases</td>
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<tr>
<td>Increases in Hours</td>
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<tr>
<td>Positive Changes in Health Insurance</td>
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<tr>
<td>Positive Changes in Employer Provided Training</td>
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<tr>
<td>Positive Changes in Employer Financed Education</td>
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<td>Job Terminations During the Reporting Period</td>
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</tbody>
</table>
APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL
October 27, 2005

J’Quita Calloway
Department of Technology and Cognition
University of North Texas

RE: Human Subjects Application No. 05-311

Dear Ms. Calloway:

Your proposal titled “Jobs for America’s Graduates: A School-to-career Program” has been approved by the Institutional Review Board and is exempt from further review under 45 CFR 46.101. Federal policy 45 CFR 46.109(e) stipulates that IRB approval is for one year only.

It is your responsibility according to U.S. Department of Health and Human Services regulations to submit annual and terminal progress reports to the IRB for this project. Please mark your calendar accordingly. The IRB must also review this project prior to any modifications.

Please contact Shelia Bourns, Compliance Administrator, ext. 3940 or Boyd Herndon, Director of Research Compliance, ext. 3941, if you wish to make such changes or need additional information.

Sincerely,

Scott Simpkins, Ph.D.
Chair
Institutional Review Board

SS:sb
A. CAREER DEVELOPMENT COMPETENCIES
A.1 Identify occupational interests, aptitudes and abilities.
A.2 Relate interests, aptitudes and abilities to appropriate occupations.
A.3 Identify desired life style and relate to selected occupations.
A.4 Develop a career path for a selected occupation.
A.5 Select an immediate job goal.
A.6 Describe the conditions and specifications of the job goal.

B. JOB ATTAINMENT COMPETENCIES
B.7 Construct a resume.
B.8 Conduct a job search.
B.9 Develop a letter of application.
B.10 Use the telephone to arrange an interview.
B.11 Complete application forms.
B.12 Complete employment tests.
B.13 Complete a job interview.

C. JOB SURVIVAL COMPETENCIES
C.14 Demonstrate appropriate appearance.
C.15 Identify expectations that employers have of employees.
C.16 Identify problems of new employees.
C.17 Demonstrate time management.
C.18 Follow directions.
C.19 Practice effective human relations.
C.20 Appropriately resign from a job.

D. BASIC SKILLS COMPETENCIES
D.21 Comprehend verbal communications.
D.22 Comprehend written communications.
D.23 Communicate in writing.
D.24 Communicate verbally.
D.25 Perform mathematical calculations.

E. LEADERSHIP AND SELF DEVELOPMENT COMPETENCIES
E.26 Demonstrate team membership.
E.27 Demonstrate team leadership.
E.28 Deliver presentations to a group.
E.29 Compete successfully with peers.
E.30 Demonstrate commitment to an organization.
F. PERSONAL SKILLS COMPETENCIES
F.31 Explain the types of maturity.
F.32 Identify a self-value system and how it affects life.
F.33 Base decisions on values and goals.
F.34 Identify process of decision-making.
F.35 Demonstrate ability to assume responsibility for actions and decisions.
F.36 Demonstrate a positive attitude.
F.37 Develop healthy self-concept for home, school and work.

G. LIFE SURVIVAL SKILLS
G.38 Evaluate a career plan to determine appropriate postsecondary educational options.
G.39 Identify how best to achieve marketable occupation skills for an entry level job.
G.40 Conduct a job analysis.
G.41 Apply critical thinking skills.
G.42 Demonstrate effective study skills.
G.43 Demonstrate how to use group dynamics techniques.
G.44 Explain the roles and function of a value-added organization.
G.45 Understand the essential elements of high performing work teams.
G.46 Describe how to work and communicate with diverse people at work and in the community to satisfy their expectations.
G.47 Demonstrate techniques for building commitment by others.
G.48 Demonstrate an openness to change.
G.49 Provide constructive feedback.
G.50 Negotiate solutions to conflicts.
G.51 Demonstrate politeness and civility.
G.52 Demonstrate an ability to adapt to people and situations.
G.53 Exhibit work ethics and behaviors essential to success.
G.54 Set and prioritize goals and establish a timeline for achieving them.
G.55 Apply the problem solving process to complex problems.
G.56 Demonstrate an ability to analyze the strengths and weaknesses of self and others.
G.57 Design and justify solutions by tracking and evaluating results.
G.58 Identify ways to build mutual trust and respect.
G.59 Prepare a short- and long-term personal budget.
H. WORK PLACE COMPETENCIES
H.60 Demonstrate punctuality and good attendance practices.
H.61 Demonstrate initiative and proactivity.
H.62 Demonstrate how to work effectively with others.
H.63 Demonstrate an attitude that attracts the attention of management.
H.64 Demonstrate an ability to communicate and work with customers to satisfy their expectations.
H.65 Demonstrate listening skills which will result in gaining a clear understanding of information being conveyed.
H.66 Demonstrate an ability to follow and give directions.
H.67 Demonstrate good reasoning skills which result in thinking first, then taking action.
H.68 Demonstrate integrity and honesty in dealings with internal and external customers.
H.69 Demonstrate a willingness to accept responsibility for one's own actions.
H.70 Demonstrate a commitment in completing work assignments accurately and in a timely fashion.
H.71 Demonstrate an ability to satisfy the purposes of a delegated task.
H.72 Demonstrate an ability to prioritize and manage time effectively in the workplace.
H.73 Demonstrate enthusiasm for work.
H.74 Demonstrate an eagerness to learn new responsibilities or improve current responsibilities.
H.75 Demonstrate an understanding of the work to be accomplished.
H.76 Demonstrate familiarity with a variety of technologies.
H.77 Demonstrate an ability to self-evaluate and develop a continuous improvement (career development) plan.
H.78 Demonstrate basic computer operation skills.
H.79 Demonstrate an ability to learn from past experiences and others.
H.80 Demonstrate an ability to send, receive and organize e-mail messages.
H.81 Demonstrate an ability to search for information on the Internet.
APPENDIX F

JAG’S BARRIERS TO SUCCESS
**Academic Barriers**
A.1 One or More Modal Grades Behind Peers
A.2 Has Repeated a Grade in High School
A.3 Low Academic Performance
   A GPA of C (2.0 out of 4.0) or below or basic skills in the bottom quartile of the class.
A.4 Basic Skills Deficient (Reading and Math in particular)
   Performing in the bottom quartile of the class in basic skill areas as measured by standardized testing.
A.5 Limited English Proficiency
   English as a Second Language (ESL) also called English Language Learners (ELL).
A.6 Did Not Pass State Proficiency Exam
   Most states have a high-stakes exam which requires passage to be eligible for a high school diploma. Identify the portion of the test that must be passed.
A.7 A Past Record of Excessive Absences as Verified by School Officials.
   Documentation must be provided as to the number of times the student has been absent during the prior school year. The state or school district must define what is “excessive”. Specialists should be given quantitative criteria for this barrier.
A.8 Has Been Suspended, Expelled or Put on Probation during High School
   This information must be verified by examining school disciplinary records.
A.9 Has Dropped Out of School Previously
   Identify last high school attended and last grade level completed.

**Environmental Barriers**
E.1 Family Environment is Not Conducive to Education or Career Goals
   This should be verified through conversation with the participant, information provided by an Advisory Committee member, information provided by an Administrator, and/or a home visit conducted by the Specialist.
E.2 Mother did not Graduate from High School
E.3 Father did not Graduate from High School
E.4 Mother does not Work
E.5 Father does not Work
E.6 Is Pregnant
E.7 Has Dependent Child(ren) in the Home
   This applies to the participant’s children or younger siblings that the participant may be raising while residing in the same home.
E.8 Is Parenting
   This barrier is claimed when the participant is a parent but one or more children are not living with the participant.
E.9 Has Documented Alcohol and/or other Substance Abuse
   Due to confidentiality laws, this information may be difficult to verify. Usually a guidance counselor, school nurse, or parent can confirm the abuse. The participant may share information about the abuse as well.

JAG specialist handbook
E.10 Convicted of a Criminal Offense other than a Traffic Violation
If available, determine the type of offense, jurisdiction and the date.
E.11 Has a Record of Violent Behavior
This should be verified by checking school disciplinary records. Specialists should exercise caution and check to be sure that behavioral issues have been or will be addressed to ensure the safety of other students.
E.12 Homeless
E.13 Runaway
E.14 Requires Child Care during Work or School
E.15 Needs Transportation to and from Work or School

**Physical and Psychological Barriers**
P.1 Special Education Certified
P.2 Lacks Motivation or Maturity to Pursue Education or Career Goals
A participant that lacks direction, has no goals, and/or has demonstrated a pattern of not following through with plans and goals. Advisory committee members, counselors, or parents could assist in validating.
P.3 Emotional Disorder which Impairs Education or Career Goals
This includes documented emotional disorders such as depression, manic depression, bipolar disorders, eating disorders, previous suicide attempts, etc. Participant may or may not have received treatment for the disorder.
P.4 Has a Disability
This includes documented physical disabilities, such as multiple sclerosis, cystic fibrosis, chronic diabetes, or any congenital birth defect.
P.5 Health Problems which Impair Education or Career Goals

**Work Related Barriers**
W.1 Is an Economically Disadvantaged Student as Defined by Public Assistance, TANF, or Free Lunch
W.2 Having Inadequate or No Work Experience
Participant has not worked more than three consecutive months for the same employer during the past two years.
W.3 Lacks Marketable Occupational Skills that are in demanded in the Local Market
This is difficult to verify. It applies to participants who are basic skills deficient, who lack initiative and work skills, or who have never worked. It does not include a participant who is enrolled in a vocational skills training program, as it could be expected that the participant will have attained marketable skills upon graduation.

**Other Barriers**
O.1 Other
This could possibly include extremely low self-esteem, obesity, etc. if it represents a significant barrier to success

JAG specialist handbook
REFERENCES


Olson, L. (1997). *The school to work revolution: How employers and educators are joining forces to prepare tomorrow’s skilled workforce*. Reading, MA: Addison-Wesley.


Swanson, C. B. (2004a). The new math on graduation rates: Persistent failure to meet performance targets for graduating more students should carry serious consequences [Electronic version]. *Education Week, 23*(43), 31-40.


