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PRIVATE AND SOCIAL BENEFITS OF THE COLLEGE DEGREE FOR BLACK
MALES 1962 - 1970: A SAMPLE STUDY OF GRADUATES OF THE CITY
COLLEGE OF NEW YORK AND HOWARD UNIVERSITY

by

HERBERT KATZENSTEIN

A dissertation submitted to the Graduate
Faculty in Economics in partial fulfillment
of the requirements for the degree of Doctor
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1972

This manuscript has been read and accepted for the Graduate Faculty in Economics in satisfaction of the dissertation requirements for the degree of Doctor of Philosophy.

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CONTENTS

	Page
ACKNOWLEDGEMENTS.....	iv
LIST OF TABLES.....	vi
LIST OF GRAPHS.....	viii
 Chapter	
I. INTRODUCTION.....	1
Objective.....	1
Source of the data and methodology.....	7
II. REVIEW OF LITERATURE.....	18
III. PRIVATE BENEFITS AND SOME DETERMINANTS OF THE VARIATION IN 1970 INCOME FOR THE BLACK AND WHITE MEN OF CCNY AND HOWARD, 1962 - 1970.....	29
Benefits of a college degree to black and white male baccalaureates.....	29
Factors influencing the income of white and black male college graduates of CCNY and Howard in 1970.....	35
IV. OCCUPATIONAL DISTRIBUTIONS.....	48
V. COMPARING BLACK AND WHITE MALE GRADUATES OF CCNY AND HOWARD ON SOCIO-ECONOMIC VARIABLES.....	59
IV. CONTRIBUTIONS OF MALE COLLEGE GRADUATES TO THE BLACK GHETTO.....	78
Effects of income gains made by black males having a college degree from CCNY or Howard on the black ghetto in 1970.....	78
Private and social effects of the mean expenditures made by the male baccalaureates of CCNY and Howard and their families in 1970.	84
VII. SUMMARY.....	89
APPENDIX.....	96
BIBLIOGRAPHY.....	99

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LIST OF TABLES

Table	Page
1. Number of Respondents to Questionnaire by Year Graduated and Percentage of Howard University Black and the City College of New York Black and White Male Baccalaureates.....	9
2. First and Second Generation Income Benefits from First Generation's Improved Education.....	23
3. Annual Mean Income on First Job and 1970 Mean Income and Significance by Year Graduated of the Black and White Male Baccalaureates of Howard University and the City College of New York.....	31
4. Coefficients, (Standard Errors), T Ratios and Significance for 1970 Income of the White and Black City College of New York and Black Howard University Male Graduates 1962-1970.....	38
5. Coefficients, (Standard Errors), T Ratios and Significance for 1970 Income of the White Male City College of New York Graduates 1962-1970.....	42
6. Coefficients, (Standard Errors), T Ratios and Significance for 1970 Income of the Black Male CCNY and Howard Graduates 1962-1970.....	43
7. Percentage Distribution and Changes in Occupations of CCNY White Male Baccalaureates versus Howard Black and CCNY Black Male Baccalaureates from 1962-64, 1966-68 to 1970 Jobs (including 1970 Graduates).....	49
8. Percentage Distribution and Changes in Occupations (including Lawyers and Army Personnel in different classifications than Table 7) of CCNY White and Black and Howard Black Male Baccalaureates from 1962-64, 1966-68 to 1970 Jobs.	53

LIST OF TABLES--Continued

Table	Page
9. 1971 Residence in Percentages and Numbers of the Black and White Male Baccalaureates of CCNY and Howard, 1962-1970.....	60
10. Approximate Black-White Ratio of Neighborhood where the Black and White Baccalaureates of CCNY and Howard Resided in 1970.....	62
11. Cumulative Percentages of Average Number of Years Black and White Males of CCNY and Howard Attended College for a Baccalaureate Degree, 1962-1970.....	70
12. Cumulative Percentages of Average Number of Hours per Week Black and White Male Baccalaureates of Howard and CCNY Spent Working (including Summers) while Attending College, 1962-1970.....	72
13. Cumulative Percentages of Average Earnings per Year and Average Expenditures per Year of the Black and White Male Baccalaureates of Howard and CCNY, 1962-1970, while Attending College.....	74
14. View of Advancement Opportunities with 1970 Firm for the Black and White Male Baccalaureates of CCNY and Howard of 1962-1970, in Percentages.....	76
15. Percentage of Black and White Male Baccalaureates of the City College of New York and Howard University of 1962-1970, Who are Helping the People of the Black Ghetto in 1970.....	79
16. Percentage and Amount of Funds Donated to Black Organizations by the Black and White Male Graduates of the City College of New York and Howard University, of 1962-1970, of those Contributing, 1970.....	82
17. Mean Amounts Spent on Goods and Services and Percentage of each Spent Locally by CCNY White and Black and Howard Black Male Baccalaureates and Families (if any) in 1970.....	85

LIST OF GRAPHS

Graph	Page
1. Percentage Distribution and Changes in Occupations of the White and Black Male Graduates of CCNY and Howard from 1962-64 to 1970.....	54
2. Percentage Distribution and Changes in Occupations of the White and Black Male Graduates of CCNY and Howard from 1966-68 to 1970.....	55
3. Percentage of 1962-70 Black and White Male Baccalaureates of CCNY and Howard Migrating to White Neighborhoods.....	63

CHAPTER I

INTRODUCTION

OBJECTIVE

The purpose of this study is two-fold. First, it is to determine if the upgrading of the educational level for black males, i.e., the investment in a baccalaureate degree in the sixties, is the critical factor to raise their income. The writer contends that blacks with college degrees have made a significant break-through into the professional occupations in 1970 compared to the previous years. Has this rise in the occupation structure led to income-augmenting gains, such as higher initial offers, upgrading of career, and increasing opportunities? The writer believes that the aforementioned benefits have accrued to black male baccalaureates in 1970.

Secondly, the writer wants to see if income gains made by black male college graduates have affected the "black ghetto", either in a "spread" (stimulating) effect or in a "backwash" (unfavorable) effect. According to Lampman, "a

broad approach to the elimination of poverty is to make progressively greater investment in improving the abilities and motivations of the poor."¹ "Society (is) desperately in need of moral and empirical guidance in human affairs. . . . In the complex of the Negro ghetto, . . . success feeds hope and provides the strength and the motivation for further activity."²

Are those black who have 'made it' helping their brothers in the ghetto or have they simply migrated into a higher social income area leaving their former area of residence worse off? Do Institutes of Higher Learning serve as an important factor in increasing economic benefits to nonwhites who did not attend them? Is a college degree for one person the factor which provides other ghetto inhabitants with the steps to economic mobility as well as benefits?

Another effect of the earlier mentioned assessment is that some black male baccalaureates working in 1970 receive as part of their wages, a "pure economic rent".³ That is, a certain part of their income is simply based on color plus education.

This monograph is different from others in that it focused on a sample of black college graduates, today. A

¹Lampman, Robert, J. "Approaches to the Reduction of Poverty", American Economic Review, Vol. 55, May 1965, p. 529.

²Clark, Kenneth B. Dark Ghetto, Harper & Row, Publishers, New York, 1965, pp. XXI and 15.

³Marshall, Alfred, Principles of Economics, The MacMillan Company, New York, 1961, Book VI, Chapter V.

variety of factors expected to explain earnings have hopefully been derived. The data on an individual is not available anywhere else and therefore up-to-date data was obtained from a questionnaire. The sample size for nonwhites (211) used in this study was larger than the one used by the CPS of the Bureau of the Census in their March and April 1967 study.⁴ The approach here is a pioneer effort in that various determinants which effect the earnings of a male college graduate are being derived from that individual, and in that the information gathered is not derived from various sources. For example, data on the current income, parents occupation, current and previous region of residence and employment, size of firm employing the individual, self-employment, college major, contributions, if any, he is making to a black ghetto and many others were reported by that individual at one time.

The plan of the paper is the following. Chapter I focuses on the basic approach of this paper including definitions and concepts. Chapter II reviews current literature on the changing opportunities and benefits of a college education to nonwhite males. Chapter III will present the direct benefits and the factors influencing the income of white and black male college graduates of the City College of

⁴Reed, Ritchie H. & Miller, Herman.P. "Some Determinants of the Variation in Earnings for College Men", Journal of Human Resources, Vol. V. Madison, Wisconsin, Spring 1970, pp. 177-190. The sample size of nonwhite male college graduates there was 115.

New York and Howard University in 1970. The aforementioned uses a profile review to determine changes in time series movement of the white and black male baccalaureates of 1962-1970, through analysis of variance. It starts with initial salaries in 1962 and concludes with 1970 annual incomes. To show how much of the variance in annual income can be explained by specific variables, multiple regression techniques were employed. Chapter IV examines occupational distributions and changes from 1962-64 and 1966-68 to 1970 jobs. Chapter V compares black and white male graduates of the City College of New York and Howard University on socio-economic variables. Chapter VI contains the effects of income gains made by the black Males having a college degree from the City College of New York and Howard University on the black ghetto in 1970. Thereafter, the private and social effects of the mean expenditures made by the male baccalaureates of this study and their families in 1970 are covered. Chapter VII states the summary of findings.

In this study specific answers were sought to the following questions.

1. How did annual starting salaries for white and nonwhite college male graduates compare in 1970 and in earlier years? Presently one of the scarcest resources is blacks with baccalaureate degrees, especially in engineering.
2. Which of the various professional occupations today provide the most benefits to black college graduates? Benefits here implies higher earnings, greater opportunity

for advancement, direct upward movement within the department or cross-hopping to better positions in other departments.

3. Did firms change their treatment of college educated minority groups in 1970 in hiring and income offered, *ceteris paribus*? Among the reasons for this might be a decrease in discrimination by firms, and new government regulations forestalling discrimination.

4. Is it to be expected that a percentage of nonwhites were simply hired for 'show', i.e., that they were placed in positions which have no future or given a title without specific duties so that firms could discharge their social obligations while advising the community that they employ minorities. Question J in the questionnaire on the nature of position in relation to the respondent's future with the firm has hopefully shed some light on this situation.

5. Will the data show that nonwhite graduates are less likely to migrate out of their native area than whites? If they do move, will it be to other large urban centers and to similar neighborhoods (i.e., to local ghettos)? Do spatial differences in income distribution imply that people of different races with similar earnings are tending to live near each other and have similar tastes? Will the data show an increase in segregation but a decrease in discrimination in business?

6. Have there been changes in the job search process? Since more nonwhites are in executive positions, are they helping or guiding other nonwhites?

7. Have those black males who have benefited from their college degrees, i.e., in income, position, and opportunity options, undertaken roles which tend to help other blacks in need? If so, what specific good did the less able blacks gain? Do nonwhite male college graduates provide employment, income, leadership and/or other contributions to the ghetto?

A more thorough study should be made of the relation between market discrimination against a group of non-whites and their importance in the productive process. ... since discrimination rises with education, an increase in the education of non-whites may increase only slightly their incomes relative to those of whites. ... How has the absolute and relative position of Negroes changed over time?

Gary S. Becker

SOURCE OF THE DATA AND METHODOLOGY

The purpose of this study was to determine the private and social benefits (to the ghetto) of the college degree for black males (versus whites) of the City College of New York (CCNY) and Howard University (Howard) in a longitudinal study.

A pilot sample of 150 males of the 1965 and 1969 Howard graduating classes was taken during the first week in October 1970 excluding the questions on the last page of the present questionnaire. It was made up of two sheets using both sides. Within a month of the mailing of the questionnaire a 35 per cent response had been received. All of the respondents in this sampling answered the questions on income. Since that mailing, many of the questions have been revised and new ones added. (See Appendix.)

Out of a total mailing of 2,253 questionnaires sent to the 1962, 1964, 1966, 1968, 1970 male baccalaureates of CCNY and Howard, 408 responded with 394 usable replies, which is

a 17.5 percentage. 1814 questionnaires with a prepaid postage reply envelope were mailed May 14, 1971 with the balance being sent out during a 5 week period. 11.5 per cent responded within the first three weeks, a period that included a one week mail strike.

Questionnaires went to all of the male undergraduate degree recipients of the Howard classes of 1962, 1964, 1966, 1968 and 50 per cent of the 1970 class. The names of the students were obtained from a March 1971 Alumni print out listing all of the graduates over the years. Commencement bulletins of the required years helped in identifying students. 141 useful returns were received from Howard graduates, all from black males, (see Table 1.) which is a 13.3 per cent response rate. This relatively low response of returns was probably caused by another questionnaire mailing to Howard graduates, at the same time as this one, by Richard Freeman (21), an economist of the University of Chicago.

At the City College of New York a sample of 190 male names from every two year period of the 1962-70 graduates was chosen. This came to approximately 5 per cent of the 1970 male baccalaureates and approximately 8 per cent of the other years. 183 white males returned usable questionnaires, which is 19.3 per cent. In addition, 70 returns were obtained from the black and Puerto Rican graduates of CCNY of the 1960 decade which is a 28 per cent response rate. Approximately 250 questionnaires had gone out to these nonwhites. Their

TABLE 1
 NUMBER OF RESPONDENTS TO QUESTIONNAIRE BY YEAR GRADUATED AND
 PERCENTAGE OF HOWARD UNIVERSITY BLACK MALE AND THE CITY COLLEGE
 OF NEW YORK BLACK AND WHITE MALE BACCALAUREATES

Year Graduated	Howard Black		CCNY Black		CCNY White	
	N	Pct	N	Pct	N	Pct
1962	34	24	21	30	56	31
1964	30	21	10	14	40	22
1966	21	15	11	16	32	17
1968	23	16	15	21	31	17
1970	33	23	13	19	24	13
Total	141		70		183	

names were obtained partly by going through Microcosm, a graduation booklet of CCNY, published each year with the pictures of the graduates, and by selecting names from a 1971 master list using zip codes of Harlem, Brooklyn and Queens. All of the questionnaire mailings were limited to the United States.

Howard University was chosen for this study since it contains the largest number of black students, draws students from all over the United States, and because the list was made available. Most of the other colleges have such a small percentage of black graduates that the resulting numbers would have been insignificant. In addition, other black colleges are mainly teacher training oriented.

One of the hypotheses the writer wanted to test was, "black males with a college degree have made a significant break-through into the professional occupations in 1970 compared to the previous years of the sixties". Has this rise on the occupation structure led to income augmenting gains, such as higher initial offers, improved 1970 earnings (relative to whites), an upgrading of careers, higher occupation status, and increasing opportunities due to decreased discrimination? A historical study of three cohorts, i.e., black and white male baccalaureates of CCNY and black male graduates of Howard of the 1960 decade was made. This study is different from other monographs, in that they use cross-sectional data, e.g., Hanøch (24), Harrison (28), Reed & Miller (39), Weiss (58) and Zeman (61).

Initially a profile study was conducted to determine any changes in time series movement in the data, i.e., whether initial salary offers to black male college graduates have improved in the late sixties relative to the earlier sixties.

What percentage of nonwhite male baccalaureates see a future with their present firm? Question J in the questionnaire provided some of the answers regarding great, some or no opportunities for advancement.

Economists such as Fein (20), Harrison (28), Ribich (40), and Weiss (58) state there is insignificant or no relationship between black education and earnings. This study has attempted to demonstrate that a college degree is of prime importance to black male earnings. According to Becker "discrimination against Negroes seems to be positively correlated with their relative number. ... discrimination may be caused by ignorance, and contact may eliminate this ignorance"¹ To get a better insight into this question, a review as to the method of initial job securement for black male baccalaureates relative to white baccalaureates was made during the sixties. It is expected that a multiplier effect is at work here. First, there has been a decline in discrimination in the late sixties due to social conscience and not due to economic reasons. However, thereafter it becomes economic, in that management has found that black baccalaureates are intelligent, skilled and highly motivated and could be hired at less than marginal revenue. These

¹Becker, Gary S. The Economics of Discrimination, The University of Chicago Press, Chicago, 1957, pp. 123-4; Introductory statement, pp. 125,130.

people would not have been hired without a college degree. This thought follows Harrison's suggested sequential employment process.² Initially an education, training, race, and sex lead to an occupation. Thereafter, occupation, race, and sex lead to a job title.

To determine which characteristics can explain the relatively better 1970 salary for black male baccalaureates, versus white male college graduates, the aforementioned dependent variable is to be regressed on specific independent variables following the Reed and Miller study.³ The independent characteristics were the following:

log Y = f(marital status, age in 1971, years of experience, self-employment, college, college major, college average, color, years attending undergraduate college, method of securing job, employer firm size, black-white ratio of neighborhood where respondent resided in 1970, high school residence, residence by size of city, occupation of father and mother).

Those variables which added little to the models' explanatory powers were either eliminated or combined.

²Harrison, Bennett, "Education, Training, and the Urban Ghetto," unpublished Ph.D. dissertation, University of Pennsylvania, 1970, p. 39.

³Reed, Ritchie H. & Miller, Herman P. "Some Determinants of the Variation in Earnings for College Men", Journal of Human Resources, University of Wisconsin Press, Madison, Spring 1970, pp. 177-190.

An important bias must be considered which is the omitting of variables, such as individual ability and motivation. This data is not available to the writer on the individuals and schools involved in this study. Possible indicators to explain differences in ability might be the variables, college average and/or college attended. Yet it takes quite some motivation for blacks to finish college due to the high investment.

Some of the explanatory factors for ~~men~~ 1970 annual salaries for black male baccalaureates on such items as field of specialization, color, current region of residence, high school residence, and parent's occupation are to be compared to the Reed and Miller results for 1966. Have there been any significant changes?

The second major hypothesis the writer studied was "whether income gains made by black male college graduates have affected the 'black ghetto', either in a 'spread' (stimulating) effect or in a 'backwash' (unfavorable) effect." Various studies have been done on the rate of return of education (Becker, Ribich, Weisbrod, and Schultz). Harrison "estimated the 'payoff' to investments in the human capital of nonwhite urban workers, taking explicit account of whether they live in a core city ghetto, ... in the non-ghetto central city, or in the suburban ring."⁴ Weiss,

⁴Harrison, Bennett, Ibid., Abstract.

Weisbrod, Ornati and Hansen studied the problem of migration of college educated persons.

This monograph is different in that it focuses on specific external effects of a college degree of black males of CCNY and Howard on the black ghetto. It is an important problem in that policy makers should know what proportion of the cost of higher education should be borne by the students and by the public, i.e., all taxpayers. If the social benefits to the black ghetto or the state are greater than to the individual, the public might choose to pay a larger share.

This writer initially will attempt to come up with specific quantitative information on the value of a black man's baccalaureate degree to the black ghetto. What percentage of black men with a college degree are helping their brothers in the ghetto? To which social benefits do they contribute? "Social benefits" here refer to employment, income, investment, leadership, advise, decision-making and monetary donations to one's family, organizations and other people living in the black ghetto.

The economic theory of external social effects is well established, however few empirical studies have been made of it. Hansen, Ribich, and Weisbrod have studied social benefits in relation to higher education. According to Hansen and Weisbrod institutes of higher learning "develop a sense of citizen duty in people, Education provides access to a wide range of options and opportunities that might otherwise be closed off to certain segments of our society."⁵

This monograph shows that a college degree for black males will help a subset of society, i.e., the black ghetto.

Further, the ghetto receives external income benefits from its sons who have received a college degree. Question Y in the questionnaire regarding approximate amount spent on goods and services by the baccalaureates in their neighborhood will provide a part of this answer. The question is raised; whether segregation is still with us and whether there is a significant percentage of college graduates who are currently living in the ghetto? This is based on zip codes of the alumni of CCNY and Howard in 1970. In what amounts and proportions do they spend their money in the ghetto?

Currently there is a great push for providing equal educational opportunities for all, such as the Open Enrollment program in New York City. Who will bear the cost? Who are the beneficiaries? What are the returns to the local, state and federal governments based on taxes? Hansen and Weisbrod state that for "a student (who) graduates from a four-year public college or completes less than four years, the additional life-time taxes he pays have a present value which averages less than the higher-education subsidy he received. We want to caution against taking these results at face value and basing policy directly upon them,"⁶ If black

⁵Hansen, W. Lee and Weisbrod, Burton, A. Benefits, Costs and Finance of Public Higher Education, Markham Publishing Company, Chicago, 1969, p. 37.

⁶_____, Ibid., p. 59.

baccalaureates in 1970 have and are given well-paying jobs, then as taxpayers they are sharing in the cost of education. Question Z in the questionnaire on taxes paid by the respondents in 1970 should provide some insight into the aforementioned questions.

In the following paragraphs, reasons will be stated for the use of each of the questions in the questionnaire not previously mentioned. Questions BB, C, CC, CCC, D and DD are concerned with the problem of segregation and mobility. Have blacks left the ghetto as they progressed in education and income? The question on wife's highest degree was included since it was felt that a wife with a higher educational degree will spur her husband on to higher aspirations. Are there enough black woman with college degrees for black male baccalaureates?

Question L is concerned with the level of management for black males. How have they done during the sixties relative to whites? Has there been an increase in the percentage of blacks hired by medium sized and large sized firms over the past decade (Question P)? Does the black-white employment ratio of personnel in firms employing blacks effect their position and income (Question Q)?

All of the aforementioned probes should provide some insight into the possibility of a decrease in discrimination. If the income options and opportunities for black male college graduates have significantly increased in 1970 despite a mild recession than there has

been a significant decrease in discrimination. Where the "break-through" for black male baccalaureates has occurred should be pinpointed by this monograph.

CHAPTER II

REVIEW OF LITERATURE

Most educators are concerned and interested in the "enlightenment and cultural effects" of education, whereas they are often less interested or concerned about the economic effects of education. Economists, however, are mostly involved in the latter. In recent years, there has been a change in this attitude by both groups and a bridging of the two focuses. Bowman states that in Mark Blaug's "The Economics of Education," published in 1964, 91 per cent of the selected bibliographies relating education and economics appeared between 1955 and 1964.¹ The output of monographs on these topics has greatly increased since 1964. In Blaug's 1966 edition, there were 100 additional 1965 publications listed. Studies have been made on human capital, education and its benefits and costs, school-community relations,

¹Bowman, Mary Jean, "The Human Investment Revolution In Economic Thought," Economics of Education 1, M. Blaug, (ed.), (Baltimore: Penguin, 1969, p. 101).

education and poverty, education and its relation to discrimination, economic growth, manpower needs, income and other external benefits. " ... the recent upsurge of attention to the population and human resource problems of the city (is probably related to) ... a greatly altered scale of political tolerances and a new depth of social aspirations "2

Clark states that

The young people in Harlem, in the Negro ghettos of Chicago, Washington, ... and other cities, who persist, in spite of obstacles, in seeking an education, who insist upon going to night school and then the day session of a municipal college, whose parents, friends, or teachers encourage and support them demonstrate that a positive resolution of the ghetto's nuclear conflict is possible. ... To be the first Negro who is offered a job in a company brings a sense of triumph, but also the dread of failure. ... If the occupational level of the community could be raised, one could expect a corresponding decrease in social pathology, in dependency, disease, and crime.³

Black economic progress is closely correlated to national prosperity and general economic growth according to Anderson⁴ and Tobin.⁵ " ... Negroes made dramatic relative gains between 1940 and 1950. Unfortunately this momentum has

²Stolnitz, George J. "The Changing Profile Of Our Urban Human Resources," in Perloff & Wingo, (eds.), Issues in Urban Economics, (Baltimore: John Hopkins, 1969, pp. 187-228).

³Clark, Kenneth B. Dark Ghetto, (New York: Harper & Row, 1965, pp. 13, 19 & 34).

⁴Anderson, W.H. Locke, "Trickling Down: The Relationship Between Economic Growth And The Extend Of Poverty Among American Families," Quarterly Journal of Economics, November 1964, pp. 511-524.

⁵Tobin, James, "On Improving the Economic Status of the Negro," Daedalus, Fall 1965, pp. 878-898.

not been maintained, and the blame falls largely on the weakness of labor markets since 1957."⁶

Yet, it appears that a specific socio-economic group, Negro middle class, is not only making significant progress, but that it has accelerated since 1957. In the same publication as the previous, Moynihan writes that " ... Negro middle class .. has, if anything, rather a preferred position in the job market, ... Between 1954 and 1964, employment of nonwhite professional workers increased from 217,000 to 499,000, a growth of 130 per cent. This increase in employment was far more rapid than for all professional and technical workers in the economy and, as a result, the proportion that nonwhites represent of all professional workers increased substantially during the decade from 3.9 per cent to 5.8 per cent in 1964."⁷

It looks to the writer that this progress for black college graduates has been especially marked in 1969 and 1970, a period of mild recession. Hiestand⁸ made a study of the long-run trends in the occupational patterns of blacks and of woman linked to the growth of fields of employment between 1910 and 1960 with an in depth analysis of the 1940-50 decade. "In World War II (Negroes) made their initial

⁶Ibid., p. 880.

⁷Moynihan, Daniel Patrick, "Employment, Income, and the Negro Family," Daedalus, Fall 1965, pp. 747 & 752.

⁸Hiestand, Dale L., Economic Growth and Employment Opportunities for Minorities, (New York: Columbia University Press, 1964, p. 113).

break-through into the semiskilled occupations."⁸ However, this study shows that nonwhites made their break-through into professional and managerial occupations in 1969-70. According to the March 1969 Current Population Survey (CPS) there was a significant increase for male Negroes in the better paying professional and managerial positions in metropolitan areas in 1969 to 10 per cent of Negro men employed versus 5 per cent in 1960.⁹ Outside metropolitan areas the rise was from 3 per cent in 1960 to 5 per cent in 1969.¹⁰

Most studies conclude that education is beneficial to baccalaureates. Yet, economists such as Fein (20), Ribich (40), Harrison (28) and Weiss (58) are questioning the relative importance of education in accounting for income differences between whites and blacks. Harrison in a study of the Urban Ghetto in 1966 through

multivariate regression analysis showed (1) that ghetto nonwhites lag significantly behind even ghetto whites in terms of economic welfare; (2) That the economic welfare of urban nonwhites is relatively insensitive to variations in intra-metropolitan residential location, although the economic welfare of whites increases substantially with the 'move' from ghetto to non-ghetto central city to suburbs, and (3) that the returns to education for ghetto nonwhites are significant in terms of improved occupational status, nominal in terms of higher wages, and statistically insignificant in terms of reduced probabilities of unemployment¹¹

⁹U.S. Dept. of Commerce, Bureau of the Census, Current Population Reports, Series P-23, No. 33, "Trends in Social and Economic Conditions in Metropolitan and Nonmetropolitan Areas," Washington, D.C., September 1970, Table 48, p. 54.

¹⁰Ibid.

¹¹Harrison, Bennett, "Education, Training, And The Urban Ghetto," unpubl. Ph.D. dissertation, University of Pennsylvania, 1970, Abstract.

Harrison's analysis gives us very little hope for the educated blacks. He states that "the difference in pay between a (well-educated) black professional and less educated blacks may depend a good deal on the relative scarcity of educated blacks. Increasing the number of black professionals by increasing the number of educated blacks--over time-- might reduce the differential between the pay of blacks with different amounts of education"¹²

Weiss writes

For the blacks, ... only one of the four age groups (the 36 - 45 age group) considered gave evidence that years of school or achievement has a significant effect on earnings, and for this one group, years of school explained more of the variance in earnings than did achievement. Not surprisingly, a black has lower earnings than a white with the same number of years in school, and the black's lower achievement does not account for this differential.

These results suggest that improving and increasing the education of blacks will not necessarily raise their earnings. Intensive efforts to improve the quality of schools may, in fact, increase inequality by enhancing the economic position of whites while affecting blacks very little. ... The ambiguous role of education for the black is an important part of his tremendous economic difficulties.¹³

In 1966 according to Reed and Miller nonwhite college graduates were found to have a significantly lower average earnings of over \$2,400 per year than whites. This

¹²Ibid., p. 56.

¹³Weiss, Randall D., "The Effect of Education on the Earnings of Blacks and Whites," Review of Economics and Statistics, May 1970, pp. 155 & 159.

disadvantage remained even when considering such variables as age, college major, and the rank of their college. However, the three aforementioned factors in addition to color explain 13.4 per cent of the earnings variation for men with bachelor degrees and 18.0 per cent for men with master degrees, or a first degree in law, theology, or dentistry. The factor of family background seemed to have almost no effect on earnings.¹⁴ This latter finding is questionable since research done by Morgan & others suggest that family heads who graduate (rather than drop out) raise children who end up going to school 1.1 years longer on the average.¹⁵ This intergenerational benefit is a weapon against poverty even if it results in a low benefit-cost ratio.¹⁶ Ribich in a rough estimate of the pecuniary implications of the intergenerational effects produces the following table.

TABLE 2. First and Second Generation Income Benefits from First Generation's Improved Education¹⁷

Improved Education Begins	Second Generation Income ^a	First Generation Income
Age 15	\$909	\$6,349
Age 4	\$531	\$3,798

^aNet of extra costs for a 2 year education gain by first generation. ^bFor 2 year education gain.

¹⁴Reed, Ritchie H. & Miller, Herman P. "Some Determinants of the Variation in Earnings for College Men," Journal of Human Resources, Spring 1970, pp. 177-190.

¹⁵Morgan, James N. & others, Income and Welfare in the United States, (New York: McGraw-Hill, 1962).

¹⁶Ribich, Thomas, Education and Poverty, (Washington, D.C. Brookings, 1968).

¹⁷Ibid., p. 106.

Ribich somewhat dampens his estimates by stating they are "extremely tenuous (and that) it is probably possible to 'break the cycle of poverty' at many points. An important implication of this is that the calculated second generation benefits attributed to education may not constitute a clear net advantage as compared to direct help. If education does have a net advantage along these lines, it likely is not as great as our calculations suggest."¹⁸

Kee showed that poverty could be reduced through wage improvements arising from inter-occupational mobility.^{19, 20} One of the tools he uses to 'explain differences in poverty' is an 'index of job discrimination' which is defined as follows.

$$I = \frac{\sum_{i=1}^n X_i W_i}{\sum_{i=1}^n Y_i W_i}$$

where

X_i = percentage of SMSA nonwhite workers in occupation i .

Y_i = percentage of SMSA white workers in occupation i .

W_i = median earnings for SMSA white workers in occupation i .²¹

¹⁸Ibid., p. 106.

¹⁹Kee, Woo S., "The Causes of Urban Poverty," Journal of Human Resources, Winter 1969, pp. 93-99. In Kee's interpretation of the data of 36 SMSA's, intra-occupational mobility reduces poverty.

²⁰Saunders, Robert J., "The Causes of Urban Poverty: A Comment on Discrimination," Journal of Human Resources, Spring 1970, pp. 247-248. Saunders states that "Kee is in error in the interpretation of his results. The index he uses shows that the wage improvements stemming from inter- (not intra-) occupational mobility reduces poverty." The writer tends to agree with Saunders.

²¹Kee, Woo S., Ibid.

Becker originally came up with this concept, calling it a 'market discrimination coefficient' (MDC) to explain a 'taste for discrimination'.²² He defines it as

$$MDC = \frac{\pi_w - \pi_n}{\pi_n}$$

where

w = money wage rate of Whites

n = money wage rate of Negroes

The assumption is made "that there are two groups designated by w and n, with members of w being perfect substitutes in production for members of n. In the absence of discrimination and nepotism and if the labor market were perfectly competitive, the equilibrium wage rate of w would equal that of n. Discrimination could cause these wage rates to differ."²³

Welch handles the substitution problem as follows. "If in a given state, the average income of a nonwhite with no schooling is 80 per cent of the average income of a white with no schooling it is assumed that the market functions as though white and nonwhite were perfect substitutes at a rate of 1.0 to 0.8."²⁴

Weisbrod states the real benefits of education attained

²²Becker, Gary S., The Economics of Discrimination. (Chicago: University of Chicago Press, 1957).

²³Becker, Gary S., Ibid. p. 9.

²⁴Welch, Finis, "Measurement of the Quality of Schooling," American Economic Review, May 1966, pp. 379-392.

by the student are "financial return(s) accompanying additional income, ... financial option return(s) and (their) non-monetary opportunity options, ... the opportunities for 'hedging' against vicissitudes of technological change, and ... the non-market benefits ... (such as) the fruits of literacy."²⁵ Weisbrod also reviews the benefits which are external to the student. These are the

(1) residence-related beneficiaries - those who benefit by virtue of some relationship between their place of residence and that of the subject; ... (i.e.,) the children will benefit from his or her education by virtue of the informal education which the children receive in the home. . . the social values developed in part through his education continue to affect his 'neighbors'. ... (2) employment-related beneficiaries - those who benefit by virtue of some employment relationship with the subject; Much of education improves the quality of the labor force (3) Society in general ... becomes somewhat of a residual category of benefits.²⁶

"Black executives urge their white-run companies to put blacks in 'meaningful' jobs, and to key job training to more rapid advancement of blacks. ... Offhand remarks, deliberate slights, awareness that the corporation may want him only as a display-window Negro, remind him of the link, and of the fact that to many of his countrymen he remains not an American but a Negro."²⁷

²⁵Weisbrod, Burton A., External Benefits of Public Education: An Economic Analysis, (Princeton: Princeton University, 1964, pp. 15-28).

²⁶Ibid. pp. 28-39.

²⁷Holsendolph, Ernest, "Middle-Class Blacks Are Moving Off The Middle," Fortune, December 1969, p. 92.

Two studies which did pick up a dramatic change in the discriminatory practices of hiring black male and female college graduates were done by Freeman and the U.S.

Department of Labor. Freeman, states:

... Discrimination against highly educated black workers declined drastically in the period 1955-70, with black female graduates attaining economic equality with whites by the early 1960's and young male graduates attaining equality in the late sixties.

... Black college graduates responded with extraordinary speed to the changed situation, altering their occupational plans in accord with economic incentives.²⁸

According to the U.S. Department of Labor Bulletin 1731:

Opportunities for occupational advancement of black workers have been improving. ... Between 1960 and 1970, the number of black workers in (professional and managerial) ... occupations increased sharply. ... Gains of white workers were smaller proportionally ... In 1970, average earnings of black men were 11 per cent higher, ... than they would have been if the black labor force had not been moving into the better occupations .. Occupational advancement is related to a better prepared black population ... Better educated black workers have been able to fill higher-paid jobs.²⁹

In summary, the majority of the literature analyzed cross-sectional data on the relation between earnings and all levels of formal education, racial and regional differences. The data on nonwhite baccalaureates was either missing or contained very small samples. Only a limited

²⁸Freeman, Richard, Black Elite, University of Chicago, unpublished at this time, chapter 7.

²⁹U.S. Department of Labor, Black Americans, A Decade of Occupational Change, Washington, D.C., Bulletin 1731, March 1972.

number of studies have been done showing the gains in income and occupation structure of blacks during the sixties. This monograph does such a profile study on black male baccalaureates.

CHAPTER III

PRIVATE BENEFITS & SOME DETERMINANTS OF THE VARIATION IN 1970
INCOME FOR THE BLACK & WHITE COLLEGE MEN OF CCNY AND HOWARD.

1962-1970

BENEFITS OF A COLLEGE DEGREE TO BLACK AND WHITE MALEBACCALAUREATES

One of the significant findings of this study came out of the question, "Did nonwhite college graduates in 1970 derive the same initial salary as whites?" Black male graduates of Howard of 1970 received \$10,000 as a median salary as compared to \$9,500 for non-white male CCNY graduates and \$8,500 for white male college men of CCNY. Since it is generally believed that blacks earn less than whites, it appears that the black baccalaureate of 1970 made a significant advance in annual starting salary.

A profile review to determine changes in time series movement of 1962 initial annual salaries paid to black male college graduates and 1970 salary versus those of white male college graduates shows again a significant benefit accruing to blacks. Between 1962 and 1970

60 per cent of the white and 39 per cent of the black respondents had earned higher level degrees. The black and nonwhite 1962 cohorts of Howard and CCNY were combined. In terms of median measure, black male graduates of the aforementioned schools received \$5,500 as a salary in 1962 and were making \$16,000 as a salary in 1970, whereas the white male graduates of 1962 received \$6,000 during their first year of employment and \$15,000 in 1970. Accordingly, blacks started with \$500 less per year in 1962 and ended up with \$1,000 more per year in 1970.

A somewhat different historical perspective becomes apparent when the black male baccalaureates of Howard and CCNY of 1962-1970 are separated and one views their mean annual income. Table 3 portrays the aforementioned, plus that of the whites, and each of their 1970 incomes. Especially noteworthy are those figures which show that the black graduates of both schools had less of an initial annual income in 1962, 1964 and 1966 than the white graduates, while they were almost even in 1968. In 1970 the initial annual income of the black graduates of both schools was greater than that of the whites. However, the only year the difference was significant at the .01 level was 1962. Again, when one views the annual income in 1970 of those males who graduated from CCNY and Howard between 1962 and 1968, blacks from both schools had higher incomes in 3 of the 4 years. Here, again only

TABLE 3. ANNUAL MEAN INCOME ON FIRST JOB & 1970 MEAN INCOME & SIGNIFICANCE BY YEAR GRADUATED OF THE BLACK & WHITE MALE BACCALAUREATES OF HOWARD UNIVERSITY & THE CITY COLLEGE OF NEW YORK

Year graduated	Black Howard (Dollars)	Black CCNY (Dollars)	White CCNY (Dollars)	F'
Income on first job				
1962	5,130	5,660	6,110	5.92**
1964	5,680	5,890	6,200	2.38
1966	5,720	6,000	6,640	0.83
1968	7,290	7,330	7,360	0.01
1970	10,040	9,670	8,050	2.71
Income in 1970				
1962	16,810	15,060	15,120	1.94
1964	13,070	15,500	15,420	4.35*
1966	11,560	12,500	11,420	0.29
1968	10,620	11,000	10,130	0.30
1970	10,040	9,670	8,050	2.71

** significant at .01 level

* significant at .05 level

' all other values were less than significant at the .05 level

one year, 1964, showed significance at the .05 level. Yet, this dramatically displays the lag, tie and break-through in annual income of black male graduates of CCNY and Howard relative to the white male baccalaureate of CCNY.

The result of the increase in annual salary of black male baccalaureates could be due to various reasons. Government regulations require a percentage of nonwhites on the payroll of a firm having a government contract. For a firm to have a good public image in 1970, it must have black men on its staff. Then, of course, there might be an actual decrease in attitudes of discrimination. Some people say, the reason 1970 black male graduates received higher initial salaries in 1970 could be that very few blacks continue with graduate studies, whereas the majority of whites do; that the bright and motivated as well as the not so bright blacks have to go to work, whereas only the not so bright whites do not enter graduate school. Therefore the black college male graduates receives higher pay. This statement is not correct, since in 1970, 19 per cent of the nonwhite males of Howard and CCNY started going for higher degrees versus 13.6 per cent of the CCNY white males who were seeking advanced diplomas. (See Table 7)

The undergraduate degree in engineering was most beneficial to black male Howard University graduates of 1962-1970 with an annual median return of \$15,000 in 1970. This is followed by the physical sciences cohort with an \$11,000 median annual return. City College of

New York black and white male engineering undergraduate degree holders received \$15,500, \$12,000, respectively. Similarly, those in the physical sciences were paid \$12,500. This result agrees with the Reed and Miller study (*Journal of Human Resources*, Spring 1970) which showed that average weekly earnings were highest for engineering baccalaureates (black and whites), followed by those in the physical sciences. This date came from a special supplement to the Current Population Survey of the Bureau of the Census conducted in March and April 1967.

It appears that fields of specialization by Howard students were changed in 1966 and thereafter, with a slight decrease in engineering and increases in business and social sciences. Many students started going for a L.L.B., J.D. or M.D. degrees. Similar shifts were noted for black male students of CCNY but not for the whites. Could this be due to a decrease in discrimination by business firms, a change in social attitude, and medical schools looking for black students?

Again, when it came to an upper level degree, i.e., a master's degree (Level II) or higher, men who majored in engineering, regardless of color, earned a higher median annual income than those majoring in any other field. This does not agree with the Reed and Miller study, where higher degree holders in business and commerce earned more than

those majoring in technical fields. Their monograph covered many prestige business schools, whereas, CCNY does not have a business school since 1965 and Howard has one of limited prestige.

FACTORS INFLUENCING THE INCOME OF WHITE AND BLACK MALE
COLLEGE GRADUATES OF THE CITY COLLEGE OF NEW YORK AND
HOWARD UNIVERSITY
IN 1970

This monograph evaluated the relative importance of some of the factors believed to be affecting income of black-white male college graduates of CCNY and Howard in 1970. The data was investigated using correlations, analysis of variance, and multiple regression techniques.¹

The assumption is made that on the average four year colleges prepare their students equally well for the future on a qualitative basis. Missing in this study is an important factor, ability.² Therefore, the aforementioned factors are to be contained in ceteris paribus so that the determinants of the variation in earnings of the black men from Howard can be compared with those of the City College of New York.

¹ Welch, Finis, Regress, City University Graduate Center, New York, July 1969 version.

² Ability is brought into the analysis, to a minimum degree, in that individual undergraduate averages are being recorded. However, individual scores on "intelligence tests" and college entrance examinations are not available to the writer. Average SAT scores of the 1970-71 freshman class at Howard were 425 verbal, 425 mathematical versus 539:589 at CCNY.

The first experiment fitted the following two regressions:^a

$$(1) \log Y_t = a + bE + cM_s + dS + eO + fA + gM_1 + hM_3 + iM_4 + jM_5 \\ + kM_6 + lM_7 + mCCNY_w + nHoward$$

$$(2) \log Y_t = a + bE + cM_s + dS + eO + fA + gM + mCCNY_w + nHoward$$

where

$\log Y_t$ = individual 1970 annual income of the black and white male baccalaureates from the 1962 - 1970 CCNY and Howard classes. Income went from a low of 0 (unemployed) to a high of \$25,000.

E = years of experience:

9 = 1962 graduates
7 = 1964 graduates
5 = 1966 graduates
3 = 1968 graduates
1 = 1970 graduates

M_s = marital status:

1 = married
0 = single

S = self employed:

1 = self employed
0 = otherwise

O = size of organization:

number of employees

A = age in 1971:

21 = 19 - 23
26 = 24 - 28
31 = 29 - 33
36 = 34 - 38
46 = average over 38

^a In regression runs of numbers (1), (3) and (5) variables M_2 and $CCNY_b$ were deleted in order to avoid linear dependence. This is necessary when one works with dummy variables. For example, coefficient a is made up of black CCNY males, who are single, biological majors and not self employed. In run (2) variables M' and $CCNY_b$ were deleted.

M_1 = undergraduate major:	1 if arts and humanities 0 otherwise
M_2 = undergraduate major:	1 if biological sciences 0 otherwise
M_3 = undergraduate major:	1 if physical sciences 0 otherwise
M_4 = undergraduate major:	1 if business 0 otherwise
M_5 = undergraduate major:	1 if education 0 otherwise
M_6 = undergraduate major:	1 if engineering 0 otherwise
M_7 = undergraduate major:	1 if social sciences 0 otherwise

$$M = M_2 + M_3 + M_4 + M_6$$

$$M' = M_1 + M_5 + M_7$$

$CCNY_w$ = white male baccalaureates of the City College of New York of 1962 - 1970

$CCNY_b$ = black male baccalaureates of the City College of New York of 1962 - 1970

Howard = black male baccalaureates of Howard University of 1962 - 1970

Table 4 gives the results of the aforementioned multiple regressions for 1970 income of the white and black male graduates of CCNY and Howard from 1962 - 1970. Those variables used in regression (1) helped to explain 52 per cent of the variation in income. The factors which best explain variance in income were years of experience, marital

TABLE 4. COEFFICIENTS, (STANDARD ERRORS), T RATIOS AND SIGNIFICANCE FOR 1970 INCOME OF THE WHITE AND BLACK CCNY AND HOWARD MALE GRADUATES 1962 - 1970

	Regression Number			
	1	T-ratio	2	T-ratio
years of experience	0.0055 (.0006)	8.743**	0.0055 (.0007)	8.408**
marital status	0.0103 (.0031)	3.647**	0.0125 (.0033)	3.812**
self employed	0.0201 (.0070)	3.388**	0.0195 (.0062)	3.134**
organization size	-0.0004 (.0010)	-0.370	-0.0005 (.0011)	-0.490
age in 1971	0.0001 (.0003)	0.516	0.0002 (.0003)	0.776
undergraduate major				
1) arts & humanities	-0.0124 (.0062)	-2.005*		
3) physical sciences	-0.0051 (.0063)	-0.807		
4) business	0.0033 (.0078)	0.458		
5) education	0.0025 (.0072)	0.346		
6) engineering	0.0189 (.0065)	3.411**		
7) social sciences	-0.0010 (.0054)	-0.194		
majors 2, 3, 4 & 6			0.0107 (.0029)	3.689**
CCNY white male baccalaureates	-0.0009 (.0040)	-0.221	0.0003 (.0042)	0.070
Howard black male baccalaureates	-0.0022 (.0040)	-0.546	-0.0001 (.0042)	-0.026
intercept	0.5363		0.5294	
R ²	0.5198		0.4523	
**significant at .01 level, *significant at .05 level				
2) biological sciences				

status, engineering as an undergraduate major, self employed and arts and humanities as an undergraduate major. The aforementioned items are listed in their order of importance. The first four variables had T ratios which were significant at the .01 level, while the fifth factor was significant at the .05 level.

Regression run (2) produced an $R^2 = 0.4523$. Here various variables were combined as stated above. The same four factors as the aforementioned were significant at the .01 level except that engineering was replaced by M which included undergraduate majors in biological sciences, physical sciences, business and engineering. The following variables added little to the model's explanation: size of organization, age in 1971, (probably this factor was suppressed by years of experience), undergraduate majors in physical sciences, business, education, biological sciences, and social sciences, or variation in college (CCNY or Howard).

Years of experience had the largest explanatory power in explaining variation in annual income in 1970 for male graduates of Howard University and the City College of New York of 1962-1970. It had a "T-ratio" of 8.7. It seems reasonable to assume that one gains experience with the years or one just rises in the hierarchy of organization with seniority which increases the value of human capital and thereby increases its return.

Marital status had the second most important impact on 1970

income. Its T-ratio was 3.6 which is significant at the .01 level. It would appear that marriage acts as an incentive to make more money. Probably parents want to give their children more and better opportunities than they had. They probably want to live in good neighborhoods and send all of their children to college.

Table 4 shows the importance of field of specialization as having relatively high explanatory powers, i. e., the undergraduate major of engineering was significant at the .01 level. Specific undergraduate majors were chosen by the writer to be included in the multiple regression instead of occupation since the writer would have had to use subjective reasoning to place respondents' occupations into groups and further, respondents checked their specific undergraduate major. Arts and humanities had a negative coefficient with a significant T-ratio at the .05 level. The implication is that arts and humanities majors make less than any other major in annual income in this study. That engineering accounted for higher relative returns than any other major in the sixties agrees with the Reed and Miller study.³

Those who were self employed as professionals or as small business operators had higher relative and absolute annual incomes in 1970 than those working for others. The factor self employed had a T-ratio of 3.4. Somewhat surprising was the negative coefficient of

3

Reed and Miller, Ibid., p. 184.

organization size since the writer had expected larger firms to hire the respondents of this study at relatively higher pay scales than smaller firms. According to this monograph, many occupations opened up to black male college graduates in 1970. The larger firm was expected to be the employer. The latter is probably correct. Since the self employed with their higher annual income were included in the variable organization size, they likely caused the negative sign.

The second test used the same multiple regression as previously applied with dummy variables except that the regressions were run separately for the black and white cohorts. Regression runs were as follows.⁴ (See Tables 5 and 6)

white cohort:

$$3) \quad \log Y_t = a + bE + cM_s + dS + e0 + fA + gM_1 + hM_3 + iM_4 + jM_5 \\ + kM_6 + lM_7$$

$$4) \quad \log Y_t = a + bE + cM_s + dS + e0 + fA + gM$$

black cohort:

$$5) \quad \log Y_t = a + bE + cM_s + dS + e0 + fA + gM_1 + hM_3 + iM_4 + jM_5 \\ + kM_6 + lM_7 + nHoward$$

$$6) \quad \log Y_t = a + bE + cM_s + dS + e0 + fA + gM + nHoward$$

⁴

In runs 4 and 6, variable M' was deleted.

TABLE 5. COEFFICIENTS, (STANDARD ERRORS), T RATIOS AND SIGNIFICANCE FOR 1970 INCOME OF THE WHITE MALE CITY COLLEGE OF NEW YORK GRADUATES 1962-1970

Variable	Regression number			
	3	T-ratio	4	T-ratio
years of experience	0.0055 (.0010)	5.335**	0.0053 (.0010)	5.043**
marital status	0.0115 (.0046)	2.532*	0.0116 (.0047)	2.484*
self-employed	0.0314 (.0094)	3.447**	0.0300 (.0094)	3.196**
organization size	-0.0007 (.0014)	-0.532	-0.0010 (.0014)	-0.840
age in 1971	0.0001 (.0004)	0.309	0.0003 (.0004)	0.727
undergraduate major				
1) arts & humanities	-0.0091 (.0100)	-0.905		
3) physical sciences	-0.0024 (.0092)	-0.264		
4) business	-0.0055 (.0154)	-0.359		
5) education	0.0055 (.0097)	0.562		
6) engineering	0.0158 (.0089)	1.767		
7) social sciences	-0.0019 (.0087)	-0.221		
majors 2, 3, 4 & 6			0.0078 (.0042)	1.859
intercept	0.5367		0.5323	
R ²	0.5380		0.4849	
**significant at .01 level, *significant at .05 level				
2) biological sciences				

TABLE 6. COEFFICIENTS, (STANDARD ERRORS), T RATIOS AND SIGNIFICANCE FOR 1970 INCOME OF THE BLACK MALE CCNY AND HOWARD GRADUATES 1962-1970

Variable	Regression number		T-ratio	
	5	6	5	6
years of experience	0.0055 (.0008)	6.494**	0.0055 (.0009)	6.423**
marital status	0.0100 (.0044)	2.232*	0.0122 (.0046)	2.625**
self employed	0.0126 (.0082)	1.524	0.0135 (.0087)	1.549
organization size	-0.0002 (.0016)	-0.146	-0.0002 (.0016)	-0.135
age in 1971	0.0002 (.0004)	0.543	0.0002 (.0004)	0.480
undergraduate major				
1) arts & humanities	-0.0175 (.0081)	-2.143*		
3) physical sciences	-0.0096 (.0094)	-1.021		
4) business	0.0044 (.0087)	0.502		
5) education	-0.0108 (.0139)	-0.797		
6) engineering	0.0208 (.0072)	2.886**		
7) social sciences	-0.0016 (.0071)	-0.227		
majors 2, 3, 4 & 6			0.0145 (.0041)	3.505**
Howard black male baccalaureates	-0.0028 (.0043)	-0.658		
intercept	0.5372		0.5281	
R^2	0.5319		0.4454	

**significant at .01 level, *significant at .05 level
2) biological sciences

Those variables tested in this study helped to explain 54 per cent of the variation in income for the white group and 53 per cent for the black group. However, there was a small difference in the factors applicable and in the importance of the various factors. The variables affecting 1970 income for white male graduates, in their order of importance, were years of experience, self employment, marital status and engineering as an undergraduate major. The other college majors, organization size and age in 1971 played no role in explaining the white group's income. Age again was suppressed by years of experience in explaining 1970 income. The independent variables that explain the most variance in 1970 income for the black cohort, in their order of importance, were years of experience, engineering, marital status and arts and humanities. The remaining college majors, self employment and age in 1971 added little to the model's explanatory powers.

The small differences among the factors explaining variation in annual income in 1970 between the races imply a decrease in discrimination.

Years of experience, again was the most influential determinant for both cohorts. (See Tables 5 and 6) It accounted for 37 per cent of the white college men's income in 1970 versus 34.5 per cent for the black male baccalaureates. The T-ratio for both cohorts on this item was significant at the .01 level. Similarly, as in the previous test, engineering was the second most important variable for the black cohort increasing

R^2 for the black group by .114, while increasing the explanatory power of the white cohort by .052. For the black cohort engineering was significant at the .01 level, while it reduced to .10 significance for the white cohort. Possible explanations for the greater 6.2 per cent influence on income of engineering for black males are that there are fewer black male graduates available to a firm. Blacks who were hired in the early sixties and remained with the firm had to show more promise than their white counterpart due to discrimination at the time. They would have had to work harder and longer hours to be recognized and promoted. Today, there is a financial benefit to being a black college graduate. As stated earlier, 1970 was the year when black college graduates made a significant break-through into the professional field. As late as 1967, black professional and managerial workers received median incomes which were 65 per cent of those of white workers.⁵ In 1970, black male college graduates of this study made \$1,000 more (CCNY) or \$1,500 more (Howard) as a median annual income than the white male cohort of CCNY. The difference in the annual income between the two cohorts is probably due to the limited supply of black male college graduates and the number of openings available to them.

⁵ Trends in Social and Economic Conditions in Metropolitan Areas, Current Population Reports, Series P-23, No. 27, Washington, D. C., February 7, 1969. p. 49.

The second most important variable for the white group was self employed. Its T-ratio was 3.45 which is significant at the .01 level. The black cohorts' T-ratio was 1.53. The presumption is made that the white male college graduates see many examples of entrepreneurial success in their associations. Also their parents push them into so-called rewarding professions. The black male college graduates saw limited success for their race in the past. Therefore they were less anxious to go out on their own. However, today medical and law schools are searching out promising blacks.

Marital status was the third most important variable for both cohorts with significance at the .01 level. Marriage would appear to be a catalyst in increasing one's annual income.

In regression runs 4 and 6, the undergraduate majors of physical sciences, biological sciences, business, and engineering were combined into one variable, while the other undergraduate majors of arts and humanities, education, and social science were included in another variable. The results were that when the majors were combined, the coefficient had a positive sign, whereas when they were kept separately, four of the undergraduate majors in the black and white groups (see Tables 5 and 6) had negative signs. This is probably caused by engineering, which had such a strong positive influence in both cases. The other important explanatory variables by both races stayed about the same, except that arts and humanities had a significant negative effect for the black cohort at the .05 level when each discipline was included. It would therefore

be advisable for black male college students to choose another major than arts and humanities since for them it has a significant inverse relationship to annual income.

Age again had a limited effect on annual income for both races. Age is included quite often by economists as a control variable in income analysis since it is highly influential in explaining variation in income, for example, see the Reed and Miller study.⁶ In this test it appears that years of experience has more explanatory power than age. What is interesting is that the average black male college graduate of this study was two years older than the white male baccalaureate during each of the two year periods observed from 1962 to 1970.

Other variables were examined for their influence on 1970 income for black and white male college graduates. They were excluded either on an a priority basis or by testing them in multiple regression equations and seeing that these variables have almost no effect on 1970 income. The following factors added little to the model's explanation: black-white ratio of neighborhood where respondent resided in 1970, years attending undergraduate school, High School residence, number of hours worked while attending college, method of getting job, residence by size of city, variation as to college (CCNY or Howard), undergraduate average, occupation of father or mother.

⁶
Reed and Miller, Ibid.

CHAPTER IV

OCCUPATIONAL DISTRIBUTIONS

One of the findings of this study is that black and white occupational distributions of male baccalaureates in 1970 are converging. (See Table 7) The chi-square statistic following Welch's monograph¹ was employed to determine an index of the extent of the difference in the occupational distributions.

$$\text{Chi Square} = \sum (p_i^w - p_i^b)^2 / p_i^w$$

p_i^w = the per cent of all whites who are in the i-th occupation.

p_i^b = the per cent of all blacks who are in the i-th occupation.

This index for the 1962-64 graduating male cohort was 27.2 at their initial occupation, but reduces to 14.2 for that group in 1970. The difference in occupational distribution was reduced to almost half of its

¹ Welch, Finis, Black-White Differences in Returns to Schooling, N.B.E.R., 1971, p. 26.

TABLE 7

PERCENTAGE DISTRIBUTION AND CHANGES IN OCCUPATIONS OF CCNY WHITE MALE BACCALAUREATES VERSUS HOWARD BLACK AND CCNY BLACK MALE BACCALAUREATES FROM 1962-64, 1966-68 TO 1970 JOBS (INCLUDING 1970 GRADUATES)

	Initial Occupations						1970 Occupations			
	1962-64		1966-68		1970		1962-64		1966-68	
	Wh	Bl	Wh	Bl	Wh	Bl	Wh	Bl	Wh	Bl
Managers & Bus. Owners	5.7	3.2	5.0	4.7	9.1	16.7	20.0	27.3	8.3	11.7
Engineers & other Professionals	28.8	32.5	25.0	21.9	27.3	26.2	31.7	35.0	30.0	36.7
Scientists, Teachers & Professors	29.2	22.5	33.3	20.3	31.8	14.3	37.6	24.7	35.0	15.0
Social Workers	3.4	11.3	5.0	6.2	4.6	9.5	2.4	1.3	1.7	3.3
Salesmen, Taxi Drivers & clerks	9.2	17.5	10.0	21.9	13.6	14.3	2.4	7.8	3.3	5.0
Students (M.A., PH.D., J.D., M.D.)	23.0	12.5	21.7	25.0 ¹	13.6	19.0	5.9	3.9	21.7	28.3
Chi Square	27.2		20.2		15.6		14.2		13.8	

¹A 100 per cent increase occurred here in 1968.

*Excluded are doctors and lawyers.

*Excluded are army officers. (Howard had a significant percentage in this occupation.)

*Not included in the above table are those who were unemployed.

original size. Similarly, a significant reduction occurred with the 1966-68 baccalaureate group. The chi-square went from 20.2 at the initial occupation to 13.8 in 1970. This change was not as large as the one of the 1962-64 cohort, however the time period during which the change occurred is much smaller. Also, here the occupations were not as widely distributed initially and ended up at a slightly lower chi-square. Especially noteworthy are the changes in the occupations of business management, social work, and unskilled trades. Black college graduates some decades ago and as recently as 1966 used to go largely into social work, religion, and/or unskilled employment, while few went into management.² On reviewing the above, one sees a significant change in occupation percentage distributions during the years 1962-1964 to 1970: from 11.3 per cent to 1.3 per cent in social work, from 17.5 per cent to 7.8 per cent in unskilled trades. The reverse occurred in management with the percentage distribution increasing from 3.2 per cent to 27.3 per cent, an enormous increase. The transfer of personnel to management came from social work, students with advanced degrees, and those working in unskilled trades. A similar shift occurred with the white male graduates, but here the movement was not as dramatic. For example, the 1962-64 white male cohort started with a 5.7 per cent in management, going to a 20.0 per cent in 1970.

² Manpower Report of the President, U. S. Department of Labor, March 1965 and April 1971.

Welch's study relating to black college graduates provided no evidence of convergence up to 1967. His work was based on a 1967 Survey of Economic Opportunity (SEO) sample, at which time there were not the same openings available to black baccalaureates as in 1970. Freeman, in a soon to be published book, stated that "in the decade of the 1960's . . . traditional discriminatory patterns underwent dramatic change. . . . the differential between (young) black and white graduates disappeared. . . . black male students entered traditionally closed fields such as law, management, accounting, engineering, in large numbers."³ In this study the aforementioned occupations except for management showed only moderate gains. (See Table 7) Throughout Chapter Seven of Freeman's book examples of black-white occupational distribution convergence are provided.

This same convergence of the black male baccalaureates of Howard and CCNY was noted by the writer to have occurred in 1970. Previous to that only traditional fields of employment were open to blacks.

In order to get additional insight into the progress of and opportunities for white and black male college graduates of the City College of New York and Howard University during the sixties, and also to include as many of the respondents as possible, the writer changed the occupation groups stated above (see Table 7) to the one listed below.

3

Freeman, Richard, Black Elite, University of Chicago, unpubl. at this date, Chapter 7.

This classification ranking is based on a 1960 median income table taken from the Census ⁴, which was modified to fit this particular study.

- High 9 = Managers, business owners & lawyers
- 8 = Engineers, chemists & scientists
- 7 = College faculty, researchers & accountants
- 6 = Teachers (elementary & secondary school)
- 5 = Social workers, librarians & army officers
- 4 = Taxi drivers, salesmen, clerks & soldiers

First, the initial occupations of the white and black male baccalaureates of CCNY and Howard of 1962-64 were compared to their occupations in 1970. Then the progress of the 1966-68 graduates was observed. (See Table 8 and Graphs 1 and 2) When analyzing graph 1, which shows the movement of the 1962-64 college male graduates to 1970, one sees the greatest increase in the group marked managers, business owners and lawyers. The same data is presented in Table 8. A large percentage of the blacks and whites who went into the aforementioned category came from the less skilled, social work, libraries, and teaching. What is significant is the percentage of blacks (29 per cent) and whites (30 per cent) in the upper occupation category. This shows a decrease in discrimination in 1970 and new opportunities opening up for black college men and those from CCNY-type schools. Initially, when looking at three job classifications, black graduates of Howard were employed as unskilled workers (10 per cent), in social work, libraries and as army officers (31 per cent), while 16 per cent were working

⁴United States Census of Population, 1960: Occupation Characteristics, PC (2)-7A, Table 25.

TABLE 8. PERCENTAGE DISTRIBUTION & CHANGES IN OCCUPATIONS
(INCLUDING LAWYERS & ARMY PERSONNEL IN DIFFERENT CLASSIFICATIONS
THAN TABLE 7) OF CCNY WHITE & BLACK & HOWARD BLACK MALE
BACCALAUREATES FROM 1962-64, 1966-68 TO 1970 JOBS

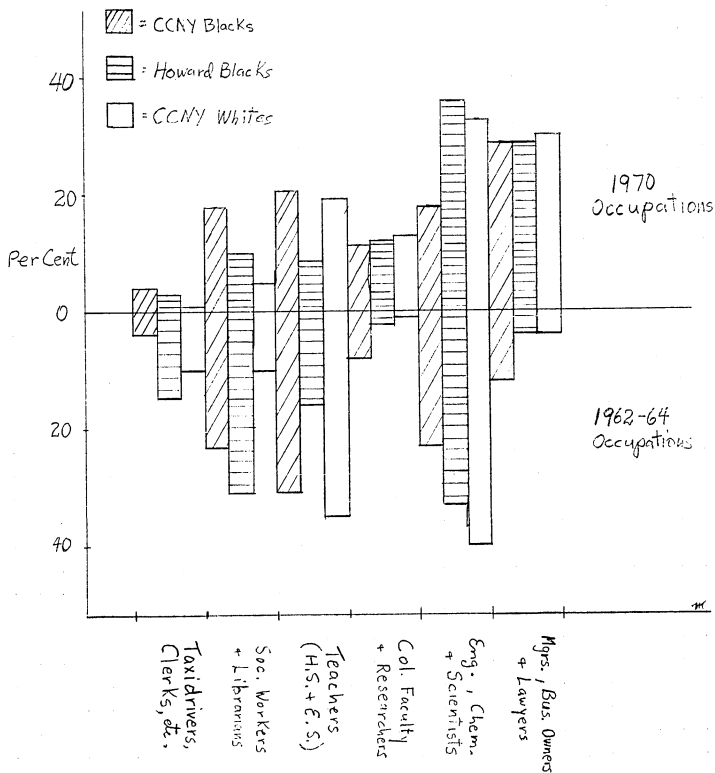
Occupations	Percentage Changes											
	From 1962-64			To 1970			From 1966-68			To 1970		
	W	BC	BH	W	BC	BH	W	BC	BH	W	BC	BH
Managers, Bus. Owners, & Lawyers	4	12	4	30	29	29	4	0	3	12	6	25
Engineers, Chemists & Scientists	40	23	33	33	18	36	36	14	20	37	22	22
College Fac., Researchers, Statisticians & Accountants	1	8	2	13	11	12	0	14	17	0	17	25
Teachers (H.S. & E.S.)	35	31	16	19	21	9	36	45	7	43	28	0
Librarians, Social Workers & Army Officers	10	23	31	5	18	10	11	18	33	8	28	22
Salesmen, Taxi Drivers, Clerks & Soldiers	10	4	15	1	4	3	13	9	20	0	0	6

W = CCNY white males

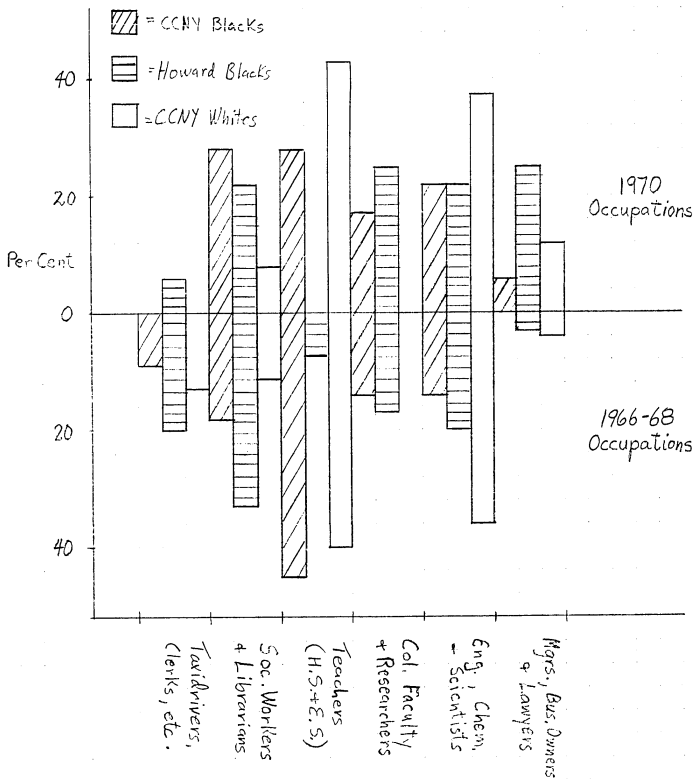
BC = CCNY black males

BH = Howard black males

GRAPH 1. PERCENTAGE DISTRIBUTION + CHANGES IN OCCUPATIONS OF THE WHITE + BLACK MALE GRADUATES OF CCNY + HOWARD FROM 1962-64 TO 1970



GRAPH 2. PERCENTAGE DISTRIBUTION & CHANGES IN OCCUPATIONS OF THE WHITE & BLACK MALE GRADUATES OF CCNY + HOWARD FROM 1966-68 TO 1970



as teachers. These three categories, following the above order, reduced to 3 per cent. 10 per cent (half were army officers), and 9 per cent in 1970. The 1962-64 CCNY black males who shifted into the upper income group came from teaching (10 per cent) and social work (5 per cent). There was also a slight decrease in this group's engineers. The white cohort reduced its presence in the unskilled trades (12 per cent), in social work (5 per cent), in teaching (16 per cent) and in engineering (7 per cent). 26 per cent of the whites went into management and another 12 per cent became college instructors. Some of the aforementioned percentages do not add up since a few of the 1962-64 graduates went on to graduate school while entering the labor force market later.

There was a significant shift into the management category in 1970 with the 1966-68 group as well. (See Table 8 and Graph 2) The percentage of black males of Howard working in this occupation was 25 per cent, which was a relatively large increase, starting with a base of 3 per cent in 1966-68, whereas the blacks of CCNY went from a 0 percentage in the upper income occupation in 1966-68 to 6 per cent here in 1970. City College whites started with 4 per cent in this category and ended up with 12 per cent. Similarly as with the 1962-64 cohorts, the 1966-68 college male graduates entered the managerial occupations in relatively large proportions. Once more, based on the aforementioned, there is an indication in this study that discrimination has decreased and that black male college graduates have made a significant break-through into the upper income categories in 1970.

The engineer's, chemist's, and scientist's group movement from 1962-64 to 1970 shows a converging of black and white occupational distributions of male college graduates from CCNY and Howard. (See Table 8 and Graph 2) The college faculty and researchers group also includes accountants and junior economists. No whites were in this category since 21.7 per cent of the 1966-68 white male respondents were going for upper level degrees at the time of this study. A Ph. D. degree is necessary at most colleges for a faculty position. This requirement has been changed for black baccalaureates at certain colleges in the late sixties as this study indicated. One cannot generalize from this small research project. However, in this study, reverse discrimination showed up, in that 40 per cent of the black male college graduates in the category of college faculty and researchers were employed as college lecturers or professors. Similar employment procedures are in existence at CCNY currently where many departments hired black and Puerto Rican baccalaureates without a Ph. D. or equivalent degree as professors. 50 per cent of the Howard graduates in this group were accountants and were employed as such.

A rather large percentage of black (45 per cent) and white (36 per cent) male CCNY graduates of 1966-68 were in the high school and elementary school teaching category. In 1970 28 per cent of the blacks remained in this group, with the whites increasing to 43 per cent. A probable reason for this is noneconomic, in that teaching excused college.

graduates from army service in the late sixties.

The social workers and librarians grouping also included army officers. The latter occupation made up 50 per cent of the Howard aforementioned 1966-68 grouping. It increased to 71.5 per cent in 1970. This would indicate that there appear to be increased opportunities for black male baccalaureates in the armed forces. The majority of the 1966-68 black CCNY male graduates in this category started out in social work. Their occupation in 1970 was divided equally between librarians, parole officers, and college lecturers. The 1966-68 whites decreased their occupation here from 11 per cent to 8 per cent.

Finally, there has been a significant decrease in the lowest occupation category for the baccalaureates of this study from 1966-68 to 1970. The black cohort (9 per cent) and white cohort (13 per cent) of CCNY reduced to 0 per cent in this category in 1970, whereas Howard black male graduates of 1966-68 changed from 20 per cent in initial positions as taxi drivers, clerks, salesmen and soldiers to 6 per cent in this category in 1970.

In summary, this part of the study, indicates a decrease in discrimination, a convergence of black and white occupational distributions for the white and black male college graduates of CCNY and Howard, and an increase of black male baccalaureates in the upper income occupations in 1970.

Chapter V

COMPARING BLACK AND WHITE MALE GRADUATES OF THE CITY COLLEGE
OF NEW YORK AND HOWARD UNIVERSITY ON SOCIO-ECONOMIC
VARIABLES

An interesting finding of the study was that 76 per cent of the CCNY black males stayed in New York City or within commuting distance of New York City, (see Table 9) whereas only 36 per cent of the Howard blacks remained in Washington, D. C. or within commuting distance of Washington, D. C. These initially came from different parts of the United States. This compares to 55 per cent of the CCNY white cohort who stayed in New York City or within commuting distance of the City. The black graduates are more distributed throughout the United States than the white cohort of CCNY, mainly due to the Howard graduates. A similar percentage of white and black male college graduates live in the suburbs with a ratio of 26 per cent black : 28 per cent white. 20 per cent of the blacks are still living in the same area in which they went to High School. This percentage is made up of 16 per cent Howard blacks, of which there were more respondents, and 27 per cent CCNY blacks. The figure for whites is 25 per cent. However, the percentage of blacks

TABLE 9. 1971 RESIDENCE IN NUMBERS AND PERCENTAGES OF THE
BLACK AND WHITE MALE BACCALAUREATES OF CCNY AND HOWARD,
1962 - 1970

Residence	Black Howard (N) (%)	Black CCNY (N) (%)	White CCNY (N) (%)
New York City ¹	7 5	53 76	101 55
Washington, D.C. ²	51 36		2 1
Mid-Atlantic States	31 22	8 11	26 14
New England States	5 4	2 3	16 9
Southeastern States	14 10	1 1	4 2
Midwestern States	18 13	3 4	16 9
Farwestern States	15 11	3 4	18 10

1 = New York City or within commuting distance of N.Y.C.

2 = Washington, D.C. or within commuting distance of Wash., D.C.

N = Number

% = Per cent

living in their old neighborhood is significant in that it is a black ghetto. This statement is based on a check on the areas through Zip codes at the time the questionnaires were mailed out.

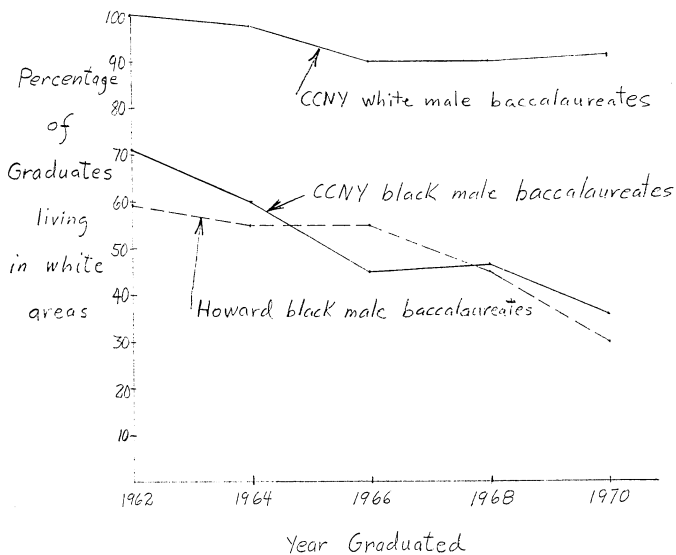
Segregation by college students was greater in 1970 than in any of the previous two periods going back to 1962. When looking at an analysis of variance between black and white college graduates in 1970, comparing various black-white ratios of neighborhoods, one notices that 50 per cent of the black respondents lived in an area that was 50 per cent or more black, whereas 94 per cent of the white graduates lived in an all white area. Both t and F values were found to be significant at the 99th percentile. (See Table 10) Below, a historical review will show the yearly trend of blacks moving to white areas getting smaller each year, changing from a high of 71 per cent in 1962 to a low of 30 per cent in 1970.

A very interesting finding of this study is the migration of college graduates from their residence during their last year of High School to the one of 1970. Whereas 59 per cent of 1962 black male Howard graduates were living in white neighborhoods in 1970, only 30 per cent of the 1970 class is doing so. The trend based in 2 year observations starting with 1962 goes from 59-55-55-45-30 per cent. (See Graph 3) Similarly the percentage of black male CCNY graduates living in white areas starting with 1962 goes from 71-60-45-47-36 per cent. White CCNY graduates are living in white neighborhoods. The

TABLE 10. APPROXIMATE BLACK-WHITE RATIO OF NEIGHBORHOOD
WHERE THE BLACK AND WHITE MALE BACCALAUREATES OF CCNY
AND HOWARD RESIDED IN 1970

Ratio	Black (N)	Howard (%)	Black (N)	CCNY (%)	White (N)	CCNY (%)
75% - 100% black	45	32	21	30	2	1
50% - 74% black	27	19	12	17	8	4
25% - 49% black	15	11	12	17	26	14
0% - 24% black	52	37	25	36	145	80

GRAPH 3. PERCENTAGE OF 1962-70 BLACK + WHITE MALE BACCALAUREATES OF CCNY + HOWARD MIGRATING TO WHITE NEIGHBORHOODS



trend for whites living in white areas starting with 1962 is 100-97.5-90-90-92 per cent. 1966 and 1968 would have had higher percentages of white segregation if it were not for white interns living near their hospitals. This historical study seems to apply that segregation among college graduates increased during the sixties.

There have been few changes in the job search process for black-white college men. Initially, the writer's thought was, that, since today there are more nonwhites in executive positions, they would be helping or guiding other nonwhites. This proved not to be the case. The technique used most often, is the one based on one own's initiative, that is, the mailing of resumes to and/or visiting specific firms. The majority of the CCNY black and white students followed this method four out of five years observed, with a majority of Howard blacks relying on it three out of those five years. The percentages of using this technique relative to others from 1962 through 1970, on a two year observed basis, for white CCNY males, were 43-37.5-34-26-29 per cent. This compares to 21-45-20-30-21 per cent for Howard blacks. The college placement offices do an important job in helping their graduates find a position. At Howard University, the placement office was used by students more than any other technique in securing a job in 1962 and 1966. (In 1962, many engineers were placed in jobs in California, 23.5 per cent. However, this occurred only that year.) In 1968 and 1970, Howard graduates used referrals by friends as much as their placement office. In 1968, each of these two methods was used by them 17 per cent of the

time. In 1970, Howard black males utilized the placement office at an 18 per cent ratio compared to 27 per cent for referrals by friends. However over the 1962 through 1970 time span, the college placement office at Howard was used by 19.3 per cent of the students. Whereas, 22.5 per cent of the CCNY whites used their placement office from 1962 through 1970, CCNY nonwhites used it only at a 15.3 percentage. Referrals by friends is the third method used by baccalaureates of both schools in finding work. This is followed by employment agencies. They were used to a limited degree by CCNY whites and blacks in 1964 and 1966, while in 1970 only CCNY whites used them. Howard graduates go to them rarely. Other methods used in the job search process are making telephone calls and answering newspaper advertisements.

Both black and white CCNY male students received about the same college averages, with 39 per cent of each receiving B's or better. At Howard, 24 per cent reported getting B's or better. In 1970, 60 per cent of the white college graduates had master degrees or higher versus 39 per cent of the nonwhites. On this variable both t and F values were significant at the .01 level.

57 per cent of the CCNY white graduates' wives had a bachelors degree with 25 per cent of these having higher level degrees. 65 per cent of the Howard black mates had college degrees versus 44 per cent of the CCNY black graduates' wives. This fact is probably due to the greater availability of educated black females at Howard, an almost all black school, than at City College. When both black groups are combined, and compared to the white cohort, there is no significant

difference between graduates' wives highest degree, i. e., $F = 0.62$ and $t = 0.78$. This is highly significant in itself in that both black and white wives had equal percentages in higher degrees except J. D.'s, M. D.'s, and PH. D.'s. Here 5 per cent of the white wives were the only ones with such degrees.

In the selection of a major, both black and white male students of the two colleges chose social sciences first, (blacks - 29 per cent, whites - 28 per cent) and engineering second by 23 per cent by both cohorts. 19 per cent of the white students picked physical sciences, and 10 per cent education. The black students spread out their selections. 12 per cent preferred biological sciences, 11 per cent chose arts and humanities, and 9 per cent selected physical sciences and business. The reason for the aforementioned might be due to a decrease in discrimination in many new fields that opened up to blacks during the sixties. Part of the selection of fields of endeavor in this study are, of course, limited by the offerings of the two schools. For example, CCNY does not have a business major. Since it is being offered at another college in the city, Baruch, white students choosing business as a career would not go to CCNY.

38 per cent of the Howard black cohort had an advanced degree versus 49 per cent of the black cohort of CCNY and 60 per cent of the whites of CCNY. This greater percentage of City College graduates versus Howard going for advanced degrees, is probably caused by parental

drive in the first instance, and the second case due to the demonstration effect and acquaintance of black and white fellow students of CCNY. The closeness of industry to CCNY might be another influencing factor.

76 per cent of CCNY's 1962 and 1964 white male baccalaureates (versus 49 per cent for Howard) received a Master's, Ph. D., Ed. D., J. D., L. L. B. or M. D. degree. Out of this group 26 per cent received either a Ph. D., Ed. D. or M. D. (Level III) This comes to 15.6 per cent of the 1962-1970 CCNY white graduates. According to the National Research Council of the National Academy of Sciences, City College ranks second nationally only to the University of California at Berkeley in the number of baccalaureates who received doctorates from 1920 through 1970. However, the financial benefits of a Level III degree for white males of CCNY were rather limited in 1970 with only 4 per cent making \$19,000 or more while the median annual income was \$14,500. Similar results were obtained when combining the blacks of CCNY and Howard, who received a Level III degree. Here the median annual income was \$13,000. This is probably due to the fact that the majority of the CCNY white cohort (Level III) and a small percentage of blacks of Howard and CCNY went into college teaching which has a relatively low salary scale. 50 per cent of the black Level III holders can look forward to more rewarding years since they were currently working as interns in law offices and hospitals or working as doctors in the U. S. Army.

In 1970, 68 per cent of the Howard black graduates were working as professionals as compared to 71.5 per cent of the nonwhites of CCNY

and 77.5 per cent of CCNY whites. Whereas not one of the 1962 through 1968 Howard college men were in top management during this period, in 1970 8.5 per cent of the 1962-1970 graduates considered themselves upper management, i. e., vice-presidents and up, with salaries greater than \$15,500 per year. Additionally, 7.9 per cent were employed in middle management in 1970, i. e., department heads, area managers, etc. 20.6 per cent of the graduates had the job title, engineer. 11.5 per cent of the Howard college men were in education, of which 5 per cent were employed as professors. 9.2 per cent considered themselves mathematicians, accountants or economists. Only one of the graduates held an unskilled position and another was unemployed. This does exclude the 2.8 per cent 'No Reply' and those 15 per cent which were students in 1970.

30 per cent of the CCNY black male graduates of 1962-1970 were working in the field of education, of which 20 per cent were teachers and the balance was employed as administrators such as principals or deans. Adding those working in public administration and those in private management, the percentage comes to 20 per cent with an annual income of more than \$15,500. 11 per cent were working as case workers with 13 per cent going for an upper level degree.

34 per cent of CCNY's white male output in the 1960's appears to be teachers. Part of this employment in the late sixties is probably due to the fact that teachers were deferred from the draft at that time.

43 per cent of the 1962 and 1964 class who are teachers are college instructors. Another significant output of CCNY during this period were white male engineers, (21 per cent). This is followed by business management which employed 12 per cent. 10 per cent of the white male baccalaureates are currently going for an advanced degree with 2.2 per cent unemployed.

A large percentage of black males of CCNY appear to work during the day, while going to school at night, since it took them an average of 5.4 years to finish college during the sixties, or dropped out for a while. (See Table 11) To accomplish this latter goal, 21 per cent of this cohort went six years or more. 11 per cent endured nine years or more of college signifying perseverance and motivation. 82 per cent of the CCNY white males and 86 per cent of the Howard black males needed five years to finish college. The mean for CCNY whites was 4.85 years and for Howard blacks it was 4.67 years to get a baccalaureate degree. College was finished in the standard four year period in the following order:

CCNY white - 52 per cent, Howard black - 50 per cent, and CCNY black - 40 per cent. The mean is greater than four years since a large percentage of Howard blacks and CCNY whites went for an engineering degree, which takes 4.5 - 5 years to complete.

The mean number of hours worked by CCNY black male students graduated during the sixties was 25 hours per week. (See Table 12)

TABLE 11. CUMULATIVE PERCENTAGES OF AVERAGE NUMBER OF YEARS BLACK & WHITE MALES OF CCNY & HOWARD ATTENDED COLLEGE FOR A BACCALAUREATE DEGREE, 1962 - 1970

Graduated	Years Attending	Black Howard (Cum %)	Black CCNY (Cum %)	White CCNY (Cum %)
1962-1970				
	4	50	40	52
	5	86	66	82
	6	96	79	91
	7	99	86	93
	8		89	96
	9 +	100	100	100
Mean years		4.67	5.40	4.85
1962				
	4	41	48	55
	5	82	81	78
	6	94	86	91
	7			93
	8			96
	9+			100
Mean years		4.91	5.14	4.89
1964				
	4	50	10	57
	5	80	50	80
	6	93	70	85
	7	100	80	87
	8			95
	9+		100	100
Mean years		4.70	6.10	4.88
1966				
	4	48	64	58
	5	90	82	90
	6	100		97
	7		91	100
	8		100	
	9+			
Mean years		4.62	4.73	4.52

TABLE 11. (Continued)

Graduated	Years Attending	Black Howard (Cum %)	Black CCNY (Cum %)	White CCNY (Cum %)
1968	4	65	20	45
	5	87	47	84
	6	100	73	94
	7		87	97
	8			
	9+		100	100
Mean years		4.43	5.87	4.84
1970	4	48	54	38
	5	91	62	83
	6	100	77	87
	7		85	
	8		92	92
	9+		100	100
Mean years		4.61	5.31	5.13

TABLE 12. CUMULATIVE PERCENTAGES OF AVERAGE NUMBER OF HOURS PER WEEK BLACK AND WHITE MALE BACCALAUREATES OF HOWARD AND CCNY SPENT WORKING (INCLUDING SUMMERS) WHILE ATTENDING COLLEGE,

1962-1970

Average Hours	Black Howard (Cum %)	Black CCNY (Cum %)	White CCNY (Cum %)
0	9	4	14
5	13	13	24
10	28	21	47
15	35	29	60
20	60	47	76
25	67	57	82
30	79	63	86
35		69	89
40	97	96	99
45 or more	100	100	100
Mean hours/week	21.7	25.0	16.0

Howard black males spent 21.7 hours per week working, while CCNY white males spent only 16 hours per week working while going to school during the sixty decade. The variance ratio (F) was found to be significant at the .01 level. 24 per cent of the black male students of both schools worked 40 hours per week or more, whereas, only 11 per cent of the white cohort of CCNY worked 40 hours per week or more. 43 per cent of the CCNY black graduates spent 30 hours or more per week at a job while attending school. It is brought out in Chapter VI that black males of CCNY contribute a considerable amount of money to their families. The indication from this study is the fact that black males receiving a college degree during the sixty decade were a special group. This cohort went to school part time while working. It takes quite some determination, drive, and ability to work and go to college at the same time. It might also explain why black baccalaureates of 1970 earned more annual income than white baccalaureates, since a lot of them had many years of experience.

Black male baccalaureates of CCNY of 1962-1970 earned an average of \$4,052 per year while going to school, whereas Howard black males earned \$2,195 and CCNY white males \$1,940 during the same period. (See Table 13) The variance ratio was significant at the .01 level. On the other side of the ledger, the total expenditure per average year for black males of Howard was \$2,254, \$2,031 for CCNY blacks and \$1,711 for CCNY whites. The figure for the Howard student is clear since

TABLE 13. CUMULATIVE PERCENTAGES OF AVERAGE EARNINGS PER YEAR AND AVERAGE EXPENDITURES PER YEAR OF THE BLACK AND WHITE MALE BACCALAUREATES OF HOWARD AND CCNY, 1962-1970, WHILE ATTENDING COLLEGE

(dollars)	Black Howard (Cum %)	Black CCNY (Cum %)	White CCNY (Cum %)
Av. earnings/year			
1-1,000	15	12	32
1,001-2,000	53	37	68
2,001-3,000	79	57	81
3,001-4,000	91	72	90
4,001-5,000	95	81	93
5,001-6,000	98	91	96
6,001-7,000	100	96	
7,001-8,000		100	100
8,001-9,000			
Av. expenditures/year			
1-1,000	15	37	44
1,001-2,000	53	53	72
2,001-3,000	75	80	85
3,001-4,000	89	92	92
4,001-5,000	96	94	94
5,001-6,000	98	96	97
6,001-7,000		98	
7,001-8,000	100		
8,001-9,000		100	100

a large portion of his expenditure goes for tuition and board. Why are the expenditures of the CCNY students so high? Most of them live at home. Since there is such a large difference (\$2,021) between earnings and expenditures for CCNY black students, the assumption is made that the difference is contributed to the family.

Among the most interesting findings of this study is the fact that the majority of black males from CCNY and Howard believe that they have some or a great opportunity for advancement with their present firm. (See Table 14) In addition, only one black male from CCNY (70 respondents) and one from Howard (141 respondents) claimed discrimination as a cause for leaving their jobs. Initially, the writer had expected that a relatively large percentage of nonwhites were simply hired for 'show', i. e., that they were placed in positions which have no future or given a title without specific duties so that firms could discharge their social obligations while advising the community that they employ minorities. Questions J and SS were placed in the questionnaire to provide some of the answers. If anything, this study showed signs of reverse discrimination, in that some of the black college men were placed in positions which require higher level degrees. A small percentage of the black baccalaureates were employed as professors at schools, which on paper require a Ph. D. for this position.

According to Table 14, 63 per cent of the Howard and 60 per cent of the CCNY black male college graduates were employed with firms

TABLE 14. VIEW OF ADVANCEMENT OPPORTUNITIES WITH 1970 FIRM FOR THE BLACK AND WHITE MALE BACCALAUREATES OF CCNY AND HOWARD OF 1962-1970, IN PERCENTAGES

View of future	Black Howard (%)	Black CCNY (%)	White CCNY (%)
great opportunity for advancement	28	16	20
some opportunity for advancement	35	45	33
limited opportunity for advancement	13	10	16
already at highest level desired	4	7	4
no advancement prospects	2	7	4
don't know	4	5	9
other	11	10	9
unemployed	2		3

that provide some or great opportunities for advancement. This figure for the CCNY white male cohort was 53 per cent. The differences are not very large, but they do show that black males believe that they have a promising future at a slightly higher percentage than white males of this study. Only 15 per cent of the Howard blacks and 17 per cent of the CCNY blacks versus 20 per cent of the CCNY whites felt that they had limited opportunity for advancement or no advancement prospects. The data in this study seems to imply that there has been a decrease in discrimination in the sixties and that opportunities for higher paying positions in different occupations have opened up for black male baccalaureates in 1970.

CHAPTER VI

CONTRIBUTIONS OF MALE COLLEGE GRADUATES TO THE
BLACK GHETTOEFFECTS OF INCOME GAINS MADE BY BLACK MALES HAVING A COLLEGE
DEGREE FROM CCNY OR HOWARD ON THE BLACK GHETTO
IN 1970

One of the aims of this study was to determine if income gains made by black male college graduates have affected the 'black ghetto', either in a 'spread' (stimulating) effect or in a 'backwash' (unfavorable) effect? According to Table 15, about one third of the blacks who have 'made it' are helping their brothers in 1970. Black male baccalaureates are active in organizations, advise blacks regarding careers, donate funds to organizations, provide training and/or tutoring to other blacks, and remit funds to their families.

Black male college graduates especially show their concern for their fellow blacks by being involved in black organizations. 50 per cent of the CCNY blacks, as well as 34 per cent of the Howard blacks, claim to be working for organizations helping those living in the black ghetto. Assuming these percentages are based on truthful replies, a

TABLE 15

PERCENTAGE OF BLACK AND WHITE MALE BACCALAUREATES OF THE CITY
COLLEGE OF NEW YORK AND HOWARD UNIVERSITY OF 1962-1970, WHO
ARE HELPING THE PEOPLE OF THE BLACK GHETTO IN 1970

Economic Contributions	Howard Black (%)	CCNY Black (%)	CCNY White (%)
Invested in ghetto	2	7	1
Provided training and/or tutoring	31	39	25
Advised blacks regarding careers	43	40	19
Advised business people	7	1	1
Remitted funds to family	13	17	1
Donated funds to organizations	28	31	11
Active in organizations	34	50	16
Opened bus. in ghetto; lower prices	14	3	1
Opened bus. in ghetto; similar "	11	1	0
Provided employment for blacks	10	1	3
Equal quality			

black person residing in the ghetto can expect benefits accruing to him by a fellow black male who has received a college degree. An assumption has to be made that those organizations which are attempting to play a role in the black community are doing it for the improvement of those living there and not, for example, to build a political base for their leaders' personal ambitions.

The second highest economic contribution by the black and white male college graduates of CCNY and Howard to those living in black neighborhoods is 'advising blacks regarding careers'. (See Table 15) The percentage of male baccalaureate respondents involved in this activity was 43 per cent Howard blacks, 40 per cent CCNY blacks, and 19 per cent CCNY whites. This involvement by the male graduates of the aforementioned schools produces a spread effect on those living there and society in general. Usually commercial and even philanthropic advice is not free of charge.

The third most important activity of the male baccalaureates of CCNY and Howard for the people of the black ghetto is providing 'training and/or tutoring'. The figures are 31, 39 and 29 per cent for Howard blacks, CCNY blacks, and CCNY whites, in that order. Here again, the process is one of directly helping the poor. The tutoring can be done in school or through various organizations set up for that purpose.

A significant stimulating effect on the black ghetto by the baccalaureates of this study is caused by their 'donating funds to organizations', helping the black community. The amount of funds (mean figures) donated to black organizations in 1970 were \$95 by Howard blacks, \$152 by CCNY blacks, and \$51 by CCNY white males. (See Table 16) This involved 28 per cent of the Howard black males, 31 per cent of the CCNY black males and 11 per cent of the CCNY white males with the balance not making any contributions. Out of those giving, 17 per cent of the Howard cohort and 29 per cent of the CCNY black cohort contributed \$500 or more. All of the aforementioned donations went into organizations assumedly helping the black community. This does not include the 'remittance of funds to their families', which involved 13 per cent of the Howard males and 17 per cent of the CCNY black males.

It is the writer's belief that the income gains made by the black college graduates of this study have affected the black ghetto in a spread (stimulating) effect rather than in a backwash (unfavorable) effect. The utility possibility functions of black ghetto society has been pushed upward by increased assistance by black graduates of this study in the form of advice, tutoring, direct and indirect financial benefits, and increased welfare benefits through organizations. The real

TABLE 16

PERCENTAGE AND AMOUNT OF FUNDS DONATED TO BLACK ORGANIZATIONS
 BY THE BLACK AND WHITE MALE GRADUATES OF THE CITY COLLEGE OF
 NEW YORK AND HOWARD UNIVERSITY, OF 1962-1970, OF THOSE
 CONTRIBUTING, IN 1970

Donations (Dollars)	Howard Blacks (%)	CCNY Blacks (%)	CCNY Whites (%)
1 - 50	53	42	70
51 - 100	19	8	22
101 - 150	3	4	
151 - 200	6	13	4
201 - 400	3	4	4
401 - 600	14	8	
601 - 800	3	8	
801 - 1,000		8	
more than 1,000		4	
Means (using midpoints)	\$95	\$152	\$51

benefits accruing to the black community also include information and opportunity options through the presence of the black college graduate. They provide a 'demonstration effect' in that they provide an example of the value of a college degree. Society loves to rub elbows with success. Further, if precedents are set by 'one of your own', one is more likely to believe that these same opportunities are possible for you. Therefore, when analyzing all of the aforementioned, the social effects, specifically directed to the black ghetto are highly significant, arising from black male baccalaureates.

PRIVATE AND SOCIAL EFFECTS OF THE MEAN EXPENDITURES MADE BY
THE MALE BACCALAUREATES OF CCNY AND HOWARD AND THEIR FAMILIES
IN 1970

Another purpose of this study was to determine if income gains made by the black and white male graduates of this monograph resulted in different quantities of private (internal) benefits and social (external) benefits. The direct benefits to the college graduate and his family can be measured by the amount of expenditures spent on specific goods and services. (See Table 17) The benefits to the local black and local white community can be assessed through the percentage spent on goods and services in the respondents' neighborhood. The latter problem is made somewhat simpler by the fact that the majority of blacks and whites of this study live racially separated. One could question the data on the mean expenditures spent on goods and services and also the percentage spent on each locally by the respondents. The data was collected during the months following the due date for filing income taxes in 1971. The hope was that some of the data necessary for the questionnaire was still fresh in the respondents' head. Those returns where the expenditures did not match somewhat with the families' income were excluded. The mean number of useful responses on the goods and services were 257 divided between 139 blacks and 118 whites. The majority of these were married and had one child.

An assumption made by the writer was that the 257 accepted replies

TABLE 17. MEAN AMOUNTS SPENT ON GOODS & SERVICES & PERCENTAGE OF EACH SPENT LOCALLY BY CCNY WHITE & CCNY BLACK & HOWARD BLACK MALE BACCALAUREATES & FAMILIES (IF ANY) IN 1970

Goods & Services	Mean Expenditures (Dollars)			Percentage spent locally*		
	Howard Black	CCNY Black	CCNY White	Howard Black	CCNY Black	CCNY White
housing	2,000	2,250	2,200	66	87	88
food	1,432	1,580	1,820	58	64	72
tob. & alc. bev.	170	243	171	54	65	63
clothing	610	675	625	26	32	42
transportation	950	760	1,060	45	44	52
medical care	365	456	495	32	51	52
personal care	408	508	397	44	66	60
education	830	790	748	28	24	32
recreation	565	835	910	22	35	34
savings	1,940	1,620	2,320	26	50	60
other	1,390	1,450	1,630	69	38	78
total	8,000	8,300	9,950			
local tax	348	174	213			
state tax	375	390	405			
federal tax	1,725	1,775	2,025			

*Amount spent in respondents' neighborhood (within walking distance.)

to the above were made to the best ability of the respondents. Bearing in mind the difficulty of collecting the aforementioned data and its personal nature, the writer will then proceed with its analysis.

The white cohort from CCNY spent more on the majority of listed goods and services in 1970 than both of the black cohorts from CCNY and Howard. (See Table 17) In addition, more goods and services were purchased locally by the white group than by either of the other groups. The mean amount spent on housing is fairly close for all three groups ranging from a high of \$2,250 for the CCNY blacks to a low of \$2,000 for the Howard blacks. However, when it comes to the food item, the white cohort spent \$1,800 as compared to \$1,580 spent by the CCNY blacks and \$1,432 by Howard blacks. This is significant at the .01 level of P. Food expenditures were made locally by 72 per cent of the CCNY whites, 64 per cent by the CCNY blacks and 58 per cent by the Howard blacks. This is probably due to the fact that whites have more food stores in their areas and/or that the quality of food is better in the white communities. Therefore many of the blacks buy food outside of their neighborhood.

More tobacco and alcoholic beverages were bought by the CCNY blacks (\$243) with the CCNY whites (\$170) and Howard blacks (\$171) spending about the same for these goods in 1970. Again, when it came to clothing CCNY blacks spent more (\$675) than the CCNY whites (\$625)

and Howard blacks (\$610). Yet CCNY whites spent 42 per cent of their clothing money locally compared to 32 per cent for CCNY blacks and 26 per cent for Howard blacks. Similarly, more expenditures were made by the CCNY whites than by either black cohorts on transportation, medical care, recreation (significant at the .01 level), savings and other. Only education and personal care received a larger amount of money from both black cohorts than the white cohort in 1970. The white cohort saved \$2,320, which was \$380 more than the Howard black figure and \$700 more than the CCNY blacks put in saving accounts. This is probably due to the fact that the black cohort remitted funds to their families in each of the two years studied from 1962 to 1970, whereas the whites of this study did not do so. The blacks of CCNY helped their families more financially in 1964, 1966 and 1968 than the blacks from Howard. In 1962 and 1970 both of the aforementioned cohorts spent about the same amount on their families.

The 'total' item on Table 17 is a mean figure of each of the cohorts' consumption and saving behavior in 1970, according to this study. In the analysis of variance, F was significant at the .05 level. Here is a clear indication of how much more was spent by whites than by blacks. The writer cannot explain the significant greater 'total' expenditure at the .01 level by the whites than the blacks. There seems to be a \$1,650 and \$1,950 discrepancy between the two races that was never accounted

for in this study. (See 'total' item in Table 17)

The above might be caused by differences in the size of families of the respondent. Especially noteworthy is the percentage spent locally by the white cohort. They spent a greater percentage in their own community on all 11 reported goods and services than the Howard blacks and relative to the CCNY blacks their percentage spent was greater in 8 of 11 categories. (See Table 17) One could deduce that a weak benefit is produced on the community through local expenditures by blacks who have received a college degree. They have found out that certain goods and services can be bought cheaper and of a better quality outside their neighborhood. Or is there a market in black neighborhoods which business men have not seen? The reason might be that there is not enough of a demand in black neighborhoods for some of the listed goods and services. Further, the majority of the inhabitants of black ghettos do not have the funds for some of these goods and services.

CHAPTER VII

SUMMARY

Black male college graduates of 1970 of the City College of New York and Howard University have made a significant breakthrough in starting annual salaries. This conclusion is based on 394 useful replies out of 2,253 questionnaires sent to the white and black male graduates of 1962-1970 of the two schools. A historical perspective of these baccalaureates using the CCNY white male college graduates as a control group dramatically displayed the lag, parity and advance in initial and 1970 income of the black group. When combining the two black cohorts, their initial annual mean income was \$5,500 in 1962 and \$9,914 in 1970, an 80 per cent increase. The white cohorts' annual mean starting income was \$6,110 in 1962 and \$8,050 in 1970, a 32 per cent increase.

Throughout this study one sees the rise of blacks in the occupation structure with its income augmenting gains. These included higher initial offers, upgrading of career and increasing opportunities due to decreased discrimination. A very notable finding was that these income gains made by black college male graduates have affected

the black ghetto in a 'spread' (stimulating) effect.

One of the aims of this study was to determine those factors which influence the annual income of black versus white males with college degrees. Among the statistical tools applied were analysis of variance, chi-square, and multiple regressions with dummy variables. The following variables helped to explain 52 per cent of the variation in income of the male baccalaureates of CCNY and Howard. The factors, in their order of explanatory power, were years of experience, marital status, engineering as an undergraduate major, self-employment and arts and humanities (negatively) as an undergraduate major. When multiple regressions were run separately for the black and white cohorts, 54 per cent of the variation in income was explained for the white cohort and 53 per cent for the black group. These tests showed almost the same variables explaining variation in income as the above. However for the white group, self-employment was a significant factor at the .01 level, while it was not significant for the black group. Conversely, arts and humanities as an undergraduate major was a significant negative factor at the .01 level for the black cohort, whereas it was of no significance to the white cohort. The following factors added little to any of the model's explanation: other college majors, organization size, age in 1971 (this factor appeared to be suppressed by years of experience), black-white ratio of neighborhood where

respondent resided in 1970, years attending undergraduate school, High School residence, number of hours worked while attending college, method of getting job, residence by size of city, variation in college (CCNY or Howard), undergraduate average, occupation of father or mother.

Throughout this study are signs of decreasing attitudes of discrimination, as again seen by a convergence of black and white occupational distributions for the white and black male baccalaureates of CCNY and Howard, and an increase of black male college graduates in the upper income occupations in 1970. The chi-square index for the 1962-64 graduating male cohort was 27.2 at their initial occupation, but reduces to 14.2 for that group in 1970. Among the trends observed were the percentage distributions of black male baccalaureates increasing from 3.2 per cent to 27.3 per cent in management during the years 1962-64 to 1970. The reverse occurred in social work and unskilled trades. In the aforementioned, the change was from 11.3 per cent to 1.3 per cent, while in the latter the shift went from 17.5 per cent to 7.8 per cent. Accordingly, there has been a significant decrease in the lowest occupation category for the baccalaureates of this study. There has also been a significant increase in the upper income occupation for this group.

The income gains made by the black male baccalaureates have

pushed upward the utility possibility functions of black ghetto society. About one third of black respondents of this study are active in organizations, advise blacks regarding careers, donate funds to organizations, provide training and/or tutoring to other blacks and remit funds to their families. One part of the study dealt with local expenditures. The question in the questionnaire asked for the approximate amount spent on goods and services by the respondent and his family in 1970 or by himself living alone. The white cohort spent a greater percentage on all 11 reported goods and services in their own community than the black cohort. One could deduce that a weak benefit is produced on the community by blacks who have received a college degree when it comes to local expenditures. Is there a market in black neighborhoods which business men have not seen?

An unexpected finding was that segregation by college students was greater in 1970 than in any of the previous two years going back to 1962. A historical review showed that the yearly trend of blacks moving to white areas is getting smaller each year, changing from a high of 71 per cent in 1962 to a low of 30 per cent in 1970. White CCNY graduates are living in white neighborhoods.

In the job search process the technique used most often by blacks and whites is the one based on one's own initiative, that is, the mailing of resumes to and/or visiting specific firms. This is followed

by services offered by the college placement office.

The percentage of wives having bachelor degrees was 57 per cent of the CCNY white male graduates, 65 per cent of the Howard male cohort and 44 per cent of the CCNY black male group. The difference of the latter is probably due to the greater availability of black females at Howard, an almost all black school.

In 1971, 38 per cent of the Howard black male baccalaureates of 1962-70 had an advanced degree versus 49 per cent of the black cohort of CCNY and 60 per cent of the whites of CCNY. This is probably caused by tradition, parental drive, and the demonstration effect. However, in 1970, there has been a reverse, with 19 per cent of the black graduates of that year going for an upper level degree versus 13.6 per cent of the CCNY whites.

One finding was the number of hours spent working by black students while going to college. The mean number of hours thus spent by CCNY black male college students was 25 hours per week. Howard students worked 21.7 hours per week while CCNY white males spent only 16 hours per week working. Black male baccalaureates of CCNY of 1962-70 earned an average of \$4,052 per year while going to school, whereas Howard black males earned \$2,195, and CCNY white males \$1,940 during the same period.

Another discovery of this study is the fact that the majority of black males from CCNY and Howard believe that they have some or

a great opportunity for advancement with their present firm. In addition, only one black male from CCNY (70 respondents) and one from Howard (141 respondents) claimed discrimination as a reason for leaving their jobs. 63 per cent of the Howard and 60 per cent of the CCNY blacks versus 53 per cent of the CCNY white college male graduates were employed with firms that provide some or great opportunities for advancement.

Very few significant differences showed up between the two black groups. The differences which were observed are probably due to the following reason. The City College of New York is a nonresidential, free, public college. Howard University is a predominantly residential, private college, costing students \$1,833 in 1970-71, including room and board. Howard has a student body that is almost all black, whereas CCNY is 70-80 per cent white. However, CCNY has the largest enrollment of black students in a 4 year college (except for Howard): over 3,000.

The greater 1970 initial annual income of black male versus white male college graduates of this study is probably derived from the scarcity of black male baccalaureates. Other factors are the "Affirmative Action" programs by private organizations and institutions, federal and local agencies and a decrease in discrimination. Whereas private firms favor white male graduates from prestige colleges, they

are forced to be more democratic with black male graduates, i.e., here the limited supply determines the offer.

The data in this monograph suggests that 1970 was the year black male college graduates made a significant advance in annual income. Additionally, many professional occupations and opportunities opened up to blacks. These income gains made by black male baccalaureates of 1962-70 have affected the black ghetto in a beneficial effect. These facts imply that discrimination against black college males has decreased in 1970. The similarity of factors influencing the 1970 income of the black male baccalaureates of CCNY and of Howard, versus white male graduates of CCNY, underlines the disappearance of the discrimination factor. Finally, having been accepted to management in industry, government, private and public institutions, black male baccalaureates are now in a more important position to help their brothers by being involved in setting policy.

APPENDIX

X. (, , , ,) Your role in the black community. (Here more than one number might apply. Therefore all of the appropriate numbers should be placed inside parenthesis. Provide details and dollar benefits if known.

1. opened business in ghetto: lower prices, equal quality.
Annual volume: \$ _____
2. opened business in ghetto: similar prices, equal quality.
Annual volume: \$ _____
3. provided employment for blacks in my firm; number: ____:
av. salary \$ _____
4. invested in ghetto; approx. amount: \$ _____
5. provided training and/or tutoring
6. advised blacks regarding careers
7. advised business people; estimated net benefits: \$ _____ per year
8. remitted funds to my family and/or friends: \$ _____
9. donated funds to organization; approx. amount: \$ _____
10. active in organizations: (helped organize tenant protest, youth activities, health care, local school, politics, etc.)
11. other relationships to black community: _____

Y. Approx. amount spent on goods & services by you & your family in 1970 or by yourself living alone. What percentage of each amount was spent in your neighborhood (within walking distance)?

	Spent on each item	Percentage spent locally
1. housing	\$ _____	_____ %
2. food	_____	_____
3. tobacco & alcoholic bev.	_____	_____
4. clothing	_____	_____
5. transportation	_____	_____
6. medical care	_____	_____
7. personal care	_____	_____
8. education	_____	_____
9. recreation	_____	_____
10. savings	_____	_____
11. other; specify: _____	_____	_____

YY. Grand total: \$ _____

Z. Income taxes paid by you & your family in 1970: 1. local \$ _____
2. state \$ _____ 3. federal \$ _____ 4. other \$ _____

ZZ. () Did other wage earners or other sources of income besides your salary contribute to the family income? 1. no 2. yes
If yes, who? _____ specify: \$ _____

If you are interested in a summary of the findings, please include a self-addressed, stamped envelope. The reply will take some time since not everyone may return the questionnaire as quickly as you. The responses will be tabulated, correlated and analyzed, before preparing the summary of findings.

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