Academic Aspiration and Postsecondary Attainment: Evidence from the National Education Longitudinal Study of 1988 (NELS:88)

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Abstract

Academic aspiration has long been known to have a significant effect on academic achievement and postsecondary choice. However, the majority of the work in this field has focused on theoretical aspects of academic aspiration, as they are quite difficult to model empirically. This study uses data from the National Education Longitudinal Study of 1988 (NELS:88) to empirically test the impact of academic aspiration on postsecondary choice. First, the study will present the relative impact of academic achievement on postsecondary choice compared to other known significant factors taken from previous literature. The study will then attempt to see how these known factors change in significance across different levels of academic aspiration.
Introduction

Academic aspiration has been a prominent topic within education and sociology for many years. Aspiration, as defined by the Merriam-Webster Dictionary, is “a strong desire to achieve something.” When put in an educational sense, academic aspiration can be defined as “a strong desire to achieve academically.” Although academic aspiration as been treated as a main cause of educational inequality in sociology since the early 1960s (Boudon), academic aspiration within educational empirical research has gained significantly less attention. This is likely because educational researchers have traditionally treated academic aspiration as an endogenous variable that is composed of several other underlying variables. These variables include many factors relating to the student’s parents, such as the student’s parents’ aspirations for their child, the student’s parents’ education and occupation levels, school aspects, and specific student demographics. Although it is likely that all of these factors play a large role in determining a student’s academic aspiration, there is evidence that once a student’s aspiration level is created, it is very difficult to change. For that reason, a student’s academic aspiration level can be seen as a static variable once the student reaches a certain point in time.

Within sociology, the effect of academic aspiration on academic performance has been well noted. More specifically, there is a small amount of literature dedicated to the effect of academic aspiration on postsecondary choices. Sociologists have argued that an individual’s ultimate decision of what postsecondary institution to attend (if any), is a three-step process that begins with a predisposition to attend a postsecondary institution. This predisposition to attend or not to attend a postsecondary institution then determines a number of other factors,
and is maintained throughout an individual’s life as his reference point (Page750). In the present study, this predisposition will be proxied by an Academic Aspiration variable that is created through the National Education Longitudinal Study of 1988 (NELS:88) dataset. The goal is to see what, if any, relative effect this Academic Aspiration variable has on the postsecondary choices of individuals, and how the other factors that determine postsecondary choices change with varying levels of Academic Aspiration.

Literature Review

Attainment of a postsecondary degree has not always been as critical for social and economic mobility as it is in the United States today. In 1980, the average high school graduate aged 23-35 made approximately $34,150 (2006 dollars), while the average individual with a four year Bachelor’s Degree made $42,600 (2006 dollars). In 2006, the average high school graduate aged 23-35 made approximately $27,000, while the average individual with a four year Bachelor’s Degree made $45,500 (National Center for Education Statistics). Clearly, the income disparity between those with only a high school diploma and those with four year Bachelor’s Degrees has grown significantly and seems as if it will at least persist if not continue to expand over time. The reason for increased returns to postsecondary education is twofold. First of all, as the United States moves toward a more highly skilled economy, a Bachelor’s Degree has become increasingly necessary as a perquisite for employment. Secondly, there has been a continuous upward trend in the college enrollment rate during the past two decades reflecting the determination of both federal and state governments to increase postsecondary education (Nguyen 288). It is widely accepted within the literature that increased levels of higher education will lead to improved job prospects and increased productivity, and thus
encourages better citizenship. While the increased supply college graduates may slightly
depress the returns to the Bachelor’s Degree from what they would be without the increased
enrollment rate, this effect will push down the returns to just a high school diploma even more.
These combining forces have made it more and more necessary to pursue postsecondary
education in America today.

For this reason, it is very important to understand what factors go into an individual’s
decision on whether or not to attend a postsecondary institution. It has become clear that the
single most important factor in determining whether or not an individual will choose to attend
a postsecondary institution is family socioeconomic status. Although it is difficult to identify
exactly what identifies socioeconomic status, it is clear that parents’ highest education level,
parents’ occupation, and family income are the largest three determinants. Parental education
is very important for two reasons. First, because parents with high levels of education wish
their kids to achieve at least as much as they did. Second, highest level of parental education
may be an indicator of the amount of intellectual heredity that individuals receive (Nguyen
293). Parental occupation is important because those individuals whose parents have
professional or managerial occupations will be more likely to pursue a postsecondary degree in
order to achieve at least as much as his parents. Other factors that have been shown to have a
significant effect on an individual’s postsecondary choice are the socioeconomic status of the
high school the individual attends, male/female (females have both higher enrollment and
completion rates than males), race (Blacks and Asians have higher enrollment and completion
rates than whites when socioeconomic status is controlled for), and finally, and perhaps most
importantly, academic achievement. The existing literature has shown that academic
achievement, whether measured in GPA or test scores, has strong predictive ability on whether or not an individual will choose to pursue a postsecondary degree (Hossler 430).

Under the human capital investment model, individuals will choose to attend college only if the present value of the expected benefits exceeds the present value of expected costs (Becker). Although the benefits of a postsecondary degree are difficult to see when making the decision, the costs are very straightforward. One not only faces a significant financial cost if he decides to pursue a postsecondary degree, but he also faces a number of psychological costs. In 1987, sociologist Dan Hossler put forth the three-step Hossler-Gallagher Model of postsecondary choice. The first step in this model is the development of the individual’s predisposition, or his aspiration to continue his formal education after high school. This predisposition is extremely important in determining whether or not an individual will choose to pursue postsecondary education. While socioeconomic status, academic achievement, and a number of other parental factors play heavily into this predisposition, many sociologists argue that once this predisposition is established, it has its own effect on the forthcoming educational outcomes of each individual (Hossler 435).

There are many theories as to why academic aspiration matter so much in postsecondary choice. One of the most recent theories applies the tenets of behavioral economics and specifically Prospect Theory. In their paper, Page and Garboua attempt to test whether social differences in aspiration level result in different educational choices. The authors argue that the impact of aspiration levels on educational outcomes can be modeled with the notion of reference points from Prospect Theory. In Prospect Theory, individuals evaluate all outcomes within a certain utility space relative to a given reference point. Although
a particular outcome may be significantly positive in magnitude, it may be much smaller or even negative in relative terms to the given reference point. In addition, Prospect Theory states that individuals are risk-averse in the gains domain and risk-loving in the loss domain. That is, they will seek out risky actions because there is a chance that it will lower their expected loss. The hypothesis starts with the notion that students with higher levels of academic aspiration have higher reference points. Because these individuals start out with a high goal of educational attainment, they will perceive any attainment below this reference point as a loss. Conversely, an individual with a low reference point would see the same attainment as a gain. Because pursuing further education is undoubtedly a risky action, as there is no guarantee you will recover the financial and psychological costs you put in, only the individuals with higher levels of academic aspiration (reference points), acting in order to minimize their expected loss, will continue with education. Conversely, Individuals with low reference points are not willing to take the risk of continuing education for an uncertain gain. The authors test this hypothesis experimentally and find that those individuals who frame further decisions as reduction of loss are more likely to pursue a certain path than those individuals who frame further decisions as potential gains (Page 752). Thus, it is the aim of the present study to test whether this result can be extended empirically.

Data Description

The dataset used in this paper is the National Center for Educational Statistics (NCES) Longitudinal Study of 1988-2000, aptly named the National Education Longitudinal Study of 1988 (NELS:88). The dataset is a nationally representative sample of eighth-graders who were first surveyed in the spring of 1988. A sample of these respondents was then resurveyed
through four follow-ups in 1990, 1992, 1994, and 2000. On the base year (1988) questionnaire, students were asked questions on a multitude of topics including: school, work, and home experiences; educational resources and support; the role their parents and peers play in their education; neighborhood characteristics; educational and occupational aspirations; and other student perceptions. Other topics include self-reports on smoking, alcohol and drug use, participation in extracurricular activities, and questions aimed to create each student’s self-concept. Additionally, achievement tests in reading, social studies, mathematics and science were administered for the three in-school waves of data collection (1988, 1990, and 1992 when most of the students were eighth-graders, sophomores, and seniors).

In addition to the student questionnaire and student test results, the dataset includes survey information from the students’ teachers, parents, and school administrators. Each of these groups was asked questions on the individual student, the school, and each of the other groups (i.e. parents were asked questions relating to their student’s teachers). Furthermore, several composite variables were creating by the NCES for public use. An example of one of these variables which was used in the paper is the Socioeconomic Status Composite Variable, which was created using a weighted average of Parents’ Educational Level, Parents’ Occupation, and Yearly Family Income. While student information was taken during all five cohorts, school administrator data was collected only in 1988, 1990, and 1992, teacher data was collected only in 1988, 1990, and 1992, and parent data was collected only in 1988 and 1992.

The dataset is comprised of a 24,599 students randomly selected from a randomly selected subset of public schools, totaling 1,052. These schools are all across the United States and have very diverse demographic compositions, including in race, socioeconomic status, and
a number of other demographic factors. Although the dataset shrunk as each cohort passed (as some individuals became unreachable etc.), the final follow-up (2000) has a sample of over 10,000 students. When missing data was accounted for, this paper used a total of 6,501 observations. Thus, the NELS:88 dataset is incredibly robust, to say the least. There are hundreds of discrete, qualitative, and continuous variables for every single student in the dataset that were each measured up to five times. For this reason, the dataset is extremely comprehensive and it is easy to obtain the necessary controls and variables of interest.

**Variable Specification**

*Independent Variables*

**Aspiration (1):** The first step in creating the model was the construction of the variable of interest: *Aspiration*. As discussed earlier, academic aspiration is extremely difficult to quantify, or even qualify. For the purpose of this paper, the variable *Aspiration* was created by taking a weighted average of the following questions asked of students in the 1988 (8th grade) survey. The weights given to each of the questions are provided in parenthesis, along with the frequency of each of the selections.

1) How far do you think you will go in school?
   
   a. Won’t Finish High School (1) – 1.1%
   
   b. Will Finish High School (2) – 8.4%
   
   c. Vocational, Trade, or Business School after High School (3) – 8.0%
   
   d. Will Attend College (4) – 12.1%
   
   e. Will Finish College (5) – 39.9%
   
   f. Higher School After College (6) – 23.5%
2) How sure are you that you will graduate from high school?
   a. Very Sure Will (2) – 78.3%
   b. Probably Will (1) – 13.3%
   c. Probably Won’t (0) – 0.8%
   d. Very sure Won’t (0) – 0.5%

3) How sure are you that you will go further than high school?
   a. Very Sure Will (2) – 57.7%
   b. Probably Will (1) – 26.7%
   c. Probably Won’t (0) – 5.5%
   d. Very sure Won’t (0) – 2.1%

Therefore, after the construction of the variable of interest, each student had a level of aspiration between 0 and 10. For ease of interpretation, the variable was then normalized to have a mean of 0 and standard deviation of 1.

\[ Aspiration = (-3.642,1.018) \] with \( \mu = 0 \) and \( \sigma = 1 \)

After the construction of the variable of interest, the next step was to decide which control variables to include. For the most part, this was done following the standard practice in the aforementioned literature. The list of independent variables used is given below:

**Female (2):** identifies whether or not the individual is female

\[ Female = \{0, 1\}, \text{ where } 0 = \text{ male}, 1 = \text{ female} \]

**Black (3):** identifies whether or not the individual is African-American

\[ Black = \{0, 1\}, \text{ where } 0 = \text{ non-African-American}, 1 = \text{ African-American} \]

**Hispanic (4):** identifies whether or not the individual is Hispanic
Hispanic = \{0,1\}, where 0 = non-Hispanic, 1 = Hispanic

Asian (5): identifies whether or not the individual is Asian

    Asian = \{0,1\}, where 0 = non-Asian, 1 = Asian

Private (6): identifies whether or not the individual attended a private high school

    Private = \{0,1\}, where 0 = non-private, 1 = Private

SchoolSES (7): continuous variable that measured the percentage of students at the school who were eligible for a free lunch. Therefore, there is an inverse relationship between SchoolSES and school socioeconomic status.

    SchoolSES = (0,100) in percentage form

TestAvg (8): continuous variable that is composed of a straight average of each student’s 8th grade Math, Reading, and Science standardized test scores. Although 10th and 12th grade test information was also available through the dataset, 8th grade test scores were used as test scores tend to be highly correlated with postsecondary choice and academic aspiration as students near the completion of high school. This is a standard practice within the literature.

    TestAvg = (34.09,77.20) with \( \mu = 51.62 \) and \( \sigma = 10.23 \)

IndivSES (9): continuous variable that was created by NELS. The variable is composed of a weighted average of the five biggest factors in determining socioeconomic status: mother’s highest level of education completed, father’s highest level of education completed, mother’s occupation level, father’s occupation level, and yearly family income.

    IndivSES = (-2.88,2.56) with \( \mu = -.08 \) and \( \sigma = .79 \)
*Parent_Involv (10):* discrete variable that measures how many times, since the beginning of the school year, the individual discussed things studied in class with his/her parents. The variable serves as a solid proxy for parental interest.

\[ Parent_{Involv} = \{1, 3\}, \text{ where:} \]

- 1 = Not at all – 9.7%
- 2 = Once or twice – 33.5%
- 3 = 3 or more times – 49.3%

*Time_Alone (11):* discrete variable that measures how long the individual was left home alone after school each day. This variable serves as a proxy for parental involvement.

\[ Time_{Alone} = \{1, 4\}, \text{ where:} \]

- 0 = None – 12.8%
- 1 = Less than one hour – 30.8%
- 2 = 1-2 hours – 25.6%
- 3 = 2-3 hours – 11.6%
- 4 = More than 3 hours – 11.5%

*Parent_Asp (12):* discrete variable that reflects the individuals’ parents academic aspirations for their child. Students were asked “How far does your mother/father want you to go in school,” with identical possible responses as asked the students themselves (see above for possible responses). The two responses were then added together to create the *Parent_Asp* variable.

\[ Parent_{Asp} = \{2, 12\} \]

The *Female* variable was included to control for differences in academic aspiration due to gender. Variables *Black, Hispanic,* and *Asian* were included to control for inherent racial
differences in academic aspiration. *Private* was included to control for the effect of attending a private school on academic aspiration. *SchoolSES* and *IndivSES* were included to control for the overall effect of socioeconomic status on academic aspiration. *TestAvg* was used as a proxy for ability and controlled for its effect on academic aspiration. All of these controls are consistent with previous literature concerning postsecondary choice.

The last three variables, *Parent_Involv*, *Time_Alone*, and *Parent_Asp* were unique inclusions that do not have significant precedence in the economics of education literature. These variables were included in order to control for effects that have been shown to be important factors in the creation of a student’s academic aspiration level and self-concept (Worell 50). By controlling for these factors, we attempt to eliminate mitigating effects on the development of academic aspiration and instead observe the effect of the created academic aspiration variable.

*Dependent Variables*

**Enroll (1)**: identifies whether or not the individual enrolled in a postsecondary institution

\[
Enroll = \{0,1\}, \text{ where } 0 = \text{never enrolled, } 1 = \text{enrolled}
\]

**Bach (2)**: identifies whether or not the individual completed a 4 year Bachelor’s Degree

\[
Bach = \{0,1\}, \text{ where } 0 = \text{did not obtain degree, } 2 = \text{obtained degree}
\]

*Models*

For this paper, two distinct sets of regressions were run in order to address the two primary research questions:
1) What is the relative effect of academic aspiration, if any, on the enrollment and attainment of a postsecondary degree, compared to other known significant factors?

2) Do the known significant factors that influence enrollment and/or attainment vary in significance across different levels of aspiration?

For both research questions, the base model was the same. The model used was a probit model, in which the dependent variable was a binary variable that took on [0] if the individual did not enroll/complete and [1] if the individual did enroll/complete. A probit model was selected because the variables assumed roughly normal distributions. Because the sample size was so large, differences in results between logit and probit models would most likely be small.

The base model is as follows:

\[ Pr(Y=1|X) = \Phi \left( \delta_0 + \delta_1 Female + \delta_2 Asian + \delta_3 Hispanic + \delta_4 Black + \delta_5 Private + \delta_6 SchoolSES + \delta_7 TestAvg + \delta_8 IndivSES + \delta_9 Parent_Involv + \delta_{10} Time_Alone + \delta_{11} Parent_Asp + \delta_{12} Aspiration \right) \]

For Research Question 1), four distinct regressions were run:

- (1) Dependent Variable: \textit{Enroll}
  Independent Variables: Variables 1) – 9)

- (2) Dependent Variable: \textit{Bach}
  Independent Variables: Variables 1) – 9)

- (3) Dependent Variable: \textit{Enroll}
  Independent Variables: Variables 1) – 12)

- (4) Dependent Variable: \textit{Bach}
Independent Variables: Variables 1) – 12)

The results from these regressions are reported in Figure A in the Appendix and are discussed in detail in the Results section below.

For Research Question 2), the base models were the same except a number of steps were taken before the regressions were run. First, three different distinct groups of varying levels of Aspiration were created. An attempt was made to make each of the three groups equal size, however, because there was such a large number of students around the mean, this was not possible. Instead, Low Aspiration and High Aspiration had roughly the same number of individuals (1,532 and 1,711, respectively) and Medium Aspiration had roughly double the amount of Low and High Aspiration (3,258). While in Research Question 1) both variable significance and marginal effects were compared, Research Question 2) compared only variable significance, specifically, Z-values. The main goal was to compare how the significance of the control factors changed across the three different levels of academic aspiration. For Research Question 2), six distinct regressions were run:

(5) Dependent Variable: Enroll

Independent Variables: Variables 2) – 11)

Academic Aspiration Level: Low

(6) Dependent Variable: Bach

Independent Variables: 2) – 11)

Academic Aspiration Level: Low

(7) Dependent Variable: Enroll

Independent Variables: 2) – 11)
The results from these regressions are reported in Figure B and Figure C in the Appendix and are discussed in detail in the Results section below.

**Results**

The study offered a number of interesting results regarding the two research questions. Because the sample size was sufficiently large, there are many significant results that can be reported. The results of Research Question 1), identifying the relative effect of academic aspiration on postsecondary choice and/or postsecondary completion, are quite interesting. Because direct results from probit models are very difficult to interpret, the marginal effects are reported as well. The first finding is that the variable Aspiration is extremely significant (at the 99.9% level), in all four regressions, with magnitudes .1303 (1), .1470 (2), .1080 (3), and .1379 (4). These results suggest that, on average, a one standard deviation increase in academic aspiration will result in a .1192 increase in probability of attending a postsecondary institution.
and a .1425 increase in completing a four year Bachelor’s Degree. Clearly, academic aspiration has a very significant, positive effect on postsecondary enrollment and attainment. When the aspiration control variables were included (Parent_Involv, Time_Alone, Parent_Asp), the magnitude and significance of the Aspiration variable decrease slightly. This decrease was less than anticipated when first creating the present study. In addition, it is clear that the relative effect of academic aspiration is also very significant. Only IndivSES and TestAvg are consistently greater in magnitude and significance.

There were a number of other interesting results from running regressions (1) – (4) aside from the main focus of Research Question 1). For example, the coefficient on the Female dummy variable is quite intriguing. As one can see in Figure 1, Female is not significant (and very low in magnitude) for Regressions (1) and (3), in which the dependent variable is Enroll. However, in Regressions (2) and (4), in which the dependent variable is Bach, the Female dummy variable increases in magnitude by more than ten-fold, and becomes significant at the 99.9% level. This implies that while females are not significantly more likely than males to attend a postsecondary institution (all else equal), they are very significantly more likely to complete a four year Bachelor’s Degree than males.

As for the race control variables, a number of interesting results were seen. The Hispanic dummy variable was negative in all four regressions, but never significant. The Black dummy variable was positive and significant (at the 99.9% level) when the dependent variable was Enroll, but insignificant when the dependent variable was Bach. This suggests that a black individual is more likely to attend a postsecondary institution (all else equal), but not more likely to complete a four year Bachelor’s Degree. Finally, the Asian dummy variable is positive.
and significant at the 99.9% level in all four regressions, suggesting that an Asian individual is both more likely to enroll in a postsecondary institution and to complete a four year Bachelor’s Degree.

Regressions (5) – (10) also provided a number of interesting findings as to Research Question 2). The first item to observe is the difference in predicted probabilities of Enroll and Bach across different levels of Aspiration. As expected, individuals with higher aspiration are more likely to both enroll in and complete a postsecondary degree (Figure 3). An individual with high aspiration is over 90% likely to attend a postsecondary institution, as compared with just over 30% for his low aspiration counterpart. Similarly, an individual with high aspiration is over 70% likely to complete a four year Bachelor’s Degree, as compared to under 10% for his low aspiration counterpart.

One can observe a number of other results from Regressions (5) – (10). Research Question 2) hoped to specifically address how the different control factors change in significance across different levels of academic aspiration. One interesting result is the declining significance of the SchoolSES variable as academic aspiration increases, both in postsecondary enrollment and attainment (Figure 4). As for enrollment, the Z-score on SchoolSES decreases from an extremely significant 4.12 (p value <.001) for low levels of academic aspiration, to 3.17 (p value <.002) for medium levels of academic aspiration, and finally to 0.63 (p value 0.528) for high levels of academic aspiration. This declining trend is matched in attainment, as the Z-score on SchoolSES decreases from an extremely significant 3.08 (p value <.002) for low levels of academic aspiration, to 2.08 (p value <.037) for medium
levels of academic aspiration, and finally to 1.16 (p value .246) for high levels of academic aspiration.

A similar trend is noticeable with the *Time_Alone* variable (Figure 5). As for attainment, the Z-score on *Time_Alone* decreases from 2.49 (p value <.013) for low levels of academic aspiration, to 2.34 (p value <.019) for medium levels of academic aspiration, and finally to 1.66 (p value 0.096) for high levels of academic aspiration. Although this trend is not as strong for enrollment, it still persists at a lesser level.

Another interesting finding is the varying significance of the *Private* dummy variable on both *Enroll* and *Bach* (Figure 6). Interestingly, the Z-score on *Private* when dealing with enrollment starts at 2.39 (p value .017) for low levels of academic aspiration, then increases to 3.72 (p value of <.001) for medium levels of aspiration, then falls to 2.28 (p value .022) for high levels of aspiration. This trend is matched when looking at attainment, as the Z-score starts at 1.97 (p value .049) for low levels of academic aspiration, then increases to 4.57 (p value of <.001) for medium levels of aspiration, then falls to 2.94 (p value .003) for high levels of aspiration.

Some other interesting observations are as follows:

i. The variable *Parent_Involv* is only significant for those with medium levels of academic aspiration and only in the *Bach* regression.

ii. For those individuals with high aspiration, the only race dummy variable that has significance is *Asian*, and only in the *Bach* regression.

iii. The variable *Female* is only significant for those with medium and high levels of aspiration, and (as described earlier) only in the *Bach* regression.
Implications

This study has a variety of noteworthy implications. First of all, it is clear that academic aspiration plays a large role in a student’s decision to enroll and eventually complete postsecondary education. Even when controlling for important parental characteristics that often play a large role in determining academic aspiration, the effect of academic aspiration proves large, positive, and extremely significant. This observation suggests that sociologists are indeed accurate in describing academic aspiration as an important determinant in the future educational outcomes of individuals. For this reason, future research should focus on what impacts academic aspiration and how to increase academic aspiration. These findings will prove worthy in attempting to increase postsecondary enrollment, and eventually attainment, of all.

The second half of regressions offers a number of remarkable implications. Most remarkable is the declining impact of school socioeconomic status and parental involvement with increased levels of academic aspiration. There are a number of interpretations for this result, but this paper will choose one single hypothesis. Essentially, these two variables, SchoolSES and Time_Alone, are indicators of the individual’s environment. As seen in Regressions (1) – (4), these two variables play an important role in an individual’s decision of whether or not to enroll/complete postsecondary education. As we see from Regressions (5) – (10), however, these two variables decline in significance as academic aspiration is increased. This suggests that individuals with higher levels of academic aspiration, or higher levels of motivation, are less impacted by their environment than individuals with low levels of aspiration. This conclusion makes sense. If a student is very highly motivated, then he will be
determined to succeed regardless of the environment around him. Contrastingly, if a student has very low levels of motivation, he is more likely to be affected by his environment.

Another interesting result is that the effect of attending a private school is strongest in the prediction of postsecondary enrollment and attainment for those with medium levels of aspiration. Although this result is much harder to justify, this paper will put forth one hypothesis. As similar to the previous line of thinking, the individuals with higher levels of aspiration are less affected by the environment around them. This may explain why Private is more significant for medium levels of aspiration than for high levels of aspiration. However, this does not explain why the effect is stronger for medium levels of aspiration than for low levels of aspiration. Perhaps this results from the fact that those individuals with low aspiration are less predisposed to postsecondary education in the first place, and therefore the effect of attending a private school remains low. Therefore, those with medium levels of aspiration benefit most from attending a private school.

Limitations

A number of limitations hinder the explanatory power of this study. First of all, the data is slightly dated. Individuals in the sample who followed the normal speed of educational progression would have completed their four year Bachelor’s Degree in 1996. Enrollment rates and trends have changed significantly in the past fifteen years, and for that reason, the results of this study are very likely to change if performed with fresh data. This can be accomplished with the next National Education Longitudinal Study is completed.

The next limitation of this study is two-fold in the creation of the variable of interest: Aspiration. First, because there were only three questions directly relating to academic
aspiration, it is hard to say that an individual’s true academic aspiration was completely captured. Hopefully future studies will ask more questions in an attempt to uncover more levels and dimensions of academic aspiration. Second, because the sample is heavily skewed to higher absolute levels of academic aspiration, comparison proves a little more difficult. This would also be solved by including more inclusive questions relating to academic aspiration.

The final, and most serious, limitation of this study is that the level of endogeneity within academic aspiration is unknown. It is almost certainly affected by a number of other factors, but previous literature has not yet identified all of these factors. However, this study assumed that the level of academic aspiration when in the eighth grade, whether or not it is created by other factors, remains consistent from then on and has its own pervasive effect on postsecondary outcomes.
Works Cited


### Appendix

**Figure A – Coefficients, Marginal Effects, and \( p \) Values for Regressions (1) – (4)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Enroll (1)</th>
<th>Mfx</th>
<th>Bach (2)</th>
<th>Mfx</th>
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<th>Mfx</th>
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* - Significant at the 95% level, ** - 99% level, *** - 99.9% level
**Figure B** – Coefficients, Marginal Effects, *p* Values, and Z-scores for Regressions (5), (7), (9)

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**Figure C** – Coefficients, Marginal Effects, $p$ Values, and Z-scores for Regressions (6), (8), (10)

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**Figure D** - Predicted Probabilities of Regressions (5) – (10)

**Figure E** – *School_SES* and *Academic Aspiration*
Figure F – *Time_Alone* and *Academic Aspiration*

![Time_Alone and Academic Aspiration](image)

Figure G – *Private* and *Academic Aspiration*

![Private and Academic Aspiration](image)