Perceptions of Opportunity and Adolescent Fertility: Operationalizing Across Race/Ethnicity and Social Class [1]

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Abstract

This paper explores multiple ways of capturing individual perceptions of opportunity among a diverse and contemporary sample of adolescent females. Specifically we examine: 1) which measures best capture variability in perceptions of opportunity across race/ethnicity and social class subgroups (including race/ethnicity and social class interaction); 2) associations between measures of perceived opportunity (in eighth grade) and the presence of a first birth before age 20, and; 3) associations between measures of perceived opportunity and first birth across race/ethnicity and social class subgroups.

Data are taken from the National Education Longitudinal Study of 1988 (NELS:88), a longitudinal sample of a cohort of eighth grade students interviewed every two years between 1988 and 1994. The study sample consists of 6,313 female eighth graders who have not experienced a first birth prior to or within 7 months of the first interview, who have complete fertility information at the 1994 panel, and have a completed Base Year Parent Survey.

Findings indicate our measures of opportunity tend to show greater variability across SES subgroups than race/ethnicity. In particular, a strong linear relationship between perceptions of opportunity and SES is observed. We also find interactions between race/ethnicity and SES for certain perceptions measures, particularly expectations for college completion and certainty of completing educational goals. Perceptions are significantly associated with fertility by age 20, although not all measures equally predict across race/ethnicity or social class. Implications for future methodological work and empirical studies focusing on the rational choice theory of early childbearing are discussed.

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INTRODUCTION

Numerous studies argue that diminished economic opportunities contribute to higher rates of adolescent childbearing among disadvantaged and ethnic minority youth (Duncan and Hoffman, 1990; Ogbu, 1979; Wilson, 1987). Central to this thesis is that youth behavior is in large part a result of assessments that teens make about the range of opportunities and resources available to them. That is, teens infer their chances of future success, and the range of possible options for the future, from the social and economic context in which they live. They in turn engage in behaviors that can be deemed as rational given the level of perceived structural opportunity and community resources (rational choice theory of adolescent childbearing).

Whether this assessment of life options and the link between behavior is explicitly conscious or subconscious is not clear. However, few would argue that adolescents systematically consider unemployment rates or college acceptance rates when deciding upon the risks of having unprotected sex. Teens may, nonetheless, respond in a more common sense fashion, specifically, noting the behaviors of others around them (i.e., few students in my high school go on to college) and then act across a series of behaviors (e.g., school performance, sexual activity) in accordance with those observations.

Studies examining the "rational choice" hypothesis are based generally on one of two assumptions. The first assumption is that social programs such as Aid to Families with Dependent Children (AFDC) offer financial incentives for early, nonmarital childbearing. In particular, AFDC benefits provide gains in income that cannot be achieved through regular employment in

the mainstream labor market. The second assumption is that structural inequality limits the number of positive alternatives for poor and minority youth, making early childbearing one of few viable life options for some population subgroups.

Empirical evidence in support of either premise remains inconclusive. For instance, Lundberg and Plotnick (1990) examined the long term (estimated future wages) and short term costs (pregnancy avoidance and abortion) of a premarital birth. They found that the earnings potential of white and Hispanic women declined if an out-of-wedlock birth occurred before age 19, while the earnings potential for blacks increased if a nonmarital birth occurred. The authors conclude the effect due to the opportunity cost on fertility decisions for whites and Hispanics was consistent with the "rational choice" theory of early childbearing, but inconsistent for blacks.

Duncan and Hoffman (1990) incorporated both the effects of welfare and non-welfare economic opportunities into their assessments of nonmarital teen childbearing. Using the 1985 cross-year file of the Panel Study for Income Dynamics (PSID), they estimated opportunity costs based on the expected income by age 25 of a subset of women who did not have an AFDC related out-of-wedlock birth during their teen years. They found net of background factors, AFDC benefits demonstrated a positive, but insignificant effect on out-of- wedlock births. However, future economic opportunities had a statistically negative influence on AFDC related out-of-wedlock births among black women. They conclude that the incidence of adolescent childbearing among blacks could be reduced, albeit modestly, by improving the economic prospects of black teens.

Others have assessed the impact of individual perceptions of economic opportunity and plans for the future on fertility behavior, but also find conflicting results. Lauritsen (1994) reports

perceived inability to achieve educational goals explains variations in sexual behavior of black females, but not their white counterparts. Sugland (1996), on the other hand, shows significant impacts of mismatched educational aspirations and expectations on the transition to first birth for whites, but not black or Hispanic females.

Finally, additional work has examined the impact of contextual factors, including neighborhood characteristics (e.g., proportion of women employed full time, proportion of adults relative to teens, median housing value, level of youth alienation) on the likelihood of premarital sexual involvement (Brewster, 1994a 1994b 1994c; Brewster et al., 1993; Billy et al., 1994). Such studies show that while community-level factors significantly influence early sexual behavior among teens, there are clear racial differences in the level of impact, and in which type of community factors influence sexual activity for race subgroups (Billy, et al., 1994).

The lack of consistency across studies may be due to several reasons, including subtle differences in underlying assumptions as well as the empirical frameworks employed (e.g., AFDC benefit incentives versus structural inequality). Likewise, conflicting results may be a result of differences across studies in scientific methodology. Specifically, studies that examine the impact of economic opportunity on early childbearing tend to differ, often substantially, in terms of the constructs used to capture economic opportunities, the range of measures used to operationalize economic opportunity, the characteristics of the study sample, as well as the fertility outcomes of interest. Little work has been done to replicate the findings of others, either by using the same measures with a different data set, or by examining the effect on different outcomes, or exploring a range of measures and holding the sample or outcomes constant.

Furthermore, few studies have examined which measures of economic opportunity are

most predictive of adolescent fertility outcomes, and whether such measures equally predict adolescent fertility across population subgroups. Indeed, the use of appropriate measures and the consistent use of such measures across a body of scientific work is crucial for fully understanding the link between economic opportunities and adolescent childbearing.

This paper explores multiple ways of capturing individual perceptions of opportunity among a diverse and contemporary sample of adolescent females. First, we examine which measures best capture variability in perceptions of opportunity across race/ethnicity and social class subgroups (including race/ethnicity and social class interaction). Of particular interest is the extent to which traditional measures of perceptions of opportunity (e.g., educational expectations) demonstrate variability across both race/ethnicity and social class relative to other measures, or whether certain measures differentiate race/ethnicity subgroups better than social class subgroups and vice versa.

Second, we explore associations between measures of perceived opportunity (in eighth grade) and the presence of a first birth before age 20 (by 1994). Emphasis here is placed on documenting which measures of perceptions are significantly associated with a first birth before age 20.

Finally, associations between measures of perceived opportunity and first teen birth across race/ethnicity and social class subgroups are explored. Specifically, we examine whether significant associations identified hold across race/ethnicity and SES and within race/ethnicity/SES subgroups (interaction).

BACKGROUND

Several studies have examined the link between individual perceptions of structural

opportunity and adolescent behavior (Burton et al., 1994; Farnworth and Leiber, 1989; Hanson, 1994; Lauritsen, 1994; Manlove, Romano and Sugland, 1997; Mikelson, 1990; Sugland, 1996). However, research tends to focus on a relatively small set of behavior outcomes, primarily delinquency, educational attainment and fertility, with the bulk of work coming from the deviance literature. In fact, most of the fertility and educational attainment studies are based on theories that originated in the area of youth delinquency. The theories primarily include cultural de viance models (Kornhauser, 1978; Marini, 1984), and social disorganization theories, particularly strain theory (Merton, 1938, 1957) and social control theory (Hirschi. 1969), and revisions of classic strain theory (Agnew and White, 1992; Farnworth and Leiber. 1989). Specifically, cultural deviance assumes there are distinct subcultures in society, and that differences in particular behaviors are a result of differences in norms about those behaviors across subcultural groups.

Social control theory presumes that deviance results from the lack of bonds to conventional society, while strain theory argues that deviance is the result of varying pressures (or strains) to conform to social norms when there is insufficient means available to achieve such normative behavior.

As the purpose of this study is to examine ways to measure perceptions of opportunity, a full discussion of these theories beyond that described above will not be provided here. However, theoretical work on delinquency offers important examples of how to capture teens' perceptions, and form the basis of much of the work in this area. Thus, it is important to note, albeit briefly, the kinds of measures used to capture youth perceptions of opportunity within the deviance literature.

Specifically, studies assessing perceptions based on the notion of *social control*, tend to

include measures that document one's belief in social values and commitment to those values. For instance, authors will use questions that tap beliefs about marriage and family as proxies for beliefs in traditional values and commitment to social norms (McGee, 1992), or document the strength of attachment to parents, peers and other social institutions such as school (Agnew and White, 1992; Segrave and Hastad, 1985). Conversely, studies will examine the strength of ties to non-conventional values or the rejection of middle class values (Cohen, 1955).

Work employing *strain theory*, on the other hand, generally assesses the impact of strain on youth behavior using a discrepancy score measured as the difference between educational aspirations and educational expectations (Burton et al., 1994; Farnworth and Leiber, 1989). Also employed is the relative comparison of educational, occupational or monetary desires and available means to achieve those desires, such as the desire for a high paying job, accompanied by low educational or occupational expectations (Farnworth and Leiber, 1989).

Finally, studies also employ status attainment models (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970) to examine perceptions and youth outcomes, particularly educational and occupational attainment (Kerckhoff, 1976; Marini and Greenberger, 1978; Hanson, 1994). Educational expectations and aspirations, or occupational aspirations and expectations serve as the basis for measuring perceptions of opportunity in these studies.

In the next section of the paper, we document the ways perceptions have been measured in studies of fertility and educational attainment. We focus only on those studies that *explicitly* measure individual perceptions. Work that addresses contextual factors or financial incentives from social programs, which presume inferences about opportunity, are not discussed. In addition, we do not critique the validity of specific measures of perceptions, or whether certain

approaches are more predictive of certain behavior outcomes than others. Rather, we report possible ways to capture individual perceptions, the association of specific measures with certain outcomes, and the extent to which subgroup differences (race/ethnicity or social class) have been observed.

Strategies for Measuring Perceptions of Opportunity

Studies exploring youth perceptions employ several different measures of youth perceptions ranging from individual questions pertaining to aspirations or desires for the future, to summary measures comparing desires for the future relative to how certain one is about achieving his/her plans. Strategies differ somewhat given the outcome of interest, and the theoretical framework employed. Yet, we find a great deal of over lap and consistency across the studies we reviewed.

Beginning with studies focusing on adolescent fertility, Lauritsen (1994) examines the link between social control theory and strain theory and sexual activity among male and female adolescents. Based on data taken from the National Youth Survey[1] she uses educational aspirations and expectations as a measure of commitment to social norms (social control theory), along with the level of attachment to one's family, involvement with school and peers, and one's beliefs in conventional values such as marriage and children. Strain was captured as the discrepancy between aspirations and expectations. Specifically, responses were coded to distinguish adolescents who expected educational disappointment (those who thought college was very or fairly important, but thought their chances of attending were fair or poor) from

[1]The National Youth Survey (NYS) is a longitudinal survey of 1,175 youth ages 11 to 17, designed to collect information on the incidence and prevalence of adolescent drug use and delinquency (Elliott, Huizinga and Ageton, 1985). Data were gathered in three waves between 1976 and 1978.

adolescents who anticipated they would reach their desired educational goals.

Net of family structure and neighborhood context, Lauritsen finds that among all females, both educational commitment (aspirations and expectations) and educational disappointment are significantly related to engaging in sexual intercourse. Subgroup analyses by race indicate educational commitment is found to significantly predict intercourse among white females, while educational disappointment (strain) is shown to be a significant predictor of sexual intercourse for black females. Among adolescent males, educational commitment is found to predict sexual activity among white males, but neither commitment nor strain demonstrates a significant impact on the sexual behavior of black adolescent males.

Similarly, Sugland (1996) examines perceptions of opportunity and adolescent childbearing employing a measure of educational disparity as a proxy for strain. Educational disparity is defined as the mathematical difference between two continuous measures, educational aspirations and educational expectations. A wide disparity (educational aspirations five or more years greater than expectations) is used to predict the transition to first birth net of background, educational progress and fertility related characteristics (e.g., age at first sex). Using data from the National Longitudinal Survey of Youth, she finds that educational disparity significantly predicts the transition to a birth during adolescence for white female respondents, but has no significant effect on fertility for black or Hispanic females. No assessments of educational disparity by gender were conducted.

Perceptions of opportunity and educational attainment among youth have also been examined. Specifically, Hanson (1994) explores the link between individual perceptions and the notion of "lost talent," or the extent to which adolescents do not live up to their full academic

potential. Employing a status attainment model, Hanson examines the relationship between early educational expectations and later achievement. She presumes, along with others (Kerckhoff, 1976; Bourdieu, 1973) that expectations are based on knowledge of the real world. Although everyone wants to succeed, one's expectations of doing so are tempered by their experiences (e.g., successes and failures) and the experiences of others around them. This is particularly true of disadvantaged youth and youth of color.

Using data from a sample of talented students (with high standardized mathematics and reading tests and high educational expectations or aspirations) in High School and Beyond, Hanson measures "lost talent" three different ways: 1) educational expectations that fall short of educational aspirations (mismatched aspirations and expectations); 2) educational expectations that diminish over time (reduced expectations), and; 3) educational attainment that is lower than initial educational desires (unrealized expectations). Multivariate models also control for a range of family characteristics (e.g., parental education and parental expectations) and individual characteristics (e.g., locus of control, fertility and marriage intentions, and school performance). After controlling for background and individual characteristics, she finds significant differences by race (white and nonwhite) and SES (quartiles). In the total sample, whites are significantly more likely than nonwhites to experience reduced or unrealized educational expectations, after controlling for other factors. In the total sample, lower SES is associated with greater levels of mismatched aspirations and expectations, after controlling for other factors. In the subgroup analyses, Hanson found that among low SES students (but not high SES students), being white is associated with reduced educational expectations, and among whites (but not among nonwhites) lower SES is associated with mismatched aspirations and expectations.

Hanson comments that her choice of a "talented" sample which included fewer minorities and higher SES students may have caused selection effects that influenced her results. Thus, her results show that nonwhites who showed high early expectations were less likely to have unrealized or reduced expectations. Lower SES youth who had high aspirations were less likely to also have high expectations.

In a survey of high school seniors in eight public high schools in the Los Angeles area, Mikelson (1990) examined the relationship between abstract attitudes (based on beliefs about education and opportunity) and concrete attitudes (based on the expected returns to education from the opportunity structure). She concluded that individuals hold dual belief systems that reflect both abstract values about society as well as practical levels of experience. Mikelson found no class differences in abstract attitudes and that Blacks had even more positive abstract attitudes than whites. Blacks, however, had more negative concrete attitudes than whites, and working class students had more negative concrete attitudes than middle class students. Mikelson regressed grades on attitudes and other background factors. After controlling for other factors, she found that abstract attitudes had no effect on grades, while concrete beliefs had a significant positive effect on high school grades. The most powerful predictor of grades in the full models was race (blacks had lower grades than whites).

DATA AND METHODOLOGY

Data and Study Sample

Data

Data are taken from the National Education Longitudinal Study of 1988 (NELS:88).

NELS:88 is the third in a series of longitudinal studies conducted by the National Center for Education Statistics. It is a longitudinal study of some 25,000 eighth graders across the nation and provides trend data about the critical transitions experienced by young people as they develop, complete school, and transition to adulthood (National Center for Education Statistics, 1993). NELS:88 provides new information on school policies, teacher practices, family involvement, and student life goals and expectations and how these factors affect student educational outcomes. The data set captures a wide range of information including background and personal characteristics, perceptions and attitudes about future educational and occupational activities, and the context of family and school life. Data also include a set of questions on the fertility status of the eighth grade cohort over time, and a follow-up of students who dropped out of school after the eighth grade interview and subsequent interview years.

Students were interviewed every two years beginning in 1988 through 1994. Thus, information is available when respondents were in the eighth, tenth, and twelfth grades, and two years past secondary school.

In addition to responses from the student, NELS:88 includes information from the student's parent, (Parent Questionnaire), a School Administrator (School Questionnaire), and the student's teacher (Teacher Survey). Youth who dropped out after the 1988 base year were also interviewed in 1990 and 1992 to document reasons for dropping out of school, involvement in special school programs, psychosocial assessments regarding locus of control, and participation in high risk behaviors (i.e., use of alcohol and drugs).

Sample

Our sample for this study consists of female adolescents identified at the base year (1988),

who: a) did not experience a first birth prior to or within seven months of the initial interview; b) who were present in all waves of NELS:88; c) who had complete fertility information by the 3rd follow-up, and; d) had a completed Parent Survey at the base year. A total of 6,313 white, Non-Hispanic, Black, Non-Hispanic, Hispanic, and Asian females meet these sample specifications and form the basis of the analyses described in this paper. Women were followed from 1988 through 1994, or until they were between 19 and 20 years of age. Measures of background characteristics, social class, and perceptions of opportunity are taken from the base year (1988) and used to examine associations with a first teenage birth through 1994 (3rd follow-up).

Methodology

In this study the primary outcome of interest is the presence of a first teen birth (before age 20) by the end of the study period. Fertility as of 1994 is determined through fertility information from the first and second follow-ups, along with retrospective fertility histories obtained in the 1994 wave. Independent variables are taken from the base year of NELS:88 (1988) and include background characteristics, particularly social class, and individual perceptions of opportunity. Social class is determined by a range of background measures including parental education, occupation, employment and family income. A more detailed description is provided in the next section. Chi-square and analyses of variance are used to assess the variability of different measures of perceptions across race/ethnicity and social class subgroups, and the relationship of perceptions with adolescent fertility. Where appropriate, CATMOD and GLM[2]

[2] CATMOD is a SAS procedure for categorical data modeling that was used to provide analyses of variance for categorical response variables. GLM is a SAS procedure that was used to provide analyses of variance for continuous response variables in the presence of unbalanced data.

are used to assess the variability of different measures of perceptions across race/ethnicity subgroups and to examine race/ethnicity and social class interactions in distributions of perceptions.

Independent Variables

Background Characteristics

Studies indicate numerous background characteristics are significantly associated with an early birth, and with perceptions of opportunity (Hanson, 1994; Manlove, 1996; Moore, Miller, Glei, & Morrison, 1995). We identified a key subset of these characteristics to help us describe the study sample and to develop our measure of social class. Background characteristics include: family composition, family income, and parental education, employment, and occupation. All background characteristics are based on the Parent Survey, administered to the parent/guardian in the base year and providing information about both the parent/guardian and the parent/guardian's spouse/partner. To minimize the amount of missing data, we used the student's response to questions about their parents' education and occupation (from the Base Year Student Survey) as a proxy when the parent/guardian response from the Parent Survey was missing.[3]

Family Composition

This measure indicates who lives with the female respondent at the time of the base interview. The variable is based on the parent's/guardian's response to two questions on the

[3] While proxy data, particularly a child's assessment of his/her parent's characteristics, is less than optimal, there was relatively little missing information plugged (0.25 percent) for parental education or parent's spouse/partner's education, and less than 10 percent for parent/guardian's occupation or parent's spouse/partner's occupation. However, the Student Survey did not include comparable questions for either family income or employment status. Thus, cases with missing family income or missing employment status were left as missing. The percent missing on family income (3.7 percent) and on the current employment status of the parent/guardian or parent's spouse/partner (.04 percent) was also modest.

Parent Survey regarding the adult respondent's relationship to the child, and the adult respondent's spouse/partner's relationship to the child. It is coded to reflect a two parent family (including biological, step and adoptive parents),[4] a single parent (male or female headed),[5] and other adult relative/non-relative households.

Family Socioeconomic Status

A measure of family SES was created, based on four variables: 1) highest parental education; 2) highest parental occupation; 3) parent's employment status; and 4) family income.

Highest Parental Education. Parent's education captures the highest level of education attained by the respondent's parent(s). If the teen lived in a single parent family, this measure was coded to reflect the highest grade the teen's parent/guardian completed. For two parent families, parental education reflects the educational attainment of the *most* educated parent. Parental education is collapsed into four categories -- less than high school, high school, some college, and college or more.

Highest Parental Occupation. The measure for parental occupation reflects the highest parental occupation. Highest parental occupation was created by assigning Duncan SEI values to each occupation. For two-parent families, this measure reflects the occupational level of the parent with the highest SEI code. For single parent families, the value reflects that parent's occupational value.

Parental Employment Status. We created a measure to reflect whether at least one parent

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[4] For two-parent families, the primary respondent was a mother, stepmother, father, or step father. The spouse/partner could be a mother, stepmother, father, or stepfather, or else a female or male guardian.

[5] For a single-parent family, the primary respondent was a mother, stepmother, father, or step father. The respondent reported "no other parent or guardian" living in the household.

was employed full-time. Full-time employment is defined in NELS:88 as working 35 hours or more in the past week.

Annual Family Income. The family income variable used for these analyses was created by NCES with information taken directly from the parent questionnaire. This measure reflects the total family income from all sources during 1987.

We created an overall measure of family socioeconomic status based on the above four parent variables (highest parental education and occupation, employment status, and family income). Each variable was standardized and used to create an overall SES measure. We dropped from our sample approximately 6.1 percent of the students with missing data on two or more of these measures. The final continuous SES measure was also standardized around a mean of zero and a standard deviation of one. SES quartiles were created, based on the SES values for the full panel sample.

Perceptions of Educational Opportunity

Educational Expectations

The measure is based on teens' responses to the question, "How far in school do you think you will get?"[6] For the purposes of our analyses, educational expectations were collapsed into three dichotomous measures. The first measure -- *expects to complete high school* -- is coded to reflect respondents who reported they expected to complete high school or complete a level of education beyond high school. That is, respondents either expect to receive vocational training

[6] Teens were asked to select one of the following response categories: a) "won't finish high school", b) "will finish high school", c) "vocational, trade or business school after high school", d) "will attend college", e) "will finish college" or e) "higher school after college".

after high school, to attend college, to complete college, or receive a graduate or professional level degree (see footnote below). Thus, we presume that respondents interpreted this question to mean, "what is the highest level of education that you think you will complete," and therefore, assume that teens who believe they will complete a level of education beyond high school also believe they will finish high school.

The second measure distinguishes teens who *expect to attend college* versus teens who do not expect to go to college. Respondents who specifically report "attend college" and teens who report they "expect to complete college" or "go beyond college" are coded as expecting to attend college.

The third measure captures the extent to which respondents *expect to complete college*. Respondents who report they expect to complete college or go beyond college are given a value of "1". All other responses are coded as "0."

Certainty of Achieving Educational Expectations

The next set of measures captures how certain a teen is about achieving the level of education they expect to achieve. Thus, in answering this question, we presume the teen takes into consideration the feasibility of achieving her educational desires. In particular, it is assumed that how certain a teen is about achieving her expected level of education would be determined, in part, by the young woman's perception of her own capabilities as well as her perceptions about the level of opportunities and resources available to her to facilitate goal achievement.

Our measures regarding certainty of educational achievement are based on the teen's response to two questions: 1) "How sure are you that you will graduate from high school?", and

2) "How sure are you that you will go on for further education after you leave high school?". Response categories for these two questions range from "very sure will" to "very sure won't" graduate/go beyond high school.[7] We created three "certainty" measures based on teens' responses to these two questions. *Certainty of completing high school* is a dichotomous variable designed to distinguish students who are *very sure* they would complete high school from their counterparts who are not very sure about completing high school. Similarly, *certainty of going beyond high school* is coded to differentiate respondents who are *very sure* they will receive post-secondary education/training from respondents who are not very sure about achieving education beyond high school. The third measure captures certainty of educational achievement, irrespective of the amount of education expected.

Stability of Expectations Over Time

As perceptions of opportunity reflect one's personal experiences and the experiences of others within their own environment, it is possible that as youth encounter more and different experiences, perceptions may change to reflect those additional life events. This may be especially true of adolescents as they are at a pivotal stage of development. Indeed, studies of occupational, career aspirations and mobility orientations of youth document changes within and across cohorts in occupational goals and achievement desires (Jacobs, 1989; Dillard and Perrin, 1980; Regan and Roland, 1982).

To assess the impact of changes in perceptions over time, we developed a measure of the

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[7] Specific response categories include: a) very sure will, b) probably will, c) probably won't, d) very sure won't.

stability of educational expectations between the base year and first follow-up.[8] This measure is coded to indicate whether perceptions increased, decreased, or remained the same over that two-year period.

Occupational Expectations

Students responded in the base year to the question, "What kind of work do you expect to be doing when you are 30 years old?" For analysis purposes, we collapsed this question into three measures. The first measure -- *expects a professional occupation* -- is coded to measure students who reported that they expected an occupation in science/engineering, or a professional/business/managerial occupation, or to be a business owner. The second measure -- *minimum education required for desired occupation* -- is based on a census definition of minimum education recommended for the majority of occupations listed in each category.[9] This variable has four categories, ranging from less than high school to a college degree or higher. The third variable -- *needs a bachelor's degree for occupational expectation* -- measures those students who chose an occupation that requires a minimum of a college degree.

Educational Expectations Insufficient for Occupational Expectations

The next variable captures whether students had educational expectations that matched their occupational expectations. Based on the measure of minimum education required to achieve

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[8] As the presence of a birth could cause one to change their perceptions of opportunity, all bivariate analyses using the stability of expectations measure exclude those females who experienced a birth between the base year and first follow-up.

[9] For example, the category of "Professional, Business or Managerial" contains several occupations, ranging from a restaurant manager to a professor. The majority of these occupations require or recommend a Bachelor's degree or higher, so this category was coded as requiring a college degree.

Those students who reported "other," "not working," or "don't know" for occupational expectation were coded as missing for this variable.

occupational expectations and the measure of educational expectations, we created a measure for students who reported educational expectations that did not meet the minimum required for their occupational expectations.

FINDINGS

Description of Study Sample

Table 1 shows the background characteristics (measured when the students were in eighth grade) and fertility characteristics (measured at the third follow-up) of the study sample (N=6,313). Our sample consists primarily of white, non-Hispanic females (73 percent, n=4,324), but also includes ample numbers of black, non-Hispanic (12 percent, n=673), Hispanic (10 percent, n=813) and Asian (3.4 percent, n=429) respondents to allow for subgroup analyses.

In general, respondents come from moderately advantaged backgrounds. The majority of girls (80 percent) live in a two-parent family, 43 percent have at least one parent who has been to college, and slightly more than 1/4 have at least one parent with a college or professional degree. Eighty-eight percent live in a household where at least one parent is employed full-time, and 42 percent come from families where the annual family income is equal to or above $35,000.

As for fertility outcomes, we find that 17 percent of our respondents have had a first birth by the third follow-up, with 45 percent of those births occurring by age 17.

Insert Table 1 Here

Tables 2 and 3 show background and fertility characteristics by race/ethnicity and social class. Despite the moderately advantaged background overall, we find differences in background and fertility characteristics by race/ethnicity and SES in the expected direction. In particular, we find a smaller proportion of blacks than either whites, Hispanics or Asians come from two parent families, and a smaller proportion of blacks and Hispanics have at least one parent with a college or professional degree (Table 2). In addition, black and Hispanic females disproportionately come from low income families. In fact, more than half of all blacks (57 percent) and half of Hispanics live in families where the annual family income is less than $20,000, compared with roughly 20 percent of white and Asian respondents.

Early motherhood is also more prevalent among black and Hispanic girls. Nearly 1/4 of Hispanics and nearly 1/3 of blacks report giving birth by age 20 relative to 14 percent of whites and only 4 percent of Asians[10]. Teen births among these two subgroups also occur at earlier ages than births to whites and Asians. Roughly 1/3 of black teen mothers and 1/4 of Hispanic teen mothers have given birth by age 16.

Insert Table 2 Here

Distributions of background and fertility characteristics by social class also are in a direction consistent with previous research (Table 3). Females from the lowest social class

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[10]Because the number of births among Asians is small, this subgroup is excluded from bivariate analyses of perceptions and fertility status.

disproportionately live in a single parent family (36 percent), and have parent(s) whose highest level of education is less than high school (40 percent). They are also less likely to have at least one full-time employed parent (56 percent). Roughly 31 percent of girls from the lowest SES group have given birth by age 20, a proportion that is 1.6 times that of girls in the next highest SES bracket, and nearly nine times that of girls in the highest social class category. More than 1/4 of births to very low SES girls occurred by age 16.

Insert Table 3

The following Tables (4-14) present statistical differences in perceptions, using chi-square tests. In our discussion of specific racial/ethnic differences or of interactions between race/ethnicity and SES, we report only significant differences between specific racial/ethnic groups and between specific SES groups, based on CATMOD and GLM analyses.

Perceptions of Opportunity by Race/Ethnicity

Educational Opportunity

Given the strong racial/ethnic and social class distinctions in background characteristics of our study sample, we examine perceptions of opportunity and the extent to which notions of life options may be associated with race and social class subgroups. Table 4 shows perceptions of educational opportunity by race/ethnicity. We find that overall, eighth grade girls have fairly

high educational goals. Virtually all girls, irrespective of race/ethnicity expect to finish high school (roughly 99 percent), and even a substantial proportion expect to go to college (81 percent). Asians are most likely (93 percent) and Hispanics least likely (74 percent) to expect to attend college. However, girls are not as confident about reaching their educational goals, as approximately 2/3 state they are very sure they will achieve their expected level of education.

Insert Table 4 Here

Differences by race/ethnicity become more striking for expectations to complete college and certainty about completing educational goals. Table 4 shows that there are significant racial/ethnic differences in the percentage of students expecting to complete college, based on chi-square analyses. Additional CATMOD analyses (not presented in tables) show specific racial/ethnic differences. For instance, Asians (75 percent) and whites (70 percent) are more likely than either blacks or Hispanics to expect a college degree (66 percent and 57 percent respectively). However, blacks are as certain as Asians about attending college (73 percent), and are more certain than either whites (65 percent) or Hispanics (48 percent) about securing post-secondary education. Conversely, Hispanics are the least certain of all race/ethnicity subgroups about reaching their educational goals. A little more than half of Hispanics (52 percent) report being very sure of achieving their educational goals, compared with 72 percent of blacks, and roughly 2/3 of whites and Asians.

Finally, race/ethnicity appears to be associated with the stability in educational expectations

over time. In particular, Asian and white girls are most likely to maintain the same educational goals between 8th and 10th grade (62 percent and 50 percent, respectively), while a higher proportion of black females report fluctuations in educational goals. Some 60 percent indicate a change in their educational plans between base year and first follow-up.

Occupational Opportunity

As with educational plans, girls have fairly high ambitions with respect to their future occupational plans (Table 5). Roughly half of all girls expect to be working in some type of professional occupation[11]. This proportion is consistently high across all racial/ethnic subgroups, although Asians and blacks are somewhat more likely than whites and Hispanics to expect to be working in a professional field at age 30.

Given the number of women expecting professional jobs, we determined that most girls will need a minimum of a college degree to secure the type of professional occupation they expect. Asians are most likely (76 percent) and Hispanics least likely (58 percent) to expect an occupation that requires a bachelor's degree. Yet, Asians and Hispanics may be a bit more unrealistic than either whites or blacks about what may be required for the kind of occupations they desire. We find that 16 percent and 17 percent of Asians and Hispanics respectively expect a level of education that is less than the minimum required for the type of occupation they expect, relative to roughly 10 percent and 12 percent of whites and blacks respectively.

[11]Professional occupation includes jobs categorized as: professional/managerial, science/engineering, and proprietor.

Insert Table 5 Here

Perceptions of Opportunity by Social Class

Educational Opportunity

Variability in perceptions of educational opportunity also emerge across social class subgroups, as indicated by Tables 6. In fact, we find a strong linear relationship between perceptions of opportunity and social class, particularly when post-secondary education plans and certainty of completing educational plans are considered. However, there are a few measures where the contrast is particularly striking for one SES group (usually the highest or lowest) relative to all other social class groups.

In Table 6 we find that girls from the lowest SES groups are significantly less likely than higher SES girls to expect a college education, in particular, a college degree. We find that 64 percent of girls from the lowest social class and 76 percent of girls from the second lowest social class expect to go to college. Proportions among the two highest SES groups are between 90 and 97 percent. Similarly, less than half of all girls from the lowest social class and just 60 percent of girls from the second lowest SES group expect to complete college relative to more than 77 percent and 91 percent of second highest SES and highest SES girls.

In addition, lower SES respondents are less certain that higher SES girls about achieving their educational plans, although differences are quite marked even between girls in the two highest social class subgroups. For instance, only 47 percent of girls from the lowest SES quartile

and 57 percent of girls from the second lowest SES quartile report they are very sure of going beyond high school. This proportion reaches 69 percent among girls from the second highest SES group, but is as high as 86 among girls from the highest social class.

Likewise, very high SES girls show the most stability in educational expectations over time. We find that 61 percent of girls from the highest SES group report the same expectations for school between 8th and 10th grade. Between 43 and 49 percent of girls from the other SES groups report no change in their educational plans.

Insert Table 6 Here

Occupational Opportunity

In Table 7 we present distributions of perceptions of occupational opportunity by social class. The linear relationship observed with educational expectations also emerges in this table. Specifically, the proportion of girls expecting to work in a professional occupation by age 30 consistently increases as social class increases, going from 36 percent among girls in the lowest social class to 60 percent among girls in the highest social class.

Also, we find that the proportion of girls who will need a minimum of a college degree to secure their desired professional job increases across social class. About half of very low SES girls will, at a minimum, need a college degree to gain employment in their chosen professional career, versus 80 percent of girls from the highest social class group.

In addition, lower SES girls appear less knowledgeable about the requirements for specific

occupations. We find that 17 percent of girls from the two lower SES groups expect a level of education that is insufficient for their occupational plans. This proportion is twice that of girls from the second highest social class and nearly five times that of girls from the highest SES subgroup.

Insert Table 7 Here

Perceptions of Opportunity by Social Class and Race/Ethnicity

Educational Opportunity

Given the strong linear relationship between social class and perceptions of opportunity, we examine whether this association holds for all racial/ethnic subgroups. However, before discussing this next set of findings, we remind the reader that race/ethnic subgroups are not evenly distributed across SES categories, as mentioned in the description of the study sample (Table 2). Specifically, blacks and Hispanics are disproportionately in the lowest SES group, and Asians disproportionately in the highest SES group, leading to diminished weighted sample sizes within specific SES subgroups for certain racial/ethnic respondents. Therefore, any interpretations drawn from associations of race and SES with perceptions are done with caution.

Having noted the caveats regarding our assessment of race and SES interactions, we discuss data on educational perceptions by social class for each racial/ethnic subgroup shown in Tables 8 through 11. In particular, two key findings emerge from these analyses. First, there is generally a significant relationship between SES and perceptions across race/ethnicity, although

a linear relationship is only found consistently for white females (Table 8). A linear pattern also emerges for most measures among Hispanic girls (Table 9). Among blacks and Asians (Tables 10 and 11), we still find a significant association between SES and most measures of educational and occupational expectations, even though no consistent pattern in that association *across* SES emerges. Furthermore, measures of educational stability and expectations for high school (Hispanics), and expectations for college and certainty of completing high school (Asians), fail to demonstrate a significant relationship with SES.

Insert Table 8 Here

Among white females (in Table 8), we see a significant linear association between SES and perceptions of educational and occupational opportunity. That is. generally as SES increases, expectations increase or shift in the expected direction. This relationship is especially clear for expectations for a college degree, where the proportion expecting to complete college goes from 43 percent for very low SES girls to a high of 91 percent for very high SES girls. This pattern is also striking for our measure of certainty of post-secondary education. Roughly 40 percent of girls from the lowest SES subgroup state they are very sure they will go beyond high school, and this proportion increases gradually to a high of 86 percent among girls from the highest SES group.

In Table 9, we examine the association of SES and expectations for Hispanic females. In particular, we find a linear association between social class and virtually all of the measures of expectations. The pattern is striking for expectations to complete college, (48 percent to 93

percent across low to high SES) and certainty of goal completion (43 percent to 75 percent acros s SES).

The exception in this pattern includes stability in expectations over time, where no significant relationship between this measure and SES for Hispanics is observed.

Insert Table 9

In Table 10, we examine the relationship of SES and expectations among black females. We note that only three of our measures of educational opportunity show a linear relationship across SES for black girls. These measures include expectations for high school, and expectations for attending and completing college. In general, our measures of certainty about achieving educational expectations show proportions for black girls in the 2nd lowest SES subgroup that are somewhat different than expected. Specifically, we note that 75 percent of black girls from this SES subgroup, expect a job that requires a college degree. This proportion is significantly greater than the proportion of very low SES black girls (58 percent), but is not statistically different that the proportion of moderately high SES girls (68 percent). Thus, black girls from the two middle SES groups tend to be comparable in the kind of occupations they expect, at least in terms of the kind of education that may be required for those occupations.

Insert Table 10

Finally, in Table 11, we examine the associations of SES and expectations for Asian girls. In general, none of our measures shows a consistent linear relationship with SES. In fact, we find a great deal of inconsistency in expectations across SES for this ethnic subgroup, although several of the proportions appear to be higher for certain SES subgroups than expected. For instance, data show a lower proportion of Asian girls from the second lowest SES group express certainty about going beyond high school compared with Asians from the lowest SES subgroup. However, this proportion (55 percent) is not significantly different than the proportion of the lowest SES group or the second highest SES group, according to CATMOD analyses. We acknowledge that these patterns may be due to the relatively small weighted sample sizes for certain SES subgroups of Asians, and are hesitant to attribute them to any real effect of SES among Asians.

Insert Table 11

Apart from understanding the linear association of SES and expectations across race/ethnicity, we examined whether *within* SES subgroups, race/ethnicity differences emerged. Appendix Table B presents educational perceptions by race/ethnicity within social class subgroups. These differences occur most consistently within the lower social class subgroups. Specifically, we note that generally Asian and black girls from the lowest SES groups report higher average educational expectations than whites and Hispanics of similar social class; a greater proportion expect to attend college and expect to complete college than either low SES whites or Hispanics; and a greater proportion of blacks and Asians are very sure about securing post-secondary education or training than whites and Hispanics from lowest SES groups. In addition,

blacks in the lowest SES group are most sure that they will complete high school and most certain that they will achieve their educational expectations.

As for occupational opportunity, in Appendix Table C, we see similar patterns to those described above, although substantially fewer associations reach statistical significance. For instance, we find no interaction of race and social class with respect to expectations for a professional career. However, among the lowest SES girls, blacks and Hispanics are the most likely to expect occupations that require a minimum of a college degree. Among girls from the second lowest SES group, blacks and Asians report expected careers that require a college education. Finally, a higher proportion of Asian girls from the 2nd lowest SES quartile than all other girls from this SES subgroup show educational expectations that are insufficient for their occupational desires. However, findings for Asians should be interpreted with caution as large differences in sample size may have contributed patterns observed.

Perceptions of Opportunity and Fertility Outcomes

Our final set of analyses examines the association between our measures of perceptions and a first birth before age 20. Tables 12 through 14 present bivariate associations for the full sample, by race/ethnicity and by social class respectively. We note that due to a small number of teen births among Asians, this ethnic subgroup has been excluded from the final set of bivariate analyses.

In Table 12 we find that each measure of perceptions of opportunity is significantly associated with adolescent fertility. Generally, high expectations, particularly post-secondary education/training and desires for an occupation that require a college degree are protective

against fertility during adolescence. We find that a higher proportion of girls who avoided having a birth prior to age 20 had expectations to go to college and to complete college in the 8th grade. Specifically, 85 percent of girls who did not have a birth expected at eighth grade to *attend* college compared with only 63 percent of eighth graders who became teen mothers during the study period. Similarly, 73 percent of non-mothers expected to *complete* college while in eighth grade compared with less than half (46 percent) of teen mothers.

Insert Table 12 Here

Table 12 also indicates that girls who avoid teen motherhood are more certain about completing their educational goals. We find that 87 percent of non-mothers were very sure about completing high school at the base interview, and 68 percent were very sure about going beyond high school, compared with 75 percent and 47 percent of teen mothers respectively.

In addition, teen mothers are more likely than non-mothers to show fluctuations in educational plans between base year and first follow-up. It should be noted this measure excludes teens who became mothers between the 8th and 10th grade. That is, change in educational expectations is measured before the presence of a birth. Thus, changes in educational expectations are not a result of changes in parenting status over time.

Finally, our data suggest that females who successfully avoid an early birth are more likely than teen mothers to expect as an early adolescent to be working in a professional occupation by age 30 (50 percent versus 36 percent), are more likely to expect a professional career that requires a college degree (67 percent versus 50 percent), and are less likely to expect a level of education

insufficient for the occupation they desire (10 percent versus 16 percent).

In Table 13, we examine the association of perceptions and fertility by race/ethnicity. We find that the relationships described above generally hold, although not for all racial/ethnic groups. In particular, findings suggest the protective relationship between perceptions and fertility status emerges consistently for white girls, and is generally observed among black and Hispanic girls with two exceptions. First, stability of expectations over time has no significant association with fertility status of black girls and only reaches significance for Hispanic girls at $p < 0.10$. The second exception is that blacks and Hispanics, irrespective of fertility status, have educational expectations that are insufficient for their occupational plans.

Table 14 shows educational and occupational plans and fertility status by social class. In general we find that high educational and occupational plans are associated with a delay in childbearing, although this relationship does not emerge across all social class groups or for all measures. For instance, expectations for post-secondary education (to attend college and to complete college) and certainty about securing education beyond high school are consistently associated with fertility status, irrespective of SES. Specifically, a higher proportion of girls who do not have a birth expect to attend college, expect to complete college, and are very sure about going beyond high school in eighth grade, compared with girls who go on to become teen mothers.

Insert Tables 13 & 14 Here

On the other hand, expectations to complete high school and stability of expectations do

not consistently show a significant relationship with fertility status across social class. First, irrespective of eventual fertility status before age 20, virtually all girls from the highest SES groups expect to complete high school as of the base year. Thus, fertility status distinguishes low SES girls with expectations for high school, but does not differentiate higher SES girls with expectations for high school.

Second, only fertility outcomes among girls from more working class and moderate SES groups (2nd lowest and 2nd highest SES quartiles) are significantly associated with stability of expectations over time. In particular, 35 percent of teens mothers from the 2nd lowest SES group experienced a decline in educational expectations between 8th and 10th grade versus one-quarter of delayed childbearers from the same social class. Similarly, 42 percent of teen mothers from the 2nd highest SES group showed a decline in expectations between the base year and first follow-up; only 25 percent of females from the same class who avoided motherhood expected a lower level of education by the first follow-up.

Third, expectations for a professional occupation and whether a college degree is required for one's expected occupation demonstrate a significant association with fertility status. In addition, the association emerges only among girls from the two middle SES subgroups. Girls who experience a birth before age 20 are less likely than non-childbearing females to expect to work in a professional occupation at age 30 when they are in eighth grade. Similarly, teen mothers are less likely than childless females to expect an occupation that requires a minimum of a college degree.

Finally, knowledge about educational requirements for a specific occupation is associated with fertility only among girls from the highest social class subgroup. Very high SES girls who

experienced a birth before age 20 are 4.5 times more likely than non-mothers to expect a level of education that is too low for acquiring their expected occupation when they are in eighth grade.

DISCUSSION

Our study examines multiple ways to capture perceptions of opportunity using data from a contemporary sample of adolescent females. Our measures include educational and occupational expectations, measures regarding the level of certainty about goal completion, stability in expectations over time, occupational plans for a professional career, the minimum level of education required for a desired education, and whether educational plans match young women's occupational plans.

Young women in our sample report fairly high educational ambitions. Virtually all girls expect to complete high school and a substantial proportion expect to go to college, and even complete college. In addition, about half expect a professional career in adult life, and seek an occupation that requires, at a minimum, a college degree. Despite these fairly ambitious goals, young women also temper their educational plans, even as early as eighth grade. We find that girls are not completely certain about completing their educational plans, and some may even be misinformed or uninformed about the level of education required for their desired occupation. Fertility status is associated with educational and occupational plans, with delayed childbearing significantly linked with higher and more ambitious educational and occupational plans (e.g., professional occupation), greater certainty of achieving those plans, and stability in educational plans over time.

While one can argue that each measure reflects legitimate ways to capture young women's

perceptions of opportunity, not all measures distinguish respondents equally well across population subgroups or by fertility status. First, our measures tend to show greater variability across SES subgroups than race/ethnicity. Our findings show a strong and consistent linear relationship between perceptions of opportunity and SES. That is, expectations for the future increase with each increasing level of social class. Perhaps this linear relationship is, in part, a reflection of the ordinal nature of our SES measure, a characteristic that is not indicative of our measure of race/ethnicity. However, we suspect that an inability to distinguish consistently across race/ethnicity reflects the inability of our measures to tap into cultural distinctions with regard to perceptions of opportunity. Indeed, the measures we use tend to reflect broad values regarding education and employment. They do not address cultural notions regarding barriers to goal achievement that may involve issues of racial or ethnic discrimination or the appropriateness of specific roles for women given one's cultural orientation or belief system. Our findings provide one hint that a lack of resources and exposure to opportunities by low income and non-white girls may contribute to less knowledge about the world of work. Particularly, low SES girls, and Asians and blacks are less knowledgeable about the amount of education required for specific occupations and tend to expect a level of education that will be insufficient for the kind of occupation they intend to have. This finding suggests that additional efforts to develop measures that address issues of opportunity specific to culture or social class would be worthwhile.

Our analyses also suggest a relationship between social class and race/ethnicity that may be different from the independent association of either SES or race. For instance, the linear relationship of SES and perceptions generally holds for whites and Hispanics, but is less than consistent for blacks and Asians. While caveats regarding sample size, particularly for Asians,

urge us to be cautious with our interpretation of these findings, we are nonetheless intrigued by these differences. More definitive conclusions await further and more detailed analyses.

Finally, we note that our measures of perceptions easily determine fertility status of female respondents, although not all measures do so equally well across social class and race/ethnicity. In fact our measures of perceptions tend to distinguish fertility of working class (SES II) and more moderate SES girls (SES III), than fertility of either very low or very high SES respondents.

Although multivariate analyses will be needed to determine which measures ultimately predict fertility, net of background and other intervening measures, our work clearly indicates the importance of assessing the appropriateness of measures across a variety of population subgroups, and how the use of certain measures may lead to conclusions about the link between perceptions and fertility that may not be truly valid. Further work on the rational choice theory will need to expand existing methodological efforts, to develop culturally and class specific constructs of perceptions of opportunity, and incorporate these measures into rigorous empirical studies of adolescent childbearing. It is through this type of methodological work that one will come to fully understand of the rational choice theory of early childbearing.

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Table 1:
Background and Fertility Characteristics
Total Sample - Female Eighth Graders, NELS 88 (Weighted)

	Total Sample (N=6313)
Background & Fertility Characteristics	%
Family Composition	
Two parent	80.3
Single Parent	17.2
Other Adult Relative/Non-Relative	2.5
Highest Parental Education	
<HS	11.3
HS	20.2
Some College	42.7
College and Beyond	25.9
% At least one Parent Employed Full-Time	87.5
Annual Family Income	
< $10,000	12.8
$10,000 - $19,999	15.6
$20,000 - $34,999	29.2
$35,000 - $49,999	21.2
$50,000+	21.2
SES Quartile	
1 (Lowest)	25.3
2	26.4
3	24.3
4 (Highest)	24.0
Race/Ethnicity	
White Non-Hispanic	72.9
Black Non-Hispanic	12.4
Hispanic	10.1
Asian	3.4
Native American	1.3
% Had a birth before age 20	16.9
Age at first birth (among those who have given birth)	
<=16	19.8
17	25.5
18	25.1
19	29.7

Tabulated by Child Trends, Inc.

Table 2:
Background and Fertility Characteristics
by Race/Ethnicity (Weighted)
Base Year, NELS:88

Variables	White Non-Hispanic (N=4324)	Black Non-Hispanic (N=673)	Hispanic (N=813)	Asian (N=429)
Family Composition				
Two parent	84.4	54.0	80.4	87.5
Single Parent	14.0	37.9	17.3	10.4
Other Adult Relative/Non-Relative	1.6	8.1	2.3	2.0
Highest Parental Education				
<HS	6.7	17.6	36.6	8.4
HS	20.6	22.6	17.7	13.2
Some College	43.1	47.5	36.0	29.3
College and Beyond	29.6	12.3	9.6	49.1
% At least one Parent Employed Full-Time	90.8	71.9	83.7	90.9
Annual Family Income				
< $10,000	7.6	35.6	22.0	7.0
$10,000 - $19,999	12.7	21.6	28.3	13.8
$20,000 - $34,999	30.5	22.6	31.5	22.2
$35,000 - $49,999	24.6	10.9	10.9	20.7
$50,000+	24.5	9.3	7.4	36.3
SES Quartile				
1 (Lowest)	17.9	48.7	50.4	15.1
2	26.5	27.4	26.9	21.2
3	27.6	14.4	14.3	21.5
4 (Highest)	27.9	9.5	8.5	42.1
% Had a birth before age 20	14.3	29.6	23.0	4.2
Age at first birth (among those who have given birth)				
<=16	14.8	32.5	23.2	18.5
17	28.7	19.1	20.7	27.3
18	25.3	22.5	25.2	42.1
19	31.1	25.9	30.9	12.1

Tabulated by Child Trends, Inc.

Table 3:
Background and Fertility Characteristics
by SES (Weighted)
Base Year, NELS:88

Variables	Lowest Quartile (N= 1707)	2nd Lowest Quartile (N=1626)	2nd Highest Quartile (N 1478)	Highest Quartile (N=1503)
Family Composition				
Two parent	57.7	77.8	91.1	94.9
Single Parent	36.0	20.1	7.6	4.7
Other Adult Relative/Non-Relative	6.3	2.0	1.4	0.3
Highest Parental Education				
<HS	39.6	4.6	0.1	0.0
HS	30.7	39.1	8.6	0.0
Some College	28.4	51.0	78.3	12.5
College and Beyond	1.3	5.3	13.0	87.5
% At least one Parent Employed Full-Time	56.0	95.9	99.0	99.8
Annual Family Income				
< $10,000	45.9	4.3	0.2	0.0
$10,000 - $19,999	31.9	24.6	4.0	0.4
$20,000 - $34,999	18.4	49.6	36.3	10.8
$35,000 - $49,999	3.0	16.3	43.1	23.4
$50,000+	0.8	5.1	16.3	65.4
% Had a birth before age 20	30.9	19.1	13.2	3.5
Age at first birth (among those who have given birth)				
< 16	27.5	15.2	10.3	11.5
17	20.5	24.9	42.2	11.4
18	24.8	29.2	18.2	28.6
19	27.3	30.6	29.3	48.5

Tabulated by Child Trends, Inc.

Table 4:
Perceptions of Educational Opportunity
Total Sample and by Race/Ethnicity (Weighted)
Base Year, NELS:88

Variables	Total Sample (N=6313)	White Non-Hispanic (N=4324)	Black Non-Hispanic (N 673)	Hispanic (N=813)	Asian (N=429)
*Educational Expectations****					
< HS	1.0	0.8	1.2	2.2	0.6
HS	9.1	9.3	8.1	10.8	3.9
Vocational/trade/business	8.6	8.4	8.0	13.1	2.8
Attend College	13.0	11.5	16.5	17.1	18.0
Complete College	43.1	45.9	35.7	35.3	35.2
Graduate/Professional School	25.1	24.2	30.4	21.5	39.4
*Expect to Complete High School or Beyond****	99.0	99.2	98.8	97.9	99.4
*Expect to Attend College****	81.2	81.5	82.6	73.9	92.6
*Expect to Complete College****	68.2	70	66.1	56.8	74.6
*Certainty of Completing High School****					
Very Sure	84.3	86.3	85.0	70.6	82.5
Not Very Sure	15.7	13.7	15.0	29.4	17.5
*Certainty of Going Beyond High School****					
Very Sure	64.2	65.0	72.7	48.3	73.4
Not Very Sure	35.8	35.0	27.3	51.7	26.6
*Certainty of Achieving Educational Expectations****					
Very Sure	67.0	68.6	71.6	52.2	65.9
Not Very Sure	33.0	31.4	28.4	47.8	34.1
*Stability of Educational Expectations (Base Year to 1st Follow-up)****					
Expectations increased	25.2	24.5	29.7	23.7	20.2
Expectations decreased	26.8	25.7	30.8	31.9	18.1
Expectations unchanged	47.9	49.8	39.6	44.4	61.8

*** p<.001

Tabulated by Child Trends, Inc.

Table 5:
Perceptions of Occupational Opportunity
Total Sample and by Race/Ethnicity (Weighted)
Base Year, NELS:88

Variables	Total Sample (N=6313)	White Non-Hispanic (N=4324)	Black Non-Hispanic (N=673)	Hispanic (N=813)	Asian (N=429)
*Occupation Expected at age 30****					
Professional	47.6	47.0	52.9	42.6	58.6
Non-Professional	52.4	53.0	47.1	57.4	41.4
*Minimum Education Required for Desired Occupation****					
< HS	15.8	17.3	10.5	15.2	8.5
HS	14.0	13.6	14.0	18.3	11.1
Some College	5.4	4.5	8.2	8.2	4.9
B.A.+	64.7	64.6	67.3	58.2	75.5
Expected Education < Minimum Required for Expected Occupation***	11.6	10.3	12.7	16.6	15.6

*** p<.001

Tabulated by Child Trends, Inc.

Table 6:
Perceptions of Educational Opportunity
Total Sample and by SES Quartile (Weighted)
Base Year, NELS:88

Variables	Total Sample (N = 6313)	Lowest Quartile (N=1707)	2nd Lowest Quartile (N =1626)	2nd Highest Quartile (N=1478)	Highest Quartile (N=1503)
*Educational Expectations****					
< HS	1.0	2.9	0.7	0.2	0.1
HS	9.1	19.4	11.2	4.2	1.3
Vocational/trade/business	8.6	13.4	12.2	6.5	1.8
Attend College	13.0	16.9	15.7	12.5	6.1
Complete College	43.1	31.0	43.5	50.3	48.3
Graduate/Professional School	25.1	16.3	16.7	26.3	42.4
*Expect to Complete High School or Beyond****	99.0	97.1	99.3	99.8	99.9
*Expect to Attend College****	81.2	64.1	76.0	89.1	96.9
*Expect to Complete College****	68.2	47.2	60.2	76.6	90.8
*Certainty of Completing High School****					
Very Sure	84.3	74.3	83.1	87.6	93.2
Not Very Sure	15.7	25.7	16.9	12.5	6.8
*Certainty of Going Beyond High School****					
Very Sure	64.2	46.7	57.4	69.0	85.6
Not Very Sure	35.8	53.3	42.6	31.0	14.4
*Certainty of Achieving Educational Expectations****					
Very Sure	67.0	55.3	62.2	68.6	83.4
Not Very Sure	33.0	44.7	37.8	31.4	16.6
*Stability of Educational Expectations (Base Year to 1st Follow-up)***					
Expectations increased	25.2	25.2	25.1	24.2	21.7
Expectations decreased	26.8	31.6	27.8	27.0	17.7
Expectations unchanged	47.9	43.2	47.2	48.8	60.6

**p<0.01 *** p<.001

Tabulated by Child Trends, Inc.

Table 7:
Perceptions of Occupational Opportunity
by SES Quartile (Weighted)
Base Year, NELS:88

Variables	Total Sample (N=6313)	Lowest Quartile (N=1707)	2nd Lowest Quartile (N=1626)	2nd Highest Quartile (N=1478)	Highest Quartile (N=1503)
*Occupation Expected at age 30****					
Professional	47.6	35.9	45.7	49.3	59.9
Non-Professional	52.4	64.1	54.3	50.7	40.1
*Minimum Education Required for Desired Occupation****					
< HS	15.8	22.8	16.6	14.8	9.7
HS	14.0	20.2	14.8	13.6	7.7
Some College	5.4	6.3	7.3	5.5	2.2
B.A.+	64.7	50.7	61.3	66.1	80.4
Expected Education < Minimum Required for Expected Occupation***	11.6	16.5	16.8	8.8	3.6

*** p<.001

Tabulated by Child Trends, Inc.

Table 8:
Perceptions of Educational and Occupational Opportunity
By Race/Ethnicity and SES (Weighted)
Base Year, NELS 88

	White Non-Hispanic			
	SES Quartile			
Individual Perceptions	Lowest	2nd Lowest	2nd Highest	Highest
*Expect to Complete High School or Beyond****	97.0	99.2	99.9	99.9
*Expect to Attend College****	56.5	74.2	88.8	97.4
*Expect to Complete College ****	42.8	58.8	77.3	91.0
*Very Sure Will Complete High School ****	74.9	83.8	88.5	93.9
*Very Sure Will Go Beyond High School ****	39.7	55.3	69.0	85.8
*Very Sure Will Achieve Educational Expectations (whether HS or college)****	55.0	60.9	69.2	84.0
Stability of Educational Expectations				
Expectations increased+	25.9	22.8	26.8	23.0
Expectations decreased***	31.2	27.4	27.1	19.2
Expectations unchanged***	42.9	49.7	46.1	57.8
*Expects Professional Occupation at Age 30****	31.1	42.1	49.1	59.4
*College Degree Required for Expected Occupation****	45.8	58.3	66.4	79.4
*Educational Expectations Insufficient for Occupational Expectations****	16.2	15.7	8.6	3.8
N	861	1153	1152	1158

***p<.001

Table 9
Perceptions of Educational and Occupational Opportunity
By Race/Ethnicity and SES (Weighted)
Base Year, NELS 88

	Hispanic			
	SES Quartile			
Individual Perceptions	Lowest	2nd Lowest	2nd Highest	Highest
Expect to Complete High School or Beyond	97.1	98.5	97.9	100.0
*Expect to Attend College****	68.0	70.4	86.0	99.2
*Expect Complete College****	47.8	58.3	64.2	92.5
*Very Sure Will Complete High School****	63.5	72.4	79.9	90.9
*Very Sure Will Go Beyond High School****	39.9	47.7	60.3	78.7
*Very Sure Will Achieve Educational Expectations (whether HS or college)****	43.0	56.2	62.6	75.1
Stability of Educational Expectations				
Expectations increased	23.7	24.4	24.6	20.7
Expectations decreased	35.5	28.2	24.5	34.5
Expectations unchanged	40.8	47.4	50.9	44.8
*Expects Professional Occupation at Age 30**	38.3	45.3	42.2	59.5
*College Degree Required for Expected Occupation****	54.1	57.3	57.9	86.1
*Educational Expectations Insufficient for Occupational Expectations**	20.8	15.3	12.9	3.5
N	405	205	126	77

**p<.01
***p<.001

Table 10
Perceptions of Educational and Occupational Opportunity
By Race/Ethnicity and SES (Weighted)
Base Year, NELS 88

	Black Non-Hispanic			
	SES Quartile			
Individual Perceptions	Lowest	2nd Lowest	2nd Highest	Highest
*Expect to Complete High School or Beyond***	97.5	100.0	100.0	100.0
*Expect to Attend College****	75.4	87.5	91.5	92.1
*Expect to Complete College****	54.8	71.4	80.6	86.2
*Very Sure Will Complete High School**	82.0	87.2	84.9	93.0
*Very Sure Will Go Beyond High School****	66.3	77.9	76.3	85.1
*Very Sure Will Achieve Educational Expectations (whether HS or college)***	66.4	76.7	69.7	84.9
Stability of Educational Expectations				
Expectations increased***	26.0	40.4	29.1	17.8
Expectations decreased***	36.2	31.0	23.3	14.3
Expectations unchanged***	37.7	28.6	47.6	67.9
*Expects Professional Occupation at Age 30****	44.7	60.9	54.2	68.0
*College Degree Required for Expected Occupation****	58.2	75.3	68.3	85.5
*Educational Expectations Insufficient for Occupational Expectations***	14.4	16.6	7.1	1.7
N	327	161	106	79

*p<.05 **p<.01 ***p<.001

Table 11
Perceptions of Educational and Occupational Opportunity
By Race/Ethnicity and SES (Weighted)
Base Year, NELS 88

	Asians			
	SES Quartile			
Individual Perceptions	Lowest	2nd Lowest	2nd Highest	Highest
*Expect to Complete High School or Beyond**	95.8	100.0	100.0	100.0
Expect to Attend College	90.3	88.3	96.8	93.5
*Expect Complete College****	66.6	52.8	71.0	90.3
Very Sure Will Complete High School	74.7	85.4	82.5	83.8
*Very Sure Will Go Beyond High School ****	64.4	55.1	70.2	87.6
*Very Sure Will Achieve Educational Expectations (whether HS or college)****	54.5	51.9	61.2	79.3
Stability of Educational Expectations				
Expectations increased	31.2	31.8	22.7	17.7
Expectations decreased	19.6	35.7	17.0	20.6
Expectations unchanged*	49.3	32.5	60.3	61.7
*Expect Professional Occupation at Age 30**	34.6	70.8	57.0	60.9
*College Degree Required for Expected Occupation****	44.4	80.6	67.7	88.4
*Educational Expectations Insufficient for Occupational Expectations****	8.5	45.2	11.8	1.6
N	79	88	79	183

*p<.05
***p<.001

Table 12:
Perceptions of Educational and Occupational Opportunity
and Fertility Status Before Age 20
All Females - Base Year, NELS:88 (Weighted)

	Fertility Status	
Individual Perceptions	Birth	No Birth
Expect to Complete High School or Beyond ***	96.5	99.5
*Expect to Attend College****	63.3	84.5
*Expect to Complete College****	46.2	72.7
*Very Sure Will Complete High School****	74.5	86.6
*Very Sure Will Go Beyond High School****	46.6	67.7
*Very Sure Will Achieve Educational Expectations (whether HS or college)****	56.5	69.5
Stability of Educational Expectations[1]***		
Expectations increased	27.4	24.4
Expectations decreased	36.5	24.5
Expectations unchanged	36.1	51.1
*Expect Professional Occupation at Age 30****	36.0	49.5
*College Degree Required for Expected Occupation****	50.1	67.2
*Educational Expectations Insufficient for Occupational Expecations****	15.6	10.4
N	987	5327

*** p<.001

[1] Excludes females who had a birth between the base year and first follow-up. Birth n= 684, No Birth n=5184.

Tabulated by Child Trends, Inc.

Table 13:
Perceptions of Educational and Occupational Opportunity
and Fertility Status Before Age 20 by Race/Ethnicity (Weighted)
Base Year, NELS 88

	White Non-Hispanic			Black Non-Hispanic			Hispanic		
Individual Perceptions	Birth	No Birth		Birth	No Birth		Birth	No Birth	
Expect to Complete High School or Beyond	96.8	99.6	***	95.9	100.0	***	95.9	98.4	*
Expect to Attend College	62.5	84.7	***	66.6	89.4	***	61.7	77.5	***
Expect to Complete College	47.1	73.9	***	49.0	73.3	***	37.6	62.5	***
Very Sure Will Complete High School	76.6	88.0	***	77.3	88.2	***	60.5	73.6	***
Very Sure Will Go Beyond High School	43.4	68.4	***	63.0	76.8	***	35.3	52.1	***
Very Sure Will Achieve Educational Expectations (whether HS or college)	56.6	70.6	***	62.8	75.2	**	46.1	54.0	+
Stability of Educational Expectations									
Expectations increased	29.8	23.6	***	26.4	32.4		31.5	23.0	+
Expectations decreased	38.9	23.6		32.0	27.1		31.1	30.1	
Expectations unchanged	34.3	52.8		41.6	40.5		37.4	46.9	
Expect Professional Occupation at Age 30	34.1	49.1	***	44.7	56.2	**	31.2	45.9	***
College Degree Required for Expected Occupation	47.7	67.4	***	60.3	70.0	*	44.5	62.0	***
Educational Expectations Insufficient for Occupational Expectations	15.0	9.5	***	16.6	11.2		16.4	16.6	
N	564	3760		185	488		200	613	

+p<0.10 *p<0.05 **p<0.01 *** p<.001

Table 14:
Perceptions of Educational and Occupational Opportunity
and Fertility Status Before Age 20 by SES (Weighted)
Base Year, NELS 88

	SES QUARTILES											
	Lowest Quartile			2nd Lowest Quartile			2nd Highest Quartile			Highest Quartile		
Individual Perceptions	Birth	No Birth		Birth	No Birth		Birth	No Birth		Birth	No Birth	
Expect to Complete High School or Beyond	94.5	98.1	***	97.0	99.8	***	99.3	99.8		100.0	99.9	
Expect to Attend College	55.1	68.5	***	60.8	79.5	***	82.3	90.0	***	92.0	97.1	*
Expect to Complete College	37.9	51.7	***	42.7	64.3	***	67.5	77.9	***	73.8	90.9	***
Very Sure Will Complete High School	68.6	76.3	***	75.3	84.9	***	83.9	88.1	+	85.2	93.5	*
Very Sure Will Go Beyond High School	43.4	48.2	***	44.6	60.4	***	54.3	70.8	***	66.2	86.4	***
Very Sure Will Achieve Educational Expectations (whether HS or college)	54.7	55.5	+	57.0	63.3	*	58.0	69.8	***	66.7	84.1	***
Stability of Educational Expectations												
Expectations increased	27.0	26.2		27.8	25.1	**	25.1	25.0	**	39.3	22.4	+
Expectations decreased	37.6	28.8		34.6	26.3		41.7	25.0		19.9	19.3	
Expectations unchanged	35.4	44.9		37.6	48.6		33.2	50.0		40.8	58.3	
Expect Professional Occupation at Age 30	33.1	37.3		38.4	47.2	**	36.1	51.0	***	57.0	60.2	
College Degree Required for Expected Occupation	47.4	52.4		52.1	63.5	**	48.0	68.6	***	79.3	80.6	
Educational Expectations Insufficient for Occupational Expecations	18.2	15.8		16.9	16.8		7.6	8.9		17.2	3.8	***
N	496	1211		290	1336		150	1328		51	1452	

+p<0.10 *p<0.05 **p<0.01 *** p<.001

Appendix A: Definition, Range, and Percent/Mean Distribution of Family Background and Individual Perception Variables

Variables	Definition	Range	Percent or Variable Means
FAMILY BACKGROUND			
Family Composition	Who the student lived with in 1988 Two Parents Single Parent Other Adult Relative/Non-Relative		 80.3% 17.2% 2.5%
Highest Parental Education	The highest level of education attained by the student's parents. For single parent families, the measure reflects that parent's educational attainment. For two-parent families, parental education for the most educated parent is reflected. <HS HS Some College College and Beyond		 11.3% 20.2% 42.7% 25.9%
At least one Parent Employed Full-Time	Full-time employment is defined as working at least 35 hours or more during the past week. (1=Yes)	0-1	87.5%
Annual Family Income	Family income is the total income from all sources for 1987. < $10,000 $10,000 - $19,999 $20,000 - $34,999 $35,000 - $49,999 $50,000+		 12.8% 15.6% 29.2% 21.2% 21.2%
Highest Parental Occupation	Duncan SEI values were assigned to parent and parent's spouse/partner. For single parent families, the measure reflects that parent's occupation. For two-parent families, the highest Duncan SEI value is reflected.	7.33 - 70.21	50.9

Variables	Definition	Range	Percent or Variable Means
Family SES	Family SES was created by averaging highest parental education, employment status, family income, and highest parental occupation. (1=Low, 4=High)	1-4	2.5
Race/Ethnicity of the Student	White Non-Hispanic Black Non-Hispanic Hispanic Asian Native American		72.9% 12.4% 10.1% 3.4% 1.3%
% Had a birth before age 20	Student had a teen birth (1 Yes)	0-1	16.9%
Age at first birth (among those who have given birth)	Student's age at birth in years (1- ≤16, 2-17, 3-18, 4=19)	1-4	2.65
INDIVIDUAL PERCEPTIONS			
Expect to Complete High School or Beyond	Student expects to complete high school or beyond (1=Yes)	0-1	99.0%
Expect to Attend College	Student expects to attend college (1=Yes)	0-1	81.3%
Expect to Complete College	Student expects to complete college or beyond (1=Yes)	0-1	68.2%
Very Sure Will Complete High School	Student is very sure she will complete high school (1 Yes)	0-1	84.3%
Very Sure Will Go Beyond High School	Student is very sure she will go beyond high school (1=Yes)	0-1	64.2%
Very Sure Will Achieve Educational Expectations (whether HS or college)	Student is very sure she will achieve educational expectations whether they are high school or college (0=Very Sure, 1=Not Sure)	0-1	66.7%

Variables	Definition	Range	Percent or Variable Means
Stability of Educational Expectations Expectations increased Expectations decreased Expectations unchanged	Stability of educational expectations between the base year and the first follow-up. (1=decreased, 2=unchanged, 3=increased)	1-3	1.99
Expect Professional Occupation at Age 30	Student expects a professional occupation at age 30. (1=Yes)	0-1	47.6%
College Degree Required for Expected Occupation	Expected occupation requires a college degree (1=Yes)	0-1	64.7%
Insufficient Educational Expectations	Student's educational expectations are insufficient to attain occupational expectations. (1=Yes)	0-1	11.6%
N			6313

Appendix Table B:[1]
Perceptions of Educational Opportunity
by SES Quartile and Race/Ethnicity (Weighted)
Base Year, NELS:88

Individual Perceptions	SES Quartile			
	Lowest	2nd Lowest	2nd Highest	Highest
Average Educational Expectations (1=<HS. 6=graduate/professional school)				
White, Non-Hispanic	3.8	4.4	4.9	5.3
Black, Non-Hispanic	4.4	4.7	5.1	5.3
Hispanic	4.2	4.3	4.7	5.3
Asian	4.7	4.6	5.1	5.3
Significance	***	***	**	NS
Expect to Attend College				
White, Non-Hispanic	56.5	74.2	88.3	97.4
Black, Non-Hispanic	75.4	87.5	91.5	92.1
Hispanic	68.0	70.4	86.0	99.2
Asian	90.3	88.3	96.8	93.5
Significance	***	***	NS	**
Expect to Complete College				
White, Non-Hispanic	42.8	58.8	77.3	91.0
Black, Non-Hispanic	54.8	71.4	80.6	86.2
Hispanic	47.8	58.3	64.2	92.5
Asian	66.6	52.8	71.0	90.3
Significance	***	**	*	NS
Very Sure Will Complete High School				
White, Non-Hispanic	74.9	83.8	88.5	93.9
Black, Non-Hispanic	82.0	87.2	84.9	93.0
Hispanic	63.5	72.4	79.9	90.9
Asian	74.7	85.4	82.5	83.8
Significance	***	***	+	**

+p<0.10 *p<0.05 **p<0.01 *** p<.001 NS - Not Significant

[1] Significance levels reflect racial/ethnic differences within SES group

Appendix Table B (continued):[1]
Perceptions of Educational Opportunity
by SES Quartile and Race/Ethnicity (Weighted)
Base Year, NELS:88

Individual Perceptions	SES Quartile			
	Lowest	2nd Lowest	2nd Highest	Highest
Very Sure Will Go Beyond High School				
White, Non-Hispanic	39.7	55.3	69.0	85.8
Black, Non-Hispanic	66.3	77.9	76.3	85.1
Hispanic	39.9	47.7	60.3	78.7
Asian	64.3	55.1	70.2	87.6
Significance	***	***	NS	NS
Very Sure Will Achieve Educational Expectations (whether HS or college)				
White, Non-Hispanic	55.0	60.9	69.2	84.0
Black, Non-Hispanic	66.4	76.7	69.7	84.9
Hispanic	43.0	56.2	62.6	75.1
Asian	54.5	51.9	61.2	79.3
Significance	***	***	NS	NS
Stability of Educational Expectations Expectations increased				
White, Non-Hispanic	25.9	22.8	26.8	23.0
Black, Non-Hispanic	26.0	40.4	29.1	17.8
Hispanic	23.7	24.4	24.6	20.7
Asian	31.2	31.8	22.7	17.7
Significance	NS	***	NS	NS
Stability of Educational Expectations Expectations decreased				
White, Non-Hispanic	31.2	27.4	27.1	19.2
Black, Non-Hispanic	36.2	31.0	23.3	14.3
Hispanic	35.5	28.2	24.5	34.5
Asian	19.6	35.7	17.0	20.6
Significance	+	NS	NS	*

+p<0.10 *p<0.05 **p<0.01 *** p<.001 NS - Not Significant

[1] Significance levels reflect racial/ethnic differences within SES group

Appendix Table B (continued):[1]
Perceptions of Educational Opportunity
by SES Quartile and Race/Ethnicity (Weighted)
Base Year, NELS:88

Individual Perceptions	SES Quartile			
	Lowest	2nd Lowest	2nd Highest	Highest
Stability of Educational Expectations				
Expectations unchanged				
White, Non-Hispanic	42.9	49.7	46.1	57.8
Black, Non-Hispanic	37.7	28.6	47.6	67.9
Hispanic	40.8	47.4	50.9	44.8
Asian	49.3	32.5	60.3	61.7
Significance	NS	***	NS	+

+p<0.10 *p<0.05 **p<0.01 *** p<.001 NS - Not Significant

[1] Significance levels reflect racial/ethnic differences within SES group

Appendix Table C:[II]
Perceptions of Occupational Opportunity
by SES Quartile and Race/Ethnicity (Weighted)
Base Year, NELS:88

Individual Perceptions	SES Quartile			
	Lowest	2nd Lowest	2nd Highest	Highest
Expects Professional Occupation at Age 30				
White, Non-Hispanic	31.1	42.1	49.1	59.3
Black, Non-Hispanic	44.7	60.9	54.2	68.0
Hispanic	38.3	45.2	42.2	59.5
Asian	34.6	70.8	57.0	68.0
Significance	NS	NS	NS	NS
Average Minimum Education Required for Expected Occupation (1-4)				
White, Non-Hispanic	2.7	3.0	3.2	3.5
Black, Non-Hispanic	3.1	3.5	3.3	3.7
Hispanic	3.0	3.1	3.1	3.7
Asian	2.8	3.6	3.2	3.8
Significance	***	***	NS	+
Needs Bachelor's Degree for Occupational Expectation				
White, Non-Hispanic	45.8	58.3	66.4	79.4
Black, Non-Hispanic	58.2	75.3	68.3	85.5
Hispanic	54.1	57.3	57.9	86.1
Asian	44.4	80.6	67.7	88.4
Significance	**	***	NS	NS
Educational Expectations Insufficient for Occupational Expectations				
White, Non-Hispanic	16.2	15.7	8.6	3.8
Black, Non-Hispanic	14.4	16.6	7.1	1.7
Hispanic	20.8	15.3	12.9	3.5
Asian	8.5	45.2	11.7	1.5
Significance	NS	***	NS	NS

+p<0.10 **p<0.01 *** p<.001

[II] Significance levels reflect racial/ethnic differences within SES group

Tabulated by Child Trends, Inc.