WHEN DOES MONEY MATTER? EXAMINING THE EFFECT OF PARENTS'
PERCEPTIONS OF PAYING FOR COLLEGE ON STUDENTS' EXPECTATIONS
AND PREPAREDNESS BEHAVIORS

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Abstract

Research has shown that parents' knowledge of and access to financial aid affect
students' college enrollment and completion rates (Dynarski 2003; St. John, Paulsen and
Carter 2005; Perna 2000). Further study is needed, however, on the effect of parents'
perceptions of paying for college on the earlier stages of the college choice process,
including student's educational expectations, academic track, and steps toward preparing
for and applying to college. To conduct these analyses I use the first three waves of the
National Education Longitudinal Study which track students from 1988 when they are in
the eighth grade to 1992, the year of their scheduled high school graduation. Controlling
for individual and context level variables, I use linear regression models to predict the
extent to which parents are considering paying for college while the student is in eighth
grade. I then employ logistic regression models to estimate the effect of parents'
thoughts of paying for college on students' educational expectations, school track,
likelihood of taking the SAT or ACT and applying to college. I find that the extent to
which parents think about paying for college while their student is in the eighth grade
increases the likelihood that their student will harbor college expectations. This effect
then appears to mediate the relationship between parents' thoughts about college and the
likelihood that students report being on the college track, taking the SAT or ACT, and
applying for college in their senior year. These findings hold regardless of a family's
socioeconomic status, suggesting that information campaigns encouraging families to
begin thinking about paying for college earlier on may work to increase college readiness
in students.

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In the past few decades the real wages of college and advanced degree graduates have increased while those of high school graduates have declined (Mishel, Bernstein, and Schmitt 2001). A college degree has become increasingly important for labor market success (Carnevale & Fry 2000), yet access to this credential remains stratified by race and family income (Perna and Titus 2004; McPherson and Schapiro 1999). As labor market inequality grows so too does the importance of explaining patterns of inequality in educational attainment.

Low-income students and students of color are at a distinct disadvantage with respect to information about college and financial aid (Cabrera and LaNasa 2001; Venezia, Kirst, and Antonio 2003; Ikenberry and Hartle 1998). Although low-income students are fifty percent more likely to enroll in college today than they were three decades ago, the growth in enrollment rates of higher-income students has been just as great (Timpane and Hauptman 2004). A thirty-percentage point gap in college enrollment between low-income and high-income students has remained stable since the introduction of the Higher Education Act in 1965 (Perna 2002; Timpane and Hauptman 2004). The trends in access for racial minority groups relative to whites are similar. Although college enrollment increased between 1990 and 2000 for African Americans and Latinos, members of these groups remain significantly underrepresented both as undergraduates and degree recipients (Perna 2000).

Parents are the most influential "others" in a student's college choice process (National Postsecondary Education Cooperative 2007). Parents' perceived ability to pay and knowledge of and access to financial aid affect students' college enrollment and completion rates (Charles, Roscigno, and Torres 2007; Dynarski 2003; St. John, Paulsen and Carter 2005; Perna 2000). Further study is needed, however, on when parents begin to consider how they will finance their child's education and the factors that shape these perceptions.

Despite the important role that parents' perceptions of ability to pay for college play in students' educational decisions, there has been little research analyzing the factors

that affect the timing and content of parents' beliefs. A recent study examined parents' knowledge of college costs and the extent to which their estimates of college tuition rates varied by socioeconomic status or race (Grodsky and Jones 2007). The authors found that socioeconomically disadvantaged and minority parents were less likely to provide tuition estimates and made larger errors, which suggests that these parents are at a comparative disadvantage regarding knowledge about college costs. Lower socioeconomic status parents are also less likely to make plans to pay for college and are less knowledgeable about financial aid programs (Ikenberry and Hartle 1998; Flint 1992; Olson and Rosenfeld 1984). Only one study has focused specifically on the factors that affect parents' perceived ability to pay for college (Steelman and Powell 1991). The results suggested that, unsurprisingly, parental resources play a large role in parents' perceived ability to pay for college. In addition, the authors also found sibship size, ordinal position in the family, and test scores to predict parents' confidence that they could find money for college. While this study is a step in the right direction, one shortcoming of this research is that parents' perceptions were analyzed in the student's senior year. Research on a sample of students in Indiana suggests that parents begin thinking about paying for college as early as middle school and that their perceptions about their abilities to pay affect their students' college preparatory behaviors (Hossler, Schmit, and Vesper 1999). Therefore, it is important to examine these perceptions earlier in the educational pipeline. In addition, the authors did not control for race or social context, both of which may be important in predicting perceptions of ability to pay for college (Charles, Roscigno, and Torres 2007; McDonough 1997; Perna 2008).

It is vital that we investigate the factors that influence parents' thoughts and beliefs about paying for college much earlier in the educational pipeline. College is not a choice that many families can make on a whim; rather, it is an outcome for which families must mindfully prepare. Parents who plan for college as early as the eighth grade and who remain involved in their students' education increase the likelihood that their students will have the necessary qualifications to apply for college (Cabrera and La Nasa 2001). It is important to study parents' perceptions about their ability to pay for their child's education early on, because these beliefs may influence the probability that their child takes the necessary steps to prepare for and enroll in college. For this reason, I

focus on predicting the extent to which parents have thought about paying for college when their student is enrolled in the eighth grade. If racial and class disparities exist in the extent to which parents have thought about paying for college, these could eventually translate into the race and class disparities that we currently observe in college enrollment rates.

Once I have identified the factors that affect the extent to which parents have begun to think about paying for college when their students are in the eighth grade, I employ this measure as a covariate in models predicting the likelihood that students expect to go to college and report being on the college track in tenth grade and the likelihood that they take the SAT or ACT and apply to college by their senior year of high school. I expect the extent to which parents have thought about paying early on to significantly predict these college attitudes and preparedness behaviors later in the education pipeline.

Theoretical Perspectives

The most well-known model of educational attainment in the sociological tradition is the Wisconsin model of status attainment (Sewell and Hauser 1980, 1992). This path-model suggests that a student's academic ability and family background affect the educational expectations that her significant others hold for her. These expectations help shape the student's educational aspirations which then predict her ultimate educational attainment. After its initial development, the authors of the model noted that, due to missing variables in the equation, the importance of the effect of significant others' educational expectations on a student's educational attainment may be exaggerated (Haller 1982; Sewell and Hauser 1980).   For example, African-American students consistently report higher educational aspirations than similarly situated white students yet these do not translate into higher enrollments (Kao and Thompson 2003), as the Wisconsin model predicts. Particular glaring omissions in the model include "beliefs about the opportunity structure and beliefs about labor market rewards" (Morgan 2005), measures of perceived incentives or deterrents that could affect a student's educational attainment.

Another popular model of the college choice process suggests that there are three stages through which every college bound student progresses: *predisposition* to attend college, *search* for information about college, and the *choice* to enroll in college (Hossler, Braxton and Coppersmith 1989). This model suggests that access to information and beliefs about financial aid and paying for college could affect a student's *predisposition* to attend college, from the development of aspirations and expectations to the choice of courses in high school to the act of even applying to college. In a nine year longitudinal study of Indiana high school students and their parents, researchers showed that parental encouragement, which was defined as talking with students about college, and support, defined as saving for college or learning about financial aid, both had stronger effects than family income on the predisposition stage of the college choice process (Hossler, Schmit and Vesper 1999). However, two weaknesses of this study include that the data are not nationally representative and the sample was limited in ethnic diversity.

Morgan (2005) argues for a model of educational attainment that focuses even more on the role that money plays in a student's college choice process, one that assumes that students' behaviors and beliefs change in accordance with incentives, or perceived costs and returns to higher education. His model identifies the importance of beliefs about the costs and benefits of attending college, a factor affecting educational attainment that previous models have not acknowledged. These beliefs directly affect one's "purposive-prefigurative commitment," or educational expectations, which then affect one's "preparatory commitment," or the steps taken toward attending college such as taking the required courses (Morgan 2005). It is the student's preparatory commitment that ultimately decides her level of educational attainment. Morgan (2005) also includes in his model four sets of variables that predict beliefs about the costs and benefits of college. These include social context, or the influence of parents, peers, and significant others, individual capacities and interests, exogenous market-level costs and benefits, and structural context, such as one's community or school.

Research Questions and Hypotheses

In this paper I identify the factors that affect the extent to which parents who expect their children to go to college have begun to think about paying for college. I then

test the extent to which this effect is able to predict student outcomes later in the educational pipeline. Specifically, I predict the likelihood that students expect to attain at least a Bachelor's degree, report being on the college track, and take the SAT or ACT and apply to college by their senior year of high school.

First, in order to account for context, I include variables pertaining to family background and resources, such as socioeconomic status, family composition, and whether or not the family is currently paying college tuition for other children. These variables are important in explaining both parental knowledge of costs and investment in their children (Steelman and Powell 1991; Charles, Roscigno, and Torres 2007; Grodsky and Jones 2007). I include measures of peer expectations in the models predicting students' expectations and college preparedness behaviors by controlling for dummy variables indicating whether a student's friends think it is very important to continue education past high school and whether most or all of his/her friends plan to attend a four year college. I include a parental involvement measure in the final model indicating whether parents talk to their students about applying to college often or not. Finally, I include region of the country as a contextual control.

I expect that socioeconomic status will be positively associated with parents thinking about college early on, as well as with students' expectations and college preparedness behaviors, foreshadowing class inequalities in college enrollment rates. I expect non-intact families to be less likely than intact families to report having thought about paying for college and their children less likely to apply to college. I expect that parents who are currently covering tuition costs would be more likely to have thought about paying for college for their eighth grader than those without tuition bills. I expect that peer expectations of going to college will positively affect students' expectations and college preparedness behaviors. Finally, I expect that parents who speak with their students often about attending college will have students who are more likely to apply to college.

To account for individual capacities and interests in the base year, I include a standardized measure of students' ability and a dichotomous measure that indicates if a student aspires to at least four years of college. Human capital theory dictates that parents will be more likely to invest in a child's education that they believe will provide a

useful return. Therefore, I expect that parents of students who have high ability and express the desire to go to college will be more likely to have thought about paying when the student is in eighth grade and that these students will be more likely to expect to attend college and to exhibit the associated behaviors. As a control in the models predicting college expectations and preparedness behaviors, I include students' standardized test scores in the first follow-up. I expect this measure to be positively associated with the student outcomes.

In order to ascertain if racial disparities exist in parents' thoughts about paying for college, I include student's race in the models. Asian, African-American, Hispanic, and Native American parents are less likely to discuss college plans with their children and are not as involved in their student's high school program as white parents are (Charles, Roscigno, and Torres 2007).   Therefore, I expect that racial minorities will be less likely than whites to have thought about college. I also expect to see these racial differences in college expectations and preparedness behaviors. In addition, I include and interact an indicator variable for student's sex with ability, to allow for the possibility that sex may moderate the effects of ability on the extent to which parents have considered paying for college. Given that women on average see lower returns to their educational investments (Jacobs 1996), parents may view the expected returns to a girl's education as being lower than that of a boy's. Therefore, I hypothesize that student ability may have a greater effect on parents' perceptions to pay for girls than for boys, anticipating that girls may have to demonstrate greater intellectual ability in order for parents to begin thinking about paying for their college education.

Data and Methods

I use the first three waves of the National Education Longitudinal Study, which collected data from students, parents, and schools from 1988 when the students were in eighth grade to 1992. The NELS data set is well suited for this study. The data are representative of the United States population of eighth grade students, allowing for

generalizability. In addition, the first and third waves are accompanied by surveys of students' parents which include questions about paying for college.[1]

My first dependent variable is a standardized measure of the extent to which parents have thought about ten different statements related to paying for college. To create this variable, I first constructed a dichotomous measure for each of the ten items, scoring each with a 0 if parents reported that they "haven't thought about this yet" and 1 if they replied true or false. After conducting a factor analysis on the dichotomous measures and noting that all ten items had very high factor loadings I created a standardized measure for each item. Finally, I took the average of the total of the standardized measures for each case. The second dependent variable is a dichotomous measure for whether students indicate that they plan to attain at least a Bachelor's degree where 1 = Yes and 0 = No. The third dependent variable is a dichotomous measure for whether students report being on their high school's college track in course-taking where 1 = Yes and 0 = No. The fourth dependent variable indicates whether or not the student has taken either the SAT or ACT by his or her senior year of high school where 1 = Yes and 0 = No. Finally, the fifth dependent variable indicates whether a student has applied to a four year college in senior year where 1 = Yes and 0 = No.

Table 1 in the Appendix describes the outcome variables and covariates included in the models. To address the clustered nature of the data wherein students were sampled within schools I use OLS and logistic regression models with robust standard errors. I weight all analyses to adjust for oversampling, nonresponse, and survey attrition. Missing values were multiply imputed using the Stata *ice* program and I analyze all models with five complete data sets using Stata's *mim* command.

Results and Discussion

Table 2 reports the OLS regression analysis of the extent to which parents have thought about paying for college. I begin by exploring the effect of race alone. Model 1 in Table 2 shows that Asians and Hispanics report being less likely to have thought about

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[1] Only parents who respond that they expect their child to continue his or her education past high school answer questions related to their perceptions about paying for college. Accordingly, I include only these parents in my sample, which reduces my sample size by 10%.

paying than whites. By adding socioeconomic status to the model I find that African-Americans are more likely than whites to think about paying for college. When I control for other family background variables and individual characteristics, the difference between Asians, Hispanics, and African-Americans and whites remains stable. Specifically, Model 3 in Table 2 shows that parents of Asians and Hispanics are significantly less likely than parents of whites to report having thought about paying for college, while African-Americans are more likely than whites to have thought about it and Native Americans do not differ significantly from whites on this measure. This supports my hypothesis in part that racial minorities are less likely to have thought about these issues, although it is very interesting to note that once I control for socioeconomic status African-Americans are actually more likely than whites to have thought about paying for college early on.

<Table 2>

As expected there is a significant and positive effect of a family's socioeconomic status on the extent to which parents report having thought about paying for college, an effect that is consistent with past research. I also find positive and significant effects for single parent families as well as those families currently paying college tuition. While the single-parent finding is somewhat surprising, it could be that single parents are more sensitive to anticipated expenditures due to the burden of providing for their families on their own. The finding about parents who are currently paying for college supports my hypothesis that those who are paying for college for older siblings are also likely to think about paying for their child who has not yet started high school.

I also find a significant interaction between sex and ability. While the effect of ability for both boys and girls is positively associated with parents having thought about paying for college, the effect for girls is larger than it is for boys, suggesting that for boys and girls with an ability score of zero, which is slightly lower than the sample mean, or more the parents of the girls are more likely to think about paying for college early on than are the parents of the boys. However, for boys and girls with ability scores of less than zero, the parents of the girls are less likely than the parents of boys to have

considered paying for college. Although parents appear to be more likely to think about paying for college for high achieving girls compared to high achieving boys, they are less likely to do so for low achieving girls compared to low achieving boys. This finding in part supports human capital theory, which would suggest that parents would be more receptive to funding a boy's over a girl's education due to the increased labor market returns that boys would receive. However, this appears to only hold true for low achieving boys compared with low achieving girls. For those girls who are higher than average achievers parents are more likely to consider funding their college earlier on than they are for high achieving boys. This finding, which is inconsistent with human capital theory, is congruent with trends in recent decades for girls to surpass boys in college enrollment. Finally, children's educational aspirations to attend four years of college or more are also positively, significantly associated with parents having thought about paying for college.

Table 3 includes the odds ratios of the logistic regression analyses predicting the likelihood that students expect to attend at least four years of college. Model 1 shows that the extent to which parents have thought about paying for college significantly increases students' college expectations, net of controls. In Model 2 of Table 3, I add socioeconomic status, race, and sex covariates to the regressions. While the effect of parents' thoughts about paying for college decreases slightly with the addition of these variables, it retains its level of significance. Unsurprisingly, socioeconomic status increases the odds of expecting to attend college and females are significantly more likely than are males to report college expectations. Race also plays a role in predicting educational expectations. Asians and Hispanics are more likely than whites to express college expectations, while Native Americans are less likely and African-Americans do not differ significantly from whites.

<Table 3>

Model 3 in Table 3 demonstrates that, net of controls, parents who think about paying for college while their students are in eighth grade are more likely to have students who exhibit college-going attitudes. While the effects of socioeconomic status and sex on educational expectations remain stable, the effects of race are altered by the

inclusion of controls in the models. We see that Asians, Hispanics, and African-Americans are all more likely than whites to indicate that they expect to obtain at least a four year degree.

What other variables help predict the likelihood that students will report college-going attitudes? Unsurprisingly, college aspirations and measured ability in eighth grade positively predict college-going expectations, as do scores on a tenth grade standardized test. The extent to which a student's friends find it important to continue their education past high school also positively predicts a student's own college expectations. Finally, region of the country plays a significant, but somewhat surprising role, with students in the Midwest being less likely to report college expectations than students in the South.

The extent to which parents have thought about paying for college positively predicts a student reporting being on the college track, as is shown in Model 1 of Table 4. The strength of the effect decreases but remains significant when I control for socioeconomic status, race, and sex in Model 2. Similar to its effect on educational expectations, socioeconomic status increases the odds that students report being on the college prep track. Asian Americans are more likely than whites to be on the college prep track and girls have higher odds of reporting this than boys.

<Table 4>

In the full model shown in Model 3 of Table 4 the extent to which parents have thought about paying for college no longer predicts the likelihood of being on the college prep track. Socioeconomic status and sex are also rendered insignificant. While Asians are no longer different from whites in this outcome, net of controls, African-Americans report being more likely than whites to be on the college prep track. Students' college aspirations, measured ability in middle school, and test scores in high school all predicted the likelihood of being on the college prep track. Also important are having friends who think it is very important to attend college and living in the Northeast as opposed to the South. Finally, although the extent to which parents have thought about college did not have a direct effect on students' reports of being on the college track, this effect appears

to be mediated through students' educational expectations which positively predict the likelihood of being on the college prep track.

Table 5, which includes models predicting the likelihood of taking the SAT or the ACT, shows similar results. Model 1 shows that the extent to which parents have thought about paying for college raises the odds of taking the SAT or ACT; the effect remains the same with the inclusion of socioeconomic status, race, and sex. The higher one's composite socioeconomic status score, the more likely one is to take the SAT or ACT. Asians are more likely than whites are to have taken a college qualifying test, while Hispanics and African Americans are less likely to have done so. Again, we see that girls are more likely than boys to be prepared for college, with girls more likely to have taken the SAT than boys.

<Table 5>

In the full model the effect of thinking about paying for college again disappears. The effects of socioeconomic status, race, and sex remain the same, except that blacks no longer differ from whites in propensity to take the SAT or ACT. The control variables behave similarly in this model as they did in the full model predicting college prep track status. The only difference in this model is that, in addition to students in the Northeast, students in the Midwest are also more likely than those in the South to have taken one of the tests, while those in the West are less likely than those in the South to have done so. Once again, however, we see that students' educational expectations and, additionally in this model, being on the college prep track both increase the likelihood of taking the SAT or ACT. It is likely that the effect of the extent to which parents have thought about paying for college on the likelihood of taking the SAT or ACT is again mediated through students' educational expectations, which positively predict this outcome.

Finally, we see a similar effect on the last outcome variable, the likelihood of applying to a four year college. Parents' thoughts about paying for college increase the odds that a student will apply for college in Models 1 and 2, but this effect disappears in Model 3 of Table 6. The higher the socioeconomic status score, the more likely a student is to apply to college, net of controls. This is also true for girls as compared to boys. Asians, Hispanics, and blacks are all more likely than whites to apply to college, net of

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controls. Students' aspirations and test scores and the extent to which their friends have college intentions and their parents talk with them about college each increase the likelihood that students will apply to college. In addition, living in the Northeast or Midwest as opposed to the South increases the odds of applying to a four year college. Finally, expecting to attend a four year college, being on the college prep track, and taking the SAT or ACT all increase the likelihood that a student will apply. Again, it appears that the effect of parents' thoughts about college is mediated in part by students' educational expectations, which raise the likelihood that a student will apply to college.

<Table 6>

Conclusion

The results of this study demonstrate that demographic variables, such as race and sex, family background, student characteristics, and contextual controls all play some role in affecting parents' thoughts about paying for college, as well as students' college expectations and preparedness behaviors. Given past research, this is unsurprising. What is compelling is that the extent to which parents consider paying for college when their student is only in the eighth grade significantly predicts students' college expectations in the tenth grade, net of controls. Educational expectations then act as a mediating variable for the effect of parents' thoughts about paying for college on students' college preparedness behaviors, such as course taking, taking the SAT or ACT, and applying for college. This finding suggests that research on educational attainment has been neglecting a vital causal variable. Thinking about paying for college early on matters for students' college expectations and behaviors. It is possible that parents who begin to consider early on how they will finance their child's education are also more likely to encourage their students throughout high school to expect to attend and prepare for college. Parents' curiosity of how they will afford college could also act as a signal to their student that this is an important and attainable goal.

The effect of parents' perceptions of paying for college early on is important for students' expectations regardless of a family's socioeconomic status. This suggests that even if parents do not know how they will pay for their child's college education, merely

beginning to think about it before their child enters high school acts as a valuable investment in their child's future. This study builds upon past research that showed that parents who are involved in their child's plans for college education early in their education have students who are more likely to be college ready (Cabrera and La Nasa 2001).

These findings suggest that getting parents to think earlier about how they will pay for college could result in a pay-off in college readiness in their children, regardless of socioeconomic status. Information campaigns could target low-income families earlier in the education pipeline with the goal of encouraging them to think about how they will pay for college for their children. Rather than act as a deterrent, this research suggests that when families begin to consider this question earlier, their children will be more likely to follow the steps in high school necessary for college enrollment, which could then translate into greater college enrollment among underrepresented groups.

With this paper I build upon a critical area of study in which the research has been scant. Pernicious educational inequalities persist in this country and there has been too little research done on the importance of finances or perceptions thereof to a family's college preparedness and decision-making. As Morgan (2005) points out, educational researchers have ignored the effects of beliefs about costs and benefits on educational attainment for too long. In order to better understand inequalities in educational outcomes it is vital that we develop a better understanding of how thinking about paying early on affects college expectations and preparedness behaviors.

Table 1. Variable definitions and weighted means

Variable name	Variable definition	Weighted Mean	Standard Error
Outcome			
Parents have thought about paying for college, BY	Average of the standardized scores of 10 survey items asking if the parents have thought about different actions related to paying for college	-.013	.010
Student expects to attend four year college, F1	Student expects to attain at least a Bachelor's degree (1=Yes)	.639	.009
Student reports being on college track, F1	Student is on the college track (1=Yes)	.408	.010
Student reports taking SAT/ACT, F2	Student has taken the SAT and or ACT (1=Yes)	.626	.009
Student applied to four year college, F2	Student applied to a four year college (1=Yes)	.671	.009
Independent Variables			
Student's race/ethnicity			
Asian/Pacific Islander	Dummy variable (Asian/Pacific Islander = 1)	.077	.006
Hispanic	Dummy variable (Hispanic = 1)	.130	.006
African-American	Dummy variable (African-American = 1)	.093	.005
White (referent)	Dummy variable (White = 1)	.660	.009
Native American	Dummy variable (Native American = 1)	.036	.003
Socioeconomic status	NCES created standardized composite measure of socioeconomic status using both parents' education levels, occupational prestige scores, and family income	.019	.016
Student's sex	Student's sex (1=male)	.471	.010
Single parent	Whether the student resides with only one biological parent (1= Yes)	.159	.007
College expenses, BY	Whether or not parent is currently paying college tuition (1=Yes)	.113	.006
Student's ability, BY	Standardized measure created from students' grades from 6th-8th grade and their standardized test score	.118	.018
Student's aspirations, BY	Whether or not student aspires to at least a bachelor's degree (1=Yes)	.716	.009
Important to friends to continue education past high school, F1	Standardized measure created from students' responses to whether their friends found it not at all, somewhat, or very important to continue their education past high school	.547	.010
Standardized test score composite, F1	Standardized test score composite on reading and math tests	52.1	.210
Region			
Northeast	Dummy variable (Northeast = 1)	.146	.006
Midwest	Dummy variable (Midwest = 1)	.293	.009
South (referent)	Dummy variable (South = 1)	.344	.009
West	Dummy variable (West = 1)	.217	.008
Most or all of students' friends plan to attend four year college, F2	Whether most or all of students' friends plan to attend a four year college (1=Yes)	.598	.010
Parents talk to student often about applying to college, F2	Whether parents talk to student often about applying to college (1=Yes)	.780	.009

Table 2. OLS regression coefficients and robust standard errors predicting the extent to which parents report having thought about paying for college

	Model 1	Model 2	Model 3
Socioeconomic status composite (SES)		.140***	.095***
		(.009)	(.010)
Race/ethnicity (Referent = White)			
Asian/Pacific Islander	-.172***	-.196***	-.212***
	(.027)	(.027)	(.027)
Hispanic	-.170***	-.087***	-.074***
	(.024)	(.023)	(.023)
African-American	-.008	.062***	.060***
	(.022)	(.022)	(.022)
Native American	-.054	-.008	.026
	(.037)	(.036)	(.037)
Single parent			.082***
			(.018)
College expenses (1=currently paying college tuition expenses)			.138***
			(.019)
Sex			.016
			(.013)
Ability			.086***
			(.011)
Sex*Ability			-.055***
			(.014)
Student's college aspirations (1= student aspires to four years of college or more)			.081***
			(.017)
Constant	.031***	.010	-.094***
	(.008)	(.008)	(.017)
McFadden's Adjusted R-squared	.014	.047	.069

Note: *p<.1, **p<.05, ***p<.01; fit statistics based on one complete and weighted data set (fitstat command).

Table 3. Odds ratios and robust standard errors predicting the likelihood that a student expects to attain at least a four year degree

	Model 1	Model 2	Model 3
Parents thought about paying for college	1.60***	1.37***	1.16*
	(.111)	(.104)	(.101)
Socioeconomic status composite (SES)		2.78***	1.62***
		(.202)	(.130)
Race/ethnicity (Referent = White)			
Asian/Pacific Islander		2.32***	1.78**
		(.408)	(.443)
Hispanic		1.16	1.28
		(.165)	(.234)
African-American		.938	1.24
		(.164)	(.218)
Native American		.723	.964
		(.174)	(.215)
Sex		.706***	.896
		(.067)	(.096)
Student's college aspirations (1= student aspires to four years of college or more), BY			4.28***
			(.496)
Ability			1.93***
			(.195)
Important to friends to continue education past high school, F1			2.18***
			(.249)
Standardized test score, F1			1.04***
			(.010)
Region (Referent = South)			
Northeast			.930
			(.145)
Midwest			.699***
			(.092)
West			.934
			(.174)
Mcfadden's Adjusted R-squared	.012	.116	.314

Note: *p<.1, **p<.05, ***p<.01; fit statistics based on one complete and weighted data set (fitstat command).

Table 4. Odds ratios and robust standard errors predicting the likelihood that a student reports being on the college prep track

	Model 1	Model 2	Model 3
Parents thought about paying for college, BY	1.31***	1.17*	.971
	(.100)	(.096)	(.084)
Socioeconomic status composite (SES)		1.72***	.975
		(.122)	(.072)
Race/ethnicity (Referent = White)			
Asian/Pacific Islander		1.79***	1.33*
		(.293)	(.222)
Hispanic		1.11	1.36**
		(.155)	(.202)
African-American		.962	1.53**
		(.153)	(.243)
Native American		.796	1.09
		(.245)	(.331)
Sex		.816**	.949
		(.071)	(.086)
Student's college aspirations (1= student aspires to four years of college or more), BY			1.62***
			(.207)
Ability, BY			2.03***
			(.212)
Important to friends to continue education past high school, F1			1.25**
			(.122)
Standardized test score, F1			1.03***
			(.009)
Region (Referent = South)			
Northeast			1.48***
			(.201)
Midwest			.925
			(.114)
West			1.14
			(.150)
Student expects to attend four year college, F1			1.90***
			(.243)
Mcfadden's Adjusted R-squared	.003	.040	.181

Note: *p<.1, **p<.05, ***p<.01; fit statistics based on one complete and weighted data set (fitstat command).

Table 5. Odds ratios and robust standard errors predicting the likelihood that a student reports having taken the SAT and/or ACT by their senior year of high school

	Model 1	Model 2	Model 3
Parents thought about paying for college, BY	1.52***	1.25***	1.10
	(.108)	(.093)	(.099)
Socioeconomic status composite (SES)		2.58***	1.61***
		(.165)	(.137)
Race/ethnicity (Referent = White)			
Asian/Pacific Islander		1.49**	1.49**
		(.249)	(.301)
Hispanic		.574***	.716**
		(.074)	(.110)
African-American		.722**	.958
		(.091)	(.144)
Native American		.718	1.06
		(.176)	(.222)
Sex		.638***	.726***
		(.054)	(.073)
Student's college aspirations (1= student aspires to four years of college or more), BY			1.53***
			(.183)
Ability, BY			1.52***
			(.215)
Important to friends to continue education past high school, F1			1.46***
			(.169)
Standardized test score, F1			1.05***
			(.012)
Region (Referent = South)			
Northeast			1.55***
			(.237)
Midwest			1.28*
			(.185)
West			.534***
			(.071)
Student expects to attend four year college, F1			2.19***
			(.258)
Student reports being on college track, F1			1.37**
			(.168)
Mcfadden's Adjusted R-squared	.009	.113	.271

Note: *p<.1, **p<.05, ***p<.01; fit statistics based on one complete and weighted data set (fitstat command).

Table 6. Odds ratios and robust standard errors predicting the likelihood that a student applies to a four year college by their senior year of high school

	Model 1	Model 2	Model 3
Parents thought about paying for college, BY	1.46***	1.21**	1.01
	(.106)	(.093)	(.088)
Socioeconomic status composite (SES)		2.32***	1.28***
		(.150)	(.105)
Race/ethnicity (Referent = White)			
Asian/Pacific Islander		1.81***	1.77***
		(.324)	(.361)
Hispanic		.776*	1.14
		(.107)	(.177)
African-American		1.36**	2.13***
		(.176)	(.342)
Native American		.547***	.694
		(.122)	(.251)
Sex		.654***	.771**
		(.058)	(.080)
Student's college aspirations (1= student aspires to four years of college or more), BY			1.50***
			(.186)
Ability, BY			1.19
			(.141)
Important to friends to continue education past high school, F1			1.51***
			(.169)
Standardized test score, F1			1.03***
			(.010)
Region (Referent = South)			
Northeast			2.11***
			(.405)
Midwest			1.50***
			(.209)
West			1.01
			(.140)
Student expects to attend four year college, F1			1.55***
			(.204)
Student reports being on college track, F1			1.22*
			(.144)
Student reports taking SAT/ACT, F2			4.38***
			(.520)
Most or all of student's friends plan to attend four year college, F2			1.35***
			(.150)
Parents talk to student often about applying to college, F2			1.73***
			(.211)
Mcfadden's Adjusted R-squared	.007	.086	.293

Note: *p<.1, **p<.05, ***p<.01; fit statistics based on one complete and weighted data set (fitstat command).

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