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Racial Differences in the Effects of Significant Others on Students' Educational Expectations

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This study compares the impact of the educational aspirations of parents, teachers, close relatives, and peers on students' educational expectations across various racial groups. Using data from the National Education Longitudinal Study, the authors found that both the levels of significant others' aspirations and the effects of these aspirations vary by students' racial statuses and types of significant others. First, Asian, Hispanic, and African American parents tend to hold higher educational aspirations for their children than do white parents, but the relative influences of Asian and Hispanic mothers and African American fathers on students' educational expectations are smaller than those of their white counterparts. Second, the aspirations of close relatives have greater effects on African American and Hispanic American students' educational expectations. Third, although teachers and friends vary in their aspirations for students, depending on their race, the effects of these aspirations are similar for all racial groups. The results suggest different processes through which familial significant others and other socializing agents influence the educational attitudes of students across racial groups.

Research on educational processes and the influence of social factors across racial boundaries has attracted a great deal of scholarly attention as well as public interest. Over the past few decades, sociologists have shown that educational expectations have a direct and a mediating effect on school outcomes, both within and across racial groups (Alexander and Eckland 1975; Buchmann and Dalton 2002; Garrison 1982; Hanson 1994; Hao and Bonstead-Bruns 1998; Morgan 1996; Sewell and Hauser 1975, 1993). In general, scholars have agreed that (1) children's educational expectations have strong effects on

school performance and educational attainments; (2) children's educational expectations vary by racial groups, with Asian Americans having the highest and Hispanic Americans having the lowest educational expectations (Coleman et al. 1966; Hout and Morgan 1975; Kao and Tienda 1998; Mickelson 1990); and (3) educational aspirations for students held by significant others, such as parents, teachers, and peers, also differ by students' race (Farkas et al. 1990; Hochschild 1995; Kao 1995; MacLeod 1987; Ogbu 1978, 1991).

Building on these findings, we extend the examination of racial differences in the

level of educational aspirations that significant others have for students to include close relatives, as well as teachers, peers, and both parents. More important, we analyze whether the influence of significant others on students' educational expectations differs by race. Three competing scenarios are provided. On the one hand, some significant others may exert greater influence on minority students' educational expectations because of the greater importance of social support among racial minority groups (Coleman 1988) or because of students' greater reliance on significant others with high aspirations (Kao 1999). On the other hand, minority significant others may have less influence on students' expectations because students view them as less credible sources of accurate information because of their exceptionally high expectations and marginal social positions vis-à-vis the mainstream school systems (Mickelson 1990; Steinberg, Dornbusch, and Brown 1992). Finally, there may be no differences in effects across race.

Our study contributes to the literature on significant others and students' educational expectations in three major ways. First, we test significant others' differential effects across racial groups, a pattern suggested but not fully tested in past studies (Kerckhoff 1976; Kerckhoff and Campbell 1977; Lareau and Horvat 1999; MacLeod 1987). Second, we more systematically detail the levels of educational expectations/aspirations among both students and significant others across various racial groups. Third, we extend the discussion of significant others to include close relatives. Because some racial minorities rely more on their extended family members than do whites (Scratchfield and Picou 1982; Stack 1975), this addition substantially increases our understanding of racial differences in significant others' influences.

EDUCATIONAL EXPECTATIONS AND SIGNIFICANT OTHERS

Few factors shape academic outcomes more profoundly than do children's educational expectations. Studies of generational mobility

have demonstrated that children's educational expectations are a key component that mediates familial influences on school outcomes (see Sewell and Hauser 1993 for a review). In addition to school performance, two groups of variables have typically been advanced to explain youths' formation of educational expectations: family characteristics, such as parental education, family income, and sibship size, and significant others, such as parents, teachers, and peers. Regarding the former, scholars have suggested that children's socialization patterns are stratified by children's socioeconomic statuses. With respect to significant others, many studies have reported that they serve both as direct and mediating factors in forming children's educational ambitions (Entwisle et al. 1988; Ferguson 1998; Hao and Bonstead-Bruns 1998; Peng and Wright 1994).

Who are "significant others," and how do they influence children's educational expectations? Following the symbolic interactionist tradition of Cooley (1902) and Mead (1934), social psychologists have defined *significant others* as "persons who exercise major influence over the attitudes of individuals" (Woelfel and Haller 1971:75). Researchers have argued that the formation of attitudes requires the processing of information through self-reflection and daily interaction with others. A child conceptualizes a particular sociocultural reality through perceptions and the internalization of information provided by his or her significant others vis-à-vis daily communications. As a result, significant others shape students' educational expectations through children's perceptions of how significant others define and value educational categories (Entwisle et al. 1988; Picou and Carter 1976; Woelfel and Haller 1971). Following this approach, quantitative research on educational ambitions has generally identified significant others as parents, teachers, and peers (Alexander, Eckland, and Griffin 1975; Alexander and Pallas 1983; Sewell and Hauser 1993; but see Scratchfield and Picou 1982).

We follow the definition/theory of significant others developed by early social psychological researchers, but suggest the inclusion of additional actors in its operationalization.

Social agents influence children through personal interaction with them, and the content of this interaction varies by the type of social agent and is constrained by children's social backgrounds. As a result, a human actor who is perceived as insignificant by some children may be considered important by others. In particular, Stack (1975) suggested that African American children especially attend to members of their extended families and ethnic communities in their daily lives. These members often include fictive kin, nonrelated adults who are nevertheless considered to be "uncles" and "aunts." African American children are also more likely than white children to identify extended-family members as important references for their educational expectations (Scratchfield and Picou 1982). These close relatives have rarely been investigated in quantitative research.

RACIAL DIFFERENCES IN EDUCATIONAL EXPECTATIONS

Some researchers have argued that racial differences in children's educational expectations are among the sources of racial inequalities in school performance (Goyette and Xie 1999; Kao and Tienda 1998; Morgan 1996). Others have attempted to explain the inconsistency between African American children's high educational expectations and low academic achievements (Hochschild 1995; Mickelson 1990; but also see Goldscheider and Goldscheider 1991). Despite the different research emphases, it is generally agreed that Asian American children have higher educational expectations and Hispanic American children have lower expectations than do other races, with African Americans and whites falling in between.

Although sociologists generally agree on the importance of significant others for children's educational attainments, there are gaps in our knowledge of racial differences in the level of significant others' aspirations, with more knowledge about some racial groups and some sets of significant others than about others. Between African Americans and whites, for example, research

has suggested that African American parents hold higher aspirations for their children's education than do white parents (Hochschild 1995). Teachers, on the other hand, have been found to have significantly higher expectations for white than for black students (Alexander, Entwisle, and Bedinger 1994; Alexander, Entwisle, and Thompson 1987; Farkas et al. 1990; Ferguson 1998). Regarding friends, scholars disagree on the patterns of educational aspirations held by peers for their African American friends. Ogbu (1978, 1991), for example, argued that African American children tend to be dismissive of school; to engage in an oppositional culture; and, as a result, to have lower aspirations for their ethnic peers (but see Ainsworth-Darnell and Downey 1998; Downey and Ainsworth-Darnell 2002; Farkas, Lleras, and Maczuga 2002). MacLeod (1987), however, reported the beneficial effects of the pro-educational atmosphere of "the brothers" in the nurturing of academic behavior, though he suggested that his results may be unique because of his informants' recent migration from other areas.

In contrast, researchers have reported that Asian American parents tend to have higher educational aspirations for their children than do white parents (Feigin 1995; Goyette and Xie 1999; Kao 1995; Ogbu 1978, 1991; Peng and Wright 1994), and Asian American students generally perceive high aspirations from their teachers regarding their educational futures (Wong 1980). In addition, while few studies have directly discussed the educational aspirations held by Asian American students' peers, most studies have implied that their aspirations for each other are high (Goyette and Xie 1999; Kao, Tienda, and Schneider 1996).

Much less is known about the educational aspirations for and by Hispanic American students. Nevertheless, Kao and Tienda (1998) posited that Hispanics' fatalistic and family-centered values may be detrimental to fostering high educational aspirations and school outcomes, implying that Hispanic American parents and close relatives maintain relatively low educational aspirations for their children. Kao and Tienda's argument also suggests that Hispanic American students as a group have

relatively lower educational aspirations for their ethnic peers. Finally, at least one study has found that teachers' perceptions of Hispanic American children are negatively affected by these children's ethnicity (Arnold et al. 1998), which suggests that teachers may hold lower educational aspirations for Hispanic American children. The paucity of studies of Hispanic American students' significant others means that these tendencies have not yet been systematically documented in sociological research.

DIFFERENTIAL EFFECTS OF SIGNIFICANT OTHERS

The preceding discussion summarized the current state of knowledge regarding racial differences in the levels of educational aspirations of significant others. With the exception of Hispanic Americans, minority students tend to perceive higher educational aspirations from their familial significant others, while white and Asian American children often perceive higher aspirations from teachers than do the other two racial groups. However, racial groups may differ not only in the *levels* of significant others' aspirations, but in the *effects* of these aspirations on students' expectations. For example, despite the African American-white differences in the levels of parental aspirations, it is possible that African American parents' aspirations influence their children's expectations more or less than do white parents' aspirations. The exploration of differential effects, therefore, allows us to determine whether there are *different processes* in how students' educational expectations are influenced by their significant others across races.

How may the effects of significant others on students' educational expectations differ across racial groups? We identified three competing scenarios. First, it is possible that some significant others have a greater unit effect for minority students' educational expectations than for those of white students. Two theoretical perspectives are most relevant to this scenario. In his discussion of social capital, Coleman (1988) suggested that individuals

from socially disadvantaged groups often turn to their familial and community networks to facilitate the achievement of goals. Since racial minorities, especially African Americans and Hispanic Americans, are often subjected to racial discrimination as a group (Bobo and Hutchings 1996; Fischer et al. 1996) and thus receive less support from public social agents in school (e.g., school counselors and teachers), it may be hypothesized that these students turn to familial significant others for support. The social capital hypothesis suggests that the unfavorable social contexts faced by disadvantaged minorities lead to greater investment in social capital and thus a greater reliance on significant others within these groups' familial circles, such as parents and close relatives.

The second perspective linking educational expectations and self-esteem adds a further refinement to this scenario. It is often argued that minority children tend to identify with groups that help sustain their positive self-esteem (Kao 1999; Porter and Washington 1993). If individuals are more likely to rely on positive images to sustain their self-esteem, then one could hypothesize that African American and Asian American students are more heavily influenced by social actors from their familial networks, such as parents and close relatives, than are the other two groups. At the same time, the long-standing stereotype of Asian Americans as a "model minority" may push students from this racial group to be more sensitive to teachers' encouragements (Peng and Wright 1994; Wong 1980). The tendency of individuals to seek positive reinforcement suggests that significant others with higher educational aspirations have an increased influence on students' expectations.

The second possibility is that significant others from racial minority groups have less influence in shaping minority students' positive educational expectations. Steele (1997) suggested that because of the negative image caused by the races' lower average school performance, African American and Hispanic American students tend to demonstrate a higher level of academic disidentification than do students from other races. As a result, strategies to enhance positive self-image may

involve turning away from academic achievement toward achievements in other domains, such as athletics and socializing activities, and hence may lead to a *decline* in the influence of significant others' educational aspirations (Osborne 1995, 1997; Steele 1997).

In a similar vein, Mickelson (1990) found that African American students often mix concrete evaluations of educational prospects with pro-educational ideologies, so their educational expectations tend to be higher than those of white students but have less influence on their actual school performance. For African Americans, then, high parental aspirations sometimes reflect parents' pro-educational values that have little to do with what their children could achieve in school (Hochschild 1995). Thus, the seemingly unrealistic optimism held by some parents may lead to these aspirations having less influence in shaping students' educational expectations. Indeed, because of their parents' social status as marginalized minorities (and, in the case of Asian Americans, recent immigrants), nonwhite students may feel that parents are not the most reliable sources on which to base their expectations (Steinberg et al. 1992). As a result, racial minority parents' aspirations may have less influence on students' educational expectations.

The third possibility is that students' educational expectations are significantly influenced by the aspirations of their significant others, but that the strength of these influences does not vary by students' racial statuses. Racial differences need not necessitate differential effects. Roscigno and Ainsworth-Darnell (1999), for example, found considerable racial disparity in the amount of cultural resources possessed by students, but few differences in their effects on the school achievements of African Americans and whites. By the same token, it is possible that Asian American and African American parents have higher aspirations for their children than do white parents, which, in turn, lift the educational expectations of these minority students, but the unit effect of these aspirations on students' educational expectations is the same across racial boundaries.

Although the three possibilities just outlined are mutually exclusive, the patterns of

differentiation may be contingent on students' ages and grade levels and on the types of significant others. Previous research found that parental encouragement has stronger effects than does peer influence in the early stages of the life course, but peer effects become more important as children enter adolescence (Spenner and Featherman 1978). This finding suggests that results that pertain to the early elementary school years (e.g., Entwisle et al. 1988) cannot be directly generalized to other age and grade groups. In our study, we restricted our examination of educational expectations to students in the 10th grade. Considering several different types of significant others, Hout and Morgan (1975) reported that African American-white disparities in peer influence were greater than the gap in parental effects on children's expectations, but their findings were based on separate models and thus were not statistically tested. Our study extended Hout and Morgan's examination by including five types of significant others—mothers, fathers, close relatives, friends, and teachers—and by including Asians and Hispanics, as well as African Americans and whites, in the analyses. Finally, as opposed to the regional data used by Hout and Morgan, we tested our theoretical hypotheses for each set of significant others by examining data from the National Education Longitudinal Study (NELS).

METHOD

Data and Measures

We analyzed data drawn from the first follow-up of NELS, which used a two-stage stratified probability sampling design to select students for the base-year survey in 1988. In 1990, 20,840 students attending 1,050 high schools across the nation were surveyed. NELS was particularly appropriate for this study because it contains nationally representative samples of racial groups. We focused on the first follow-up survey because it allowed us to control for students' previous academic achievements, which may affect the current educational expectations/aspirations of students and significant others. The

first follow-up survey also allowed us to examine students' perceptions of a variety of significant others. We excluded from our analyses students who identified themselves as American Indians because of their small number and students whose races were unknown. The final sample included 1,032 Asian American, 2,115 Hispanic American, 1,727 African American, and 12,127 white students.

Students' Educational Expectations The major variable in our analyses was students' educational expectations.¹ In 1990, NELS asked 10th-grade students, "As things stand now, how far in school do you think you will get?" The responses were coded as nine categories of educational levels (less than high school, high school degree, less than or equal to two years of vocational school, less than or equal to two years of college, more than two years of vocational school, more than two years of college, bachelor's degree, master's degree, Ph.D./professional degree). Although previous studies typically measured students' educational expectations as years of schooling expected and used ordinary least-squares regression to analyze the data (Hao and Bonstead-Bruns 1998; Morgan 1996), we treated educational expectations as the level of credential expected and used nonlinear categorical regression. This approach allowed us to examine racial variations in students' expected credentials and avoided potentially biased estimates caused by measurement assumptions regarding the underlying metric (Long and Cheng in press).

Significant Others' Aspirations The other key variables in our analyses measured the aspirations of fathers, mothers, friends, students' favorite teachers, and close relatives for students' education. All significant others' aspirations were taken from the students' responses, since students are influenced by significant others through their perceptions of these social agents. Both father's and mother's aspirations were included because students may not be affected by mothers and fathers in the same way. Among African Americans, for example, mothers may be considered more influential (Collins 1990).² As defined in NELS, the term *close relatives*

was subject to the respondent's interpretation. When asked by a respondent for an interpretation of *close* during the survey, the interviewer would respond, "Whatever the question means to you." It can reasonably be assumed that close relatives are individuals who are closely related to the student, such as grandparents, aunts, uncles, and other extended family members.

Mother's and father's aspirations were taken from the question, "How far in school do you think your father and your mother want you to go?" The responses were coded as ordinal variables with five categories (high school or less, two-year college, attendance at a four-year college but no degree expected, a bachelor's degree, or a graduate degree) when we explored the distributions of significant others' aspirations across races. When used as the independent variables to examine the differential effects of significant others on students' educational expectations across races, they were treated as a multiple dummy series with high school or less as the reference group. Teachers', close relatives', and peers' aspirations were taken from questions that asked students whether their favorite teachers, close relatives, and friends wanted them to go to college. These responses were each coded as a dichotomous variable (yes = 1 and 0 otherwise).

An issue involved in the use of perceived, rather than self-reported, measures of significant others' aspirations is that the respondents may project their own aspirations onto others when asked about significant others' aspirations for them (Davies and Kandel 1981). Alexander and Pallas (1983) alluded to this tendency in developing a nonrecursive model in which students' expectations have a larger effect on perceived parental expectations than vice versa. Thus, it should be recognized that perceived measures tend to inflate the correlation between significant others' and students' expectations.³ For both theoretical and practical reasons, however, we used perceived measures in this study. First, social psychologists suggest that it is internalized perceptions that affect students' attitudes (Entwisle et al. 1988; Picou and Carter 1976). Second, aspirations for different types of significant others are not all available

in self-reports. Third, most previous research has used perceived expectations. Finally, and most important, since our major interest is in racial differences, the use of perceived versus actual expectations could affect our results only if measurement error differs across race.⁴ Supplemental analyses using the base-year survey to examine the correspondence between parental self-reports and perceived expectations showed that the differences between self-reports and perceived expectations were normally distributed within each racial group and, consequently, did not show any large biases between racial groups. Additional analyses using teachers' self-reports also suggested no change in our substantive results (results from all supplementary analyses are available on request).

Control Variables We controlled for students' socioeconomic backgrounds, family structures, and academic performance. Father's education and mother's education were each measured by five dummy variables, with the reference group high school or less (see Table 1). Annual family income was measured in thousands of dollars. Consistent with studies of family structure (Pong 1998; Powell and Steelman 1990, 1993), we included five measures of family structure: sibling size, coded as the number of siblings; two dummy variables indicating whether students lived with both biological parents or in stepparent households; and two continuous variables measuring the number of adult and nonadult relatives in the households. The last two variables allowed us to control any spurious effect of close relatives that was due to students' close proximity with relatives living in the households. Standardized reading and math scores from the 8th grade were included to preclude the possibility that expectations/aspirations were inflated or deflated because of students' previous performance on standardized tests. Students' 10th-grade math and English grades were also included because perceptions of the students' educational prospects may be affected by the students' current school performance. Finally, we included students' sex, with female coded 1 and male coded 0.

Analytical Strategies

We first examined racial differences in the level of students' and significant others' educational expectations/aspirations using both descriptive statistics and predicted probabilities obtained from a series of nonlinear categorical regressions. We then conducted regression analyses to examine racial differences in the effects of significant others on students' educational expectations. Because NELS selected schools first and then sampled students at the second stage, the Huber (1967) variance estimate was used throughout to correct the potential bias of school effects. We used binary logit regression for binary dependent variables and ordered logit regression for ordinal dependent variables. Binary logit regression is commonly used in sociological research, in which a logistic distribution is assumed with $E(\epsilon) = 0$ and $Var(\epsilon) = \pi^2/3$, leading to the equation:

$$\Pr(y = 1 | X) = \frac{\exp(\alpha + \beta X)}{1 + \exp(\alpha + \beta X)} \quad (1)$$

While the ordered logit model is less widely used in sociological studies of education, it is well suited to the task of analyzing dependent variables whose categories are ordered from low to high, but are not interval-level measurement (Long and Cheng in press). A practical benefit of ordered logit is that it allows for postestimation of predicted probabilities for each credential, rather than simply indicating the respondents' predicted years of expected schooling. The cut points, τ_k , and the coefficients, β_m , of the model are estimated by assuming a latent, continuous variable through the following equation, in which the probability of being at level j of the dependent variable y for the i th case is

$$\Pr(y_i = j) = \frac{1}{1 + \exp(-\tau_j + \sum_1^m \beta_m X_{im})} - \frac{1}{1 + \exp(-\tau_{j-1} + \sum_1^m \beta_m X_{im})} \quad (2)$$

The estimated τ_k and β_m can be readily translated into predicted probabilities to gauge the impact of independent variables on the dependent variable.

Table 1. Descriptive Statistics of Variables Used in the Analysis: 10th-Grade Students, NELS, 1990^a

Variable	Asian Americans	Hispanic Americans	African Americans	White Americans
<i>Panel A. Percentages of Categorical Variables</i>				
<i>Sample Size</i>				
<i>Key Variables</i>				
Students' Expectations of Educational Attainments	1,032	2,115	1,727	12,127
Less than high school	1.15	4.21	2.04	1.97
High school degree	8.19	14.76	14.12	10.16
Less than or equal to 2 years of vocational school	4.30	5.50	2.95	4.37
Less than or equal to 2 years of college	3.18	4.30	3.53	2.95
More than 2 years of vocational school	5.77	8.48	9.52	8.72
More than 2 years of college	9.15	18.13	13.16	13.27
4-year college degree	29.69	23.84	26.54	32.01
Master's degree	17.29	8.14	14.13	14.79
Ph.D./professional degree	21.26	12.64	14.01	11.76
Father's Educational Aspirations				
High school or less	12.60	20.23	18.98	15.16
Less than or equal to 2 years of college	2.45	5.47	4.67	5.34
Less than 4 years of college	8.89	9.96	13.81	9.73
4-year college degree	38.88	43.26	40.12	50.76
At least some graduate studies	37.17	21.09	22.42	19.01
Missing (N)	121	524	528	1993
Mother's Educational Aspirations				
High school or less	13.47	18.93	18.36	15.78
Less than or equal to 2 years of college	1.77	7.05	5.62	5.49
Less than 4 years of college	8.24	9.90	10.10	9.69
4-year college degree	40.70	41.68	38.78	50.34
At least some graduate studies	35.83	22.44	27.13	18.69
Missing (N)	91	343	262	1407
Favorite Teachers Want the Student to Go to College	58.02	46.81	50.18	49.36
Close Relatives Want the Student to Go to College	63.66	52.20	55.19	55.10
Friends Want the Student to Go to College	40.62	30.27	31.57	35.19
<i>Control Variables</i>				
Female (1 if female, 0 if male)	46.68	51.88	51.37	49.91
Both Parents Live in the Household	76.39	59.83	32.60	63.73
At Least One Stepparent Lives in the Household	7.22	13.94	15.62	15.52
Father's Educational Attainments				
Less than or equal to high school	34.07	68.94	57.33	47.14
Some postsecondary vocational school	9.51	10.30	11.59	11.81
Some college	8.68	6.15	11.53	8.95
College graduate	20.02	7.45	13.03	17.17
Master's degree	13.02	4.45	4.44	9.78
Ph.D. degree	14.71	2.70	2.08	5.15
Missing (N)	215	460	462	1469
Mother's Educational Attainments				
Less than or equal to high school	43.93	73.53	54.46	51.94
Some postsecondary vocational school	9.07	8.59	13.99	13.66
Some college	8.90	6.49	13.38	9.69
College graduate	22.31	6.29	9.33	14.93
Master's degree	10.55	2.93	5.46	7.50
Ph.D. degree	5.23	2.17	3.38	2.28
Missing (N)	240	355	248	1146

Table 1. Continued

Variable	Mean	SD	Minimum	Maximum
<i>Panel B. Descriptive Statistics of Other Variables Used in the Analysis</i>				
<i>Other Variables</i>				
Standardized Reading Scores in the 8th Grade ^b				
Asian	46.72	8.88	24.05	63.49
Hispanic	42.71	7.52	23.43	63.49
African	41.98	7.30	24.72	63.49
White	47.26	8.32	23.46	63.49
Standardized Math Scores in the 8th Grade ^b				
Asian	47.54	8.70	24.48	67.23
Hispanic	40.92	7.30	23.98	67.23
African	39.74	7.22	24.89	67.23
White	45.94	8.17	23.34	67.23
High School Grade in English: 10th Grade (1 = low, 8 = high) ^b				
Asian	6.07	1.69	1.00	8.00
Hispanic	5.19	1.76	1.00	8.00
African	5.40	1.67	1.00	8.00
White	5.59	1.83	1.00	8.00
High School Grade in Math: 10th Grade (1 = low, 8 = high) ^b				
Asian	6.19	1.58	1.00	8.00
Hispanic	5.60	1.73	1.00	8.00
African	5.62	1.69	1.00	8.00
White	5.79	1.74	1.00	8.00
Family Annual Income (\$1,000/year) ^{b,c}				
Asian	46.53	40.50	0.00	250.00
Hispanic	28.21	23.89	0.00	250.00
African	26.21	22.34	0.00	250.00
White	43.37	35.71	0.00	250.00
Number of Siblings ^b				
Asian	3.70	2.04	1.00	14.00
Hispanic	4.40	2.26	1.00	22.00
African	4.73	3.12	1.00	25.00
White	3.62	1.96	1.00	25.00
Number of Adult Relatives Living in the Household				
Asian	0.37	0.82	0.00	7.00
Hispanic	0.35	0.76	0.00	9.00
African	0.47	0.97	0.00	10.00
White	0.21	0.62	0.00	10.00
Number of Nonadult Relatives Living in the Household				
Asian	0.09	0.48	0.00	6.00
Hispanic	0.13	0.52	0.00	6.00
African	0.21	0.71	0.00	6.00
White	0.05	0.31	0.00	6.00

^a Unless indicated, the variables come from the student questionnaire.

^b Missing values are recoded as means.

^c The variables are from the parents' questionnaire.

Our primary analyses focused on racial differences in the effects of significant others because access to resources in the United States is largely limited by externally ascribed identities, with the most prevalent racial identities being African American, Asian, Hispanic, and white. Although this racial stratification explains much of the variation in patterns of educational expectations, research indicates that ethnic variations may exist within these commonly used panethnic categories (Arias 1986; Goyette and Xie 1999). In addition, some studies have found that the effects of significant others vary by students' gender (Hout and Morgan 1975). In supplementary analyses, we examined ethnic variations within the Hispanic American and Asian American populations and tested for race-sex interaction effects of significant others on students' expectations; we discuss our major findings next.

RESULTS

Bivariate Analyses

Panels A and B of Table 1 display the descriptive statistics by students' race for categorical and continuous variables, respectively. There are sizable racial differences in students' educational expectations and significant others' educational aspirations for students. At the bivariate level, Asian American students have the highest educational expectations, and Hispanic American children, in general, have the lowest educational expectations. In contrast to the suggestions by others that African American students have higher educational expectations than do whites (Coleman et al. 1966; but also see Ainsworth-Darnell and Downey 1998 and Mickelson 1990), the difference between the two racial groups is mixed: Although more white students than African Americans expect a bachelor's degree or more ($t = -5.42, p < .01, 2$ tailed), African American students are more likely to expect a high school diploma ($t = 4.42, p < .01, 2$ tailed) or a doctoral/professional degree ($t = 2.17, p < .05, 2$ tailed).

The patterns of parental aspirations are generally similar to those of students' expecta-

tations. The somewhat bimodal distribution of expectations among African American students just noted (i.e., more likely than whites to expect a high school diploma or a professional/doctoral degree) is mirrored in the aspirations of African American parents. This pattern is not found, however, in African American parents' actual educational attainments. With respect to other types of significant others, Asian and Hispanic American students, respectively, receive higher and lower aspirations from their favorite teachers, friends, and close relatives than do students of other racial groups, whereas African American students receive higher aspirations from their teachers and close relatives but lower aspirations from friends than do their white counterparts.

Table 1 also suggests that white students are advantaged in parental education, family income, and school performance compared to Hispanic American and African American children, but lag behind Asian American students in most of these indicators. Although African American students in general come from families with higher educational attainments than do Hispanic Americans, their family income is the lowest of the four races. Asian Americans are more likely to live with two biological parents and the least likely to have at least one stepparent than are the other racial groups. White students tend to have the smallest number of siblings, as well as adult and nonadult relatives living in the households, followed by Asian Americans, Hispanic Americans, and African Americans.

Multivariate Analyses

Table 2 displays students' expectations for the four racial groups, controlling for their school performance, family backgrounds, and significant others' aspirations. The predictions are calculated on the basis of separate ordered logit models for each racial group, holding all independent variables at weighted population means. Because educational expectations measure students' evaluations of future educational attainments, given their current school performance and socioeconomic status (SES), there should be less racial variation after these factors are controlled for. As is

shown in Panel A, after school performance is controlled for, African American students have the highest expectations for graduate education, followed by Asian Americans, Hispanic Americans, and whites. Compared to African Americans and Hispanic Americans, however, Asian American and white students are more likely to expect to attain a bachelor's degree. The tendency of racial minority students to have higher expectations than white students becomes more evident for African American and Hispanic American students when students' family backgrounds are added to the equations (see Panel B). For Asian American students, however, their differences with whites in educational expectations decrease when family characteristics are controlled. With controls for significant others' aspirations, the differences between racial minority students and white students decrease across the board, although Hispanic American and African American students still have higher expectations for graduate education than do their Asian American and white

counterparts. This finding suggests that Hispanic and African American students' (but not Asian American students') educational expectations are partially suppressed by their family SES backgrounds, but that all minority students benefit from their significant others in sustaining positive educational ambitions.

Table 3 shows the racial differences in significant others' educational aspirations for students, holding the students' school performance and family backgrounds at their weighted population means. Although white parents have higher aspirations for their children to receive a bachelor's degree than do racial minority parents, both father's and mother's aspirations are higher for minority students than for whites when parental aspirations for a four-year college degree and graduate education are combined. The somewhat bimodal distribution of African American parents' aspirations (higher aspirations for high school and professional/doctoral degrees than white parents') disappears after students' school performance is con-

Table 2. Racial Differences in Probabilities of Students' Credential Expectations, NELS, 1990^a

Categorical Name	High School Or Less	Some College Education	College Graduate	Master's Degree	Ph.D. or Professional	Pseudo <i>R</i> ²
<i>Panel A</i>						
Asian American	.048	.247	.459	.139	.107	.358
Hispanic American	.098	.344	.322	.110	.127	.316
African American	.074	.265	.332	.152	.178	.206
White American	.080	.349	.403	.107	.061	.361
<i>Panel B</i>						
Asian American	.045	.252	.483	.135	.085	.436
Hispanic American	.076	.317	.348	.123	.136	.366
African American	.062	.255	.354	.160	.169	.280
White American	.076	.335	.408	.112	.069	.392
<i>Panel C</i>						
Asian American	.040	.279	.516	.112	.053	.533
Hispanic American	.057	.366	.384	.104	.088	.511
African American	.056	.305	.395	.136	.108	.422
White American	.045	.357	.461	.095	.043	.554

^a Probabilities are calculated on the basis of clustered ordered logit analyses, holding all variables at weighted populational means. In Panel A, we control for school performance: (1) standardized reading and math scores measured in the 8th grade and (2) English and math grades measured in the 10th grade. In Panel B, we control for school performance and students' SES and family backgrounds. In Panel C, we control for school performance, SES backgrounds, and variables indicating significant others' aspirations. The regression coefficients of Panel C are shown in the Appendix. Detailed coefficients for Panels A and B are available from the authors on request.

trolled. Among peers, teachers, and close relatives, the differences between racial minorities and whites are the most substantial in regard to close relatives' aspirations. Hispanic American and African American students tend to perceive lower aspirations from their parents and friends but higher aspirations from their close relatives than do Asian American students with similar performance and family backgrounds.

Effects of Significant Others' Aspirations

In addition to the racial differences in significant others' levels of aspirations shown in Table 3, it is possible that significant others have greater, smaller, or similar effects on the educational expectations of racial minority students than of white students. We explicitly tested these competing scenarios by conducting two ordered logit analyses with all the variables and racial groups included in a single equation (see Table 4). The first model includes significant others' aspirations for students' education, and the second model adds students' SES, family structures, school performance, and gender to the equation. In each model, interaction variables are constructed by multiplying each independent variable by the dichotomous variables denoting Asian American, Hispanic American, and African American. The coefficients for the reference group, white students, are presented in the first two columns of Table 4, and the interaction effects of each independent variable with race (with white as the reference group) are displayed in Columns 3–8. As shown in Columns 1 and 2, with the exception of father's aspirations for the child to receive a two-year college degree, the main effects of significant others' aspirations on white students' educational expectations are all statistically significant at the .01 level, with mother's aspirations having the largest effects, followed by father's aspirations and the aspirations of friends, close relatives, and favorite teachers. These results are consistent with past research regarding parents, friends, and teachers (Hout and Morgan 1975; Wong 1980). The relative importance of various significant others' aspirations for Asian

Americans, Hispanic Americans, and African Americans is reported in the Appendix.

Effects of Parental Aspirations The results in Table 4 suggest that the differential effects of significant others' aspirations on students' educational expectations are not uniform across minority races. As Columns 3–8 indicate, although racial minority parents tend to have higher aspirations for their children's education, Asian American and Hispanic American mothers and African American fathers have *less influence* on students' expectations than do white parents.⁵ For example, the effect of Asian American mothers' aspirations for students to receive a college degree is 59 percent ($1 - e^{-.903} = .59$; see Column 3) smaller than the effect of white mothers'. When family background and school performance are controlled, the size of the differential aspirations effect decreases to 47 percent but remains significant at the .10 level ($1 - e^{-.588} = .44$; see Column 4). Because the interaction terms are not uniformly significant for fathers and mothers, it is difficult to imagine that these smaller influences are due to minority students' disidentification with academic achievement (Steele 1997). Instead, since Asian American and Hispanic American children are more likely to experience a patriarchal authority at home (Chow 1987; Hondagneu-Sotelo 1992) and African American children are more likely to live in single-mother households (Collins 1990), one may speculate that the smaller influence of these minority parents appears because of the relative roles of mothers and fathers in family interactions. Although we were unable to test our speculation in regard to Asian American and Hispanic American mothers, we tested and confirmed in supplementary analyses the hypothesis that the smaller effect of African American fathers appears largely because African American children are more likely to live in single-mother households.

Effects of Close Relatives' Aspirations The lesser influence of some minority parents is not mirrored in the differential effects of close relatives. As is indicated in Table 4, close relatives have a *greater* influence on Hispanic American and African American students'

Table 3. Racial Differences in Significant Others' Educational Aspirations: NELS, 1990^a

	Mother's Aspirations ^b				Father's Aspirations ^b				Teachers Desire Respondent to Go to College ^c	Relatives Desire Respondent to Go to College ^c	Friends Desire Respondent to Go to College ^c	
	HS or Less	2-Year College	4-Year College	College Graduate	Graduate Degree	HS or Less	2-Year College	4-Year College				College Graduate
<i>Panel A</i>												
Asian	.096	.025	.115	.489	.275	.090	.129	.495	.266	.533	.613	.410
Hispanic	.167	.054	.099	.443	.237	.169	.096	.466	.218	.495	.565	.326
Black	.135	.047	.103	.400	.315	.155	.107	.418	.278	.580	.664	.374
White	.146	.063	.120	.543	.128	.142	.117	.549	.132	.469	.531	.330
<i>Panel B</i>												
Asian	.098	.026	.122	.515	.240	.089	.134	.523	.234	.517	.595	.389
Hispanic	.143	.049	.094	.458	.256	.150	.094	.485	.224	.508	.602	.340
Black	.124	.046	.102	.418	.310	.133	.104	.440	.282	.584	.678	.388
White	.147	.066	.126	.554	.108	.141	.126	.566	.105	.459	.522	.317

^a Panel A controls for school performance: (1) standardized reading and math scores measured in the 8th grade and (2) English and math grades measured in the 10th grade. Panel B controls for school performance and students' SES and family backgrounds. Detailed coefficients are available on request.

^b Probabilities are calculated on the basis of ordered logit analyses, holding all variables at population weighted means.

^c Probabilities are calculated on the basis of binary logit analyses, holding all variables at population weighted means.

Table 4. Clustered Ordered Logit Coefficients for Students' Educational Expectations: Differential Effects of Significant Others^{a,b,c}

Independent Variables	Reference Group: White						Hispanic						Black					
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)			
	No Control		Controls ^d		No Control		Controls ^d		No Control		Controls ^d		No Control		Controls ^d			
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE		
<i>Father's Aspirations</i>																		
2-year college	.266	(.091)**	.218	(.100)*	-.574	(.522)	-.543	(.565)	-.274	(.229)	-.408	(.255)	-.479	(.254)+	-.611	(.289)*		
4-year college	.958	(.104)**	.745	(.104)**	-.348	(.381)	-.092	(.439)	.075	(.225)	.163	(.263)	-.282	(.255)	-.306	(.271)		
College degree	1.225	(.087)**	.908	(.086)**	-.161	(.320)	-.489	(.313)	.127	(.168)	.258	(.187)	-.593	(.182)**	-.590	(.185)**		
Graduate degree	2.324	(.109)**	1.718	(.110)**	-.271	(.357)	-.692	(.351)*	.129	(.281)	.360	(.284)	-.681	(.260)**	-.516	(.268)+		
<i>Mother's Aspirations</i>																		
2-year college	.391	(.087)**	.308	(.098)**	-.844	(.385)*	-.598	(.507)	.075	(.220)	.176	(.234)	-.465	(.222)*	-.549	(.264)*		
4-year college	1.147	(.100)**	.985	(.102)**	-.684	(.384)+	-.729	(.420)+	-.374	(.214)+	-.370	(.233)	-.230	(.234)	-.174	(.259)		
College degree	1.598	(.087)**	1.332	(.087)**	-.903	(.340)**	-.588	(.335)+	-.460	(.175)**	-.470	(.186)*	-.269	(.202)	-.113	(.208)		
Graduate degree	2.414	(.113)**	2.151	(.110)**	-.657	(.389)+	-.543	(.363)	-.671	(.258)**	-.702	(.248)**	-.457	(.281)	-.430	(.267)		
<i>Others' Expectations^e</i>																		
Teachers	.248	(.037)**	.134	(.036)**	-.092	(.136)	.005	(.143)	.197	(.116)+	.168	(.119)	-.133	(.135)	-.132	(.141)		
Relatives	.279	(.038)**	.240	(.039)**	-.017	(.166)	-.020	(.164)	.249	(.122)*	.250	(.125)*	.401	(.153)**	.276	(.146)+		
Friends	.327	(.036)**	.255	(.038)**	-.006	(.136)	-.065	(.146)	.002	(.123)	-.003	(.130)	.170	(.123)	.210	(.128)		
	--	--	--	--	1.254	(.231)**	-.477	(.561)	-.270	(.096)**	-.944	(.409)*	.339	(.114)**	.135	(.407)		

+ $p < .10$, * $p < .05$, ** $p < .01$ (2 tailed). $N = 17,001$.

a Standard errors are in parentheses.

b Interaction variables were constructed for each of the racial groups by multiplying each independent variable with the dichotomous variables respectively denoting Asian, Hispanic, and African Americans. Whites are treated as the reference group, and the coefficients are displayed in Columns 1 and 2. Columns 3 through 8 present the interaction coefficients for Asian, Hispanic, and African Americans.

c The coefficients presented in Columns 3 through 8 should be interpreted as the differential effects of a particular variable on students' credential expectations between a targeted racial minority and the reference group, whites.

d The models also include control variables (see the Appendix) and dummy variables denoting missing values for all the independent variables except for race.

e Others' expectations that the student will go to college: teachers, close relatives, and friends.

educational expectations than on those of white students. Compared to whites, the effect of Hispanic American close relatives' educational aspirations is 28 percent ($e^{.25}-1 = .28$) larger, both before and after the influences of family background and school performance are controlled. For African American students, the effects are 32 percent larger than for white students after control variables are added to the equations, as shown in Column 8.

Given that minority parents have higher levels of aspirations but, in several cases, have less influence on their children than do white parents, we can rule out the positive self-image hypothesis (i.e., that significant others with higher aspirations exert more influence over students' educational expectations) in explaining the greater influence of Hispanic American and African American close relatives. However, because students from socially disadvantaged racial minorities may live closer to their extended family members than may whites and Asian Americans, it is possible that the larger effects of close relatives' aspirations on Hispanic American and African American children simply reflect these students' more accurate perceptions of their relatives' aspirations for them. To reduce the possibility of this spurious effect, we included in the equations the number of adult and nonadult relatives in the household. The minority-white gap in the effects of close relatives decreases but remains significant when the two controls are added. Also, as we noted earlier, because respondents often project their own aspirations onto others when asked about significant others' aspirations (Davies and Kandel 1981), more accurate perceptions are not likely to inflate the effects of significant others on students' expectations but are more likely to deflate them. To the extent that Hispanic American and African American students live in closer proximity to and thus have more accurate conceptions of their close relatives' aspirations than do white students, we would expect to observe smaller effects of close relatives' aspirations on these students than on white students. Since the opposite occurs, it is clear that African Americans and Hispanic Americans are not simply more aware of, but are also more influenced by, their close relatives than are white students.

Taken together, our results suggest that children from socially disadvantaged minority groups rely more heavily on extended family networks. This finding supports Coleman's (1988) social capital argument and adds a racial component to it. The nonsignificant coefficients associated with Asian Americans suggest that although Asian American students tend to perceive higher educational aspirations from their close relatives, the effects of these perceived aspirations on students' expectations are similar for Asian American and white students.

Effects of Teachers' and Friends' Aspirations

The effects of teachers' and peers' aspirations show yet another pattern. In general, the effects of teachers' and friends' aspirations for students to go to college do not differ between whites and racial minorities. Although the influence of teachers' aspirations seems greater for Hispanic American students than for white and African American students in Model 1, the Hispanic-white difference disappears after the control variables are taken into account. These results suggest that despite the racial differences in the level of perceived educational aspirations from teachers and peers, the effects of these aspirations are generally similar across races.

Differential Effects of Sociodemographic Factors

Some notes on the effects of control variables (not shown here) are warranted to complete our discussion of differential effects across racial groups. In general, family background has similar effects on the credential expectations of students for all racial groups. A noticeable exception, however, is that mother's education has a greater effect on African American students' expectations than on those of white students. Since African American students are much more likely to live in single-parent homes (see Table 1), we suspected that these significant differential effects are at least partially caused by the larger percentage of female-headed households among African Americans. A supplementary analysis confirmed this speculation, showing that the greater influence of mother's education for African Americans disappears when only two-parent households are examined.

Finally, the last row of Table 4 compares the racial differences in students' educational expectations after significant others' aspirations, students' family background, and school performance are controlled. When significant others' aspirations are controlled, Asian American and African American students are 250 ($e^{1.254}-1 = 2.50$) and 40 percent ($e^{.339}-1 = .40$) more likely, whereas Hispanic children are 24 percent ($1 - e^{-.270} = .24$) less likely than white students to expect higher educational degrees. The patterns change, however, after family characteristics and school performance are taken into account, as shown in Columns 4, 6, and 8. With the exception of African Americans, racial minority students tend to have lower educational expectations than do white students with comparable SES backgrounds, school performance, and significant others' support. The signs and magnitudes associated with Asian Americans change dramatically: Before family characteristics and school performance are controlled for, Asian American students are 3.50 times ($e^{1.254} = 3.50$) more likely than are white students to expect higher educational degrees. When students' SES backgrounds and academic achievements are taken into account, however, Asian American students are .62 times ($e^{-.477} = .62$) less likely than white students to expect higher educational credentials. This finding suggests that the higher educational expectations of Asian American than of white students are largely a function of their family characteristics and school performance.

Supplementary Analyses

Up to this point, our analyses have focused primarily on the group differences in the effects of significant others' aspirations across the four major racial groups in the United States. However, there has been increased recognition of ethnic heterogeneity within the Hispanic American and Asian American categories in recent years (Arias 1986; Goyette and Xie 1999). In addition, previous studies have noted gender-race differences in the effects of significant others on students' aspirations (Hout and Morgan 1975; Spenner and Featherman 1978).

In supplementary analyses, we investigated ethnic differences in significant others' influences on students' expectations within the panethnic categories of Hispanic American (Cuban, Puerto Rican, Mexican, and other Hispanics) and Asian American (Chinese, Filipino, Japanese, Korean, South Asian, and other Asian) and the race-sex interaction effects of significant others on students' expectations. Regarding the former, although Chinese American mothers have less influence on students' educational expectations than do their counterparts from other Asian American groups, overall there are few group differences in the effects of parental aspirations within the Asian and Hispanic communities. Our analyses also suggest that the effects of teachers, close relatives, and peers do not vary across these ethnic boundaries, with the exception of Cuban American students, who are less influenced by the educational aspirations of both close relatives and friends than are Mexican American students. Following Gottfredson's (1981) advice, we note that these results must be taken with great caution because of the small samples of some ethnic groups.

Analyses including race-sex interactions suggest that gender rarely changes the patterns of racial differences in significant others' influences on students. A noticeable exception is among African American males. Recall from Table 4 that African American students are less influenced by their fathers' aspirations than are white students. This smaller influence seems to be restricted to African American males. We also found that African American male students are more influenced by their peers than are white male, African American female, and Hispanic male students. In the case of close relatives' and teachers' aspirations, we found no gender-race interaction effects across the board.

DISCUSSION AND CONCLUSION

Through analyses of data from NELS, we examined racial differences in significant others' and students' levels of educational aspirations/expectations and, more important, in the effects of significant others on students'

expectations. Building on the theoretical arguments advanced by Coleman (1988), Kao (1999), Mickelson (1990), and Steinberg et al. (1992), we proposed three scenarios regarding how the effect of significant others might vary by race. First, in the face of discrimination, minority students may turn to and be more influenced by familial significant others, especially those with higher expectations for them. Second, significant others may have less influence on racial minority students because of these students' disidentification with academic achievements or because they feel that their significant others are less credible sources of accurate information. Finally, significant others may differ in their *levels* of aspirations for students' education, but the *effects* of these aspirations may be similar across races.

Our analyses revealed that there is a mixture of the three scenarios. Although minority parents tend to have higher aspirations for their children's education, Asian American and Hispanic American mothers and African American fathers have less influence on their children's expectations than do white parents. Our findings suggest that African American fathers' lesser influence is due, in large part, to African American students' greater likelihood of living apart from their fathers. It appears that students from African American families may view their fathers' aspirations for them as less credible in developing their own expectations. Thus, simply having higher aspirations for children does not necessarily lead to greater influence over them. These findings also suggest the need to consider the unique family and social contexts associated with various racial groups in examining parental influences on students. For example, the smaller effects of Asian American and Hispanic American mothers on students' educational expectations may indicate the existence of different types of interactions among mothers, fathers, and children in these families.

The greater effects of close relatives' aspirations on African American and Hispanic American students' expectations suggest that extended-kin communities are especially important in developing these children's expectations. Coleman (1988) argued that in

the absence of material and cultural resources, individuals from socially disadvantaged groups often rely on familial and community networks to facilitate the achievement of goals (see also Stack 1975). Because African Americans and Hispanic Americans are more likely than are other groups to experience racial discrimination (Bobo and Hutchings 1996), children from these two groups may develop closer bonds with members of their kin communities than white children do with theirs. As a result, close relatives' aspirations have a greater influence on Hispanic and African American students' educational expectations than is the case with white students. The similarity between Asian Americans and whites in the effects of close relatives' aspirations on children's expectations further confirms our argument that racial differences in the effects of familial significant others must be situated in the race-specific social contexts encountered by various racial groups.

We found that Asian American students tend to perceive higher aspirations, and Hispanic American students tend to perceive lower aspirations, from their teachers and friends than do white and African American students. With controls for students' school performance and family backgrounds, however, racial minority students tend to perceive higher aspirations from both teachers and peers than do white students. Despite these different levels of aspirations from peers and teachers, few differential effects exist across racial boundaries. The absence of differential effects when examining teachers and peers, as opposed to parents and close relatives, suggests different processes by which familial significant others and agents outside the family influence the educational attitudes of students from various racial groups.

Beyond these findings, evidence from our supplementary analyses indicates that while African American male students differ from other sex-racial groups, gender usually does not significantly interact with race in determining significant others' influences on students' expectations. Although prior research has indicated potential ethnic variations in *levels* of expectations within the pan Asian American and Hispanic American categories

(Arias 1986; Goyette and Xie 1999), our analyses show few ethnic-group differences in the *effects* of aspirations within these groups. This finding suggests that differences in the effects of significant others on students are largely determined by externally ascribed racial categories, at least in the case of educational expectations.

Our study, while confirming early observations that the effect of significant others on students' educational expectations differs by race, extended previous studies on this topic by examining a broader set of racial categories (Asian Americans, Hispanic Americans,

African Americans, and whites) and by including close relatives among the significant others who may affect expectations. Our analyses indicate that these additions are fruitful for understanding the contrast between whites and racial minority groups. As we have shown, the aspirations of close relatives and parents, but not those of teachers and peers, have differential effects on students' educational expectations, pointing to the importance of examining the unique family and social contexts in which students of different races live in America.

NOTES

1. To preserve cases, all students who responded to the educational expectation question in the first follow-up survey were included. Dummy variables were created for the other variables to denote missing values, and mean substitutions were used for continuous independent variables. This procedure allowed us to control for any potential biases from the preservation of missing cases.

2. Supplementary analyses suggested that the inclusion of both fathers' and mothers' aspirations in the same equation does not lead to a serious collinearity problem.

3. Alexander and Pallas (1983) also raised

the issue of the reciprocal influence between peers and students, which is difficult to deal with using cross-sectional data. To address this problem partially, we controlled for students' prior performance in the eighth grade. This is the approach used in most sociological studies on educational ambitions. For more details, see the exchange in Hauser and Sewell (1986) and Alexander and Pallas (1986).

4. Gottfredson (1981) argued that differential measurement error is a problem in studying African American-white educational differences, but noted that her critique is least persuasive regarding significant others' aspirations.

5. Analyses using parental expectations in 1988 showed consistent results with those presented here.

APPENDIX

Ordered Logit Coefficients for Students' Educational Expectations Across Different Ethnic-Racial Groups^{a, b}

Independent Variables	Asian American		Hispanic American		African American		White American	
	B	SE	B	SE	B	SE	B	SE
Reading scores ^c	.016	(.010)	.032	(.008)**	.016	(.008)*	.017	(.002)**
Math scores ^c	.049	(.011)**	.004	(.007)	.020	(.009)*	.020	(.003)**
Math grade	.130	(.051)*	.158	(.025)**	.103	(.026)**	.103	(.009)**
English grade	.216	(.049)**	.181	(.030)**	.162	(.030)**	.198	(.011)**
Female	.153	(.122)	.113	(.086)	.150	(.090)	.116	(.030)**
Father's education: 2-year vocational	.328	(.278)	.323	(.172)	.156	(.176)	.180	(.053)**
Father's education: 2-year college	-.049	(.305)	-.042	(.186)	.232	(.166)	.276	(.058)**
Father's education: College	.184	(.232)	.271	(.163)	.262	(.187)	.293	(.049)**
Father's education: Master's degree	.710	(.299)*	.297	(.213)	.183	(.214)	.408	(.063)**
Father's education: Ph.D	.893	(.292)**	.035	(.288)	.326	(.355)	.559	(.076)**
Mother's education: 2-year vocational	.353	(.273)	.090	(.161)	.212	(.146)	.179	(.050)**
Mother's education: 2-year college	.143	(.280)	.438	(.197)*	.450	(.180)*	.255	(.056)**
Mother's education: College	.019	(.209)	.451	(.180)*	.836	(.176)**	.200	(.050)**
Mother's education: Master's degree	-.047	(.265)	.704	(.222)**	1.001	(.211)**	.371	(.061)**
Mother's education: Ph.D	-.317	(.408)	.574	(.310)	1.132	(.317)**	.545	(.113)**
Family income (\$1,000/year)	.003	(.002)	.006	(.002)**	.002	(.002)	.002	(.000)**
Sibship size	.001	(.033)	-.027	(.022)	.003	(.017)	-.019	(.008)*
Both parents in the household	-.339	(.182)	-.086	(.120)	-.037	(.117)	-.126	(.039)**
Stepparent household	-.623	(.307)*	-.254	(.152)	-.242	(.139)	-.214	(.052)**
Number of adult relatives living together	.027	(.078)	.119	(.064)	.036	(.046)	.055	(.024)*
Number of nonadult relatives living together	-.410	(.098)**	-.056	(.095)	-.006	(.073)	-.035	(.048)
Father's aspirations: 2-year college	-.376	(.563)	-.237	(.227)	-.448	(.240)	.070	(.087)
Father's aspirations: 4-year college	.423	(.548)	.716	(.226)**	.197	(.241)	.727	(.092)**
Father's aspirations: College degree	.260	(.419)	.884	(.182)**	.037	(.194)	.863	(.076)**
Father's aspirations: Graduate degree	.874	(.469)	1.608	(.256)**	.738	(.251)**	1.685	(.099)**
Mother's aspirations: 2-year college	-.178	(.533)	.463	(.214)*	-.246	(.213)	.285	(.084)**
Mother's aspirations: 4-year college	.426	(.546)	.600	(.197)**	.665	(.229)**	.896	(.088)**
Mother's aspirations: College degree	.906	(.435)*	.825	(.164)**	1.023	(.206)**	1.233	(.077)**
Mother's aspirations: Graduate degree	1.769	(.479)**	1.285	(.202)**	1.447	(.243)**	2.014	(.095)**
Teachers expect R to go to college	.144	(.140)	.249	(.098)*	.025	(.110)	.151	(.034)**
Close rels. desire R to go to college	.247	(.160)	.426	(.104)**	.477	(.117)**	.309	(.035)**
Friends desire R to go to college	.174	(.143)	.195	(.108)	.366	(.100)**	.258	(.035)**
τ1	.296	(.612)	.283	(.371)	-.581	(.398)	.147	(.121)
τ2	2.857	(.575)	2.707	(.357)	1.930	(.378)	2.417	(.119)
τ3	3.289	(.584)	3.175	(.359)	2.245	(.371)	2.920	(.118)
τ4	3.775	(.591)	3.533	(.362)	2.608	(.369)	3.253	(.119)
τ5	4.244	(.577)	4.143	(.357)	3.199	(.368)	4.003	(.119)
τ6	5.282	(.582)	5.205	(.368)	4.186	(.368)	5.075	(.124)
τ7	7.664	(.602)	6.948	(.385)	5.889	(.387)	7.312	(.133)
τ8	8.927	(.608)	7.852	(.395)	6.868	(.403)	8.585	(.140)
N	1,032		2,115		1,727		12,127	

*p < .05, **p < .01.

^a Standard errors are in parentheses.

^b Models also include dummy variables denoting missing values for all independent variables except ethnicity.

^c These variables were measured during the 8th grade.

REFERENCES

Ainsworth-Darnell, James W., and Douglas B. Downey. 1998. "Assessing the Oppositional Culture Explanation for Racial/Ethnic Differences in School Performance." *American Sociological Review* 63:536-53.

Alexander, Karl, and Bruce K. Eckland. 1975. "Basic Attainment Processes: A Replication and Extension." *Sociology of Education* 48:457-95.

Alexander, Karl L., Bruce K. Eckland, and Larry J. Griffin. 1975. "The Wisconsin Model of Socioeconomic Achievement: A Replication." *American Journal of Sociology* 81:324-42.

Alexander, Karl L., Doris R. Entwisle, and S. D. Bedinger. 1994. "When Expectations Work—

- Race and Socioeconomic Differences in School Performance." *Social Psychology Quarterly* 57:283-99.
- Alexander, Karl L., Doris R. Entwisle, and Maxine S. Thompson. 1987. "School Performance, Status Relations, and the Structure of Sentiment: Bringing the Teachers Back In." *American Sociological Review* 40:37-47.
- Alexander, Karl L., and Aaron M. Pallas. 1983. "Bringing the Arrows Back In: On the Recursivity Assumptions in Social Process Models." *Social Forces* 62:32-52.
- . 1986. "Reply to Hauser and Sewell." *Social Forces* 65:250-57.
- Arias, M. Beayriz. 1986. "The Context of Education for Hispanic Students: An Overview." *American Journal of Education* 95:26-57.
- Arnold, David Harvey, Jessica R. Griffith, Camilo Ortiz, and Rebecca M. Stowe. 1998. "Day Care Interactions and Teacher Perceptions as a Function of Teacher and Child Ethnic Group." *Journal of Research in Childhood Education* 12:143-54.
- Bobo, Lawrence, and Vincent Hutchings. 1996. "Perceptions of Racial Group Competition: Extending Blumer's Theory of Group Position to a Multiracial Social Context." *American Sociological Review* 61:951-72.
- Buchmann, Claudia, and Ben Dalton. 2002. "International Influences and Educational Aspirations in 12 Countries: The Importance of Institutional Context." *Sociology of Education* 75:99-122.
- Chow, Esther Ngan-Ling. 1987. "The Development of Feminist Consciousness among Asian American Women." *Gender and Society* 1:284-99.
- Coleman, James. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 100:1448-78.
- Coleman, James S., Ernest Q. Campbell, Carol F. Hobson, James M. McPartland, Alexander M. Mood, Frederic D. Weidfeld, and Robert L. York. 1966. *Equality of Educational Opportunity*. Washington, DC: U.S. Government Printing Office.
- Collins, Patricia Hill. 1990. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. New York: Routledge.
- Cooley, Charles Horton. 1902. *Human Nature and the Social Order*. New York: Charles Scribner's Sons.
- Davies, Mark, and Denise B. Kandel. 1981. "Parental and Peer Influences on Adolescents' Educational Plans: Some Further Evidence." *American Journal of Sociology* 87:363-87.
- Downey, Douglas B., and James W. Ainsworth-Darnell. 2002. "The Search for Oppositional Culture Among Black Students." *American Sociological Review* 67:156-64.
- Entwisle, Doris R., Karl L. Alexander, Aaron M. Pallas, and Doris Cadigan. 1988. "A Social Psychological Model of Schooling Over the First Grade." *Social Psychology Quarterly* 51:173-89.
- Farkas, George, Robert P. Grobe, Daniel Sheehan, and Yuan Shuan. 1990. "Cultural Resources and School Success: Gender, Ethnicity, and Poverty Groups within an Urban School District." *American Sociological Review* 55:127-42.
- Farkas, George, Christy Lleras, and Steve Maczuga. 2002. "Does Oppositional Culture Exist in Minority and Poverty Peer Groups?" *American Sociological Review* 67:148-55.
- Fejgin, Naomi. 1995. "Factors Contributing to the Academic Excellence of American Jewish and Asian Students." *Sociology of Education* 68:18-30.
- Ferguson, Ronald F. 1998. "Teachers' Perceptions and Expectations and the Black-White Test Score Gap." Pp. 273-317 in *The Black-White Test Score Gap*, edited by Christopher Jencks and Michelle Phillips. Washington, DC: Brookings Institution Press.
- Fischer, Claude S., Michael Hout, Martin Sanchez Jankowski, Samuel R. Lucas, Ann Swidler, and Kim Voss. 1996. *Inequality by Design: Cracking the Bell Curve Myth*. Princeton, NJ: Princeton University Press.
- Garrison, Howard H. 1982. "Trends in Educational and Occupational Aspirations of High School Males: Black White Comparisons." *Sociology of Education* 55:53-62.
- Goldscheider, Frances K., and Calvin Goldscheider. 1991. "The Intergenerational Flow of Income: Family Structure and the Status of Black Americans." *Journal of Marriage and the Family* 53:499-508.
- Gottfredson, Denise C. 1981. "Black-White Differences in the Educational Attainment Process: What Have We Learned?" *American Sociological Review* 46:542-57.
- Goyette, Kimberly, and Yu Xie. 1999. "Educational Expectations of Asian American Youths: Determinants and Ethnic Differences." *Sociology of Education* 72:22-36.
- Hanson, Sandra L. 1994. "Lost Talent: Unrealized Educational Aspirations and Expectations Among U.S. Youths." *Sociology of Education* 67:159-83.
- Hao, Lingxin, and Melissa Bonstead-Bruns. 1998. "Parent Child Differences in Educational Expectations and the Academic Achievement

- of Immigrant and Native Students." *Sociology of Education* 71:175-98.
- Hauser, Robert M., and William H. Sewell. 1986. "A Child's Garden of Equations: Comments on Alexander and Pallas." *Social Forces* 65:241-49.
- Hochschild, Jennifer L. 1995. *Facing Up to the American Dream: Race, Class, and the Soul of the Nation*. Princeton, NJ: Princeton University Press.
- Hondagneu-Sotelo, Pierrette. 1992. "Overcoming Patriarchal Constraints: The Reconstruction of Gender Relations among Mexican Immigrant Women and Men." *Gender and Society* 6:393-415.
- Hout, Michael, and William R. Morgan. 1975. "Race and Sex Variations in the Causes of the Expected Attainments of High School Seniors." *American Journal of Sociology* 81:364-94.
- Huber, Peter. J. 1967. "The Behavior of Maximum Likelihood Estimates Under Non-Standard Conditions." Pp. 221-33 in *Fifth Berkeley Symposium on Mathematical Statistics and Probability*, Vol. 1. Berkeley: University of California Press.
- Kao, Grace. 1995. "Asian Americans as Model Minorities? A Look at Their Academic Performance." *American Journal of Education* 103:121-59.
- . 1999. "Racial Identity and Academic Performance: An Examination of Biracial Asian and African American Youth." *Journal of Asian American Studies* 2:223-49.
- Kao, Grace, and Marta Tienda. 1998. "Educational Aspirations of Minority Youth." *American Journal of Education* 106:349-84.
- Kao, Grace, Marta Tienda, and Barbara Schneider. 1996. "Racial and Ethnic Variation in Educational Performance." *Research in Sociology of Education and Socialization* 11:263-97.
- Kerckhoff, Alan C. 1976. "The Status Attainment Process: Socialization or Allocation." *Social Forces* 55:368-81.
- Kerckhoff, Alan C., and Richard T. Campbell. 1977. "Black-White Differences in the Educational Attainment Process." *Sociology of Education* 50:15-27.
- Lareau, Annette, and Erin McNamara Horvat. 1999. "Moments of Social Inclusion and Exclusion: Race, Class, and Cultural Capital in Family-school Relationship." *Sociology of Education* 72:37-53.
- Long, J. Scott and Simon Cheng. In press. "Regression Models for Categorical Outcomes." In *Handbook of Data Analysis*, edited by M. Hardy and A. Bryman. Thousand Oaks, CA: Sage.
- MacLeod, Jay. 1987. *Ain't No Makin' It: Leveled Aspirations in a Low-Income Neighborhood*. Boulder, CO: Westview Press.
- Mead, George Herbert. 1934. *Mind, Self and Society*. Chicago: University of Chicago Press.
- Mickelson, Roslyn A. 1990. "The Attitude-Achievement Paradox Among Black Adolescents." *Sociology of Education* 63:44-61.
- Morgan, Stephen L. 1996. "Trends in Black White Differences in Educational Expectations: 1980-92." *Sociology of Education* 69:308-19.
- Ogbu, John U. 1978. *Minority Education and Caste*. New York: Academic Press.
- . 1991. "Low Performance as an Adaptation: The Case of Blacks in Stockton, California." Pp. 249-85 in *Minority Status and Schooling*, edited by M. A. Gibson and J. U. Ogbu. New York: Garland.
- Osborne, Jason W. 1995. "Academics, Self-esteem, and Race: A Look at the Underlying Assumptions of the Disidentification Hypothesis." *Personality and Social Psychology Bulletin* 21:449-55.
- . 1997. "Race and Academic Disidentification." *Journal of Educational Psychology* 89:728-35.
- Peng, Samuel S., and DeeAnn Wright. 1994. "Explanation of Academic Achievement of Asian American Students." *Journal of Educational Research* 87:346-52.
- Picou, J. Steven, and T. Michael Carter. 1976. "Significant-Other Influence and Aspirations." *Sociology of Education* 49:12-22.
- Pong, Suet-ling. 1998. "The School Compositional Effect of Single Parenthood on 10th-Grade Achievement." *Sociology of Education* 71:23-42.
- Porter, R. J., and R. E. Washington. 1993. "Minority Identity and Self-esteem." *Annual Review of Sociology* 19:139-61.
- Powell, Brian, and Lala Carr Steelman. 1990. "Beyond Sibship Size: Sibling Density, Sex Composition, and Educational Outcomes." *Social Forces* 69:181-206.
- . 1993. "The Educational Benefits of Being Spaced Out: Sibship Density and Educational Progress." *American Sociological Review* 58:367-81.
- Roscigno, Vincent J., and James W. Ainsworth-Darnell. 1999. "Race, Cultural Capital, and Educational Resources: Persistent Inequalities and Achievement Returns." *Sociology of Education* 72:158-78.
- Scratchfield, Shirley A., and J. Steven Picou. 1982. "The Structure of Significant Other Influence on Status Aspirations: Black-White Variations." *Sociology of Education* 55:22-30.
- Sewell, William H., and Robert M. Hauser. 1975. *Education, Occupation, and Earnings:*

- Achievement in the Early Career*. New York: Academic Press.
- . 1993. "A Review of the Wisconsin Longitudinal Study of Social and Psychological Factors in Aspirations and Achievements 1963–1992." Unpublished manuscript, Department of Sociology, University of Wisconsin-Madison.
- Spenner, Kenneth I., and David L. Featherman. 1978. "Achievement Ambition." *Annual Review of Sociology* 4:373–420.
- Stack, Carol B. 1975. *All Our Kin: Strategies for Survival in a Black Community*. New York: Harper & Row.
- Steele, Claude M. 1997. "A Threat in the Air." *American Psychologist* 52:613–29.
- Steinberg, Laurence, Sanford M. Dornbusch, and Brown B. Brown. 1992. "Ethnic Differences in Adolescent Achievement: An Ecological Perspective." *American Psychologist* 47:723–29.
- Woelfel, Joseph, and Archibald O. Haller. 1971. "Significant Others, the Self-Reflexive Act and the Attitude Formation." *American Sociological Review* 36:74–87.
- Wong, Morrison G. 1980. "Model Students? Teachers' Perceptions and Expectations of Their Asian and White Students." *Sociology of Education*. 53:236–46.

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