

Who Gets Good Grades? Accounting for School Achievement

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Abstract

The study, based on 1073 respondents from six high schools, examines correlates of school achievement, operationalized by self-reported grades. The independent variables include background variables--such as race/ethnicity, gender, social class, and family structure as well as current school engagement variables--such as study habits, extra-curricular participation, holding a job, perceptions of parental pressure for good grades, and student ratings of their schools. The independent variables that predict grade outcomes differ by racial/ethnic category. The predictive power of the model is strongest for Euro-Americans and Asian-Americans, intermediate for Hispanics, and weak for African-Americans. These differences have implications for the type of interventions that may be effective in improving school performance.

The Research Problem

The research looks at variables that add to our understanding of who gets good grades in high school. Grades are important for college admission and financial aid. The focus on grades is a timely issue, because a number of leading universities (most notably, the University of California system) are de-emphasizing or eliminating the SAT as an entrance criterion, and California, Texas, and Florida are replacing affirmative action by a policy of admitting the top 10% or 20% of students from each high school. These types of policies place a premium on high school grades in educational decision-making.

Using self-reported grades as the dependent variable for a sample of 1073 midwestern high school students in six schools, the research examines variables that might be related to

academic achievement. These include both **background variables** that measure demographic and status characteristics and **engagement variables** that measure current school-related behaviors and attitudes. Background variables are generally non-manipulable—they are difficult to alter by intervention—while engagement variables are manipulable and present opportunities for intervention (Ferguson, 2002; Keith and Benson, 1992). A major focus of the research is variation among racial/ethnic categories in predictors of self-reported grade achievement.

Selective Review of Research Findings

The research is motivated by a body of literature that examines the relationships among three types of variables: academic achievement measured by both grades and standardized testing; school engagement measured by both behavioral and attitudinal variables; and a variety of background variables, including race/ethnicity, gender, class, and family structure.

A landmark study in this literature is Steinberg et al.(1996) who examined the school achievement of four major racial/ethnic categories (African American, Hispanic, European American, and Asian American), using parenting styles and student behaviors as intervening variables that explained differences in achievement among the four categories. Steinberg et al. concluded that authoritative parenting, in contrast to both permissive and authoritarian parenting, produced the most favorable academic outcomes. Student perception of parental pressure to do well in school was also positively related to school achievement. Furthermore, reported student behaviors such as studying with friends and spending time on homework contributed to positive achievement outcomes, while long work hours at a job detracted from them. The positive behaviors and peer support were most prevalent among Asian Americans and least prevalent among Hispanics and African Americans. The researchers attribute the

lower school performance of Hispanics and African Americans to the absence of peer support. While parents in all racial/ethnic categories valued education, they did not apply the same amount of pressure for good grades and did not encourage the same types of behaviors. The findings are based on a large sample (more than 20,000 students from nine schools in two states); little attention is given to local or school-level effects.

Elements of Steinberg et al.'s findings have been examined in more detail in other research, sometimes with inconsistent results. We summarize four areas of research.

1. Racial/ethnic differences in correlates of school achievement

A large body of research suggests substantial racial/ethnic differences in the patterning of academic achievement. Not only are there differences in achievement levels, but the predictors of academic achievement are not uniform across racial/ethnic groups.

In a LISREL model using data from the National Center for Education Statistics HSB longitudinal study, Keith and Benson (1992) examined influences on high school grades for five ethnic groups; they distinguished variables that represent manipulable influences from those that are more fixed or less amenable to intervention. They found significantly different patterns of academic achievement by ethnicity and conclude that Asian Americans were more influenced by manipulable variables than the others.

After other controls (e.g., family SES and family structure), Portes and Rumbaut (2001: 242) show that children of Mexican immigrants in the Miami and San Diego areas “do much worse in school,” while the children from Asian countries (China, Korea, Vietnam) perform “much better on the average.” The “exceptional performance of Asian-origin students and its relationship to personal discipline and demeanor” has been documented (2001: 364). Kim

(2002) however disaggregated the category “Asian” and found significant differences in achievement between students of Vietnamese and Cambodian background. The differences were larger in reading than in math achievement and were generally more related to structural variables (e.g., parents’ SEI) than cultural differences, although Kim notes that this distinction is not clear-cut.

In an important study of racial/ethnic differences, Smerdon (1999) used the NLSY to discern correlates of standardized reading and math test achievement (her indicator variables for scholastic achievement). The most striking finding casts doubt on Steinberg’s findings about a uniformly positive relationship between school engagement and academic achievement. Smerdon found that school engagement is positively related to scholastic achievement for whites, but the two variables are not related for African Americans; in fact, the highest levels of school engagement among African Americans are not associated with the highest levels of test achievement. Since Smerdon had different measures for both school achievement and school engagement than Steinberg et al., it is not evident whether her findings are genuinely in contradiction to theirs or reflect differences in conceptualization and measurement.

Studies prior to the publication of Steinberg et al.’s research had already presented findings similar to Smerdon’s concerning the weak connection between attitudinal and achievement variables among African Americans in contrast to whites. Mickelson (1990), using a medium-sized (1193) sample of African American high school seniors in Los Angeles, found that abstract attitudes reflected the dominant ideology of academic achievement, while concrete attitudes rooted in life experience were less favorable to schooling and had a more immediate effect on achievement behavior. Brady et al. (1992) found that among Florida elementary and middle school students, for whites both adaptive and maladaptive behavior variables could be

used to predict academic achievement, while only the maladaptive behavior variables had predictive power for African Americans. McLeod (1995) in an ethnographic study found that a group of predominantly black youths in low-income housing in Boston had more positive attitudes toward schooling than a group of white youths, but in his follow-up study their educational and occupational attainment turned out to be quite similar; the more positive attitude of the African Americans was not translated into more favorable outcomes.

Looking at the issue of lower academic achievement among Hispanics and African Americans in contrast to whites and Asian Americans, Kao (2000) used qualitative data (interviews and focus groups) to explore how ethnic stereotypes are internalized as reference points for defining success for the three non-white categories. Blacks defined academic goals in terms of avoiding failure, Hispanics in terms of avoiding factory work or manual labor, and Asian-Americans in terms of high expectations. Kao emphasizes processes of image-formation and representation as the intervening variable between racial/ethnic category and scholastic outcomes.

In contrast to these studies that emphasize differences in patterns of school achievement by racial/ethnic status, Gutman and Eccles (1999) found that a single model of financial strain and parenting behaviors accounted for academic achievement outcomes among both African American and European American students in a Maryland junior high school. There were no significant differences in the structural equation models between the two racial/ethnic categories, or for that matter, between single- and two-parent families. In both racial/ethnic categories and both family types, negative parent-child interaction and reduced parental school involvement were mediating variables that accounted for lower academic achievement among adolescents in families experiencing financial strain.

The differences in academic achievement among racial/ethnic categories may in part be related to additional, intervening variables such as family structure and resources,

characteristics of schools and teacher practices, and the social context of academic performance. These are briefly surveyed in the following sections.

2. Family characteristics and school achievement

A large body of literature explores the relationship between school achievement and family characteristics such as structure, family social capital, and parental behavior.

The role of two-parent families in school achievement has been the subject of debate. Some research supports the claim that living in a nuclear family has positive effects on achievement. Dornbusch (1991) (Herman et al. 1997) * found a positive relationship between living in a nuclear family and scholastic achievement. In their study of the children of immigrants, Portes and Rumbaut (2001) found the youth from “nondisrupted families” were “enjoying a significant academic advantage, especially in grades.” Smith (1995) found that parental separation lowers grade performance while having little effect on academic achievement measured by standardized testing. Using National Longitudinal Study of Youth data, Jeynes (1999) found that children in reconstituted families scored no higher and often lower than children in divorced single-parent families. Other research found that single-parent homes are associated with lower achievement indirectly because of their positive relationship with a number of intervening behavioral variables that lower achievement. Controlling for lateness, absence, not doing homework, frequent dating, and low parental contact reduced the effects of single-parent homes to zero, suggesting that negative behaviors are powerful intervening variables between family structure and academic outcomes (Mulkey, et al. 1992). The negative effects of single-parent homes on grades (in contrast to other measures of achievement) were not diminished by controlling for income, and persisted (though diminished) even after controlling for race/ethnicity and parents’ education. The concept “family social capital” is associated with data that support the hypothesis of positive effects of the nuclear family and neo-traditional gender roles. Family social capital

(variously measured) was related to higher scholastic achievement on standardized measures (Parcel and Dufur, 2000). In their NLSY data, family social capital is more influential than school capital. Little attention was given in this model to ethnic differences. Fulltime maternal employment was singled out in several studies as a negative factor in achievement, perhaps because it detracts from family social capital; it was found to have a negative effect on grades, especially for boys in white middle and upper-middle class families (Bogenschneider and Steinberg, 1994).

These findings supporting the association of nuclear families and homemaker mothers with positive scholastic outcomes are inconsistent with Heiss (1996) who found that living in mother-only families has only a small negative effect on grades as well as educational aspirations and expectations, task preparedness, and staying in school. He shows that parental involvement, which is strongly related to the dependent variables, is only weakly related to family structure. Heiss' findings apply to both African Americans and whites. Other scholars identify the positive impact of a broader circle of family support, especially for black students (Newman et al., 2000, a study with a very small sample).

In summary, there is a sizable body of findings that emphasizes living in a nuclear family as a positive correlate of school achievement, but also studies that challenge this on several grounds. Their research suggests that there is no association between mother-only households and low academic achievement, that a variety of family structures can be associated with positive academic outcomes, and/or that if there is a link between family structure and achievement it is stronger among whites and less evident (or even absent) among youth of other racial/ethnic backgrounds.

Another set of studies addresses parental behavior as a predictor of children's academic achievement. [possible omit:Glasgow et al. (1997) traced the variables intervening between authoritative parenting and school achievement. They found that authoritative parenting has

effects on functional attribution by students, with non-authoritative parenting related to dysfunctional attributions (blaming external causes or low ability for scholastic problems) which in turn are related to lower scholastic achievement. R^2 is low, however, and the paths are not consistent across ethnic groups. Jacobson and Crockett (2000) found a relationship between parental monitoring and GPA, and Paulson (1998) identified perceived congruence of teaching and parenting styles as a key predictor of GPA; both of these samples were predominantly white.

3. Characteristics of schools and teaching practices

School environments are the locus of many manipulable variables such as study habits, homework expectations, and relationships with teachers, and for this reason offer possibilities for positive interventions.

A relevant recent study is Ferguson's analysis of academic achievement of students of five racial/ethnic backgrounds (white, black, Hispanic, Asian, and "mixed race") in fifteen school districts. Ferguson identifies a number of differences (e.g., Blacks and Hispanics have lower achievement levels, Asians spend more time on homework), as well as similarities that challenge previous conclusions--he found little difference in attitudes and feelings, and effort and interest were similar among the racial/ethnic groups. An important finding is the strong role of teacher encouragement in increasing motivation among Black, Hispanic, and "mixed race" students.

Abbott et al. (1998) found that teacher practices influenced children's involvement, bonding to school, and academic achievement; though the study was conducted with fifth and sixth graders, it has implications for secondary schools as well. Teachers were trained to introduce more cooperative learning, interactive teaching, and similar strategies in the classroom to

enhance involvement and achievement. Other studies noted the key role of small school size for improving school engagement of at-risk students, defined by low SES, minority/urban status, and/or non-English home language (Finn and Voekl, 1993), as well as the negative effects of tracking on performance, engagement, and aspirations (Berends, 1995; Oakes, 1985).

The practices of schools and teachers may reflect parental preferences and expectations; Schneider et al. (1998) found that SES and racial status are linked to different expectations about the goals of schooling; minorities and lower SES parents placed more emphasis on academic rigor and discipline and less on the teaching of values. Thus the perception of whether teachers and schools “care about their students and are doing a good job” may not be uniform. While Schneider et al. explored parental perceptions, Anyon’s (1980) powerful ethnography suggests that there are large objective differences in actual teaching practices and the stimulation of children’s cognitive abilities; these practices differed among schools according to the class composition of the school, specifically the position of parents in the functional division of labor in capitalism.

4. The social context of achievement: employment, time budgets, extra-curricular participation, and youth cultures

A number of studies examine the effects of youth cultures, extra-curricular activities, and students’ use of time on academic achievement, and several of these studies address racial/ethnic differences in time use and social engagement to school.

Reinforcing Steinberg et al.’s conclusion that employment detracts from academic outcomes, Oettinger (1999) found a negative impact of long work hours during the school year on racial minorities’ school performance; the research of Quirk, Keith, and Quirk (2001) supports this conclusion across racial/ethnic groups, and Singh also found small negative effects (1998).

Using a data set based on over 1500 seventh and ninth graders, Smith (1990) found that

reading time was positively related to school achievement; time spent on household chores, as well as radio and record listening, were negatively related; and TV viewing was related positively to school achievement for low occupational status homes and negatively for high occupational status homes (Mortimer and Finch, 1996; Portes and Rumbaut, 2001). [material to be added] There are different possible measures for how students engage in activities; Ferguson, for instance, reports a racial/ethnic gap in homework completion rather than time spent, and found completion to be a better predictor of GPA (2002).

The lively round of extracurricular and social activities of many American high schools has become the subject of controversy; some theorists conjecture that these activities increase student engagement with school, while others see them as detracting from academic pursuits or express concern that youth view academic and social competence as mutually exclusive, so that an enjoyable school social life may be a negative predictor of academic achievement. Some researchers found positive relationships between school social life, extracurricular activities and academic achievement. For example, Fejgin (1994) found positive effects of sports participation on grades, self-concept, locus of control, and educational aspirations. Ford and Tizak (1983) found a moderate-to-strong correlation between academic and social competence.

Other social scientists—especially those in critical theory-- saw high school social life as reflecting and reinforcing anti-intellectual themes in U.S. culture (Coleman, 1961; Henry, 1963), and more recent studies support this analysis for an even larger age spectrum. Rabow et al. (1992) suggests that good grades are valued only instrumentally in college peer cultures and have little to do with intrinsic learning, an attitude the researchers term “the GPA perspective.” Adler and Adler (1998) suggest that pre-teens value sports at or near the top of the hierarchy of “cool” values, while academic excellence is decidedly not favored. It is not

only in the U.S. that there is tension between social and academic competence; in the Netherlands, Landsheer et al (1998) found a negative relationship between indicators of social competence and academic competence in math and physics.

It is not only conventional and conformist youth who perceive a tension between academic and social competence. Oppositional youth cultures, in subaltern or marginalized racial/ethnic and/or class positions, also devalue academics, rejecting good grades as part of dominant culture that must be resisted (Fordham, 1996; McLeod, 1995; Willis, 1982). In this regard, the findings of Ogbu (2003, 1991, 1974) and Fordham (1996) are particularly important for an interpretation of the lower academic achievement of Black high school students; Ogbu and Fordham's work emphasizes that many African American youth devalue school achievement because they see it as "acting white." In this perspective, African American peer culture is hostile towards academic achievement, not only because it shares the general anti-intellectual tone of most U.S. youth culture, but because this hostility is associated with an oppositional racial consciousness.

Thus the relationships between social engagement and academic achievement may be complicated, locally-negotiated, and differentiated by class and racial/ethnic cultures. For this reason, the research literature contains inconsistent conclusions about the relationship of academic achievement and social engagement (See Newman, 1998, for additional discussion, and Hicks, 1997 for some suggestions such as group projects and cooperative learning to narrow the gap between academic and social competence.)

Based on this selective review of the literature, here are the questions we want to address:

1. What is the relationship between background variables (race/ethnicity, class, family structure, gender) and scholastic achievement?
2. What is the relationship between scholastic achievement and variables relating to

- school engagement, including academically related behaviors, social aspects of schooling, and perceptions of the school, and are these relationships different across racial/ethnic groups?
3. What differences are there among racial/ethnic groups in terms of the relationship of background and engagement variables to school achievement? Are the same predictor variables related to school performance for all racial/ethnic groups?
 4. Do characteristics of the school environment and teacher behavior, as they are perceived by the students, affect reported grade achievement?

Methodology

In order to explore these types of questions, data were collected from a sample of 1073 students in six high schools in a metropolitan area in the Midwest. The schools were selected to represent a spectrum of socio-economic status, racial/ethnic composition, locations (one is outside of the city, five are within the city), types of governance (one is private, five are not), and curriculum (two are tech-oriented, the rest are not).

Schools were selected to provide a wide and representative range in terms of class and ethnic composition. About 60% of the sample is European American, 18% is African American, 16% is Hispanic, and 7% is Asian American. These figures correspond roughly to the composition of the metro region as a whole, although the city itself has a lower percentage of European-Americans than the sample. We made an effort to insure that each racial/ethnic category was represented at more than one school. For example, one of our schools has an almost entirely African American student body, but African Americans are also located at other schools in the sample. There is also SES variation within racial/ethnic categories.

The Schools:

Six schools were selected on the basis of location, governance, and class and racial/ethnic composition. Exurb is a public school located in a small town at the rural fringe of the metropolitan area, with European American and Hispanic students; the school has an average level of performance in standardized testing. Inner City is a predominantly African American public school in a low income city neighborhood; 97% of the students perform below grade level in the state's standardized testing and there is a high dropout rate. Independent is a private school with many upper-middle class and wealthy students, predominantly white and at least a third of Jewish background. Virtually all seniors go to college, many of them to highly selective institutions; no standardized test results are made available. City Tech and Big Tech are two ethnically diverse public schools. Big Tech is selective, enjoys a strong academic reputation, and has stringent grading standards. In contrast, City Tech has a larger enrollment of low income students than Big Tech (70% vs. 57%), and a majority of students are below grade level on the state's standardized tests. Hispanic Alternative is a school that contracts with the city public school system and has a predominantly Hispanic enrollment and a program geared to helping young people who had problems in the public schools.

The Instrument

The questionnaire contained over 70 items, most of them pre-coded. It was administered anonymously in high school home rooms and placed in sealed envelopes. In addition, qualitative data based on administration and faculty interviews, focus groups, and/or participant-observation was available for two of the schools, Exurb and Independent.

Defining the Dependent Variable

School achievement is operationalized by self-reported grades. Some studies have used scores on standardized achievement tests as a measure of scholastic achievement (Smerdon, 1999), but grades indicate how well the student is integrated into the academic aspects of the school. Grades are an indicator of whether a student can complete the high school degree and advance to post-secondary education. They matter in college admission (increasingly so, if more colleges decide to drop the SAT/ACT requirement). They are an indicator of what the student has learned, albeit an imperfect one because of variation in standards among schools. Very low grades suggest “at riskness” of various kinds, especially for dropping out. Grades may be more sensitive than test achievement to family characteristics such as parental separation (Smith, 1995). Overall, they “can be interpreted as an indicator of educational attainment that combines actual knowledge with motivation and adjustment to institutional routines” (Portes and Rumbaut, 2001: 247).

Independent Variables:

We identified possible independent variables that we tested for a significant relationship with the dependent variable (grades) in three multiple regression models. The first model utilized **background** variables, the second model utilized variables referring to current **engagement** with school, and the third **combined model** used both types of variables.

--Chart 1: Background and Current School Engagement Variables [about here]--

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The Background Variables

Background variables refer to social origins, demographic categories, and family characteristics/structure. The background variables are family structure, racial/ethnic

category, class operationalized by parental occupations, number of siblings, and gender.

Current School Engagement Variables

The research literature suggests that school engagement (as a broad conceptual variable) is a possible intervening variable between social origins and school achievement (See Newman, in Borman and Schneider, 1998). Some of the specific current school engagement indicator variables are fairly “tightly connected” to the social origin variables, while others are more “distant.” Some current engagement variables measure school-related behaviors while others measure attitudes toward school. The variables are current employment, intensity of employment, amount of time spent on homework, studying with friends, extracurricular involvement, having close friends at school, perceptions of school based on five items (learning a lot, enjoying the social life, happy at school, teachers care about my progress, and rules are for students’ benefit) each rated on a ten point scale, and perceptions of parental pressure for good grades (“parents would be upset if grades averaged less than—”).

Developing a combined model:

In a preliminary series of cross-tabulations examining zero-order relationships between the independent variables and grades, we found that the background and current engagement variables that were positively related to good grades were the ones that were frequently predicted by studies in the research literature. Higher grades were reported by Euro-Americans and Asian Americans, by females, and by students of higher SES background, as well as those living in a nuclear family with both biological parents, working less than twenty hours a week, perceiving parental grade pressure, and reporting behaviors that reflect school engagement such as longer

hours spent on homework and extra-curricular participation. Since many of these variables are interrelated, multivariate analysis is required to identify significant predictors of good grades. Three multiple regression models were developed in order to test a series of hypotheses based on the research literature. In the first model only background variables were entered, in the second, only engagement variables, and in the third the two types of variables were combined. In the tables displaying the regression results, we only report results from the combined model.

All the models are run separately for each racial/ethnic category, revealing different patterns of correlation, with different coefficients of determination, for each category. The predictive power of the model and the specific significant predictors are different for different racial/ethnic categories. This finding has implications for educational policy.

Findings

In this section there is a discussion of findings addressing hypotheses that emerge from the research literature.

The results from the multiple regression model for the total sample and the four racial/ethnic categories are reported for the combined model that uses both background and current engagement variables; the results are in Tables 1-5. Table 1 displays the regression for the total sample, Table 2 for Euro-Americans, Table 3 for African Americans, Table 4 for Hispanics, and Table 5 for Asian Americans. Since Euro-Americans are a majority of the total sample, findings based on the total sample tend to reflect multivariate relationships that are found among Euro-Americans; for this reason, it is important to look at the regressions for sub-samples separately.

1. Racial/ethnic category:

What is the effect of racial/ethnic status on school achievement? Consistent findings suggest lower achievement among historically disadvantaged minorities (African Americans and Hispanics) than among European Americans and Asian Americans. Concern is expressed in the literature that these racial/ethnic differences in achievement persist across class lines, i.e., are not solely due differences in the distribution of class or socio-economic status among racial/ethnic categories (Steele; Jencks and Philips, 1998, Steinberg et al., 1996; Zhou, 2001).

Finding 1: When the four racial/ethnic categories are compared to each other, only Hispanics report significantly lower grades (Table 1: $b = -2.875$, $\beta = -.117$, $p = .000$).

2. Family structure:

On the basis of the research literature, we expected that students who live in a two-parent household would report higher grades than those who do not, although a number of studies suggested this relationship might hold only for whites. We also hypothesized that a large number of siblings would be associated with lower grades because resources are less available and/or because children in larger families are more peer-oriented.

Finding 2.1: Students who live in a nuclear family/two parent household report higher grades only among European Americans (Table 2: $b = 1.419$, $\beta = .072$, $p = .039$). It was not significant in the regression models for other racial/ethnic categories. This finding helps to clarify the apparently contradictory findings in the research literature. Living in a nuclear family with both biological parents does have an effect on grade achievement—but only for European Americans.

Finding 2.2 Number of sibs was not significantly related to grades for any racial/ethnic group.

3. Class/SES.

Class differences are reproduced at a micro-social level in family and peer environments (Willis, 1982) and are institutionally reproduced in classroom interaction, tracking, and types of programs offered (Anyon, 1980; Oakes, 1985). SES effects on school achievement can be observed in aggregate form in the large quantitative studies. Working class students are reported to be less likely to be academically motivated and more likely to receive educational treatment that fails to encourage high achievement.

Finding 3: Students whose parents are in white-collar strata report significantly higher scholastic achievement than those from blue-collar backgrounds only among European Americans (Table 2: $b = 2.062$, $\beta = .107$, $p = .001$). This finding contributes substantial insight into inconsistent conclusions about social class in the research literature. As with the two-parent family structure variable, class makes a significant difference in grade outcomes, but only for European Americans.

We also operationalized the class variable as a dichotomy of “directing classes” (owners, managers, and professionals) and “dependent labor”; but the results were not substantially different from the results using WHITECOL, the whitecollar/bluecollar dichotomy. It is possible that a more refined scale for SES would have revealed somewhat different patterns.

4. Gender

Despite the claim that girls are “shortchanged” in the classroom, their school achievement

tends to be higher (Mickelson, 1989).. This may be because they are more conforming to adult culture than boys, or because they receive more encouragement in a feminized educational system, or because they have fewer alternative opportunities (such as the skilled trades) for occupational attainment, or because they receive more family support (Carter and Wojtkiewicz, 2000). Females report higher ambitions than males in a Canadian study (Maxwell et al, 1996). However, in an analysis of the National Educational Longitudinal Study of 1988, it was found that at the high end of math test scores, males are more likely to predominate—and most strongly at the highest level of scores; the gender effect increases with grade level, and the difference exists for whites, Hispanics, and Asian-Americans but not for African Americans (Fan, Chen and Matsumoto, 1997 additional ref on gender and African Americans)

Finding 4 Being a girl was significantly positively related to reporting good grades for Asian Americans (Table 5: $b = 3.929$, $\beta = .272$, $p = .031$) and African Americans (Table 3: $b = 4.289$, $\beta = .280$, $p = .001$).

5. Current employment

The research literature includes the finding that current employment, especially if it is of high intensity (more than 20 hours of work a week) is correlated with lower achievement. It is possible that employment reduces time spent on academics or that high intensity employment is a symptom or result of disengagement from school. This variable may be closely connected to class (and class intertwined with race/ethnicity), because family need may induce teens to work longer hours than is compatible with school achievement. It may also be associated with school social climates in that in some schools there is pressure to earn money for cars, name-brand clothing, and other consumer goods that parents can not or will not supply.

Finding 5.1. Current employment was not significantly related to reported grades for any racial/ethnic category.

Finding 5.2 Working more than twenty hours a week is negatively related to reported grades at a level near significance for Asian Americans (Table 5: $b = -5.754$, $\beta = -.260$, $p = .052$).

6. Behavioral measures of current school engagement

Based on the findings of Steinberg et al. (1996), Ferguson (2002), and Smith (1990), the research explored a cluster of self-reported behavioral variables related to engagement with school work: length of time spent on homework, studying or doing homework with friends, being involved with extracurricular activities, and having friends at school.

Finding 6.1. Reporting longer hours of homework was significantly related to good grades for European Americans (Table 2: $b = 1.293$, $\beta = .204$, $p = .000$) and Hispanics (Table 4: $b = 1.665$, $\beta = .243$, $p = .003$), and was not significant for Asian Americans and African Americans. There is a surprising amount of variation among schools in the modal answer to this question; at Inner City, the modal answer is an hour a week or less, while at Independent it is two hours a night or more. Further exploration of this variable requires more attention to variation among schools in teacher and student expectations and could use homework completion as well as time spent to operationalize the variable.

Finding 6.2: Reporting studying or doing homework with friends is positively related to scholastic achievement only in the combined models for European Americans (Table 2: $b = 1.025$, $\beta = .073$, $p = .037$); it was not significantly related to grades for any of the other ethnic categories. This finding suggests a need to reconsider the generalizability of Steinberg et al's analysis of the importance of studying with friends.

Finding 6.3: Involvement in extra-curricular activities, both athletic and non-athletic, is positively related to scholastic achievement for European Americans (Table 2: $b = 3.486$, $\beta = .164$, $p = .000$) and close to significant for Hispanics (Table 4: $b = 3.150$, $\beta = .169$, $p = .056$). It was not significantly related for Asian Americans and African Americans.

Finding 6.4. Having a majority of one's close friends at school is not related to reported grades for any racial/ethnic category.

As we examine the results from this cluster of variables, we find a wide range of results. The negative effects of current employment (found in the research literature and our zero-order analysis) seem to disappear when we control for other variables. The findings are not consistent across racial/ethnic categories. This cluster of findings about the effect of current school engagement variables on grades are not in direct contradiction to Steinberg et al's work, but suggest the need for a more differentiated and cautious approach to any policy conclusions based on these variables.

7. Attitudes: school ratings:

Attitudes toward school may be related to school achievement. We used a 10-point rating scale to explore student responses to five aspects of school: "I am learning a lot at school; I enjoy the social life at school; I feel happy at school; My teachers care about my progress; The rules are for the students' benefit."

For each of these five items, we hypothesized that higher ratings are positively related to

scholastic achievement.

Finding 7.1 A higher rating for “learning a lot at school” was positively related to grades among European Americans (Table 2: $b = .619$, $\beta = .138$, $p = .0011$) and Asian Americans (Table 5: $b = 2.386$, $\beta = .506$, $p = .000$), both at a highly significant level; it was not related for Hispanics and African Americans.

Finding 7.2: A higher rating for “enjoy social life at school” was negatively related to grades for European Americans (Table 2: $b = -.418$, $\beta = -.115$, $p = .022$), Asian Americans (Table 5: $b = -1.348$, $\beta = -.411$, $p = .022$), and African Americans (Table 3: $b = -.671$, $\beta = -.212$, $p = .039$), but was not significant for Hispanics. The negative effect of this variable has implications for school-level policy; while enjoyable social life at school may improve retention of students who would otherwise drop out, it also has a dampening effect on scholastic achievement. The finding suggests that improving school social life will not in itself improve academic performance—on the contrary, it may diminish it. The finding supports the critical views that researchers such as Coleman (1961) and Henry (1963) took towards the flourishing social activities of the American high school.

Finding 7.3 A higher rating for “happy at school” is positively related to grades for European Americans (Table 2: $b = .497$, $\beta = .136$, $p = .012$), but not for the other racial/ethnic categories.

“Teachers Care About My Progress” and “Rules Benefit Students” were not on the survey instrument at one school (Exurb) and could not be included in the multiple regression models because of the number of missing cases. They will be discussed separately.

8. Parental pressure

Parental pressure for scholastic achievement has been found to affect students' achievement.

Finding 8: Students who report parental pressure for grades (operationalized as the level of grades at which parents are perceived as becoming upset) generally report higher scholastic achievement. This variable is significantly related to grades for European Americans (Table 2: $b = 5.005$, $\beta = .272$, $p = .000$), Hispanics (Table 4: $b = 5.613$, $\beta = .285$, $p = .000$) and Asian Americans (Table 5: $b = 4.833$, $\beta = .335$, $p = .007$); but it is not significant for African Americans.

9. Racial/Ethnic category as a contingent variable

We explored racial/ethnic category as a contingent variable with interaction effects that influence how other independent variables are related to scholastic achievement; we hypothesized that the relationships between independent variables and scholastic achievement may vary by racial/ethnic category. Testing the multiple regression model separately for each racial/ethnic category, we found markedly different coefficients of determination (predictive power of the models) and different significant variables for the four racial/ethnic categories..In this section we identify these differences.

European Americans

For European Americans a fairly high coefficient of determination is obtained by a combination of background and current variables. The following variables are all significant, and the adjusted $R^2 = .392$: Living in a nuclear family with both biological parents; white collar SES; study or do homework with friends; amount of time spent on homework; participation in extracurricular activities; learning a lot; enjoying the social life (negative beta); happy at school; parental pressure. In so far as many studies in the

past utilized predominantly or exclusively white samples, the findings tended to reflect this range of background and engagement predictor variables for academic achievement.

Asian Americans

For Asian Americans, there are fewer significant predictor variables than for European Americans, and the predictive power of the model is slightly lower, with adjusted $R^2 = .363$. The following variables are significant: Being female; learning a lot; enjoying the social life (negative beta), and perception of parental pressures. Working at a job more than twenty hours a week is negatively related to reported grades at a marginal level of significance ($p = .052$).

Background variables other than gender contribute little to the prediction of grade outcomes for the Asian American students. The major predictors are parental pressure and perception of the school environment. As with whites, perception of an enjoyable social life is a negative predictor.

Hispanics

For Hispanics, background variables are not predictors, but two current engagement variables are highly significant—parental pressure and time spent on homework.

Extracurricular participation is marginally significant ($p = .056$). The overall predictive power of the model is weaker than for European Americans and Asian Americans, with adjusted $R^2 = .200$. Since the national statistics on educational attainment of Hispanics are a cause for concern (Zhou, 2001), this set of variables may be of value in developing policies to improve school performance of Hispanic students.

African Americans

For African Americans, the predictive power of the model is quite weak, and neither

background nor current variables have much predictive value. In the model, adjusted $R^2 = .130$, and only two variables are significantly related to good grades: Gender—being female (at the .001 level) and enjoying social life (which is negatively related). The low coefficient of determination and absence of statistically significant positive engagement variables (such as amount of time spent on homework, feeling that one is learning a lot, and perception of parental pressure) pose an intellectual puzzle and a challenge for educational policies. These data are congruent with findings in the research literature that indicate concerns about the role, meaning, and effects of school engagement among African American students (for example, Kao, 2000; Smerdon, 1999; Ferguson, 2002; Ogbu, 1974, 1991, 2003; Fordham, 1996, Mickelson, 1990)

10. The importance of “teachers care” as a significant predictor of good grades for African American students

The low coefficient of determination and paucity of significant predictor variables for African American respondents presented a puzzle in the research. Was it possible to find any additional predictor variables that could account for good grades among African Americans? Findings in the research literature suggested that the feeling that teachers care about students was important to African American students (Ferguson, 2002). Since two of the school rating scales, “teachers care” and “rules are for the students’ benefit,” were not administered at Exurb, they were therefore analyzed in a separate multiple regression in which virtually every Asian American and African American respondent is included, but a substantial number of whites and some Hispanics are not included. The results of this regression are that a high rating on “teachers care” is significantly related to good grades for African American respondents ($p = .047$) ? is this correct? was it sign for others as well? This is a very important finding for developing school-level policies that enhance the academic

performance of African American students. (need to include this table, bs betas, etc.0} It supports the recent findings of Ferguson (2002) about the important role of teacher encouragement in the academic performance of minority students.

Summary of Findings:

1. The multivariate combined model shows more complex relationships among the background and engagement variables than either of these sets of variables separately.. Some of the background and current-engagement variables that were significantly related to good grades in the zero-order relationships and the separate regression models become non-significant in the combined multiple regression model. This suggests a need for caution in any conclusions based on the zero-order relationships and especially in any type of proposed intervention based on zero-order relationships or separate analyses of background and school engagement models.
2. The models are not the same across racial/ethnic categories. Different variables work as predictors for different racial/ethnic categories. The models based on our variables have considerably more predictive power for European Americans and Asian-Americans, less for Hispanics, and are particularly low for African-Americans. For European Americans, several background variables are significantly related to good grades, but this is not as evident among the other racial/ethnic groups. In this regard, our findings are congruent with the work of Keith and Benson (1992) and Ferguson (2002), although not identical in the details. Like Keith and Benson we found that for whites, fixed as well as manipulable variables were predictors, while manipulable variables had a relatively more important role in predicting academic achievement of minorities, in our case, Hispanics as well as Asian Americans. We also concur with Ferguson (though the details of our findings are not identical) that differences in academic achievement among racial/ethnic

categories are best understood as a dynamic and emergent process involving school engagement and teacher-student interaction as well other variables subject to intervention, rather than fixed patterns resulting from family structure and social class. All this is “good news” since the background variables like class and family structure are less easy to change through positive interventions than the school engagement variables. The finding that patterns of determination are different for different racial/ethnic groups however suggests a need for caution in proposing educational policies. Intervention policies should not be de-contextualized from the needs, expectations, and resources of schools and communities (Johnson and Johnson, 2002).

School differences:

Because of high collinearity revealed in the multiple regression diagnostics, it was not possible to enter school into the multiple regression as a predictor variable. An exploratory analysis based on additional quantitative and qualitative data suggests that school climate has an effect on academic achievement independent of the aggregated demographic and behavioral variables for individual students, including their social class and racial/ethnic category. Schools differ in their level of academic challenge, grading practices, teacher behavior, norms of parental pressure and involvement, and extracurricular opportunities. For example, both Big Tech and Independent are academically challenging schools, but differ sharply in their grade distribution, ratings by students, and extracurricular opportunities; Independent is significantly higher on all of these. Unique characteristics of school atmosphere that shape academic challenge and grade distributions can be identified for each school (Garner, Bootcheck, Lorr, and Rauch, 2002). Future research needs to focus on qualitative and interactionist analysis of the grading process at the school level; the meaning of good grades varies by school.

Discussion: Policy Implications of the Research Findings:

The findings have many implications for educational policy and school-level interventions to improve scholastic achievement; here we present a few of them.

Manipulable vs. non-manipulable influences on grades: the importance of school-level interventions

Although the distinction manipulable/non-manipulable (Keith and Benson, 1992) is fraught with ambiguities—manipulable by whom? by what means? at what level of analysis?—it is a useful starting point for a discussion of policy implications. Variables such as the amount of homework assigned and expected, offering opportunities for participation in extracurricular activities, encouraging co-operative learning (“study with friends”) and providing an environment of caring teachers are manipulable at the school level, whereas reducing family financial strain or changing family structure either require macro-economic policies or are largely intractable to planned interventions. Our findings point to the possibilities of school-level interventions; they suggest that a variety of such interventions may be especially effective for Asian Americans and Hispanics. Results may be more mixed for European Americans, for whom non-manipulable influences also matter, and for African Americans, for whom the main manipulable variable in Keith and Benson’s sense is the perception that teachers care. (Gender is potentially also a manipulable variable at the school level, in the sense that experiments with single-sex schools may be worth pursuing.). Combined with Ferguson’s and Keith and Benson’s findings, our findings should be taken as encouragement for educational policy makers and schools to continue to improve school climates, strengthen academic standards, and encourage effective teacher-student interaction.

Changing time schedules and study habits

Many of our current-engagement variables are manipulable variables. For European

Americans and Hispanics, time spent on homework makes a difference in grade outcomes, and for European Americans studying with friends is also positively related to higher grades. Employment, with its supposedly character-building effects, is certainly not an enhancer of grades, and working more than 20 hours a week actually has near-significant negative effects for Asian Americans. All this generally supports Steinberg et al.'s findings, but suggests that their emphasis on changing study habits should not be a "one-size fits all" policy. Improving study habits is perhaps best conceived as intertwined with school climate—with emphasis on the school as a learning environment—rather than expressed as exhortations to individuals to work harder. Higher standards for a school as a whole, rather than pressure on individuals to work harder, would be more effective. It might be easier to implement school- or system-wide higher curricular standards and introduce more challenging learning materials, especially in the early grades, rather than try to make individuals spend more time studying once they are in high school.

Improving school environments: “good” and “bad” school engagement

How students feel about their schools has effects on their grades. Feeling that they are learning a lot (European Americans and Asian Americans), that they are happy at school (European Americans), and that teachers care about their progress (African Americans) are related to good grades. Indeed, for African American students, feeling that teachers care is one of few significant predictors of good grades. It is difficult to ascertain causality here without longitudinal and qualitative data—does the positive perception motivate higher achievement or do better grades lead to more positive evaluation of the learning climate of the school?

Enjoying social life is negatively related to grades, suggesting support for the hypotheses

that emerge from Coleman (1961), Henry (1963), and more recently, Landsheer et al (1998) data from the Netherlands and from Adler and Adler's ethnography (1998): Getting good grades is not very cool, and students who are heavily involved with their school's social life are not scholastic achievers (all other things being equal), among European Americans, Asian Americans, and African Americans. The enjoy-social-life variable is not significant for Hispanics. This finding suggests that school policy is appropriately concerned with making students feel happy or comfortable at school, but that fostering an enjoyable social life is not going to have much of a payoff in scholastic achievement. "Happiness" is perhaps better fostered by improving the quality of interaction with teachers than by pumping up student sociability.

Extracurricular participation is positively related to grades for European Americans and close to significance for Hispanics, but not significant for the two other racial/ethnic groups. This finding is intertwined with the fact that the two predominantly white schools, Independent and Exurb, also have the liveliest offerings of extracurricular activities. A more complete understanding of this variable would involve exploring how and why the predominantly white schools have the resources and inclination to offer more extracurricular activities and make them an important element of school engagement.. A separate regression model, distinguishing athletic participation from other kinds of extracurricular participation, suggests that athletic participation is not a significant predictor of grades. Athletics may have a role in making students feel happier at school, but it would probably be a mistake to believe that they will improve scholastic achievement.

Does family matter? Students' perceptions of parental expectations, family

structure, and the importance of school-family co-operation

Students' perceptions that parents have expectations for good grades is positively related to achievement, except among African Americans. Operationalized as the perception that parents would become upset over low grades, this variable taps into a broader set of parental actions such as setting high academic standards, monitoring grades as well as homework and studying, and (perhaps) rewarding good grades as well as punishing bad ones. The obvious policy implication is that schools need to continue to bring parents into the educational process and to encourage parents to activate their concerns about children's grades.

The absence of a strong relationship between perceived parental pressure and grades among African Americans is consistent with the conclusions of Smerdon (1999), Steinberg et al (1996), Ogbu (1974, 1991, 2003), Fordham(1996), and Mickelson (1990), all of whom found ambiguities and ambivalence in parental pressures. Some of these studies report a disjuncture between parental values that support educational achievement and behaviors that do not. The policy implications are complex, and one could draw conclusions in opposing directions: Some might argue that schools should encourage African American parents to be more forceful and active in stimulating their children's scholastic achievement; while others could conclude that schools should focus on creating academically supportive teacher-student relationships which can substitute for parental involvement.

Our data make a contribution to the debate about whether growing up in an intact family is important for academic achievement; it is, in any case, a variable that is not easily amenable to intervention or manipulation. A nuclear family structure with both biological parents in the household is positively related to good grades for European Americans, but

not for other categories. This finding may help to explain somewhat inconsistent findings in the research literature concerning the positive role of two-parent families in academic achievement. They clarify why Heiss (1996) found that single parent homes are not a negative influence on achievement, being little different from two-parent homes in terms of the key intervening variable of parental involvement, and Mulkey et al. (1992) found that they are a negative influence, with the key intervening variable being student behavior. Our data are consistent with Heiss' analysis for African Americans, but do not support the extension of his conclusion to European Americans.

In short, it is important for schools to encourage parents to take positive actions to raise their children's academic achievement, and—as most educators realize—it is not helpful to be partial to one form of family structure as long as the adults in the family are involved in the educational life of their children.

Improving the academic performance of African American students

A striking finding of the study is the very low R^2 for African American students. Only gender and enjoying social life (in a negative relationship) were significant in the general model, along with the perception that teachers care in the separate regression. A low coefficient of determination does not mean that “nothing makes a difference”; it likely means that the list of variables commonly used in sociology of education research is not a very effective set of predictors.

Two policy directions do, however, emerge. One is signaled by the significance of the “teachers care” variable; it suggests that interaction within the school can be a key to improving scholastic performance. In our view, improving learning climates is less a matter of specific new or old teaching styles or content (interactive learning, cooperative learning, traditional classrooms, back-to-basics, repeated standardized testing, Afrocentric curriculum, etc.) and more a matter of serious engagement on an academic as

well as an emotional basis between educators and their students. Gender (which is also significantly related to grade outcomes for Asian Americans) can not be directly altered, but its significance supports continuing experimentation with single sex schools, as is already the case for some charter schools and religiously affiliated schools.

Conclusion

We conclude with implications for policy in the broadest sense of philosophies of education.

First, it is important to raise academic standards, but to do so by transforming school climates and teacher-student interaction, rather than simply raising grading standards or relying on the quick fix of repeated testing. The challenge is to provide demanding academic work without excessive testing or harsh grading; the “easy route” to raising standards is to raise the bar of testing and grading, with a result not only of student (and teacher) alienation from school but also an instrumentalizing of the learning experience. As a nation we are en route to the model of test-driven learning and it may improve test outcomes but not intellectual pleasures or creativity.

A closely related challenge is to change high school climates in such a way that “enjoying social life” becomes less incompatible with academic effort. This challenge is not a matter of eliminating the social and extracurricular aspects of school but of reducing the separation and tension between sociability and intellectual excellence, a project which requires major redefining of values—not only of students, but of parents, educators, and policy makers as well. The negative relationship of “enjoy social life” and grade achievement for all categories except Hispanics reinforces the historical conclusions of Coleman (1961) and Henry (1963); the intense social climate of many U.S. high schools, with an emphasis on popularity, dating, consumption, varsity athletics, and peer status structures, is not conducive to academic achievement (let alone intellectual excitement, a

more complex variable we did not measure). The policy implications are not to make social life unenjoyable (it may be the only force that keeps some adolescents in school at all), but to tilt it thoughtfully in an academic direction.

A third challenge is to address the problem so aptly posed by the title of Steinberg et al.'s work—*Beyond the Classroom*. Can schools work with parents to improve academic achievement? Changing parenting styles and peer cultures (the two foci of Steinberg et al.'s analysis) is much more difficult than changing school policy and teaching styles.

Steinberg et al.'s findings (which in many respects echo Jencks' conclusions of thirty years ago, Jencks 1972) are sociologically radical, in the sense of discovering the root of social problems at a fundamental level of interaction and family structure. However, they could be interpreted as support for conservative and quietist practical consequences: if the problems are rooted in family and peer cultures, there is little educators and the public can do. Our data suggest that we should not give up on the school and the classroom as powerful and effective points of intervention. While parental expectations for academic achievement will continue to be a private response to the issue of educational excellence, educators and parents can co-operate to create a community effort as well.

Finally, our data draw attention to the problem of funding. The school in our sample that provides the best combination of academic challenge, extracurricular involvement, caring teachers, and rewarding grading practices charges a very high tuition, nearly twice the per-pupil expenditure in the city public school system. The real challenge is to duplicate this type of experience in a public system.

We end with three directions for future research grounded in qualitative and interactive theories: We would like to explore the meaning of grading and its variation among schools, examining it as a school-level negotiated social process (Takei et al., 1998). We would like to develop a clearer understanding of what parents actually do when they get

upset about grades and try to set standards (Clark, 1983) What is being said, what positive as well as negative sanctions are used? And we would like to have a more in-depth understanding of the influence among African American students of the perception that teachers care. Is its importance connected to the cultural value of personal trust? Does it create a feeling of connection with the center of society and a reduction of marginality and isolation?

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Chart 1: background and current engagement variables:

Background variables:

1. Family structure:
 - a. Nuclear or intact family (respondent indicates living with both biological parents) or other (**NUCLEAR**).
 - b. .Number of siblings (**SIBSN**)
2. Racial/ethnic category
 - a. Four category coding:.(African-American, Asian-American, Hispanic, Euro-American; (**RACE: BLACK, ASIAN, HISPANIC, WHITE**). “Hispanic” included a large number of persons of Mexican origin and smaller numbers of Central American, South American and Spanish-speaking Caribbean origin. The single largest subgrouping of Asian Americans were of Chinese origin, followed by Filipinos, Koreans, and Southeast Asians.
3. Gender; coded with **GIRL** = 1.
4. Social class with parental occupation as indicator variable, coded for the multiple regression as whitecollar/bluecollar (**WHITECOL**). If available, father’s occupation was used, whether or not respondent lived with both parents; if father’s occupation was not available, mother’s occupation was used.

Current-engagement variables:

1. Parental pressure: This variable measured the level of grades at which the respondent believed that parents would be upset over grades and was operationalized as a dummy variable, distinguishing those who perceived parents as upset if grades are less than A or B from others (**UPSET3**).
2. Both parents helped in thinking about the future, or not. This dichotomous variable measured whether respondents indicated that “both parents together” had been important in helping think about what they would like to do in the future (**BOTH**).
3. Amount of time spent on homework, a scale variable, ranging from none or less than an hour a week to two or more hours a night. (**HOMEWORK**).
4. Study with friends; the original 3-category ordinal coding was transformed into a dichotomous yes or no coding. (**STUDYFR**).
5. School rating: learning a lot. This is a ten-point scale variable, a response to “I am learning a lot at school.”. (**LEARNING**).
6. School rating: enjoying social life. This is a ten-point scale variable, a response to “I enjoy the social life at school.” (**ENJOYING**)
7. School rating: happy at school (**HAPPY**)
8. School rating: teachers care about my progress. (**TEACARE**)
9. School rating: rules benefit the students. (**RULEBEN**)
10. Currently employed or not (**WORKING**).
11. Work intensity: Working more than 20 hours a week or not. (**HARDWORK**)
12. Extracurricular participation: Athletic and/or non-athletic extracurricular activities or not (**EXTRAYES**)
13. Friends at school (majority of close friends are at this school), or not (**FRIENDSWHERE**)

Who Gets Good Grades? Accounting for School Achievement

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