

American Schooling and Educational Inequality: A Forecast for the 21st Century

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Inequality among different socioeconomic and racial groups was a salient subject for sociology of education in the 20th century. What will happen to educational inequality in the 21st century? On the basis of past trends and the assumption that the American educational system will remain largely stable, this article offers predictions about educational inequality over the next hundred years. First, it foresees a decline in black-white racial inequality. This prediction would continue a trend that occurred during the past hundred years and is consistent with current knowledge about the sources of racial inequality in educational outcomes. Although racial inequality in education is expected to decline, corresponding changes in labor market inequality may be much weaker. Second, educational inequality by socioeconomic background is expected to persist at current levels throughout the next century. This prediction is also based on past trends, which indicate that socioeconomic inequality is "maximally maintained": Privileged groups protect their advantages until virtually all members reach a given status, at which point the axis of inequality shifts upward to another level of educational outcome. Relaxing the overall assumption of stability raises questions about the predictions.

No aspect of American education had more salience for 20th-century sociologists than inequality among different socioeconomic and demographic groups. What can we expect to happen to educational inequality during the 21st century? Past trends suggest that the next hundred years will see the near-end of black-white racial differences in educational outcomes (though less so in the labor market), much as the late 20th century witnessed the near-disappearance of gender inequality in school achievement and educational attainment (but not in the workplace). By contrast, inequality in edu-

cational outcomes on the basis of socioeconomic background will persist largely unabated throughout the 21st century, despite much rhetoric and a few policies directed against it.

Forecasting the future on the basis of knowledge of the past is a precarious proposition. By necessity, predictions rest on assumptions that the larger social system will remain unchanged, or else assumptions about change must be built into the forecast model. Reflections on American education in the past century suggest that the assumption of future stability is reasonable. Although important

trends are evident—unceasing expansion, increasing diversity in the school population, the consolidation of small school districts, and declining class sizes—both the *structure* and the *process* of schooling were largely the same at the end of the 20th century as they were at the beginning (Cohen 1990; Cuban 1990; Hoetker and Ahlbrand 1969). By *stable structure*, I mean that the organizational context of teaching and learning is largely unchanged. Despite periods of experimentation with other formats (open classrooms, cooperative learning, computer teaching, and the like), schooling still consists of a teacher facing a group of students in a classroom, nested within schools and school districts and governed locally. By *persisting process*, I mean that the activities of teaching and learning are essentially the same as in the past: Dominated by textbooks, lectures, and recitation, instruction has remained fundamentally unchanged even though new tools have made other approaches to class work, homework, and teacher-student interaction feasible (Goodlad 1984; Hoetker and Ahlbrand 1969; Nystrand et al. 2001; Tharp and Gallimore 1988). The school curriculum is more differentiated now than it was at the beginning of the 20th century (Labaree 1988), but curriculum differentiation tends to wax and wane, and the curriculum is more standardized now than it was 30 years ago (Boesal et al. 1994; Hoffer 1997). Even the shifts that have occurred can be viewed as a sort of stability, in that expansion, diversity, and smaller classes have been constant trends (U.S. Department of Education 2000).

The U.S. educational system has also remained steady in its distinctiveness compared to that of other nations. A particular combination of decentralized governance; relatively informal selection procedures; high average years of schooling, coupled with high levels of inequality; and a large, diverse post-secondary sector has characterized American education for most of the past century and sets it apart from other systems (Rubinson 1986, Walters 2000). Current experiments with high-stakes testing may move the U.S. educational system more toward those of other nations by increasing centralization and formalizing selection, but the ups and downs

of present efforts seem to be moving away from centralization and selection as much as toward meaningful changes (Heubert and Hauser 1999; Steinberg 2000).

My predictions about changes in racial and socioeconomic inequality in the 21st century therefore rest on the assumption that stability in the larger system will prevail. Although this assumption seems reasonable on the basis of past trends, it may be incorrect. Consequently, at the end of my discussion, I relax the assumption of stability to gauge how the forecast would be affected by fundamental changes in the American education system.

RACE AND EDUCATION IN AMERICA: AN END TO INEQUALITY?

Anyone who compares American education in 2001 to that in 1901 is bound to see a dramatic reduction in overt racial discrimination in the educational system. Legal segregation has been formally banished, overtly racist curricula have been dismantled, universal literacy more or less holds for blacks as well as for whites, the median years of schooling among whites and blacks are almost the same (around 13 years), and racial differences in achievement have diminished over the past 35 years since achievement has been consistently monitored. Will these trends continue until all racial differences in educational outcomes are eliminated?

Despite changes for the better, substantial racial inequalities remain. Although the long-term trend in test scores is toward convergence, black-white differences on the 1996 National Assessment of Educational Progress (NAEP) among 17 year olds ranged from about .7 standard deviations in reading to about .9 standard deviations in mathematics (Hedges and Nowell 1999). These figures represent declines since the 1970s of about .4 standard deviations in reading (more than a third of the gap) and about .2 standard deviations in mathematics, but the gaps are still large and meaningful (Jencks and Phillips 1998). Other national surveys have exhibited similar trends (Hedges and Nowell 1999). The

most recent NAEP results indicate that in the last few years of the 20th century, the test score gaps held steady among 17 year olds and 9 year olds but declined somewhat among 13 year olds (Campbell, Hombo, and Mazzeo 2000). At all three ages, the smallest gaps in test scores occurred in the late 1980s; the gaps in 1999 were larger than a decade earlier but not as large as they had been in the 1970s.

Furthermore, although the rates of high school completion nearly reached parity over the course of the 20th century, the rates of college enrollment and completion are still far apart (Mare 1995). For example, in a national survey of students who were high school sophomores in 1980, only about 5 percent of the whites and 7 percent of the blacks failed to receive a high school diploma or its equivalent by 1992 (U.S. Department of Education 1999:Table 311). By contrast, whereas 27.5 percent of the whites had obtained bachelor's degrees or more, just 12.2 percent of the blacks had reached that level. Blacks, moreover, tend to take longer to receive their high school certification, contributing to their disadvantage (Anderson 1999).

Reasons for Racial Inequality in Education

In light of these inequalities, what basis can there be for a favorable forecast? To answer this question, it is necessary to understand the reasons these inequalities exist and the conditions that led them to diminish somewhat during the 20th century.

Socioeconomic Differences The most important reason for educational inequality between blacks and whites is socioeconomic: Whites tend to have parents with higher levels of education, occupational status, and income than do blacks, and these characteristics benefit educational outcomes. Differences in family background consistently account for about one-third of the test score gap (Hedges and Nowell 1999; Jencks and Phillips 1998) and for almost all the inequality in college entry and graduation among black and white high school graduates (Hauser 1991; Jencks and Phillips 1998).

Moreover, improvement in the socioeconomic backgrounds of blacks compared to whites during the 20th century—primarily increases in parents' years of schooling and declining family size—accounted for much of the convergence in test scores (Grissmer, Flanagan, and Williamson 1998; Grissmer et al. 1994; Hedges and Nowell 1998, 1999) and probably contributed to the achievement of near-parity in high school completion as well (Mare 1995).

These changes constitute an ongoing "virtuous cycle": Just as blacks who attended high school in the 1980s and 1990s benefited from the educational accomplishments of their parents, so their children will benefit from the further narrowing of educational inequalities (Lavin and Hyllegard 1996; Mare 1995). For example, children of the high school class of 1989 (roughly the point at which test score gaps have been the smallest so far) will be moving through high school during the second decade of the 21st century (if the prime childbearing years are ages 25–35, most of their children will reach age 14 between 2010 and 2020), so we can expect even lower racial inequalities in test scores and in educational attainment during that period than in the present, and the cycle should continue to repeat itself if other conditions hold constant.

Effects of Schools and Schooling Differential quality of schooling is another explanation that has been offered for black-white differences in educational outcomes. As is well known, variation in social background is a far more potent predictor of differences in achievement and attainment than is variation among the schools that students attend (e.g., Coleman et al. 1966; Jencks et al. 1972). In fact, studies that examined test scores in both the fall and spring have shown that at the elementary level, most of the difference between blacks and whites emerges during the summer, when school is not in session, rather than during the school year (Entwistle, Alexander, and Olson 1997; Heyns 1978). Blacks and whites make similar progress during the school year, but during the summer, the achievement scores of whites continue to improve while those of blacks remain flat or

decline slightly. This pattern indicates, first, that racial differences in achievement reflect conditions outside school far more than those inside school and, second, that on the whole, schooling helps limit the expansion of gaps in racial achievement as children age, at least during the elementary years (Gamoran 1996b).

Grissmer et al. (1998) argued that the desegregation of schools in the South contributed to the declining inequality in test scores in the 1970s, and this claim is roughly consistent with Hedges and Nowell's (1998, 1999) conclusion that only between 1965 and 1972 did test-score inequality drop independently of changes in social background. Further desegregation efforts seem to have done little to reduce this inequality, although they may have helped reduce inequality in longer-term outcomes, such as high school completion and college enrollment (Wells and Crain 1994). Affirmative action in university admissions also helped increase the proportion of blacks who obtained college degrees (Bowen and Bok 1998).

Another way in which school quality may differ for blacks and whites is if their experiences within the same schools are different—for example, if blacks are assigned to inferior programs or classes. Net of test scores and social background, blacks face no disadvantage compared to whites in enrolling in college-preparatory programs, but because their test scores and socioeconomic statuses are lower on average, blacks are overrepresented in noncollege tracks, and this overrepresentation reduces their achievement and attainment relative to whites (Gamoran and Mare 1989). Blacks and whites both increased their enrollment in college tracks in the late 20th century, but the rates of increase were similar, so changes in tracking patterns did not contribute to changes in inequality (Ferguson 1998a).

Finally, the same experience of schooling may affect blacks and whites differently. For example, black students' test scores appear more sensitive to class size than do white students'. The Tennessee class-size experiment, which found that smaller classes in the early grades help raise achievement for all students, also showed that smaller classes bene-

fit blacks more than whites (Finn and Achilles 1999). Since the reduction in class size was a constant trend throughout the 20th century, it is reasonable to suppose that it contributed to the declining test-score gap between blacks and whites (Ferguson 1998a; Grissmer et al. 1998). Indeed, Ferguson (1998a) noted that fluctuations in average class size tend to mirror the fluctuations in the test score gap (although the class-size trend is steadier than the trend in inequality in achievement). The trend toward reduced class sizes shows every sign of continuing in the 21st century, with support from the federal government as well as from many states and districts (Jacobson 2001). On the basis of past evidence, we may expect declining class size in the early grades to reduce black-white inequality in achievement further and, indirectly, in educational attainment during the 21st century.

Genetics If racial differences in educational success were genetic, we might have little hope of their eventual elimination. Genetic differences have been proposed on a number of occasions (e.g., Herrnstein and Murray 1994; Jensen 1969). Each time, subsequent scholars have ruled out genetic inheritance as a basis for educational inequality among demographic groups on the basis of three main facts: (1) Scores on tests of IQ as well as the school achievement of blacks rose throughout the 20th century, and in many instances they rose faster than those of whites. Clearly, group differences in test scores are not immutable. (2) Exposure to schooling and other interventions benefits blacks as much as whites. This would not be the case if blacks were genetically inferior. (3) All attempts to isolate genetic factors, by comparing mixed-race children who are raised in different environments or persons of "European" and "African" blood types, have failed to identify a genetic component in racial inequality in educational outcomes. Nisbet (1998:101) confirmed the findings of many other recent writers in his conclusion: "In sum, the most relevant studies provide no evidence for the genetic superiority of either race, but strong evidence for a substantial environmental contribution to the IQ gap between blacks and whites. Almost equally

important, rigorous interventions do affect IQ and cognitive skills at every stage of the life course." If cognitive outcomes largely reflect environmental conditions, and the environment for blacks and whites changes over time, then we may expect differences in outcomes to change as well.

Oppositional Culture We may also have little reason to anticipate declining inequality if cultural conditions tended to lock blacks into a perpetual cycle of school failure. Ogbu's (1978; see also Fordham and Ogbu 1986) depiction of the oppositional culture and "the burden of acting white" raises this possibility. According to Ogbu, the legacy of slavery and discrimination in America has created a perception that opportunities are closed off to African Americans. The perceived ceiling on opportunities discourages academic efforts, since such efforts are seen as unlikely to pay off in the future. Blacks who are academically successful are denigrated as "acting white," as turning their backs on their own heritage and culture. This cultural environment poses a major barrier to educational equity between blacks and whites.

Although Ogbu's (1978) conception seems compelling, the evidence supporting it is not. Fordham and Ogbu (1986) provided a vivid case study in which black high school students turned away from academic efforts, but the oppositional culture explanation for black-white inequality has been contradicted by evidence from recent surveys. Ainsworth-Darnell and Downey (1998) and Cook and Ludwig (1998) used a national survey of eighth graders in 1988 who were followed up in 1990 and 1992 to consider whether blacks were more alienated than whites from schooling, whether blacks perceived that their opportunities were more limited, and whether blacks were more affected than whites by peer norms that opposed academic success. In each case, the answer was no. Blacks spent less time on homework and exhibited more behavioral problems than whites, but these differences did not reflect differential attitudes towards schooling. Rather, Ainsworth-Darnell and Downey argued that differences in school behavior reflected differences in family and neighbor-

hood characteristics. In a commentary on Cook and Ludwig (1998), Ferguson (1998b) suggested that although oppositional culture may not have created black-white inequality, it may prevent blacks from catching up. This notion seems inconsistent with the fact that blacks made great progress in catching up to whites in test scores and educational attainment during the 20th century, though they still have far to go.

Unequal Expectations Other social and cultural conditions do pose impediments for blacks' educational advancement, but there is reason to think that these barriers may finally be overcome during the 21st century. Ferguson (1998c) found that teachers hold lower expectations for African American students than for white students. These expectations were not based on race per se, but were a response to black students' histories of behavioral problems and lower achievement. Nonetheless, differences in expectations help perpetuate differences in outcomes. Yet Ferguson was optimistic about the likelihood of overcoming this barrier. Both general improvements in test scores among black students and "existence proof" cases of successful programs for disadvantaged minority students have demonstrated the validity of higher expectations. Ferguson (1998c:313) concluded:

Fortunately, successful programs do establish that children of all racial and ethnic groups have more potential than most people have assumed. As the evidence accumulates, it should be possible to focus with greater determination on cultivating and harvesting all that youthful minds embody. It would then be no surprise if the black-white test score gap began to shrink again, as it did in the 1980s—and ultimately disappeared.

Cultural Mismatch Discontinuities between the cultural conditions of African American families and the culture of the schools their children attend, such as differences in language use, also make it hard for blacks to close the educational gap (Delpit 1996; Heath 1983). The history of racism and discrimination encourages distrust of institutions, such as schools, and makes it more difficult for even middle-class black parents to

manage their children's academic careers in the way that white parents can (Lareau and Horvat 1999). As blacks experience more educational success, however, discontinuities between schools and homes will diminish, so that the educational accomplishments experienced by blacks in the 20th century will provide a foundation for further progress in the 21st.

Comparison to Trends in Gender Inequality

If black-white inequalities in educational outcomes disappear over the next century, they will be following a pattern that occurred for gender inequalities in the last one. Throughout most of the 20th century, women lagged behind men in educational attainment, often substantially. During the past 30 years, these gaps narrowed and, in most cases, have been reversed. Among those who were high school sophomores in 1980, for example, women were more likely than men by 1992 to complete high school, enroll in college, and graduate from college (U.S. Department of Education 1999:Table 311). Only at the level of graduate degrees did men surpass women, and the difference was small: 4.1 percent of the men and 3.4 percent of the women who were high school sophomores in 1980 had received graduate or professional degrees by 1992 (U.S. Department of Education 1999:Table 311). This small difference reflected a huge change: In 1971, women received about 40 percent of all master's degrees and 14.3 percent of all doctoral degrees. By 1997, these proportions had risen to the majority of master's degrees (56.9 percent), along with 40.8 percent of all doctoral degrees (U.S. Department of Education 2000:Table 37-1).

Women and men study different subject areas in college, but these differences are narrowing as well. In 1971, for example, women constituted just 9 percent of all college graduates who majored in business and administration, but by 1997, this proportion had grown to 49 percent (U.S. Department of Education 2000:55). Even in traditionally sex-segregated fields, women are graduating in record numbers; from 1971 to 1997, their proportion increased from 38 to 46 percent of graduates in mathematics, from 14 to 37

percent of graduates in physical sciences, from 14 to 33 percent of graduates in computer sciences, and from 1 to 17 percent of graduates in engineering (U.S. Department of Education 2000:55). In contrast, fields in which women outnumber men have remained steady in their gender makeup: 75 percent of the degree earners in education are women and have been for the past 30 years or more, and in the health professions, the proportion of women majors grew from 77 percent in 1971 to 81 percent in 1997 (U.S. Department of Education 2000:55).

Diminishing differences in college majors follow growing similarities in high school course taking. In mathematics, equal or higher proportions of girls and boys take most advanced courses. Even in calculus, boys hold only a slight edge: Among 1998 high school graduates, 11.2 percent of the boys and 10.6 percent of the girls had enrolled in that subject (U.S. Department of Education 1999:Table 141). In science, girls are more likely than boys to have taken chemistry and biology, and the gap in physics narrowed to 26.2 percent of the girls compared with 31.7 percent of the boys in the high school class of 1998 (U.S. Department of Education 1999:Table 141). Probably as a reflection of greater similarities in course taking, gaps in the test scores of 17-year-old boys and girls diminished during the last 30 years of the 20th century (Campbell et al. 2000). Girls and boys score at almost the same level in mathematics, but the gap remains significant in science. The largest gender difference in NAEP scores, however, is in reading, where girls continue to outscore boys by a significant margin.

Obviously, the near-elimination of gender differences in educational achievement and attainment is no guarantee that racial differences will follow suit. The dynamics of gender and the dynamics of race are different, and the social changes that benefited women did not necessarily benefit members of minority groups. The changing status of women in education is germane to my forecast for racial differences only in that it proves that positions of advantage in education are not necessarily permanent. The gender story also serves as a cautionary tale in that labor-mar-

ket inequalities still work strongly in favor of men, despite the reduction in educational inequality. Even if racial differences in educational outcomes disappear, labor market inequalities may yet persist.

Racial Differences and "Benign Neglect"

Farley (1984) noted that some writers and policy makers in the 1970s, observing improvements in the educational and economic accomplishments of blacks in the early years of the civil rights movement, advocated a "benign neglect" in racial policy on the assumption that policies that had already been enacted would suffice to bring about racial equality. Today this notion seems naive because it ignores likely attempts by majority-group members to maintain their advantages. Although diminishing racial inequality in education during the 21st century seems the most likely future trend, it is by no means inevitable. Indeed, recent rollbacks in school desegregation and affirmative action show that policies that promote equality are not inviolate. Continuing the 20th-century trend toward equality—particularly the pace at which inequality declines—will depend, in part, on continuing efforts to defend policies that support equity and on exploring new policies when older ones are overturned. Yet Farley also concluded that the commitment to racial equality is serious, and continuing efforts to maintain the trend seem likely. Support for this view is evident in current efforts to overcome problems of school resegregation by allocating resources in a way that favors the disadvantaged (e.g., Johnston 2000) and new efforts to ensure minority students' access to higher education even as affirmative action is scaled back (e.g., Gehring 2000; Weiss 2001).

Immigrant Groups and Educational Inequality

Of course, African Americans are not the only demographic minority group in the United States, and other groups vary widely in their levels of educational performance. Asian Americans equal or exceed whites on most educational indicators, while among Hispanic Americans, years of schooling tend to average below those of blacks and test scores tend to fall between those of

blacks and whites (Campbell et al. 2000; U.S. Department of Education 2000:56). The test scores of Hispanics have become somewhat closer to those of non-Hispanic whites since the 1970s, though most gaps have not narrowed as much as have those between blacks and whites (Campbell et al. 2000).

Forecasting future trends in inequality between Hispanics and non-Hispanic whites is more difficult than predicting black-white trends for three reasons. First, a major component of current inequality is the continuing flow of immigrants, including many of low economic means and low parental education. Clearly, substantial inequality will persist at least as long as disadvantaged immigrants continue to arrive. Second, the category of Hispanic (like that of Asian) incorporates immigrants from many different nations and backgrounds whose educational trajectories differ widely, so projections for the category as a whole are tenuous. Third, the salience of the ethnic categories of Hispanic and Asian may become blurred during the 21st century because of interethnic marriage. According to the 1990 census, 70 percent of Asians and 73 percent of Hispanics were married to persons of the same categories as their own, in contrast to 94 percent of blacks and 97 percent of non-Hispanic whites (Smith and Edmonston 1997). Moreover, rates of intermarriage were highest among those born in the United States and among younger persons. It is difficult to project trends for a category whose very boundaries may become unclear.

Most observers expect current levels of immigration to persist, at least through the first part of the 21st century, and on the whole, immigration benefits the U.S. economy (Smith and Edmonston 1997). However, high levels of immigration may slow the pace of black-white educational equalization, since economists have found evidence that the presence of immigrants reduces educational attainment among native-born minority group members (Betts 1998; Hoxby 1998). Still, in light of the substantial reduction in inequality of educational attainment between blacks and whites that occurred during a time of increasing immigration (i.e., after immigration quotas were relaxed in 1965), it seems

unlikely that continuing immigration will lead to a reversal in the trend toward black-white convergence in educational attainment.

SOCIOECONOMIC INEQUALITY: NO END IN SIGHT

At first glance, education seems less stratified by social background in the United States than in many other countries. Elementary education is universal and secondary education is nearly so, while postsecondary education has so many diverse forms and so few barriers to enrollment in some type or another that opportunities seem virtually unchecked. A closer look, however, reveals important differences in opportunities for students from different socioeconomic origins. For example, a 1992 follow-up survey of students who were high school sophomores in 1980 found that only 2 percent of the students from the top socioeconomic quartile failed to complete high school, compared to 7 percent of the students in the bottom quartile (U.S. Department of Education 1999:Table 311). Although the differences in high school completion are small in percentile terms, the economic consequences of failing to complete high school have grown increasingly severe (Olneck and Kim 1989).

Moreover, socioeconomic differences in college completion are far more vast: Only 7.2 percent of the 1980 high school sophomores from the lowest socioeconomic quartile received college degrees by 1992, compared to 51.3 percent of those from the highest quartile (U.S. Department of Education 1999:Table 311). A more recent survey indicated similar findings for college enrollment: Among the high school class of 1992, 41 percent of the graduates whose parents had no education beyond high school did not enroll in any postsecondary education, and only 25.8 percent enrolled in four-year postsecondary institutions. By contrast, just 7.5 percent of the students whose parents were college graduates did not enroll in any postsecondary education, while 71.4 percent enrolled in four-year institutions (Berkner, Chavez, and Carroll 1997).

Socioeconomic differentials in educational attainment remained strong and consistent throughout the 20th century (Hout and Dohan, 1996; Hout, Rafferty, and Bell, 1993). Even at the point of high school completion, where rates at the end of the century hovered close to 90 percent, the relative advantages of those from more privileged backgrounds remained, as did the relative advantages at other transition points. As education expanded, persons from lower classes stayed in school longer and longer—but so did those from higher-class backgrounds. If we think of education as an expanding pie, everyone's piece of the pie expanded during the 20th century. Nonetheless, those with larger pieces maintained their relative advantages over time.

This finding of "persistent inequality" has been well documented in a wide variety of national contexts (Shavit and Blossfeld 1993). Applying a common statistical framework to comparable data across 13 nations, researchers have demonstrated that the relative odds of entering secondary and higher education for persons from different social origins remained essentially unchanged throughout much of the 20th century. This finding held in the United States, West Germany, England and Wales, Italy, Switzerland, Taiwan, Japan, Czechoslovakia, Hungary, Poland, and Israel. The exceptions to the dominant pattern were Sweden and the Netherlands, which exhibited declining inequality. In a follow-up study, Hout and Dohan (1996) provided a closer look at the differences between the United States and Sweden. Early in the 20th century, social-class effects on educational attainment were stronger in Sweden than in the United States. By the end of the century, class effects in Sweden were weaker. As the authors explained:

The effects of origin class on educational success for cohorts born between 1925 and 1969 in the U.S.A. correspond to the effects of class origin on the educational success of Swedish cohorts born in the 1940s. For cohorts born earlier in the century, the Swedes faced stronger class barriers than the Americans faced; for more recent cohorts, the Swedes have faced weaker class barriers. (Hout and Dohan 1996:228)

Despite the diverging trends, the impact of social class on educational attainment remained substantively and statistically significant throughout the 20th century, in Sweden as well as in the United States.

Another dimension of persisting inequality in the United States pertains to test scores. In reading, 13-year-old students in 1971 whose parents were high school dropouts scored an average of 32 points below those whose parents continued their education beyond high school, a sizable gap on a scale in which 50 points reflects the difference between one proficiency level and the next. The identical difference in test scores remained in 1999, following a steady gap throughout the 30-year period. In mathematics, students whose parents were high school dropouts closed their 30-point deficit by about 25 percent between 1978 and 1999, but those whose parents went no further than high school did not gain at all compared to those whose parents were college graduates (Campbell et al. 2000). These constant gaps in test scores are becoming more important than ever as the impact of cognitive skills on wages has increased (Murnane, Willett, and Levy 1995).

Sources of Socioeconomic Inequality in Education

Why are persons from privileged backgrounds more successful in schooling, and why do these advantages persist over time? This story is well known: Economic, cultural, and social differences combine to preserve privilege across generations.

Economic Sources of Socioeconomic Inequality Since K-12 education is free and nearly universal, it may seem that economic differences have little to do with variation in educational outcomes. Of course, this is not the case. Resources available to children whose families have greater income and wealth—supplies, books, computers, a place to study, tutors, and so on—contribute to educational success (Coleman et al. 1966; Duncan and Brooks-Gunn 1997). As young people reach upper secondary education and beyond, issues of foregone income and cost also come into play (Gambetta 1987).

However, postsecondary education is so widely accessible now that although cost may affect the type of institution in which a person enrolls, it is a less salient consideration for whether a person attends postsecondary schooling at all.

Families of greater means also try to promote their children's educational interests by choosing places of residence with high-quality schools. But average school resources are weakly related to individual students' outcomes, such as test scores and graduation rates, after individual background differences are taken into account (Coleman et al. 1966; Hanushek 1997; Jencks et al. 1972; see Greenwald, Hedges, and Laine 1996 for an opposing view). Although the goal of using school resources to enhance their children's opportunities may be thwarted by small differences among public schools, economic advantages continue to confer benefits by supporting variation among individual students within schools. In addition, high-income parents can choose private schools that charge tuition, and these schools may boost short-term outcomes, such as test scores, as well as pave the way for long-term benefits like entry into elite colleges (Cookson and Persell 1989).

Signs of change in economic inequalities affecting schooling are modest at best. States are increasingly recognizing that unequal school financing across school districts is unfair, and some are taking steps to reduce these inequalities (Odden 1999; Odden and Busch 1998). This trend, however, will do little to reduce the major advantages held by those from families with more economic resources over those with less. The most important resources tend to operate at the individual level, so they are unaffected by changes in the redistribution of collective funds for education.

Cultural and Social Sources of Economic Inequality Bourdieu and others have noted that children whose parents have lower levels of education find themselves at a disadvantage in the school system (see, e.g., Bourdieu and Passeron 1977). Differences in habits, tastes, attitudes, preferences, and language use are among the many cultural conditions

that make it more difficult for students from disadvantaged families to succeed in school (e.g., Bernstein 1974; Bourdieu 1987; Willis 1977). Schools' emphasis on middle-class values makes it easier for children who enter school with these values to respond to the requirements of schooling. In addition, cultural resources in the home contribute directly to educational success. Students whose families own more books, subscribe to newspapers and magazines, visit libraries, and have similar enrichment opportunities perform better on cognitive tests, receive higher grades, and stay in school longer than do students whose families lack these resources (DiMaggio 1982; DiMaggio and Mohr 1985; Teachman 1987).

In his later work, Coleman and his colleagues (Coleman 1988; Coleman and Hoffer 1987) argued that differential access to social networks that support educational success contributes to inequality in educational outcomes. Coleman and Hoffer (1987) maintained that schools with distinctive missions, such as Catholic schools, could constitute communities that would provide social resources for young people who lacked them in their homes and neighborhoods. However, empirical studies have been unable to trace the benefits of Catholic schools to different sorts of social connections (Carbonaro 1998; Morgan and Sørensen 1999). Rather, social resources are tied to socioeconomic background: As Lareau (2000) discovered, middle-class parents' social networks provide them with insights and information that help them manage their children's educational careers successfully. Middle-class parents also have the cultural resources to navigate the complexities of educational opportunities more effectively than do working-class parents (Baker and Stevenson 1986; Lareau 2000; Useem 1992). In these cases, economic, social, and cultural resources are a powerful combination in promoting educational success for persons of privilege.

Persisting Inequality Inequality of achievement and inequality of attainment persisted at a constant level throughout the 20th century and show no sign of abating in the 21st century. Despite enormous educational

expansion, the relative advantages of those of higher-status origins continue. This pattern is consistent with reproduction theories, which maintain that dominant social groups use educational credentials to preserve their positions of privilege (Bourdieu and Passeron 1977; Bowles and Gintis 1976; Collins 1971). Reproduction theorists have recognized that subordinate groups often strive for greater educational opportunities and have pointed out that expanding mass education benefits dominant groups by broadening the socialization of persons from lower-status origins into a common value system and preparing them for the workforce. Rubinson (1986) explained the particular American approach to educational expansion—widespread and relatively undifferentiated compared to European systems—as the result of mild class consciousness among both the working and the capitalist classes. In the American context, educational opportunities have improved for all members of society, so that even as persons from lower-status origins can stay in school longer than ever, their relative position compared to their higher-status peers is preserved. According to Rafferty and Hout (1993; see also Hout et al. 1993), this pattern reflects *maximally maintained inequality*: Dominant groups maintain their advantage until their enrollment rate reaches 100 percent at a given level of schooling. For example, virtually everyone in America completes the 10th grade, so there is no social inequality in the completion of lower secondary education in this country. When saturation is reached, however, inequality simply shifts upward, so that relative differences are preserved.

For these reasons, we can expect inequality in educational achievement and attainment by social background to persist throughout the 21st century. As long as societies are stratified, privileged parents will seek ways to pass on their advantages to their children. Because schooling is the major sorting mechanism, persons in positions of power and advantage will use schooling to preserve their positions and those of their children. These inequalities will remain despite continuing expansion. In the United States, it is likely that by 2125, postsecondary schooling will be as nearly universal as secondary schooling

is today, encompassing about 90 percent of the age cohort. In that case, we can expect new distinctions to emerge; probably, differences among institutions of higher education will become more prominent to preserve the status hierarchy even as all students reach some form of higher education.

International Comparisons of Educational Inequality If educational inequality declined in Sweden in the 20th century, should we not expect it to decline in the United States in the 21st century? We should not because the conditions that supported the Swedish decline do not hold in the United States (Hout and Dohan 1996). Early in the 20th century, the Swedish educational system was highly selective, like most European systems, and inequality of attainment by social origins was greater than in the United States. A 1960s school reform in Sweden created comprehensive secondary schools in place of selective ones, and this change contributed to a lessening of inequality (Erikson and Jonsson 1996). Additional equalization was apparently unrelated to school reforms, but was more likely attributable to the Swedish economic system, with its relatively high degree of economic security and modest level of economic inequality. The exact cause of the additional decline is difficult to identify, as Erikson (1996:105) concluded:

Changes in educational opportunity since the 1920s have run parallel with trends toward equality in many aspects of the Swedish economy and society. As programs promoting universal health care, pensions, and employment have taken hold and income inequality has declined, so too educational inequality has fallen. The close correspondence among all of these changes frustrates the effort to separate cause from effect in a statistical analysis, but all indicators point clearly to the somewhat unscientific conclusion that many egalitarian changes "go together."

In the 21st century, the American economic system seems to be moving further and further away from the Swedish welfare state of the 20th century. Consequently, the Swedish case gives no reason to think that educational inequality on the basis of social background will decline in the United States. Even in

Sweden, educational opportunity remains stratified by social origin, and it is not clear that further decline will occur in the future (Erikson and Jonsson 1996).

Comparing Racial and Socioeconomic Inequality in the United States Is it reasonable to anticipate that black-white racial inequality in educational outcomes will diminish in the United States, but socioeconomic inequality will not? How can we conclude that racial inequality is not "maximally maintained," but socioeconomic inequality is? First, the pressure to reduce racial inequality is much greater than the pressure to reduce socioeconomic differences. Racial equality is constitutionally protected and guaranteed by law (though not always enforced); socioeconomic equality is not. Groups that represent and support racial minorities are politically mobilized; economically disadvantaged persons who are not members of minority groups lack coherent representation and organization. In the politics of representation, members of minority groups count, but those who simply grew up poor do not.

Second, racial inequality in educational outcomes *has* declined, in some ways quite substantially, but inequality by social-class origins did not decline during the 20th century. Much of the decline in racial inequality reflects the improving socioeconomic circumstances of blacks compared to whites. As black children have grown up in smaller families with better-educated parents, their own educational outcomes have improved relative to whites, and we may expect these improvements to be passed on to the next generation. Meanwhile, those who are disadvantaged socioeconomically show no signs of this "virtuous cycle."

Third, racial disadvantages have responded to social programs, but socioeconomic disadvantages have apparently not. As I noted earlier, desegregation in the South brought about improved test scores for blacks, and both desegregation and affirmative action may have yielded benefits to longer-term educational attainment. Although desegregation and affirmative action for those who are disadvantaged by social class have been sug-

gested (Kahlenberg 1997; Plank 2000), these proposals have not caught on. There is no evidence that educational programs that are designed to aid the general poor, as opposed to members of minority groups, have reduced educational inequality in the United States. The best candidate for an exception to this conclusion is Project Head Start, which has a lasting impact on cognitive benefits, at least for whites (who constitute the majority of poor children in the United States) (Currie and Thomas 1995). Although Head Start has served millions of children for 30 years, either the program has not been extensive enough or its benefits are not long lasting enough to reduce the gaps in the NAEP test scores among children whose parents have different levels of education. Perhaps Head Start may account for the one equalizing trend I identified, that the mathematics test scores of students whose parents were high school dropouts improved relative to the scores of other groups between 1978 and 1999.

Although racial and socioeconomic inequalities may follow different trends, they are also linked because blacks are, on average, disadvantaged socioeconomically. Since I anticipate that racial inequalities may remain in the labor market even as they diminish in education, and labor market inequalities form part of the basis for socioeconomic inequalities, the connection between race and economic inequality implies that racial disadvantages in education will not fully disappear. Because of the strong role of *educational background* in reproducing *educational inequality*, most of the racial gap in education can diminish even as occupational and income differences remain, but the remaining link between race and economic circumstances places a limit on the predicted decline in racial inequality in education.

FUTURE INEQUALITY UNDER SYSTEMIC CHANGE

I began this account with the assumption that the basic contours of American education, essentially unchanged during the 20th century, will remain the same for the next hundred

years. Indeed, my predictions of declining racial inequality and persisting socioeconomic inequality depend on this assumption. What changes may we expect if the educational system alters in dramatic ways? In this section, I consider two sorts of fundamental changes: a move toward radically more specialized and individualized learning and the adoption of strict accountability through enforced high standards for students' learning.

Specialized, Individualized Education

The explosion in new technologies toward the end of the 20th century invigorated calls for more specialization and individualization in the learning process. Why should students learn collectively when computers can be programmed to teach them individually? Why should classmates be located in the same classroom, when a worldwide pool of students can be connected to a virtual classroom through the internet? These notions have prompted some educators to envision an educational system in which specialized schooling begins at an early age and students progress at their own pace, rather than being confined to the curriculum of their school or age grade (Levine 2000; Thomas 2000; Witte 2000). Although radical shifts in this direction seem unlikely to me—calls for individualized instruction have been heard for the past 50 years without amounting to much, and collective socialization as an aspect of schooling remains as important as ever—it is still worth asking whether my predictions for inequality are robust to such changes. How would increased specialization and individualization affect racial and socioeconomic inequality of outcomes?

Access is the key issue. At present, students from economically disadvantaged backgrounds and racial minority groups have less access at home and at school to computers and the internet than do their more advantaged peers, although these gaps are narrowing (Becker and Ravitz 1998; Becker and Sterling 1987; National Center for Education Statistics 2001; National Telecommunications Administration 2000). Consequently,

increased specialization through computer use would benefit groups that are already privileged. This sort of change could forestall the decline in racial inequality I have anticipated and sustain or even magnify the persisting socioeconomic inequality I have predicted.

Suppose access to computers were equalized across racial and socioeconomic groups, perhaps through free, universal access at school to individual computers that were kept up to date—a computer at each student's desk (Thomas 2000). Under this scheme, which is feasible technologically but not financially in most public school districts, it is more likely that individualized learning could help mitigate, rather than exacerbate, inequality. If all students had access through their computers to the same learning opportunities, it might improve the chances of students from poor and minority backgrounds relative to others. Moreover, some of the out-of-school disadvantages faced by students of lesser means would be ameliorated if access to current technology were universal instead of restricted. Even if access were equalized while school is in session, however, differential access after school and especially during the summertime would limit the equalizing effects of universal access at school, preserving the privileges of those with greater family resources.

High Standards and Accountability

What if the United States became more like most European systems, with rigorous tests that provide differential qualifications depending on performance? What if mastery exhibited on tests were a criterion for moving from elementary to secondary school and for high school graduation? Changes such as these, which are under serious consideration in many states and districts throughout the United States, would represent a profound change in the way American education is organized. The shift would embrace greater centralization and standardization of the curriculum than has occurred in the past—minimally, it would involve a high degree of standardization at the state level, if not federally.

How would these changes affect the distribution of educational outcomes by race and social class?

Evidence from other nations suggests that high-stakes testing is associated with greater productivity—that is, higher levels of learning (Bishop 1998)—but may also yield higher levels of inequality than the absence of such testing. A study of curriculum change in Scotland indicated that testing and inequality were linked when access to academic programs was limited to the strongest students (Gamoran 1996a). When access to academic curricula expanded, inequality of outcomes by social origins diminished.

Evidence about testing and inequality in the United States has been mixed so far. In Chicago, it appears that the policy of retaining students who failed tests has led to the disproportionate retention of students from minority backgrounds (Moore 1999). This pattern would produce a major reversal in what have been converging rates of high school completion among whites and blacks. Indeed, many states are pulling back from using tests for promotion and graduation, in part because they recognize that the tests would have a disproportionate negative impact on disadvantaged students (Steinberg 2000). In Texas, where students are tested annually in reading and mathematics, African American (and Hispanic) students and those receiving free and reduced-price lunches have made progress in catching up to their peers. This finding suggests that more rigorous accountability helps both racial minority and socioeconomically disadvantaged students by giving them standardized learning opportunities and teachers who are highly motivated to help them succeed. Critics have raised two major concerns about this conclusion. First, they have noted that improvements in test scores are much weaker on the NAEP than they are on the state tests, suggesting that teachers may be focusing narrowly on tested content (Klein et al. 2000; McNeil 2000). Second, they have argued that test scores only seem to go up because more students are retained, and retention in grade will ultimately produce higher dropout rates, particularly among poor and minority students, because students who are retained are overage for

their grades, and that is the most potent predictor of dropping out (Haney 2000).

Overall, then, it is difficult to say how a rigorous system of testing on a national scale would affect the 21st-century trends I have predicted. If a standardized test were used as the sole criterion for high school graduation, it would drastically reduce rates of high school completion among African Americans of all social classes because among whites and African Americans of the same social class, whites tend to have higher test scores. Economically disadvantaged students would also be adversely affected. However, if the tests were used to bring about a more standardized curriculum, to foster a greater emphasis on learning opportunities in addition to outcomes, and to increase incentives for schools to support learning for minority students by heightening awareness of and accountability for unequal outcomes—without serving as the sole criterion for graduating from high school—then the long-run impact of high standards could be a further reduction in educational inequality between blacks and whites.

CONCLUSION

Under conditions of stability, the future of educational inequality in America can be discerned from past trends: less inequality by race, but not by social class. Early signals that these trends are continuing will be evident in the first decades of the 21st century—as soon as those who attended secondary school in the 1980s (when test scores among African Americans were at their height thus far) have teenage children of their own. By 2010, it should be possible to tell whether the virtuous cycle that I and others have identified is operating as predicted. At the same time, available evidence will indicate whether socioeconomic inequality continues to persist at its current levels.

Although profound systemic changes could alter my predictions, it is not clear that such changes will occur. The two that I considered—individualization and specialization, on the one hand, and high-stakes testing, on the other—reflect competing pressures that

continually confront American education. Whereas specialization responds to the desire to meet the needs of each child as an individual, standardized testing reflects the goal of providing a common framework for socialization and valued knowledge for all children. The individualization reforms imagined by Arthur Levine, president of Teachers College, stand in sharp contrast to the visions of testing advocates, such as President George W. Bush. The contrast is illuminated in the following excerpts:

We are heading to an era in which schooling will change profoundly. The teacher will not be the talking head at the front of the classroom, but the expert on students' learning styles, the educational equivalent of a medical doctor. Children will no longer be grouped by age. Each student will advance at his or her own pace in each subject area through individualized tutorials, student-centered group learning and a cornucopia of new technology and software. (Levine 2000:A33)

.....

We need a new way of thinking. We must go back to the fundamentals of early reading and regular testing, local control, and accountability for results, clear incentives for excellence, and clear consequences for failure. . . . Those results must be measured by testing every child every year, in tests developed and administered by states and local districts, not the federal government. Without yearly testing, we do not know who is falling behind and who needs our help. Without yearly testing, too often we don't find failure until it is too late. (Bush 2001)

In Levine's notion, education may mean something different for every child. In Bush's view, each child's education has the same aim. The American educational system reflects a compromise between these two persisting pressures.

At present, the pressure for testing and accountability is stronger than the pressure for individualization. Thus, if any change does occur in the early part of the 21st century, it seems that a move toward centralization and standardization is most likely. The implications for inequality of this sort of change depend on how the standardization occurs. If testing is implemented in a way that

enhances, rather than restricts, opportunity, it may accelerate the trend toward the equalization of educational outcomes across racial groups. However, as we move forward through the 21st century, the pendulum will probably swing back toward more individualization and differentiation. If by that time, the technology has become so inexpensive that it is feasible to provide up-to-date equipment to every student, universal access to technology may contribute to equalization on socioeconomic as well as racial lines. The more that students' learning depends on what happens in school, rather than at home, the greater the possibility that outcomes will become more equal. In this case, as in other educational arenas, declining gaps will depend, in part, on preserving policies that focus directly on reducing inequality and on finding new initiatives to compensate for the dismantling of older equity efforts.

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