Notes on Educational, Occupational, and Economic Achievement in American Society

by William H. Sewell

The U.S. has made great strides in promoting equality of educational opportunity. However, blacks and women still lag in higher education, and there is still much room for improvement in occupational opportunity for people of modest socioeconomic origins.

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In American society many different kinds of achievement are valued. However, I shall focus on only three broad areas of achievement: education, occupation, and income. Achievement in each of these areas is highly prized, and to varying degrees our society accepts responsibility for providing opportunities in all of them. Moreover, there are direct and indirect ways in which they are related. Certain levels of educational attainment are generally considered appropriate prerequisites for various occupations, and it is generally assumed that, in turn, income will depend in part on occupational attainment.

While generally positive, the correlation between educational, occupational, and economic achievements is far from perfect. As is well known, some occupations require high levels of educational attainment and are accorded high status but command relatively low economic rewards. Other occupations require little formal education and are accorded low status but may yield relatively high levels of income. Moreover, educational, occupational, and economic achievement are all related in varying degrees to other characteristics of the individual, including socioeconomic, racial, and geographic origins; sex, ability, motivation, and aspirations; and experiences in the home, school, community, and labor market. This is what makes research on factors in achievement in American society particularly difficult.

Educational Attainment

I shall examine educational attainment first. I do so not only because of the high value placed on educational attainment in our society and because of the instrumental role played by education in occupational and economic achievement, but also because education is an area in which Americans have made the greatest commitment to equality of opportunity.

We may examine educational attainment in any of several ways, but the one indicator that is most commonly used and understood is years of schooling completed. I shall use this measure and consider such statistics as median years of school completed and percentage of persons in given age cohorts completing various levels of formal education.

The educational attainment of the age cohort born about 75 years ago — near the time when Phi Delta Kappa was founded — was 8.7 years of schooling. Only 30% of the cohort graduated from high school. Thirteen percent completed at least one year of college and 7% graduated from college.[1] Contrast this with the experience of the age cohort born in 1950. Now age 30, they have attained a median of 12.9 years of schooling. Eighty-five percent of them graduated from high school, 47% completed one or more years of college, and 26% are college graduates. Although there has been steady improvement in the educational attainment of our population over the years, the past 40 have been the most dramatic. The most important gain has been in retention of children through high school graduation. The current 86% graduation rate for white school-aged children, according to many experts, is near the maximum yield attainable. Blacks have made great strides in recent years; currently over 75% of black children graduate from high school. Black youths of high school age are currently as likely to be enrolled in school as are white youths, regardless of sex or residence (the current enrollment rates for black and white population groups are within one percentage point of 89%).[2] Hence the gap between the races in percentages graduated from high school is likely to close in the Eighties.

Over the years but particularly in the last two decades, women and blacks have made remarkable strides toward equality in the achievement of higher education. Forty-one percent of women in the 30-year age cohort have achieved at least one year of college, and 22% are college graduates; the corresponding figures for men are 53% and 30%. At present women are as likely to enter college as men, and, if their retention rates continue to improve, the gap between women and men will be closed early in the current decade.

The same trend holds for blacks, but the gaps are larger because of the lower likelihood of black youths graduating from high school and their lower college retention rates. Thirty-one percent of blacks in the 30-year age cohort have completed at least one year of college, and 13% are college graduates; corresponding figures for whites are 49% and 27%. With increased opportunities for higher education, we can expect blacks to make sizable gains; but the prospects for equality of achievement in higher education for blacks in the next decade are clearly less favorable than for women.

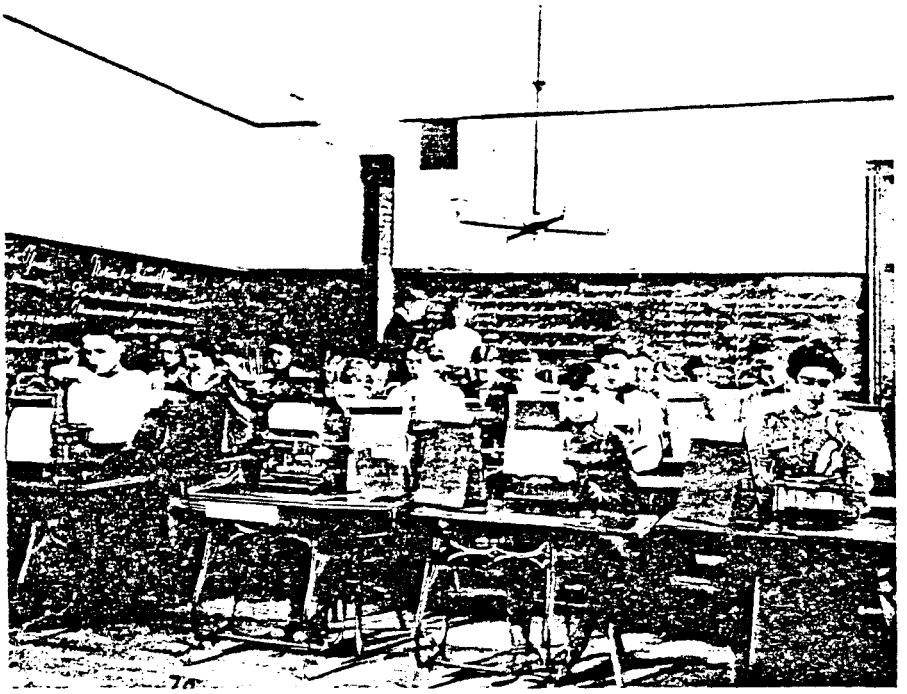
Today, too many academically qualified youths from lower socioeconomic backgrounds fail to continue their education after completion of high school. As has been true for at least 50 years, roughly half of any full cohort of high school graduates goes on to college. Those from lower socioeconomic backgrounds, regardless of race or sex, are still handicapped when it comes to college entry and completion, despite the government-sponsored programs designed to assist them.[3] The challenge of the Eighties is to further increase the opportunities for higher education for able but disadvantaged white and black youths of both sexes.

Occupational Achievement. Probably there is no single achievement that is more highly regarded by the general public in America than the attainment of a respected occupation. This is related to the fact that there is a strong tendency to identify personal excellence with occupational achievement. During the past century the U.S. and Canada have been transformed from basically agricultural-industrial societies to advanced industrial societies that are increasingly dependent upon bureaucratic occupations ranging from clerical and sales to technical, managerial, scientific, and professional positions. We are less dependent on farming and manual occupations. The bureaucratic occupations characteristically require high levels of education, ranging from high school graduation for most clerical positions to postgraduate and professional degrees for some technical and

managerial occupations and most scientific and professional positions. The shift to an advanced-industrial society has been accompanied by an enormous increase in the number of high-status occupations requiring advanced training and education. This in turn has resulted in increased opportunities for able and determined youths of modest social origins to obtain the necessary education to qualify for high-prestige occupations — occupations that bring high social status in the community and the income necessary for the enjoyment of a desired life-style.

For over 50 years, sociologists have been documenting the fact that the competition for high-prestige occupations is not completely open; success depends heavily on the socioeconomic position of one's family of origin. Even the most recent studies of occupational mobility clearly demonstrate that, although there is a great deal of occupational mobility in our society, the occupation of the father is still an important determinant of the occupation of the son.[4] It is also known from research on social mobility that one of the most important mechanisms by which families influence the socioeconomic careers of their children is by socializing them to appropriate educational and occupational aspirations and by providing the requisite support for the achievement of these aspirations.[5]

Social scientists have recently sought to further understand the complex process by which children achieve their adult occupational status. In 1967 Peter Blau and Otis Duncan developed a causal model that used father's occupation, father's education, son's education, and son's first job to explain the son's current occupational status.[6] Stimulated by their success, my group at Wisconsin has sought to further explain the status attainment process by adding ability; grades; the encouragement of parents, teachers, and peers; and educational and occupational aspirations plus educational attainment as intervening variables between social background and occupational achievement. The resulting "Wisconsin Social Psychological Model of Status Attainment" has been widely used in studies of educational and occupational achievement in the U.S. and abroad.[7] Numerous applications of the model show that the socioeconomic status of the parents has little or no effect on high school grades independent of measured ability. Parents' socioeconomic status, however, does have strong effects on significant others' influences and on educational and occupational aspirations, and via these aspirations on educational and occupational achievements. The effects of the child's ability are somewhat different. Ability has strong effects on high school grades, independent of socioeconomic origins; it also has direct and indirect effects on significant others' influence and on educational and occupational aspirations. Through these mediating variables, ability affects educational attainment and subsequently occupational status. Educational attainment has the greatest effect on occupational achievement of any variable in the model. The model explains up to two-thirds of the variance in educational achievement and almost half of the variance in occupational attainment, as assessed by standardized indices of occupational prestige and socioeconomic status.



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A turn-of-the-century typing class in Washington, D.C.

Many other interesting findings have resulted from the application of various forms of the Wisconsin model in the study of the status attainment process. I shall mention only three as they pertain to matters covered in this article:

1. The models work equally well in explaining the educational and early occupational achievements of either young men or young women. But later in the life cycle they become less efficient in explaining women's occupational achievements. We have preliminary evidence suggesting that this is because women aspire to, train for, and enter segregated occupations in which advancement is restricted; women are less likely to be given on-the-job training that would enable them to qualify for better jobs; women tend to be intermittent workers and, when they return to work, often have to take lower-status jobs than those they left; finally, women tend not to be promoted, whatever their qualifications, to the higher-status supervisory positions involving power and authority in the workplace.[8]

2. The models explain economic achievement as measured by earnings much less effectively than they explain occupational achievement. The importance of education in determining earnings is much less than educators have commonly assumed, but education still has significant effects, particularly through its influences on occupational attainment. We think the explanation of economic achievement will involve the development of new models that include a number of variables that intervene between formal educational attainment and income, such as years of working experience, on-the-job training, the characteristics of the labor market in which one works, and the industry and the type and size of firm in which one is employed — all of which have been shown to contribute to earnings differentials.[9]

3. With another variant of the Wisconsin model, we have also examined the effects of quality of college on socioeconomic achievement. Our results show that although those who attend prestigious colleges have significantly higher occupational and economic attainments than those attending lower-status institutions, most of this advantage is due to the characteristics of those who attended the high-status colleges rather than to the influence of characteristics of the college.[10]

As a result of research of this nature, commonly called "status attainment research," we are coming to have a more complete understanding of the complex factors that help to explain educational attainment in our society and of the important role that education plays in socioeconomic achievements — especially in occupational attainment. But there is considerable room for improvement in these models if we are to further explain dif-

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ferential rates of occupational and economic achievements. Researchers at Wisconsin and elsewhere are trying to develop new and improved models that more adequately take into account the influence of individual and structural factors in the explanation of achievement.

Economic Attainment

Economic success has always been highly valued in our society, of course. In fact, many Americans consider the achievement of wealth or a high income to be the most important of all attainments. This is not only because wealth and income are associated with economic and political power but also because it is commonly assumed that legitimately acquired wealth and income are measures of the ability, determination, and productivity of those who successfully compete for economic rewards. Yet it is also widely known that this economic competition is by no means equally open to all citizens. Wealth is legitimately passed on from one generation to another and parents make income transfers to their children. The role of government has never been to stop these transfers but only to reduce the gains from them through tax policies, with the result that they are still effective in maintaining family economic power. Moreover, as I have noted, families of high socioeconomic status seek to insure the economic status of their children by helping them to obtain the best possible education and occupation. The consequence of these and related facts is that American society is characterized by great economic inequality. I shall not present evidence to support this assertion, because it is generally accepted; voluminous research demonstrates the extent of economic inequality in the U.S.[11] I shall, however, examine briefly two aspects of economic inequality in our society: the inequality in income and earnings between blacks and whites and between men and women.

Table 1 is based on information collected in a national survey of full-time workers conducted by the U.S. Bureau of the Census in 1977.[12] From this table we may draw three very important conclusions regarding race and sex differences in income while controlling for education.

First, within each race and sex category, even though there are large race and sex differences in income, without exception the rule is this: the higher the educational level, the higher the median annual income. That the differences in annual income by education within each race and sex category are large is indicated by comparing the annual incomes of those at the extremes of the educational scale. Thus white men, who on average have the highest incomes, have median incomes under $10,000 if they have less than eight years of schooling, in contrast with approximately $22,000 if they have five or more years of college. And black women, who on average have the lowest incomes, have a median annual income of approximately $5,500 if they have less than eight years of schooling, in comparison with $13,600 if they have five or more years of college.

Second, it is apparent from the table that white men at all educational levels have larger mean annual incomes than black men. The discrepancies are greatest at the lower educational levels and least at the higher levels of education. Other evidence indicates that this has been true throughout the 1960-70 period, although the gap is being reduced and is currently quite small for blacks with higher education.[13] White women have somewhat higher annual incomes than black women at the lower educational levels, but at the higher levels of education the differences decrease and in some instances favor black women.

Third, income differentials between the sexes are much greater than between whites and blacks at every educational level. Thus if we compare women's and men's annual incomes by educational levels we find that men's incomes are $3,300 more than women's at the lowest educational level and that the difference increases regularly to nearly $8,000 for college graduates. Moreover, women's annual incomes are never more than 65% of those of men at any level of education. On the other hand, black men's annual income is never less than 67% of white men's income (for men with eight years of schooling) and ranges upward to 85% for those with a college education.

It would take considerably more space than I have available to explain these findings thoroughly. Consequently, I shall concentrate on the one finding that seems most enigmatic: the discrepancy between the earnings of men and women with the same levels of educational attainment. Recent research on this problem suggests several possible explanations that seem to have merit.[14] The first is that women who work on full-time jobs outside the home tend to be concentrated in traditionally female occupations where pay is relatively low. Second, not only do the occupations women enter tend to pay less than those men enter, but the more an occupation is dominated by women the less it pays. Third, women are more likely than men to be employed by low-paying firms. Fourth, there are still instances of women being paid less than men doing the same work. Finally, women have less commitment to the labor market than men; hence they are willing to take jobs that pay less or provide less chance for advancement. (Analogues of the first three of these reasons are equally valid for blacks.)

No study has attempted to assess the importance of all of these factors in explaining the earnings gap between employed men and women. The major reason for this hiatus is lack of basic data; it would be extremely costly to design and carry out a survey to provide the necessary information. A number of studies have examined one or more of the explanations I have offered.[15] Each of the factors has

Table 1. Median Annual Income of Full-Time Workers by Education, Race, and Sex, 1977

Years of Education	All Men	White Men	Black Men	All Women	White Women	Black Women
Total	$15,082	$15,391	$10,607	$ 8,819	$ 8,874	$ 8,297
Elementary						
Less than eight yrs.	9,332	9,967	7,466	6,022	6,162	5,514
Eight yrs.	11,931	12,266	8,208	6,493	6,617	5,748
High school						
One to three yrs.	12,357	12,821	9,363	7,227	7,396	6,594
Four yrs.	14,408	14,786	10,821	8,462	8,493	8,185
College						
One to three yrs.	15,548	15,722	13,312	9,471	9,466	9,398
Four yrs.	19,016	19,329	13,334	11,134	11,040	12,049
Five yrs. or more	21,832	21,979	18,217	14,145	14,226	13,597

been shown to make some contribution to explaining the earnings gap between the sexes, but no study, to my knowledge — including those that examine the influence of such individual characteristics as education, occupation, labor-force commitment, and labor-force experience — can account for as much as 50% of the gap. Studies that take into account such institutional aspects as job segregation, size and type of firm, and type of labor market also explain only a small portion of the earnings differences between men and women. From all the evidence available to date, it appears that women are systematically and seriously underpaid. The amount of this underpayment that is due to discrimination is very difficult to determine, because of the problems inherent in identifying and assessing the factors that account for the earnings differences.

Remedies for unequal earnings are not easily put into action. From experiences to date, it appears that the legal requirement of equal pay for the same job will take a long time to become fully effective. Equal access to all occupational opportunities will at best work quite slowly, because those now in the labor market cannot easily shift to jobs that require skills for which they are not trained. The use of job evaluation procedures to equalize pay for jobs requiring equal qualifications would probably further help to eliminate pay differentials between male and female workers in the same firm.[16] (Of course, all of these remedies would be equally effective in reducing differences in the pay of black and white workers.)

As I have shown, the U.S. has made great strides in promoting equality of educational opportunity, although there are still gains to be made in higher education by women and blacks. There is still considerable room for improvement in occupational opportunity for those from modest socioeconomic origins, whether women or men or blacks or whites, but progress is being made. The greatest challenge of the future, however, is to close the gap between the earnings of females and males and between blacks and whites — gaps that are not based on differences in educational attainment between the sexes or the races but on many subtle factors, including differences in socialization to educational and occupational expectations and the operation of labor markets that tend to reinforce past discrimination.

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1. The figures on educational attainment are based on information from the U.S. Bureau of the Census, *Educational Attainment in the United States: March 1976 and 1977*, Current Population Reports, Series P-20, No. 314 (Washington, D.C.: U.S. Government Printing Office, December 1977).

2. Enrollment data are from the U.S. Bureau of the Census, *School Enrollment — Social and Economic Characteristics of Students*, Current Population Reports, Series P-20, No. 346 (Washington, D.C.: U.S. Government Printing Office, October 1979).

3. Larry E. Sutter, "Elementary and Secondary School Progression, High School Graduation, and College Entrance of the American Population," in Alan C. Kerckhoff, ed., *Research in Sociology of Education and Socialization* (Greenwich, Conn.: JAI Press, 1980), pp. 1-30.

4. See especially Pitirim Sorokin, *Social Mobility* (New York: Harper and Brothers, 1927); Peter M. Blau and Otis D. Duncan, *The American Occupational Structure* (New York: John Wiley and Sons, 1967); and David L. Featherman and Robert M. Hauser, *Opportunity and Change* (New York: Academic Press, 1978).

5. William H. Sewell and Vimal P. Shah, "Socioeconomic Status, Intelligence, and the Attainment of Higher Education," *Sociology of Education*, Winter 1967, pp. 1-23.

6. Blau and Duncan, op. cit., pp. 165-77.

7. William H. Sewell, Archibald O. Haller, and Alejandro Portes, "The Educational and Early Occupational Status Attainment Process," *American Sociological Review*, February 1969, pp. 82-92; and William H. Sewell, Archibald O. Haller, and George W. Ohlendorf, "The Educational and Early Occupational Attainment Process: Replication and Revision," *American Sociological Review*, December 1970, pp. 1014-27.

8. William H. Sewell, Robert M. Hauser, and Wendy C. Wolf, "Sex, Schooling, and Occupational Status," *American Journal of Sociology*, November 1980.

9. William H. Sewell and Robert M. Hauser, *Education, Occupation, and Earnings: Achievement in the Early Career* (New York: Academic Press, 1975).

10. Duane F. Alwin, "Socioeconomic Background, Colleges, and Post-Collegiate Achievements," in William H. Sewell, Robert M. Hauser, and David L. Featherman, eds., *Schooling and Achievement in American Society* (New York: Academic Press, 1976), pp. 343-72. For influence of high schools, see Sewell, Hauser, and Alwin, "High School Effects on Achievement," ibid., pp. 309-42.

11. See especially Herman P. Miller, "Is the Income Gap Closing? 'No!'," in Harold L. Sheppard, ed., *Poverty and Wealth in America* (Chicago: Quadrangle Books, 1975).

12. U.S. Bureau of the Census, *Money Income in 1977 of Families and Persons in the United States*, Current Population Reports, Series P-60, No. 118 (Washington, D.C.: U.S. Government Printing Office, 1979).

13. James A. Sweet, "Recent Trends in the Economic Conditions of Young Married Couples in the United States," Working Paper #79-42, and "Recent Trends in the Size and Composition of Income of Young Black Couples, 1960-76," Working Paper #80-10 (Madison, Wisc.: University of Wisconsin Center for Demography and Ecology, 1979 and 1980).

14. Robert Bibb and William H. Form, "The Effects of Industrial, Occupational, and Sex Stratification on Wages in Blue-Collar Markets," *Social Forces*, June 1977, pp. 974-86; Francine D. Blau, *Equal Pay in the Office* (Lexington, Mass.: Lexington Books, 1977); and Donald J. Treiman and Kermit Terrell, "Women, Work, and Wages," in Kenneth C. Land and Seymour Spilerman, eds., *Social Indicator Models* (New York: Russell Sage Foundation, 1975).

15. Mary Corcoran and Gregory J. Duncan, "Work History, Labor Force Attachment, and Earnings Differences Between the Races and the Sexes," *Journal of Human Resources*, Winter 1979, pp. 3-20; Jacob Mincer and Solomon W. Polachek, "Family Investment in Human Capital: Earnings of Women," *Journal of Political Economy*, March/April 1974, Part II, pp. S76-S108; and "Women's Earnings Reexamined," *Journal of Human Resources*, Winter 1976, pp. 118-34.

16. Donald J. Treiman, *Job Evaluation: An Analytical Review* (an interim report) (Washington, D.C.: National Academy of Sciences, 1979). □

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Sewell's longitudinal study of social and economic factors in educational and occupational aspirations and attitudes followed the careers of over 9,000 males and females who were graduated from Wisconsin high schools in 1957. It broke new ground and is already considered a classic.

Among curriculum authorities who were consulted by Harold Shane in the preparation of his "significant writings" article (page 311) were*:

William Alexander, Vernon E. Anderson, Michael W. Apple, Patrick Babin, Roger V. Bennett, Louise M. Berman, Leslee Bishop, Joseph Anthony Bosco, Janet S. Branch, Robert L. Buser, Arthur Costa, O. L. Davis, Jr., Stanley Dimond, Russell Dobson, Prudence Dyer, Samuel Everett, Stephen M. Fain, Gerald R. Firth, Robert Fleming, Jack R. Fraenkel, Jack R. Frymier, Charles Gengler, and Gary A. Griffen.

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*Several persons who returned Mr. Shane's opinionnaire neglected to sign their names. We regret that they could not be included in the above list. — *The Editor.*