EDUCATIONAL PROGRESS FOR AFRICAN AMERICANS AND LATINOS IN THE UNITED STATES FROM THE 1950s TO THE 1990s: THE INTERACTION OF ANCESTRY AND CLASS[1]

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INTRODUCTION

In the 1950s and 1960s the Civil Rights Movement challenged the legal basis of American-style apartheid. Through civil disobedience, litigation, and legislation, activists and movement organizations riveted the nation's attention on the contradiction between Americans' professed belief in equal treatment and the country's history of racial exclusion. The public confrontation between these contradictions caused millions of Americans to rethink their exclusionary views (Schumann, Bobo, and Steeh 1998). The net result was that African Americans' access to public education, voting rights, and public places increased. These changes in white peoples' outlooks and black peoples' opportunities raised the expectation in the African American community – and in other quarters, too – that blacks and whites were on the road to equality.

In the 1990s a counter-movement pushed back the resources institutions had been using to increase access for African Americans and people from other formerly excluded racial and ethnic groups. Under the rubric of "no preferences" critics of affirmative action have used lawsuits, ballot initiatives, and other means to halt or halter the use of race as a criterion when evaluating candidates for education or employment.

Much of the action in the Civil Rights Movement and in the 1990s backlash has been in the schools and universities. Civil rights activists and their opponents focus on education because it is the gateway to opportunity. Educational opportunity has been a resource for the propertyless of all ancestries at least since the nineteenth century. Early in the industrial era Americans charged schools with the task of incorporating the excluded and bringing opportunity to the disadvantaged (e.g., Fischer et al. 1996, ch. 6). Today, in the era of small government, education is the one institution that politicians can turn to as a venue for public action.[2] But education itself has never been free from

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[2]Of course, some politicians and voters question the quality of public education and seek to foster competition through vouchers and other means.

exclusionary practices and outcomes. A review of specific practices – those promoted as opening opportunities and those suspected of resulting in exclusion – would be informative. This chapter looks instead at results. I organize the evidence of educational opportunity and exclusion in the transitions of people through the levels of education using data from the experience of people who passed through American schools from the 1950s to the 1990s. In developing this results-oriented view I will take special note of the transmission of inequality across generations as it has consequences for people in different racial and ethnic categories and for people in different social classes.

INITIAL CONDITIONS AND EXPECTATIONS

The scale of African American exclusion in the first half of the twentieth century was staggering. Bowen and Bok's (1998, p. 1) statistical portrait of Black America in 1940 illustrates it:

> In 1940 most black men and women lived out of common view in rural communities
> chiefly in the South. Approximately 90 percent lived in poverty (Jaynes and Williams
> 1989, p. 277). Their annual earnings were less than half those of whites. The
> education they received was markedly inferior in quality. African American children
> in the South went to predominantly black schools in which (on average) pupil-teacher
> ratios were one-quarter greater than those in white schools, school terms were 10
> percent shorter, and black teachers were paid half the salary of white teachers (Card
> and Krueger 1992, p. 167). The median amount of education received by blacks aged
> 25-29 was about seven years (Jaynes and Williams 1989, p. 334). Only 12 percent
> of blacks age 25-29 had completed high school; less than two percent could claim a
> college degree (U.S. Department of Education 1997, p. 17).

Against that background any progress would be welcome. But against the aspirations that the successes of the late 1960s generated, anything short of parity by the year 2000 must be regarded as disappointing. The United States in 2000 is far short of racial and ethnic parity in education, employment, wages, health, and happiness. That is because the impressive gains of the first postwar generation have not been matched since then. For example, African American family poverty fell

from 90 percent in 1940 to 26.9 percent of families by 1974; it rose through the late 1970s and early 1980s and did not get back down below 27 percent until 1995 (U.S. Bureau of the Census 1999). Wages and annual earnings likewise increased rapidly through the 1960s and first half of the 1970s but little since. African American men now earn 73 percent as much as white men (compared to 43 percent in 1940). The grossest educational inequities have been eliminated but most observers concede that the resources available to inner-city schools lag seriously behind those of suburban and even some rural schools. Three-fourths of African Americans now earn a high school diploma but only 14 percent earn a college degree (Mare 1995).

Latinos, that is Americans who trace their origins to the countries of Latin America, were barely visible in 1940. There were fewer than 4 million persons of Hispanic origin resident in the United States at the time of the 1940 Census. By 1996 that number was approaching 40 million – a ten-fold increase in less than two generations. American-born Latinos today are achieving about the same amount of education as African Americans. Immigrants from Latin America typically have much less schooling. Barely one-third of the Latino immigrants who were 25-29 years old in 1990 had a high school diploma; 6 percent had a college degree (Mare 1995).

While contemporary inequalities may pale in comparison with the gross disparities of 50 years ago, most of the progress occurred in the first half of the postwar era. The United States has made little progress in closing the gap between blacks and whites through the stagflation of the late 1970s, the restructuring of the 1980s, and the expansion of the early 1990s (Danziger and Gottschalk 1996). There are some indications that the prosperity in the second half of the 1990s began to spread beyond the top 20 percent of the income distribution. Poverty once again began moving downward, median earnings rose for African Americans and Latinos, and the gap between whites' wages and those of others narrowed slightly (U.S. Bureau of the Census 1999).

"Hurry up and wait" is a good shorthand for postwar trends in racial disparity. After the revolutionary progress of the 1960s, the waiting has now held up a whole generation. The college graduating classes of 2000 were born in 1977 and 1978. Their lives began just when the pace of racial progress ground to a halt. The few who made it all the way through to a bachelor's degree deserve their diplomas. America can feel good that so many have succeeded; education is more just now than it was in 1950. But a bachelor's degree is still twice as likely for whites as for African

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Americans and Latinos. Out there in somewhere American society are unseen and untold young people who would have joined the graduation procession had progress not stopped the year they were born. The nation was once on a course that would equalize educational opportunity. The evidence in this chapter shows how falling racial and class exclusion increased educational opportunity in the 1960s and 1970s and how stalled racial progress coupled with resurgent class exclusion reversed the trends in the 1980s and 1990s.

EDUCATIONAL MOBILITY

The problem of mobility looms large in the public consciousness. Impatient in many things, Americans seem to be paradoxically content with an economy that makes progress a generation at a time. They subscribe to the idea that each generation does at least a little better than the preceding one did. The focus on mobility masks the reality of unequal opportunity because those who start off with the biggest advantages can be downwardly mobile and still attain far more education, income, or wealth than an upwardly mobile person who started out poor. For that reason, sociologists began over 30 years ago to analyze how educational and occupational destinations depend on family origins and to treat mobility as an epiphenomenon (Duncan 1966, 1979).

The link from educational origins to educational destinations is important because a strong link perpetuates the legacy of past discrimination. The stronger the connection between parents' educations and their children's opportunities, the longer the exclusionary practices of the past live on, even if they have been discontinued. So the focus of this research is the interaction of ancestry and class – less because mobility is intrinsically interesting than because of what it can tell us about the long-term consequences of past exclusion and the class character of contemporary inequality.

DATA AND MEASUREMENT

Large data files with long histories and detailed information on family origins are rare. Large government data bases, e.g., the Current Population Survey, reach back to the 1960s and beyond but lack data on social origins. Cohort studies typically include good data on social origins, but they lack

the time span we need to understand long-term change in the life chances of African Americans and Latinos. The General Social Survey (GSS) is an annual cross-section of the English-speaking adult population of the United States that has been conducted almost every year since 1972. It includes good measures of social origins and provides a longer historical perspective than we can get from cohort studies.

The GSS uses probability sampling methods to select nationally representative households.[3] The interview is carried out face-to-face with a randomly-selected adult in a sample household. The GSS has maintained a 77 percent response rate since it implemented full-probability sampling (see Davis, Smith, and Marsden 1998, or consult the GSS Data and Information Retrieval System at www.icpsr.umich.edu/gss99).

Educational categories. The GSS obtains information on the highest grade in school that the respondent completed and the respondent's highest educational credential. From that information, I constructed four categories: did not graduate from high school, graduated from high school and stopped, entered a post-secondary program but did not earn a four-year degree, and earned a bachelors or advanced degree. Detailed analyses show that the use of more educational details complicates the analysis without revealing any regularities not evident in the results reported herein.

Family origin. In the study of educational inequality and mobility, the education of the respondent's mother and father are paramount among the many facets of family origin (e.g., Fischer et al. 1996, ch. 4). This conforms to a regularity that has emerged from the sociological literature: like goes with like in intergenerational studies. That is, the dimension of social origins most important for an outcome of interest is the place of the subject's parents in the distribution of that variable; parents' income matters most for their offsprings' economic outcomes (wages, poverty, etc.), their marital status matters for their offsprings' marital histories, and their educations matter most for the offsprings' educational opportunities.

To classify parents' educations I constructed seven categories:

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[3]The first three surveys used modified probability sampling that had a quota element at the block level. The 1975 and 1976 surveys blended the modified and full probability methods. Since 1977 all cases have been drawn using full probability methods.

1) elementary education (less than 9 years of schooling completed),

2) incomplete secondary education (from 9 to 12 years of schooling completed but no high school diploma),

3) complete secondary education (from 9 to 12 years of schooling completed and a high school diploma),

4) some college (a high school diploma and 13 or more years of schooling completed, but no degrees earned),

5) a two-year degree (13 or more years of schooling completed and a diploma or certificate from a two-year college),

6) bachelors degree (13 or more years of schooling completed and a degree from a four-year college or university),

7) a graduate degree (16 or more years of schooling completed and an advanced degree from a university).

I experimented with alternative ways of scoring the categories and settled on a simple scheme that uses the category numbers as scores.

Many respondents do not know or cannot remember their parents' educations. Some people simply do not remember (or never knew) the parents' educations; this problem increases sharply with age for respondents who were over 55 years old at the time of the interview. These cases are deleted from the analysis. For other people the problem is family break-up. One of their parents did not live with them while they were growing up, and they do not know about the absent parent's education. An absent parent can be a serious handicap for a child's social and cognitive development. Censoring the data by leaving out the cases for which a parent's education is unknown because the parent was absent from the household has the potential to bias the other results.[4] For descriptive purposes I report "father absent from family" and "mother absent from family" as separate categories. For regressions, I scored the missing parent's education as "high school graduate" and also included a

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[4] As we shall see, having a missing parent significantly lowers educational attainment, all else being equal.

dummy variable equal to 1 if father was absent and zero otherwise and an analogous variable for whether the mother was absent.[5]

The income of the family of origin and the occupational status of the main earner's occupation are also important aspects of social origins. Including them with parental education yields a more complete picture of educational stratification (e.g., Hauser and Featherman 1976). Measuring income accurately is very difficult in a retrospective survey. The GSS measure is a simple question about income in comparison to other families: "Thinking about the time when you were 16 years old, compared with other American families in general then, would you say your family income was far below average, below average, average, above average, or far above average?" Almost ten percent of the people who are interviewed say at first that they cannot answer that question, but when asked to provide their "best guess,"nearly all provide some indication of their family's standard of living. Half of the GSS respondents (52 percent to be precise) say that their family's income was "average." One-fourth (24 percent) say "below average," 14 percent say "above average," 8 percent say "far below average," and only 2 percent say "far above average." The crudeness of this measure means that using it in statistical procedures like the model I use herein will underestimate the true effect of family income on educational attainment. But including a crude estimate seems preferable to ignoring class differences that are independent of parents' education. Moreover, because the measure is equally crude for all cohorts, we can probably get a fair assessment of change in its effect; that is, even if the effect is underestimated for each cohort, the difference between the coefficient for one cohort and the next may not be far off from what we would obtain if we had access to a more accurate measure. The GSS discontinued this measure after the 1994 survey, so using it eliminates the two most recent surveys from the analysis. This is a serious exclusion so I present descriptive statistics for all available cases – including the 1996 and 1998 interviews that have no income data.

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[5]The choice of how to score the missing parent's education is arbitrary; it merely establishes the baseline against which the coefficients for the "father absent" and "mother absent" variables are normed. The substantive meaning of the results would not change if I made another category the baseline (as long as I keep the baseline clearly in mind when interpreting the coefficients).

Furthermore, I have appended regression results that leave income out of the equation. This nearly doubles the sample size for the last cohort. Since the potential rise in the importance of income for educational opportunities is a major concern, I highlight the results that include the crude income measure.

The GSS data on occupation presents two difficulties. First the rules NORC used to code job descriptions was changed in 1988 to bring the GSS into line with changes that the Census Bureau had made. The change is well-documented and the GSS data file provides three years of double coding with which to integrate the two coding schemes. But this cannot overcome the fundamental incompatibility of the schemes. A good approximation of the Erikson-Goldthorpe class model (Erikson and Goldthorpe 1992) is possible from each scheme, and I have implemented it here (details available on request). The Erikson-Goldthorpe scheme, as modified, results in the following categories: Professionals (upper), Professionals (lower), Managers (upper and lower combined), Routine white-collar employees, Proprietors, Farmers, Skilled blue-collar workers, Semi- and unskilled blue-collar workers. Various kinds of service employees are coded as managers, routine white-collar employees, and unskilled blue-collar workers according to rules specified by Erikson and Goldthorpe.

The second problem with the GSS occupation data is that mother's occupations were not ascertained prior to 1994. Thus for the minority of households that had a female principal earner, occupation is missing. Father's occupation must serve as the measure of occupational origins even for families that had no male present. As one might expect, that measure is missing for many of the affected cases – about 12 percent of the total cases. Missing father's occupation overlaps so much with missing father's education, however, that only one "absent father" code is needed to correct the regression estimates for the missing data on this variable.[6]

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[6]Using the same dummy variable for "father absent" data on education and occupation means that the reference for that coefficient is the father who has both a high school diploma and an unskilled job.

The GSS also asks about the composition of the family of origin around the time when the respondent was 16 years old. I make use of two aspects of family structure: whether the father and mother were living with the respondent then and the number of siblings he or she had.[7]

Information on whether the respondent was living in the United States or abroad at age 16, and, for U.S. residents, in which region of the country they lived give a broad indication of educational and occupational opportunity. In particular, schools in the South are usually ranked lower than those in the rest of the country. The multivariate analysis will contrast persons who were living in the South with the rest of the United States. As this is a study of educational stratification in the United States, I decided it was best to exclude the cases that were resident in foreign countries at age 16 years (but not foreign-born respondents who were living in the United States at that age). The GSS also asks a random two-thirds of its respondents whether they were born in the United States. Preliminary analyses failed to find a significant effect of foreign birth. I do not present those null results because too many cases have to be deleted to accommodate using the foreign-born variable.

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[7]A few respondents report very large numbers of brothers and sisters; the maximum is 63. Tom Smith of the GSS has verified these reports. Most people count step- and half-siblings, on some of whom were co-resident with the respondent while he or she was growing up. These extreme cases have some leverage over the statistical results, so I recoded them all to a value of 20.

Sample restrictions. The GSS samples households. Persons in group quarters – most notably college dormitories and old-age homes – are excluded. Therefore, the GSS underestimates the educational attainment of the youngest cohorts in any given survey. To guard against this bias, I have excluded respondents who were less than 30 years old at the time of interview. Even though their individual reports were undoubtedly as accurate as those of any other GSS respondents, collectively they misrepresent their cohort because significant members of the cohort were outside the sampling frame. At the other end of the lifecycle, less-educated persons die younger than college graduates. Therefore, the GSS respondents over 70 years old are more educated than their cohort was before it was eroded by significant mortality. To guard against this bias, I also exclude all persons over 69 years of age. The interview is done in English, so persons who do not speak English well enough to be interviewed are excluded.[8]

Multivariate results are obtained using maximum likelihood methods. The statistical model is an ordered logit model corrected for features of the GSS sampling design. The model is discussed and justified in the appendix.

A table of descriptive statistics for all variables is appended (Table A1) as are the multivariate results that do not use the income measure (Table A2).

TRENDS IN EDUCATIONAL ATTAINMENT

Educational progress can be gauged by monitoring rates of high school graduation, college enrollment, and college graduation. Comparing cohorts born 1955-68 with those born earlier in the century gives us an indication of which ancestry groups – African American, Latino, or others – are making the most educational progress. Table 1 shows the trends. After discussing them, I will turn to multivariate results that show how much of the trend is due to racial dynamics per se and how much should be attributed to the interaction between ancestry and class.

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[8]In the 1980s an average of 2.5 percent of total contacts were excluded for language problems. In the 1990s that average increased to about 2.9 percent of total contacts.

(Table 1 about here)

High school graduation rates almost doubled for African Americans across the three cohorts. Less than half of the African Americans born prior to 1940 graduated from high school; 87 percent of those born 1955-68 earned a high school diploma. Much of the change actually took place earlier as the 1940-54 cohort registered a 78 percent rate. Latinos made similar progress from 35 percent of those born prior to 1940 to 71 percent of those born 1940-54 and 82 percent of those born 1955-68. The other ancestry groups (mostly from European origin) started out close to the graduation rates that African Americans and Latinos of the middle cohort – at 72 percent – and moved on up to 90 and ultimately 93 percent. Even though all groups moved upward, the gap between the groups that make up the majority and African Americans and Latinos narrowed. The initial deficit in high school graduations was 27 percentage points for African Americans and 37 percentage points for Latinos; for people born 1955-68, the African Americans and Latinos are still behind but the gaps have closed to 6 and 11 percentage points.[9]

About half of the oldest high school graduates of each ancestry group went on to some kind of post-secondary institution (i.e., among cohorts born before 1940). Because of the huge gaps in high school graduation rates, though, some post-secondary education was achieved by 21 percent of African Americans, 11 percent of Latinos, and 34 percent of others. As high school graduation rates rose, even the 50 percent continuation rate would have increased post-secondary enrollment rates. But the continuation rates actually rose among all groups, accelerating the rise in educational attainment. The acceleration was not as rapid for African Americans and Latinos as for the others,

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[9]Recall that this analysis excludes immigrants who came to the United States after they turned 16 years old. Including immigrants who obtained most of their schooling abroad dramatically lowers the high-school graduation rate observed for Latinos in the last cohort from 82 to 75 percentage points. A study of human capital in the labor force would want to take this latter figure into account, but this study of educational stratification draws a more accurate picture of American schooling by excluding those who got most or all of their schooling elsewhere.

so the middle cohort shows post-secondary enrollment rates of 42 percent, 39 percent, and 56 percent for African Americans, Latinos, and others, respectively. Subsequent developments in higher education, especially the expansion of community colleges in big states, pushed post-secondary enrollments upward again and closed the gaps among ancestry groups. In the last cohort, two-thirds of the young people in each group continued to some form of post-secondary education. Compounded with record-high high school graduation rates these continuation rates resulted in 54 percent of African Americans, 50 percent of Latinos, and 60 percent of others going on.

Only one-third of African Americans who started post-secondary education prior to 1958 earned a four-year degree; that amounted to 7 percent of their cohort. A similarly low fraction of Latinos who continued beyond high school earned four-year degrees, netting just 3 percent of the first cohort. Post-secondary enrollees from the other ancestry groups had a graduation rate of 49 percent, adding up to 17 percent of the first cohort. The relative graduation rates did not change significantly from the first to the second cohort; among African Americans with some post-secondary education one-third earned degrees, among Latinos 40 percent earned degrees, and among others half earned degrees. Compounded by rising proportions enrolling, the overall effect was that, in the 1940-54 cohort, 15 percent of minority ancestry groups and 29 percent of the other ancestries earned college degrees. Graduation rates dropped by 7 percentage points for African Americans and 5 percentage points for Latinos born into the 1955-68 cohort. Some minority students may have abandoned four-year programs without graduating, but some of the change came from the dramatic rise of minority enrollments in two-year schools. Successfully completing a two-year degree can lead to higher attainment, but it usually does not – especially among African Americans (Brint and Karabel 1989). The 50 percent graduation rate among others persisted, resulting in a significantly bigger gap in the attainment of college degrees in the 1955-68 cohort than in the preceding ones.

The question for this research is whether parity is a realistic expectation when comparing groups that are not equal at the starting line. African American and Latino parents have significantly less education than their counterparts from other ancestry groups. Is it reasonable to expect the gap to disappear in one generation? Should we not expect some residual difference in gross comparisons of the sort reported in Table 1? It is more reasonable to expect negligible differences in outcomes

for people from similar class backgrounds but different ancestry groups. That implies a focus on educational origins and destinations – the topic of the next section.

PATTERNS OF EDUCATIONAL MOBILITY

All but one of the major findings in this paper are visible in simple charts showing the fraction of a cohort that crosses the major thresholds in the educational process conditioned by mother's or father's educational attainment and ancestry (Figures 1A and 1B). Each panel of each figure represents a different combination of educational threshold and cohort. The percentage of persons from the cohort in question that achieves success in crossing a stated educational threshold is arrayed by either mother's (Figure 1A) or father's (Figure 1B) education, with a separate mark for each ancestry category. African Americans are represented by filled circles, Latinos by X's, and the comparison "other" group – mostly whites – are shown by open circles. The charts also show lines that aid in interpretation by smoothing over the sampling error in the raw data.[10]

Figures 1A and 1B about here

Comparing the left, middle, and right panels of the top row of Figure 1A, we see progress in the achievement of secondary education for each ancestry group, especially for those whose mothers had less than secondary education. In the oldest cohort over 95 percent of "others" whose mothers had high school diplomas achieved their own too. Among African Americans and Latinos, high school graduation was significantly less likely at each level of mother's education; if she was missing or had never completed any secondary education, the respondent's chances of graduating

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[10]The "smoothed" lines show the probabilities fitted using binary logistic regression. The dependent variable in the regression is the log-odds of a successful transition; the independent variables are the education of the parent in question, parent's education squared, and a dummy variable for having a missing parent. I calculated the regressions for each combination of ancestry, cohort, and educational transition. That is 27 regressions in all.

from high school were barely one-in-four. Among whites and others whose mother had little education, graduation from high school was relatively rare – barely half made it. In the cohort born 1940-54 (the beginning of the baby boom), the minimum graduation rates among African American and Latinos were 50 percent for the now much less common category of unschooled parents; among whites and others the minimum graduation rate was 75 percent. For the middle-education groups, ancestry differences diminished. The youngest cohort closely resembles its predecessor. Black-white disparity disappeared altogether. Latino-white disparity was restricted to the offspring of the least-educated parents. Thus in high-school graduation, the residual differences among ancestry groups are almost completely attributable to differences among the groups in their educational origins.

The changes in the opportunity to enter college are much smaller in part because the initial differences among ancestries were smaller. In the oldest cohort, African American and Latino college enrollment rates lagged behind whites and others by between 12 and 21 percentage points for each level of parental education. For cohorts born since 1940, ancestry is barely a factor once parental education has been taken into account. The large disparities in college enrollment noted in Table 1 appear from these data to stem from the legacies of past discrimination. The evidence here implies that youths seeking to enroll in college in the 1980s and early 1990s faced class barriers consistent with their parents' educational achievements but had small additional burdens related directly to ancestry. They do not appear to have any particular advantages that might indicate the intervention of "preferences" in advancing people of color. The class gaps faced by all ancestry groups were formidable. Half of the youths whose parents had not completed high school entered some form of post-secondary education; that is half of the African Americans, half of the Latinos, and half of the others (up from 25 percent a generation earlier). Between 85 and 90 percent of the young people whose parents had graduated from college or gone on to graduate or professional school enrolled in post-secondary education. Thus the educational class gap in college enrollment was between 35 and 40 percentage points. Disparities within classes that can be tied to racial and ethnic ancestry are barely perceptible.

The last row shows that whites are still at an advantage when it comes to turning post-secondary enrollment into a college degree. African Americans' and Latinos' rates of college graduation – which were 7 to 10 percentage points behind whites' in the oldest cohort – are 8 to 24

percentage points behind those of whites and others with equal amounts of parental education. No group shows a statistically significant change in college-graduation rates between the middle cohort and the youngest cohort. The youngest cohort is better-educated, but the reason is primarily the greater education of their parents. For people with the same parental education and ancestry, there is no net increase in college graduation from the middle to the last cohort.

These figures also reveal the strong intergenerational component to education. Both parents' educations exert a strong effect on the respondent's own educational attainment. The lines, circles, and X's in each panel slope sharply upward to the right, indicating a strong association from one generation to the next. The curvature induced by the floor of zero percent and the ceiling of 100 percent are well-modeled by the logistic transformation that I used to smooth over sampling error. The effect of parents' educations on college graduation is significantly weaker for African Americans and Latinos than for others. Interactions between educational origins and ancestry are nil for the other two outcomes.

MULTIVARIATE RESULTS

Differences in the educational origins of African Americans, Latinos, and others explains nearly all of the difference we see in recent high-school graduation rates and all of the difference we see in recent post-secondary enrollment. But ancestry persists as a significant feature of the attainment of college degrees. At least as far as the kinds of analyses presented thus far can tell. To be certain that I have correctly accounted for educational differences and to more fully account for social origins, I turn now to a multivariate analysis of each educational transition. The model enters father's and mother's education simultaneously, adds family income, father's occupation, and family size as additional elements of family origins, and takes account of gender differences (significant only in the first two cohorts) and regional differences – very important throughout – as well. Statistical modeling also allows for a more fine-grained approach to cohort comparisons. To expose interactions between cohort and other important variables, I obtain separate estimates the model's parameters for each cohort. To allow for fine-grained cohort effects within each broad cohort, I add a linear cohort trend term to the model.

The multivariate results confirm conclusions about the way parental education and ancestry affect educational success already drawn after considering the evidence in Figures 1A and 1B. The other variables in the multivariate model have net effects worth noting. The most important results concern parental income. Even though the measure is subjective and fraught with error, its effects are significant in the cohorts prior to the 1940s and since 1955 but not in between. The significant income effects in the first and third cohorts have nearly identical values (.201 and .202). This on-off-on pattern in the effect of family income on educational attainment coincides with important changes in the funding of higher education at four-year colleges and universities. More aid is now provided in the form of loans and less in outright grants that need not be repaid; meanwhile the tuition and living expenses associated with attending college are racing far ahead of the inflation rate for most goods (Lucas 1995; Kane 2000).

Class differences associated with the occupation of the family's main earner diminish significantly across cohorts. Still significant at the end of the series, occupation, nonetheless, has a weaker affect in the 1955-68 cohort than it had in previous cohorts.

Regional differences, sibling effects, and mother's absence work as expected. Father's absence is weak predictor of educational success. This does not mean that an absent father is not a significant disadvantage. The comparison group for "father absent" is high-school graduates with unskilled jobs. Having an absent father is the equivalent to having one with the lowest prestige job. Cohort effects persist within the broader cohorts up till 1955.

THE EXPERIENCE OF MORE RECENT COHORTS

The foregoing analysis breaks off with the cohort born in 1968. That is a group of people who were just finishing advanced schooling in 1998. Since key transitions – from incomplete secondary education to high school graduation and from high school graduation to post-secondary enrollment – take place about a decade earlier, it is possible to sneak preview the 1969-76 cohorts, at least for these first two transitions. This portion of the analysis gives us some purchase on the experience of cohorts who left high school in the early 1990s (with or without a diploma).

Table 3 compares the 1955-68 cohort with the 1969-76 cohort, limiting the comparison to those who were 23-29 years old when they were interviewed. The high-school graduation data show glaring differences by ancestry group. African Americans lost ground; high-school graduation fell from 86 percent to 82 percent. Latinos, on the other hand, improved dramatically from 74 percent to 83 percent.[11] Others show a modest increase from 90 to 94 percent.

Post-secondary enrollments also fell for slightly African Americans from the 1955-68 to the 1969-78 cohort. This is not an artifact of these data nor a statistical fluctuation. Hauser (1995) has focused on this problem. His detailed analyses make clear that family resources and family structure cannot explain the deterioration of African American enrollments. The changes took place before the all-out attack on affirmative action in college admissions. Hauser considers and rejects the conjecture that the military provided an attractive alternative for African Americans – especially males.

Latinos, in sharp contrast, show significant improvement. Some of the improvement is attributable to the decline in high-school dropout already noted. With more Latinos graduating and a constant 50 percent enrollment rate among graduates a significant increase in the percent enrolling in post-secondary education is to be expected, but the 60 percent entering post-secondary education exceeds expectation because it represents a 63 percent conditional enrollment rate. In plain English, the data indicate that Latino high school graduates are increasingly likely to go on to post-secondary education. The rates for other ancestries also indicate increasing college enrollment; post-secondary enrollments among 23-29 year olds is up from 54 percent to 67 percent. Thus the declines for African Americans are in stark contrast to rising rates of post-secondary attendance for Latinos and others.

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[11]Note that the data for the 1955-68 cohort after 30 years of age show a 75 percent high school graduation rate for them. Either nine percent completed high school between age 22 and age 30 or a significant fraction of 22 to 29 year old Latino college students are not in households (therefore out of the sample frame).

The college graduation data are incomplete and will ultimately register increases for all groups as people in their late 20s complete their degrees. The initial reconnaissance shows a slight increase for African Americans (not statistically significant), a doubling for Latinos, and a three-point increase for others (significant at the .06 level). The college graduation rates for the 1955-68 cohort assessed once the people were past 30 years of age were higher than registered here for 22-29 year olds, so the rates for the 1969-76 cohort will probably rise for all three ancestry groups. But unless the African Americans catch up suddenly through a spate of late-20s graduations, they will lag behind not only whites but also Latinos. The more than two-to-one advantage of the mostly white "other" group will probably still hold in the 1969-76 cohort.

The multivariate results show that about half of the gap between African Americans and others is class-based, i.e., it follows from the disadvantaged socioeconomic origins that I have interpreted as the legacy of past discrimination. But the other half is independent of the measured effects of class; the academic prospects of African Americans fall behind those of others who have similar backgrounds. Whether that residual difference reflects differences in background not captured by the variables in the GSS (e.g., school quality differences discussed by Card and Krueger 1992 and Fischer et al. 1996) or on-going discrimination against African Americans cannot be resolved with the data in hand. What seems clear in Figures 1A and 1B above and in a corresponding chart that could be made for the 1969-76 cohort is that the black-white college graduation gap is greatest for the young people whose parents have some college education. Disadvantaged African Americans do as poorly as disadvantaged youths from other groups. The African American deficit in college graduation appears among African Americans who have some of the advantages that previous generations had been denied.

CONCLUSION

Class processes – reflected in differential educational opportunity for persons whose parents had little education or money or both – have impeded progress in erasing educational differences among racial ancestry groups in the United States. For people whose parents had similar amounts of education and money, African Americans or Latinos bear less in the way of a direct burden than they

did 25 or 50 years ago. But because a person's educational opportunities depend on how much education her parents had and African Americans and Latinos have parents who did bear the full racial burden, large gaps persist today. Thus the class dynamics of educational stratification pass on to the present generation the discrimination and exclusion of previous generations.

The United States made significant progress in erasing class differences in educational opportunity for cohorts born between 1900 and 1950. Since then progress has slowed to a halt. Money mattered more for the educational success of recent cohorts than it did for the cohorts born 1940-54. Whether this is tied to rising tuition and falling financial aid (Karen 1991; Lucas 1996; Kane 2000) is hard to say with these data, but these two contributors to the family's cost of a young person's college education are certainly the leading suspects. The effect of mother's and father's educations and father's occupation decreased steadily for all racio-ethnic groups through the 1968 cohort. Subsequent cohorts are divided by the same parental-education effects as the 1950 cohort experienced. Family finances were playing a smaller and smaller role in educational opportunity until recently. The cohorts born since 1960 are divided by a sharp resurgence of economic inequality.

Nations can encourage educational opportunity in two ways: they can make educational institutions less selective or they can change the selection criteria in ways that make class less relevant (Hout and Dohan 1996). The easiest way (but not necessarily the least expensive way) to make education less selective is to expand educational facilities. Since advantaged classes are typically utilizing the available facilities in great numbers already, expansion usually benefits the previously disadvantaged (Raftery and Hout 1993). The other approach is to go directly at the mechanisms of exclusion. Public and private institutions can make sure that lack of money and parental education do not impede a young person's educational progress by keeping costs low and considering "hardship" in evaluating applicants. Some have even proposed this kind of class-based affirmative action as a way around the University of California's current problems with its regents and voters. Some have argued in favor of class-based affirmative action, but Kane's (1999) results clearly show that class-based affirmative action will not effectively substitute for race-based affirmative action because most young people who would qualify are neither African American nor Latino. The results presented here suggest that the converse may also be true. Racial equity will remain out-of-reach as long as class barriers remain as high as they have been recently in the United

States. The interaction of class and race has put another generation of African Americans at risk. Progress by Latinos is more encouraging. They remain behind whites, but they are gaining faster than African Americans are.

Appendix: The Ordered Logit Model

The ordered logit model begins with the idea that the continuous variable of interest, in this case "educational attainment" (Y), is unobserved but that we have observations on a categorical indicator of Y, in this case categories formed from information on years of schooling and educational credentials (Z). Z is formed by cutting Y at K-1 points, call these cut-points κ_k for k = 1,..., K-1. For completeness, define κ_0 = -∞ and κ_K = ∞. It is not necessary to assume that the κ_k are evenly spaced, only that they are ordered, i.e., $\kappa_1 < \kappa_2, < ... < \kappa_{K-1}$ (and by definition $\kappa_0 < \kappa_1$ and $\kappa_{K-1} < \kappa_K$). Now suppose that Y is linearly related to some exogenous variables, call them X_p for p = 1, 2,..., P, and an error term, call it u, that is uncorrelated with the X_p:

$$Y = \Sigma_p \beta_p X_p + u \quad .$$
[1]

Note that since Y is latent and scale-free, there is no loss of generality in leaving out the intercept, i.e., letting Y = 0 when $X_1 = X_2 = ... = X_P = 0$.

The ordered logit model specifies the relationship between the latent continuous variable Y and the observed categorical outcomes Z in terms of the parameters that determine Y and the cut-points. In particular, it specifies a log-linear relationship between the odds on being in a category above k to being in category k or below and the Xs (with the cutting point κ_k as the intercept (as long as the errors conform to the logistic distribution and have a mean of zero, they cancel out):

Install Equation Editor and double-click here to view equation.

Equation [2] can be solved for the probability of observing a case in category k as a (nonlinear) function of the X values and the parameters (the βs and the κs):

$$\text{Prob}(Z = k) \quad = \text{Prob}(\kappa_{k-1} < Y \le \kappa_k)$$

$$= [1 + \exp(-\kappa_k + \Sigma_p \beta_p X_p)]^{-1} - [1 + \exp(-\kappa_{k-1} + \Sigma_p \beta_p X_p)]^{-1} \quad .$$
[3]

Note that although there are K-1 logistic regressions of the form given in equation [2], there is only one vector of regression coefficients, i.e., the logistic regressions differ only in their intercepts, which are -1 times the cut-point values. To get a sense of whether that constraint is reasonable, a

researcher can run the K-1 logistic regressions and compare the β values for successive regressions (Long 1997, pp. 141-142). If the estimates of any of the β parameters vary substantially from regression-to-regression, then a less parsimonious model, e.g., multinomial logistic regression, might be more appropriate. Long (1997, pp. 142-45) presents formal tests that can be employed.

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Table 1

Successful Educational Transitions by Ancestry and Birth Cohort:
Persons 30-69 Years Old, United States, 1974-1998

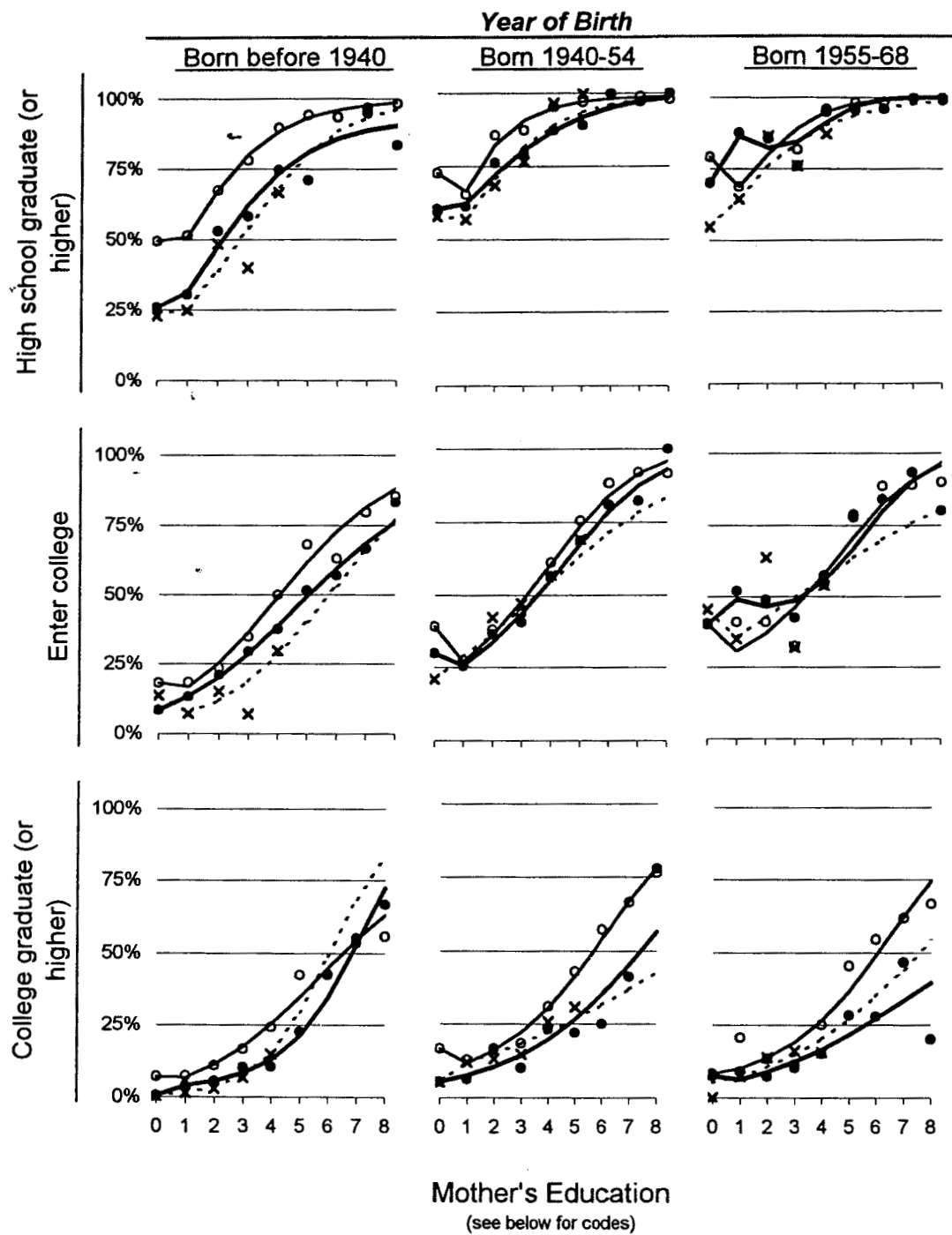| Educational Transition / Ancestry	Birth Cohort		
	Before 1940	1940-54	1955-68
Graduate from high school			
African American	45%	78%	87%
Latino	35%	71%	82%
Other	72%	90%	93%
Total	68%	88%	92%
Enter post-secondary			
African American	21%	42%	54%
Latino	11%	39%	50%
Other	34%	56%	60%
Total	32%	54%	59%
Graduate from college			
African American	7%	14%	14%
Latino	3%	16%	18%
Other	17%	29%	31%
Total	16%	27%	28%
Number of cases	8,980	7,685	3,332

Source: General Social Survey, 1974-1998
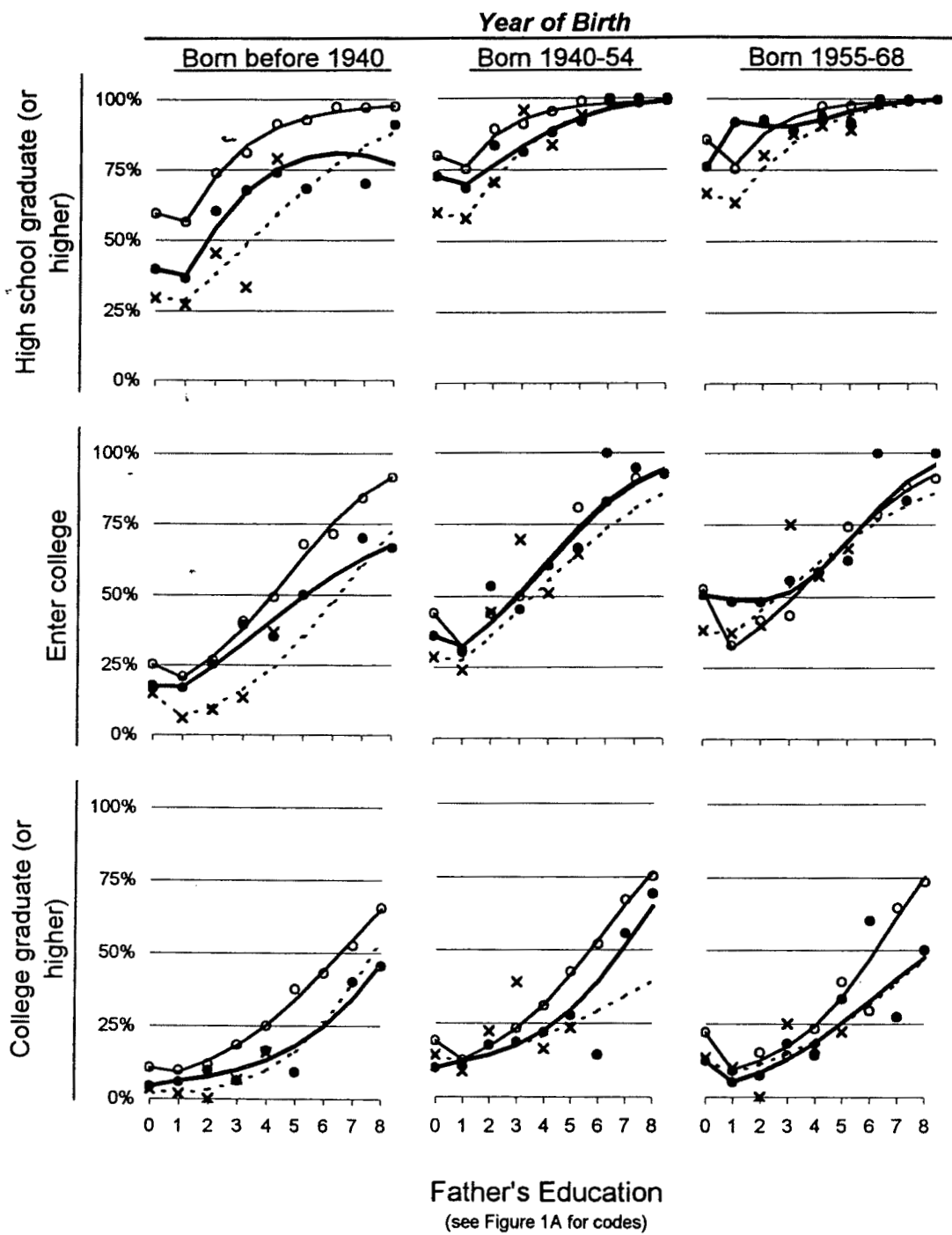
Figure 1B. Educational Attainment by Father's Education, Ancestry, and Birth Cohort: Persons 30-69 Years Old, United States

Source: General Social Survey, 1974-1998

Figure 1A. Educational Attainment by Mother's Education, Ancestry, and Birth Cohort: Persons 30–69 Years Old, United States

Source: General Social Survey, 1974-1998

Codes: 0 = Mother absent; 1 = Incomplete primary; 2 = Complete primary; 3 = Incomplete secondary; 4 = Complete secondary; 5 = Some college; 6 = 2-year degree; 7 = 4-year degree; 8 = Advanced degree.

Table 2

Maximum Likelihood Estimates of the Parameters of the Ordered Logit Model by Cohort: Persons 30-69 Years Old, United States, 1974-1998

Independent variable	Cohort		
	Before 1940	1940-54	1955-68
Ancestry			
African American	**-.398**	**.201**	.308
Latino	**-1.017**	.038	.081
Other	a	a	a
Woman	**-.261**	**-.295**	.036
Father's education	**.128**	**.233**	**.250**
Mother's education	**.259**	**.330**	**.359**
Father absent	-.027	**-.291**	.319
Mother absent	**-.727**	**-.967**	**-.760**
Main earner's occupation			
Upper professional	**1.289**	**.612**	**.832**
Lower professional	**1.069**	**.630**	**.635**
Manager	**.996**	**.535**	**.760**
Routine white collar	**.797**	**.524**	**.951**
Proprietor	**.986**	**.739**	**.776**
Farmer	.031	.105	**.978**
Skilled blue collar	**.331**	.133	**.512**
Less-skilled blue collar	a	a	a
Family income	**.202**	.036	**.201**
Number of siblings	**-.142**	**-.142**	**-.072**
Region at Age 16			
South Atlantic	**-.409**	**-.383**	**-.480**
East South Central	**-.497**	**-.391**	**-.711**
West South Central	**-.198**	**-.372**	-.113
Other	a	a	a
Cohort	**.033**	**.023**	-.030
Cut points			
0/1	**.635**	-.184	-1.824
1/2	**2.581**	**2.056**	.488
2/3	**3.724**	**3.456**	**2.077**
Number of cases	8,210	6,072	1,525

NOTE: Coefficients in **bold** type are significant at the .05 level (two-tailed).

a-Category deleted from the regression as an identifying restriction.

Table 3

Successful Educational Transitions by Ancestry and Birth Cohort: Persons 23-29 Years Old, United States, 1977-1998

Educational Transition / Ancestry	Birth Cohort	
	1955-68	1969-76
Graduate from high school		
African American	86%	82%
Latino	74%	83%
Other	90%	94%
Total	89%	91%
Enter post-secondary		
African American	46%	44%
Latino	36%	60%
Other	54%	67%
Total	52%	63%
Graduate from college		
African American	10%	12%
Latino	8%	15%
Other	25%	28%
Total	22%	25%
Number of cases	2,766	772

Source: General Social Survey, 1974-1998

Appendix Table A1

Descriptive Statistics for the Total Population and for Ancestry Groups: Persons 30-69 Years Old, United States, 1974-1998

Variable	Total	Cohort		
		Before 1940	1940-54	1955-68
Dependent Variable				
Drop out of High School	23%	33%	13%	9%
Graduate from High Schoo	36%	36%	36%	32%
Enter College	21%	16%	26%	30%
Graduate from College	21%	15%	26%	29%
Independent Variables				
African American	10%	10%	10%	12%
Latino	3%	2%	4%	4%
Woman	55%	56%	55%	56%
Father's Education	2.74	2.14	2.76	3.32
Mother's Education	3.15	2.13	2.76	3.21
Family Income at Age 16[b]	2.76	2.67	2.83	2.94
Father Absent	16%	34%	24%	13%
Mother Absent	5%	11%	6%	4%
Siblings	3.93	4.29	3.60	3.59
Main Earner's Occupation				
Professional, upper	5%	3%	6%	9%
Professional, lower	2%	1%	3%	4%
Manager	7%	5%	9%	12%
Routine white collar	4%	4%	5%	3%
Proprietor	7%	7%	8%	8%
Farmer	15%	21%	9%	5%
Skilled blue collar	23%	22%	24%	26%
Unskilled blue collar	25%	25%	26%	20%
No earner or missing	12%	12%	12%	13%
Region at Age 16				
South Atlantic	16%	17%	15%	15%
E South Central	8%	9%	8%	7%
W South Central	9%	9%	9%	8%
Elsewhere in the USA	67%	65%	67%	71%
Number of cases	15,807	8,210	6,072	1,525

Appendix Table A2

Maximum Likelihood Estimates of the Parameters of an Alternative Specification of the Ordered Logit Model by Cohort: Persons 30-69 Years Old, United States, 1974-1998

Independent variable	Cohort		
	Before 1940	1940-54	1955-68
Ancestry			
African American	**-.432**	.143	.221
Latino	**-1.099**	-.056	.053
Other	a	a	a
Woman	**-.259**	**-.222**	.102
Father's education	**.121**	**.221**	**.297**
Mother's education	**.271**	**.335**	**.336**
Father absent	-.036	**-.228**	.079
Mother absent	**-.739**	**-.760**	**-.738**
Main earner's occupation			
Upper professional	**1.370**	**.750**	**.755**
Lower professional	**1.216**	**.721**	**.357**
Manager	**1.072**	**.651**	**.642**
Routine white collar	**.882**	**.581**	**.607**
Proprietor	**1.108**	**.812**	**.767**
Farmer	.037	**.171**	**.544**
Skilled blue collar	**.371**	**.227**	**.277**
Less-skilled blue collar	a	a	a
Family income	.000	.000	.000
Number of siblings	**-.139**	**-.127**	**-.076**
Region at Age 16			
South Atlantic	**-.412**	**-.377**	**-.255**
East South Central	**-.551**	**-.387**	**-.497**
West South Central	**-.183**	**-.353**	-.114
Other	a	a	a
Cohort	**.036**	**.020**	**-.024**
Cut points			
0/1	.190	-.376	**-2.116**
1/2	**2.121**	**1.839**	.228
2/3	**3.265**	**3.244**	**1.838**
Number of cases	8,980	7,685	3,332

NOTE: Coefficients in **bold** type are significant at the .05 level (two-tailed).

a-Identifying restriction