

# Education, Inequality, and the Meritocracy

It is the business of the school to help the child to acquire such an attitude toward the inequalities of life, whether in accomplishment or in reward, that he may adjust himself to its conditions with the least possible friction.

FRANK FREEMAN,  
"Sorting the Students,"  
*Education Review*, 1924

The humanity of a nation, it is said, can be gauged by the character of its prisons. No less can its humanity be inferred from the quality of its educational processes. In the initiation of youth, a society reveals its highest aspirations, tempered less by the weight of tradition than by the limits to which the social relationships of adult life can be pushed. We believe that in the contemporary United States, these limits are sufficiently narrow to preclude the educational system from simultaneously integrating youth into adult society and contributing significantly to economic equality. In promoting what John Dewey once called the "social continuity of life," by integrating new generations into the social order, the schools are constrained to justify and reproduce inequality rather than correct it.

The relative powerlessness of the educational system to promote equality is to be expected in light of the considerations of the previous chapter. The pattern of economic inequality is predominantly "set" in the economy itself—via market and property institutions which dictate wide inequalities in income from property, in the basic social relations of corporate enterprises, and in the tendency toward uneven development, which leads to regional, sectional, racial, sexual, and ethnic disparities. But the "legitimation hypothesis" which we hope to substantiate in this chapter goes considerably beyond this level of analysis. For it suggests that a major element in the integrative function of education is the legitimation of preexisting economic disparities. Thus efforts to realize egalitarian objectives are not sim-

ply weak; they are also, as we shall demonstrate, in substantial conflict with the integrative function of education.

The educational system legitimates economic inequality by providing an open, objective, and ostensibly meritocratic mechanism for assigning individuals to unequal economic positions. The educational system fosters and reinforces the belief that economic success depends essentially on the possession of technical and cognitive skills—skills which it is organized to provide in an efficient, equitable, and unbiased manner on the basis of meritocratic principle.

Of course the use of the educational system to legitimize inequality is not without its own problems. Ideologies and structures which serve to hide and preserve one form of injustice often provide the basis of an assault on another. The ideology of equal educational opportunity and meritocracy is precisely such a contradictory mechanism.

We shall argue that beneath the façade of meritocracy lies the reality of an educational system geared toward the reproduction of economic relations only partially explicable in terms of technical requirements and efficiency standards. Thus we shall first suggest that educational tracking based on competitive grading and objective test scores is only tangentially related to social efficiency. Then we shall confront the technocratic-meritocratic ideology headon by showing that the association between length of education and economic success cannot be accounted for in terms of the cognitive achievements of students. Thus the yardstick of the educational meritocracy—test scores—contribute surprisingly little to individual economic success. The educational meritocracy is largely symbolic.

Clearly, though, this symbolism is deeply etched in the American consciousness. Nothing exhibits this more clearly than the recent "IQ debate," where it has been generally assumed that IQ and other measures of cognitive performance are important indicators of economic success. Only the genetic or environmental determinants of IQ have been questioned. Yet we will argue that social class or racial differences in IQ are nearly irrelevant to the process of intergenerational status transmission.

*The Legitimation of Inequality*

... the fact is, [a] workman may have a ten year intelligence while you have a twenty. To demand of him such a home as you enjoy is as absurd as to insist that every laborer should receive a graduate fellowship. How can there be such a thing as social equality with this wide range of mental capacity?

HENRY GODDARD, Lecture at Princeton, 1919

Throughout history, patterns of privilege have been justified by elaborate facades. Dominant classes seeking a stable social order have consistently nurtured and underwritten these ideological facades and, insofar as their power permitted, blocked the emergence of alternatives. This is what we mean by "legitimation": the fostering of a generalized consciousness among individuals which prevents the formation of the social bonds and critical understanding whereby existing social conditions might be transformed. Legitimation may be based on feelings of inevitability ("death and taxes") or moral desirability ("everyone gets what they deserve"). When the issue is that of social justice, these feelings are both present, with a dose of "custom" and "resignation" as well.

In U.S. economic life, legitimation has been intimately bound up with the technocratic-meritocratic ideology which we discussed in Chapter 2. Several related aspects of the social relations of production are legitimized, in part, by the meritocratic ideology. To begin with, there are the overall characteristics of work in advanced U.S. capitalism: bureaucratic organization, hierarchical lines of authority, job fragmentation, and unequal pay. It is essential that the individual accept and, indeed, come to see as natural, these undemocratic and unequal aspects of the workaday world. Moreover, the staffing of these positions must appear egalitarian in process and just in outcome, parallel to the formal principle of "equality of all before the law" in a liberal democracy.

This legitimation of capitalism as a social system has its counterpart in the individual's personal life. Thus, just as individuals must come to accept the overall social relations of production, so workers must respect the authority and competence of their own "supervisors" to direct their activities, and justify their own authority (however extensive or minimal) over others. That workers be resigned to their position in production is perhaps sufficient; that they be reconciled to their fate is even preferable.

The hallmark of the meritocratic perspective is its reduction of a complex web of social relationships in production to a few rules of technologi-

cal efficiency. In this view, the hierarchical division of labor arises from its natural superiority as a device to coordinate collective activity and nurture expertise. To motivate the most able individuals to undertake the necessary training and preparation for occupation roles, salaries, and status must be clearly associated with level in the work hierarchy. Thus Davis and Moore, in their highly influential "functional theory of stratification," locate the "determinants of differential reward" in "differential functional importance" and "differential scarcity of personnel." "Social inequality," they conclude, "is thus an unconsciously evolved device by which societies insure that the most important positions are conscientiously filled by the most qualified persons."<sup>1</sup>

This meritocratic ideology has remained a dominant theme of the mainstream of social science since the rise of the factory system in the United States.<sup>2</sup> The robustness of this perspective (even those who reject it have nagging doubts) is due, in no small part, to its incorporation in major social institutions—factories, offices, government bureaus, and schools. For the technocratic justification of the hierarchical division of labor leads smoothly to a meritocratic view of the process whereby individuals are matched to jobs. An efficient and impersonal bureaucracy, so the story goes, assesses the individual purely in terms of his or her expected contribution to production. And the main determinants of job fitness are seen to be those cognitive and psychomotor capacities relevant to the worker's technical ability to do the job. The technocratic view of production, together with the meritocratic view of hiring, provides the strongest form of legitimation of alienated work and social stratification in capitalist society. Not only does it strongly reinforce the notion that the hierarchical division of labor is technically necessary (albeit politically totalitarian), but it also justifies the view that job assignment is objective and efficient and, therefore, just and egalitarian (albeit severely unequal). Moreover, the individual is resigned to, if not satisfied with, his or her own position in the hierarchy of production. The legitimacy of the authority of superiors flows not from social contrivance but from Science and Reason.

That this view does not strain the credulity of well-paid intellectuals is perhaps not surprising. But the meritocratic perspective would not be of much use in justifying the hierarchical division of labor if it counted among its adherents only the university elite and the technical and professional experts. But such is not the case. Despite the extensive evidence that IQ is not an important determinant of individual economic success, and despite the absence of evidence that technical skills have an important causal relationship to income inequality or intergenerational status transmission,

the nearly exclusive importance of IQ and skills has captured the public mind. Numerous attitude surveys exhibit this fact.<sup>3</sup>

The linking of technical skills to economic success indirectly via the educational system strengthens rather than weakens the legitimization process. First, the day-to-day contact of parents and children with the competitive, cognitively oriented school environment, with clear connections to the economy, buttresses, in a very immediate and concrete way, the technocratic perspective on economic organization, to a degree that a sporadic and impersonal testing process divorced from the school environment could not accomplish. Second, by rendering the outcome (educational attainment) dependent not only on ability but also on motivation, drive to achieve, perseverance, and sacrifice, the status allocation mechanism acquires heightened legitimacy. Moreover, such personal attributes are tested and developed over a long period of time, underlining the apparent objectivity and achievement orientation of the stratification system. Third, frequent failures play an important role in gradually bringing a student's aspirations into line with his or her probable career opportunities. By the time most students terminate schooling, they have been put down enough to convince them of their inability to succeed at the next highest level. Through competition, success, and defeat in the classroom, students are reconciled to their social positions.<sup>4</sup>

So the objective educational system has etched the meritocratic perspective deeply into both popular culture and social science methodology. Nowhere is this seen more clearly than in the recent controversy over "open admissions" in colleges and universities. Open enrollment has been called on by militant minority groups to counteract the impediments of community deprivation, discrimination, and poor secondary education.<sup>5</sup> Both proponents and opponents of open admission have nearly uniformly assumed that the admission of students to higher education irrespective of IQ, test scores, or grades runs counter to efficiency and educational rationality.<sup>6</sup> Must not the principle of meritocracy in schools be efficient? Should not the most "able" be granted the right to further educational resources, since they will be the most capable of benefiting themselves and society? So goes the argument. But if social efficiency is the objective, the justification for a meritocratic admissions policy must rest on the assertion that "smart" people benefit more from college than those with lower test scores and grades. Stated more technically, the return from higher education, namely its impact on the individual's cognitive capacities, earning abilities, or productivity, must be positively related to prior test scores: The higher the test score the greater the expected return. If this is not the case, if low test

scorers get as much out of college as high scorers, the argument that the policy of admitting the smartest must be maintained in the interest of social efficiency falls apart. And the evidence generally supports the view that the return from higher education is independent of prior test scores.

In a study exploring the cognitive "value added" in higher education, Alexander Astin, Director of the American Council on Education, found that there is no evidence that smart high-school seniors learn more in college, despite the fact that they tend to go to "better" institutions.<sup>7</sup> That is, education is something like physical exercise: Some people are more talented than others, but all benefit about equally from athletic involvement and instruction. But the more important question for our purposes is the way in which test scores affect the economic productivity of education, and, particularly, the predominant contemporary "sorting mechanism," higher education. The fact that for the past half century people have simply assumed the economic rationality of sorting by IQ and test scores in education speaks highly for the persuasiveness of the meritocratic perspective. Yet available evidence by no means substantiates this view. Of the six statistical studies which address this question, four indicate that schooling is *not* more productive for the higher-IQ individual; one produced mixed results; and only one supported the traditional view.<sup>8</sup>

For instance, Daniel C. Rogers<sup>9</sup> investigated the lifetime earnings of 1,827 males who were in the eighth or ninth grades in 1935, in various cities of Connecticut and Massachusetts, and who took an IQ test in that year. Rogers found that the economic productivity of a year of schooling is the same at all levels of IQ: The rate of return on the individual's "investment," including tuition and supply, costs as well as foregone earnings, toward attaining a higher degree, is more or less equal across a broad spectrum of IQ levels. At least from an economic point of view, higher education benefits all ability levels fairly equally, so the usual justification for selective enrollment is quite dubious.

But we do not propose to justify open admissions on grounds of pure economics or social efficiency. Rather, we wish to emphasize that the meritocratic orientation of higher education, far from serving "economic rationality," is actually a façade that facilitates the stratification of the labor force. Open admissions threatens this legitimization mechanism by rendering school success a less important factor in the opportunity to obtain higher education.

Experience with open enrollment seems to support our assertion that the ostensibly meritocratic and objective nature of selective admissions serves mainly the reproduction of the labor force through legitimization. The City

College of New York, which began an extensive program of open enrollment in 1970, asked Astin and his associates at the American Council on Education to evaluate its first year of operation. They found that regular and open-enrollment students improved their test scores at the same rate, and there was no evidence that academic standards were lower in the first year. Of course, the test scores of open-enrollment students were initially lower than those of regulars (by the end of the freshman year, the test scores of open-enrollment students had attained the level of entering regular students). Nonetheless, while 50 percent of the open-enrollment students progressed at the normal rate (i.e., had earned twenty-four college credits), the proportion of regular students who did so was only slightly higher than 60 percent. In their interim report, Astin and Rossman conclude:

Whether a student was regularly admitted or was an open-admissions student proved relatively unimportant in predicting his or her success in the first year. Although the two groups did indeed differ in many ways, it is clear that open-admissions students brought a number of personal characteristics besides past achievements that proved to be important for college.<sup>10</sup>

In summary, the ostensibly objective and meritocratic selection and reward system of U.S. education corresponds not to some abstract notion of efficiency, rationality, and equity, but to the legitimization of economic inequality and the smooth staffing of unequal work roles. Every society must and will reward some individual excellences. But which ones they reward, in what manner, to what extent, and through what social process depend critically on how economic life is organized. The predatory, competitive, and personally destructive way in which intellectual achievement is rewarded in U.S. schools and colleges is a monument not to creative rationality, but to the need of a privileged class to justify an irrational, exploitative, and undemocratic system.

### *Education, Income, and Cognitive Attainment*

I have never considered mere knowledge . . . as the only advantage derived from a good common school education. I have uniformly found the better educated as a class possessing a higher and better state of morals, more orderly and respectful in their deportment, and more ready to comply with the wholesome and necessary regulations of an establishment.

And in times of agitation, on account of some change in regulations or wages, I have always looked to the most intelligent, best educated, and the most moral for support and have seldom been disappointed . . . they will generally acquiesce and exert a salutary influence upon their associates. But the ignorant and uneducated I have generally found most turbulent and troublesome, acting under the impulse of excited passion and jealousy.

HOMER BARTLETT,  
a Massachusetts Industrialist writing  
to Horace Mann in 1841

Why does education increase people's income? The traditional explanation—which we have labeled the technocratic-meritocratic perspective—presents a simple and compelling answer. Earnings reflect economic productivity. In a technologically advanced society, an individual's economic productivity depends partly on the level of the cognitive skills he or she has attained. Each year of education increases cognitive skill levels, thus indirectly leading to higher income.

Were this view correct, our heavy emphasis on the legitimating role of education would be more than a little misleading. In that case, the competitive educational system would be a meritocratic "game" in which the stakes (economic success) would be directly related to the criteria (cognitive attainment) of winning or losing in a very rational and even technological way.<sup>11</sup> Again, were this view correct, it would be difficult to argue that there are fundamental contradictions among the integrative, egalitarian, and personal development functions of education in capitalist society. Education could be as egalitarian as people's innate biological capacities allowed—which would be pretty far. Moreover, were the technocratic-meritocratic perspective correct, the persistence of repressive education—in the face of alternatives which appear to offer both a more democratic and participatory environment and a more effective vehicle for the transmission of cognitive skills—would merely reflect an irrational institutional inertia on the part of the school system. If schools could be made more humane and more efficient producers of intellectual skills, why have not all parties concerned—educators, students, employers, parents, workers, school boards, everybody—celebrated the opportunity? The answer, we believe, lies in a simple, but often overlooked, fact: The role of schools in promoting cognitive growth by no means exhausts their social functions. Indeed, while skills are developed in schools and a skilled labor force is necessary in a technologically advanced society, a cognitive approach to the educational system which focuses on the production of mental skills

cannot provide the basis for understanding the link between schools and the economy.

In particular, we shall demonstrate that although higher levels of schooling and economic success tend to go together, the intellectual abilities developed or certified in school make little causal contribution to getting ahead economically. Only a minor portion of the substantial statistical association between schooling and economic success can be accounted for by the school's role in producing or screening cognitive skills. The economic function of schools is thus not limited to the development or identification of these skills.

This assertion may strike some as curious. Many commentators on the educational scene—social scientists, educators, and employers among them—have mistakenly attributed overarching importance to the intellectual role of schooling. A mid-nineteenth-century industrialist, for example, wrote:

Whenever a mill or a room should fail to give the proper amount of work, my first inquiry . . . would be as to the character of the help, and if the deficiency remained any great length of time, I am sure I should find many who had made marks upon the payroll, being unable to write their names.<sup>12</sup>

Interestingly, the records of a mill virtually identical to that owned by this industrialist have been preserved, and a careful study of the number of pieces produced by each worker (paid according to piece rates) revealed absolutely no statistical relationship between worker productivity and literacy, as measured by the marking of the payroll receipt book with an "X" or a written signature.\*

While our more general claim—that the primary economic function of schooling is not the production or selection of intellectual skills—can be verified through a wide variety of data sources,<sup>13</sup> our major illustration will be drawn from an extensive sample which we have subjected to close statistical analysis.<sup>14</sup>

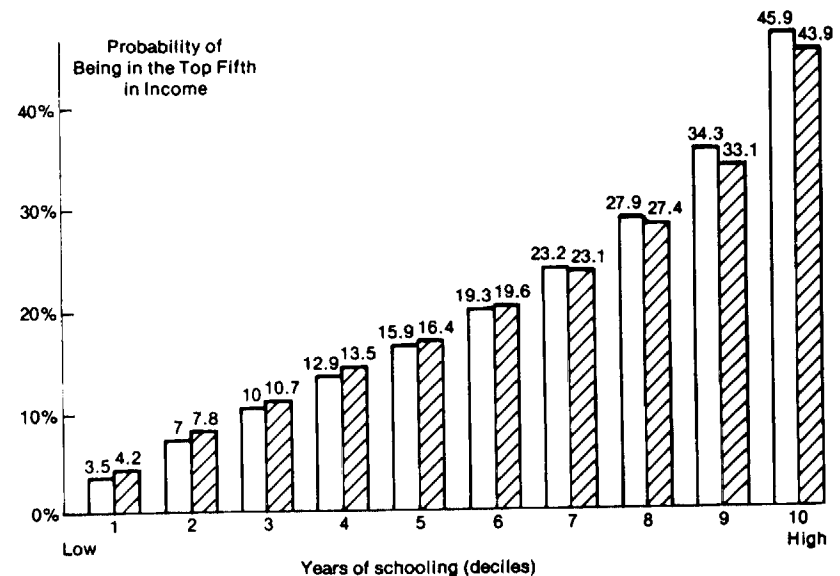
We must first choose a convenient way to represent the statistical association between level of educational attainment in years and earnings in dollars. While our results are clearly independent of any particular representation, some representations can be more easily interpreted than others. We have chosen the top-quintile-by-decile method, already employed in Chapter 2.<sup>15</sup> We first order all individuals from lowest to highest in terms of level of educational attainment in years, dividing them into ten equal

\* Hal Luft, "New England Textile Labor in the 1840's: From Yankee Farmgirl to Irish Immigrant," unpublished, Harvard University, January 1971.

parts ("deciles"). We then determine the percentage of individuals in each decile who are in the top fifth of the sample (the "top quintile") in income. We thus find the probability that an individual with a given level of education has of attaining the top 20 percent of the income distribution.<sup>16</sup>

For instance, the left-hand bars in Figure 4-1 illustrate that an individual in the ninth (next to highest) education decile has a 34.3 percent

FIGURE 4-1.  
Differences in Cognitive Test Scores do not Explain  
the Association between Years of Schooling,  
and Economic Success.



NOTES: The left-hand bar of each pair shows the estimated probability that a man is in the top fifth of the income distribution if he is in the given decile of education. The right-hand bar of each pair shows the estimated probability that a man is in the top fifth of the income distribution if he has an average adult cognitive test score and is in the given decile of education.

Note that the bars of any given pair are nearly the same height, showing that the income-education relationship is almost the same for individuals with the identical cognitive attainments as for all individuals.<sup>16</sup>

SAMPLE: Non-Negro white males of nonfarm background, 1962, aged 35-44 years.

SOURCE: Samuel Bowles and Valerie Nelson, "The 'Inheritance of IQ' and the Intergenerational Transmission of Economic Inequality," *The Review of Economics and Statistics*, Vol. 56 No. 1, February 1974.

chance of attaining a position in the top fifth of income earners, while an individual in the bottom decile in education has only a 3.5 percent chance. This illustrates the well-known importance of education in achieving economic success.

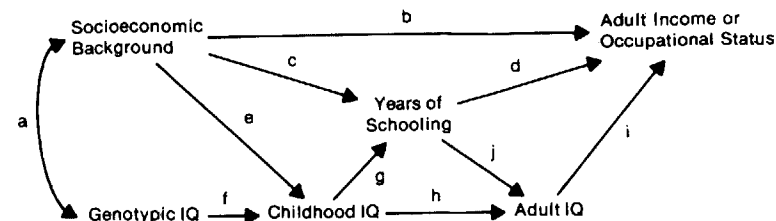
Just as the technocratic-meritocratic theory asserts, education is also closely associated with cognitive attainments. For instance, if the probability of attaining the top fifth in adult IQ is plotted against educational level, we find that a person in the top decile in education has a 57.7 percent chance of falling in the top fifth in cognitive scores, while a person in the bottom decile in education has less than a 1 percent chance.<sup>17</sup>

But is the higher average cognitive attainment of the more highly educated the cause of their greater likelihood of achieving economic success? This, of course, is the crucial question. If the cognitive theory is correct, two individuals with the same test scores but different levels of education should have, on the average, exactly the same expected incomes, and conversely people with different test scores but similar levels of education should on the average exhibit different incomes. Thus, if we restrict our observation to individuals with the same test scores, at whatever level, the association exhibited in the left-hand bars of Figure 4-1 should disappear—i.e., they should all have the same height at the 20-percent mark on the vertical scale.

To address this problem we will need to go beyond simple statistical associations and construct a causal model explaining the independent direct and indirect contribution of each important variable to individual economic success. Our model is illustrated in Figure 4-2. According to this figure, among individuals of similar age, race, and sex, differences in income are caused by differences in adult IQ, schooling, and socioeconomic background, as well as by other unmeasured differences. Differences in adult IQ and schooling are likewise due to the effects of the causally prior variables, socio-economic background and childhood IQ. Differences in childhood IQ are caused by differences in genetic inheritance, in socio-economic background and their interaction. In the model, socioeconomic background influences income directly (arrow b) and indirectly through its effect both on educational attainments (arrows c and d; arrows e, g, and d) and on adult IQ (arrows e, j, and i; arrows e, g, j, and i; and arrows e, h, and i). Schooling influences income both directly (arrow d) and indirectly through its effect on adult IQ (arrows j and i). The direct and indirect effects of genetic inheritance may likewise be traced.

Our statistical technique for the estimation of these statistical relationships will be that of linear regression analysis. This technique allows us to

FIGURE 4-2.  
Causal Model of IQ, Socioeconomic Background,  
Schooling and Economic Success



NOTES: The model applies to people of the same sex, race, and roughly the same age. Additional variables would be required to take account of these important aspects of the income determination process. Arrows indicate the assumed direction of causation. The one double-headed arrow represents statistical association with no implied causation. For a fuller discussion of the model, see Bowles and Nelson, "The 'Inheritance of IQ' and the Intergenerational Transmission of Economic Inequality," *op. cit.*, 1974.

derive numerical estimates of the independent contribution of each of the separate but correlated influences (socioeconomic background, childhood IQ, years of schooling, adult cognitive attainment) on economic success, by answering the question: What is the magnitude of the association between any one of these influences among individuals who are equal with respect to some or all the others? Equivalently, it answers the question: What are the probabilities of attaining particular levels of economic success among individuals who are in the same decile in some or all of the above influences but one, and in varying deciles in this one variable alone?

The results of "holding constant" IQ at a particular level (e.g., average level) is exhibited in the right-hand bars of Figure 4-2. Rather than being of equal height, the right-hand bars are only slightly different from the left. For instance, in general a person from the ninth decile in education is nearly ten times as likely to be in the top quintile in income as is a person in the bottom education decile; but among people with identical adult cognitive test scores, the former is still eight times more likely to be in the top income quintile than the latter. Holding cognitive attainments constant barely changes the education-income relationship. Hardly comforting for those who assert the economic importance of mental skills in explaining inequality.<sup>19</sup>

Since the association between level of economic success and years of

schooling is reduced only slightly when we look at individuals with the same level of adult cognitive skills, the association of schooling and economic success is largely unrelated to the differences in cognitive skills observed between workers with differing levels of education. Numerous other studies support these conclusions. A number of these are listed in Table A-2 of Appendix A.<sup>20</sup>

The reader may find our argument, despite its wide statistical support, not only counterintuitive, but actually incredible. For the figures seem to refute the manifest observation that the economy could not operate without the cognitive skills of workers, and these skills are acquired in school. This observation is eminently correct, and by no means contradicted by our data. What our argument suggests is merely that the mental-skill demands of work are sufficiently limited, the skills produced by our educational system sufficiently varied, and the possibilities for acquiring additional skills on the job sufficiently great so that skill differences among individuals who are acceptable for a given job on the basis of other criteria including race, sex, personality, and credentials are of little economic import. At most levels in the occupational hierarchy mental skills are productive, but are not scarce, and hence do not bear a direct monetary return. Indeed, we have suggested that the educational system serves to produce surpluses of skilled labor, thereby increasing the power of employers over workers. Thus the statistical evidence, far from being a striking curiosity, is an expected reflection of the class nature of the production process. Workers' skills are an absolutely fundamental element in economic growth, but skill differences do not explain the lack of progress toward social justice.

In sum, the available evidence seems to support our legitimization hypothesis. The meritocratic orientation of the educational system promotes not its egalitarian function, but rather its integrative role. Education reproduces inequality by justifying privilege and attributing poverty to personal failure.

### *IQism: or "If You're So Smart, Why Aren't You Rich?"*

One thing is clear—nature does not produce on the one side owners of money or commodities, and on the other, men possessing nothing but their own labor power. This relation has no natural basis, neither is its social basis one that is common to all historical periods. It is clearly the result of

past historical development, the product of many economical revolutions, of the extinction of a whole series of older forms of social production.

KARL MARX, *Capital*, 1867

Poverty has many roots, but the tap-root is ignorance.

PRESIDENT LYNDON B. JOHNSON,  
Educational Message to the 89th Congress, 1965

The technocratic-meritocratic ideology is also at the root of the currently popular "the-poor-are-dumb" theories of inequality. The notion that economic inequality is rooted in genetically determined differences in IQ has never lacked advocates. Yet the fortunes of this idea exhibit a curious ebb and flow; the economic and social importance of genetic differences never appears more obvious than in the aftermath of a series of unsuccessful liberal reforms. On the other hand, the three major periods of liberal educational reform—the two decades prior to the Civil War, the Progressive Era, and the 1960s—were all marked by a lack of concern with genetically inherited characteristics and a profound optimism concerning the malleability, even the perfectability, of youth. The main problem for reformers was to structure an environment in which individual development would be promoted rather than retarded. Not surprisingly, liberals have concentrated on those aspects of nurture which appeared susceptible to social intervention: schools, housing, medical care, and the like. Yet the demise of each liberal reform movement has been greeted by a genetic backlash: If improving the school environment does not achieve its elevated objectives, there must be something wrong with the kids. In the late 1960s, with the War on Poverty losing momentum and the dismal evaluation of the compensatory education programs accumulating, the historian, Michael Katz, predicted a counterattack by those who locate the roots of inequality in nature and, particularly, in genetically determined differences in IQ.<sup>21</sup>

The predicted reaction has since gathered force: The genetic interpretation of inequality had regained much of its tarnished academic respectability and has come to command the attention of social scientists and policymakers alike. The first major shot was Arthur Jensen's argument in the *Harvard Educational Review* that the failure of compensatory education to raise scholastic achievement levels must be attributed to the heritability of IQ.<sup>22</sup> Jensen's survey of the heredity research of Burt and others was embraced and extended by Harvard psychologist Richard Herrnstein. The distribution of wealth, privilege, and social status, asserted Herrnstein, is

determined to a major and increasing extent by the distribution of IQ. Because IQ is highly heritable, economic and social status is passed on within families from one generation to the next.<sup>23</sup>

These assertions by Jensen, Herrnstein, and others constituted a fundamental attack on the liberal reformist position. Yet the liberal defense has been curiously superficial: The putative economic importance of IQ has remained undocumented by the genetic school and unchallenged by their critics. Amidst a hundred-page statistical barrage relating to the genetic and environmental components of intelligence, Jensen saw fit to devote only three sparse and ambiguous pages to this issue. Later advocates of the "genetic school" have considered this "elemental fact," if anything, even less necessary of support.<sup>24</sup> Nor has their choice of battleground proved injudicious; to our knowledge, not one of their environmentalist critics has taken the economic importance of IQ any less for granted.<sup>25</sup>

This glaring lapse in the liberal defense is itself instructive. "The most important thing . . . that we can know about a man," says Louis Wirth, "is what he takes for granted, and the most elemental and important facts about a society are those that are seldom debated and generally regarded as settled." We are questioning here the undisputed assumption underlying both sides of the recently revived IQ controversy: that the distribution of IQ is a basic determinant of the structure of privilege.<sup>26</sup>

Our empirical results will reinforce our contention that the emphasis on IQ as the basis for economic success serves to legitimate an authoritarian, hierarchical, stratified, and unequal economic system, and to reconcile individuals to their objective position within this system. Legitimation is enhanced when people merely believe in the intrinsic importance of IQ. This belief is facilitated by the strong associations among all the economically desirable attributes—social class, education, cognitive skills, occupational status, and income—and is integrated into a pervasive ideological perspective. That IQ is not a major determinant of the social class structure also supports our argument in Chapter 3 that access to a particular job depends on the individual's pattern of noncognitive personality traits (motivation, orientation to authority, discipline, internalization of work norms), as well as on such personal attributes as sex, race, age, and educational credentials. These personality traits and personal attributes aid in legitimating and stabilizing the structure of authority in the modern enterprise itself. Thus, primarily because of the central economic role of the school system, the production of adequate intellectual skills becomes a spin-off, a by-product of a stratification mechanism grounded in the supply, demand, production, and certification of an entirely different set of personal attributes.

We must begin a discussion of genetic transmission of economic status by asking what "heritability" means. That IQ is highly heritable is merely to say that individuals with similar genes will exhibit similar IQs independent of differences in the social environments they might experience during their mental development. The main support for the genetic school are several studies of individuals with precisely the same genes (identical twins) raised in different environments (i.e., separated at birth and reared in different families). Their IQs tend to be fairly similar.<sup>27</sup> In addition, there are studies of individuals with no common genes (unrelated individuals) raised in the same environment (e.g., the same family) as well as studies of individuals with varying genetic similarities (e.g., fraternal twins, siblings, fathers and sons, aunts and nieces) and varying environments (e.g., siblings raised apart, cousins raised in their respective homes). The difference in IQs for these groups conform roughly to the genetic inheritance model suggested by the identical twin and unrelated individual studies.<sup>28</sup>

Leon Kamin recently presented extensive evidence casting strong doubt on the genetic position.<sup>29</sup> But by and large, environmentalists have been unable to convincingly disprove the central proposition of the genetic school. But then, they have emphasized that it bears no important social implications. They have argued, for example, that the genetic theory says nothing about the "necessary" degree of racial inequality or the limits of compensatory education.<sup>30</sup> First, environmentalists deny that there is any evidence that the average IQ difference between black and whites (amounting to about fifteen IQ points) is genetic in origin,<sup>31</sup> and second, they deny that any estimate of heritability tells us much about the capacity of enriched environments to lessen IQ differentials, either within or between racial groups.<sup>32</sup>

But the environmentalists' defense strategy has been costly. In their egalitarian zeal vis-à-vis racial differences, the environmentalists have sacrificed the modern liberal interpretation of social inequality. The modern liberal approach is to attribute social class differences to unequal opportunity. That is, while the criteria for economic success are objective and achievement-oriented, the failures and successes of parents are passed onto their children via distinct learning and cultural environments. From this it follows that the achievement of a more equal society merely requires that all youth be afforded the educational and other social conditions of the best and most successful.<sup>33</sup> But the liberal counterattack against the genetic position represented a significant retreat, for it did not successfully challenge the proposition that IQ differences among whites of differing social class backgrounds are rooted in differences in genetic endowments. Indeed,



the genetic school's data come precisely from observed differences in the IQ of whites across socioeconomic levels! The liberal failure to question the causal role of IQ in getting ahead economically completes the rout. The fundamental tenet of modern liberal social theory—that progressive social welfare programs can gradually reduce and eliminate social class differences, cultures of poverty and affluence, and inequalities of opportunity—has been done in to a major extent by its erstwhile advocates. So the old belief—adhered to by present-day conservatives and liberals of past generations—that social classes sort themselves out on the basis of innate individual capacity to cope successfully in the social environment, and hence tend to reproduce themselves from generation to generation has been restored.<sup>34</sup>

The vigor of their reaction to Jensen's argument reflects the liberals' agreement that IQ is a basic determinant (at least ideally) of occupational status and intergenerational mobility. Indeed, the conceptual framework of the testers themselves would appear to insure this result. Jensen is thus merely stating what the testers had taken for granted: "... Psychologists' concept of the 'intelligence demands' of an occupation . . . is very much like the general public's concept of the prestige or 'social standing' of an occupation, and both are closely related to an independent measure of . . . occupational status."<sup>35</sup> Jensen continues, quoting the sociologist O. D. Duncan: "... 'Intelligence' . . . is not essentially different from that of achievement or status in the occupational sphere. . . . What we now mean by intelligence is something like the probability of acceptable performance [given the opportunity] in occupations varying in social status."<sup>36</sup> Moreover, Jensen argues that the purported trend toward making intelligence a requirement for occupational achievement will continue to grow.<sup>37</sup> This emphasis on intelligence as explaining social stratification is set even more clearly by Carl Bereiter: "The prospect is of a meritocratic caste system, based . . . on the natural consequences of inherited difference in intellectual potential. . . . It would tend to persist even though everyone at all levels of the hierarchy considered it a bad thing."<sup>38</sup>

Jensen and his associates cannot be accused of employing an overly complicated social theory. Thus Jensen's reason for the "inevitable" association of status and intelligence is that society "rewards talent and merit." And Herrnstein adds that:

If virtually anyone is smart enough to be a ditch digger, and only half the people are smart enough to be engineers, then society is, in effect, husbanding its intellectual resources by holding engineers in greater esteem and paying them

more. . . . [S]ociety [thus] expresses its recognition, however imprecise, of the importance and scarcity of intellectual ability.<sup>39</sup>

Finally, according to Herrnstein, each generation is further refined into social strata on the basis of IQ:

. . . New gains of wealth . . . will increase the IQ gap between upper and lower classes, making the social ladder even steeper for those left at the bottom.

Herrnstein then proceeds to turn liberal social policy directly against itself, noting that the heritability of IQ and hence the pervasiveness of social stratification will increase, as our social policies become more progressive:

. . . The growth of a virtually hereditary meritocracy will arise out of the successful realization of contemporary political and social goals . . . as the environment becomes more favorable for the development of intelligence, its heritability will increase. . . .<sup>40</sup>

Similarly, the more we break down discriminatory and ascriptive criteria for hiring, the stronger will become the link between IQ and occupational success. And the development of modern technology, adds Herrnstein, can only quicken this process.

That such statements should be made by the "conservative" genetic school is hardly surprising. But why should liberals, who have contested the genetic hypothesis in the minutest detail, have so blindly accepted the genetic school's description of the social function of intelligence? The widespread assumption among all parties to the debate that IQ is an important determinant of economic success does not rest on compelling empirical evidence. Quite the contrary.

The most immediate support for the IQ theory of social inequality which we will call "IQism"—flows from two substantial relationships. The first is the significant association between socioeconomic background and childhood IQ. Thus, according to our research, having a parent in the top decile in socioeconomic status gives a child a 42 percent chance of being in the top fifth in IQ, while having a parent in the bottom socioeconomic status decile gives him only a 4.9 percent chance.<sup>41</sup> The second is the important association between childhood IQ and later economic success: An individual in the top childhood IQ decile is nearly four times as likely to achieve the highest income quintile as an individual from the bottom IQ decile.<sup>42</sup>

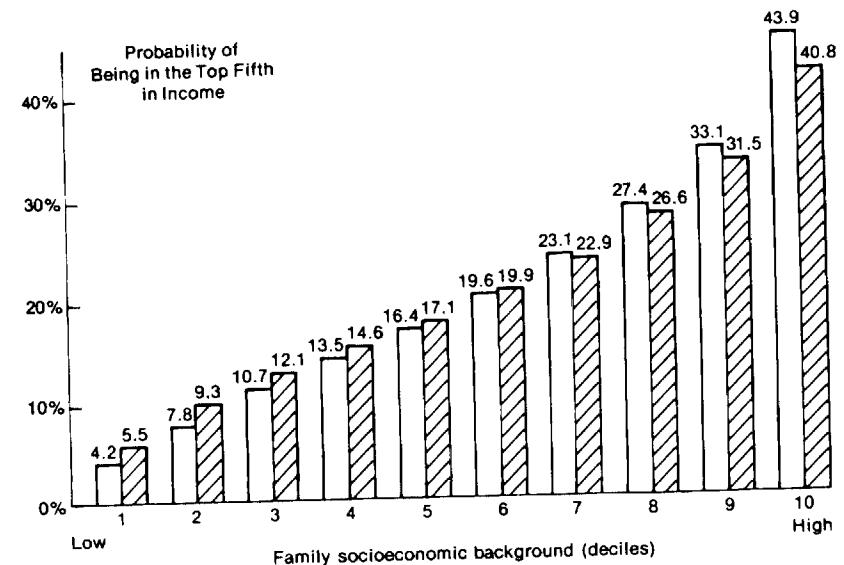
The proponent of IQism argues that higher social class leads to higher IQ, which, in turn, leads to a greater chance of economic success. We shall show, however, that this inference is simply erroneous. Specifically, we

will demonstrate the truth of the following proposition, which constitutes the empirical basis of our thesis: the fact that economic success tends to run in the family arises almost completely independently from any inheritance of IQ, whether it be genetic or environmental. Thus, while one's economic status tends to resemble that of one's parents, only a minor portion of this association can be attributed to social class differences in childhood IQ, and a virtually negligible portion to social class differences in genetic endowments even if one were to accept the Jensen estimates of heritability. Thus a perfect (obviously hypothetical) equalization of IQs among individuals of differing social backgrounds would reduce the intergenerational transmission of economic status by only a negligible amount. We conclude that a family's position in the class structure is reproduced primarily by mechanisms operating *independently* of the inheritance, production, and certification of intellectual skills.

How are we to support this proposition? The correct way of posing the question is to ask the following: To what extent is the statistical association between socioeconomic background and economic success reduced when childhood IQ is held constant? If the proponents of IQism are correct, the reduction should be substantial. If the only source of intergenerational status transmission were the inheritance of IQ, there should be no relationship whatever between family background and economic success among individuals with the same IQ. The way to test this is again to use linear regression analysis on our basic data set. The left-hand bars in Figure 4-3 show the overall association between socioeconomic background and economic success. The results of holding constant IQ by linear regression, indicated in the right-hand bars of Figure 4-3, shows that the actual reduction in the relationship is practically nil.<sup>43</sup> Evidently, IQ—whether inherited or not—plays a negligible role in passing economic status from parent to child.

The unimportance of the specifically genetic mechanism operating via IQ in the intergenerational reproduction of economic inequality is even more striking. Figure 4-4 exhibits the degree of association between socioeconomic background and income which can be attributed to the genetic inheritance of IQ alone. This figure assumes that all direct influences of socioeconomic background upon income have been eliminated. On the other hand, it assumes Jensen's estimate for the degree of heritability of IQ. A glance at Figure 4-4 shows that the resulting level of intergenerational inequality in this highly hypothetical example would be negligible,<sup>44</sup> and contrasts sharply with the actual degree of inequality exhibited in the left-hand bars of Figure 4-3.

FIGURE 4-3.  
Relationship between Income and Inherited Social Status  
cannot be Accounted for by Differences in I.Q.



NOTES: The left-hand bar of each pair shows the estimated probability that a man is in the top fifth of the income distribution if he is in a given decile of socioeconomic background. The right-hand bar shows the estimated probability that a man is in the top fifth of the income distribution if he has average childhood IQ and is in a given decile of socioeconomic background.

Note that the bars of any given pair are very close, showing that the income/socioeconomic background relationship is almost the same for individuals with identical IQs as for all individuals.

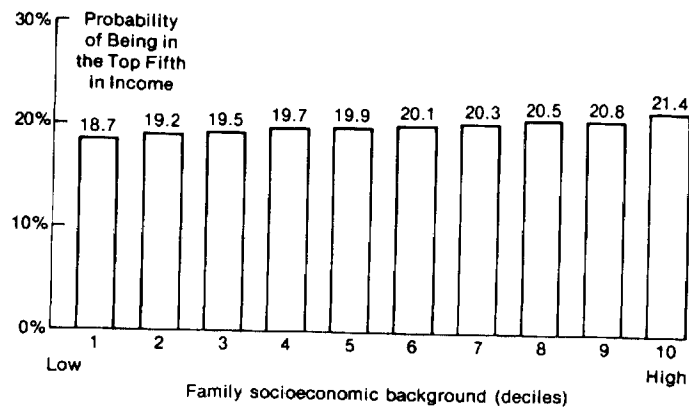
SAMPLE: Non-Negro males of nonfarm background, 1962, aged 35-44 years.

SOURCE: Samuel Bowles and Valerie Nelson, "The 'Inheritance of IQ' and the Intergenerational Transmission of Economic Inequality," *The Review of Economics and Statistics*, Vol. 56, No. 1, February 1974.

Our proposition is thus supported: The intergenerational transmission of social and economic status operates primarily via noncognitive mechanisms, despite the fact that the school system rewards higher IQ, an attribute significantly associated with higher socioeconomic background.

The unimportance of IQ in explaining the relationship between socioeconomic background and economic success, together with the fact that most of the association between IQ and income can be accounted for by

FIGURE 4-4.  
Family Background and Economic Success in the Hypothetical  
Meritocracy with Inheritable IQ.



NOTES: Each bar shows the estimated probability that a man would be in the top fifth of the income distribution if he is in the given decile of socioeconomic background and the entire relationship between background and economic success worked through the genetic inheritance of IQ, so that no other sources of social inequality existed. All bars are close to the "random" probability of 20%.

SAMPLE: Non-Negro, nonfarm males, aged 35-44 years.

SOURCE: Samuel Bowles and Valerie Nelson, "The 'Inheritance of IQ' and the Intergenerational Transmission of Economic Inequality," *The Review of Economics and Statistics*, Vol. 56, No. 1, February 1974 (Table 3).

the common association of these variables with education and socioeconomic background, support our major assertion: IQ is not an important criterion for economic success. Our data thus hardly lends credence to Duncan's assertion that "... 'intelligence' ... is not essentially different from that of achievement or status in the occupational sphere, ..."45 nor to Jensen's belief in the "inevitable" association of status and intelligence, based on society's "rewarding talent and merit,"46 nor to Herrnstein's dismal prognostication of a virtually hereditary meritocracy as the fruit of successful liberal reform in an advanced industrial society.<sup>47</sup>

## Conclusion

Their dullness seems to be racial, or at least inherent in the family stocks from which they come. The fact that one meets this type with such extraordinary frequency among Indians, Mexicans, and negroes suggests quite forcibly that the whole question of racial differences in mental traits will have to be taken up anew. . . . there will be discovered enormously significant racial differences . . . which cannot be wiped out by any schemes of mental culture.

Children of this group should be segregated in special classes. . . . They cannot master abstractions, but they can often be made efficient workers.

LEWIS TERMAN,

*The Measurement of Intelligence*, 1916

The power and privilege of the capitalist class are often inherited, but not through superior genes. (Try asking David Rockefeller to hand over his capital in return for thirty more IQ points!) Differences in IQ, even were they genetically inherited, could not explain the historical pattern of economic and educational inequalities. The intractability of inequality of income and of economic opportunity cannot be attributed to genetically inherited differences in IQ. The disappointing results of the "War on Poverty" cannot be blamed on the genes of the poor. The failure of egalitarian school reforms reflects the fact that inequality under capitalism is rooted not in individual deficiencies, but in the structure of production and property relations.

In this chapter, we have suggested that education should be viewed as reproducing inequality by legitimating the allocation of individuals to economic positions on the basis of ostensibly objective merit. Moreover, the basis for assessing merit—competitive academic performance—is only weakly associated with the personal attributes indicative of individual success in economic life. Thus the legitimation process in education assumes a largely symbolic form.

This legitimation process, however, is fraught with its own contradictions. For the technocratic-meritocratic ideology progressively undermines the overt forms of discrimination which divide the work force into racially, sexually, and ethnically distinct segments. Ironically, the partial success of the meritocratic ideology has helped to create a political basis for working class unity. With the irrationality of these forms of discrimination increasingly exposed, the justification of inequality must increasingly rely on educa-

tional inequalities and IQism. Yet workers, minorities, and others have fought hard and to some extent successfully to reduce educational inequality, with little effect on economic inequality itself. This has tended to increase conflicts within education, to cast further doubt on the fairness of the income distribution process, and at the same time undercut traditional educational philosophy. Thus even the symbolism of meritocracy is threatened in the contemporary period.

Yet, as we have suggested, the reproduction function of education goes far beyond symbolic legitimation. In the next chapter, we shall show that the education system plays a central role in preparing individuals for the world of alienated and stratified work relationships. Such a class analysis of education is necessary, we believe, to understand the dynamics of educational change and also the structural relations among social class, education, and economic success—relationships which we have seen in this chapter to be inexplicable purely in terms of cognitive variables.

## CHAPTER 5

# Education and Personal Development: The Long Shadow of Work

Every child born into the world should be society as so much raw material to be n quality is to be tested. It is the business of intelligent economist, to make the best of it.

LEST  
Educ

It is not obvious why the U.S. educational system should be Since the interpersonal relationships it fosters are so anti norms of freedom and equality prevalent in American soci system can hardly be viewed as a logical extension of our cu If neither technological necessity nor the bungling mindless tors explain the quality of the educational encounter, what do

Reference to the educational system's legitimation fun take us far toward enlightenment. For the formal, objecti tively oriented aspects of schooling capture only a fragment day social relationships of the educational encounter. To answer, we must consider schools in the light of the social economic life. In this chapter, we suggest that major aspects organization replicate the relationships of dominance and s the economic sphere. The correspondence between the so schooling and work accounts for the ability of the educationa duce an amenable and fragmented labor force. The experir ing, and not merely the content of formal learning, is central

In our view, it is pointless to ask if the net effect of U.S. promote equality or inequality, repression or liberation. Th into insignificance before the major fact: The education: