THE TRACKING OF SCHOOL CHILDREN:
A COMPARISON OF LIFE OUTCOMES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
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School of the Ohio State University

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** ** **

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DEDICATION

To my Parents,
Dr.'s Alfred L. Joseph and Myra E. Joseph, who taught me the value of knowledge and provided me with every opportunity to realize my potential. To my wife, Dorothy, and sons, Shane and Paul. Their patience, inspiration and love helped me accomplish my goals.
It is only after one undertakes the task of writing a dissertation that it becomes clear how much assistance is required for successful completion. I will start with my committee. I want to thank my chair, Dr. Elizabeth Segal, for her guidance, support and patience. Towards the end of the process, I was beginning to become obsessed with finishing and was losing sight of the immediate tasks at hand. With seemingly infinite patience, Dr. Segal was able to help me refocus and to realize that there are no shortcuts on the path to a quality product.

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TABLE OF CONTENTS

DEDICATION ................................................................. ii

ACKNOWLEDGEMENTS ................................................... iii

VITA ................................................................. v

LIST OF TABLES ......................................................... viii

CHAPTERS

I. INTRODUCTION ........................................ 1

   General Area of Concern ...................... 1

   Significance of issue and
   Justification of Study ..................... 6

   Organization of Dissertation ............ 10

II. LITERATURE REVIEW ...................... 11

   Definition of Tracking ................... 11

   Placement Decisions ..................... 13

   History of Tracking ..................... 15

   Classism, Racism, Tracking ........... 24

   Theoretical Foundation ................ 29

   Critical Theory and the Educational
   Process ........................................ 31

   Summary ........................................ 34

   Restatement of Tracking Rationale and
   Counterpoints .............................. 36
III. METHODOLOGY ............................................ 38
Research Questions ........................................... 38
Design ........................................................... 39
Data ............................................................... 40
Research Sample ............................................ 42
Rationale for the Selection of Variables ...................... 43
Variables of Interest ........................................ 47
Analysis Procedures ........................................ 52

IV. FINDINGS ........................................................ 56
Introduction .................................................. 56
Description of Sample ...................................... 56
Criterion, Confounding and Predictor Variables .......... 57
Chi Square Results ......................................... 87
Anova Results .............................................. 99
Ancova .......................................................... 100

V REVIEW AND COMMENTARY ......................... 105
Introduction ................................................ 105
Main Findings ............................................. 106
Discussion .................................................... 114
Implications for Social Work ............................... 117

REFERENCES ...................................................... 119
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Description</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Demographic Breakdown of Sample by Track</td>
<td>58</td>
</tr>
<tr>
<td>2.</td>
<td>Summary of Sample Characteristics</td>
<td>59</td>
</tr>
<tr>
<td>3.</td>
<td>Summary of White male Characteristics</td>
<td>59</td>
</tr>
<tr>
<td>4.</td>
<td>Summary of White female Characteristics</td>
<td>60</td>
</tr>
<tr>
<td>5.</td>
<td>Summary of Black male Characteristics</td>
<td>60</td>
</tr>
<tr>
<td>6.</td>
<td>Summary of Black female Characteristics</td>
<td>61</td>
</tr>
<tr>
<td>7.</td>
<td>Chi Square values for Track Placement and criterion &amp; confounding variables</td>
<td>88</td>
</tr>
<tr>
<td>8.</td>
<td>Crosstabulation of track by highest degree received as of 1988</td>
<td>90</td>
</tr>
<tr>
<td>9.</td>
<td>Crosstabulation of track by occupation of respondent</td>
<td>91</td>
</tr>
<tr>
<td>10.</td>
<td>Crosstabulation of track by poverty rate</td>
<td>93</td>
</tr>
<tr>
<td>11.</td>
<td>Crosstabulation of track by enrollment status</td>
<td>93</td>
</tr>
<tr>
<td>12.</td>
<td>Crosstabulation of race by track</td>
<td>94</td>
</tr>
<tr>
<td>13.</td>
<td>Crosstabulation of track by sex</td>
<td>95</td>
</tr>
<tr>
<td>14.</td>
<td>Crosstabulation of track by marital status</td>
<td>96</td>
</tr>
<tr>
<td>15.</td>
<td>Crosstabulation of track by occupation of male parent when respondent was fourteen</td>
<td>97</td>
</tr>
<tr>
<td>16.</td>
<td>Crosstabulation of track by occupation of female parent when respondent was fourteen</td>
<td>98</td>
</tr>
<tr>
<td>17.</td>
<td>One-way Anova results of annual family income, hourly rate-of-pay, mother’s education, father’s education by track</td>
<td>100</td>
</tr>
<tr>
<td>18.</td>
<td>Observed and adjusted means (annual family income) for covariates by track</td>
<td>101</td>
</tr>
<tr>
<td>19.</td>
<td>Summary of the beta weights (family income) and significance of the covariates</td>
<td>102</td>
</tr>
<tr>
<td>TABLE</td>
<td>PAGE</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>20. Summary of Ancova for annual family income by track</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>21. Observed means and adjusted means (hourly rate-of-pay) for covariates by track</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>22. Summary of the beta weights (hourly rate-of-pay) and significance of the covariates</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>23. Summary of Ancova for hourly rate-of-pay</td>
<td>104</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

General Area of Concern

Former President Lyndon Johnson was quoted as saying that "the answer for all our national problems comes down to a single word: education" (Bowles and Gintis, 1976, p. 19). Gov. James B. Hunt of North Carolina, speaking for the Task Force on Education for Economic Growth in 1984 stated:

"Americans believe in education. It is the public enterprise that is closest to the hearts and most important to the lives of Americans. Ultimately, education is crucial to success in everything we attempt as a nation" (Hunt, 1984, p. 538).

One of the reasons Americans hold education close to the heart and believe it is important is because education is seen as one of the few truly democratic institutions left in society. Education is seen as a vehicle for social mobility. The belief is that if the desire to learn is there, one need only avail oneself of the opportunities and success will follow. According to conventional wisdom the influence of race and class on this process is minimal if it exists at all. At an early age the link between education and what is commonly called "the good life" is repeatedly driven home, it permeates the popular culture. Children are told at home and at school that their chances for "success" rely almost entirely on their ability to negotiate the
educational system. Indeed, there is some basis for the ideas that link education with "success" later in life.

"The positive relationship between education and earnings is well documented in the economics and sociology literature. That persons with more schooling receive higher wages than persons with less schooling is also readily observed in the labor market. And while the payoff to additional schooling varies among different types of workers and work settings, the general relationship still holds" (Rumberger, 1987, p.24).

Lester Frank Ward, well known author and scholar, adequately summed up the popular perception of education as a force for equality. Though these words were written over one-hundred years ago they still accurately describe this pervasive sentiment:

Universal education is the power, which is destined to overthrow every species of hierarchy. It is destined to remove all artificial inequality and leave the natural inequalities to find their true level. With the artificial inequalities of caste, rank, title, blood, birth, race, color, sex, etc., will fall nearly all the oppression, abuse, prejudice, enmity, and injustice, that humanity is now subject to (quoted in Bowles and Gintis, 1976, p. 26).

There are many educators and other professionals who entertain grave doubts as to whether or not the educational system is indeed helping to overthrow "every species of hierarchy" or if it is engaged in maintaining the "artificial inequalities of caste, rank, title, blood, birth, race, color, sex..."

The reality is that the educational system is failing to meet the needs of large segments of the school-age population. This is particularly true for African-American school children. Gladden
(1990), principal of Dunbar High School in Baltimore, laments that large numbers of Black children have lost hope and have had their faith in their ability to learn shaken. Jonathan Kozol (1991), in his book *SAVAGE INEQUALITIES-CHILDREN IN AMERICA'S SCHOOL*, paints a fairly desperate picture of the American educational landscape. The book traces his travels while examining schools throughout the United States from 1988 to 1990. Invariably he found that schools with large non-white populations were clearly inferior to those with large white, especially middle- and upper-middle class, populations. This was true over a variety of measures, including teacher experience, physical facilities, equipment, materials and curriculum. Kozol (1991) finds that white middle- and upper-middle class parents are especially drawn to ideas that deny the influence of race and class on the educational experience. This really becomes apparent when the topic of equity in school funding is broached. Some of these parents argue that what is important is not how much is spent on things like equipment, books, and physical facilities, but the desire of the individual student.

Ideally, schools are supposed to be places where all children are to be nurtured and challenged to excel, and where all children are viewed as having unlimited potential. The reality is that this is only true for some children. For the rest, a disproportionate number of whom are African-Americans, a different reality exists. Jones (1986) quotes New York psychologist Dr. William Lyles as saying that public schools in urban centers are "particularly cold and ungiving" for African-American males. One could argue that these
schools are not that much warmer or giving for African-American females either. The key point Jones (1986) makes is that, "the interaction between young black males and the educational system can determine their destiny" (p. 19). Following in the same vein, Furr (1993) believes that "education plays an important role in organizing experiences of young people as they prepare for adult roles" (p. 35).

One of the areas in which Kozol (1991) found schools with large non-white populations to be deficient was in the area of curriculum. Indeed several studies (Anyon, 1980; McLaren, 1988; Oakes, 1985; Oakes, 1992; Furr, 1993) clearly show that curriculum is the primary method schools use to organize experiences for students. Some of these same studies (McLaren, 1988; Oakes, 1992) indicate that African-American children, on the whole, have school experiences that are inferior to the experiences of white schoolchildren based on the type of curriculum to which they are exposed. This educational practice of "matching students' cognitive and motivation inventories with the appropriate curriculum" is commonly referred to as tracking (Furr, 1993, p. 35). Hallinan (1994a) clearly tells us that:

"Tracking is an organizational practice whose aim is to facilitate instruction and to increase learning. The theory of tracking argues that tracking permits teachers to tailor instruction to the ability level of their students. A good fit between a student's ability and the level of instruction is believed to maximize the effectiveness and efficiency of the instructional process. Thus, tracking is meant to promote cognitive development; it is not designed to influence or modify students' social or emotional growth" (p. 79).
In the same article Hallinan goes on to acknowledge that there is considerable debate over the effectiveness and equity of tracking. The practice, she admits, tends to increase racial segregation within schools and provides no advantage for "low" and "middle" ability students. The slight increase in achievement for "high" track students some research shows, might be attributable to other factors like teacher enthusiasm, higher expectations, etc... and not homogenous classrooms. Indeed, Hallinan (1994a) also states that "tracking typically leads to a social hierarchy based on track level and academic performance. Students who are assigned to the lower tracks are apt to receive less respect from their peers and to be assigned lower status in the academic hierarchy."(p. 81). Unlike some critics of tracking who want to scrap the practice (e.g. Oakes, 1994b; Kean, 1993), Hallinan (1994b) believes that if only tracking were applied correctly the negative aspects of tracking could be eliminated, or at least lessened. Oakes (1994a), an avid detracking advocate, likens Hallinan's conclusions about tracking being misapplied to the struggle over segregation. Oakes (1994b) believes that just as you cannot have "separate but equal" in accommodations, you cannot have "separate but equal" in schooling.

African-Americans bear the brunt of the educational practice of tracking. Middleman (1979) states quite frankly that "the lower tracks are populated by poor children, black children, and working class children, and upper, college-bound tracks by white middle and upper-middle class children"(p. 47). What happens to the children who occupy the lower tracks and for whatever reason, persevere and
graduate? How have their lives been affected by being placed in the lower tracks? How do their lives compare to those children who were placed in the higher tracks? These and other questions will be addressed in this study.

Significance of Issue and Justification of Study

Middleman (1979) believes that schools should perform two main tasks: (1) to "operationalize the democratic vision of an open society" and (2) to help develop the child's "competencies for meeting the everyday tasks of living" (p. 48). Given the changing nature of American society and in particular its economy, these "tasks" take on even greater significance. Kutscher (1989) writes that African-Americans along with other minorities will represent an ever increasing share of the labor force as we approach the 20th century. He goes on to state that "many of the occupations projected to be the
most rapidly growing over the period (1988-2000) are those that require post-secondary education or training" (p. 71).

If something is at work in the school system that disproportionately affects the chances African-Americans have of obtaining higher education and becoming viable participants in a post-industrial society, the consequences can be grave. Hodgkinson (1992) believes that "we are creating two work forces: one in minimum wage occupations..... and the other in well-paid occupations in technical or administrative positions that need a college degree for entry" (p. 9). A report on education issued by The Children's Defense Fund (1991), expressed fears that if the trend towards creating two work forces continues unabated, one of the fallouts could be greater polarization that "heightens racial tensions and weakens Americans' sense of shared values and concerns" (p. 85). The same report goes on to say the following:

"Citizens who feel isolated from the mainstream by a lack of education and economic opportunities are less likely to vote, participate in their communities, and pass along to their children the values associated with informed citizenship" (p. 85).

The cover story for the October 24th, 1994 issue of NEWSWEEK was a report on the controversial new book, THE BELL CURVE. The authors are Charles Murray and the late Richard Herrnstein. The book purports to be a serious study of the "links" between race, intelligence and social class. One of the attending articles was written by Lynnell Hancock. In the article Hancock describes how a high-school in the South Bronx, populated by Black and Latino at-risk
children seemingly destined for academic failure, is now actually engaged in teaching. Previously, the school was little more than a warehouse for poor children. Now, Hancock writes, "the dropout rate is low, and attendance is high. About 70% of the class of 1989 graduated on time, double the city's average. Among last year's graduates, one was accepted at Columbia University's School of Engineering. Others are attending Fordham University and Hamilton College."(p. 61). When Hancock asked the founder and principal of the school what was responsible for the turnaround, he replied that among other things the "mickey mouse curriculum" (i.e. low track courses) was eliminated and replaced by a much more demanding curriculum. He went on to say that even he had doubts about whether his actions were sound or not.

Gould (1981) would argue that the administrator's hesitation was probably due in part to his acceptance, to some degree, of biological determinism. Gould says "few biological subjects have had a more direct influence upon millions of lives" (p. 28). Gould calls biological determinism a "theory of limits" because "it takes the current status of groups as a measure of where they should and must be"(p. 28).

These ideas have a history and a certain amount of credibility in this society. "Scholars" produce research that supports ideas about the unequal distribution of intelligence or ability in society. For example, books like THE BELL CURVE are regarded by some as legitimate works of scholarship and are already being debated and discussed by policy makers and politicians. These are the people
that shape and influence what our social welfare system and educational system look like (Naureckas, 1995). Social Work professionals have an obligation to become a part of that debate. Part VI of the Social Work Code of Ethics is titled "The Social Worker's Ethical Responsibility to Society". That section calls on social workers to, among other things, help expand choices and opportunities for all people and to advocate changes in policies and legislation that will help improve conditions and promote social justice. Kean (1993), Wheelock (1992a), Shell (1994) and others believe that tracking is anathema to the ideals of equal opportunity and equal access to society's resources. The following statement was taken from Stephen Jay Gould's (1981) book, THE MISMEASURE OF MAN:

"We pass through this world but once. Few tragedies can be more extensive than the stunting of life, few injustices deeper than the denial of an opportunity to strive or even to hope, by a limit imposed from without, but falsely identified as lying within" (p. 28-29).

Social Workers have been involved with the schools for nearly 100 years. Most of that time has been spent in the role of counselor, dealing with issues and problems on the micro level. This needs to change. As was aptly stated by Middleman (1979), "The opportunity exists there for bold innovative practice approaches and research initiatives... but in order to pursue these opportunities and challenges, the school social worker must make a choice: she must extricate herself from the personalistic view of case by case
intervention or she will never have time or vision enough to do more than this" (p. 51).

There is a dearth of information in the school social work literature about the practice and effects of curriculum tracking. It is the purpose of this study to help fill the void.

Organization of Dissertation

The preceding section, chapter one, provides the reader with a general overview of the area of interest and a justification for this study. Chapter two provides a summary of the relevant literature. Included in this chapter are discussions of the history of tracking, the theoretical foundations of tracking, placement decisions and the issues of race, sex, class and tracking. Chapter three is the methodology with a brief description of the procedures used in the analysis of the data. Chapter four is the presentation of the results. The fifth and final chapter offers a discussion of the findings and conclusion.
CHAPTER II
LITERATURE REVIEW

The purpose of this section is to provide background information on the educational practice of tracking. Included is a discussion of the theoretical underpinnings of this practice in historical perspective and the reality of tracking especially as it relates to African-Americans.

Definition

Tracking, ability grouping, is the educational practice of categorizing students by curriculum. Usually there are three basic categories. In some school districts, the categories are fast, average, or slow, and in others the categories are academic, general and vocational (Oakes, 1985; Jarolimek, 1981). Generally there are two ways in which students can be tracked. In the first, students at the same grade level are put into different classrooms based on "ability." Depending on the school district, students may be allowed to enroll in high and low track courses at the same time. In practice, due to scheduling, what often happens is that these students end up taking all courses within the same track (Slavin, 1990). The other form of tracking is called "within-class ability grouping." This is where students are assigned to different "ability groups" within a classroom
(Hallinan, 1992). Oakes (1985) found tracking to be very prevalent across the country. She goes on to state that even though many schools say they do not engage in this practice, "it is the rare school that has no mechanism for sorting students..." (p. 3).

Tracking or ability grouping can start in primary school even at the kindergarten level. Oakes (1992) describes a "two-tiered" kindergarten program that has one curriculum for children who are thought to be "ready" for academics and one curriculum for those who are judged "not ready" for academics. Once a student is categorized as "not ready" he or she will probably be tracked into "non-college preparatory programs." Hallinan's (1992) findings are similar. She states that tracking "usually begins in middle or junior high school, when students are first departmentalized for instruction, and continues through secondary school. Generally, it is practiced for English and mathematics instruction and often for other subjects as well" (p. 114).

Chunn (1987) gives the four major assumptions and rationale on which the practice is founded:

1. Students learn better when they are grouped with academically similar students;
2. "Slower" students develop a more positive attitude towards themselves and the school if they are not placed with more "capable students";
3. Placing students in various tracks is basically fair because it reflects their past achievements and "innate abilities";
4. Teaching is made easier in homogeneous classrooms. Students are easier to teach and manage.

**Placement Decisions**

Given the grave consequences that could possibly face those children placed in non-academic tracks, one would think that great care is exercised when it comes to track assignment. This is an area that has caused much debate among educators and other professionals. According to Oakes (1992) "...race, social class, and track assignment correlate consistently with low-income students and non-asian minorities disproportionately enrolled in low track academic classes and advantaged students and whites more often enrolled in the high track" (p. 13). Van Fossen (1985), in apparent agreement with Oakes, admits that there seems to be a relationship among race, class and track placements. Other authors expand upon the criteria for track placement. Mare and Gamoran (1989) also talk about "family background", i.e. social class and race, as being predictors of track placement. But they go on to include the student's "prior achievement," the way the school is organized, and
also the school's racial composition as playing a role in what track a child is placed.

Some authors (Hallinan, 1992; Lee and Bryk, 1988; Hallinan, 1991; Kilgore, 1991) focus a lot of attention on the role the school administration and organization play in track assignment. Most schools use some combination of standardized test scores, grades, previous track placement, teacher/counselor recommendations, parental preference, and student choice to "officially" place students in an academic, general or vocational track. But what makes this decision-making less than a science is the fact that depending on the school district and the policy set by the school board and administration, different weights might be given to each of the listed criteria. Also, some school systems may have more than three track levels. It is sometimes an administrative decision that determines the number of students admitted to each track level. Indeed Hallinan (1992) believes "that the establishment of ability groups is an organizational decision that is independent of the ability distribution of the students in a class" (p. 116). For example, Hallinan (1992) found that depending on the school district, the number of tracks varied. There was no connection between the number of tracks and the "ability distribution" in the student body. She also discovered that the criteria used for assigning students to the different tracks varied. Hallinan goes on to point out that depending on personal philosophies regarding tracking, some administrators may increase or decrease the size of tracked classes so as to make them more or less homogenous based on the perceived
ability of students. It is very important not to get side-tracked over the issue of administrative or organizational factors influencing track size. We must remain cognizant that the overriding issue is the existence of tracking. The number of tracks may vary, the form of tracking may vary, the criteria for track placement may vary, but we must not lose sight of the ideas behind this phenomenon.

**History of Tracking**

In order to better understand the theoretical basis for ability grouping, it is both appropriate and beneficial to have an understanding of its history. Knowing the origins of ability grouping will give some insight into the way this controversial school practice has become so ingrained in the school culture.

Lewontin and Schiff (1986), in their book *Education and Class; The Irrelevance of IQ Genetic Studies*, use the fairy tale about Cinderella to illustrate the belief that blood-inheritance is the main determiner of character and other attributes. Cinderella was the "beautiful and virtuous heroine" who was tormented by three "ugly and wicked" females. These females are step-sisters, not her biological sisters. The important message here is that it is not possible for people so different in temperament and appearance (or other characteristics) to be related by blood. In other words, who we are and our destiny is tied up in our genes.
From the turn of the century to about 1930, approximately 18 million immigrants entered the United States. These new immigrants were not the northern and western Europeans who came decades earlier. These people were mainly from southern and eastern Europe. They were mainly Catholic and Jewish and not protestants like the earlier immigrants (Lewontin and Schiff, 1986).

Up until the time of massive immigration from southern and eastern Europe, American schools, and especially high schools, were overwhelmingly Anglo Saxon, protestant and middle-class. Oakes (1985) tells us that "school attendance before the turn of the century tended to be sporadic. Even though Massachusetts had instituted the first compulsory education law in 1852 and twenty-five other states had such a requirement before 1890 these laws were not strictly enforced until about 1900" (p. 16). So there existed a situation in the nation's schools where the population was relatively small and homogeneous as far as class background, ethnicity and religion. Obviously, this massive immigration was going to change the face of American schooling. From 1880 until 1918 the school population nationwide increased by over 700 percent, from approximately 200,000 to over one and a half million. When the 1920's arrived, about 60% of the nation's fourteen to seventeen year olds were enrolled (Oakes, 1985).

New demands were being made upon schools from a variety of interests in the community. Business leaders wanted a productive work force, colleges and universities wanted a more standardized pre collegiate curriculum, the immigrants themselves wanted an
education that they believed would lead them out of economic misery. Middle-class progressives were calling for free education for all youth in the belief that it would help alleviate the horrid social conditions many of the new immigrant families were experiencing (Bowles and Gintis, 1976).

School administrators came up with a solution to all of the demands being made upon them. The solution was the new "comprehensive high school" (Oakes 1985). Oakes (1985) goes on to say that this new secondary school was to be all things to all students. She writes that the school "promised something for everyone, but, and this was important, that did not promise the same thing for everyone "(p. 21). The 19th century ideal that common instruction for everyone was needed if a unified cohesive nation was to flourish was held by many people concerned with the educational process. Many of these same people also believed that some children had more innate ability than others and this led them to embrace the practice of sorting and classifying children (Crosby and Owens, 1993). The school administrators felt that "curriculum differentiation" would offer the appropriate and necessary kind of school experiences and education to the appropriate groups of students. Ability grouping had begun.

It is extremely important to realize that these ideas were not formulated in a vacuum. During this period the ideas of "social Darwinism" were being hotly debated. They were also to become a material reality for many, many kinds of people. "The air was thick with theories of human evolution, of the superiority of Anglo-Saxon
cultures, and of the unlimited potential of science and industry. These ideas clearly shaped the direction of school reform in the changing social milieu of turn-of-the-century America" (Oakes, 1985, p. 21).

Those who first supported "curriculum differentiation" were adherents of so-called social Darwinism. Social Darwinists were people who tried to apply Charles Darwin's biological theory of evolution to human society. Those people who held social, political and economic power in society, predominantly white Anglo-Saxon Protestant males, did so because they were seen as most "fit." Their mere existence at the top of society was proof that they were at the top of the evolutionary scale. Those unfortunates who occupied the lower rungs of the evolutionary ladders were there because they were "unfit." They were mired in poverty and ignorance because they were deficient in a biological sense. A member of the Boston School Committee in 1889 summed it up when he said "many of these children come from homes of vice and crime. In their blood are generations of iniquity... they hate restraint or obedience to law. They know nothing of the feelings which are inherited by those who were born on our shores" (reported in Oakes, 1985, p. 21).

There were two wings of the social Darwinist camp. The above represents fairly accurately the views held by members of the conservative wing. Those in the progressive wing of the social Darwinist movement did not disagree with the conservatives as to the heredity of "fitness", they conceded that. The difference was they felt that all was not lost, there was hope. The progressive social
Darwinists put forward the idea that the environment could be a potent force in helping those who were "unfit" improve their lot. They believed society could "direct" evolution by the "intentional acts of man" to improve social conditions for those whose genes had "slighted" them. To these "progressives," education was the logical method. Lester Frank Ward, a leading progressive social Darwinist of his time, said "the action of society in inaugurating and carrying on a great educational system, however defective we may consider that system to be, is undoubtedly the most promising form thus taken by collective achievement. It means much even now, but for the future it means nothing less than the complete social appropriation of individual achievement which has civilized the world" (Oakes, 1985, p. 22). The progressive and conservative social Darwinists agreed on one key issue, that it is biological not social forces, that account for the privilege and rank of some members of society and the disadvantaged and vulnerable position of others. The disagreement was over whether the environment could be altered enough to help those on the lower rungs of the evolutionary ladder.

During the early stages of "curriculum differentiation" the assignment of students to different tracks was done in a way that caused some discomfort in some segments of the community. Students were assigned to various tracks according to their ethnic, racial, and economic backgrounds. This practice was being critically viewed by the end of World War I. There was a consensus among the general population that all individuals should be given equal educational opportunities regardless of race, ethnicity and social
economically background. Clearly, further justification for this practice was needed (Oakes, 1985).

'The fault, dear Brutus, is not in the stars, but in ourselves that we are underlings.' These words spoken by Cassius from Shakespeare's 'Julius Caesar' aptly summarize the ideology guiding the social Darwinists. Schiff and Lewontin (1986) claim that those interested in "proving" that certain groups are intrinsically inferior to others went from measuring skulls to trying to measure 'mental performance.' These people received a boost when two French psychologists, Alfred Binet and Theodore Simon, constructed an instrument that was originally intended, ironically, to assist schools to teach more effectively. They wanted to identify students who were going to have problems learning and to urge teachers to work closely with these children in order to bring them up to the same standard of the other children. Incidentally, Alfred Binet totally rejected any idea of fixed unchangeable mental abilities (Schiff and Lewontin, 1986).

Once the test was imported into the United States it was changed by Lewis Terman of Stanford University to become a way of identifying "the unteachables." "Beginning with Terman and continuing up to the present day, mental testing has been regarded as a technique for revealing intrinsic differences between people in the capacity for learning and reasoning" (Schiff and Lewontin, 1986, p. 8). They believe intelligence is seen by some no longer as a description of behavior, but as some unseen innate property that can be measured by intelligence tests. The reification of intelligence had
begun (Schiff and Lewontin, 1986).

The 1930's saw a decrease in immigration and a subsequent shifting away from a focus on immigrants as an issue. Instead race and class became the issue. "In Britain, as in the United States, tests proliferated and became a standard procedure in schools where they were an important instrument in legitimizing discrimination against working-class children and non-whites" (Schiff and Lewontin, 1986, p. 10). Oakes (1985) points out that the social Darwinists felt they now had the "mantle" of objectivity to deter criticism from the practice of ability grouping. This practice is alive and well in the American classroom, "millions of school children have been subjected to 'intelligence' tests, and the results of these tests have been used to influence their place in the school system and eventually in the society at large" (Schiff and Lewontin, 1986, p. 22). This is particularly true for many children of color who now make up a majority in many school systems across the country.

The critics of tracking theory, of whom there are many, say the current practice is as invalid now as it was at its inception nearly 100 years ago. The foundation it is built on, beliefs about intelligence, human capacity, individual and group differences, are not firm. Tracking makes no sense to those who believe "that intelligence is multi-faceted and developmental and that learning is a complex process of constructing meaning" (Oakes and Lipton, 1991, p. 449). For instance Yale psychologist Robert Sternberg (1988) has developed what he calls the "triarchic theory" of human intelligence. Sternberg states that "the goal of the triarchic theory is not to
compete with other theories but to subsume them in a sense; that is, to view them as subdivisions of a more general theory"(p. 58). Sternberg believes that conventional theories about intelligence are much too limiting. He believes there is more to "intelligence" than the verbal-linguistic and mathematical-logical abilities usually measured by IQ tests and college entry examinations. Sternberg's Triarchic Theory examines intelligence in terms of "three manifestations". They are (1) the relationship between intelligence and the internal world of the individual (2) the relationship between intelligence and the external world of the individual and (3) the relationship between intelligence and experience. Sternberg adeptly sums it up when he says:

"Intelligence is much more than IQ. Traditional tests of intelligence, Scholastic aptitude, and related constructs tell us relatively little about intelligence. And they tell us even less about a person's creativity, wisdom, and intellectual style. Even if we knew all about those things as well, we would still need to know about what may be the most important attribute of all: the ability to capitalize on strengths and to remediate or compensate for weaknesses"(p. 309).

Schiff and Lewontin (1986) express concerns about the cultural and class bias of these standardized tests, they say that "discussions about IQ usually fail to distinguish clearly between questions of facts and questions of values" (p. 33). Some educators and others think that intelligence tests sample only certain kinds of skills, those at which white, middle-class children excel. So in fact, "intelligence tests do not tell us about an individual's overall potential for
learning, rather they are measures of certain types of achievement and learning that have already taken place (Parelius and Parelius, 1978, p. 299).

McLaren (1988) sees tracking as just another way at masking the true nature of this society. Tracking promotes the illusion that this is a meritocracy based on ability. What really happens is that tracking ensures different school experiences, thereby perpetuating class inequalities. He points out that the business community was an early supporter of this practice. They presented themselves as models of productivity and efficiency that the schools would do well to emulate. Everybody should be assigned to an appropriate slot or track working for the common good of the company or society. Bowles and Gintis (1976) expressed similar concerns over the subjugation of the goals of education by business interests. What is needed is a work force composed of workers with varying degrees of skill and knowledge. "Different levels of education feed workers into different levels within the occupational structure and, correspondingly, tend toward an interval organization comparable to levels in the hierarchical division of labor" (p. 132). Tracking, according to Bowles and Gintis, is a reasonable demand made by the business community in its own best interest. Whether or not this is a mutually beneficial relationship is an issue that needs assessment by those in the educational community and their allies among other professionals. Because of this relationship, some like McLaren (1988) believe that schools, for the most part, have been "reduced to credentializing mechanisms, protected enclaves that favor the more
affluent. The 'best' schools nurture cocoons of yuppie larvae, facilitating entry of certain students into more privileged locations in the labor market; the worst simply lock the doors to those privileged locations for students already disproportionately disadvantaged" (p. 49).

Classism, Racism and Tracking

For most school systems, finding sufficient resources and funding to function adequately is a constant struggle. This has been especially true over the last decade with the cutbacks and general sluggish economic climate that have characterized this era. The nature of school funding already ensures that some school districts will be at a disadvantage relative to others as far as resources are concerned. Odden (1990) clearly lays out the problem:

"Heavy reliance on local property taxes produces fiscal inequities because the property tax base is not distributed equally across school districts. As a result, some districts have a large property tax base, others a small one. In many states, this unequal ability to raise local revenues is substantial, varying by a factor of up to ten to one" (p. 2).

Also consider that within schools that practice tracking, more resources are funneled into high track programs than lower ones. This translates into newer textbooks, equipment, field trips, more special programs, etc. (Rosenbaum, 1991; Chunn, 1988). In the past some have argued that tangibles are not essential for good instruction and learning to take place. Kozol (1991) gives example after example of wealthy parents arguing against the idea of "equity
of school funding." They state that all students are on a fundamentally level playing field, and that the "extras" (i.e. computers, audio-visual equipment, up-to-date texts etc..) they are able to provide their children are almost negligible. But even if that were true, tracking impacts every aspect of the learning process.

Teachers in high track classes are generally perceived to be of better quality than those teachers assigned to lower track classes. These low track teachers on the whole have less experience and are not as likely to be certified in their particular areas of expertise and also are less likely to hold other degrees and certificates. Indeed Oakes (1992) reports that some schools "track" teachers into high and low track classrooms. Additionally, the assignment to one track or another is often used by administrators as incentives, awards and/or sanctions. One can only imagine the types of attitudes and ideas among teachers this sort of administrative behavior engenders and reinforces. Anyon (1980) studied a variety of schools and found depending on the nature of the student body, teacher attitudes varied greatly towards their students. 'High track' teachers generally had more positive things to say about their students than did teachers in 'low track' working-class schools.

Probably what handicaps low track students the most is the inferior curriculum they receive. Low track classes are "characterized by dull, passive instruction consisting largely of drill and practice with trivial bits of information" (Oakes, 1992, p. 16). Low track students are not challenged intellectually by the curriculum or the instruction. This can have the effect of alienating
students and increasing their feelings of disenfranchisement from the school culture. Low track students view being in school a burden and they are looked down upon by their high track peers, the school personnel and the community at large. Juxtapose this to the opposite experiences of high track students. Clearly in this type of atmosphere only the most determined have a chance at success in the educational system (McLaren, 1988; Oakes, 1992).

Ability grouping was supposed to, among other things, lead to higher levels of achievement among low, middle and high track students. Supposedly by being more homogeneous, classrooms become more 'efficient.' Instructors are able to provide teaching that is appropriate for everyone in that particular classroom. High achievers are not slowed down by the presence of children of lesser ability in the classroom. Supporters of ability grouping say the flip side of this coin is that teachers are able to provide more individualized instruction to low achievers (Slavin, 1987). Hoffer (1992) found that tracking hurts the students in low groups and benefits students in the high groups. He is not convinced that this is enough justification for doing away with tracking. Lower achievement, according to Hoffer, is the result of "the lower status accorded lower groups." He goes on to say that "the mechanisms through which lower status is constructed and in turn generates lower achievement aren't clear..." (p. 223). He recommends further research to understand these "mechanisms" to better address the low outcomes of low track groups. Eventually he hopes, ability grouping will benefit all students and not just the ones who need it least. He
readily admits "that the conditions under which grouping benefits all students (or at least helps some and does not hurt any) do not generally exist" (p. 223).

Oakes (1992) is not quite that optimistic or ambivalent about tracking. She finds that in elementary grades, except for rare exceptions, children do not achieve more. Quite the opposite happens for low track youth, they fall further and further behind their high track schoolmates. In high schools, she finds absolutely no achievement gains in the high, average or low ability groups. When she compared a group of high track students with a comparable group of low track students, the high track students did benefit academically in relation to the others. But she argues that the "benefits seem to result from the enhanced opportunities enjoyed by those in the high track, rather than from the homogeneity of their group" (p. 13). The best you can say about tracking is that high track students (usually children who do not need any more advantages) do receive some benefits. But as Oakes said, this might be more of a reflection of the advantages they enjoy because of high track placement and not the fact, as the theory implies, because they were grouped with others of similar ability.

From the beginning of the public school system, racism has influenced every aspect of education so it should not be a surprise to find out that African-American children and other children of color are disproportionately placed in low track classes. From a study done by Serwatka, Deering and Stoddard (1989) in the state of Florida, it was found that despite the fact that African-American
children are 22% of the school population, they make up only 4% of the children enrolled in gifted classes. They report that these numbers are probably representative of what is going on nationwide. McLaren (1988) concurs, and found that "six out of ten special placements of white students are in gifted and talented programs whereas only one in ten Black students are in special placements in such programs" (p. 55). McLaren goes on to point out that African-American children are placed in classes for the educable mentally retarded at three times the rate of white children.

We know that in racially mixed schools Black and other nonwhite students are found disproportionately in low track or remedial classes. In schools where the population is heavily or all African-American the student population is "bottom heavy." This means there are oftentimes very small academic tracks and very large low (remedial and vocational) tracks (Oakes, 1992). Given the reality of tracking, dubious benefits for high track students, and certain negative effects for low track students, one wonders how much longer our society can afford this practice.

The majority of the literature produced so far on tracking indicates that the practice has not lived up to its claims of better and more efficient learning for all levels of students. One wonders, if this is the case then why continue? It might appear to some that a grand conspiracy is afoot to suffocate the potential of large numbers of children who are deemed "not ready" or "able" to take advantage of top flight instruction. Given the pervasiveness and the outcomes of tracking I can understand how some could come to believe that there
is indeed a conspiracy afoot. Professionals in the schools, especially teachers, for the most part are convinced that they are indeed acting in the best interest of the children. They believe that the only reason tracking is used is to help those students most in need of assistance. Oakes (1985) puts forward the idea that these practices are continued more out of habit and tradition than anything else. The idea that some are more gifted than others and therefore, more deserving of various societal rewards permeates this culture. Strongly held beliefs and assumptions can be extremely hard to overcome. When a person starts down the road of inquiry, where it leads may sometimes be both unpredictable and uncomfortable. Questioning the phenomenon at hand oftentimes leads to reconsideration of fundamental beliefs and values we may hold about the nature and structure of the social order.

THEORETICAL FOUNDATION

Peltier (1991) is probably representative of a substantial number of people who are concerned with issues affecting young people and the educational system. Peltier (1991), a professor of education at the University of Nevada-Reno, recently published an article titled 'Why Do Secondary Schools Continue to Track Students?'. Basically the article discusses the underlying assumptions of tracking, that it is the most effective way of educating all students, intelligence or intellectual ability are fixed, measurable qualities, and less capable students will be adversely affected emotionally if they attend heterogeneous classrooms. He then counters with evidence
from research that shows what tracking actually does, that it causes "low ability" students to do less well, stigmatizes children placed in the non-academic tracks and lowers the expectations of teachers. Indeed, several studies (Wheelock, 1992b; Gamoran, 1992; Shell, 1994; Holmes and Ahr, 1994) either address the inability of tracking to live up to its promises or examine the negative impact of the practice. With so much literature questioning the validity of tracking, it is natural to wonder why the practice is so widespread. For instance, Shell (1994) reports that "88 to 90 percent of U.S. public schools" group students by ability.

When answering the questions about the pervasiveness of tracking Peltier (1991), like some of the other opponents of tracking, lay at least some of the blame at the feet of two important groups of people. However unintentional, parents and teachers are oftentimes cited as being responsible for the inertia of tracking. Peltier (1991) claims that "because teachers believe that ability grouping overcomes the problem of individual differences and makes classes more manageable, they rarely change methodology when faced with groups of differing abilities" (p. 247). Of parents, Kean (1993) relates a case in Alabama where parents were in "full-scale revolt" against an administrator who dared to alter the practice of tracking in his district. His contract was not renewed the following year. In another example of parental influence, Kean writes that a Brooklyn school teacher reports that her principal assigned the children of PTA members to the "top tracks no matter what their scores were. He figures that if his PTA is happy, he's happy" (p. 33).
There is no doubt that teachers and parents can be vocal and effective in advocating for their interests. Even though Oakes (1994a) acknowledges that "powerful parents are able to secure high-track placements for their unqualified children" (p. 85), she also realizes that other forces are at work in society. Oakes (1994a) states that the practice also continues because:

"the structure of tracking is embedded in cultural and political contexts, replete with good intentions, bad intentions, and messy human decision making. Consequently, I have come to believe that attempts to understand tracking apart from its normative and political content are sorely inadequate" (p. 85).

CRITICAL THEORY AND THE EDUCATIONAL PROCESS

Apple (1985); Bromley (1989); McLaren (1988); and Giroux (1981) are among those who concur with Oakes (1994a). They also believe that to fully understand the educational process and its implications for the student and society in general, one must first reject any notions about the meritocratic nature of schooling. They argue for a more radical critique of education and its role in the larger society. Bromley (1989) stresses the "importance of seeing actors within educational institutions as situated within larger social conflicts, conflicts which both shape and are shaped by events within schools" (p. 207).

Proponents of this radical view of schooling, for the most part, have embraced some aspects of critical theory as useful tools of
analysis. Critical theory is described as a theory that adapts empirical methodology to examine social forces as social laws, and appraise institutional forms within the era of late capitalism, while appreciating the idea that all knowledge was due to the hermeneutic process (Giddens, 1987). Critical theory originated out of the Institute for Social Research in Frankfurt in 1937, though the "roots" of this theory go deeper. The "roots" are embedded in Marxist theory (Ingram, 1990). Ritzer (1988) clearly states:

"Critical theory is composed largely of criticisms of various aspects of social and intellectual life. It takes its inspiration from Marx's work, which was first shaped by a critical analysis of philosophical ideas and later by critiques of the nature of the capitalist system. The critical school constitutes a critique both of society and of various systems of knowledge" (p. 129).

Critical theory, though it has Marxist origins, is seen by many radical educators to be a more relevant tool in gaining an understanding of schooling because it offers a more in-depth analysis of society and its various parts and functions. Marxism was seen as too reductionistic (Ritzer, 1988). Marxism, it was argued, placed too much emphasis on the economy and tended to ignore other societal forces and groupings. Giroux (1993) explains:

"Classical Marxism has rarely taken seriously the categories of culture, ideology, and the lived experiences of everyday life. Trapped within the belief that the mode of production is the structuring force of human societies, classical Marxism has relied on a notion of power that sees domination as an outgrowth of capitalist economies governed by the dynamics of commodity production and history as a process primarily informed by contradictions rooted in the forces and relations of production" (p. 119).
Though Apple and Weis (1985) concur with Giroux's assessment of the problems associated with using Marxist theory to understand and interpret various societal forces and institutions (e.g. schools), they also warn against minimizing the "very real ties between an economy and the sorting and selecting activity of education" (p. 46). In their effort to understand those "very real ties", radical educators have focused their attention on the concepts of hegemony, reproduction and resistance.

Hegemony

Hegemony is the way the dominant political and economic groups exercise control over society. According to Giroux (1981):

"hegemony involves the successful attempts of a dominant class to utilize its control over the resources of state and civil society, particularly through the use of the mass media and the educational system, to establish its view of the world as all inclusive and universal" (p. 17).

The educational system, through its curriculum, is a very important tool in the process of transmitting the ideas, values and culture of dominant social groups (Aronowitz and Giroux, 1985).

Reproduction

Aronowitz and Giroux (1985) point out that once the myths of schools and education have been stripped away, their real functions can be understood. Schools are involved in the reproductive process in a number of ways. The most important is the way schools provide "different classes and social groups with the knowledge and skill they need to occupy their respective places in a labor force stratified by class, race and gender" (Aronowitz and Giroux, 1985, p. 70). For
the most part, education does not offer the individual possibilities for growth, development and social mobility, instead it functions to maintain the status quo.

Resistance

According to Aronowitz and Giroux (1993), "schools represent contested terrains marked not only by structural and ideological contradictions but also by collective informed student resistance" (p. 67). In other words this is how students "refuse, reject and dismiss" the transmission of dominant ideology.

Paul Willis' Learning to Labour (1977) offers some valuable insight into how working-class students rebel against the forces of hegemony and reproduction in a losing effort to maintain some self-esteem and identity. Willis shows how the working-class 'lads' in a British school manage to resist submitting to school authorities, and in so doing, resist societal forces that would dictate to them behavior patterns they find unacceptable.

Summary

The theoretical foundation for this study is based upon the work done by radical educators. Their insights into the workings and dynamics of education and schooling are unique and thought-provoking. The practice of tracking, still viewed by many to be a useful and effective tool in the education of students, is thought by others to have the opposite effect. The literature review has documented the reactionary origins of this practice (Oakes, 1985). The question to be answered is, can a practice based on narrow
concepts of ability and intelligence be effectively used as a tool to
maximize the potential of each student, or does tracking merely act
to categorize students based on class, race or gender? And once
categorized by the educational system, how does this impact their
futures? This study will attempt to shed some light on the practice
of tracking and the impact it has on the life outcomes of various
groups of students.
Restatement of Tracking Rationale and Counterpoints

1. Students learn better when they are grouped with academically similar students.

Overall there is little or no achievement increases. In elementary schools this practice causes the achievement gap to widen. Some data suggest that secondary schools may benefit slightly, but this might be due to factors other than homogenous classrooms (Oakes, 1992).

2. Less ability students develop a more positive attitude about themselves and school when placed together.

Low track (non-college bound) students are oftentimes stigmatized by other students and school personnel. They may experience feelings of inadequacy and participate less in school activities. This practice may also lead to school vandalism (Tygart, 1988; Oakes, 1992; Furr, 1993).

3. Placing students in various tracks is essentially fair, for it reflects past achievement and "innate abilities".
Not only grades play a role but so does race, class and gender. Administrative and organizational decisions also play a role in student placement (Furr, 1993; Oakes, 1992; Hallinan, 1992).

4. Teaching is made easier in homogeneous classrooms. Students are easier to teach and manage.

Students in low track classes exhibit low motivation, this can lead to teacher frustration. Some data suggest that dropout rates may be the result of low track placement. Anti-school feelings are more likely to be exhibited by low track students than students in the higher tracks. (Rosenbaum, 1991; Gamoran, 1989; McLaren, 1988).
CHAPTER III

METHODOLOGY

The purpose of this study is to examine the impact that ability grouping (tracking) has had on the lives of African-American schoolchildren once they have finished their secondary education. The general thesis is that the practice of tracking adversely affects students' ability to realize their full potential. The school system is an important institution in this society that greatly influences the life path of individuals. It can and often does cause undue hardships for certain groups of people. Tracking is the one aspect of schooling that is being investigated in this study. It should not be seen as the only thing that ails our school. Paula Hartfield, a school official from Maine, was quoted in Oakes (1992) as saying that:

"Simply eliminating tracking will not cure all of the ills of schooling and society. However, it may set off a powerful synergistic reaction requiring other institutional changes, changes in how teachers teach, how students relate to each other, and how the school hierarchy operates. Most important, it may liberate students' and teachers' beliefs about who should and could achieve" (p. 449).

RESEARCH QUESTIONS

Tracking has been said to adversely affect the life outcomes of those placed in the non-academic tracks. This study is designed to bring a better understanding of the process.
There are three questions addressed by this study:

1a. How do employment, family finances, and post educational experiences differ between students placed in the various tracks?

b. If yes to 1a, what is the magnitude of the influence of track on the employment, family finances, and post educational experiences of those tracked?

2. In addition to tracking, what is the extent of the influence of race, sex, parent's education and occupation, and marital status on these life outcomes?

DESIGN

This study, like many in the social sciences, cannot use an experimental design for reasons due to costs and ethical considerations. For this design to be experimental several equivalent groups would have to be created through random assignment. The various groups would then be subjected to varying degrees of the treatment, in this particular case that would mean assigning students to different curricular tracks. Random assignment could guarantee the researcher, to a certain extent, that any difference seen between groups can be attributed to the independent variable, i.e. tracking. However, such research is not possible.

It is hypothesized that instruction in the lower curriculum tracks is inferior to the instruction received in the higher curriculum tracks. It is also hypothesized that placement, to a large degree, can impact life choices and chances (Furr, 1993). Given this, it would be highly unethical to use an experimental design. Additionally, to
conduct such an experiment would be both time consuming and costly. Instead I chose to employ a causal-comparative or ex-post facto design. Ex post facto research utilizes intact or already existing groups that are known to vary on some dimension or interest. Though experimental and causal-comparative research are similar in that the two try to establish cause and effect relationships and they both involve group comparisons, they differ on two important points. In causal-comparative research the independent variable cannot be controlled and there is no random assignment to groups (Gay, 1992). Because of this, researchers should exercise caution when results are being interpreted. One must remember that there is a difference between the establishment of a relationship and determining cause and effect.

In this research groups that differ on the independent variable of curriculum track were compared on dependent variables grouped into four spheres or categories.

DATA

The National Longitudinal Surveys (NLS) are sponsored by the Bureau of Labor Statistics of the U.S. Department of Labor. They are a set of surveys that gather information at multiple points in time on the labor market experiences of five groups of American men and women. Each of the groups is representative of all Americans born
during a certain time period so that conclusions drawn from the sample group would be generalizable.

The data in this study came from the National Longitudinal Survey of Youth (NLSY). The NLSY is an offspring of the older NLS. The NLYS is a nationally representative sample of 12,686 young men and women who were between 14 and 22 years old when they were first interviewed in 1979. The National Longitudinal Survey of Youth was an effort by the Bureau of Labor Statistics of the United States Department of Labor to gather data on a representative sample of 12,686 young men and women. The purpose of the survey was to gain insight into the many life experiences of a group of young Americans. It was intended to provide researchers with data with which to analyze the varied outcomes of different groups and subgroups of the population. "The NLYS sampling design enables researchers to study in detail the longitudinal experiences of not only this particular age group of young Americans but analyze the disparate life course experiences of such groups as women, Hispanics, blacks, and the economically disadvantaged" (Center for Human Resource Research, 1993). Three sub-groups made up the 12,686 case data set. The first group was a "cross-sectional sample of 6,111 youth designed to be representative of the non-institutionalized civilian segment of young people living in the U.S. in 1979 and born between January 1, 1957 and December 31, 1964" (National Longitudinal Survey Handbook, 1993). The second group is made up of 5,295 individuals drawn from the ranks of the civilian Hispanic, black and economically disadvantaged white population. They were
also born between January 1, 1957 and December 31, 1964. The third group is made up of 1,280 individuals drawn from those who were enlisted in the four branches of the military as of September 30, 1978.

RESEARCH SAMPLE

This study used responses from 1,922 individuals that were drawn from the large sample made up of 12,686 cases. This sample was derived in the following manner. I wanted to limit the participants to high-school graduates so the full impact of tracking would have been experienced. Initially 2,031 cases were randomly selected. That group was made up of 518 white males, 469 white females, 528 black males and 516 black females. The 2,031 cases were reduced down to 1,922 cases by eliminating those respondents who did not answer, for whatever reason, the question in the instrument dealing with high-school track placement. The four groups were constituted as follows; 490 white males, 456 white females, 490 black males and 486 black females.

Personal interviews are conducted on a yearly basis, with the initial round begun in 1979. Due to budgetary constraints, limited telephone interviews were conducted instead of personal interviews in 1987. Telephone interviews are used when the respondent lives
in a remote area or if the field staff decides that phone contact is the best method. A personal interview usually lasts about an hour. Telephone interviews usually last about 30 minutes. Every effort is made to contact all respondents on a yearly basis. So far this survey has a success rate of approximately 90%.

The latest data available for most of the variables is from the survey year 1991. Not every question is asked every year, for instance the questions dealing with the occupations and educational attainment of the respondents' parents and/or guardians was asked just once in the initial survey of 1979. In the case of the question requesting name of the highest degree, the responses for the year 1988 were used because that was the year the overwhelming majority of people responded.

RATIONALE FOR THE SELECTION OF VARIABLES

Proponents of tracking argue that students come to school with a wide range of interests, abilities and academic goals. Proponents of tracking also believe students differ in types of environments in which they learn best. Given this, it is argued, productivity—i.e. academic achievement, graduation rates etc.—can be increased if "like" students are grouped together (Gamoran and Mare, 1989).
Some perceive tracking as a benign educational practice. Ability grouping is seen as merely "an organizational technique that permits schools to create homogenous groupings of students within a heterogeneous student population in order to facilitate instruction for all students" (Hallinan, 1991, p.251)

Critics of tracking have quite a different view of the practice. To these people tracking is seen as a reactionary practice that "helps to maintain and perpetuate social class status from one generation to another by sorting children from different backgrounds into different curricula programs where they are exposed to differential treatments and encounter different learning environments" (Crosby and Owens, 1993).

What is common to these three very divergent views of tracking are the ways in which the effectiveness of the practice is assessed. For the most part decisions about the effectiveness of tracking are based almost exclusively on the results of standardized aptitude and achievement tests and grades (Slavin, 1990; Kulik, 1982). Page (1991) calls academic achievement "the dependent variable most often considered" when tracking is being evaluated. There is no doubt that 'academic achievement' should play a role in the evaluative process. Care should be used as there is evidence that some populations, e.g. African-Americans, Latinos, low socioeconomic whites etc., are ill served when standardized tests are used in evaluations (Williams, 1983). Therefore, it is a grave error to limit the assessment process to solely what happens in schools.
Obviously one of the primary missions of schools is to educate people. Other missions are "to increase opportunity, inculcate social values, and foster upward mobility" (Crosby and Owens, 1993, p. 2). Given this, it seems rather shortsighted to not look beyond the school experience when evaluating the impact of tracking. The importance of taking the "long view" is aptly stated below:

"As a country we need to realize the long-term results of tracking. Then we must commit ourselves to educate all students. Only a change in the philosophy of education - away from the factory model- can bring about needed results. Our country will not survive in its present form with anything less". This was a statement made by Laura Ellison of the Clara Barton School in Minneapolis, Minnesota (Wheelock, 1992a, p. 15).

Yeakey and Bennett (1990) believe that there is a connection between societal inequality and inequalities in the educational process of schooling. They write that "educational marginality parallels the economic marginality of any racial and ethnic group in America"(p. 4). Instead of assisting some people up the socio-economic ladder, they believe the schools:

"select individuals for opportunities according to a hierarchy which closely parallels existing social-class patterns. That certain racial and ethnic groups remain the underachievers and bear the bulk of society's burden evinces the class-based nature of racial and ethnic group derivations in the society"(p. 6).

Work done by other researchers (Anyon, 1980; Bowles and Gintis, 1976; McLaren, 1988; Furr, 1993) would seem to support Yeakey and Bennett's ideas about the "marginalizing" of a segment of the school population by the school system and later by society. This marginalizing is done primarily by using tracking or ability grouping.
As stated above the impact of tracking disproportionately affects racial and ethnic minorities, particularly those that inhabit large urban centers (Oakes, 1992; Chunn, 1988; Kozol, 1991).

When evaluating the effects of tracking, considering only the variables to be investigated to those associated with schooling, such as achievement tests and grades, is limiting. Clearly, it would be desirable to expand the scope of the inquiry to include various other aspects and outcomes of the lives of those who had been tracked in school.

The U.S. Department of Commerce periodically publishes a report on social indicators to describe current social conditions in the United States. Babbie (1992) writes that social indicators are "aggregated statistics that reflect the social conditions of a society or social sub-group" (p. 365). Over the years, various innovations have been implemented by humans seeking to improve the human condition, "evaluation research provides a means for us to learn right away whether a particular tinkering really makes things better. Social indicators allow us to make that determination on a grand scale." (Babbie, 1992, p. 367).

DeNeufville (1975), in discussing the validity of social indicators, said "the most important criterion for an indicator is its validity, but this is unfortunately an elusive concept and difficult to test for" (p. 163). One of the ways DeNeufville suggested going about estimating the validity of an indicator was "to look at the way it is designed and decide if, intuitively and in the light of all one knows about the phenomenon, the particular measure sounds reasonable"
Variables of Interest

This study is very much concerned with the human condition and how it might be affected by the educational practice of curriculum tracking. Using Social Indicators III (1980), a publication put out by the Federal Statistical System for the U.S. Department of Commerce as a guide, along with the literature on ability grouping, fourteen variables from the National Longitudinal Survey of Youth/1979 were selected. The variables were grouped into four categories or spheres. The four spheres were employment, education, financial, and demographic. The intent was to compare the lives of tracked individuals 15 years post high-school over the four different spheres.

Employment Sphere

Many critics of tracking have suggested that there is a relationship between race, class and curriculum. Also these same people have suggested that there is a relationship between employment experiences and curriculum (McLaren, 1988; Middleman, 1979). The United Nations Research Institute for Social Development and the Urban Institute in Washington, D.C. often consider working
conditions, employment circumstances, levels of unemployment and income as valid measures of the social condition (Oborn, 1972). With this in mind the following variables were chosen to describe this sphere:

1. occupation at most recent job

2. hourly rate of pay

EDUCATIONAL SPHERE

"One's level of education is a major influence on such aspects of the quality of life as wealth, health status, occupational mobility, quality of housing, public safety, and participation in community and cultural affairs" (Social Indicators III, 1980, p. 253).

Anyon (1980), Oakes (1992), McLaren (1988), Chunn (1988), and Middleman (1987) believe the above statement rings especially true for African-American and other disadvantaged populations. They believe that the type of instruction plays a key role in the likelihood of attaining post-secondary education. Tracking definitely impacts the type of instruction to which students are exposed. Academic tracks are designed to develop academic skills in preparation for post-secondary schooling prior to entry into the labor force. The vocational track is designed to develop specific occupational skills that lead directly to labor force participation. The general track lacks the specialized focus of either the vocational or
academic track. Students placed here do not anticipate entering higher education or the labor force with any specialized skills. This track has often been referred to a "holding tank" (Braddock & Dawkins, 1993). Bennett and Yeakey (1990) discuss the consequences of having different populations receiving different types of education, "as fewer and fewer African-American men go to college, fewer of them will enter the professional and managerial ranks and more will work in blue-collar service occupations because the changing nature of the American work force demands more skilled labor" (p. 15). The following variables were used to describe the educational sphere.

1) highest degree, if any, received

2) current enrollment status

3) curriculum track

**FAMILY FINANCIAL SPHERE**

Yeakey and Bennett (1990), contrary to conventional wisdom, believe that "educational success" follows "economic success". They state that "historically, poor people in America have not succeeded economically through the schools; rather, as they succeeded economically, they exerted political pressure to ensure that their
children would succeed through the school" (p. 6). They go on to say that:

"poverty is one of the firmest predictors of subsequent academic performance not because low income, in and of itself, makes a child a dunce but because the circumstances of poverty often erode the supportive and attendant expectations that would likely enhance learning" (p. 13).

Given the disproportionate number of African-Americans in poverty we would expect a disproportionate number to be in the lower tracks. Yeakey and Bennett seem to concur with Oakes (1992), McLaren (1988) and others who believe that track placement and "success" in school is more a reflection of family wealth than innate ability and IQ.

The following variables were used to see how wealth was distributed throughout the sample. Also, the relationship between curriculum track and financial status was examined.

1. poverty status- this variable was used to indicate whether or not a respondent's total family income for the past calendar year was above or below (a) HHS official Poverty Income Guidelines or (b) projected poverty income levels computed by the Center for Human Resource Research.

2) total family income
DEMOGRAPHICS

Several studies (Kozol, 1991; Crosby and Owens, 1993; Yeakey and Bennett, 1990; Anyon, 1980) suggest a link between social class and school experiences. Tracking is thought to be a mechanism that helps to maintain the status quo. This is done by ensuring that the type of knowledge and instruction delivered to students varies by class. This study, in addition to looking at the educational level and job status of respondents, was interested in the job type and educational attainment of the parents. Also, Furr (1993) and McLaren (1988) argue that race and sex play significant roles in deciding on who gets placed in what academic track. The following variables were used to describe the sample.

1. highest grade completed by father
2. highest grade completed by mother
3. occupation of primary male/female adult when Respondent was fourteen.
4. race
5. sex
6. marital status as of 1991 survey
ANALYSIS PROCEDURES

After the data had been arranged and summarized by descriptive techniques the following non-parametric procedures were used.

CHI SQUARE

This study was concerned with the relationships that may exist between different pairs of nominal variables. Therefore, the Chi Square test was used. Chi Square is a non-parametric test of significance that is used when two sets of frequencies are compared. Chi Square allows us to test the null hypothesis, which states that the separate populations all have the same proportions across categories. The formula for chi square essentially compares observed frequencies to expected frequencies in order to assess how well the sample data match the hypothesized data (Ary, Jacobs & Razavieh, 1990).

ANOVA

"Analysis of variance (ANOVA) is a hypothesis-testing procedure used to determine if mean differences exist for two or more treatments (or populations). As with all inferential procedures, ANOVA uses sample data as the basis for drawing conclusions about populations" (Gravetter, 1992, p. 347).
As stated earlier, one of the concerns of this study was the comparison of life outcomes. One of the ways this was accomplished was to compare the means of family incomes and hourly payrates of those placed on various curriculum tracks while they were in high-school. The null hypothesis was that there was no relationship between the treatment (track placement) and various outcome means (familly income, hourly rate-of-pay). This statement can be expressed in the following way:

\[ H_0: M_{\text{ACA}} = M_{\text{GEN}} = M_{\text{COMM/VOC}} \]

The alternative hypothesis stated that there were significant differences among the outcome means. It can be expressed as follows:

\[ H_a: M_{\text{ACA}} = M_{\text{GEN}} = M_{\text{COMM/VOC}} \]

The one-way ANOVA technique was used to examine the education levels attained by parents based on the track placement of the respondents.

Though the formulas and calculations required to do ANOVA are very complicated, the logic that underlies the whole procedure is basically straightforward. A test statistic is computed from the actual scores. This statistic is called the F-ratio. The F-ratio is computed by dividing the variance between treatments by the variance within treatments. If the null hypothesis is true the value
of the F-ratio is expected to be nearly equal to 1.00. If the null is false, the numerator of the ratio should be larger than the denominator, which means the ratio is greater than one. Usually, a large F-ratio means a large treatment effect (Gravetter, 1992).

ANCOVA

Hair, Anderson, Tathan and Black (1992) state that:

"a covariate analysis is appropriate to achieve two specific purposes: (1) to eliminate some systematic error outside the control of the researcher that can bias the results, and (2) to account for differences in the responses due to unique characteristics of the respondents" (p. 179).

This statistical technique is particularly useful for this type of study. Since this is non-experimental research, random assignment to treatment groups (academic, general or comm/voc track) was not possible. Random assignment eliminates systematic error. Covariate analysis addresses this issue. ANCOVA, as stated earlier, can be used to determine if the differences that exist among these three groups is due solely to the predictor variable (track) or to differences among the sample. ANCOVA can also give indications as to the magnitude of the influence of confounding variables (sex, race, parents educational attainment, marital status, occupation of parents) (Sprinthall, 1987).

ANCOVA statistically equates groups that are different by weighting the means of each group. This is done based on regression predictions. If the weighted predictions are different from the actual means then there is a strong probability that the independent
variable has caused this difference. We should note that "covariance
never gives final proof of causation, but it does provide a fairly
strong deductive case" (Sprinthall, 1987, p. 325).
CHAPTER IV

FINDINGS

Introduction

This chapter will do four things: first, it will provide descriptions of the predictor, criterion and confounding variables by track. These will include, where appropriate, measures of central tendency and variability. Secondly, this chapter will present the results of the chi square procedures done between the predictor (track placement) variable and the criterion and confounding variables. Third, the results of the ANOVA procedures that were done on selected criterion and confounding variables will be presented. Last, ANCOVA results dealing with the relationship between selected confounding variables and criterion variables will be presented.

DESCRIPTION OF SAMPLE

Demographics

The sample that was analyzed for this research numbered 1,922 individual cases. It contained 946 whites and 976 blacks. The gender make-up was 980 males and 942 females. When the data were analyzed by race and sex, there were 490 white males, 456 white females, 490 black males and 486 black females. (See Table 1)
Track Distribution

There were 655 respondents who identified themselves as having been placed in the academic track when they were in high-school. 961 reported placement in the general track and 306 were placed in the vocational/commercial track. (See Tables 1&2)

Track One- Academic Track

Of the 655 people placed in this track, 53% (n=349) were white and 47% (n=306) were black. Males made up 52% (n=341) of the academic track total. 48% (n=314) were females. Combining race and sex variables created four groups: 27.2% (n=178) were white males, 26.1% (n=171) were white females, 24.8% (n=163) were black males and 21.9% (n=143) were black females. (See Table 3, 4, 5, 6)

Track Two- General Track

In the General track whites made up 48% (n=458) of this group. Blacks were 52% (n=503) of the General track. This track was very evenly split among males and females. There were 50% (n=480 males) and 50% (n=481). When groupings were created based on the race and sex of the respondents, the distribution took the following form: 24.4% (n=234) were white males, 23.3% (n=224) were
white females, 25.6% (n=246) were black males and 26.7% (n=257) were black females.

Track Three- Vocational/Commercial Track

In the vocational/commercial track, whites accounted for 45% (n=139) of the total track numbers. Blacks made up 55% (n=167) of the total. 52% (n=159) were males and 48% (n=147) were females. The race sex breakdown revealed the following: 25.49% (n=78) were white males, 19.93% (n=61) were white females, 26.47% (n=81) were black males and 28.10% (n=86) were black females.

Table 1

Demographic Breakdown of Sample by Track

<table>
<thead>
<tr>
<th>Variable</th>
<th>1. Academic n=655 (34%)</th>
<th>2. General n=961 (50%)</th>
<th>3. Voc./Comm. n=306 (16%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>341 (52%)</td>
<td>480 (50%)</td>
<td>159 (52%)</td>
</tr>
<tr>
<td>Female</td>
<td>314 (48%)</td>
<td>481 (50%)</td>
<td>147 (48%)</td>
</tr>
<tr>
<td>2. Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>306 (47%)</td>
<td>503 (52%)</td>
<td>167 (55%)</td>
</tr>
<tr>
<td>White</td>
<td>349 (53%)</td>
<td>458 (48%)</td>
<td>139 (45%)</td>
</tr>
<tr>
<td>3. Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>254 (50%)</td>
<td>328 (44%)</td>
<td>112 (49%)</td>
</tr>
<tr>
<td>Unmarried</td>
<td>251 (50%)</td>
<td>423 (56%)</td>
<td>117 (51%)</td>
</tr>
<tr>
<td>4. Poverty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out</td>
<td>423 (90%)</td>
<td>545 (81%)</td>
<td>164 (80%)</td>
</tr>
<tr>
<td>In</td>
<td>45 (10%)</td>
<td>125 (19%)</td>
<td>40 (20%)</td>
</tr>
</tbody>
</table>
Table 2
Summary of Sample Characteristics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>%</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>980</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>942</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>976</td>
<td>50.8</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>946</td>
<td>49.2</td>
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<tr>
<td>Marital Status</td>
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<td></td>
</tr>
<tr>
<td>Married</td>
<td>694</td>
<td>46.7</td>
<td></td>
</tr>
<tr>
<td>Not-married</td>
<td>791</td>
<td>41.2</td>
<td></td>
</tr>
<tr>
<td>Age at time of Survey</td>
<td>1922</td>
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<td>17.75</td>
</tr>
<tr>
<td>Highest Grade</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Completed by Father</td>
<td>1621</td>
<td></td>
<td>11.11</td>
</tr>
<tr>
<td>Completed by Mother</td>
<td>1822</td>
<td></td>
<td>11.18</td>
</tr>
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</table>

Table 3
Summary of White Male Characteristics

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>%</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>207</td>
<td>59.5</td>
<td></td>
</tr>
<tr>
<td>Not-Married</td>
<td>141</td>
<td>40.5</td>
<td></td>
</tr>
<tr>
<td>Age at time of Survey</td>
<td>490</td>
<td></td>
<td>17.89</td>
</tr>
<tr>
<td>Highest Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by Father</td>
<td>450</td>
<td></td>
<td>12.71</td>
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<tr>
<td>Highest Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by mother</td>
<td>466</td>
<td></td>
<td>11.70</td>
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</table>
### Table 4

**Summary of White Female Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>210</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td>Not-Married</td>
<td>105</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td><strong>Age at time of Survey</strong></td>
<td>456</td>
<td></td>
<td>17.91</td>
</tr>
<tr>
<td><strong>Highest Grade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by Father</td>
<td>419</td>
<td></td>
<td>11.43</td>
</tr>
<tr>
<td>Completed by Mother</td>
<td>439</td>
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<td>11.08</td>
</tr>
</tbody>
</table>

### Table 5

**Summary of Black Male Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>139</td>
<td>34.5</td>
<td></td>
</tr>
<tr>
<td>Not-Married</td>
<td>264</td>
<td>65.5</td>
<td></td>
</tr>
<tr>
<td><strong>Age at time of Survey</strong></td>
<td>490</td>
<td></td>
<td>17.53</td>
</tr>
<tr>
<td><strong>Highest Grade</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by Father</td>
<td>393</td>
<td></td>
<td>10.37</td>
</tr>
<tr>
<td>Completed by Mother</td>
<td>462</td>
<td></td>
<td>11.16</td>
</tr>
</tbody>
</table>
Table 6

**Summary of Black Female Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Married</td>
<td>138</td>
<td>32.9</td>
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</tr>
<tr>
<td>Not-Married</td>
<td>281</td>
<td>67.1</td>
<td></td>
</tr>
<tr>
<td>Age at time of Survey</td>
<td>486</td>
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<td>17.68</td>
</tr>
<tr>
<td>Highest Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed by Father</td>
<td>359</td>
<td></td>
<td>10.21</td>
</tr>
<tr>
<td>Completed by Mother</td>
<td>455</td>
<td></td>
<td>10.76</td>
</tr>
</tbody>
</table>

**CRITERION VARIABLES**

There were six criterion variables that were used in this study. They were 1) family income, 2) hourly rate-of-pay, 3) highest degree attained as of 1988, 4) current job of respondent, 5) poverty rate, and 6) enrollment status of respondents as of May 1991.
Track One - Academic (n=655)

Family Income Variable.

As expected, family income varied across the four groups within the academic track. White males (n=126) averaged $49,960 per year. The standard deviation was $35,998. It was the largest standard deviation of the four groups. The median, or mid-point, was $41,175. White females (n=117) had a mean family income of $47,303. The standard deviation and mid-point were somewhat smaller at $33,812 and $39,710 respectively. Black males (n=113) had a mean family income of $41,844. The standard deviation was larger than that of white females but lower than that of white males at $34,344. The median at $33,000 is less than that of white males and white females. Black females (n=112) reported the lowest mean family income at $30,649. They also had the lowest standard deviation and median at $25,840 and $25,430 respectively.

Hourly Rate-of-Pay Variable.

White males (n=125) averaged $14.04 per hour. The standard deviation was $7.20 and the median was $12.60. White females (n=98) averaged more than white males, their mean was $14.93. Their standard deviation was much larger than it was for white males, $22.35 vs. $7.20. Their median was smaller at $11.27. The mean for black males (n=119) was $11.05, the standard deviation was $6.44 and median was $10.00. Black females (n=113) earned
the least of the four groups. They averaged $9.33 per hour. They also had the lowest standard deviation and median at $4.49 and $8.36 respectively.

Poverty Rate Variable.
There was a wide range of poverty rates for the four groups. By far, white males (n=126) had the lowest poverty rate. 1.6% (n=2) stated that they were living in poverty. The white female (n=117) rate of 5.1% (n=6) was more than three times the rate for white males. Black males (n=113) reported a rate of 12.4% (n=14), more than twice the rate for white females and more than seven times the rate for white males. Black females (n=112) fared the worse, 20.5% (n=23) reported that they lived in poverty.

Highest Degree Variable.
This variable has five categories:
1. High-school diploma.
Of white males (n=154), 39% (n=60) received no more than a high-school diploma. White females (n=156) had a slightly higher rate at 39.7% (n=62). The rate for black males (n=137) was 62.8% (n=86). Of black females (n=125), 67.2% (n=84) reported that the high-school diploma was their highest degree.
2. Associate Degree/Junior College.

For white males \((n=154)\), 5.8\% \((n=9)\) this was the terminal degree. The rate more than doubles in the case of white females \((n=156)\) to 12.8\% \((n=20)\). For Black males \((n=137)\), 10.2\% \((n=14)\) reported receiving an associate degree from a junior college. Black females \((n=125)\) reported that 11.2\% \((n=14)\) of their number received an associate degree.

3. Bachelor of Science / Bachelor of Arts.

Of the white males \((n=154)\) reporting, 48.7\% \((n=75)\) received a bachelor's degree, for black males \((n=137)\) the rate was roughly half at 24.8\% \((n=34)\). The rate for white females \((n=156)\) was somewhat lower at 37.2\% \((n=58)\), this was more than twice the rate for black females \((n=125)\), who reported a rate of 18.4\% \((n=23)\).

4. Graduate School / Masters Degree.

White females \((n=156)\) attended graduate school at a higher rate than any of the four groups. 9\% \((n=14)\) of their number reported receiving a masters degree. The rate for white males \((n=154)\) was roughly a third at 3.2\% \((n=5)\). For black males \((n=137)\) the rate was 2.2\% \((n=3)\). Black females \((n=125)\) had a rate of 1.6\% \((n=2)\).

5. Doctorate or Professional Degree.

White males \((n=154)\), at 3.2\% \((n=5)\) were in this category at nearly three times the rate for white females \((n=156)\). Their rate was 1.3\% \((n=2)\). There were no black males \((n=137)\) in this category. The rate for black females \((n=125)\) was 1.6\% \((n=2)\), half that for white males rate.
Occupation of Respondent Variable.

This variable had five categories:

1. **Service occupations.**

   White males (n=130) were in the service field at the rate of 6.2% (n=8). This was the lowest rate of the four groups. White females (n=104) had a rate of 9.6% (n=10). Black males (n=127) had a rate of 9.4% (n=12). Black females (n=117) had the highest rate of participation in the service industry at 15.4% (n=18), it was more than twice the rate for white males.

2. **Assemblers, handlers, helpers, inspectors, material movers, machine operators and laborers.**

   Black males (n=127) were in this category at rate of 29.9% (n=38). The white male (n=130) was 12.3% (n=16). Black females (n=117) were in this category at the rate of 9.4% (n=11). This was nearly twice the rate for white females (n=104), which was 4.8% (n=5).

3. **Precision production, craft and repair.**

   White males (n=130) and black males (n=127) were in these types of jobs at the rates of 10% (n=13) and 6.3% (n=8) respectively. For white females (n=104) the rate was 1% (n=1) which is slightly better than the rate for black females (n=117) which was 1.7% (n=2).

4. **Administrative support, clerical, sales.**

   White males (n=130) and black males (n=127) had similar rates of participation in these fields of employment, 21.5% (n=28) and 24.4% (n=31) respectively. Black females (n=117) had the
highest rate of the four groups at 39.3% (n=46). White females (n=104) came in second at 34.6% (n=36).

5. Professional, managers and technical specialties.

White males (n=130) and white females (n=104) were in this category at the rate of 50%, n=65 for white males and n=52 for white females. Black males (n=127) were in this category at the rate of 29.9% (n=38), it was somewhat higher for black females (n=117). Their rate was 34.2% (n=40).

College Enrollment Status Variable.

Black females (n=133) had the highest enrollment rate with 12.8% (n=17). They were followed by white males (n=140), who had a rate of 8.6% (n=12). White females (n=129) and black males (n=141) were enrolled at the rates of 6.2% (n=8) and 5% (n=7) respectively.

Track Two - General (n=961)

Family Income Variable.

As was true in the academic track, white males (n=153) had the highest average family income of the four groups. Their mean was $37,592, with a standard deviation of $27,576. The mid-point or median income was $33,010. White females (n=156) reported that their average family income was $35,318. The standard deviation was $25,851 and the median was $30,510. Black males (n=167) averaged nearly $10,000 less than did white females. Their mean
was $25,187, the median was $21,000 and the standard deviation
was $22,089. The mean for Black females (n=194) was the lowest
$19,948. They also exhibited the least variability. The standard
deviation was $14,413, and the median or midpoint was $16,100.

Hourly Rate-of-Pay Variable.

White males (n=157) had the highest hourly rate-of-pay at
$12.68 per hour. The standard deviation was $8.93 and the median
was $11.04. White females (n=125) made slightly less ($12.64 per
hour) but the standard deviation was much larger ($42.60). Their
median was $8.00 per hour. Black males (n=186) at $9.50 per hour
made $3.00 per hour less than both white females and white males.
The standard deviation ($7.67) and median ($7.52) were also less
than those of white males and white females. Black females trailed
in all categories. Their mean hourly rate of pay was $7.43, with a
median of $6.88. They also had the least variability with a standard
deviation of $3.15.

Poverty Rate Variable.

White males (n=153) had the lowest poverty rate of the four
groups. Their rate was 5.9% (n=9). White females (n=156) had a rate
that was almost double that of white males, it was 10.9% (n=17). The
rate for black males (n=167) was almost triple the white male rate, it
was 17.4% (n=29). Black females (n=194) had the highest rate of all
at 36.1% (n=70), this was more than twice the rate for black males.
Highest Degree Variable.

This variable had five categories.


For white males (n=205), the high-school diploma was the terminal certificate for 84.4% (n=173) of them. For white females (n=201), the rate was 81.6% (n=164). For black females (n=228) the rate was 86% (n=196). The rate for black males (n=216) was the highest. 90% (n=194) of black males did not go on to any further education post high-school. This was the largest percentage of any of the four groups.

2. Associate Degrees from Junior Colleges.

White males (n=205), white females (n=201) and black females (n=228) attended junior college at roughly the same rates. Their respective rates were 5.4% (n=11), 5.0% (n=10) and 5.7% (n=12). For black males (n=216), the rate was 3.7% (n=8).

3. Bachelor of Science/Bachelor of Arts Degree.

White females (n=201) attained bachelor's degrees at the rate of 12.9% (n=26). This was more than any other group. The rates for white males (n=205) and black females (n=228) were somewhat similar, they were 8.3% (n=17) and 7.9% (n=18) respectively. The rate for black males (n=216) was 5.1% (n=11).

4. Masters Degrees.

The rate for white males (n=205), while small at 1.5% (n=3), was at least three times the rate for every other group. The rates for white females (n=201) and black males (n=216) were equal, at 0.5%.
This translate into \( n=1 \) for white females and \( n=1 \) black males. For black females \( (n=228) \) it was slightly less at \( 0.4\% \) \( (n=9) \).

5. Doctorates and Professional Degrees.

The white males group was the only group reporting completion of a Ph.D. or a professional degree. All other groups reported 0%. White males \( (n=205) \) were in this category at the rate of 0.5% \( (n=1) \).

Occupation of Respondent Variable.

This variable has five categories.

1. Service occupations.

Black females \( (n=178) \) and black males \( (n=195) \) participated at almost equal rates, 24.2% \( (n=43) \) and 24.1% \( (n=47) \) respectively. The rate for white females \( (n=131) \) was 21.4% \( (n=28) \). This is almost twice the rate for white males \( (n=163) \) who are in this category at the rate of 11.7% \( (n=19) \).


Black males \( (n=195) \) were in this category at the rate of 39.5% \( (n=77) \). The next highest rate was for white males \( (n=163) \) at 28.8% \( (n=47) \). Black females \( (n=178) \) and white females \( (n=131) \) reported rates of 14.6% \( (n=26) \) and 11.5% \( (n=15) \) respectively.

3. Precision Production, Craft and Repair.

White males \( (n=163) \) led everyone in this category at 25.2% \( (n=41) \). Their closest competitors were black males \( (n=195) \) at 8.7%
Black females (n=178) and white females (n=131) were in these jobs at the rates of 2.8% (n=5) and 1.5% (n=2) respectively.

4. Sales, Administrative Support and Clerical.

The rates for white females (n=131) and black females (n=178) for this category were 36% (n=47) and 33.1% (n=59) respectively. The rates for black males (n=195) and white males (n=163) for this category were 11.8% (n=23) and 10.4% (n=17) respectively.

5. Managerial, Professional and Technical Specialties.

White females (n=131) were in this category at the highest rate 29% (n=38). They were followed by black females (n=178) and white males (n=163), whose rates were 25.3% (n=45) and 23.9% (n=39) respectively. Black males (n=195) were in these occupations at the lowest rate 15.9% (n=31).

College Enrollment Status Variable.

Black females (n=230) reported that they enrolled in college at the rate of 7% (n=16). White females (n=169) were in second place at 4.7% (n=8). Black males (n=225) and white males (n=175) had rates of 3.6% (n=8) and 3.4% (n=6) respectively.

Track Three - Commercial/Vocational

Family Income Variable.

White females (n=36), by far, had the greatest family income among the four groups. They averaged $49,682 per year with a standard deviation, which was also the largest, of $38,767. The
median or mid-point was $41,350. White males (n=50) were second, they averaged $32,606. The standard deviation and median were $23,485 and $32,768 respectively. The means for Black males (n=51) and black females (n=67) were $28,034 and $23,825 respectively. The black males had a slightly higher standard deviation ($18,775) than that of black females ($18,423). The black male median ($25,000) was also larger than the median for black females ($17,500).

Hourly Rate-of-Pay Variable.

White males (n=54) had the highest rate-of-pay at $16.00. The standard deviation and median were $43.57 and $8.53 respectively. Second to white males were white females (n=34), with an average of $9.27 per hour. There was a much smaller standard deviation ($5.96) than white males, but their median ($9.33) was higher. Black males (n=58) and black females (n=62) had somewhat similar hourly rates-of-pay. Black males averaged $8.15 per hour while black females averaged $8.97. The standard deviation for black females ($6.66) was almost twice that for black males ($3.60). The median for black females ($7.69) was higher than the median for black males ($7.15).
Poverty Rate Variable.

The black female (n=67) poverty rate of 31.3% (n=21) was nearly twice that of black males (n=51). The black male rate was 17.6% (n=9). White males (n=50) were third with a rate of 14% (n=7). White females (n=36) were last with a rate of 8.3% (n=3).

Highest Degree Variable.

This variable had five categories.


White males (n=69) reported that for 89.9% (n=62) of them, the high-school diploma was the highest degree. For white females (n=60) the rate was 78% (n=47). For black males (n=66) the rate was 87.9% (n=58). The rate for black females (n=77) was the lowest at 85.7% (n=66).

2. Associate Degree from Junior Colleges.

White males (n=69) and white females (n=60) had similar rates of attainment, they were 8.7% (n=6) and 8.3% (n=5) respectively. Black males (n=66) and black females (n=77) also displayed similar rates of attainment, they were 4.5% (n=3) and 5.2% (n=4) respectively.

3. Bachelor of Arts/Bachelor of Science Degree.

White females (n=60) and black females (n=77) had the two highest rates of attainment, they were 13.3% (n=8) and 9.1% (n=7) respectively. Black males (n=66) came in third with a rate of 7.6% (n=5). White males (n=69) trailed at 1.4% (n=1).
Nobody in this track received any degrees beyond the bachelors degree.

Occupation of Respondent Variable.

This variable had five categories.

1. Service Occupations.

Black females (n=64) and Black males (n=60) had jobs in this category at the rates of 31.3% (n=20) and 18.3% (n=11) respectively. For white females (n=35) and white males (n=56) the rates were 14.3% (n=5) and 8.9% (n=5) respectively.


Black males (n=60) and white males (n=56) led the way at 30% (n=18) and 26.8% (n=15) respectively. Black females (n=64) and white females (n=35) had similar rates of 6.3% (n=4) and 5.7% (n=2) respectively.

3. Precision Production, Craft and Repair.

Again, white males (n=56) and black males (n=60) had somewhat similar rates, 26.8% (n=15) and 21.7% (n=13) respectively. Black females (n=64) reported having jobs in this category at the rate of 1.6% (n=1). No white females reported being in this category.

4. Sales, Administrative Support and Clerical.

White females (n=35) and black females (n=64) had rates of 48.6% (n=17) and 35.9% (n=23) respectively. White males (n=56) and black males (n=60) had rates of 25% (n=14) and 17.6% (n=10).
5. Professional, Technical and Managerial.

White females (n=35) reported being in this category at the rate of 31.4% (n=11). Black females (n=64) were second at 25% (n=16). Black males (n=60) and white males (n=56) had similar rates, 13.3% (n=8) and 12.5% (n=7) respectively.

College Enrollment Status Variable.

White males (n=60) led in this category, their rate was 8.3% (n=5). White females (n=40) were in second place at 7.5% (n=3). Black males (n=70) and black females (n=80) had rates that were somewhat similar, they were 4.3% (n=3) and 5% (n=4) respectively.

Confounding Variables.

Seven confounding variables were identified in this survey. They were highest grade completed by father, highest grade completed by mother, occupation of male parent, occupation of female parent, sex, race and marital status.

Track One - Academic (n=655)

Father's Education Variable.

White males (n=167) had fathers who averaged 13.42 years of education. In other words a number of these fathers had some post-secondary education. The standard deviation was 4.02. The median was 13, which means that half of these fathers had at least 1 or more
years of post-secondary education. The fathers of white females (n=160) had slightly less education (12.88). The standard deviation was 3.75 years and the median was 12 years. The fathers of black males (n=145) averaged 11.62 years of education. The standard deviation was 3.08 and the mid-point was 12. Fathers of black females (n=107) attended school the least, they averaged 10.99 years of education. The standard deviation was 3.74 and the median was 12 years.

Mother's Education Variable.

The mothers of white males (n=172) had a mean of 12.60 years of schooling. The standard deviation was 2.96 and the median was 12 years of schooling. The mothers of white females (n=166) went to school for an average of 11.85 years. The standard deviation was 2.93 and the mid-point was 12 years of schooling. The mothers of black males (n=159) averaged 11.90 years of schooling. The variability, as expressed by the standard deviation (2.43), was the least of the four groups. The median was 12 years of schooling. The mothers of black females (n=137) were the least educated, they averaged 11.41 years of schooling. The standard deviation and median were 2.70 and 12 years respectively.
Occupation of Male Parent When Respondent was 14.

This variable had five categories.

1. **Craftsmen and Foremen.**

   White males (n=146) had fathers who were in this category at the rate of 12.3% (n=18). The fathers of black females (n=69) and white females (n=133) were in this category at the same rate of 20.3%, this translates into n=14 for black females and n=27 for white females. For black males (n=92) the rate was 25% (n=23).

2. **Service Occupations.**

   The fathers of black males (n=92) were in this category at the rate of 10.1% (n=9). They were followed by the fathers of black females (n=69) at the rate of 9.8% (n=7). For the fathers of white males (n=146) and white females (n=133) the rates were 6.2% (n=9) and 6% (n=8) respectively.

3. **Operatives and Laborers.**

   Black females (n=69) had fathers in this field at the rate 42% (n=29). For the fathers of black males (n=92) the rate was 33.7% (n=31). The fathers of white males (n=146) and white females (n=133) had rates of 15.1% (n=22) and 12% (n=16) respectively.

4. **Sales and Clerical.**

   The fathers of white females (n=133) held jobs in this category at the rate of 15.8% (n=21). For white males (n=146) the rate was 15.1% (n=22). For the fathers of black males (n=92) and black females (n=69) the rates were 8.7% (n=8) and 5.8% (n=4) respectively.
5. Professional and Technical Specialties.

The fathers of white males (n=146) fell into this category at the rate of 51.4% (n=75). The fathers of white females (n=133) were in this category at the rate of 45.9% (n=61). For the fathers of black males (n=92) and black females (n=69) the rates were 22.8% (n=21) and 21.7% (n=15).

Occupation of Female Parent When Respondent was 14.

This variable has five categories.

1. Craftsmen and Foremen.

White males (n=88) reported that their mothers had jobs in this category at the rate of 1.1% (n=1). Black males (n=108) reported that 0.9% (n=1) of their mothers were in this category. White females (n=84) and black females (n=87) reported that 0% (n=0) of their mothers were in this category.

2. Service Occupations.

The mothers of black females (n=87) were in this category at the rate of 43.7% (n=38). The next highest group consisted of the mothers of black males (n=108), with a rate of 34.3% (n=37). White females (n=84) and white males (n=88) reported the rates for their mothers as 19.0% (n=16) and 18.2% (n=16) respectively.
3. Operatives and Laborers.

Black males (n=108) and black females (n=87) reported that their mothers worked in this sector at the rates of 22.2% (n=24) and 20.7% (n=18) respectively. For white males (n=88) the rate was 15.9% (n=14) and for white females (n=84) the rate was 15.5% (n=13).

4. Sales and Clerical.

The mothers of white females (n=84) had jobs in this category at the rate of 44% (n=37). The mothers of white males (n=88) were in this category at the rate of 36.4% (n=32). The rate for the mothers of black males (n=108) and black females (n=87) were reported as 25% (n=27) and 17.2% (n=15).

5. Professional and Technical Specialties.

In these jobs the mothers of white males (n=88) and white females (n=84) had the highest rates, they were 28.4% (n=25) and 21.4% (n=18) respectively. For the mothers of black males (n=108) and black females (n=87) the rates were 17.6% (n=19) and 18.4% (n=16) respectively.

Sex Variable.

In the academic track 52% (n=341) were males and 48% (n=314) were females.

Race Variable.

In the academic track 53% (n=349) were white and 47% (n=306) were black.
Marital Status Variable.

White females (n=120) had the highest marriage rate at 66.7% (n=80). White males (n=128) reported being married at the rate of 60.9% (n=78). The rates for black males (n=130) and black females (n=127) were 39.2% (n=51) and 35.4% (n=45) respectively.

Track Two - General (n=961)

Father's Education Variable.

The father's of white males (n=211) were the most educated. They averaged 11.60 years of schooling. The median was 12 years and the standard deviation was 3.33 years. The fathers of white females (n=203) had less education (10.65) than the fathers of white males. They had the same median (12) but larger standard deviations (3.76). The fathers of black males (n=185) had slightly more schooling (9.77) than the father of black females (n=190) (9.57). The standard deviation (3.66) for black female fathers was larger than it was for black male fathers (3.38). The median was 11 years for the fathers of black females and 10 years for the fathers of black males.

Mother's Education Variable.

White males (n=221) reported that their mothers averaged 11.30 years of schooling. The standard deviation was 2.92 and the median was 12 years. The mothers of white females (n=216) had a mean of 10.79 years. The standard deviation was 3.18 and the
median was 12 years. Black males (n=229) reported that their mothers averaged 10.65 years. The standard deviation was 2.54 and the median was 11 years. Black females (n=241) had the least educated mothers, their mean was 10.47 years. The standard deviation was 2.62 years and the median was 11 years.

Occupation of Male Parent When Respondent was 14.

This variable had five categories.

1. Craftsmen and Foremen.

White males (n=180) and white females (n=166) reported that their fathers held jobs in these categories at the rates of 28.3% (n=51) and 27.1% (n=45) respectively. Black males (n=123) and black females (n=125) reported that their fathers held jobs in these categories at the rates of 23.6% (n=30) and 24.8% (n=31) respectively.

2. Service Occupations.

Black males (n=123) reported that their fathers held jobs in this category at the rate of 12.2% (n=15). For the fathers of black females (n=125) the rate was 9.6% (n=12). The fathers of white males (n=180) and white females (n=166) had rates of 6.7% (n=12) and 4.8% (n=8) respectively.

3. Operatives and Laborers.

Black males (n=123) and black females (n=125) reported that their fathers were in these jobs at the rates of 48.8% (n=60) and 50.4% (n=63) respectively. For the fathers of white males (n=180)
and white females (n=166) the rates were 23.9% (n=43) and 23.5% (n=39) respectively.

4. Sales and Clerical.

The fathers of white females (n=166) were in these jobs at the rate of 15.1% (n=25). The fathers of white males (n=180) had a rate of 8.3% (n=15). The fathers of black males (n=123) and black females (n=125) reported rates of 4.9% (n=6) and 3.2% (n=4).

5. Professional and Technical Specialties.

The fathers of white males (n=180) and white females (n=166) held these jobs at the rates of 32.8% (n=59) and 29.5% (n=49) respectively. For the fathers of black males (n=123) and black females (n=125) the rates were 10.6% (n=13) and 12.0% (n=15) respectively.

Occupation of Female Parent When Respondent was 14.

This variable has five categories.

1. Craftsmen and Foremen.

The mothers of white females (n=120) held service jobs at the rate of 4.2% (n=5), this was twice the rate of the mothers of black males (n=140). They had a rate of 2.1% (n=3). The mothers of white males (n=103) and black females (n=138) had rates of 1.9% (n=2) and 1.4% (n=2) respectively.

2. Service Occupations.

The mothers of black males (n=140) and black females (n=138) had by far the highest rates of employment in this field, they were 51.4% (n=72) and 49.3% (n=68) respectively. Following were the
mothers of white females (n=120) and white males (n=103), their rates were 31.7% (n=38) and 18.4% (n=19) respectively.

3. Operatives and Laborers.

The rates of employment in this field for the four groups mothers were somewhat similar. The mothers of white males (n=103) and white females (n=120) were in these categories at the rates of 24.3% (n=25) and 25% (n=30) respectively. The mothers of black males (n=140) and black females (n=138) held jobs in these categories at the rates of 22.1% (n=31) and 28.3% (n=39) respectively.

4. Sales and Clerical.

White males (n=103) reported that 35% (n=36) of their mothers were employed in these types of jobs. For the mothers of white females (n=120) the rate was 25.8% (n=31). The mothers of black males (n=140) and black females (n=138) had somewhat similar rates of 13.6% (n=19) and 14.5% (n=20) respectively.

5. Professional and Technical Specialties.

The mothers of white males (n=103), by far, had the highest rate of participation in this field 20.4% (n=21). The mothers of white females (n=120) had the second highest rate 13.3% (n=16). The mothers of black males (n=140) and black females (n=138) had rates of 10.7% (n=15) and 6.5% (n=9) respectively.
Sex Variable.

In the general track 50% (n=480) were males and 50% (n=481) were females.

Race Variable.

In the general track 52% (n=503) were black and 48% (n=458) were white.

Marital Status Variable.

White females (n=157) had a marriage rate of 63.1% (n=99). They were followed by white males (n=166) they had a marriage rate of 58.4% (n=97). Black males (n=210) and black females (n=218) had similar rates of marriage, 30.5% (n=64) and 31.2% (n=68) respectively.

Track Three - Vocational/Commercial (n=306)

Father's Education Variable.

The fathers of white males (n=72) average 10.94 years of schooling. The median was 12 years and the standard deviation was 3.55 years. Black females (n=62) reported that their fathers averaged 10.84 years of schooling with a standard deviation of 3.22 years. The median was 12 years. The fathers of white females (n=56) had the third highest level of education, they averaged 10.05 years of schooling. The standard deviation was 3.42 years and the median was 12 years. Black males (n=63) had the least educated
fathers (9.30 years). The median was 10 years, two years less than the median of the other three groups. The standard deviation was 3.38 years.

Mothers Education Variable.
Black males (n=74) reported having the most educated mothers (11.16 years). The median was 12 years and the standard deviation was 2.38. Following were the mothers of white males (n=73), they averaged 10.84 years. The median was 12 years and the standard deviation was 3.27 years. The mother of black females (n=77) ranked third with a mean of 10.56 years. The median was 11 years and the standard deviation was 2.48 years. The fathers of white females (n=57) received the least education. With an average of 10.09 years of schooling. The median was 11 years and the standard deviation was 2.69 years.

Occupation of Male Parent When Respondent was 14.
This variable has five categories.
1. Craftsman and Foremen.

In this field, white females (n=45) reported that their fathers were employed at the rate of 42.2% (n=19). For the fathers of black females (n=36) the rate was 30% (n=11). Fathers of white males (n=60) and black males (n=41) had rates of 26.7% (n=16) and 24.4% (n=10) respectively.
2. Service Occupations.

The fathers of black males (n=41) and black females (n=45) were in this field at the rates of 12.2% (n=5) and 11.1% (n=5) respectively. Fathers of white males (n=60) and white females (n=45) reported rates of 8.3% (n=5) and 6.7% (n=3) respectively.

3. Operatives and Laborers.

Fathers of black males (n=41) were in this field at the rate of 48.8% (n=20). For the fathers of black females (n=36), the rate was 38.9% (n=14). The fathers of white males (n=60) and white females (n=45) had rates of 33.3% (n=20) and 31.1% (n=14).

4. Sales and Clerical.

The fathers of black females (n=36) participated in this field at the rate 16.7% (n=6). The fathers of white males (n=60) had a rate of 8.3% (n=5). The rates for the fathers of white females (n=45) and the fathers of black males (n=41) were 6.7% (n=3) and 4.9% (n=2).

5. Professional and Technical Specialties.

The fathers of white males (n=60) were in this category at the rate of 23.3% (n=14). The fathers of white females (n=45) were second at the rate 13.3% (n=6). The rates for the fathers of black males (n=41) and black females (n=36) were 9.8% (n=4) and 2.8% (n=1) respectively.
Occupation of Female Parent When Respondent was 14.

This variable has five categories.

1. Craftsmen and Foremen.

White males (n=41) and white females (n=24) reported that their mothers were in these job categories at the rates of 4.9% (n=2) and 4.2% (n=1) respectively. For the mothers of black females (n=54) the rate was 5.6% (n=3). No black males (n=46) reported having mothers in these fields.

2. Operatives and Laborers.

Black males (n=46) and black females (n=54) reported having mothers in these occupations at the rates of 56.5% (n=26) and 42.6% (n=23) respectively. The mothers of white males (n=41) and white females (n=24) had similar rates, they were 22% (n=9) and 20.8% (n=5) respectively.


The mothers of white females (n=24) reported the highest rate 37.5% (n=9). The mothers of black males (n=46) reported a rate of 19.6% (n=9). The rate for the mothers of white males (n=41) and black females (n=54) were 29.3% (n=12) and 20.4% (n=11) respectively.

4. Sales and Clerical.

White males (n=41) reported having mothers in these jobs at the rate of 39% (n=16). White females (n=24) had mothers in these fields at the rate of 25% (n=6). The mothers of black males (n=46) and black females (n=54) reported rates of 10.9% (n=5) and 18.5% (n=10).
5. Professional and Technical Specialties.

The mothers of black males (n=46) and black females (n=54) were in these jobs at exactly the same rate, 13%. This translates into n=6 for black males and n=7 for black females. The rates for the mothers of white females (n=24) and white males (n=41) were 12.5% (n=3) and 4.9% (n=2) respectively.

Sex Variable.

In the vocational track, 52% (n=159) of the respondents were male and 48% (n=147) were female.

Race Variable.

45% (n=139) of the respondents were white and 55% (n=167) of the respondents were black.

Marital Status Variable.

White females (n=38) and white males (n=54) had marriage rates of 81.6% (n=31) and 59.3% (n=32). Black males (n=63) and black females (n=74) reported rates of 38.1% (n=24) and 33.8% (n=25).

Chi Square Results

One of the issues of concern in this study was the relationship that may exist between track placement and life outcomes as defined by the set of criterion variables used in this study (highest degree, family income, rate-of-pay, occupation, poverty rate and enrollment status). Also of interest was the relationship between track
placement and the following confounding variables—marital status, occupation of parents, parents education, sex and race. Table 7 gives a summary of the relationships.

Table 7

**Bivariate Analysis of Track Placement.**
**Chi Square Values for Track Placement and Criterion & Confounding Variables.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Degree Received</td>
<td>258.56</td>
<td>8</td>
<td>.0001 *</td>
</tr>
<tr>
<td>Occupation Category</td>
<td>93.84</td>
<td>8</td>
<td>.0001 *</td>
</tr>
<tr>
<td>Poverty Rate</td>
<td>19.92</td>
<td>2</td>
<td>.0001 *</td>
</tr>
<tr>
<td>Enrollment Status</td>
<td>10.20</td>
<td>4</td>
<td>.0001 *</td>
</tr>
<tr>
<td>Race</td>
<td>7.02</td>
<td>2</td>
<td>.0298 *</td>
</tr>
<tr>
<td>Sex</td>
<td>.83</td>
<td>2</td>
<td>.6591</td>
</tr>
<tr>
<td>Marital Status</td>
<td>5.83</td>
<td>2</td>
<td>.0541 *</td>
</tr>
<tr>
<td>Father's Occupation</td>
<td>69.48</td>
<td>8</td>
<td>.0001 *</td>
</tr>
<tr>
<td>Mother's Occupation</td>
<td>38.48</td>
<td>8</td>
<td>.0001 *</td>
</tr>
</tbody>
</table>

* Indicates statistically significant relationship at the 0.05 level.
CRITERION VARIABLES

Track by Highest Degree

The data indicated a statistically significant though modest relationship (Cramers's V=.28) between track placement and the highest degree attained by the respondent. A higher percentage of track one respondents received associates, bachelors, masters, doctorates and professional degrees than respondents in either of the other two tracks. Tracks two and three had a much higher percentage of people who listed the high-school diploma as their terminal degree. (See Table 8)
Table 8

Crosstabulation of Track Placement by Highest Degree Received as of 1988

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Academic No.</th>
<th>%</th>
<th>General No.</th>
<th>%</th>
<th>Voc./Comm. No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. H.S. Diploma</td>
<td>292</td>
<td>51.0</td>
<td>729</td>
<td>85.8</td>
<td>233</td>
<td>85.7</td>
</tr>
<tr>
<td>2. Associate's Degree</td>
<td>57</td>
<td>10.0</td>
<td>42</td>
<td>4.9</td>
<td>18</td>
<td>6.6</td>
</tr>
<tr>
<td>3. B.A./B.S.</td>
<td>190</td>
<td>33.2</td>
<td>72</td>
<td>8.5</td>
<td>21</td>
<td>7.7</td>
</tr>
<tr>
<td>4. Masters</td>
<td>24</td>
<td>4.2</td>
<td>6</td>
<td>0.7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Ph.D./Professional</td>
<td>9</td>
<td>1.6</td>
<td>1</td>
<td>.1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Chi Square = 258.55  Cramer's V = .28  p < .0001

Track by Occupation of Respondent

The data indicated a statistically significant though modest relationship (Cramer's V = .18) between track placement and the occupation of the respondent. For example, category one includes service occupations, occupations that can be classified as low pay and low status occupations. 10% of the track one (academic) students were in that track as opposed to 20.5% of track two (general) students and 19.1% of track three (vocational/commercial) students. At the higher end of the job spectrum in category five (professional, managers and technical specialties), 40.8% of the track one
(academic) respondents were located here as opposed to 22.9% of track two (general) respondents and 19.5% of track three (vocational/commercial) respondents. (See Table 9)

Table 9

Crosstabulation of Track Placement by Occupation of Respondent

<table>
<thead>
<tr>
<th>Occupation of Respondent</th>
<th>Academic</th>
<th>General</th>
<th>Voc./Comm.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>1. Service</td>
<td>48</td>
<td>10.0</td>
<td>137</td>
</tr>
<tr>
<td>2. Operator/Laborer</td>
<td>70</td>
<td>14.6</td>
<td>165</td>
</tr>
<tr>
<td>3. Precision Production &amp; Craft</td>
<td>24</td>
<td>5.0</td>
<td>65</td>
</tr>
<tr>
<td>4. Admin./Sales</td>
<td>141</td>
<td>29.5</td>
<td>147</td>
</tr>
<tr>
<td>5. Professional Technical/Managerial</td>
<td>195</td>
<td>40.8</td>
<td>153</td>
</tr>
</tbody>
</table>

Chi Square = 93.83  Cramer's V = .18  p < .0001
Track by Poverty Rate

The data indicated a statistically significant though modest relationship (Cramer's $V = .12$) between track placement and poverty rate. A lower percentage of academic track respondents were in poverty (9.6%) than those in the general track (18.7%) or the vocational/commercial track (19.6%). One's chances of being in poverty approximately doubled when going from track one to any of the other two tracks. (See Table 10)

Track by Enrollment Status

The data indicated a statistically significant though slight relationship (Cramer's $V = .06$) between the college enrollment and track placement. 8.1% of the track one (academic) respondents were enrolled in college, it was 4.8% for track two (general) and 6.0% for track three (vocational/commercial). (See Table 11)
Table 10

Crosstabulation of Track Placement by Poverty Rate

<table>
<thead>
<tr>
<th>Poverty Rate</th>
<th>ACADEMIC</th>
<th>GENERAL</th>
<th>VOC./COMM.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>OUT</td>
<td>423</td>
<td>90.4</td>
<td>545</td>
</tr>
<tr>
<td>IN</td>
<td>45</td>
<td>9.6</td>
<td>125</td>
</tr>
</tbody>
</table>

Chi Square=19.92  Cramer's V= .12  p<.0001

Table 11

Crosstabulation of Track Placement by Enrollment Status.

<table>
<thead>
<tr>
<th>Enrollment Status</th>
<th>Academic</th>
<th>General</th>
<th>Voc./Comm.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Enrolled in College</td>
<td>44</td>
<td>8.1</td>
<td>38</td>
</tr>
<tr>
<td>Not Enrolled in College</td>
<td>499</td>
<td>91.9</td>
<td>761</td>
</tr>
</tbody>
</table>

Chi Square = 10.20  Cramer's V = .06  p<.04
CONFOUNDING VARIABLES

Track by Race

The data indicated that a statistically significant though slight relationship (Cramer's $V = .06$) exists between track placement and the race of the respondent. White respondents tended to be in the academic track at a higher rate (36.9% vs. 31.4%) than did black respondents. A higher percentage of blacks were found in the general and vocational tracks. For example, 17.1% of the black respondents were in track three and 14.7% of the white respondents were in track three. (see Table 12)

Table 12

Crosstabulation of Race by Track Placement

<table>
<thead>
<tr>
<th>Track Placement</th>
<th>White</th>
<th>Race</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Academic</td>
<td>349</td>
<td>36.9</td>
<td>306</td>
</tr>
<tr>
<td>General</td>
<td>458</td>
<td>48.4</td>
<td>503</td>
</tr>
<tr>
<td>Voc./Comm.</td>
<td>139</td>
<td>14.7</td>
<td>167</td>
</tr>
</tbody>
</table>

Chi Square = 7.02  Cramer's = .06  $p < .03$
Track by Sex

The data indicated that the relationship between track placement and gender is not statistically significantly. (See Table 13)

Table 13

Crosstabulation of Track Placement by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track Placement</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Academic</td>
<td>341</td>
<td>34.8</td>
</tr>
<tr>
<td>General</td>
<td>480</td>
<td>49.0</td>
</tr>
<tr>
<td>Voc./Comm.</td>
<td>159</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Chi Square = .83  Cramer's V = .02  p < .66

Track by Marital Status

The data indicated a statistically significant though slight relationship (Cramer's V = .06) between track placement and marital status. In the academic track slightly more than half (50.3%) the respondents were married. In the general track, 43.7% of the respondents are married and in the vocational/commercial track 48.9% of the respondents were married. (See Table 14)
Table 14

**Crosstabulation of Track Placement by Marital Status**

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Academic No.</th>
<th>%</th>
<th>General No.</th>
<th>%</th>
<th>Voc./Comm. No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>254</td>
<td>50.3</td>
<td>328</td>
<td>43.7</td>
<td>112</td>
<td>48.9</td>
</tr>
<tr>
<td>Unmarried</td>
<td>251</td>
<td>49.7</td>
<td>423</td>
<td>56.3</td>
<td>117</td>
<td>51.1</td>
</tr>
</tbody>
</table>

Chi Square = 5.83  Cramer's V = .06  p <.0541

**Track by Male Parent Occupation**

The data indicated a statistically significant though modest relationship (Cramer's V = .17) between track placement and occupation of the male parent. Job category five has occupations described as "professional" and "technical specialties". Over thirty-nine percent of the academic track respondents had male parents in this category. It was 22.9% for the general track respondents and 13.7% for the vocational/commercial respondents. Job category three consists of occupations described as "operatives" and "laborers". 22.3% of the academic respondents had male parents in this category. In the general vocational/commercial tracks the rates were 34.5% and 37.4% respectively. (See Table 15)
Table 15

Crosstabulation of Track Placement by Occupation of Male Parent When Respondent was 14.

<table>
<thead>
<tr>
<th>Occupation of Male Parent</th>
<th>Academic No.</th>
<th>%</th>
<th>General No.</th>
<th>%</th>
<th>Voc./Comm. No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Craft/Foremen</td>
<td>82</td>
<td>18.6</td>
<td>156</td>
<td>26.3</td>
<td>56</td>
<td>30.8</td>
</tr>
<tr>
<td>2. Service</td>
<td>33</td>
<td>7.5</td>
<td>47</td>
<td>7.9</td>
<td>17</td>
<td>9.3</td>
</tr>
<tr>
<td>3. Operatives</td>
<td>98</td>
<td>22.3</td>
<td>205</td>
<td>34.5</td>
<td>68</td>
<td>37.4</td>
</tr>
<tr>
<td>4. Sales/Clerical</td>
<td>55</td>
<td>12.5</td>
<td>50</td>
<td>8.4</td>
<td>16</td>
<td>8.8</td>
</tr>
<tr>
<td>5. Professional/Technical</td>
<td>172</td>
<td>39.1</td>
<td>136</td>
<td>22.9</td>
<td>25</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Chi Square = 69.47  Cramer's V = .17  p < .0001

Track by Female Parent Occupation

The data indicated a statistically significant though modest relationship (Cramer's V = .14) between track placement and job of female parent. 29.2% of the track one (academic) respondents reported having a female parent in category two (service occupations). The rate was 39.3% for track two (general) and 38.2% for track three (vocational/commercial) respondents. Over 20% of track one (academic) respondents had a female parent in category five (professional and technical specialties). The rate was 12.2% for track two (general) respondents and 10.9% for track three (vocational/commercial) respondents. (See Table 16)
Table 16

Crosstabulation of Track Placement by Occupation of Female Parent When Respondent was 14.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Academic</th>
<th>General</th>
<th>Voc./Comm.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>1. Craft/Foremen</td>
<td>2</td>
<td>.5</td>
<td>12</td>
</tr>
<tr>
<td>2. Service</td>
<td>107</td>
<td>29.2</td>
<td>197</td>
</tr>
<tr>
<td>3. Operatives</td>
<td>69</td>
<td>18.8</td>
<td>125</td>
</tr>
<tr>
<td>4. Sales/Clerical</td>
<td>111</td>
<td>30.2</td>
<td>106</td>
</tr>
<tr>
<td>5. Professional/Technical</td>
<td>78</td>
<td>21.3</td>
<td>61</td>
</tr>
</tbody>
</table>

Chi Square = 38.48  Cramer's V = .14  p < .0001
Anova Results

Anova was used in this study to determine if the family incomes and the hourly rate-of-pay vary significantly by track. Also of interest were the levels of education achieved by the parents of the respondents. Theoretically, there should be no significant differences in the educational levels of the parents based on the track of the respondents. The results are displayed in table 17. In addition to using the one-way anova technique, multiple comparisons or post hoc tests were also conducted to isolate and identify the location of the significant differences.

The one-way analysis of variance and multiple comparisons revealed that at the $p < 0.05$ level of significance there were no two groups that were significantly different when the criterion variable “hourly rate-of-pay” was analyzed. When the criterion variable “family income” was used, significant differences were found to exist (at the 0.05 level) between the track one (academic) and track two (general) respondents and the track one and track three (vocational/commercial) respondents. The mean family income of track one respondents was $42,715, for respondents in track two and three, it was $28,862 and $31,593 respectively.

The ANOVA procedure revealed no significant differences when it came to the hourly rates-of-pay among the three tracks.
When the anova procedure was used on the educational levels of the respondents' parents, it revealed that at the $p < 0.05$ level track one parents differed significantly from the track two and track three parents in terms of years of education completed. (See Table 6)

Table 17

One-Way ANOVA Results of Family Income, Rate-of-Pay, Mother’s Education and Father’s Education by Track Placement.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Academic</th>
<th>General</th>
<th>Voc./Comm.</th>
<th>F-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Family Income</td>
<td>$42715_b$</td>
<td>$28862_a$</td>
<td>$31593_a$</td>
<td>35.07</td>
<td>1341</td>
<td>.0001</td>
</tr>
<tr>
<td>Hourly Payrate</td>
<td>$12.28_a$</td>
<td>$10.33_a$</td>
<td>$10.61_a$</td>
<td>1.62</td>
<td>1304</td>
<td>.1975</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>11.97_b</td>
<td>10.79_a</td>
<td>10.69_a</td>
<td>38.43</td>
<td>1821</td>
<td>.0001</td>
</tr>
<tr>
<td>Father's Education</td>
<td>12.37_b</td>
<td>10.43_a</td>
<td>10.31_a</td>
<td>53.95</td>
<td>1620</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Means with the same subscript are not significantly different at the 0.05 level using the SNK procedure.

Ancova Results

The anova procedure revealed significant differences in the family income means among the three different track groups. The ancova procedure was used to determine if the significant differences would remain if some of the confounding variables were controlled for. The confounding variables used in this procedure
were mother's education, father's education, sex, race and marital status.

The procedure revealed that even when the confounding variables are included in the analysis, the difference in means continued. It appeared that race, father's education and marital status produced regression weights which were significant at the \( p < 0.05 \) level. The other confounding variables, sex and mother's education, produced statistically insignificant regression weights. After adjustments for covariates the following movements were noticed: track one mean went from $42,596 to $40,315, track two mean went from $30,597 to $31,910 and track three mean went from $32,999 to $33,966. It was noticed that except for the track one mean, the mean family incomes rose. The range of incomes was reduced. (See Tables 18, 19 & 20)

Table 18

*Observed and Adjusted Means (Annual Family Income) for Covariates by Track Placement.*

<table>
<thead>
<tr>
<th>Track</th>
<th>Observed</th>
<th>Adjusted</th>
<th>Differences Between Observed &amp; Adjusted Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>$42,596</td>
<td>$40,315</td>
<td>-2281</td>
</tr>
<tr>
<td>General</td>
<td>$30,597</td>
<td>$31,910</td>
<td>1313</td>
</tr>
<tr>
<td>Voc./Comm.</td>
<td>$32,999</td>
<td>$33,966</td>
<td>152</td>
</tr>
</tbody>
</table>
Table 19

Summary of the Beta Weights (Family Income) and Significance of the Covariates

<table>
<thead>
<tr>
<th>Covariates</th>
<th>B</th>
<th>Beta</th>
<th>Standard Error</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>-6627.13</td>
<td>-0.1188</td>
<td>1678.479</td>
<td>-3.9483</td>
<td>.000</td>
</tr>
<tr>
<td>Sex</td>
<td>-2811.92</td>
<td>-0.0505</td>
<td>1573.582</td>
<td>-1.7870</td>
<td>.074</td>
</tr>
<tr>
<td>Mother's</td>
<td>599.07</td>
<td>0.0595</td>
<td>335.955</td>
<td>1.7832</td>
<td>.075</td>
</tr>
<tr>
<td>Father's</td>
<td>825.75</td>
<td>0.1102</td>
<td>254.850</td>
<td>3.2401</td>
<td>.001</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-19040.15</td>
<td>-0.3413</td>
<td>1637.762</td>
<td>-11.6257</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 20

Summary of ANCOVA for Annual Family Income by Track Placement.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F-Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track</td>
<td>2</td>
<td>7.31E+09</td>
<td>11.64</td>
<td>.0001</td>
</tr>
<tr>
<td>Regression</td>
<td>5</td>
<td>3.09E+10</td>
<td>49.23</td>
<td>.0001</td>
</tr>
<tr>
<td>Error</td>
<td>1019</td>
<td>627658570</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ANCOVA procedure revealed that track placement was not significant in predicting levels of pay. Race was the only covariate to produce a statistically significant beta weight. (See Tables 21, 22 &23)
### Table 21

**Observed Means and Adjusted Means (Hourly Payrate) for Covariates by Track**

<table>
<thead>
<tr>
<th>Track</th>
<th>Observed</th>
<th>Adjusted</th>
<th>Difference Between Observed &amp; Adjusted Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>$12.50</td>
<td>$12.28</td>
<td>-.22</td>
</tr>
<tr>
<td>General</td>
<td>$11.06</td>
<td>$11.10</td>
<td>.04</td>
</tr>
<tr>
<td>Voc./Comm.</td>
<td>$11.18</td>
<td>$11.35</td>
<td>.17</td>
</tr>
</tbody>
</table>

### Table 22

**Summary of the Beta Weights (Hourly Payrate) and Significance of the Covariates.**

<table>
<thead>
<tr>
<th>Covariates</th>
<th>B</th>
<th>Beta</th>
<th>Standard Error</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>-454.70</td>
<td>-.1112</td>
<td>138.60</td>
<td>-3.28</td>
<td>.001</td>
</tr>
<tr>
<td>Sex</td>
<td>-101.85</td>
<td>-.0248</td>
<td>130.26</td>
<td>-.78</td>
<td>.434</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>-13.29</td>
<td>-.0180</td>
<td>28.30</td>
<td>-.47</td>
<td>.639</td>
</tr>
<tr>
<td>Father's Education</td>
<td>13.39</td>
<td>.0240</td>
<td>21.92</td>
<td>.61</td>
<td>.541</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-62.39</td>
<td>-.0153</td>
<td>134.79</td>
<td>-.46</td>
<td>.644</td>
</tr>
</tbody>
</table>
Table 23

Summary of ANCOVA for Hourly Rate-of-Pay

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F-Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
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<td>Track</td>
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<td>1412158.1</td>
<td>.34</td>
<td>.711</td>
</tr>
<tr>
<td>Regression</td>
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<td>12986962</td>
<td>3.14</td>
<td>.008</td>
</tr>
<tr>
<td>Error</td>
<td>986</td>
<td>4138523.9</td>
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</tbody>
</table>
CHAPTER V
REVIEW AND SUMMARY OF
MAJOR FINDINGS

Introduction
The practice of ability grouping, or tracking as it is commonly called, is firmly entrenched in the American educational system. As stated earlier in this study, ability grouping grew out of the concern influential people, like government officials and businessmen, had about the massive numbers of immigrants who were coming to America at the turn of the century. These people came for a variety of political and economic reasons. These immigrants came disproportionately from southern and eastern Europe. Their number included a high percentage of Jews and Catholics, making them demographically different from earlier protestant immigrants who came primarily from northern and western Europe. It was feared that these newer, "different" immigrants lacked the intellectual, cultural and indeed moral tools to function in the same classroom as the children of the older immigrant groups. There was a general consensus that schooling was necessary if the newcomers were to be socialized into American society with a minimum amount of disruption and effort. They had to attend school, it was reasoned, but
they did not have to be exposed to the same curriculum. The knowledge they received would not have to be of the same quality. Quality education for all children was given lip-service, it was not a reality.

This was especially true of the new so-called "comprehensive" high-schools that were being created at the time. These new high-schools, according to McLaren (1988):

"emphasized curriculum differentiation in the form of tracking and homogenous grouping. Social Darwinism provided legitimacy to the notion that ethnic minorities and the poor were lower on the evolutionary ladder and less fit in moral development than the dominant Anglo-Protestant majority. Coupled with a growing concern for preserving the Anglo-Saxon culture against the "depravity" of the expanding immigrant population, Social Darwinism thus provided a foundation for the trend toward "Americanization", which eventually came to dominate the school curriculum"(p. 49).

Almost one-hundred years later the practice is alive and well.

MAIN FINDINGS

Much of the literature on tracking, whether it was produced by supporters or detractors, deals with the effects of race on track placement. Similar to other research, this study uncovered different rates of track assignments due apparently to race. The chi square procedure revealed that there was a statistically significant relationship between track placement and race. In the academic track it was found that white students had a 36.9% placement rate compared to the 31.4% placement rate for African-American students,
a rate difference of 5.4%. Among general track respondents we see somewhat similar rates of placements, 48.4% for white students and 51.5% for African-American students, a rate difference of 3.1%. Again, among the vocational track, we have rates of placement that are not very far apart, 14.7% for white students and 17.1% for African-American students. Note that this is the only category where the rate for African-American students is greater than the white student rate. It must be remembered that all the cases in this study were high-school graduates.

Kershaw (1992) believes that the less supportive atmosphere surrounding the lower tracks causes students placed there to be at a higher risk of dropping out. Because some form of tracking can begin in primary school, many children may have been “forced” out before they reach or complete high-school. McLaren (1988) concurs, “It is safe to assume that the degradation students experience in the lower tracks significantly contributes to the growing instances of dropping out of school” (p. 50). McLaren also points out that “Dropping out is not evenly distributed racially, economically, or geographically. Among 20- to 24-year olds, the drop-out rate proportion for Hispanics is 40.8%, for Blacks, 23.2%, for whites 14.6%” (p. 50). The students that dropped out would most likely have been placed in the vocational/commercial track or the general track. This would have widened the rate gap between African-American and white students.

I must admit that when the results were first analyzed, I was a little surprised that there was only a 5.4% differential between blacks and whites in the rate of placement within the academic track.
Yeakey and Bennett (1990) report that in 1980 blacks and whites were placed in the academic track at the rate of 32% and 42% respectively, a difference of 10%. Does the reduction of the placement rate-gap from 10% to 5.4% mean that there are now more black children receiving high quality instruction? Are they now being prepared for a successful stint in higher education? Initially one would be tempted to view this as a sign of positive change, that discriminatory practices are now on the wane. But according to Oakes (1994), caution should be exercised. She argues that high-schools in wealthy white suburban areas and high-schools in low income minority areas are similar in structure. They both offer college prep courses and programs and non-college courses and programs. This is where the similarity ends. Students in the two types of schools score differently on conventional tests of academic ability. The test means are higher for the suburban schools than they are for the low-income schools. In other words, there are students in the low-income schools placed in their school's academic track who could not meet the criteria in the suburban schools to be placed in the same track. Oakes (1994) explains, "because these schools need to fill a requisite number of 'slots', some of these students are enrolled in the academic tracks at their schools" (p.88). This is why care must taken when aggregate data are analyzed. In a study of racially mixed schools, Oakes (1994) found that after controlling for achievement, there is:

"clear evidence of discriminatory placements, with white and Asians considerably (and statistically significantly) more likely to be placed in academic classes than comparably achieving African-American and Latino students. In these systems the average achievement of
African-American and Latino students was lower than that of whites and Asians. However, substantial discrimination against even high-scoring minorities skewed the racial composition of classes beyond what would have been the case had track placement been made by an unfailingly strict adherence to achievement as criteria" (p. 88).

Since tracking bestows upon some students the type of knowledge necessary to negotiate the higher levels of the educational establishment, the above statement takes on added significance in terms of fairness and equity.

Just a cursory glance at the data dealing with higher education and tracking clearly shows the advantages of being in the academic track. Nearly 40% of the students in the academic track attained at least a bachelors degree. Compare that to the 9.3% in the general track who had the same level of achievement. Only 7.7% of the students from the vocational/commercial track, one-fifth the number from the academic track, received at least a bachelors degree.

Quite frankly these numbers should not be that surprising. After all, the purpose of the academic track is to prepare students for the rigors of higher education. What makes these numbers particularly disturbing is the way in which these "educational resources" are allocated and how the allocation decision is made.

"Tracking systems are cumulative; they do not start in high-school but at the elementary level. Tracking systems are designed to help prepare students to reach their fullest potential relative to their contribution to society....Once students are tracked into a curriculum, they take classes that ensure they will remain in that track. The longer students remain in a particular track, the harder it is for them to move into another" (Cashew, 1992, p.159).
If there ever was a catch-22 scenario, this is it. Students are put into a track ostensibly to maximize their potential. But given the type of knowledge and instruction the student is exposed to (rote memorization and worksheets vs. conceptual and analytical thinking), the very education the student is receiving condemns the student to travel along predetermined educational and later occupational avenues.

Being in the academic track also appears to influence the type of employment opportunities presented to respondents. Over 40% of the academic track respondents reported that they held jobs in the professional, technical specialties or managerial category. Only 22.9% of the general track respondents and 19.5% of the vocational/commercial respondents were in that category. Commenting on this phenomenon, Brodbelt (1991) writes:

"tracking has reinforced (deliberately, some may argue) this society's social, political and economic stratification; it has become a mirror as well as a perpetuator of our society's divisions - a contradiction of this nation's basic democratic philosophy of equal opportunity for everyone" (p. 387).

There seems to be some merit to that statement when the data concerning the occupation of the male parent of the respondent are examined. So far we have seen that placement in the academic track tends to open up opportunities in the educational and occupational arenas. That is to be expected. There also seems to be a relationship between track placement and occupation of male and female parent. Almost 40% of the respondents in the academic track had male parents who were in the job category labeled professional or technical
specialties when they were 14 years old. Recall that 40% of the respondents in the academic track were also in the same types of occupations. Not only are the parents, especially male parents, similar to the respondents in terms of occupations, but they are also similar in terms of education. Academic track respondents had better educated mother and fathers. For instance, the mean for their fathers was 12.37 years of schooling. This means that the average father had more than a high-school diploma, in other words they attended some college. Consider the fathers of general track respondents, their mean was 10.43 years of schooling. The average father in this track had almost two less years of schooling, which means that on average they did not finish high-school. The fathers of the track three respondents had roughly the same level of education as the previous group. They averaged 10.31 years of schooling. The pattern is the same, with slight variations, for the mothers of the respondents.

The data show that track placement apparently influences the types of educational and occupational experiences one is likely to have. Given this, it would not be surprising to discover that track placement can also influence the economic status of people. When the variable annual family income is considered, academic track respondents do appreciably better than their general track and vocational/commercial track counter-parts. The average annual family income for academic track respondents was $42,715. It was $28,862 for the general track respondents and $31,593 for the commercial/track respondents. It seems that if one cannot be placed in the academic track, the employment training offered in the
vocational/commercial track would seem to be the next best thing. Using the ANOVA procedure it was determined that at the 0.05 level there were significant differences among the three groups. Using the SNK procedure, the academic track was found to be significantly different from the general and vocational/commercial track at the 0.05 level.

The ANCOVA procedure was then used to parcel out the effects of the covariates (race, sex, marital status, mother's education and father's education). Even after the effects of the covariates were accounted for, there persisted a difference among the incomes. From Table 18 it can be seen that the family income of the academic track respondents dropped by $2281. It rose $1313 for general track respondents and $152 for vocational/commercial track respondents. The movement of the incomes has resulted in less of an income spread. Apparently, even taking into account the statistically significant covariates of race, marital status and father's education is not enough to account for the differences in family incomes that persist. There could well be other covariates that this study has not controlled for that could possibly account for the income disparities.

When the variable hourly rate-of-pay was examined, there were found to be no significant differences in pay-rates at the 0.05 level of significance. The mean for the academic track was $12.28 per hour, the highest rate of the three curriculum groups. The means for the general and vocational/commercial tracks were $10.33 and $10.61 per hour respectively. The student-Newman-Keuls procedure revealed that no two groups are significantly different at the 0.05
level. Again, the ANCOVA procedure was used to parcel out the effects of the covariates. There were still differences, but the distance between the rates lessened. The academic track respondents went from averaging $12.50 per hour to $12.28 per hour, a decrease of $.22 per hour. General track and vocational/commercial tracks gained, they went from $11.06 per hour to $11.10 per hour and from $11.18 per hour to $11.35 per hour respectively. The ANCOVA procedure revealed that the effects of track placement were statistically insignificant at the 0.05 level. The only covariate that proved to be significant in predicting rate-of-pay was race.

Why the significant differences in family incomes and not when it comes to hourly rates-of-pay? One possible explanation could be that the academic track respondents are marrying spouses with higher average incomes than respondents in the other two track, thus increasing average annual family income. As far as the lack of significant differences in hourly rates-of-pay we must consider the youthful composition of the sample. These respondents are all in their 30's, half of them being below the age of 35. Even after some higher education entry level salaries can be low, though in time it is likely that opportunities for advancement with accompanying pay increases is greater for those with more education.

The last of the major findings to be discussed is the poverty rate variable. The poverty rate (9.6%) for academic track respondents was the lowest of the three groups. For general track respondents it was almost twice (18.7%) that. For the
vocational/commercial track respondents the rate was more than twice (19.6%) the rate for academic track respondents.

DISCUSSION

It has been noted earlier in this study that ability grouping (tracking) has been a part of the educational process for almost one-hundred years. New math has come and gone. So have classrooms without walls. Racial integration has been tried with varying degrees of commitment and success. Contrast these changes with the practice of tracking. Tracking seems to be the one educational "experiment" that has withstood the "test of time". Even in the face of mounting evidence that the practice has not lived up to its claims, tracking remains a seemingly permanent fixture on the educational landscape. We must ask, why? I believe the answer has more to do with the nature of the American socio-economic system and the ideology that supports it, than any inherent validity of the practice itself.

Many people in this country, from politicians and other influential people to the so-called person in the street, pay lip service to the ideas expressed in the phrase, "all people are created equal". The reality of 20th century American society may be best reflected in another phrase which is a slight alteration of the above. One of the characters in George Orwell's ANIMAL FARM comments that though everyone is equal, some are more equal than others. Just a cursory
glance at some of the popular literature and works by "respectable" academics makes it clear that the Orwell character expressed ideas that are gaining in popularity and acceptance. These ideas were always present in this society, it is just that at certain times they take on more credibility than at other times.

In the August 29th, 1994 issue of *TIME* magazine, excerpts from William A. Henry's new book, *IN DEFENSE OF ELITISM*, appeared. Henry was a theater critic for *TIME* magazine. Under the guise of concern for the "great economic costs on the American people" caused by increased college enrollment, Henry launches an attack on the "quotidian masses" who dare to continue their schooling past the 12th grade. Henry expresses concern that President Clinton, overcome by waves of egalitarianism, is committed to doing "too much to entice people into college". He calls for "sharper divisions" between academic and vocational curriculum (tracks). With these sharper divisions, Henry believes that the "intellectual also-rans" can be more effectively diverted away from attempting college. He wants the "quotidian masses" herded into vocational track because "that is where most of them are heading in life anyway" (p. 65). Henry wants to reduce the number of high-school graduates attending college and close a number of institutions of higher education. Henry wants higher education "confined to those who displayed the most aptitude for lower education" (p. 64).

Another piece of work receiving a great deal of attention in the popular and academic press is *THE BELL CURVE*. The book, authored by Charles Murray and Richard J. Herrnstein, purports to offer a
"sober" discussion of race, intelligence and class structure in the United States. Essentially the authors put forward the idea that class structure in America can be largely explained by I.Q. They argue that the way society is structured is dictated by nature. I assume any attempts to change that structure would be considered unnatural. To be sure the book had its detractors, but it did have its defenders and an audience that wanted validation for deeply held beliefs. The National Review, a conservative magazine published by William Buckley, was quoted in THE BELL CURVE WARS (Fraser, 1995) as stating that THE BELL CURVE:

"confirms ordinary citizens' reasonable intuition that trying to engineer racial equality in the distribution of occupations and social positions runs against not racist prejudice but nature, which shows no such egalitarian distribution of talents" (p. 1).

These are the ideas that gave rise to tracking, and these are the ideas that sustain the practice in the face of mounting evidence that tracking does not live up to its claims.

It is politically expedient to lay blame for society's failure (why Johnny cannot read) at the feet of the victims, hinting, sometimes not so subtly, that they are somehow inadequate, genetically, culturally or both. These people lack the "ability" to go out and succeed the way others have. Shell (1994) hints that this impulse to blame the individual first might be peculiar to American society:

"In Europe, every student is expected to get through math, and that expectation reflects the way that subject is taught..." If European students have a hard time with a subject "the teacher looks back at
the way it's being taught to find the problem; they don't assume that the kids can't handle it” (p. 64).

It would be beneficial to this society if efforts were directed at gaining a deeper more meaningful understanding of the many social ills that it must face. Social antagonisms only deepen when blame is affixed to the victims, in effect making them responsible for the problems that impact their lives.

IMPLICATIONS FOR SOCIAL WORK

Shapiro (1984) believes that in the schools you will find:

“tensions that have always pervaded bourgeois democratic ideology-between the imperative of a hierarchical and bureaucratic social order which regulates human behavior and experiences on the basis of class, sex, race, age, etc.... and the promise held out by the ideology for individual freedom, autonomy, and self-determination” (p. 369).

In the same vein, Paulo Freire (1973) maintains that while schools have many functions, they serve to maintain “social and economic stratification”. Earlier in this study the general track, the most populous of the three tracks, was referred to as a holding tank (Braddock & Dawkins, 1993). These hardly seem the places where every student is valued as they are assisted in maximizing their potential. Rather, it appears that assumptions about ability and worth have predetermined the road that some students will travel. Because of this reality, McLaren (1988) worries that teachers will one day become no more than “clerks of the empire”, having succumbed to the demands that the economy places on schools coupled with the unidimensional way students are assessed.
Though McLaren was referring to teachers, his concerns should also be the concerns of social work in general and school social workers in particular. The NASW code of ethics clearly states that the profession has an obligation to advocate changes in policy and legislation to improve social conditions and promote social justice and to work to expand choice and opportunity. Tracking, especially when it comes to already disadvantaged groups, stifles choice and opportunity. This study shows that the variables father’s education, race, and track placement can greatly impact the life chances of a student. These variables can influence the type of education one is exposed to, which determines the likelihood of post-secondary education which influences the type of job opportunities one will have. Tracking is a prime example of how ideas can become a material force in society. One of the roles social workers have is that of advocate. I believe that the profession does a disservice to countless school children if this policy is not forcefully challenged. Otherwise, we are reduced to being mere “clerks of the empire”.
REFERENCES


119


