# BLACK YOUTH IN VOCATIONAL EDUCATION: FURTHER EDUCATION, LABOR MARKET, CIVIC AND POLITICAL PARTICIPATION

by

Oscar M. Williams

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

in

Vocational and Technical Education

APPROVED:

F. Marion Asche, Chairman

Nevin R. Frantz

Deborah C. Strickland

Theodore J. Pinnock

Jimmie C. Fortune

May, 1990

Blacksburg, Virginia

ABSTRACT

Since the days of Booker T. Washington and W. E. B. Du Bois, the argument has flourished relative to the value of vocational education for Black youth. This study, using data from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)" survey, investigated three basic areas, namely: (a) the demographic, personological, and educational profile of Black youth enrolled in vocational education, and the manner in which this profile varied in relation to their vocational concentration patterns, (b) the profile of these youth in terms of their employment outcomes, educational expectations, and civic and political participation practices after completion of their secondary schooling, according to their concentration patterns, and (c) the changes over time among these youth within their vocational concentration patterns, with regard to aptitude, educational and vocational expectations, and employment status.

Major findings of this study have been presented for the students by concentration patterns. Some of the major overall findings were: Students with greater concentration in vocational education course work tended to come from urban areas, the southern region of the United States, and the lowest socioeconomic status quartile. Both educational and occupational expectations were unrealistic in terms of

standardized test performance and grades. A large percentage was not in the labor force and a very small percentage was participating in civic or political activities.

Findings for outcome and change over time variables were presented for the three vocational participation patterns, Concentrators, Limited Concentrators, and Samplers.

ACKNOWLEDGMENTS

The author wishes to express his sincere appreciation to the many individuals who offered moral support and assistance during this research effort. Special gratitude is extended to members of the author's graduate committee who so freely gave of their advice and time. The author is especially grateful to the chairman of his doctoral committee, Dr. Marion F. Asche, for his constant guidance and encouragement throughout the doctoral program. Special thanks is also extended to Dr. Deborah C. Strickland for her technical assistance with the Third Follow-Up data set and her help when problems were encountered.

The author wishes also to acknowledge the patience and constant encouragement of Drs. Dyer, J. Asche, Janey, and Nava, and the other members of the Center for Volunteer Development family for their unyielding support whenever they thought I could make more haste; although, in my judgment, I was in a perpetual hurry. Also, appreciation is extended to Ms. Dorothy J. White whose editorial assistance made this document readable.

Finally, the author wishes to thank the members of his family, his children, wife, mother, brothers, and sisters who continually reminded him of the author who wrote:

Once a task is begun,
Never leave it 'til it's done.
Be the labor great or small,
Do it well,
Or, not at all.
Anonymous

TABLE OF CONTENTS

LIST OF TABLES

# CHAPTER 1

The Smith-Hughes Act of 1917 was passed nearly seventy-five years ago and since then, Black civic leaders have wondered if the great educational and socioeconomic opportunities intended by the act applied to the Black community. The goal of the act was to provide educational and economic opportunity for all who wanted a rewarding career, but could not afford four years of college or did not want a liberal arts education. It made possible vocational preparation at the secondary level in agriculture, home economics, trades, and industries. In later years, supplemented by the George-Reed Act of 1929, George-Ellzey Act of 1934, the George-Dean Act of 1936, and the Vocational Act of 1963 and amendments, the Smith-Hughes Act made the rewarding careers of vocational education available to virtually every youth and adult in the United States.

Black critics have presented a basic argument against these acts and their so-called "rewarding careers" that maintains they have not been in the best economic or educational interest of Black youth. Critics have charged that Blacks who choose vocational careers, more often than not, remain on the bottom rung of the socioeconomic ladder. Further, Blacks as individuals and as a race, have long been disenfranchised and relegated to the lower socioeconomic strata. They therefore, must have an

education that will not only assure them of immediate occupational opportunities, but also an education to equip them for full participation in American society. That is, Blacks need an education that enables them (a) to participate in politics and civic/community associations such as churches, clubs, and mutual aid societies; and (b) to enjoy the economic blessings of and develop an appreciation for the diversity of the American culture; not simply an education that prepares them to merely pursue a vocation. In the judgement of Black critics, vocational education has failed to equip Blacks to be first class citizens in the ways just described, and they have argued that Blacks should be wary of vocational education (Du Bois, 1903).

Beginning in the early 1890s with the debates between Booker T. Washington, a strong advocate of vocational (industrial) education, and W. E. B. Du Bois, a strong advocate for education of Blacks in the "higher" professions (law, medicine, and the arts and sciences), the long-standing controversy over the value of vocational education for Blacks has continued to flourish (Johnson, 1971, p. 88-99).

Booker T. Washington founded Tuskegee Institute (now Tuskegee University) which was originally an industrial and training institute for Negroes. He believed vocational education was the <u>only</u> logical so-called "educational

solution" open to Blacks whereby they could improve their socioeconomic lot. He also believed there was a "sea of opportunity" for those Blacks to cast down their economic and career "buckets" in the great ocean of vocational education (Washington, 1933, p. 60). In his famous speech at the Atlanta Exposition in 1895, Washington urged Blacks to:

> Cast [down their buckets] in agriculture, mechanics, in commerce, in domestic service, and in the professions.... Keep in mind that we shall prosper in proportion as we learn to dignify and glorify common labour and put brains and skill in the common occupations of life; and prosper in proportion as we learn to draw the line between the superficial and the substantial, the ornamental gewgaws of life and the useful (p. 60.

Washington's beliefs, educational goals, and formula for improving Blacks' socioeconomic status were not embraced by all Black educational and civic leaders. Du Bois, a chief spokesman for many, believed that Blacks needed more than just industrial training. While not objecting to vocational training as an educational option for the Negro, Du Bois and fellow Black critics disagreed with Washington's educational policy of just educating Negroes exclusively for industrial vocations/occupations. This strategy, they thought, was not the most appropriate

avenue to socioeconomic betterment of Blacks, either as individuals or as a race. Du Bois wrote:

> I do not deny, or for a moment seem to deny the paramount necessity of teaching the Negro to work, and to work steadily and skillfully; or seem to depreciate in the slightest degree the important part industrial schools must play in the accomplishment of these ends, but I do say, and insist upon it, that it is industrialism drunk with its vision of success, to imagine that its own work can be accomplished without providing for the training of broadly cultured men and women to teach its own teachers, and to teach the teachers of the public schools (Du Bois, 1903 p. 60).

For E. Franklin Frazier, then a faculty member of Tuskegee Institute and also an opponent of "just vocationally" educating the Negro, such education meant that Negroes would be educated only for continued menial work and not for understanding, appreciating, and participating in the broader obligations of first-class citizenship. To him, it meant not fully equipping the Negro to appreciate and understand certain other critical rights and obligations (e.g., voting, participating in partisan politics, owning property, joining labor unions and civic associations, and obtaining the same opportunity for a quality education as Whites. Frazier, 1957 p. 69). Frazier noted that during his tenure at Tuskegee Institute

(1916-1917), he was told by the director of the academic department to:

> stop walking across the campus with books under his arms because white people passed through the campus and would get the impression that Tuskegee Institute was training the Negro's intellect rather than his heart and hands (Frazier, 1957, p. 245).

According to Frazier, he was told:

> schools of industrial education were supposed to instill in their students a spirit of humility and an acceptance of their inferior status.... The emphasis of this education was supposed to be on the 'heart and the hand' rather than the head (1957, p. 69).

Du Bois and fellow educators such as Frazier, believed that to educate the Negro for vocations only, meant ill-equipping the Negro to function in the greater society. The Negro race, argued Du Bois and critics of this philosophy, "must like all other races, be educated, and saved by its broadly educated exceptional men" (Du Bois, 1903 p. 33). Du Bois stated:

> The problem of education [for Blacks] ... is of developing the Best of this race ... the Talented Tenth.... If we make money the object of manual training, we shall develop money-makers but not necessarily men; if we make technical skills the

> object of education, we may possess artisans but not, in nature, men (p. 33).

Simply industrially educating the Negro would, in the view of Du Bois and other critics, negatively impact the present status and the entire future status of the Negro. Du Bois and others argued that in the Negro's world, as well as in the wider world, the educated Negro would be viewed as a role model to which the general masses of Negroes would turn for leadership in the world of work and in the broader society as well. This goal, they believed, would not be attained through industrial education alone.

The debate, dating back to the turn of the century, continues today. Many educators and Black civic leaders continue to view vocational education, as far as Blacks are concerned, as having virtually the same historical mission: to prepare Black laborers for unsophisticated or low-wage services; work reminiscent of the manual labor done by their untrained parents, foreparents, and relatives who were slaves.

## Statement of the Problem

Despite the long-standing debate over the effects of vocational education, Blacks continue their enrollment in vocational education. Many of today's Blacks seem to be ignoring, or are unaware of, the debate. Young Blacks are entering vocational education from all walks of life and with different occupational interests and varying levels of

education. At the same time, arguments from scholars and Black civic leaders indicate there is no consensus regarding the value of vocational education to Blacks as it relates to the labor market, further education, and civic and political participation. Clearly, if this argument is to be informed by facts, there is a need to determine the profile of Blacks that have enrolled in secondary vocational education and to describe their educational and occupational outcomes, as well as their civic and political participation practices. This study, therefore, is concerned with two fundamental issues:

1. The demographic, personological, and educational profile of Blacks enrolled in vocational education and

2. the outcomes for those Blacks enrolled in vocational education, according to their vocational concentration patterns, in terms of work, further education, and civic/political participation practices.

Essentially, the problem is defined by the following: (a) What is the profile of Blacks enrolled in vocational education in terms of gender, urbanicity, geographic region, and the socioeconomic status of their families? (b) How can the outcomes of their enrollment in vocational education be described in relation to their employment status, educational attainment, and community participation practices? and, (c) What changes have occurred over time in their aptitude as reflected by standardized test scores,

educational and vocational expectations, and employment status?

## Research Questions

To address this problem, several specific questions were asked:

1. What is the overall demographic, personological, and educational profile of Blacks enrolled in vocational education, and how does this profile vary in relation to their vocational concentration patterns?

2. How can the Black students enrolled in public vocational education programs be described within their vocational concentration patterns in terms of their employment outcomes, further education outcomes, and civic and political participation practices after their secondary schooling?

3. What are the changes over time among Black youth enrolled in vocational education, within their vocational concentration patterns, with regard to aptitude, educational and occupational expectations, and employment status?

## Justification for the Study

Past, as well as present-day proponents of vocational education maintain there is a positive relationship between vocational education experiences, labor market outcomes, and good citizenship (Hamilton & Claus, 1981). Graduates with vocational education experience realize satisfying

labor market outcomes (Prosser & Quigley, 1968; Lawrence & McAdams, 1978; Mertens & Gardner, 1981).

Mary A. F. Hatwood, past-president of the Virginia Education Association stated:

> Vocational education is the key to the advancement of Blacks' future aspirations ... especially [for] Black employees, the mastery of vocational skills can be a salvation.... Vocational education enables students to identify and develop their career motivations and aspirations (Hatwood, 1977, pp. 65-67).

The claims of critics and proponents can now be examined from a rich source of data not previously available. In 1987, data from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)" survey were published. It is a national longitudinal study that includes up-to-date data regarding the vocational education experiences, labor market outcomes, educational expectations and attainment, and civic and political participation practices of Blacks involved in vocational education. No previous study has utilized these data to focus solely on the value of vocational education for Black youth. This study, utilizing the data from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)" survey, provides significant and valuable information concerning the value of vocational education to these individuals.

Another possible impact of this study is that it will prepare a subset of the "High School and Beyond" data for further study and comparison with other data bases (large or small) as each relates to Blacks and other groups. Virtually all studies of labor market outcomes regarding Blacks and vocational education that have used large-scale data bases (Mertens et al., 1980; Campbell, Orth & Seitz, 1981; Borus, 1981; Mertens & Gardner, 1982), have compared labor market outcomes between races and sexes, but have not described civic and political participation practices of Black graduates. Also, these studies have been bound, for the most part, by the limited labor market experiences of the respondents. That is, these studies have been conducted after graduates have been in the labor market only a few months or for relatively short periods of time. Thus, the labor market experiences of respondents have been very limited.

Finally, despite large investments of federal, state, and local dollars, and time and money by Black students, parents, civic leaders, and educators, there remains a dearth of information about the relationship between and among vocational experiences and (a) labor market outcomes, (b) educational outcomes, and (c) civic and political participation practices of Blacks. This study, a description based on data from a national sample of (a) demographic, personological, and educational variables,

(b) educational and labor market outcomes, and (c) civic and political participation practices of Black youth with varying concentrations of vocational education, will add to the knowledge base of policy makers, general educators, adult educators, vocational education planners, and civic leaders.

## Scope and Limitations of the Study

The use of an existing data base imposed certain limitations on this study because it was a secondary analysis of data collected for general policy research purposes, and not data collected specifically for this study. It is, therefore, limited in breath and scope by the existing data. The subjects were a subsample of Black students drawn from the Third Follow-up. Only those Blacks enrolled in different concentrations of vocational education in public secondary schools were considered. Blacks enrolled in private or religious schools or those who had not taken courses in vocational education were not included. The research limited its concerns to descriptions of selected demographic, personological, and educational variables on those individuals in the sample and the outcomes after high school in terms of work, further education, and civic and political participation. Changes over time relative to educational and occupational expectations, and work status were considered. No attempt was made to make comparisons between these Black students

and other Blacks enrolled in academic and/or "higher" education programs, nor to Whites and other ethnic groups who participated in vocational education or other academic programs.

Another limitation of this study involved the process used to select the variables. The particular variables used were selected based on the perceived potential for each to provide (a) a meaningful descriptive profile of Black participants in secondary vocational education and (b) an explanation of the variability in their educational expectations, labor market outcomes, and civic and political participation practices. The literature indicated the viability of many of these variables for the general population of vocational students, but there was little information available on community participation. Therefore, the community participation variables were selected based on the personal experiences of the researcher who had spent more than twenty-five years working with Black civic and political groups.

## Definition of Terms

Detailed operational definitions of the variables used in this study are provided in Chapter 3. The following are descriptions of the variable categories only.

Aptitude.

In this study, the term aptitude referred to the average of the non-missing reading, vocabulary, and math (Part I) standardized scores as measured by the quartile in which the respondent's score falls.

Demographic Variables

The demographic variables included the respondents' race, gender, high school type, urbanicity, high school region, and the socioeconomic status of the respondents' parents. The term socioeconomic status, as used in this study, had the same meaning as that used in the Third Follow-Up. It reflected those scores estimated by a set of frequently used indicators including (a) parents' education, (b) home literacy indicators such as newspapers subscribed to and library cards held, and (c) parents' job status. (Campbell, Gardner & Seitz 1982).

Personological Variables

Personological variables described self-determined values such as occupational expectations, educational expectations, and postsecondary educational plans.

Educational Profile of Students

This category included those variables that indicated the students' high school grade averages and First Follow-Up standardized test scores.

Vocational Concentration Pattern

This category described the "course taking" concentration patterns of students enrolled in vocational education. These patterns were described as Concentrators, Limited Concentrators, and Samplers.

Employment Outcomes

Outcomes included those variables that indicated the employment status at specific time periods. Employment status classifications were defined as follows:

1. Full-time - The respondent had at least one job and was employed not less than thirty-five hours per week on that job.

2. Part-time - The respondent had one or more jobs, but did not work thirty-five hours per week at any single job even if the total hours for all jobs together amounted to thirty-five or more hours.

3. Unemployed and not a full-time student - The respondent was without a job and looking for work.

4. Not in the labor force - The respondent was without a job and not looking for work or was a full-time student (Center for Educational Statistics, 1986).

Educational Outcomes

This category included the variable, educational attainment, which indicated the highest educational level the respondent had achieved or attained at the time of the Third Follow-Up survey.

Civic and Political Practices

This category included variables related to two types of participation activities, civic and political. Civic activities were those related to having voted, and membership in selected voluntary, religious, community, or neighborhood groups. Political participation activities were those related to campaigning for politicians, attending socio-political gatherings, and membership in political clubs or organizations.

Changes Over Time

This category contained variables that indicated trends or changes in the students' aptitude as defined by standardized test scores, educational and vocational expectations, and employment status.

# CHAPTER 2

## Review of Literature

An examination of the literature that pertained to vocational education experiences of Blacks, their educational and labor market outcomes, and the differential effects of race and gender on the education and employment of Black youth are provided in this chapter. Also, studies concerning the socioeconomic levels of parents, postsecondary educational plans, urbanicity, geographical area, and civic and political participation of Black youth were included. Furthermore, a review of the characteristics of the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)" data set has been provided.

### Vocational Education and Socioeconomic Status

Studies by several researchers (Gelb, 1979; Schreiber, 1979 (cited in Self, 1985); Hewitt & Johnson, 1979; Durken, 1981; Rumberger, 1981; Martin, 1981; and Meyer, 1981), indicated an inverse relationship between socioeconomic status of parents and educational and scholastic attainment of students. This relationship, if negative and controlled through use of other variables to determine success of graduates of vocational programs, has not been perceived by researchers to be as significant a factor as the variable, aspiration.

According to Gleb, 1979: Schreiber, 1979 (cited in Self 1985); and Martin, 1981, vocational education tended to be selected as an alternative education career for students from families with low socioeconomic status for a variety of reasons. Selection seemed to provide a means to escape "unpleasant" work such as remaining on the family farm or continuing in a family business or vocational enterprise.

In studies conducted by Bachman, Green, & Wirtanen, (1971) and Christensen, Melder & Weisbrod (1975), parental education was found to be positively correlated with college attendance. Campbell, Gardner, and Seitz (1982) studies of patterns of youths' participation in secondary vocational programs also found that students from families with low socioeconomic status tended to be high concentrators in vocational subjects. Most of these students acquired six or more credits in a vocational education specialty. When Campbell, et al. replicated studies by Gleb (1979) and Meyer (1981), they also found similar results regarding family socioeconomic status and additional schooling of Blacks; again, in agreement with Gleb and Meyer. Both Gleb's and Meyer's studies used data from the "National Longitudinal Study of the High School Senior Class of 1972." This replication, referred to as the "NLS Youth Study," and the previous study, "Gleb Class of 1972," found that individuals of higher socioeconomic

status were associated with higher postsecondary attainment.

A goal, and often touted purpose of vocational education, has been to take individuals from all socioeconomic levels and prepare them for rewarding vocational careers. Several studies have revealed that this goal, however, has not always been achieved. According to Durken (1981), who conducted a comprehensive study of vocational secondary dropouts, most had parents with low socioeconomic status, low educational attainment, and low occupational aspirations. In spite of these relationships, Durken concluded that other factors, such as differences in the course offerings and racism within the educational system, may also have been responsible for the failure of Black youth to achieve rewarding careers.

A study by Stronge and Villemez (1977), conducted to determine whether postsecondary vocational education lessened the gap between high and low socioeconomic levels, suggested that individuals from higher socioeconomic levels took greater advantage of postsecondary vocational education. Stronge and Villemez's study compared the gains received from vocational education by those with low socioeconomic backgrounds to gains received by those with high socioeconomic backgrounds. Analysis of the responses provided by 1565 persons who had completed vocational programs indicated that postsecondary vocational and

technical education systems increased inequality between the socioeconomic class levels. This result, they concluded, was due primarily to the fact that more upper status individuals than lower status individuals were served by the vocational educational system.

The relationship between the socioeconomic status of families and the educational attainment of youth has been well established in the literature. The studies cited above indicated a positive relationship between the socioeconomic status of parents and the vocational education experiences of students, especially dropouts. Having low socioeconomic status was found to be related to dropping out of school and low postsecondary school attendance. Students with low socioeconomic status also tended to concentrate and chose vocational education as an alternative career and had lower postsecondary and scholastic attainment.

## Vocational Education and Regionality

Western residents, according to Campbell, et al. (1982), regardless of race or sex, were less likely to participate in four-year college programs. They found all western residents, except White males, were more likely to attend two-year colleges than their counterparts in other regions of the country.

Adams and Miller's (1980) study of the south's rural high schools, particularly their vocational education programs, revealed these schools and programs continued to reflect the history, social relationships, attitudes, and values of the region. They found that for Southerners:

> Vocational education is at the bottom of the educational system in the class origins of its students and in their job prospects; it "has become a means to prepare rural Southern youngsters for entry-level openings in any low-skilled, low-wage industry which happens to need job fodder." The curriculum also perpetuates stereotyped roles for Blacks and women and often fostered emotional and academic dependency and unquestioning acceptance of authority. About half of the currently offered courses are in home economics and agriculture.... Students graduate with little or no training in specific technical skills; the skills training they receive is usually for jobs found only in more metropolitan centers. After graduation, students can: (1) accept a low-paying job in any manufacturing plant that will hire them; (2) attend a technical institute or community college to acquire needed skills, if they can afford it; (3) enlist in the military for its vocational training. (abstract p. i)

According to the literature, the geographic region in which students resided had an impact on their participation in vocational education programs. Participation in vocational education also appeared to be moderated by variables such as economics, student aspiration, social history of the region, the social attitudes and values of students and parents, and the curriculum students were advised to take.

## Vocational Education and Urbanicity

Robertshaw and Wolfle (1980) found vocational education experiences of youth were affected by urbanicity. The vocational experiences of high school youth differed in accordance to the degree of "urbanness" of the community in which the students lived. In their study of discontinuities, Robertshaw and Wolfle found vocational education graduates with rural backgrounds enrolled in college at a lower rate.

Campbell, et al. (1982) found rural residents were somewhat less likely to participate in any kind of postsecondary educational program when expectations were not considered. According to them, the degree of urbanization of the youths' residences did not have a major impact on successful postsecondary participation; however, the difference between urban and rural areas was apparent when student expectations were considered.

The studies showed that the degree of "urbanness" affected students enrollment in college and participation in postsecondary educational programs. They indicated differences in college and postsecondary participation between the urban and the rural students.

Vocational Education and Labor Market Outcomes

Braddock, et al. (1985), Oakes (1981), and Pincus (1980) agreed that although the legislation affecting vocational education had changed dramatically over the years, vocational education did not seem to be doing much to improve the labor market outcomes of Blacks.

According to Pincus (1980), vocational education, especially that offered through postsecondary institutions, offered false promises to its students. Pincus argued that in today's economic climate, vocational education offerings which were developed in response to the rising aspirations of the working class, provided a poor payoff under the present economic system. Therefore, promotion of vocational programs raised unrealistic expectations in Blacks and other students with lower socioeconomic status.

Critics have stated that Blacks generally, and female Blacks from lower socioeconomic backgrounds especially, have received unfair treatment in terms of labor market outcomes. According to Pincus (1978) and McClure (1977), vocational education may in fact have reinforced and perpetuated stereotypic, "socially accepted" occupations

for women. Their concern is that Black females enrolled in vocational education continued to drop their economic and career "buckets" in a sea; not of prosperity, but of low wages, limited opportunities for advancement, and low-status jobs only later to find they needed to start over again. According to McClure (1977):

> Jobs for which women and minorities are being trained in vocational schools are still the lowest paid, the most menial, the least skilled, and the most restrictive of upward employment mobility (p. 3).

Koontz (1977) too, argued that vocational education had a negative connotation with Blacks of lower socioeconomic backgrounds. The term vocational education, in her opinion, needed redefining. She believed it conjured up plantation images. The "pull yourself up by your bootstrap mentality in today's society is unacceptable." (p. 10.)

Rumberger and Daymount (1984) (cited in Borus, 1984), using the occupational and educational code crosswalk prepared by the National Occupational Information Coordinating Committee (1979, p. 178) partitioned program credits into two categories: one for program credits related to the respondent's occupation and the other for the remaining credits. They found for both men and women, in each labor market outcome considered, the effect of vocational training used on the job was significant and

substantially greater, than the effect of vocational training if or when the training was not relevant to the job. They concluded that vocational training yielded a higher payoff for those individuals employed in jobs that utilized their training.

Rumburger and Daymount (1984) found few systematic patterns with regard to race and ethnic differences in labor market outcomes, according to occupational areas. They did, however, find some evidence that the effects of both academic and vocational training on hourly earnings were lower for Blacks.

The literature revealed both positive and negative relationships between vocational education experiences and labor market outcomes. There was a positive relationship between occupational training and earnings when individuals were employed within an occupational area in which they had been trained. A negative relationship, however, existed between certain labor market outcomes within certain trade areas traditionally reserved for members of one gender (e.g., clerical subjects for females and carpentry and bricklaying for men). The literature suggested that vocational education, especially for the low socioeconomic status students, raised unrealistic expectations and did not improve labor market outcomes because of the presence of low wages, unfair labor market treatments, and stereotypic attitudes in the labor market.

Labor Market Outcomes of Blacks

According to some researchers (Lawrence & McAdams, 1978; Campbell et al., 1981a and 1981b; Grasso & Shea, 1979; Harlan & Hackett, 1984; Stronge & Villemez, 1977), a direct relationship has been shown to exist between vocational education and labor market outcomes. Simpson (1982), in a National Urban League Black Pulse Survey, found positive outcomes for Blacks with vocational education. Blacks with training had higher wages and lower unemployment rates than did untrained Blacks. He concluded, vocational training made a difference in the earning of Black families.

Hamilton and Claus (1981) examined vocational education work training programs and found that such programs had a positive impact on the labor market experiences of underprivileged youth, if the work training programs were based on concepts of democracy and entrepreneurship. Programs based on these concepts, they found, facilitated improvement in employment opportunities for the disadvantaged and for minority youth. Hamilton and Claus attributed many of the employment problems of youth to inequities or deficiencies in the economic and social structures of society and the marketplace that overlooked the value of these concepts. Studies by Lawrence and McAdams, 1978; Campbell et al., 1981a and 1981b; Grasso and Shea, 1979; Harlan and Hackett, 1984; and Stronge and

Villemez, 1977, complemented the findings of Simpson, (1982), Hamilton, and Claus 1981).. The literature reviewed supported, to some extent, the assumption that vocational education has had a positive effect on the labor market outcomes of Blacks. Blacks with training had higher wages and lower unemployment rates. These studies also revealed that success for Blacks in the labor market was dependent on factors such as the philosophy and type of training programs Blacks experienced.

Labor Market Outcomes and Gender of Blacks

Some researchers (McClure, 1977; Pincus, 1978; and Borus, 1981) claimed the effects of vocational education on labor market outcomes and career outcomes showed a difference relative to gender.

Braddock, et al. (1985) conducted an experiment with a national sample of 1101 employers and found a tendency for White personnel officers to assign Black male high school graduates to lower paying positions than those assigned to other high school graduates. Similar patterns of employment were also observed for Black female college graduates.

Campbell, Gardner, and Seitz (1982) found a relationship between gender and labor force status. They found that while being female had no significant effects on unemployment, there was a 21 percent greater expectancy for them to be out of the labor force than for males. They

also found female participants in vocational education courses tended to earn more per week than their counterparts, without vocational training. Further, females tended to have significantly higher representation in vocational specialty areas and a more intense pattern of participation than males. Minority females who earned six or more credits in a specialty area, earned significantly more money ($40-$49/week).

According to a study of younger adult workers by Mertens and Gardner (1982), sex stereotyping was present in vocational education and strongly felt in vocational programs and employment. In their study of systematic long-term relationships between vocational education and employment outcomes, Mertens and Gardner concluded:

> Business programs (which include some occupations that are traditionally held by women) and a composite of health, home economics, and agriculture programs are associated with lower earnings for men. For women, trade and business programs [sic] graduates tend to be respondents with higher earnings when the comparisons are restricted to those who have no college education. Marketing, too, is associated with lower earnings for that same group of women (p. 15).

According to Borus (1981), females and Black youth bore the brunt of vocational education's differential effects. He stated:

> Among the out of school youth, Black males earned 11 percent less per hour than did comparable White youth.... Females earned 20 percent less per hour than did comparable males ... and, Whites were more positive about the characteristics of their jobs and were more likely [than Black youth] to say they liked their jobs very much. (p. iv)

McClure (1977) reported vocational education continued to:

> reinforce and perpetuate stereotypes as to the socially accepted occupations for women ... jobs that women are being trained for are still the lowest paid, and the most menial, the least skilled, and the most restrictive of upward mobility (p. 3).

The literature reviewed pertaining to vocational education and differential effects between genders clearly revealed the existence of gender stereotyping and an inequity in the labor market outcomes between males and females. Studies revealed that with training, females could earn more, but stereotyping (as to the traditional jobs and wages for women) existed in the labor market. The higher pay-offs associated with having training supported the findings of other studies cited elsewhere in this review.

## Postsecondary Education Plans and Blacks

In a survey of 929 full-time male students (35% Black), in eight of twenty postsecondary vocational centers in Mississippi, DeBord and Williams (1976) found 53.9% of the Black students expected to continue their education and receive university and/or graduate degrees. Seventy-six percent of these Blacks came from homes with family incomes under $5,000.

Borus and Carpenter's (1982) (cited in Borus, 1982) study of the career choices made by vocational graduates found that of the 3.1 million youth enrolled in the 12th grade in the spring of 1979, 48% were enrolled in college a year later. Based on their study, they concluded the same variables that influenced youth to drop out of high school were important when youth made the decision to attend or not attend college.

The decision to acquire additional education was found to be influenced by a variety of factors. According to Kolstad (1970), the decision to attend college was affected by race. Robertshaw and Wolfle (1980) found college attendance was affected by gender, and Rumberger (1981) (cited in Borus, 1982) found college attendance was influenced by age. According to Kolstad (1979), the high school curriculum was an important determinant in a youth's decision to go to college.

A staff report (1984) of the "California Postsecondary Education Commission's First Follow-Up Survey of the High School Class of 1983," found Blacks had the lowest postsecondary participation rate of five ethnic groups. They were least likely to indicate plans to attend school or college while working; however, they were most likely to be looking for work while going to school. Also, Blacks were most likely to be involved in two or more activities while attending school or college.

Brown (1982), using data from the "National Longitudinal Study of the High School Class of 1972" and corresponding data from the "High School and Beyond School Survey (1980)," found the proportion of Black high school seniors planning to enroll in strictly vocational schools had decreased between the years 1972 and 1980. In 1972, 21.6% of the Blacks surveyed intended to enroll in strictly vocational colleges, but in 1980 this percentage dropped to 12.1%.

Brown (1982) found that Blacks' overall expectation for postsecondary education had increased. In 1972, 78.5% of the Blacks surveyed had plans to enroll in a postsecondary institution; however, in 1980, 87.9% of the Blacks surveyed expected to have community college or four-year college experiences, an increase of over nine percent (9.4%).

Campbell, Gardner, and Seitz's (1982) study of postsecondary experiences of students with varying patterns of concentration in secondary vocational education revealed a majority of high school graduates had enrolled in some type of postsecondary education. However, they found an inverse relationship between the amount of vocational education studies in high school and further education sought by the graduates. Generally, as the level of concentration in vocational education increased, the likelihood of enrollment in postsecondary education decreased. Also, over three-fourths of all graduates without any vocational experience engaged in some type of continued schooling, compared to slightly more than one-half of those who had six or more credits (high concentrators) in a specialty area. Further, those with high vocational education concentrations exhibited a slightly greater tendency to enroll in technical training institutions than did others.

In a study of Blacks entering postsecondary institutions, Brown (1982) found the percentage of Blacks in the top quartile had increased from nearly five percent (4.9%) to more than eight percent (8.6%) during the period, 1972-1980. He concluded that while traditional schools had already siphoned off a sizeable percentage of the students planning to attend vocational school, some vocational graduates had elected not to attain higher education for

reasons other than ability. According to Schreiber (1979), not only did at least 10% of the students who dropped out of secondary school have the intelligence to finish secondary school, but they also had the academic ability to pursue a college education (cited in Self, 1985).

The previous literature revealed an inverse relationship between general postsecondary education plans and postsecondary vocational education plans. As educational expectation for a university/college degree, and actual enrollment in college increased, there was a corresponding decrease in postsecondary vocational education plans. The literature revealed that the same inverse relationship was found between the amount of vocational education studied and further education sought by the students. It was found that as concentration in vocational education increased enrollment in postsecondary education decreased. Some literature indicated that variables such as race, gender, age, and curriculum mediated in a student's decision to go to college.

Vocational Education and Educational Outcomes

In a national study that used a purposive sample of 210 vocational education courses offered in 12 senior high schools, 12 junior high/middle schools, and one school combining grades 7-12, Oakes (1981) found substantive differences in the secondary vocational education experiences of White and non-White youth. Among her

findings were (a) Non-Whites, more than Whites, were directed via their vocational training, toward futures in lower-class social and economic positions and (b) stratification according to race began as early as junior high school. That is, courses in clerical and manual labor were offered almost exclusively in non-White and mixed schools. Blatant differences according to race existed in vocational business courses dealing with manual skills. Courses serving non-White students were more likely to consist of training for specific low-level occupations such as cosmetology, the needle trades, carpentry, building maintenance, t.v. repair, and vocational child care, than in White schools. Certain courses such as marine technology and aviation, offered at White schools, were not offered at non-White schools. Courses at White schools tended to be held on-campus (or on a college campus) and fit in with the regular school schedule, but this was not the case with courses offered in predominately Black schools (Oakes, 1981).

Mertens and Gardner (1982) used data from three sources: (a) a telephone survey of 1539 young adults between the ages of twenty and thirty-four, (b) the 1966-78 "National Longitudinal Surveys of Labor Market Experiences for Young Men and Young Women," and (c) the "National Longitudinal Study of the High School Class of 1972," to examine the systematic, long-range relationship between

exposure to vocational education and various indices of educational and employment outcomes. They found graduation from a vocational high school curriculum was negatively associated with completion of traditional postsecondary education, but positively associated with completion of non-traditional postsecondary experiences such as apprenticeship and employer-sponsored training. Completion of these programs was also associated with higher earnings for students than for those who completed a general curriculum.

The literature indicated differences in curricular directions given to Whites and non-Whites which prepared them for different futures, via vocational education. Studies showed that graduation from a vocational high school curriculum was negatively associated with traditional postsecondary education, yet positively associated with completion of non-traditional postsecondary experiences such as apprenticeships and employer-sponsored training. Again, this finding supported claims by some that labor market needs and the socioeconomic realities faced by the respondents mediated plans for additional education.

# CHAPTER 3

## Methodology

Essentially, the problem is defined by the following: (a) What is the profile of Blacks enrolled in vocational education in terms of gender, urbanicity, geographic region, and the socioeconomic status of their families? (b) How can the outcomes of their enrollment in vocational education be described in relation to their employment status, educational attainment, and community participation practices? and, (c) What changes have occurred over time in their aptitude as reflected by standardized test scores, educational and vocational expectations, and employment status? The study was conducted in three phases. In phase one, a subsample of Black students enrolled in one or more vocational education courses was identified from the High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986) (Third Follow-Up). Appropriate numbers, frequencies, estimated population proportions, and central tendencies were used to provide an overall description of these students according to selected demographic, personological, and educational variables. These variables were gender, urbanicity, high school region, parents' socioeconomic status, the students' educational and vocational expectations, their high school grade averages, and their

aptitude test scores. Comparisons were made across vocational concentration patterns.

The second phase described the sample in terms of selected outcomes as follows: (a) employment status, (b) educational attainment, and (c) civic/political participation practices. Comparisons were made across vocational concentration patterns.

The third phase described student changes over time within vocational concentration patterns. These descriptions included changes in (a) aptitude, (b) educational and vocational expectations, and (c) employment status at four periods of time.

## The Data Base

Data for this study were drawn from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)." This survey, Third Follow-Up, is a portion of the "High School and Beyond" longitudinal studies program conducted by the Center for Education Statistics (CES) the mission of which includes collecting and disseminating statistics and other data related to education in the United States; and conducting and publishing reports of specific analyses regarding the meaning and significance of such statistics (Education Amendments of 1974, Public Law 93-380, Title V, Section 501, amended Part A of the General Education Provisions Acts).

According to CES (Third Follow-Up, 1987, p. 1), this long term project was instituted specifically for the purpose of:

> study[ing] longitudinally the educational, vocational, and personal development of young people, and the familial, social, institutional, and cultural factors that may affect that development.

Overall, the HS&B program included two cohorts, a Senior Cohort and a Sophomore Cohort. Each cohort was surveyed at regular two-year intervals and comparable data were collected from successive cohorts, permitting studies of trends relevant to educational and career development and societal roles. Information gathered has been used to provide federal and state policy makers with information to formulate education policy.

Base-year data applying to these high school sophomores were collected in 1980. The study design used a highly stratified national probability sample of more than 1,100 secondary schools in the first stage of selection. In the second stage, 36 seniors and 36 sophomores were selected in each school (in schools with less than 36 students in either the senior or sophomore classes, all eligible students were included). More than 30,000 sophomores and 28,000 seniors in 1,015 public and private schools participated in the national survey. It should be noted that the sample was designed to include

disproportionate numbers of sample members from policy relevant subpopulations such as racial and ethnic minorities.

The progress of student cohorts in the HS&B program was followed during high school, as well as during the students' transition to postsecondary education, work, and family formation. Three follow-up surveys were conducted at two-year intervals. While both cohorts participated in the follow-up surveys, this study included only respondents from the Sophomore Cohort. Questionnaires were used to elicit student responses. The questionnaires focused on information pertaining to individual and family backgrounds, high school experiences, work experiences, and plans for the future.

The Third Follow-Up survey of the Sophomore Cohort was conducted in the spring and summer of 1986 using a subsample of 14,825 sophomores. Its data file included 13,425 completed questionnaires, approximately 98.1% of the 13,682 sophomores surveyed in 1984 (Second Follow-Up). Individuals were requested to update background information and to provide information about their work experiences, unemployment history, educational and other training, family information, income, and other experiences subsequent to graduation from high school. (Center for Educational Statistics, 1986, p. 47). This follow-up included information on a large set of composite

variables such as race, socioeconomic status of the students' parents, the students' educational expectation and attainment, aptitude, high school grade averages, employment status, and postsecondary education plans. In addition, it included variables related to educational and civic and political outcomes (Center for Educational Statistics, 1987, Appendix C).

## The Sample

This study used a subset of data gathered from the Third Follow-Up data file. This data file included not only information collected during the Third Follow-Up survey, but also information obtained at the Base-year, First-year, and Second-year follow-up surveys on students who participated in the Third-year follow-up survey. The subset consisted of Blacks participating in the national study who were enrolled in public high schools and also, in one or more vocational education courses. According to CES (Table 4.6-1, p. 47), 1,783 Blacks completed and returned questionnaires. Their overall response rate was 87.9%. Of this number, 1723 (96.6%) were enrolled in public schools and took vocational education courses either as a Concentrator, a Limited Concentrator, or as a Sampler.

## Variable Specification

The Third Follow-Up questionnaire collected information about more than 1,190 data items (variables). Thirty-one variables were used in this study. The researcher also employed the use of weights and participation flags. Weights were used to obtain estimates (within sampling error) of the population values on these variables. In the data analysis both sample values and population estimates were provided where appropriate. The weights used in this study were: (a) base-year weight (BYWT), (b) first follow-up weight (FUWT), (c) second follow-up weight (FU2WT), and (d) third follow-up weight (FU3WT).

Participation flags were used to identify respondents who participated in any of the surveys (e.g., base-year, first follow-up, second follow-up, and third follow-up). The composite variable, vocational concentration pattern (VCONPATN), were used to identify the relevant concentration of vocational course work by respondents. The composite variable, race (RACE2), was used to identify Black students, and the composite, variable (HSTYPE), were used to identify respondents in public high schools.

Where appropriate this study used composite variables. Seventeen such variables were used in this study. These variables provided increased accuracy because they incorporated data from multiple sources or

time periods and have been edited prior to inclusion in the date file. In some cases, composite variables were constructed from several variables or from variables taken from different databases (e.g., data from the HS&B Sophomore Cohort High School Transcript Study). For example, information about the composites, SEX and RACE2, was available from several sources including the Base-year through the First Follow-Up of the HS&B. (Center for Educational Statistics, 1987, p. 67). Composite variables used in this study were: (a) composite race (RACE2), (b) sex composite (SEX), (c) high school type (HSTYPE), (d) high school urbanicity (HSURBAN), (e) high school region (HSREG), (f) First Follow-Up socioeconomic status of parents' quartile (FUSESQ), (g) Base-year test scores quartile (BYTESTQ), (h) First Follow-Up test scores quartile (FUTESTQ), (i) postsecondary educational plans (PSEPLANS), (j) high school grade averages (HSGRADES), (k) educational attainment (EDATTAIN), and (l) employment status as of October, 1982 (JOBSOC82), February, 1983 (JOBSFE83), October, 1983 (JOBSOC83), and February, 1984 (JOBSFE84).

The variables used in this study were grouped into five categories: (a) demographic, (b) educational and personological, (c) labor market and educational outcomes, (d) civic and political participation practices, and

(e) changes over time. The operational definitions of variables used in this study were as follows:

Demographic Variables

A primary purpose of this study was to describe the Black students enrolled in public vocational education. Questions abounded relative to the demographic profile of these Blacks. For example, were Black females more likely to pursue vocational programs or be greater concentrators than Black males? Were Black concentrators more heavily represented in certain regions of the country, from urban areas, and/or within certain socioeconomic levels? To answer these questions this study utilized the following demographic variables: (a) race, (b) sex, (c) high school type, (d) urbanicity, (e) geographic area, and (f) socioeconomic status of the student's family at the time of the First Follow-Up (1980). The operational definitions of these variables follow:

1. Race (RACE2) - a composite variable derived from the individual's responses to items indicating race in the Base-year and Follow-Up questionnaires. Only Blacks were included in this study.
2. Sex (SEXCOMP) - a composite variable of the individual's responses to items in the Base-year and follow-up questionnaires. Males were coded 1 and females were coded 2.

3. High school type (HSTYPE) - a composite variable of the type of high school attended by the respondents. Only those who attended public schools were included.
4. Urbanicity (HSURBAN) - a classification of each respondent's high school according to the Curriculum and Information Center (CIC) urbanization codes. This variable was coded: urban or central city = 1, suburban, in SMSA but not central city = 2, or rural, but not in SMSA = 3.
5. Socioeconomic status (FUSESQ), - a composite variable that identified the quartile of the population distribution that applied to the socioeconomic score of each student's family, at the time of the First Follow-Up. Cutting points for this variable were calculated for the weighted population of SES scores (using FUWT) rather than based on the assumption of a normal distribution of scores. Categories were coded: lowest quartile = 1, 2nd quartile = 2, 3rd quartile = 3, and highest quartile = 4.

Personological Variables

Many educators and civic leaders have expressed concern that vocational education has become the "dumping ground" for students with low occupational and educational

expectations. Therefore, one purpose of this study was to describe Blacks enrolled in vocational education in terms of their occupational and educational expectations and postsecondary educational plans. The operational definitions for the personological variables used in this study follow:

1. Occupational expectations (FY77A - Job would like to have at 30.) - indicated the type of work expected by the respondent at age 30. Responses to this variable were coded as follows: clerical = 1, craftsman = 2, farmer or farm manager = 3, homemaker or housewife only = 4, laborer = 5, manager or administrator = 6, military = 7, operative = 8, professional (accountant, artist, registered nurse) = 9, professional (e.g., clergy, dentist, physician, lawyer, scientist, college teacher) = 10, proprietor or owner = 11, protective service = 12, sales = 13, school teacher = 14, service = 15, and technical = 16.
2. Educational expectations (FY80 - How far in school expect to get.) - indicated educational expectation. Responses were coded as follows: less than high school graduation = 1, high school graduation only = 2, vocational, trade, or business school after graduation (less than 2

years) = 3, two or more years = 4, college program (less than two years = 5, two or more years = 6, finish college = 7, Master's degree or equivalent = 8, Ph.D., M.D. or other advanced degree = 9.

3. Postsecondary educational plans (PSEPLANS - Postsecondary educational plans) - indicated the amount of schooling the respondent planned to attain. This variable was coded as follows: none = 1, vocational-technical = 2, less then four-year degree = 3, college degree = 4, and advanced degree = 5.
4. High school grade average (HSGRADES) - identified the grade point averages on the transcript. This variable was coded as follows: mostly A's or 90-100 = 1, half A's and B's or 85-89 = 2, mostly B's or 80-84 = 3, half B's and C's or 75-79 = 4, mostly C's or 70-74 = 5, half C's and D's or 65-69 = 6, mostly D's or 60-64 = 7, below D or 60 or less = 8.
5. Test scores (FUTESTQ) - identified the quartile of the population distribution (weighted) that applied to each student's score at the First Follow-Up. These quartiles were coded as follows: lowest quartile = 1, 2nd quartile = 2, 3rd quartile = 3, and highest quartile = 4.

Labor Market and Educational Outcomes

A major claim of vocational education advocates has been that vocational education prepares persons for immediate employment and that it opens doors for continued educational pursuits. An examination was made of the labor market status and the educational outcomes of Black youth who had enrolled in vocational educational programs. Respondents' employment status, as of February, 1983 (approximately eight months after high school graduation), was determined. The following variables were used to describe the employment status of Black youth who had enrolled in vocational education and had graduated from high school:

1. Employment status (JOBSFE83) - indicated the employment status of respondents as of February, 1983. This variable was coded as follows: full-time = 1, at least part-time = 2, unemployed, not full-time student = 3, not in the labor force = 4.
2. Educational outcomes (EDATTAIN) - described the educational attainment of Blacks enrolled in vocational education. This variable was coded as follows: less than high school diploma = 1, high school diploma = 2, license or certificate = 3, two to three years vocational degree = 4, four-year bachelor's degree = 5, master's degree = 6, Ph.D, or advanced degree = 7.

Civic and Political Participation

A concern of some Black critics regarding the participation of Black youth in vocational education programs has been that Black youth may not have been sensitized to their civic and political responsibilities and obligations. This study examined the civic and political practices of Blacks enrolled in vocational education. The following selected variables were used to describe their participation in this study:

1. Civic participation

   (TY59E) - membership in a community or neighborhood group,

   (TY59F) - membership in an organized volunteer group,

   (TY59D) - membership in other voluntary groups. These variables were coded: active participant = 1, member only = 2, not at all = 3. Also, respondents were asked if they were, "Registered to vote" and if they had, "Voted in elections between March 1, 1984 and February 2, 1986." Their responses were coded: Yes = 1 and No = 2.

2. Political Participation

   (TY59C) - member of a political club or organization, (TY55D) - ever campaigned for or against a candidate, (TY55F) - ever go to socio-political gatherings, and

(TY55G) - ever worked to help candidate in campaign. Their responses were coded: Frequently = 1, Sometimes = 2, and Never = 3.

Changes Over Time

The final question in this study was, "What were the changes over time in the Black students enrolled in vocational education?" Four categories of selected variables were used and examined at selected points in time. The categories and variables used were as follows:

1. Aptitude

   (BYTESTQ) - Base-year test score quartiles and

   (FUTESTQ) - First Year Follow-Up test score quartiles.

2. Educational expectations

   (BB065) - "Schooling you think you will get?"

   (FY80) - First Follow-Up response to, "How far in school you expect to get?"

   (SY13) - Second Follow-Up response to, "Expected level of education," and

   (TY19A) - Third Follow-Up response to, "How far in school will you get?"

3. Vocational expectations

   (BB062) - Base-year response to, "Occupational expectations at age 30,"

   (FY77A) - "Job would like to have at 30,"

(SY54A) - "Expected occupation at age 30" and

(TY15A) - "Describe job at age 30."

4 Employment status

(JOBSOC82) - Employment status in October, 1982,

(JOBSFE83) - Employment status in February, 1983,

(JOBSOC83) - Employment status in October, 1983,

(JOBSFE84) - Employment status in February, 1984.

Participation Flags and Concentration Patterns

Participation flags were used to identify those Black youth who responded to any particular wave of the longitudinal study. Concentration patterns indicated their vocational education "course taking" patterns. Research questions 2 and 3 examined outcomes and changes over time according to the amount of vocational course work respondents had completed. The variable, "VCONPATN," was used to divide the sample of Black students into subgroups based on completion of one or more vocational courses.

Participation flags and vocational concentration patterns used were:

1. Participation flags

(BYPART) - identified those who participated in the Base-year survey,

(FU1PART) - identified those who participated in the First Follow-Up survey,

(FU2PART) - identified those who participated in

the Second Follow-Up survey,

(FU3PART) - identified those who participated in the Third Follow-Up survey.

To examine changes over time for the same individuals, all participation flags associated with the relevant data collection points were invoked.

2. Vocational concentration patterns

(Concentrators) - students who earned four or more credits in a single vocational educational program or earned four or more credits each in multiple instructional programs (e.g., business, marketing). Their concentration pattern was coded 1.

(Limited Concentrators) - students who earned four or more credits in vocational education, but less than four in a single instructional program. Their concentration pattern was coded 2.

(Samplers) - students who earned between a fraction of a credit and four credits in vocational education. Their concentration pattern was coded 1.

# CHAPTER 4

## Analysis of the Data

The central problem of this study was to describe Blacks enrolled in vocational education in terms of their demographic, personological, and educational characteristics and their employment, educational, and civic/political outcomes. First, an overall description of the Black participants was developed according to selected demographic, personological, and educational characteristics. These demographic characteristics were gender, urbanicity, geographic region, and the socioeconomic status of the students' families. The personological characteristics considered were the students' occupational and educational expectations and their postsecondary educational plans. The educational characteristics considered were the students' high school grade averages and their aptitude test scores. The same variables were used to describe the students' employment and educational outcomes.

Student involvement in civic and political activities was described in terms of voter registration and recent election participation. Also, participation in selected civic and political activities, such as membership in neighborhood and community groups or other voluntary groups, was described.

Further, changes over time in the student's aptitude, educational and vocational expectations, and employment status were described. The data were analyzed in relationship to each research question. Each research question was summarized, followed by the analysis of the data.

## Research Questions

### Research Question One

The first research question was: "What is the overall demographic, personological, and educational profile of Blacks enrolled in vocational education and how does this profile vary in relation to their vocational concentration patterns?" An overall analysis of Blacks who completed one or more courses in vocational education was made (Tables 1-6).

Out of a total population of 14,828 students who participated in the Third Follow-Up Blacks numbered 1,783 (CES, 1986, p. 47). As a subgroup, their overall response rate was 87.9%. Of this number (N = 1723) 96.6% attended public schools and took one or more vocational courses.

Demographic profile. Male respondents comprised 48% of the sample and female respondents, 52% (see Table 1). Almost one-half (49.9%) attended urban high schools. Nearly thirty-two percent (31.8%) attended suburban schools and 18.3% were products of rural high schools. Over one-half (52.3%) of the Black students in vocational education

courses resided in the South, followed by those from Northeastern, North Central, and Western regions.

Of Black respondents enrolled in vocational courses, 47.6% came from the lowest socioeconomic (SES) quartile and the lowest percentage (9.2%) were from the highest quartile. About forty-three percent (43.3%) belonged to the middle two quartiles. In terms of estimation of the high school population, 52.5% of vocational education students belonged to the lowest quartile and only about seven percent belonged to the highest quartile.

Table 1

Demographic Profile of Black Students

| Variables | Frequency Sample | Percent Sample | Estimated Population % |
|---|---|---|---|
| | Gender | | |
| Male | 649 | 48.0 | 45.7 |
| Female | 702 | 52.0 | 54.3 |
| | Urbanicity | | |
| Urban | 860 | 49.9 | 48.3 |
| Suburban | 548 | 31.8 | 30.4 |
| Rural | 315 | 18.3 | 21.4 |
| | Regionality | | |
| Northeast | 346 | 20.1 | 20.7 |
| North Central | 339 | 19.7 | 16.8 |
| South | 901 | 52.3 | 55.8 |
| West | 137 | 8.0 | 6.6 |
| | Socioeconomic status | | |
| Lowest quartile | 579 | 47.6 | 52.5 |
| Second quartile | 316 | 26.0 | 25.5 |
| Third quartile | 210 | 17.3 | 14.9 |
| Highest quartile | 112 | 9.2 | 7.0 |

Personological profile. When asked, "Job would like to have at age 30," 28.6% of the Black students listed "Professional 1" jobs: accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, or politician (see Table 2). The next highest response (14.0%) was for technical jobs such as a draftsman, medical or dental technician, or computer programmer. More than one-fifth (22.7%) envisioned themselves in technical jobs (14%) or clerical jobs (8.7%); while approximately eight percent (8.1%) expected to be managers and administrators by the time they reached age 30.

Those who wanted "Professional 2" jobs (clergyman, dentist, physician, lawyer, scientist, or college teacher) totaled slightly less than ten percent (9.1%). Some occupations attracted only a few students. School teacher (2.3%), sales (1.2%), protective services (1.3%), homemaker or housewife (0.8%), and farmer or farm manager (0.4%) were examples of occupations to which few aspired.

Student responses to the question, "How far in school do you expect to get?" produced the following results: (a) 17.6% expected to finish college and (b) 14.4% expected to spend two or more years in college. Some 13.2% perceived themselves to be high school graduates only and 13.8% expected to complete two or more years of trade

school training. The majority (51.5%) of the students expected to enroll in a college program.

Table 2

Occupational and Educational Expectations

| Variables | Frequency Sample | Percent Sample | Estimated Population % |
|---|---|---|---|
| | Kind of job at age 30 | | |
| Clerical | 139 | 8.7 | 9.5 |
| Craftsman | 112 | 7.0 | 8.1 |
| Farmer or farm manager | 6 | 0.4 | 0.5 |
| Homemaker/Housewife | 12 | 0.8 | 0.6 |
| Laborer | 28 | 1.8 | 2.0 |
| Manager/Administrator | 129 | 8.1 | 8.5 |
| Military | 71 | 4.4 | 4.9 |
| Operative | 56 | 3.5 | 3.3 |
| Professional 1 | 457 | 28.6 | 25.7 |
| Professional 2 | 145 | 9.1 | 7.8 |
| Proprietor/Owner | 55 | 3.4 | 3.6 |
| Protective service | 21 | 1.3 | 1.3 |
| Sales | 19 | 1.2 | 1.4 |
| School teacher | 36 | 2.3 | 2.1 |
| Service | 77 | 4.8 | 5.9 |
| Technical | 223 | 14.0 | 13.8 |
| Not working | 10 | 0.6 | 1.0 |

(table continues)

Table 2 (continued)

Occupational and Educational Expectations

| Variables | Frequency Sample | Percent Sample | Estimated Population % |
|---|---|---|---|
| Educational expectations | | | |
| Less than high school | 44 | 2.7 | 2.3 |
| High school graduate | 215 | 13.2 | 14.7 |
| Voc/Trade/Business | | | |
| Less than 2 years | 94 | 5.8 | 6.6 |
| 2 or more years | 225 | 13.8 | 15.4 |
| College program | | | |
| Less than 2 years | 37 | 2.3 | 3.1 |
| 2 or more years | 235 | 14.4 | 16.4 |
| Complete college | 287 | 17.6 | 15.1 |
| Master's degree | 162 | 10.0 | 8.7 |
| Ph.D/professional | 118 | 7.2 | 5.6 |
| Don't know | 211 | 13.0 | 12.1 |

Educational profile. Slightly more than thirty percent (30.6%) of the Black students enrolled in vocational education had high school grade-point averages that consisted of C's (see Table 3). More than one-fourth (27.3%) earned one-half B's and C's. Only slightly more than one-percent (1.3%) earned grades that consisted primarily of A's. A sizable percentage (17.1) earned grades that were one-half C's and one-half D's.

More than two-thirds (68.1%) of the Black students were in the lower two quartiles on combined standardized tests in reading, vocabulary, and math. Nearly one-half (47%) of the Black students enrolled in vocational education were in the lowest quartile. Slightly more than ten percent (10.6%) were in the highest test quartile.

Table 3

Educational Profile of Black Students

| Variables | Frequency Sample | Percent Sample | Estimated Population % |
|---|---|---|---|
| | High school grade average | | |
| Mostly A, 90-100 | 22 | 1.3 | 0.7 |
| Half A+B, 85-89 | 128 | 7.5 | 5.9 |
| Mostly B, 80-84 | 220 | 12.9 | 11.5 |
| Half B+C, 75-79 | 467 | 27.3 | 26.6 |
| Mostly C, 70-74 | 523 | 30.6 | 33.1 |
| Half C+D, 65-69 | 292 | 17.1 | 19.3 |
| Mostly D, 60-64 | 57 | 3.3 | 2.9 |
| | Follow-up test quartile | | |
| Lowest quartile | 733 | 47.0 | 55.4 |
| Second quartile | 329 | 21.1 | 27.9 |
| Third quartile | 333 | 21.3 | 11.6 |
| Highest quartile | 165 | 10.6 | 5.1 |

A summary of the characteristics of Black students enrolled in vocational education follows:

1. There are slightly more females (4%) than males enrolled;

2. Over one-half of the Black students enrolled lived in the South and only 18.3% in rural areas;

3. Nearly three-fourths (73.6%) of the Black students enrolled belonged to the lowest and second to lowest quartiles with regard to their parents' socioeconomic status;

4. Slightly more than one-half (51.5%) of the Black students enrolled in vocational education expected to enroll in a college program or receive an advanced degree and 51.7% expected to work in a professional or technical job at age 30. A small percentage (7.2%) expected to attain a Ph.D or other professional degree;

5. Over one-half of the Black students (51.0%) enrolled had high school averages that were mostly C's or less, and 68.1% had standardized test performances in the lowest two quartiles.

Demographic profile by concentration patterns. Question one also asked if the profile of Blacks enrolled in vocational education varied in relation to vocational concentration patterns. The sample of Black students used in this study was described according to vocational concentration patterns (see Table 4). These patterns were: Concentrators, Limited Concentrators, and Samplers. The descriptors used in this study follow:

1. Concentrators - those students who earned four or more credits in a single vocational education program or earned four or more credits each in multiple instructional programs (e.g., business, marketing);

2. Limited Concentrators - those students who earned four or more credits in vocational education, but less than four in a single instructional program; and

3. Samplers - those students who earned from a fraction of a credit to four credits in vocational education (CES, appendix C).

More than one-half (51.6%) of the Samplers were male and 48.4% were female. Females however, constituted the largest proportion of Limited Concentrators (52.6%) and Concentrators (62.5%).

Regardless of concentration pattern, the highest proportion of Black students in vocational education was enrolled in urban schools (Concentrators - 42.5%, Limited Concentrators - 38.5%, and Samplers - 48.7%). Those who

attended rural schools made up 22.4% of the Concentrators, 28.1% of the Limited Concentrators, and only 12.8% of the Samplers. An examination of the geographic location of respondents' high schools across participation patterns indicated a concentration of students from the southern region and the lowest proportion from the western region. This pattern was uniform across concentration patterns.

Analysis of the socioeconomic status (SES) of respondents' parents revealed a high concentration from the lowest quartile with a small proportion in the highest quartile. This pattern was pronounced among Concentrators and Limited Concentrators with a somewhat more even distribution among Samplers.

Table 4

Demographic Profile by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | | | |
| Male | 97 | 37.5 | 36.9 | 155 | 47.4 | 44.1 | 274 | 51.6 | 49.5 |
| Female | 162 | 62.5 | 63.1 | 172 | 52.6 | 55.9 | 257 | 48.4 | 50.5 |
| **Urbanicity** | | | | | | | | | |
| Urban | 110 | 42.5 | 41.0 | 126 | 38.5 | 37.5 | 265 | 49.9 | 50.0 |
| Suburban | 91 | 35.1 | 34.3 | 109 | 33.3 | 31.3 | 198 | 37.3 | 35.2 |
| Rural | 58 | 22.4 | 24.7 | 92 | 28.1 | 31.2 | 68 | 12.8 | 14.8 |
| **High school region** | | | | | | | | | |
| Northeast | 38 | 14.7 | 13.5 | 52 | 15.9 | 14.7 | 105 | 19.8 | 18.6 |
| North Central | 56 | 21.6 | 16.8 | 60 | 18.3 | 17.6 | 92 | 17.3 | 16.8 |
| South | 148 | 57.1 | 64.7 | 192 | 58.7 | 61.3 | 273 | 51.4 | 54.9 |
| West | 17 | 6.6 | 5.1 | 23 | 7.0 | 6.5 | 61 | 11.5 | 9.7 |

(table continues)

Table 4 (continued)

Demographic Profile by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Parent's SES | | | | | |
| Lowest quartile | 147 | 57.9 | 62.6 | 167 | 52.7 | 55.7 | 206 | 39.9 | 45.7 |
| Second quartile | 57 | 22.4 | 19.2 | 85 | 26.8 | 25.9 | 129 | 25.0 | 25.9 |
| Third quartile | 38 | 15.0 | 14.0 | 52 | 16.4 | 14.5 | 103 | 20.0 | 16.7 |
| Highest quartile | 12 | 4.7 | 4.2 | 13 | 4.1 | 3.9 | 78 | 15.1 | 11.7 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Personological profile by concentration patterns. The personological profile of respondents was analyzed by concentration patterns (see Table 5). In terms of occupational expectation, the highest percentage of students (Concentrators - 27.2%, Limited Concentrators - 29.6%, and Samplers - 35.2%) expected occupations categorized as Professional 1. This category included such jobs as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, and politician, but not teacher. The second highest percentage (Concentrators - 18.1%, Limited Concentrators - 14.3%, and Samplers - 15.2%) expected technical jobs such as draftsman, medical or dental technician, and computer programmer.

The third highest number of the Limited Concentrators and Samplers selected Professional 2 jobs that included clergyman, dentist, physician, lawyer, and college teacher. Concentrators chose the occupations, clerical, bank teller, bookkeeper, secretary, typist, mail carrier, and ticket agent.

Many of the occupational categories attracted few students regardless of vocational concentration patterns. Each of the following occupations elicited less than a two percent response: housewives or homemakers, laborers, protective service persons, or sales people.

When asked, "How far in school do you think you will get?" 52.2% of the Samplers, 37.4% of the Limited Concentrators, and 30.5% of the Concentrators indicated they expected to finish college or obtain an advanced degree. A relatively small proportion of the students (Concentrators - 12.1%, Limited Concentrators - 12.4%, and Samplers - 10.1%) expected graduation from high school to be the completion of their formal education.

About fifteen percent or less (Concentrators - 14.6%, Limited Concentrators - 15.3%, and Samplers - 12.9%) indicated no plans for postsecondary education. Plans to attain a four-year or advanced degree ranged from 34.4% for Concentrators to 54.7% for Samplers. The interest in attaining a vocational-technical degree ranged from 27.3% for Concentrators to 13.3% for Samplers.

Table 5

Personological Profile by Concentration Patterns

| Variables | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| **Occupational expectations** | | | | | | | | | |
| Clerical | 38 | 15.0 | 16.2 | 24 | 7.6 | 8.5 | 21 | 4.1 | 6.1 |
| Craftsman | 22 | 8.7 | 9.8 | 16 | 5.1 | 5.8 | 16 | 3.1 | 4.3 |
| Farmer/ Farm Manager | 3 | 1.2 | 1.7 | - | - | - | - | - | - |
| Homemaker/Housewife | 2 | 0.8 | 0.3 | 2 | 0.6 | 0.9 | 3 | 0.6 | 0.6 |
| Laborer | 4 | 1.6 | 2.4 | 3 | 1.0 | 1.3 | 6 | 1.2 | 1.9 |
| Manager/ Administrator | 25 | 9.8 | 9.4 | 25 | 8.0 | 5.0 | 46 | 8.9 | 9.6 |
| Military | 8 | 3.1 | 3.2 | 14 | 4.5 | 6.3 | 20 | 3.9 | 4.6 |
| Operative | 7 | 2.8 | 3.1 | 9 | 2.9 | 3.9 | 9 | 1.8 | 2.6 |

(table continues)

Table 5 (continued)

Personological Profile By Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Professional 1 | 69 | 27.2 | 22.6 | 93 | 29.6 | 28.7 | 181 | 35.2 | 31.2 |
| Professional 2 | 10 | 3.9 | 3.4 | 33 | 10.5 | 10.3 | 77 | 15.0 | 11.3 |
| Proprietor/Owner | 6 | 2.4 | 3.2 | 12 | 3.8 | 3.4 | 17 | 3.3 | 4.1 |
| Protective service | 10 | .4 | 0.5 | 2 | 0.6 | 0.9 | 10 | 1.9 | 2.2 |
| Sales | 1 | 0.4 | 0.6 | 3 | 1.0 | 1.1 | 7 | 1.4 | 1.8 |
| School teacher | 2 | 0.8 | 1.3 | 10 | 3.2 | 3.3 | 10 | 1.9 | 1.4 |
| Service | 8 | 3.1 | 4.2 | 22 | 7.0 | 7.6 | 12 | 2.3 | 3.2 |
| Technical | 46 | 18.1 | 16.7 | 45 | 14.3 | 12.6 | 78 | 15.2 | 14.7 |
| Not working | 2 | 0.8 | 1.1 | 1 | 0.3 | 0.4 | 1 | 0.2 | 0.5 |

(table continues)

Table 5 (continued)

Personological Profile By Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Educational expectations** | | | | | | | | | |
| Less than high school | 1 | 0.4 | 0.6 | 2 | 0.6 | 0.8 | 4 | 0.8 | 1.4 |
| High school graduate | 31 | 12.1 | 14.2 | 40 | 12.4 | 14.0 | 53 | 10.1 | 15.0 |
| Vocational, trade, business school | | | | | | | | | |
| 2 or less years | 15 | 5.9 | 7.9 | 19 | 5.9 | 6.7 | 17 | 3.2 | 4.1 |
| 2 or more years | 50 | 19.5 | 19.6 | 54 | 16.7 | 19.0 | 49 | 9.3 | 12.7 |

(table continues)

Table 5 (continued)

Personological Profile By Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational expectations | | | | | |
| College program | | | | | | | | | |
| 2 or less years | 9 | 3.5 | 4.2 | 5 | 1.5 | 1.4 | 11 | 2.1 | 3.6 |
| 2 or more years | 45 | 17.6 | 17.9 | 55 | 17.0 | 17.7 | 85 | 16.2 | 15.9 |
| Finish college | 36 | 14.1 | 12.3 | 67 | 20.7 | 17.1 | 135 | 25.7 | 20.0 |
| Master's degree | 27 | 10.5 | 6.4 | 30 | 9.3 | 8.0 | 77 | 14.7 | 12.4 |
| Ph.D or advanced | 15 | 5.9 | 5.8 | 24 | 7.4 | 5.1 | 62 | 11.8 | 8.1 |
| Don't know | 27 | 10.5 | 11.2 | 27 | 8.4 | 10.2 | 32 | 6.1 | 6.8 |

(table continues)

Table 5 (continued)

Personological Profile by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Postsecondary educational plans** | | | | | | | | | |
| No plans | 37 | 14.6 | 17.3 | 49 | 15.3 | 18.1 | 68 | 12.9 | 19.3 |
| Voc/technical | 69 | 27.3 | 29.8 | 78 | 24.4 | 27.7 | 70 | 13.3 | 17.3 |
| Less than four-year degree | 60 | 23.7 | 24.2 | 66 | 20.6 | 21.3 | 101 | 19.1 | 20.5 |
| College degree | 40 | 15.8 | 14.2 | 71 | 22.2 | 19.0 | 141 | 26.7 | 20.7 |
| Advanced degree | 47 | 18.6 | 14.4 | 56 | 17.5 | 13.9 | 148 | 28.0 | 22.2 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Educational profile by concentration patterns. High school grade averages and test scores of Black students, within each concentration pattern, were used to obtain an educational profile of Black students (see Table 6). Less than ten percent (9.2%) of the Concentrators and Limited Concentrators (6.4%) had averages in the A - B range. Slightly more than ten percent (10.2%) of the Samplers were in this range. More than three-fourths (78.8%) of the Concentrators were in the B - C range. Thirty-four percent earned mostly C's and more than eighty percent (83%) of the Limited Concentrators were also in the B - C range. The clear majority (72.7%) of the Samplers were in the B - C range.

The aptitude test scores clearly placed Concentrators and Limited Concentrators in the lower two quartiles with 71% and 67.5% respectively. Thirty-two percent of the Samplers were in the lowest quartile while nearly one-half (47%) were in the top two quartiles. Less than ten percent (8.1%) of the Concentrators and more than eight percent (8.4%) of the Limited Concentrators were in the top quartile.

Table 6

Educational Profile by Concentration Patterns - First Follow-Up

| Variables | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| **High school grade average** | | | | | | | | | |
| Mostly A, 90 - 100 | 4 | 1.5 | 0.5 | 2 | 0.6 | 0.1 | 9 | 1.7 | 0.9 |
| Half A+B, 85 - 89 | 20 | 7.7 | 3.6 | 19 | 5.8 | 3.4 | 45 | 8.5 | 5.8 |
| Mostly B, 80 - 84 | 41 | 15.8 | 13.3 | 44 | 13.5 | 13.3 | 84 | 15.8 | 11.2 |
| Half B+C, 75 - 79 | 75 | 29.0 | 28.3 | 115 | 35.2 | 33.9 | 148 | 27.9 | 24.8 |
| Mostly C, 70 - 74 | 88 | 34.0 | 40.1 | 112 | 34.3 | 35.6 | 154 | 29.0 | 32.6 |
| Half C+D, 65 - 69 | 28 | 10.8 | 12.8 | 31 | 9.5 | 12.2 | 83 | 15.6 | 22.1 |
| Mostly D, 60 - 64 | 3 | 1.2 | 1.5 | 4 | 1.2 | 1.4 | 8 | 1.5 | 2.5 |

(table continues)

Table 6 (continued)

Educational Profile by Concentration Patterns - First Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Test scores | | | | | |
| Lowest quartile | 114 | 46.0 | 58.1 | 130 | 42.2 | 53.9 | 163 | 32.0 | 46.0 |
| Second quartile | 62 | 25.0 | 31.1 | 78 | 25.3 | 30.6 | 107 | 21.0 | 30.2 |
| Third quartile | 52 | 21.0 | 8.4 | 74 | 24.0 | 12.2 | 141 | 27.6 | 15.0 |
| Highest quartile | 20 | 8.1 | 2.4 | 26 | 8.4 | 3.3 | 99 | 19.4 | 8.8 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Research Question Two

The second research question was: "How can the Black students enrolled in public vocational education programs be described within their vocational concentration patterns in terms of their employment outcomes, further education outcomes, and civic/political participation practices after their secondary schooling?" To answer this question, analyses were conducted of the students' employment status as of February, 1983 (approximately eight months after graduation), their educational attainment by 1986, and their civic/political participation practices in relation to concentration patterns, by 1986 (see Table 7).

Outcomes regarding employment status. In February, 1983, a high proportion of students, regardless of vocational concentration pattern, were not in the work force (Concentrators - 47.9%, Limited Concentrators - 41.8%, Samplers - 45.9%). Approximately forty percent (Concentrators - 39.2%, Limited Concentrators - 43.8%, and Samplers - 44.2%) were employed either full-time or part-time. Across concentration patterns, 10% or more were unemployed.

Outcomes regarding educational attainment. Regarding educational attainment, the students' highest educational attainment by the Third Follow-Up (1986) varied somewhat by vocational concentration patterns. A high proportion of Concentrators, Limited Concentrators, and Samplers (82.4%,

83.6%, and 79.8%, respectively) reported a high school diploma as their highest level of educational attainment. A slightly higher proportion of Concentrators reported attaining a license or certificate than did either of the other two groups. There was very little difference in the proportion of students in each group who had attained a 2-3 year vocational degree with a slightly higher proportion of Samplers (4.7%) and Limited Concentrators (4.3%), than Concentrators (2.5%), who had attained a four-year baccalaureate degree.

Table 7

Employment Status and Educational Outcomes by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| Employment status as of February, 1983 | | | | | | | | | |
| Full-time | 55 | 22.7 | 27.1 | 66 | 22.1 | 24.6 | 96 | 19.8 | 23.1 |
| Part-time | 40 | 16.5 | 12.5 | 65 | 21.7 | 19.2 | 118 | 24.4 | 20.6 |
| Unemployed, not full-time student | 31 | 12.8 | 15.3 | 43 | 14.4 | 15.4 | 48 | 9.9 | 12.3 |
| Not in labor force | 116 | 47.9 | 45.0 | 125 | 41.8 | 40.9 | 222 | 45.9 | 43.9 |

(table continues)

Table 7 (continued)

Employment Status and Educational Outcomes by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational attainment | | | | | |
| Less H. S. diploma | - | - | - | 3 | 1.0 | 1.4 | 14 | 2.9 | 4.9 |
| High school diploma | 201 | 82.4 | 85.6 | 254 | 83.6 | 85.2 | 390 | 79.8 | 77.8 |
| License/Certificate | 26 | 10.7 | 9.0 | 22 | 7.2 | 6.8 | 39 | 8.0 | 10.2 |
| Vocational degree | 11 | 4.5 | 4.0 | 12 | 3.9 | 4.0 | 22 | 4.5 | 3.9 |
| 4 year B.S. degree | 6 | 2.5 | 1.4 | 13 | 4.3 | 2.6 | 24 | 4.9 | 3.2 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Civic/Political participation and practices. The majority of the students (Concentrators - 76.1%, Limited Concentrators - 74.7%, and Samplers - 76.6%) were registered to vote and 55.3% to more than 62% reported voting between March 1, 1984 and February 1, 1986. Within concentration patterns, Limited Concentrators had the highest percentage (25.3%) of respondents not registered to vote and the highest percentage of non-voters (44.7%), between March 1, 1984 and February 1, 1986.

Other civic participation variables included church related activities, membership in community or neighborhood groups, and membership in organized volunteer work. The vast majority of respondents indicated they did not participate in other civic activities. Active participation in these areas ranged from about three percent (2.9%) for Concentrators in organized volunteer work to a high of about twenty-six percent (25.7%) for Samplers in church or church-related activities. Being a "member only" (but not an active participant) ranged from less than one percent (0.4%) for Limited Concentrators in organized volunteer work to about nineteen percent (18.9%) for Concentrators in church or church-related activities. Of the three activities, the highest level of participation was church-related, regardless of concentration pattern.

Three political participation variables were considered. Responses to these items appeared to have little relationship to individuals' former vocational concentration patterns. Approximately 70% of the respondents reported a total lack of participation in political campaigns. About 80% of all three groups had not attended socio-political gatherings and over 90% did not belong to any political club or organization (see Table 8).

Table 8

Civic/Political Participation Practices by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Civic participation** | | | | | | | | | |
| Registered to vote | | | | | | | | | |
| Yes | 159 | 76.1 | 74.5 | 198 | 74.7 | 76.2 | 327 | 76.6 | 73.8 |
| No | 50 | 23.9 | 25.5 | 67 | 25.3 | 23.8 | 100 | 23.4 | 26.2 |
| Voted 3/1/84 & 2/1/86 | | | | | | | | | |
| Yes | 130 | 62.5 | 60.8 | 147 | 55.3 | 56.2 | 253 | 59.5 | 54.0 |
| No | 78 | 37.5 | 39.2 | 119 | 44.7 | 43.8 | 172 | 40.5 | 46.0 |
| Church activities | | | | | | | | | |
| Active participant | 48 | 23.3 | 22.5 | 64 | 24.2 | 24.2 | 109 | 25.7 | 24.9 |
| Member only | 39 | 18.9 | 19.4 | 46 | 17.4 | 19.7 | 67 | 15.8 | 15.0 |
| Not at all | 119 | 57.8 | 58.1 | 154 | 58.3 | 56.1 | 248 | 58.5 | 60.1 |

(table continues)

Table 8 (continued)

Civic/Political Participation Practices by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Civic participation** | | | | | | | | | |
| Community groups | | | | | | | | | |
| Active participant | 15 | 7.3 | 6.2 | 29 | 11.0 | 12.2 | 36 | 8.5 | 8.2 |
| Member only | 16 | 7.8 | 7.1 | 20 | 7.6 | 7.4 | 26 | 6.1 | 4.7 |
| Not at all | 174 | 84.9 | 86.6 | 215 | 81.4 | 80.3 | 361 | 85.3 | 87.1 |
| Organized volunteer work | | | | | | | | | |
| Active participant | 6 | 2.9 | 2.1 | 19 | 7.3 | 9.2 | 28 | 6.7 | 6.5 |
| Member only | 1 | 0.5 | 0.1 | 1 | 0.4 | 0.2 | 7 | 1.7 | 2.0 |
| Not at all | 198 | 96.6 | 97.8 | 241 | 92.3 | 90.6 | 386 | 91.7 | 91.5 |

(table continues)

Table 8 (continued)

Civic/Political Participation Practices by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Political Participation** | | | | | | | | | |
| Campaigned for candidate | | | | | | | | | |
| Frequently | 7 | 3.3 | 3.6 | 15 | 5.6 | 6.9 | 11 | 2.6 | 2.7 |
| Sometimes | 57 | 27.3 | 26.2 | 59 | 22.2 | 23.1 | 112 | 26.5 | 26.5 |
| Never | 145 | 69.4 | 70.2 | 192 | 72.2 | 70.0 | 299 | 70.9 | 70.8 |
| Go to social/ political gatherings | | | | | | | | | |
| Frequently | 5 | 2.4 | 3.2 | 10 | 3.8 | 3.5 | 11 | 2.6 | 2.3 |
| Sometimes | 34 | 16.3 | 15.8 | 44 | 16.5 | 16.8 | 83 | 19.5 | 19.5 |
| Never | 170 | 81.3 | 81.0 | 212 | 79.7 | 79.8 | 332 | 77.9 | 78.2 |

(table continues)

Table 8 (continued)

Civic/Political Participation Practices by Concentration Patterns

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| **Political participation** | | | | | | | | | |
| Political clubs/organizations | | | | | | | | | |
| Active participant | 6 | 2.9 | 2.4 | 11 | 4.2 | 4.4 | 13 | 3.1 | 3.5 |
| Member only | 7 | 3.4 | 2.5 | 11 | 4.2 | 4.0 | 19 | 4.5 | 3.4 |
| Not at all | 191 | 93.6 | 95.2 | 241 | 91.6 | 91.6 | 386 | 92.3 | 93.1 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Research Question Three

The third research question was: "What are the changes over time among Black youth enrolled in vocational education within vocational concentration patterns with regard to aptitude, educational and occupational expectations, and employment status?" The term, "changes over time," refers to shifts in student aptitudes, educational and occupational expectations, and employment status at selected periods of time between their sophomore year in high school (1980) and the Third Follow-Up survey (1986). Changes over time in aptitude were determined through analysis of the students' Base-year and First Follow-Up test quartiles. Changes over time regarding educational expectations were determined through use of student responses to the question, "How far in school will you get?" Student selection of the "expected job/occupation at age 30," was analyzed to determine changes over time relative to occupational expectations. Analysis of their employment status at four periods of time was also conducted.

An important aspect of this analysis was to determine changes over time within the same group of individuals, not within samples. For this reason, participation flags were used in a cumulative fashion to delimit succeeding data collection points to those individuals who were in the preceding collection for any particular variable. For

example, to view changes in test scores from Base-year to First Follow-Up, it was necessary to limit the First Follow-Up sample to those same individuals who had valid scores in the Base-year data collection.

Changes in aptitude over time. The combined standardized test score quartiles evidenced modest changes from the Base-year to the First Follow-Up (from 1980 to 1982, sophomore to senior years). The most dramatic change occurred among the Limited Concentrators over this two-year period. The proportion of these students who scored in the lowest quartile dropped from 52.7% to 42.3%. There was a concomitant increase in the proportion scoring within the third quartile from 14.3% to 22.2%. The most noticeable change among the Concentrators occurred within the second and third quartiles with approximately a 4% adjustment. These same quartiles evidenced the greatest change among the Samplers with an increase in third quartile membership and a decrease in the proportion scoring in the second quartile. It should be noted that the quartiles were based on the responses of the total population (all ethnic groups and curriculum groups) and therefore, the performance of Black students' was shown in relation to that population (see Table 9).

Table 9

Aptitude Score Quartiles - Base-year

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Base-year test quartiles | | | | | |
| Lowest | 101 | 46.1 | 57.9 | 144 | 52.7 | 65.2 | 162 | 34.6 | 48.3 |
| Second | 65 | 29.7 | 28.8 | 69 | 25.3 | 21.9 | 127 | 27.1 | 28.1 |
| Third | 37 | 16.9 | 10.0 | 39 | 14.3 | 9.4 | 98 | 20.9 | 14.0 |
| Highest | 16 | 7.3 | 3.3 | 21 | 7.7 | 3.5 | 81 | 17.3 | 9.5 |

(table continues)

Table 9 (continued)

Aptitude Score Quartiles - First Follow-Up

| | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| Variables | f | S% | P% | f | S% | P% | f | S% | P% |
| | First Follow-Up test quartiles | | | | | | | | |
| Lowest | 106 | 45.9 | 57.8 | 118 | 42.3 | 53.1 | 153 | 31.9 | 46.1 |
| Second | 58 | 25.1 | 31.1 | 73 | 26.2 | 31.6 | 99 | 20.6 | 29.1 |
| Third | 48 | 20.8 | 8.6 | 62 | 22.2 | 11.7 | 134 | 27.9 | 15.6 |
| Highest | 19 | 8.2 | 2.5 | 26 | 9.3 | 3.7 | 94 | 19.6 | 9.2 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Changes in educational expectations over time. Student expectations over time (1980, 1982, 1984, and 1986, respectively) have been summarized by vocational concentration pattern (see Tables 10-13).

The proportion of students that expected to limit their education to high school graduation was highest for Concentrators at the Base-year, but was lower than the Limited Concentrators at the First Follow-Up and Second Follow-Up points. Samplers had the lowest proportion that expected high school graduation to be their highest educational attainment.

Concentrators, Limited Concentrators, and Samplers expected to attain two years or less of postsecondary education (vocational/trade/business and college program categories combined). Responses ranged from a low of five percent of the Samplers during the Base-year to a high of 16.9% for Concentrators at the Second Follow-Up. During the Base-year to the Third Follow-Up, there was a consistent increase in the proportions of all three groups that expected to complete two years or less of postsecondary education. The single exception was the proportion of Concentrators that dropped slightly from the Second Follow-Up to the Third Follow-Up survey period.

The proportion of students that expected to complete more than two years of postsecondary education rose from the Base-year to the First Follow-Up, but in all three

concentration patterns this expectation dropped during the Second Follow-Up and Third Follow-Up surveys. The highest proportion for all three groups that expected to achieve this level of preparation occurred at the First Follow-Up (senior year) point (Concentrators - 38.2%, Limited Concentrators - 34.1%, and Samplers - 25.9%).

The pattern of expectations to complete a college degree was not systematic by groups or by follow-up period. The proportion of Concentrators ranged from a low of 21.5% at the Base-year to a high of 35.4% at the Third Follow-Up, but dropped to 14.3% during the senior year in high school. Limited Concentrators showed a similar, but less dramatic, drop at the First Follow-Up point which then increased to 30.8% by the Third Follow-Up. Samplers dropped from 28% at the Base-year to 26.3% at the First Follow-Up and then increased to 35.9% at the Second Follow-Up. This group eventually dropped to 28.5% by the Third Follow-Up.

A sizeable proportion of students indicated the expectation to complete graduate degrees (master's or doctorate). During the First Follow-Up and Second Follow-Up, proportions for all three groups dropped from their Base-year levels and then increased to a new high at the Third Follow-Up point. Samplers at all four data collection points showed the highest proportion of students

who anticipated completion of graduate degrees and Concentrators showed the lowest.

Table 10

Educational Expectations - Base-Year

| | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| Educational expectations | | | | | | | | | |
| Less than high school | 3 | 1.3 | 1.4 | 2 | 0.7 | 0.9 | 6 | 1.3 | 2.0 |
| High school graduate | 55 | 24.1 | 28.3 | 60 | 20.8 | 25.6 | 70 | 14.8 | 21.5 |
| Voc/Trade/Business | | | | | | | | | |
| less than 2 years | 9 | 3.9 | 5.0 | 12 | 4.2 | 3.8 | 12 | 2.5 | 3.1 |
| more than 2 years | 33 | 14.5 | 13.0 | 49 | 17.0 | 14.5 | 32 | 6.8 | 7.8 |

(table continues)

Table 10 (continued)

Educational Expectations - Base-Year

| | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| **Educational expectations** | | | | | | | | | |
| College program | | | | | | | | | |
| less than 2 years | 8 | 3.5 | 4.0 | 10 | 3.5 | 5.5 | 12 | 2.5 | 3.3 |
| two or more years | 38 | 16.7 | 16.8 | 32 | 11.1 | 12.0 | 64 | 13.6 | 15.9 |
| Finish college | 49 | 21.5 | 19.4 | 63 | 21.9 | 19.0 | 132 | 28.0 | 23.7 |
| Master's degree | 18 | 7.9 | 6.4 | 28 | 9.7 | 8.0 | 56 | 11.9 | 8.3 |
| Ph.D or advanced | 15 | 6.6 | 5.6 | 32 | 11.1 | 10.7 | 88 | 18.6 | 14.5 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 11

Educational Expectations - First Follow-Up

| | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| **Educational expectations** | | | | | | | | | |
| Less than high school | 1 | 0.4 | 0.6 | 2 | 0.7 | 1.0 | 3 | 0.6 | 0.9 |
| High school graduate | 26 | 10.9 | 13.0 | 35 | 12.1 | 13.9 | 47 | 9.5 | 14.5 |
| Voc/Trade/Business | | | | | | | | | |
| less than 2 years | 14 | 5.9 | 8.0 | 17 | 5.9 | 6.2 | 17 | 3.4 | 4.4 |
| more than 2 years | 47 | 19.7 | 19.9 | 50 | 17.2 | 18.6 | 45 | 9.1 | 12.5 |

(table continues)

Table 11 (continued)

Educational Expectations - First Follow-Up

| | Concentrators | | | Limited Concentrators | | | Samplers | | |
|---|---|---|---|---|---|---|---|---|---|
| | f | S% | P% | f | S% | P% | f | S% | P% |
| **Educational expectations** | | | | | | | | | |
| College program | | | | | | | | | |
| less than 2 years | 9 | 3.8 | 4.6 | 5 | 1.7 | 1.6 | 10 | 2.0 | 2.8 |
| two or more years | 44 | 18.5 | 18.7 | 49 | 16.9 | 17.3 | 83 | 16.8 | 17.1 |
| Finish college | 34 | 14.3 | 12.1 | 58 | 20.0 | 16.9 | 130 | 26.3 | 20.3 |
| Masters degree | 23 | 9.7 | 5.5 | 27 | 9.3 | 8.4 | 71 | 14.3 | 12.2 |
| Ph.D or advanced | 15 | 6.3 | 6.2 | 24 | 8.3 | 5.8 | 59 | 11.9 | 8.3 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 12

Educational Expectations - Second Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational expectations | | | | | |
| Less than high school | 1 | 0.4 | 0.7 | - | - | - | 4 | 0.9 | 1.5 |
| High school graduate | 29 | 12.6 | 17.2 | 49 | 17.9 | 21.8 | 45 | 9.8 | 15.2 |
| Voc/Trade/Business | | | | | | | | | |
| less than 2 years | 24 | 10.4 | 11.9 | 20 | 7.3 | 8.8 | 28 | 6.1 | 8.1 |
| more than 2 years | 28 | 12.2 | 12.8 | 31 | 11.3 | 10.6 | 43 | 9.3 | 13.6 |

(table continues)

Table 12 (continued)

Educational Expectations - Second Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational expectations | | | | | |
| College program | | | | | | | | | |
| less than 2 years | 15 | 6.5 | 8.5 | 15 | 5.5 | 5.4 | 13 | 2.8 | 2.4 |
| two or more years | 52 | 22.6 | 22.1 | 49 | 17.9 | 17.4 | 69 | 15.0 | 16.1 |
| Finish college | 61 | 26.5 | 21.0 | 74 | 27.0 | 25.5 | 165 | 35.9 | 30.4 |
| Masters degree | 15 | 6.5 | 3.4 | 22 | 8.0 | 6.1 | 58 | 12.6 | 8.0 |
| Ph.D or advanced | 5 | 2.2 | 2.6 | 14 | 5.1 | 4.5 | 35 | 7.6 | 4.7 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 13

Educational Expectations - Third Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational expectations | | | | | |
| Less than high school | - | - | - | - | - | - | - | - | - |
| High school graduate | - | - | - | 4 | 2.2 | 3.6 | 3 | 0.8 | 1.8 |
| Voc/Trade/Business | | | | | | | | | |
| less than 2 years | 15 | 9.3 | 13.8 | 11 | 6.0 | 7.2 | 27 | 7.5 | 10.4 |
| more than 2 years | 20 | 12.4 | 14.2 | 18 | 9.9 | 11.3 | 27 | 7.5 | 13.4 |

(table continues)

Table 13 (continued)

Educational Expectations - Third Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Educational expectations | | | | | |
| College program | | | | | | | | | |
| less than 2 years | 10 | 6.2 | 7.1 | 14 | 7.7 | 7.2 | 13 | 3.6 | 4.3 |
| two or more years | 29 | 18.0 | 16.2 | 33 | 18.1 | 18.9 | 59 | 16.3 | 19.7 |
| Finish college | 57 | 35.4 | 33.0 | 56 | 30.8 | 32.4 | 103 | 28.5 | 24.4 |
| Masters degree | 25 | 15.5 | 13.4 | 28 | 15.4 | 12.5 | 91 | 25.1 | 19.2 |
| Ph.D or advanced | 5 | 3.1 | 2.4 | 18 | 9.9 | 6.9 | 39 | 10.8 | 6.9 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Changes in occupational expectations over time. Students were asked, "Describe your job at age 30," at four points in time (Base-year, First Follow-Up, Second Follow-Up, and Third Follow-Up). Responses to this question for all three vocational concentration pattern groups were collected (see Tables 14-17).

Substantial proportions of the students in all three groups expressed the expectation of being in either Professional 1 or Professional 2 occupations by age 30. The proportions of Concentrators that expressed this expectation remained fairly stable from Base-year to Third Follow-Up (31.2%, 27.5%), while Limited Concentrators dropped from 36.2% to 28.4% and Samplers from 51.3% to 36.1% during the same period. At all four data collection points, the proportion of Samplers that expected professional careers was higher than for Limited Concentrators, which in turn was higher than for Concentrators.

The proportion of students that expected to be in clerical jobs at age 30 varied from 14.8% to 20.0% over time for Concentrators, 7.5% to 14.8% for Limited Concentrators, and 4.0% to 7.8% for Samplers. The amount of variation in the proportion of students that expected to be craftsmen at age 30 was limited; but all three groups decreased from the Base-year percentages (Concentrators - 6.1%, Limited Concentrators - 8.4%, and

Samplers - 4.9%) to the Third Follow-Up point (Concentrators - 3.5%, Limited Concentrators - 3.8%, and Samplers - 3.2%).

The remaining occupational titles (farmer/farm manager, homemaker/housewife, laborer, military, operative, proprietor/owner, protective service, sales, school teacher, and service) represented career expectations by consistently less than five percent of respondents.

Table 14

Occupational Expectations - Base-Year

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Clerical | 41 | 17.7 | 16.4 | 24 | 8.4 | 7.8 | 27 | 5.7 | 6.3 |
| Craftsman | 14 | 6.1 | 7.3 | 24 | 8.4 | 7.6 | 23 | 4.9 | 5.2 |
| Farmer/Farm manager | 1 | 0.4 | 0.2 | 1 | 0.4 | 0.5 | 2 | 0.4 | 0.7 |
| Homemaker/Housewife | 9 | 3.9 | 3.6 | 9 | 3.2 | 3.2 | 7 | 1.5 | 1.9 |
| Laborer | 5 | 2.2 | 2.2 | 10 | 3.5 | 3.1 | 3 | 0.6 | 0.8 |
| Manager/Administrator | 13 | 5.6 | 5.3 | 11 | 3.9 | 2.7 | 24 | 5.1 | 5.6 |
| Military | 13 | 5.6 | 5.9 | 18 | 6.3 | 7.2 | 27 | 5.7 | 6.0 |
| Operative | 9 | 3.9 | 5.4 | 8 | 2.8 | 3.1 | 9 | 1.9 | 2.7 |
| Professional 1 | 54 | 23.4 | 19.9 | 72 | 25.3 | 23.1 | 152 | 32.1 | 30.3 |

(table continues)

Table 14 (continued)

Occupational Expectations - Base-Year

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Professional 2 | 18 | 7.8 | 5.9 | 31 | 10.9 | 10.6 | 91 | 19.2 | 15.9 |
| Proprietor/Owner | 9 | 3.9 | 5.1 | 10 | 3.5 | 2.9 | 16 | 3.4 | 3.4 |
| Protective service | 2 | 0.9 | 0.6 | 3 | 1.1 | 1.7 | 5 | 1.1 | 1.0 |
| Sales | 1 | 0.4 | 0.6 | 7 | 2.5 | 2.9 | 7 | 1.5 | 1.9 |
| School teacher | 8 | 3.5 | 5.0 | 12 | 4.2 | 5.2 | 14 | 3.0 | 3.2 |
| Service | 13 | 5.6 | 7.8 | 14 | 4.9 | 7.0 | 13 | 2.7 | 4.3 |
| Technical | 19 | 8.2 | 7.6 | 22 | 7.7 | 7.0 | 51 | 10.8 | 10.6 |
| Not working | 2 | 0.9 | 1.2 | 9 | 3.2 | 4.1 | 3 | 0.6 | 0.6 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 15

Occupational Expectations - First Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Clerical | 35 | 14.8 | 16.4 | 21 | 7.5 | 8.8 | 20 | 4.1 | 6.2 |
| Craftsman | 19 | 8.1 | 9.4 | 14 | 5.0 | 5.6 | 13 | 2.7 | 3.7 |
| Farmer/Farm manager | 3 | 1.3 | 1.9 | - | - | - | - | - | - |
| Homemaker/Housewife | 2 | 0.8 | 0.3 | 2 | 0.7 | 1.0 | 3 | 0.6 | 0.6 |
| Laborer | 4 | 1.7 | 2.6 | 2 | 0.7 | 1.0 | 6 | 1.2 | 2.1 |
| Manager/Administrator | 22 | 9.3 | 8.9 | 23 | 8.2 | 5.4 | 43 | 8.9 | 9.5 |
| Military | 8 | 3.4 | 3.5 | 11 | 3.9 | 5.5 | 20 | 4.1 | 4.9 |
| Operative | 7 | 3.0 | 3.3 | 6 | 2.1 | 3.0 | 8 | 1.6 | 2.5 |
| Professional 1 | 66 | 28.0 | 23.7 | 84 | 29.9 | 27.9 | 173 | 35.7 | 31.4 |

(table continues)

Table 15 (continued)

Occupational Expectations - First Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Professional 2 | 10 | 4.2 | 3.7 | 31 | 11.0 | 11.1 | 72 | 14.8 | 11.6 |
| Proprietor/Owner | 6 | 2.5 | 3.5 | 10 | 3.6 | 3.2 | 16 | 3.3 | 4.0 |
| Protective service | 1 | 0.4 | 0.6 | 2 | 0.7 | 1.0 | 10 | 2.1 | 2.4 |
| Sales | 1 | 0.4 | 0.6 | 3 | 1.1 | 1.3 | 7 | 1.4 | 1.9 |
| School teacher | 2 | 0.8 | 1.5 | 10 | 3.6 | 3.7 | 9 | 1.9 | 1.1 |
| Service | 7 | 3.0 | 4.0 | 22 | 7.8 | 8.7 | 11 | 2.3 | 3.4 |
| Technical | 42 | 17.8 | 15.8 | 39 | 13.9 | 12.3 | 74 | 15.3 | 14.8 |
| Not working | 1 | 0.4 | 0.6 | 1 | 0.4 | 0.5 | - | - | - |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 16

Occupational Expectations - Second Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Clerical | 46 | 20.0 | 21.6 | 40 | 14.8 | 15.9 | 18 | 4.0 | 5.0 |
| Craftsman | 16 | 7.0 | 6.0 | 8 | 3.0 | 2.6 | 14 | 3.1 | 4.6 |
| Farmer/Farm manager | 1 | 0.4 | 0.9 | - | - | - | 1 | 0.2 | 0.4 |
| Homemaker/Housewife | - | - | - | 4 | 1.5 | 1.3 | 2 | 0.4 | 0.6 |
| Laborer | 2 | 0.9 | 1.2 | 5 | 1.8 | 2.4 | 9 | 2.0 | 3.7 |
| Manager/Administrator | 22 | 9.6 | 8.5 | 27 | 10.0 | 9.4 | 41 | 9.1 | 7.5 |
| Military | 10 | 4.3 | 3.5 | 11 | 4.1 | 4.4 | 32 | 7.1 | 9.4 |
| Operative | 10 | 4.3 | 5.2 | 4 | 1.5 | 2.0 | 7 | 1.5 | 2.3 |
| Professional 1 | 59 | 25.7 | 22.5 | 63 | 23.2 | 22.7 | 129 | 28.5 | 24.5 |

(table continues)

Table 16 (continued)

Occupational Expectations - Second Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Professional 2 | 15 | 6.5 | 5.9 | 18 | 6.6 | 5.7 | 51 | 11.3 | 8.7 |
| Proprietor/Owner | 13 | 5.7 | 6.4 | 9 | 3.3 | 2.8 | 18 | 4.0 | 4.4 |
| Protective service | 2 | 0.9 | 1.2 | 8 | 3.0 | 2.7 | 5 | 1.1 | 1.1 |
| Sales | 3 | 1.3 | 0.9 | 9 | 3.3 | 3.1 | 9 | 2.0 | 1.9 |
| School teacher | 3 | 1.3 | 1.4 | 10 | 3.7 | 4.3 | 28 | 6.2 | 5.3 |
| Service | 6 | 2.6 | 4.5 | 13 | 4.8 | 5.2 | 15 | 3.3 | 4.2 |
| Technical | 17 | 7.4 | 8.0 | 36 | 13.3 | 13.5 | 67 | 14.8 | 14.3 |
| Not working | 2 | 0.9 | 0.7 | 2 | 0.7 | 0.3 | 3 | 0.7 | 1.0 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Table 17

Occupational Expectations - Third Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Clerical | 35 | 17.5 | 19.7 | 25 | 10.5 | 11.4 | 32 | 7.8 | 11.3 |
| Craftsman | 7 | 3.5 | 3.4 | 9 | 3.8 | 3.5 | 13 | 3.2 | 3.8 |
| Farmer/Farm manager | - | - | - | - | - | - | - | - | - |
| Homemaker/Housewife | 1 | 0.5 | 0.7 | 6 | 2.5 | 2.5 | 5 | 1.2 | 1.1 |
| Laborer | 13 | 6.5 | 9.6 | 6 | 2.5 | 3.3 | 15 | 3.6 | 5.6 |
| Manager/Administrator | 32 | 16.0 | 16.9 | 26 | 10.9 | 10.2 | 46 | 11.2 | 11.5 |
| Military | 5 | 2.5 | 2.6 | 10 | 4.2 | 2.5 | 23 | 5.6 | 6.0 |
| Operative | 9 | 4.5 | 3.6 | 11 | 4.6 | 5.7 | 15 | 3.6 | 4.9 |
| Professional 1 | 51 | 25.5 | 23.6 | 55 | 23.0 | 20.6 | 111 | 26.9 | 21.8 |

(table continues)

Table 17 (continued)

Occupation Expectations - Third Follow-Up

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational expectations | | | | | |
| Professional 2 | 4 | 2.0 | 0.9 | 13 | 5.4 | 4.0 | 38 | 9.2 | 7.4 |
| Proprietor/Owner | 11 | 5.5 | 5.7 | 15 | 6.3 | 6.1 | 27 | 6.6 | 6.6 |
| Protective service | 7 | 3.5 | 1.9 | 7 | 2.9 | 3.5 | 13 | 3.2 | 4.3 |
| Sales | 3 | 1.5 | 1.5 | 10 | 4.2 | 3.8 | 10 | 2.4 | 1.9 |
| School teacher | 2 | 1.0 | 0.9 | 7 | 2.9 | 3.4 | 11 | 2.7 | 1.7 |
| Service | 4 | 2.0 | 2.3 | 14 | 5.9 | 8.1 | 10 | 2.4 | 3.4 |
| Technical | 16 | 8.0 | 6.6 | 21 | 8.8 | 10.0 | 37 | 9.0 | 7.5 |
| Not working | - | - | - | 4 | 1.7 | 1.5 | 6 | 1.5 | 1.2 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

Changes in employment status over time. Data on employment at four points in time were collected: October, 1982; February, 1983; October, 1983; and February, 1984 (see Table 18).

Substantial proportions of the respondents, from all three vocational concentration pattern groups, at all four periods, were not in the labor force. In all three groups, this proportion decreased from October, 1982 to February, 1984. Concentrators experienced the most pronounced decrease and also, had the highest proportion of respondents out of the labor force in October, 1982.

Employment levels (employed either full-time or part-time) increased over the time period covered by this variable. Concentrators had the lowest proportions in October, 1982 (36.7%), but finished the time period with the highest proportion employed (59.6%). Limited Concentrators varied from 43.5% in October, 1982 to 55.9% in February, 1984 and Samplers from 42.6% to 53.3%, employed for the same time period. Concentrators also, consistently had slightly higher proportions employed full-time.

The proportion of respondents that was unemployed, but not in school full-time, was fairly consistent across groups and time periods. Limited Concentrators had somewhat higher proportions in this employment category than did the other two groups, at all four points in time.

Table 18

Employment Status Changes Over Time

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| Employment status as of October, 1982 | | | | | | | | | |
| Full-time | 46 | 22.5 | 25.8 | 49 | 19.9 | 20.1 | 76 | 18.3 | 21.3 |
| Part-time | 29 | 14.2 | 10.0 | 58 | 23.6 | 19.8 | 101 | 24.3 | 20.1 |
| Unemployed, but not full-time student | 25 | 12.3 | 14.2 | 34 | 13.8 | 16.7 | 42 | 10.1 | 14.1 |
| Not in labor force | 104 | 51.0 | 50.1 | 105 | 42.7 | 43.4 | 196 | 47.2 | 44.5 |

(table continues)

Table 18 (continued)

Employment Status Changes Over Time

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| Employment status as of February, 1983 | | | | | | | | | |
| Full-time | 47 | 23.0 | 26.9 | 51 | 20.9 | 22.0 | 79 | 18.9 | 22.7 |
| Part-time | 36 | 17.6 | 13.2 | 55 | 22.5 | 20.1 | 109 | 26.1 | 22.1 |
| Unemployed, but not full-time student | 27 | 13.2 | 16.2 | 36 | 14.8 | 16.7 | 43 | 10.3 | 13.0 |
| Not in labor force | 94 | 46.1 | 43.7 | 102 | 41.8 | 41.3 | 186 | 44.6 | 42.3 |

(table continues)

Table 18 (continued)

Employment Status Changes Over Time

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| Employment status as of October, 1983 | | | | | | | | | |
| Full-time | 63 | 31.0 | 35.5 | 80 | 32.8 | 33.8 | 108 | 26.0 | 29.0 |
| Part-time | 54 | 26.6 | 22.0 | 58 | 23.8 | 22.7 | 112 | 27.0 | 24.5 |
| Unemployed, but not full-time student | 23 | 11.3 | 12.0 | 28 | 11.5 | 13.5 | 30 | 7.2 | 8.8 |
| Not in labor force | 63 | 31.0 | 30.5 | 78 | 32.0 | 30.1 | 165 | 39.8 | 37.8 |

(table continues)

Table 18 (continued)

Employment Status Changes Over Time

| Variables | Concentrators f | Concentrators S% | Concentrators P% | Limited Concentrators f | Limited Concentrators S% | Limited Concentrators P% | Samplers f | Samplers S% | Samplers P% |
|---|---|---|---|---|---|---|---|---|---|
| Employment status as of February, 1984 | | | | | | | | | |
| Full-time | 69 | 34.0 | 37.6 | 78 | 31.8 | 32.5 | 113 | 27.0 | 29.2 |
| Part-time | 52 | 25.6 | 20.2 | 59 | 24.1 | 20.5 | 110 | 26.3 | 24.2 |
| Unemployed, but not full-time student | 19 | 9.4 | 11.0 | 31 | 12.7 | 15.0 | 39 | 9.3 | 11.6 |
| Not in labor force | 63 | 31.0 | 31.3 | 77 | 31.4 | 32.0 | 156 | 37.3 | 35.0 |

Note: f = frequency in sample

S% = percent in sample

P% = estimated proportion in population

# CHAPTER 5

## Summary, Conclusions, Reflections, and Recommendations

The central purpose of this study was to provide a profile of Black students enrolled in vocational education in public high schools. Using data from a national sample of high school students, this study investigated the (a) demographic, personological, and educational profile of Black students enrolled in vocational education; (b) their employment status, educational outcomes, and civic/political participation and practices, as related to their vocational concentration pattern; and, (c) their changes over time as related to their aptitude, defined by standardized test scores, educational and vocational expectations, and employment status.

This chapter has been organized as follows: (a) the statement of the problem and research questions, (b) the procedures used in this study, (c) a summary of the findings (Chapter 4) discussed in the context of the research questions, (d) conclusions that were drawn from these findings, and (e) recommendations made for future research.

### Statement of the Problem

Despite the long-standing debate over the effects of vocational education, Blacks have continued to enroll in

vocational education. Many of today's Blacks have ignored, or are unaware of, the debate. Young Blacks have entered vocational education from all walks of life and with different occupational interests and varying levels of education. At the same time, arguments from scholars and Black civic leaders have indicated there is no consensus regarding the value of vocational education to Blacks as related to the labor market, further education, and civic/political participation. Clearly, a need has been shown to inform this argument by facts. It was therefore, necessary to determine the characteristics of Blacks that have enrolled in secondary vocational education and to describe their educational and occupational outcomes, as well as their civic and political participation practices.

Essentially, the problem has been defined by the following: (a) What is the profile of Blacks enrolled in vocational education in terms of gender, urbanicity, geographic region, and the socioeconomic status of their families? (b) How can the outcomes of their enrollment in vocational education be described as related to their employment status, educational attainment, and community participation practices? and, (c) What changes have occurred over time in their aptitude, educational and vocational expectations, and employment status?

## Research Questions

To address this problem, three specific questions were asked:

1. What is the overall demographic, personological, and educational profile of Blacks enrolled in vocational education, and how does this profile vary in relation to their vocational concentration patterns?

2. How can the Black students enrolled in public vocational education programs be described within their vocational concentration patterns in terms of their employment outcomes, further education outcomes, and civic and political participation practices after their secondary schooling?

3. What are the changes over time among Black youth enrolled in vocational education, within their vocational concentration patterns, with regard to aptitude, educational and occupational expectations, and employment status?

## Research Procedures

Data for this study were drawn from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)." This survey (Third Follow-Up) was a portion of the "High School and Beyond" longitudinal studies program conducted by the Center for Education Statistics (CES).

The subset of the Third Follow-Up sample used in this study consisted of Black participants in the national study who were enrolled in public high schools and also, in one or more vocational education courses. According to CES (Table 4.6-1, p. 47), 1,783 Blacks completed and returned questionnaires. Their overall response rate was 87.9%. Of this number, 1723 (96.6%) were enrolled in public schools and took vocational education courses either as a Concentrator, a Limited Concentrator, or as a Sampler.

The study was conducted in three phases. In phase one, a subset of Black students enrolled in one or more vocational education courses was identified from the "High School and Beyond 1980 Sophomore Cohort Third Follow-Up (1986)" survey. Appropriate numbers, frequencies, estimated population proportions, and central tendencies were used to provide an overall description of these students according to selected demographic, personological, and educational variables. These variables were gender, urbanicity, high school region, parents' socioeconomic status, the students' educational and occupational expectations, their high school grade averages, and their aptitude, as defined by standardized test scores. Comparisons were made across vocational concentration patterns.

The second phase described the sample in terms of selected outcomes as follows: (a) employment status, (b) educational attainment, and (c) civic/political participation practices. Comparisons were made across vocational concentration patterns.

The third phase described student changes over time within vocational concentration patterns. These descriptions included changes in (a) aptitude, as defined by the quartiles in which their scores on standardized tests fell, (b) educational expectations, (c) vocational expectations, and (d) employment status at four selected periods of time.

Population estimates were made by applying weights to the sample data for the purpose of estimating population proportions of the respondents according to categories and subsets. Due to small frequencies (less than 100) within some categories and the use of a sampling technique employed to collect the high school data (e.g., Blacks and other special minority groups were over-sampled for statistical representativeness), the researcher exercised caution when drawing conclusions about estimates of the population.

## Summary of Findings and Discussion

### Research Question One

The first research question is: What is the overall demographic, personological, and educational profile of Blacks enrolled in vocational education and how does this profile vary in relation to their vocational concentration patterns?

The Overall Profile of Blacks in Vocational Education.

Females outnumber males in the sample by about four percent, the sample is heavily urban and suburban (49.9% and 31.8%, respectively) and over one-half are from the Southern region (52.3%). When categorized by the socioeconomic quartile of their parents, almost one-half of the sample (47.6%) fall within the lowest quartile, almost three-fourths (73.6%) fall at the median or below, and less than 10% (9.2%) are in the top quartile.

A sizeable proportion of the sample expect to hold professional level careers by age 30 (37.7%) and approximately the same proportion (34.8%) expect to complete college or graduate degrees. The analysis of actual high school performance (grade averages) reveals few (8.8%) in the "A" and "A-B" ranges and a large proportion (51%) in the "C" or lower ranges. When categorized by standardized test quartile, slightly over 10% fall in the highest quartile, about twice that number (21.3%) are in

the second quartile, and over one-half (68%) fall below the median.

Profile of Blacks by Concentration Pattern. Analysis of the sample, according to the relative level or concentration of course work in vocational education, reveals a number of differences and contrasts. While the overall sample has slightly more females than males, females are more heavily represented in the Concentrator group (62.5%) than in either the Limited Concentrator or Sampler groups. The proportion of students from rural high schools is higher in the Concentrator group (22.4%) and Limited Concentrator group (31.2%) than in the Sampler group (12.8%). The Concentrators and Limited Concentrators also, had larger proportions of students from the Southern region (57.1% and 58.7%, respectively), than did the Samplers (51.4%).

Analysis of the socioeconomic quartiles of respondents' parents indicates similar compositions in the Concentrator and Limited Concentrator groups, but shows that considerable discrepancies exist between these groups and the Samplers. Over one-half of the Concentrators and Limited Concentrators fall within the lowest quartile and less than five percent within the top quartile. In the Sampler group, over 15% are in the top quartile and less than 40% fall in the bottom quartile.

The occupational expectations of the respondents differ by vocational concentration group, in certain career areas, but are quite similar in others. As has been noted in the general analysis, certain occupations such as farmer, housewife, laborer, military, operative, proprietor/owner, protective service, service, sales, and school teacher have been chosen by less than five percent of the respondents, regardless of concentration pattern. There are differences, however, in other occupational areas. A higher proportion of Concentrators (15.0%) expect to be in clerical careers than is the case with either Limited Concentrators (7.6%) or Samplers (4.1%). Slightly more Concentrators (8.7%) than Limited Concentrators (5.1%) or Samplers (3.1%) expect to be craftsmen. Approximately equal proportions of each group expect to be managers or administrators (less than 10%), and slightly more Concentrators (18.1%) expect to be employed in technical careers than is the case with Limited Concentrators (14.3%) or Samplers (15.2%). A slightly lower proportion of Concentrators (27.2%) expect to be in Professional 1 careers than do Limited Concentrators (29.6%) or Samplers (35.2%). This difference is more pronounced for Professional 2 careers where less than four percent (3.9%) of the Concentrators, but over 10% (10.3%) of the Limited

Concentrators and 15% of the Samplers expect to be employed.

The educational expectations of the three groups vary somewhat with the predictions made by previous studies. There is a larger proportion (52.2%) of Samplers that expect to complete college or graduate degrees than either Limited Concentrators (37.4%) or Concentrators (30.5%). It is less predictable that roughly equivalent proportions of the three groups expect high school graduation to complete their formal education (Concentrators - 12.1%, Limited Concentrators - 12.4%, Samplers - 10.1%). Proportions that expect to complete less than two years of postsecondary education, either vocational or college programs, are about the same across groups, as were the proportions that expect to complete more than two years, but not a full, college degree.

The actual school performance, as indicated by grade averages (self reported) does not reveal the differences across groups that might be expected. The proportion making mostly "A" grades, in all three groups, is less than two percent, as is also the case for those making mostly "D" grades.

Academic aptitude, as indicated by standardized test scores, however, does reflect differences among the groups. Samplers demonstrate higher aptitudes than do the other two groups. Less than nine percent of the

Concentrators and Limited Concentrators place in the top quartile, while almost 20% (19.4%) of the Samplers are so placed. Almost one-half (46.0%) of the Concentrators and Limited Concentrators (42.2%) fall in the lowest quartile in academic aptitude, while just over 30% (32.0%) of the Samplers are in the lowest quartile.

Research Question Two

The second research question is: How can the Black students enrolled in public vocational education programs be described within their vocational concentration patterns in terms of their employment outcomes, further educational outcomes, and civic and political participation practices after their secondary schooling?

The employment status in February, 1983 (approximately eight months after graduation) is similar for the three groups. The Samplers show a somewhat higher overall proportion of persons employed (44.2%) than do either the Limited Concentrators (43.8%) or Concentrators (39.2%). Also, the Concentrators show a slightly higher proportion in full-time employment. A large proportion of all three groups is not in the labor market at the point of the Third Follow-Up (Concentrators - 47.9%, Limited Concentrators - 41.8%, Samplers - 45.9%) and over 10% of each group is unemployed and not in school, full-time.

Educational attainment at the Third Follow-Up point (1986) reveals only small differences among the groups. Completion of a four-year degree is reported by less than five percent of each group and there is less than a five percent difference among the groups in the proportion who have completed vocational degrees or license/certificate programs. By far the largest proportion of each group have only completed a high school diploma (Concentrators - 82.4%, Limited Concentrators - 83.6%, Samplers - 79.8%).

Differences among the groups on civic and political participation at the Third Follow-Up point are slight. A slightly higher proportion of Concentrators voted (62.5%), than either Limited Concentrators (55.3%) or Samplers (59.5%). A little more than 40% report any participation in church-related activities. Less than 20% report being a member of community or neighborhood groups and less than five percent report involvement in volunteer work. Political participation, as assessed by campaigning for a candidate, is reported by approximately 30% of each group, and only about 20% have participated in any political gatherings. Less than 10% of each group reports belonging to a political club or organization.

Research Question Three

The third research question is: What are the changes over time among Black youth enrolled in vocational education within their vocational concentration patterns

with regard to aptitude, educational and occupational expectations, and employment status?

The overall pattern of aptitude quartile membership evident in the Base-year does not change appreciably at the First Follow-Up (senior year) point, with two exceptions in the sample proportions. The proportion of Limited Concentrators in the lowest quartile decreases from 52.7% (Base-year) to 42.3% (First follow-Up) with a parallel increase in third quartile membership from 14.3% to 22.2%. Samplers show a decrease in second quartile membership from 27.1% to 20.6% and an increase in third quartile membership from 20.9% to 27.9%. Population estimates based on the weighted samples, however, reveal much less dramatic change among any of the three groups.

Educational expectations have been measured at the base-year and at each of the three follow-up points in time. At all four data collection points, Samplers show the lowest proportion of respondents that expects to limit their formal education to high school graduation. There is a consistent increase from the Base-year to the Third Follow-Up in the proportion of students that expects to complete two years or less of postsecondary education. There is also, an increase in the proportion of all three groups (from the Base-year to First Follow-Up) that expects to complete more than two years, but a drop in these proportions during both the Second Follow-Up and Third

Follow-up surveys. The pattern of expectations to finish a college degree is not systematic by group or time period. The proportion of Concentrators ranges from a low of 21.5% at the Base-year to 35.4% at the Third Follow-Up, but shows a drop to 14.3%, during the senior year in high school. Limited Concentrators vary from 21.9% to 30.8%, with a similar drop at the First Follow-Up point. Changes in Sampler expectations range from 28.0% to 26.3% to 35.9% to 28.5%, at the four data collection points. A sizeable proportion of all three groups indicates the expectation to complete graduate degrees, with the proportion dropping during the First Follow-Up and Second Follow-up surveys. The proportion rises to a new high at the Third Follow-Up. Samplers, at all four data collection points, indicate the highest proportion of students that anticipates completion of graduate degrees, while Concentrators show the lowest proportions at all four points.

The change over time of vocational expectations consistently decreases in terms of occupational level. The proportion of students that expect professional careers decreases from 31.2% to 17.5% for Concentrators, from 36.2% to 28.4% for Limited Concentrators, and from 51.3% to 36.1% for Samplers, from Base-year to Third Follow-Up. Conversely, the proportions that anticipate clerical careers increase for all three groups, during the same time period. Expectations for careers in management or

administration rise steadily for all three groups, while the proportions that expect technical careers increase to a high point during the First Follow-Up. These expectations decrease to approximately equal Base-year levels by the Third Follow-Up. Many occupational titles, such as farmer, homemaker, military, school teacher, and others, consistently draw very small proportions (generally less than five percent) of each group at each data collection point.

Employment status has been recorded at four points in time: October, 1982; February, 1983; October, 1983; and February, 1984. Large proportions of all three concentration pattern groups are not in the labor force at any of the four data collection points, although this proportion decreases over time, with the most dramatic decrease shown among the Concentrators. This group indicates the highest proportion in October, 1982 (51.0%), but the lowest, in February, 1984 (31.0%). Employment levels (full or part-time) increase over the period, with Concentrators reporting the greatest gains from 36.7% to 59.6%. Concentrators consistently have somewhat higher levels of full-time employment, at all four data collection points.

## Conclusions

Conclusions relating to research question one are:

1. This population may be characterized as urban/suburban and predominately southern, with low socioeconomic status and school performance, but high educational and career expectations. To the extent that high school academic performance and socioeconomic status serve as predictors of future academic performance and occupational level, it is concluded that overall, the group's expectations are relatively unrealistic, particularly in light of the present and anticipated job market.

2. The analysis of demographic, personological, and educational variables, within vocational concentration pattern groups, reveals important differences. It is concluded that several traditional stereotypes are generally supported by these analyses. These are:

   a. Females are over-represented in higher vocational coursework concentrations;

   b. Socioeconomic levels reflect an inverse relationship to vocational concentration;

   c. "Urbanness" and vocational concentration are inversely related.

3. Based on these same within-group analyses, it is concluded that career and educational expectations of all three groups do not reflect the reality of present or

anticipated job markets. The greatest discrepancies exist regarding high expectations for (a) college and advanced degrees, (b) professional level careers, and in the very low proportions of students that expect to be employed in many lower and mid-level careers.

Conclusions related to research question two are:

1. The overall employment status for the participants in this study, eight months after graduation, is not positive. This status, however, appears to be essentially unrelated to vocational concentration pattern. It is concluded that relative concentration in vocational course work does not affect employment status, when measured shortly after graduation.

2. Differences in the level and nature of educational attainment by the three groups, by 1986, are slight. It is concluded that the level or type of further education obtained over the four years following the senior year, by these students, is essentially unrelated to their relative concentrations in vocational course work.

3. Differences among the three groups in political and community participation levels are also slight. While these participation rates seem quite low, being registered to vote is shown to be significantly higher than other participation activities. The increase in voter registration may be due to the "Black pride" stirred during the Jessie Jackson campaigns for President, in the last two

general elections. No comparison has been made with the voter registration rates of other racial or ethnic groups or with students who have not participated in vocational education. It is concluded that relative concentration in vocational course work is unrelated to political and community participation.

Conclusions related to research question three are:

1. While Samplers have higher, overall educational expectations than the other two groups over time, the proportion of Concentrators who expect to complete college increases from Base-year levels and actually exceeds that of the Samplers by the Third Follow-Up. The proportion of Samplers who expect to earn graduate degrees, however, exceeds that of either of the two groups at all four points in time. It is concluded that educational expectations are related to vocational concentration pattern, but that this finding is not a simple linear relationship over the four years following completion of high school.

2. The change over time in vocational expectations is consistently downward (proportions that expect professional careers decrease and proportions expecting clerical and lower-level careers increase). This change is relatively consistent across concentration patterns. It is concluded that vocational expectations are moderately related to vocational concentration pattern and become somewhat more realistic over time, in terms of the actual job market.

3. The employment status over time for all three groups improves over time. Concentrators demonstrate the greatest improvement in the reduction of the proportion that is out of the labor market and increases in the overall percent employed. Concentrators consistently show somewhat higher levels of full-time employment, over the four data collection points. It is concluded that vocational concentration pattern is moderately and positively related to employment status.

## Reflections and Recommendations

This section contains the recommendations and personal reflections of the author. The reflections are based on the author's thirty-five year career as an educator and community developer in the Black community. During this time, the author has been a county manager; a member of more than 40 boards, councils, or commissions; and has worked with numerous Black youth organizations.

1. This study reveals that Black youth continue to enroll in vocational education with high occupational aspirations and educational expectations; most of which are unrealistic. Jobs are not immediately available to these graduates. The data also reveal that the majority of these youth are from families in the lower SES quartiles. The author's experience has shown that Black parents (especially Black southern parents with whom the author has worked very closely) have always wanted their children to

"be something," to "make something out of themselves." The data reflect that the Black youth in this study, "want to be something." They want to "make something" out of their lives. It is apparent that somewhere the "system(s)" (i.e. educational system; the guidance and career counseling systems; the socioeconomic system, particularly the federal and state financial assistance programs designed to provide low income individuals with an opportunity to pursue postsecondary education), have all, consciously or unconsciously conspired to deny these youth their expected occupational goals and/or aspirations. Given the low SES levels of the parents of the Black youth included in this study, it is not a realistic expectation for these parents to process adequate information about the smorgasbord of occupational opportunities available, to adequately guide or advise their children with regard to career occupations or preparation. Herein lies a unique role for vocational education: That of developing a realistic career counseling and placement program for youth in vocational education who apparently have unrealistic expectations about the labor market and little realization of the preparation demanded to obtain the occupations to which they aspire. The wider community would be greatly served if these youth became productive taxpayers, rather than dependents on the tax roll. Thus, it is recommended that the results of this study be shared with those in policy

and decision-making roles to help them develop career and occupational counseling and training programs which are more realistic in terms of the labor market and the students' abilities.

2. This study reveals that Black graduates of vocational education are simply not active in neighborhood or community betterment associations. Seventy to ninety percent virtually do not attend socio-political gatherings and approximately three-fourths are not frequently involved in church or church-related activities. Based on more than twenty-five years of experience with Black voluntary associations, the author can attest to the fact that the Black church, for most Black communities, is the community center; and, the hub of the Black community's voluntary activities. Churches are often the meeting places for lodges, NAACP groups, burial societies, and community clubs. Church officers and officers in Black community betterment associations are, in the author's experience, most often the same individuals. These individuals and organizations perform services that mainstream, voluntary associations often overlook or cannot implement. Question: Are the ten to twenty percent of Black vocational education graduates destined to forever be the "children of Sisyphus?" The author believes this should not be the case. It is the author's recommendation that vocational education advocates and critics alike forge a

greater working partnership with education policy-makers in order to impact the curriculum offered to Black vocational students, both in terms of sensitizing them to their civic duties and to their political responsibilities.

3. This study was designed to answer questions pertaining to the profile of Black youth enrolled in vocational education. It focused on their further education, labor market outcomes, and their civic and political participation. Although respondents were described according to concentration patterns, this study did not investigate relational or causal hypotheses, likely to be of particular concern to Black leaders.

Black leaders are likely to be highly concerned about the possible effects of racism in the program placement of Blacks and the effect of this placement on the labor market outcomes of Blacks enrolled in vocational education. They are likely to be concerned about the effects of other, possibly stereotypic, practices (e.g., concentration and placement based on gender and placement based on the socioeconomic status of student families). This study lays the groundwork and sets up the data set for further investigations to determine the relationship and possible causal effects of these practices about which Black civic leaders and educators are concerned. The author recommends that the results of the present study be used to develop relational and causal hypotheses both within the HS&B data

set and other longitudinal data sources to determine the significance of these practices.

In addition, the author recommends that studies be conducted to investigate school, community, and economic variables that may demonstrate the relationship between school characteristics, program characteristics, and student outcomes. Policy makers, vocational educators, and the country in general, would be greatly served if they were informed by these facts.

4. Blacks enrolled in vocational education may not be alone in facing a disappointing labor market. They may not be alone in having unrealistic occupational expectations and poor civic and political participation practices. Other ethnic and racial groups may be facing similar circumstances. A society that is as pluralistic as the American society is cannot afford to have significant segments of its population so disadvantaged and yet, remain a moral and productive society in the international community. Vocational education is a significant alternative for those who do not want a liberal arts education or a four-year college degree. According to this author's experience and beliefs, while everybody is not "cut out" to be a liberal arts graduate or a graduate of a four-year college program, every American can and should be afforded the opportunity to be a productive citizen of the American society. The author, therefore, recommends that

studies be conducted that include other racial and ethnic groups in order to isolate variables that are uniquely sensitive to those groups.

Finally, based on the literature reviewed for this study and findings based on the analysis of data, the author believes that in order for vocational education to fulfill the mandates of the vocational acts and other legislation anent vocational education, and to withstand the onslaughts of opponents, vocational education must undergo a facelift. It must enact a proactive career counseling/orientation program so that student enrollees can receive a realistic view of the world of work and end the use of stereotypic perceptions in course placement and student selection practices. The conviction expressed by the anonymous poet (cited in Washington, James, 1986, p. 212) may be an apt reminder:

Fleecy locks and dark complexion
Cannot forfeit nature's claim.
Skin may differ but affection
Dwells in black and white the same.
Were I so tall as to reach the pole
Or to grasp the ocean at a span,
I must be measured by my soul,
The mind is [the] standard of the man.

# References

Adams, F., & Miller, J. (1980). That little has changed: Vocational education in the rural south. Washington, DC: National Institute of Education. (ERIC Document Reproduction Service No. ED 199 014)

Bachman, J., Green, S., & Wirtamen, I. (1971). Dropping out: Problem or system? Youth in Transition, 3, Ann Arbor: Braun-Brumfield, Inc.

Borus, M. E. (Ed.). (1981). Pathways to the future: A report on the national longitudinal survey of youth labor market experience in 1979. Columbus: The Ohio State University, Center for Human Resource Research. (ERIC Document Reproduction Service No. ED 236 219)

Borus, M. E. (Ed.). (1982). Pathways to the future, Vol. II. The national longitudinal survey of youth labor market experience in 1980. Final Report. Columbus: The Ohio State University, Center for Human Resource Research. (ERIC Document Reproduction Service No. ED 236 220)

Braddock, J. H., Crain, R. L., McPartland, J. M., & Dawkins, R. L. (July, 1985). How race affects job placement decisions: Results of a vignette experiment with a national sample of employers. Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools. (ERIC Document Reproduction Service No. ED 260 169)

Brown, K. G. (May, 1982). Postsecondary plans of high-school seniors in 1972 and 1980: Implications for student quality. AIR Forum 1982 Paper. Paper presented at the Annual Forum of the Association for Institutional Research, (22nd, Denver, CO, May 16-19, 1982). (ERIC Document Reproduction Service No. 220 060)

California Postsecondary Education Commission. (1984). The first follow-up of the high school class of 1984: A staff report from the 1983 eligibility study on post-high school activities of high school graduates. (Commission Report 84-25). Sacramento, CA: Author.

Campbell, P. B., Gardner, J. A., & Seitz, P. (1982). Postsecondary experiences of students with varying participation in secondary vocational education. Columbus: The Ohio State University, The National Center for Research in Vocational Education.

Campbell, P. B., Gardner, J., Seitz, P., Chukwuma, F., Cox, S., & Orth, M. N. (1981). Employment experiences of students with varying participation in secondary vocational education. Columbus: The Ohio State University, The National Center for Research in Vocational Education.

Campbell, P. B., Orth, M. N., & Seitz, P. (1981). Patterns of participation in secondary vocational education. Columbus: The Ohio State University, The National Center for Research in Vocational Education.

Carl D. Perkins Vocational Education Act. Public Law 98-524. (1984). Washington, DC: U.S. Government Printing Office.

Center for Educational Statistics. (1987). High school and beyond 1980: Sophomore cohort third follow-up (1986). vol. 1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Christensen, S. Malder, J., & Weisbord, B. (1975). Factors affecting college attendance. Journal of Human Resources, 10, 174-188.

DeBord, L. W., & Williams, L. W. (1976). A profile of demographic characteristics, occupational and educational plans of vocational students in selected Mississippi junior colleges. Oxford: University of Mississippi, The Institute of Urban Research. (ERIC Document Reproduction Service No. ED 146 984)

Du Bois, W. E. B. (1903). The negro problem: A series of articles by representative negroes today. New York: James Potts & Co.

Durken, J. H. (1981). Secondary school dropouts. St. Paul: Minnesota State Department of Education. (ERIC Reproduction Service No. ED 205 684)

Education Amendments of 1972. Public Law 92-318. (1972). Washington, DC: U.S. Government Printing Office.

Education Amendments of 1974. Public Law 93-380, Title V, Section 501, (Amended Part A of the General Education Provisions Acts). (1974). Washington, DC: U.S. Government Printing Office.

Education Amendments of 1976. Public Law 94-482. (1976). Washington, DC: U.S. Government Printing Office.

Frazier, E. F. (1957). Black bourgeoisie: The rise of a middle class. New York: The Free Press.

Gleb, J. (1979). Beyond the academic, non-academic dichotomy: High school curriculum effects and educational attainment. (Report No. 273). Baltimore, MD: Johns Hopkins University, The Center for Social Organization of Schools.

George-Dean Act of 1936. Public Law 74-673. (1936). Washington, DC: U.S. Government Printing Office.

George-Ellzey Act of 1934. Public Law 72-245. (1934). Washington, DC: U.S. Government Printing Office.

George-Reed Act of 1929. Public Law 70-702. (1929). Washington, DC: U.S. Government Printing Office.

Grasso, J. T., & Shea, J. R. (1979). Vocational education and training: Impact on youth. Berkeley, CA: Carnegie Council of Policy Studies in Higher Education.

Hamilton, S. F., & Claus, J. F. (1981). Inequality and youth unemployment: Can work programs work? Education and Urban Society, 14(1), 103-126. (ERIC Document Reproduction Service No. EJ 257 338)

Harlan, S., & Hackett, E. J. (1984). Federal job training programs and employment outcomes: Effects by sex and race of participants. Working Paper No. 129. Wellesley, MA: Wellesley College, Center for Research on Women. Washington, DC: National Science Foundation. (ERIC Document Reproduction Service No. ED 247 430)

Hewitt, J. D., & Johnson, W. S. (1979). Dropping out in Middletown. The High School Journal, 62(6), 252-256.

Johnson, J. H. (Ed.). (1971-1973). Ebony pictorial history of black America. (vols. 1-4). 1, 88-99. Nashville, TN: The Southwestern Company.

Kolstad, A. J. (April, 1979). The influence of high school type and curriculum on enrollment in higher education and postsecondary training. Paper presented at annual meeting of American Education Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 172 627)

Lawrence, J. E. S, & McAdams, K. C. (1978). Vocational development theory and the NLS. Research Triangle Park, NC: Triangle Research Institute.

Martin, D. L., Jr. (1981). Identifying potential dropouts: A research report. Frankfort: Kentucky State Department of Education. (ERIC Document Reproduction Service No. ED 216 304)

McClure, P. (1977). Race and sex compliance issues in vocational education. National Association for the Advancement of Colored People, Legal Defense and Educational Fund, New York: National Institute of Education (DHEW), Washington, D.C. Education and Work Group. Vocational Education Study Division.

Mertens, D. M., & Gardner, J. A. (1981). Vocational education and the younger adult worker. Columbus: The Ohio State University, The National Center for Research in Vocational Education.

Mertens, D. M., & Gardner, J. A. (1982). Educational and employment experiences of the younger adult worker. Paper presented at the annual conference of the American Education Research Association, (New York, NY). Washington, DC: Office of Vocational and Adult Education (ED). (ERIC Document Reproduction Service ED No. 215 210)

Mertens, D. M., McElwain, D., Garcia, G., & Whitmore, M. (1980). The effects of participating in vocational education: Summary of studies reported since 1968. Columbus: The Ohio State University, The National Center for Research in Vocational Education.

Meyer, R. H. (1981). An economic analysis of high school vocational education: How should it be measured? Washington, DC: The Urban Institute.

National Occupational Information Coordination Committee. (1979). Vocational preparation and occupations: Occupational and educational code crosswalk (vol. 1) (interim edition). Washington, DC: Author.

Oakes, J. (1981). Limiting opportunity: Student race and curricular differences in secondary vocational education. A study of schooling in the United States. (Technical Report Series, No. 28). Institute for Development of Educational Activities, Dayton, Ohio. Los Angeles: California University, Graduate School of Education.

Pincus, F. L. (1978). Tracking and vocational education in community colleges. Paper presented at the convention of the Society for the Study of Social Problems, San Francisco, CA. (ERIC Document Reproduction Services No. ED 175 504)

Pincus, F. L. (1980). The false promises of community colleges: Class conflict and vocational education. Harvard Educational Review, 50(3), 332-361.

Prosser, C. A., & Quigley, T. H. (1968). Vocational education in a democracy. Chicago, IL: American Technical Society.

Robertshaw, D., & Wolfle, L. (1980). Discontinuities in schooling and educational attainment. (ERIC Document Reproduction Service No. ED 186 488)

Rumberger, R. W. (1981). Why kids drop out of high school. (Program Report No. 81-B4). Stanford, CA: Institute for Research on Educational Finance and Governance.

Self, T. C. (1985). High school retention: A review of literature. Project Talent Search. Monroe, LA: Northeast Louisiana University. (ERIC Document Reproduction Service No. ED 260 307)

Sheppard, N. A. & Sherrard, F. (Eds.). (1977). Proceedings of the National Conference on Increasing the Participation of Black Americans in Vocational Education. Blacksburg, VA: Virginia Polytechnic Institute and State University, Vocational and Technical Education Curriculum Center.

Simpson, J. H. (1982). Training makes a difference in Black family earnings. Urban League Review, 7(1), 39-46. (ERIC Document Reproduction Service No. EJ 275 655)

Smith-Hughes Act of 1917. Public Law 64-347. (1917). Washington, D.C.: U.S. Government Printing Office.

Stronge, W. B., & Villemez, W. J. (1977). The effect of postsecondary vocational education in assisting students to overcome class and income inequality. Boca Raton: Florida Atlantic University. Florida State Advisory Council on Vocational and Technical Education, Florida State Department of Education, Tallahassee, FL. (ERIC Document Reproduction Service No. 149 049)

Vocational Act of 1963. Public Law 88-210. (1968). Washington, DC: U.S. Government Printing Office.

Vocational Education Amendments of 1968. Public Law 90-576. (1968). Washington, DC: U.S. Government Printing Office.

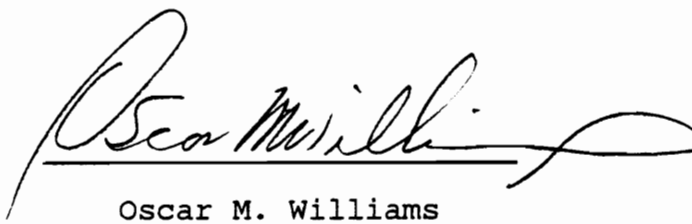
Washington, B. T. (1933). Up from slavery: An autobiography. New York: Doubleday.

Washington, J. (Ed.). (1986). A testament of hope: The essential writings of Martin Luther King, Jr. San Francisco: Harper & Row, Publishers.

# Vita

Oscar M. Williams was born September 17, 1941 in Boligee, Alabama. He attended the public schools of Greene County, Alabama and graduated from the Greene County Training School (presently, Paromount High School) in May, 1959. He received his Bachelor of Science degree from Alabama A. and M. University in Vocational Agriculture in 1963, and his Master of Education from Tuskegee University in Adult Education (Agricultural Education) in 1969.

He taught vocational education as a member of the United States Peace Corps in Jamaica from 1963 to 1967. He has been employed as a county administrator, director of a county housing authority and has served as a board member of more than 40 statewide, regional, and local volunteer, civic, and community associations in Alabama and in Virginia. For the last 10 years he has been employed as Associate Director of the Center for Volunteer Development at Virginia Polytechnic Institute and State University and directs programs targeted for Black and other civic, religious, and community associations.



Oscar M. Williams