Do In-State Tuition Benefits Affect the Enrollment of Non-Citizens?

Evidence from Universities in Texas

Lisa M. Dickson* Matea Pender**

ABSTRACT: In 2001, the Texas state legislature passed House Bill 1403. With the passage of the law, Texas became the first state to legislate that non-citizens (including illegal immigrants) who graduated from an in-state high school and resided in the state for three years could pay in-state resident tuition rates at public universities. As a result of the policy change, the cost of attending college at public universities in Texas fell dramatically for non-citizens. Using administrative data from five universities in Texas, we employ a quasi-experimental design to identify the effects of the policy change on the probability of enrollment at each of the universities. Our results demonstrate a large and significant positive effect of lowering tuition on the enrollment of non-citizens at the University of Texas at Pan American and the University of Texas at San Antonio.

JEL Codes: I22, I28

Keywords: costs, demand for schooling, student financial aid, educational economics, educational finance

* Corresponding author: Lisa M. Dickson, Department of Economics, University of Maryland Baltimore County, Email: ldickson@umbc.edu

** Matea Pender, College Board, Email: mpender@collegeboard.org

1. Introduction

In 2001, the Texas state legislature passed House Bill 1403 (H.B. 1403) that guaranteed in-state resident tuition rates (ISRT) for non-citizens who attend public universities in Texas.[1] Since the Texas state legislature passed H.B. 1403, twelve other state governments have passed similar laws that extend ISRT rates to non-citizens.[2] The goal of these policies is to improve access to higher education for non-citizens (including illegal immigrants) who may be unable to pay out-of-state tuition rates at public universities. At the time the law passed in Texas, the difference between paying ISRT and out-of-state tuition was approximately $6,500 at the Texas state flagship universities.[3] The current difference between in-state and out-of-state tuition at public four-year universities across the country is approximately $12,500.[4]

The documentation required to qualify for ISRT vary substantially by state as described in Olivas (1988, 2012). The laws that guarantee non-citizens ISRT alter the documentation necessary to prove that a student has established a "domicile".[5] Prior to the passage of the ISRT laws, students were asked to submit documentation such as tax returns, voter registration and a

[1] The law does include several requirements including that the non-citizen attended a high school in the state for three years.

[2] The states and the years that they passed the laws are as follows: California (2002), Utah (2002), New York (2003), Washington (2003), Oklahoma (2003), Illinois (2003), Kansas (2004), New Mexico (2005), Nebraska (2006), Wisconsin (2009), Maryland (2011) and Connecticut (2011). Flores (2010) documents the states that passed the laws prior to 2010. The National Conference of State Legislatures provides information on the laws for each of the states. http://www.ncsl.org/issues-research/educ/undocumented-student-tuition-state.aspx

[3] The Integrated Postsecondary Education Data System (IPEDS) provided by the National Center for Education Statistics records the cost of attending the University of Tex
as at Austin in 2000-2001 were $3,575 for an in-state student and $10,025 for an out-of-state student. The comparable numbers for Texas A&M University were $3,374 for an in-state student and $9,824 for an out-of-state student.

[4] Baum, Ma, Payea (2012) provide estimates of the costs of college in the 2011-2012 academic school year.

[5] "Domicile" is a legal term that differs from "residency". Individuals may maintain more than one residence but individuals can only maintain one domicile.

driver's license to prove they qualified for ISRT. Students also were asked to submit their social security number and their citizenship status on their application.[6] Prior to H.B. 1403, students who were unable to provide the appropriate documentation would be ineligible for ISRT even if they resided in the state. After the passage of H.B. 1403 in Texas, students who graduated from a high school in Texas and resided in the state with their parents or custodians for at least three years would be eligible to pay ISRT regardless of citizenship status.[7]

Given the large immigrant population within Texas, it is perhaps not surprising that it was the first state to pass a law offering ISRT to non-citizens. The legal support for the extension of education benefits to non-citizens comes from the Plyler v. Doe (1982) Supreme Court case that led to the expansion of education benefits to non-citizens at the elementary and secondary level. Yet even with the legal support for the provision of educational benefits to non-citizens at the primary and secondary education levels, the extension of ISRT rates to non-citizens in public higher education has remained controversial. The controversy is mainly due to the illegal status of many of the beneficiaries of these laws. As evidence of the controversy over the provision of ISRT rates, the state government of Oklahoma both passed and repealed the law that offered ISRT rates to non-citizens (Flores, 2010). Arizona, Georgia, and Colorado have all passed laws stating non-citizens are not eligible to pay ISRT (Russell, 2011). Alabama, South

[6] Salsbury (2003) and Olivas (2012) both refer to the use of social security numbers at universities. As mentioned in Olivas (2012), the use of social security numbers as a means of identifying students was widely used by universities to report grades and to maintain student records. Only recently with concerns about identity theft have universities moved away from the use of social security numbers. Olivas (1988) mentions some Texas universities that ask students their citizenship status on their application.

[7] Students are required to file an affidavit that they will file for permanent resident status once they are eligible to do so (see text of HB 1403 from the Texas State Legislature http://www.capitol.state.tx.us/BillLookup/Text.aspx?LegSess=77R&Bill=HB1403)

Carolina, and Georgia have also banned non-citizens from admission to either some or all public higher education institutions in their respective states (Russell, 2011). This is in stark contrast to the dozen states that allow non-citizens to pay ISRT.

One of the reasons why there is debate over whether non-citizens can be charged ISRT rates is due to the federal guidelines provided in the 1996 Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA). According to IIRIRA, non-citizens cannot be given preferential treatment relative to citizens. Opponents of ISRT benefits for non-citizens argue that by charging them a lower price than citizens from other states that these non-citizens are receiving preferential treatment (e.g. Kobach, 2006-2007). Lawsuits have been filed on behalf of out-of-state citizens under the claim that charging them out-of-state tuition and non-citizens ISRT rates violates IIRIRA (Feder, 2006). Proponents of the legislation point out that the legal requirements for a non-citizen to obtain ISRT are more stringent than the legal requirements for a citizen who either resides in Texas or moves to Texas (e.g. Olivas 2004). With this reasoning, non-citizens are not receiving preferential treatment but rather are facing more legal scrutiny.

Researchers for several decades have sought to evaluate the effects of college costs on educational attainment.[8] Due to the endogeneity of college costs, it is difficult to credibly identify the causal effects of college costs on enrollment.[9] While many studies evaluate the effects of offering financial aid on college enrollment, only a few studies focus on the effects of in-state versus out-of-state tuition on enrollment decisions. Bridget Long (2004) uses a conditional logistic model to estimate the effects of offering ISRT rates on student enrollment decisions. Her simulations suggest that ISRT rates significantly increase the fraction of students

[8] Leslie and Brinkman (1988) provide a review of the early literature.
[9] Cellini (2008) provides a review of the recent literature and emphasizes the current techniques used to identify the causal effects of college costs on college enrollment.

attending four-year colleges. In her sample, she predicts that without state subsidies that the fraction of students enrolling in four-year colleges would fall from 71% to 56% (Long 2004 p. 779). Abraham and Clark (2006) also find large enrollment effects from offering ISRT by analyzing the effects of the District of Columbia Tuition Assistance Grant (DCTAG) program.[10] Their estimates suggest a 3.6 percentage increase in the enrollment rate per $1,000 reduction in costs.

While previous studies on the responsiveness of students to financial aid may shed light on the traditional student, those estimates may not be valid for non-citizens. Non-citizens are ineligible for federal financial aid and therefore may be more credit constrained than citizens. Prior to President Obama's executive order, undocumented students also faced possible deportation as well as barriers to legal employment.[11] Undocumented students, prior to the executive order, likely faced much lower benefits to a college degree than citizen students. This would likely have made them less responsive to changes in costs. Undocumented students could potentially reap some of the rewards to a college degree, though, if they migrated to their home country, changed their immigration status or if they found an employer willing to sponsor a visa. Kaushal (2008) provides a discussion of how many undocumented students do change their

[10] The DCTAG program offers ISRT benefits at all public universities to students who graduate from high schools in Washington, D.C.

[11] President Obama's speech in the Rose Garden announcing a new executive order regarding deportation of undocumented immigrations is available here: http://video.nytimes.com/video/2012/06/15/multimedia/100000001609327/president-obama-on-immigration.html?ref=us His executive order provides the opportunity for individuals who immigrated prior to age 16 and meet other conditions to apply for a two-year deferred action on deportation as well as a temporary work visa. During the time frame in this study, President Obama's executive order had not yet been written and students were operating under the assumption that they could possibly be deported. We provide a discussion of the implications of President Obama's executive order in our conclusions. Given how recently it was passed, it is an area of future research as to how it will affect the educational outcomes of non-citizens.

immigration status through marriage or other means. Despite potentially low returns to college degrees for undocumented students, Flores (2010) and Kaushal (2008) both find positive and statistically significant effects of ISRT laws on the college enrollment of Latinos and Mexicans, respectively. Chin and Juhn (2010) analyze the effects using a similar identification strategy and data from the American Community Survey but find no significant effects of offering ISRT to non-citizens on enrollment.

This study focuses on the effects of H.B. 1403 on the enrollment yields of non-citizens at specific universities rather than overall enrollment rates. As discussed in Manski and Wise (1983) and Van der Klaauw (2002), the decision to matriculate in college is the result of several steps. Individuals must first apply to college and be accepted to college. After being accepted to college, the students are usually notified of their financial aid and then must decide whether to enroll at that particular college. This study focuses on the last decision of non-citizens to choose to enroll at a specific university after being accepted to that university. Unlike citizens, non-citizens are not eligible for federal financial aid (work-study programs, loans, or grants). Therefore, their decision is mainly based on the listed tuition for each university and the change from out-of-state tuition to ISRT represents a large reduction in costs. Van der Klaauw (2002), Linsenmeier, Rosen and Rouse (2006), and Nurnberg, Schapiro and Zimmerman (2012) provide recent examples of studies that analyze enrollment yields.

The universities included in this study are: Texas A&M at College Station (Texas A&M), the University of Texas at Austin (UT-Austin), the University of Texas at Pan American (UT-Pan American), the University of Texas at San Antonio (UT-San Antonio) and Texas Tech University. Due to the "natural experiment" of the passage of H.B. 1403, we measure the effects of the policy using difference-in-differences (DID) techniques. The first difference is the

difference in enrollment yields of non-citizens after the passage of the policy minus the enrollment yields of non-citizens prior to the passage of the policy. The second difference is the difference in enrollment yields of citizens (who are already eligible for ISRT) after the policy minus the enrollment yields of citizens prior to the passage of the policy. Citizens serve as a control group as they are already eligible for ISRT rates prior to the passage of H.B. 1403. The DID estimate of the effect of the policy is found by subtracting the second difference from the first difference.[12] The purpose of the DID estimation is to account for other possible factors that may be affecting enrollment yields over time.

Understanding the effects of extending ISRT rates to non-citizens is important for several reasons. First, there is enormous policy debate over whether to offer immigrants educational benefits both at the state level and the federal level. While the individual states seem to be leading the way on passing ISRT benefits for non-citizens, there is a national policy, the Development, Relief and Education for Alien Minors (DREAM) act, which has also been considered by the US Congress.[13] President Obama's executive order does not guarantee ISRT rates for non-citizens and so there is still the question as to whether national legislation regarding these benefits could or should be passed. Second, it is important to study the responsiveness of immigrants to educational benefits as they are a large and growing segment of the population

[12] Difference-in-differences estimation has become more and more prevalent over time. Deming and Dynarski (2009) and Cellini (2008) both provide reviews of the financial aid literature and include reviews of studies that have used this approach to measure the causal effects of college costs on student outcomes. Andrews, DesJardins, Ranchod (2010) provide a recent example of a study that used DID to estimate the effects of financial aid on college choice. More broadly, Angrist and Krueger (2000) provide an overview of DID in labor economics.

[13] Olivas (2010) provides a political analysis of the DREAM Act.

that maintains rather low education levels. For these reasons, it is important to understand how effective ISRT rates are at inducing students to enroll in college.

2. Data and estimation strategy

The Texas Higher Education Opportunity Project (THEOP) collected administrative data from several universities in Texas.[14] This study uses data from five universities: Texas A&M, UT-Austin, UT-Pan American, UT-San Antonio, and Texas Tech University. For each of the universities, the administrative records include detailed information on applicants' demographic characteristics and academic qualifications. Due to the enormous changes in college admissions in the 1990s in Texas, this study only uses data after 1998 (see Card and Krueger, 2005; Dickson, 2006a, 2006b; Mark Long 2004a, 2004b; Niu, Tienda, and Cortes 2006). For all years used in this study, the top ten percent rule is in place (see Long and Tienda, 2008). Given that we are interested in comparing students who are similar in background, we focus only on students who are considering enrollment during the fall semester. We further limit our sample to only individuals who report either that they are Texas residents or that they graduated from a high school in Texas.

An evaluation of the effects of H.B. 1403 on the enrollment yields of non-citizens requires identification of the treatment group. Citizens are eligible for in-state tuition both

[14] The THEOP project was led by Marta Tienda and Teresa Sullivan. A description of the project and data are available from the Texas Higher Education Opportunity Project website: http://theop.princeton.edu/ While the study originally collected data from nine universities, only five of the universities could be used in this analysis. Three of the universities did not record information on the citizenship status of the student and thus were dropped from the analysis as we could not identify the treatment group. One university, Southern Methodist University, is private and is dropped from the analysis.

before and after the passage of H.B. 1403. Citizens, therefore, constitute our control group. Non-citizens are eligible after the passage of H.B. 1403 if they graduated from a Texas high school and resided in the state for at least three years. The administrative data does not include information on how long the student resided in Texas though it does include information about the high school attended. Since we do not have length of time, we can not perfectly capture the treatment group. We may be over-estimating the treatment group as some of the non-citizens who graduated from a high school in-state may not have resided in the state for three years. Since we cannot perfectly capture and potentially over-estimate the treatment group, our estimates of the effects of the policy may suffer from attenuation bias (Lewbel, 2007).

In Table 1, we present the characteristics of all of the accepted applicants at each of the universities. The first noticeable difference between the universities is the difference in the average enrollment yield. For the state flagship universities (UT-Austin and Texas A&M), the enrollment yield is higher than 60 percent. At the remaining universities, the enrollment yields are lower. At each of the universities, the fraction of non-citizens who may qualify for in-state tuition is very small. This is consistent with the information available from the Texas Higher Education Coordinating Board.[15] The fraction of non-citizens who are either Texas residents or graduated from a Texas high school ranges from less than 1 percent at UT-Austin to 4 percent at UT-San Antonio. The policy variable shows the fraction of the sample that was admitted after H.B. 1403 was passed. The interaction between non-citizen in-state and policy provides the share of students affected by the policy as a fraction of the entire applicant pool over the time

[15] The Texas Higher Education Coordinating Board (2011) provides information on in-state tuition rates and this document estimates that one percent of all students enrolled in higher education in Texas in 2010 qualify for the policy.

period. The respective shares range from half a percent at UT-Austin to almost 3 percent at UT-San Antonio.

The demographic characteristics of the admitted students also vary considerably across universities. Noticeably, the share of male students admitted is less than 50 percent at all of the universities except for Texas Tech. This is consistent with the national enrollment trends as discussed in Goldin, Katz, and Kuziemko (2006). Notably, blacks and Hispanics make up a small fraction of admitted students at the state flagship universities (UT-Austin and Texas A&M). However, for two of the universities in the sample (UT-Pan American and UT-San Antonio), Hispanics constitute the majority of admitted students. At UT-Pan American, Hispanics constitute more than three quarters of the admitted students. At UT-San Antonio, Hispanics are approximately half of all admitted students.

The academic qualifications of the students vary considerably by university as well. The state flagship universities report the highest SAT scores. More than half of the admitted students at the state flagship universities are in the top decile of their high school class. The average class ranks of students at the remaining universities are considerably lower. UT-Pan American appears to be the least selective in admissions as students admitted at this university report the lowest class ranks and the lowest SAT scores. At UT-Austin, students from feeder high schools constitute approximately 24 percent of the admitted students.[16] Students from

[16] A high school is defined as a feeder high school if it is among the top twenty high schools at either Texas A&M or UT-Austin for the number of high school graduates accepted at UT and TAMU as of 2000. A description of feeder high schools can be found in Tienda and Niu (2006). A high school that is a feeder high school to the state flagship universities is of higher quality than a high school that does not have as many students accepted at the state flagships.

feeder high schools make up almost 20 percent of admitted students at Texas A&M and Texas Tech.

In Table 2, we present the accepted student characteristics separately by citizenship status. The table shows that the enrollment yields of non-citizens are lower than the enrollment yields of citizens for each university. One thing to note on Table 2 is the demographics of non-citizens in Texas who are accepted to these four-year universities. The fraction of students who are Hispanic among the non-citizens ranges from 21 percent at Texas A&M to 47 percent at UT-San Antonio. Unfortunately, we do not have demographic information available for non-citizen students at UT-Austin who report graduating from a Texas high school as they are given a separate category. While Flores (2010) and Kaushal (2008) purposely limit their studies to only Latinos or Mexicans, we have chosen to present the results for the full sample of individuals and then separately for Hispanics.

In this study, we exploit the natural experiment of H.B. 1403 to identify the effects of lowering tuition costs on the enrollment probabilities of non-citizens. Since citizens who were residents of the state already qualified for ISRT at public universities, they can be used to control for other factors that may affect enrollment probabilities. We identify the effect of the policy by constructing a difference in differences (DID) where the first difference is the difference in the enrollment probabilities of non-citizens after the policy and before the policy. The second difference subtracts off the difference in the enrollment probabilities after the policy and before the policy for citizens. This is shown in the following equation:

$$\Delta = [\Pr(enroll)_{NC\ Post} - \Pr(enroll)_{NC\ Pre}] - [\Pr(enroll)_{C\ Post} - \Pr(enroll)_{C\ Pre}] \qquad (1)$$

where NC denotes non-citizen and C denotes citizen. This DID can be calculated using the means for the probabilities of enrollment at each of the universities.

Table 3 shows the enrollment probabilities of non-citizens and citizens prior to the implementation of H.B. 1403 and after the implementation of H.B. 1403 for each of the universities. The table presents evidence on how the enrollment yields of non-citizens and citizens changed after the policy and provides t-tests to identify whether the changes were statistically significant. In addition, the table presents the mean difference in enrollment yields between non-citizens and citizens for each of the time periods. For all of the time periods at all of the public universities, non-citizens demonstrate lower enrollment yields than do citizens. For each of the universities, we calculate the DID. The means show that the policy increased the probability of enrollment at UT-Pan American significantly with a 11.8 percentage point increase in enrollment for non-citizens after subtracting the positive trend in enrollment exhibited by citizens. The DID is marginally significant at the 10% level for UT- San Antonio and suggests that the probability of enrollment increased on average by 6.3 percentage points. At Texas A&M, the enrollment yields of non-citizens fell by more than the enrollment yields of citizens. This led to an estimated DID that is negative and marginally significant.

The difference in the mean probabilities of enrollment does not separate the effects of changes in individual characteristics from the effects of the policy change. It may be that the characteristics of the accepted students changed over the time period which may lead to differences in the probabilities of enrollment. In order to capture this, we estimate the following regression separately for each of the five universities:

$$Pr(Enroll = 1) = \beta_0 + \beta_1 NC + \beta_2 Policy + \beta_3 NC * Policy + \beta_4 Demographics + \beta_5 SAT + \beta_6 Class\ Rank + \beta_7 High\ School\ Characteristics + \varepsilon \quad (2)$$

The dependent variable in the regression is whether the student chooses to enroll at the university given that the student is already accepted. NC is an indicator for whether the student is a non-

citizen. Policy is an indicator for whether the in-state tuition policy for non-citizens is in effect. The main coefficient of interest in the regression is β_3 which is our estimate of the effect of the DID. Demographics refer to a vector of indicator variables for the applicant's race and ethnicity. SAT denotes the applicant's SAT score. If the student took the ACT, the ACT score was translated into the appropriate SAT score. The class rank for the student is controlled for using both the student's reported class rank and an indicator for whether the student graduated in the top ten percent of their high school class.[17] The indicator for individuals in the top ten percent of their high school class is used to account for any nonlinearities in the effect of class rank on the probability of enrollment that may be due to the top ten percent rule.[18] The high school characteristics included in the regression are: an indicator for whether the high school sends a disproportionate number of students to the state flagships and is called a feeder school in the data and an indicator for whether the high school the student attended was private.

3. Results

The results from the linear probability models for each of the universities are provided in Table 4. The regression results are substantially different from the means presented in Table 3. Notably, after controlling for individual characteristics and academic preparation, prior to the policy change, non-citizens are significantly more likely to enroll at UT-Austin and UT-Pan American. The effect is very large with non-citizens being 41 percentage points more likely to

[17] For those students that had a missing class rank, the missing value is imputed using the mean class rank by gender, year, and university. A missing indicator is then included in the regression analysis. This is the same technique used by Long and Tienda (2008) who also used the THEOP data.

[18] The top ten percent rule guarantees students in the top ten percent of their graduating high school class in Texas admission to the public university of their choice (see Long 2004a, Long 2004b).

enroll than citizens at UT-Austin prior the policy change. The effect is smaller at UT-Pan American at approximately 14 percentage points prior to the policy change. For three of the universities, the enrollment yields fell significantly following the implementation of HB 1403 controlling for individual characteristics. The effect of the policy change is statistically significant at each university except for UT-Pan American. The effect ranges from an increase of 2.2 percentage points at UT-Austin to a decrease of 4.5 percentage points at UT-San Antonio.

The results in Table 4 suggest that the policy significantly affected enrollment at two of the five universities: UT-San Antonio and UT-Pan American. At UT-San Antonio, the magnitude suggests the policy led to a 11.1 percentage point increase in the probability of enrollment for non-citizens. The difference in tuition levels for in-state and out-of-state students at UT-San Antonio in 2000-2001 was $5,160. This suggests that for every $1,000 in aid the enrollment probability increased by approximately 2 percentage points. The magnitude of the effect at UT- Pan American is substantially larger suggesting that the policy led to an 18 percentage point increase in the probability of enrollment for non-citizens. The difference in tuition levels for in-state and out-of-state students at UT-Pan American in 2000-2001 was approximately $6,000. This suggests that a $1,000 decrease in costs leads to a 3 percentage point increase in the probability of enrollment. The effect is substantially larger and is statistically significant in contrast to the results found by Linsenmeier, Rosen and Rouse (2006). At the remaining universities, the estimated effect of the policy is statistically insignificant.

The results from the linear probability models suggest that the policy did not increase the enrollment yields at all universities. Rather the positive effects of the policy seem to be concentrated at universities that historically enrolled a large percentage of Hispanic students. The policy did not significantly increase the probability of enrollment at the most selective

public universities. It may be that this is due to the small percentage of non-citizens accepted at these universities. Previous research by Singell, Waddell and Curs (2006) using data from Georgia and the Hope scholarship also show larger effects of financial aid at two-year and less selective four-year institutions.

The signs on the remaining coefficients are also of interest. It appears that at the state flagship universities both blacks and Hispanics are less likely to enroll conditional on being accepted than are white students. For all of the universities except for UT-San Antonio, the higher a student's SAT score, the less likely they are to enroll at that particular university. This suggests possibly that these students had other options outside of the current university being considered. Students who declared that they were Texas residents were significantly more likely to enroll at each of the universities than were students who had only graduated from a Texas high school.

4. Robustness tests

Our results suggest that the policy significantly increased enrollment yields at UT-San Antonio and UT-Pan American. In this section, we provide several robustness tests to evaluate how robust our results are to various specifications. Table 5 presents the results from separate regressions using different controls as well as different estimation techniques. We test whether the results are robust to the inclusion of year fixed effects as well as estimating the models using a probit model. We also test whether the universities were already experiencing increases in enrollment yields prior to the passage of the law by evaluating placebo laws.

The results presented in Table 5 do suggest that our results are robust. There is remarkably little change when including year fixed effects in the model as shown in moving

from column 1 in Table 5 to column 2. Column 3 shows the appropriate calculated marginal effect of the policy change on non-citizens.[19] The results are similar to those presented in column 1 in that the estimates are still statistically insignificant for Texas A&M, UT-Austin, and Texas Tech. The point estimate for UT-Pan American is smaller at approximately 14 percentage points. Yet, the linear probability model estimates are within the standard error of the probit estimate. The point estimate for UT-San Antonio is remarkably similar across regression techniques at 12 percentage points.

We also investigate whether the universities are already experiencing changes in their enrollment yields by investigating possible placebo laws using only the data in the years prior to the passage of H.B. 1403. When we estimate the model as if there was a placebo law in the years 1999 and 2000, statistically significant negative coefficients result. It does not appear that non-citizen students were anticipating the change in policy or that prior underlying trends can account for the positive policy effects we do estimate. This is true whether we only use years prior to the passage of H.B. 1403 or all years.

5. Hispanic Subsample

Previous studies on the effects of in-state tuition rates on the educational attainment of non-citizens have focused on Hispanics.[20] The focus on this group of individuals is due to the fact that the majority of undocumented citizens within the United States are Hispanics. While limiting the sample to these individuals does allow for homogeneity of the population, there is a tradeoff as there are still some individuals who are also affected by the policy that are not

[19] Nonlinear models require special care when interpreting the effects of interaction terms as discussed in Ai and Norton (2003). We use the method discussed in Norton, Wang and Ai (2004) to calculate the appropriate DID estimate of the law change.

[20] Flores (2010) focuses on all Latinos. Kaushal (2008) focuses on Mexicans.

included. In order to provide some comparison with previous studies, we also conduct an analysis of the effects of the policy only on Hispanics. This may also be of interest as our earlier results demonstrated that the largest policy effects were at UT-San Antonio and UT-Pan American, universities that enroll a large number of Hispanic students.

Table 6 provides the average characteristics of the subsample of individuals who are Hispanic. The limitation to only Hispanics severely limits the sample and eliminates the possibility of studying UT-Austin as no demographic information on students who are eligible for the policy is available. Some other noticeable differences occur when comparing the limited sample of Hispanics (Table 6) to the previous sample of all individuals (Table 1). Within the Hispanic subsample, more than half of the admitted Hispanic students choose to enroll at Texas A&M, UT-Pan American, and UT-San Antonio. Approximately half of all admitted Hispanic students at UT-Pan American choose to enroll and this can be compared to a yield rate of 44 percent for the entire sample of admitted students. Other noticeable differences between the Hispanic subsample of admitted students and the universe of all admitted students is the difference in the proportion of students in the top decile of their high school class. At Texas A&M, 58 percent of admitted Hispanics are in the top decile compared to only half of all admitted students in the full sample.

Table 7 provides the estimated coefficients from estimating equation 2 for the Hispanic subsample. The main coefficient of interest is the estimated DID which is the coefficient on the interaction between non-citizen and policy. Within the Hispanic subsample, the DID is statistically significant at UT-Pan American and marginally significant at Texas Tech. The estimate at UT-Pan American indicates that the policy led to an increase in the probability of enrollment by 15.5 percentage points for Hispanic non-citizens. At Texas Tech, the estimated

effect is a decrease in the probability of enrollment. However, some caution should be mentioned in interpreting the effect as the reduction in the sample to only Hispanics leads to the treatment group only consisting of 62 individuals at Texas Tech University. For Texas A&M and UT-Pan American, a higher SAT score suggests a decrease in the probability of enrollment. This is suggestive again that these students may have other options than do students with lower SAT scores. Students who reported being a resident of Texas were significantly more likely to enroll at Texas A&M, UT-San Antonio, and UT-Pan American.

6. Conclusions

The purpose of offering in-state tuition rates to non-citizens is to improve the educational opportunities of non-citizens. This study uses the passage of the law in Texas to evaluate the effects on the probability of non-citizens enrolling at several universities. The results demonstrate that non-citizens, though they may face less job opportunities than citizens, react similarly to other low-income students to reductions in college costs. After the policy change, non-citizens are significantly more likely to enroll at the University of Texas Pan American and the University of Texas at San Antonio. The results suggest a $1000 decrease in costs increases the probability of enrollment at UT-Pan American by approximately 3 percentage points and at UT-San Antonio by approximately 2 percentage points. Notably, the policy does not seem to affect the enrollment yields at the state flagship universities.

UT-Pan American and UT-San Antonio may be seeing the largest effects from the policy for several reasons. First, both universities are located in areas with large immigrant populations. UT-Pan American is close to the border of Mexico and San Antonio maintains a large immigrant population. Second, both UT-San Antonio and UT-Pan American are less

selective in their admissions decisions when compared to the state flagship universities. It may be that the policy change also affected the student's probability of applying to college. At the less selective universities, students who decide after the policy to apply to college are likely to be accepted. However, students who decide to apply to the state flagship universities face more competition for admission. Long and Tienda (2010) document an increase in the number of high school graduates during the time period of interest that may have made admissions to the selective universities even more competitive. Therefore, the effect at the state flagship universities may be muted by the fact that few of the students who applied as a result of the law were accepted. Our results that the effects are manifested at less selective institutions is also supported by research by Niu, Tienda and Cortes (2006) who find that black and Hispanic students are less likely to prefer and enroll in selective institutions than white students in Texas.

While we study the effects of the policy on enrollment yields at four-year universities, the Texas Higher Education Coordinating Board (THECB) reports that the majority of the students who qualify for ISRT under the law are attending community colleges. According to the THECB (2011), only 4,403 students who qualified for ISRT under H.B. 1403 were enrolled at all universities but 12,028 were enrolled at community colleges, technical schools and state colleges. This suggests that the policy is having the largest effect at enrollments at community colleges.

Prior to President Obama's executive order, many of the undocumented students lived in fear of being deported. Jauregui and Slate (2009-2010) state that fear of being revealed as undocumented is common to all of the undocumented students in their study and that it manifests itself as the students being reluctant to seek out college services as well as pursue certain fields of study that require background checks. The executive order provides a means for

undocumented students to obtain a legal temporary status that allows them to work and removes the fear of being deported temporarily. While it is unknown at this point how the policy will affect undocumented students, we suspect that it will increase the probability of students attending college for two reasons. By providing a means for undocumented students to legally obtain employment, the students may be more able to finance the costs of college. Second, the ability to obtain legal employment after college increases the benefits of a college degree for these students. The executive order, notably, does not provide guidance on what level of tuition non-citizen students should be charged.

This study focuses exclusively on the effects of the policy on the enrollment yields at each of the universities. However, it is possible that the policy affects other parts of the educational pipeline. For example, the policy may alter the student's probability of applying to any college. It may also alter the types of colleges where the student sends an application. It may also affect the probability of persisting in college as well. All of these areas could be explored with future research.

REFERENCES

Abraham, K.G. & Clark, M. A. (2006). Financial aid and students' college decisions: Evidence from the District of Columbia tuition assistance grant program. *The Journal of Human Resources*, *41*(3), 578 – 610.

Ai, C. & Norton, E.C. (2003). Interaction terms in logit and probit models. *Economic Letters*, *80*, 123-129.

Angrist, J & Krueger, A. (2000). Empirical strategies in labor economics. In O. Ashenfelter & D. Card, (Eds), *Handbook of Labor Economics* Volume 3 Part A (pp 1277-1366), Amsterdam: Elsevier

Card, D. & Krueger, A. B. (2005). Would the elimination of affirmative action affect highly qualified minority applicants? Evidence from California and Texas. *Industrial and Labor Relations Review*, *58*(3), 416-434.

Cellini, S.R. (2008). Causal inference and omitted variable bias in financial aid research: Assessing solutions. *The Review of Higher Education*, *31*(3), 329-354.

Chin, A., & Juhn, C. (2010). Does reducing college costs improve educational outcomes for undocumented immigrants? Evidence from state laws permitting undocumented immigrants to pay in-state tuition at state colleges and universities. NBER Working Papers 15932, National Bureau of Economic Research.

Deming, D., & Dynarski, S.S. (2009). Into college, out of poverty? Policies to increase the postsecondary attainment of the poor. NBER Working Papers 15387, National Bureau of Economic Research.

Dickson, L. M. (2006a). The changing accessibility, affordability, and quality of higher

education in Texas. In R. Ehrenberg (Ed.), *What's Happening to Public Higher Education?* (pp 229-250). Praeger Publishers.

Dickson, L. M. (2006b). Does ending affirmative action in college admissions lower the percent of minority students applying to college? *Economics of Education Review, 25*, 109 – 119.

Feder, J. (2006). Unauthorized alien students, higher education, and in-state tuition rates: A legal analysis. Washington, DC: Congressional Research Service.

Flores, S. M. (2010). State dream acts the effect of in-state resident tuition policies and undocumented Latino students. *The Review of Higher Education*, *33*(2), 239-283.

Goldin, C., Katz, L. F. & Kuziemko, I. (2006). The homecoming of American college women: The reversal of the college gender gap. *Journal of Economic Perspectives*, *20*(4), 133-156.

Jauregui, J. A., & Slate, J.R. (2009-2010). Texas borderland community colleges and views regarding undocumented students: A qualitative study. *Journal of College Student Retention, Research, Theory & Practice*, *11*(2), 183-210.

Kaushal, N. (2008). In-state tuition for the undocumented: Education effects on Mexican adults. *Journal of Policy Analysis and Management, 27*(4), 771 – 792.

Kobach, K. W. (2006-2007). Immigrant nullification: In-state tuition and lawmakers who disregard the law. *N.Y.U. Journal of Legislation and Public Policy*, *10*: 473-523.

Leslie, L. & Brinkman, P. (1988). *The Economic Value of Higher Education.* New York: Macmillan.

Lewbel, A. (2007). Estimation of average treatment effects with misclassification. *Econometrica*, *75*(2), 537-551.

Linsenmeier, D.M., Rosen, H.S., & Rouse, C.E. (2006). Financial aid packages and college enrollment decisions: An econometric case study. *The Review of Economics and Statistics*, *80*(1), 126-145.

Long, B.T. (2004). Does the format of a financial aid program matter? The effect of state in-kind tuition subsidies. *The Review of Economics and Statistics*, *86*(3),767-782.

Long, M. (2004a). Race and college admission: An alternative to affirmative action?" *The Review of Economics and Statistics*, *86*(4), 1020-1033.

Long, M. (2004b). College applications and the effect of affirmative action. *Journal of Econometrics, 121*(1-2), 319-342.

Long, M. & Tienda, M. (2008). Winners and losers: Changes in Texas university admissions post-Hopwood. *Educational Evaluation and Policy Analysis, 30*(3), 255 – 280.

Long, M. & Tienda, M. (2010). Changes in Texas universities' applicant pools after the *Hopwood* decision. *Social Science Research, 39,* 48-66.

Manski, C.F. & Wise, D.A. (1983). *College Choice in America*. Cambridge: Harvard University Press.

Niu, S.J., Tienda, M. & Cortes, K. (2006). College selectivity and the Texas top 10% law. *Economics of Education Review, 25*(3), 259-272.

Norton, E.C., Wang, H., & Ai, C. (2004). Computing interaction effects and standard errors in logit and probit models. *The Stata Journal*, *4*(2), 154-167.

Nurnberg, P., Schapiro, M., & Zimmerman, D. (2012). Students choosing colleges: Understanding the matriculation decision at a highly selective private institution. *Economics of Education Review*, *31*, 1-8.

Olivas, M. (1988). Administering intentions: Law, theory and practice of postsecondary residency requirements. *Journal of Higher Education*, *59*(3), 263-290.

Olivas, M. (2010). The political economy of the DREAM Act and the legislative process: A case study of comprehensive immigration reform. *Public Law and Legal Theory Series* 2010 - A-6.

Olivas, M. (2012). *No Undocumented Child Left Behind: Plyler v. Doe and the Education of Undocumented Schoolchildren*. New York University Press: NY

Salsbury, J. (2003). Evading 'Residence': Undocumented students, higher education, and the states. *American University Law Review*, *53*(2) Article 3.

Texas Higher Education Coordinating Board. (2011). Eligibility for in-state tuition and state financial aid programs available here: http://www.thecb.state.tx.us/download.cfm?downloadfile=D4627A35-D904-9D62-80EC15FC597A824B&typename=dmFile&fieldname=filename

Singell, L.D., Waddell, G.R. & Curs, B.R. (2006). HOPE for the Pell? Institutional effects in the intersection of merit-based and need-based aid. *Southern Economic Journal*, *73*(1), 79-99.

Texas Higher Education Coordinating Board (2011) Overview Eligibility for In-State Tuition and State Financial Aid Programs. Available here: http://www.thecb.state.tx.us/index.cfm?objectid=7D014C29-BE66-0063-3E7B104B8BC5DF3E

Tienda, M. & Xinchun Niu, S.X. (2006). Flagships, feeders, and the Texas top 10% law: A test of the 'brain drain' hypothesis. *Journal of Higher Education*, *77*(4), 712-739.

Van der Klaauw, W. (2002). A regression-discontinuity evaluation of the effect of financial aid offers on college enrollment. *International Economic Review, 43*(4), 1249-1287.

Table 1: Accepted student characteristics by university

Variable	Texas A&M	UT-Austin	UT-Pan American	UT-San Antonio	Texas Tech
Enroll = 1	0.624	0.616	0.440	0.538	0.457
Policy Variables					
Non-citizen in-state	0.022	0.007	0.025	0.041	0.016
Policy	0.414	0.488	0.427	0.632	0.611
Non-citizen in-state * Policy	0.010	0.005	0.012	0.028	0.011
Demographic Characteristics					
Male	0.477	0.465	0.451	0.440	0.545
White	0.779	0.617	0.144	0.380	0.801
Black	0.033	0.041	0.016	0.063	0.036
Hispanic	0.110	0.153	0.762	0.490	0.114
American Indian	0.005	0.004	0.001	0.005	0.005
Asian	0.059	0.177	0.022	0.054	0.039
Other	0.015	0.007	0.056	0.007	0.003
Texas Resident	0.978	0.989	0.864	0.963	0.985
Academic and High School Characteristics					
SAT score / 100	11.867	12.398	8.609	9.998	11.210
Top Decile	0.504	0.588	0.065	0.178	0.212
High School Class Rank	13.550	10.982	39.451	31.583	27.167
Feeder High School	0.183	0.241	0.033	0.089	0.183
Private High School	0.079	0.096	0.018	0.071	0.072
Years	1998-2002	1998-2003	1998-2002	1998-2003	1998-2003
N	50214	56660	11481	27420	27359

Notes: Out-of-state students and students considering enrollment outside the fall semester are not included. Individuals who do not have information on gender, citizenship status, admissions status, enrollment status or a college admissions test score are also not included. Individuals who report an ACT score had their score converted to the appropriate SAT score.

Table 2: Accepted student characteristics by citizenship status and university

	Texas A&M		UT-Austin		UT-Pan American		UT-San Antonio		Texas Tech	
	CTX	NCTX	CTX	NCTX	CTX	NCTX	CTX	NCTX	CTX	NCTX
Enroll = 1	0.629	0.391	0.616	0.580	0.446	0.214	0.542	0.435	0.459	0.355
Policy Variables										
Non-citizen in-state	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000	1.000
Policy	0.413	0.450	0.487	0.684	0.426	0.476	0.629	0.695	0.610	0.673
Non-citizen in-state * Policy	0.000	0.450	0.000	0.684	0.000	0.476	0.000	0.695	0.000	0.673
Demographic Characteristics										
Male	0.477	0.511	0.466	0.470	0.451	0.445	0.440	0.442	0.543	0.657
White	0.790	0.140	0.620	NA	0.140	0.120	0.390	0.090	0.810	0.170
Black	0.032	0.043	0.041	NA	0.016	0.014	0.065	0.036	0.036	0.063
Hispanic	0.108	0.210	0.155	NA	0.772	0.352	0.491	0.470	0.112	0.225
American Indian	0.005	0.000	0.004	NA	0.001	0.000	0.005	0.004	0.005	0.000
Asian	0.050	0.456	0.178	NA	0.018	0.176	0.047	0.238	0.034	0.381
Other	0.012	0.148	0.000	1.000	0.048	0.340	0.000	0.162	0.000	0.165
Texas Resident	0.983	0.729	0.997	0.000	0.882	0.166	0.980	0.558	0.999	0.123
Academic and High School Characteristics										
SAT score / 100	11.868	11.808	12.398	12.339	8.607	8.690	10.004	9.848	11.211	11.150
Top Decile	0.503	0.547	0.588	0.599	0.065	0.069	0.175	0.253	0.211	0.267
High School Class Rank	13.575	12.443	10.976	11.876	39.500	37.536	31.726	28.227	27.183	26.151
Feeder High School	0.180	0.284	0.240	0.354	0.032	0.086	0.086	0.166	0.181	0.276
Private High School	0.080	0.062	0.096	0.121	0.018	0.024	0.072	0.050	0.072	0.039
Years	1998-2002		1998-2003		1998-2002		1998-2003		1998-2003	
Sample size	49094	1120	56239	421	11191	290	26301	1119	26928	431

Notes: CTX stands for citizen living in Texas. NCTX stands for non-citizen living in Texas. Out-of-state students and students considering enrollment outside the fall semester are not included. Individuals who do not have information on gender, citizenship status, admissions status, enrollment status or a college admissions test score are also not included. Individuals who report an ACT score had their score converted to the appropriate SAT score.

Table 3: Difference in differences in the mean enrollment yields for each of the universities by citizenship status

Group	Fall 1998 - Fall 2000 Prior to H.B. 1403	Fall 2001 - Fall 2002 Post H.B. 1403	Mean difference: Post - Prior
Non-citizens in Texas (NCTX)	0.427	0.347	-0.080***
	(0.020)	(0.021)	(0.029)
Citizens in Texas (CTX)	0.642	0.611	-0.030***
	(0.003)	(0.003)	(0.004)
Mean difference: NCTX-CTX	-0.215***	-0.264***	
	(0.020)	(0.022)	
Difference in Differences			-0.050*
			(0.029)

University of Texas at Austin

Group	Fall 1998 - Fall 2000 Prior to H.B. 1403	Fall 2001 - Fall 2003 Post H.B. 1403	Mean difference: Post- Prior
Non-citizens in Texas (NCTX)	0.571	0.583	0.012
	(0.043)	(0.030)	(0.052)
Citizens in Texas (CTX)	0.612	0.621	0.010**
	(0.003)	(0.003)	(0.004)
Mean difference: NCTX-CTX	-0.040	-0.038	
	(0.042)	(0.029)	
Difference in Differences			0.003
			(0.051)

University of Texas Pan American

Group	Fall 1998 - Fall 2000 Prior to H.B. 1403	Fall 2001 - Fall 2002 Post H.B. 1403	Mean difference: Post – Prior
Non-citizens in Texas (NCTX)	0.132	0.304	0.172***
	(0.028)	(0.039)	(0.047)
Citizens in Texas (CTX)	0.423	0.477	0.054***
	(0.006)	(0.007)	(0.009)
Mean difference: NCTX-CTX	-0.291***	-0.173***	
	(0.040)	(0.043)	
Difference in Differences			0.118**
			(0.059)

University of Texas at San Antonio

Group	Fall 1998 - Fall 2000 Prior to H.B. 1403	Fall 2001 - Fall 2004 Post H.B. 1403	Mean difference: Post – Prior
Non-citizens in Texas	0.413	0.445	0.031
(NCTX)	(0.027)	(0.016)	(0.033)
Citizens in Texas	0.562	0.530	-0.032***
(CTX)	(0.005)	(0.004)	(0.006)
Mean difference: NCTX-CTX	-0.148***	-0.085***	
	(0.029)	(0.017)	
Difference in Differences			0.063*
			(0.033)

Texas Tech University

Group	Fall 1998 - Fall 2000 Prior to H.B. 1403	Fall 2001 - Fall 2003 Post H.B. 1403	Mean difference: Post – Prior
Non-citizens in Texas	0.418	0.324	-0.094**
(NCTX)	(0.042)	(0.028)	(0.050)
Citizens in Texas	0.480	0.445	-0.036***
(CTX)	(0.005)	(0.004)	(0.006)
Mean difference: NCTX-CTX	-0.061	-0.121***	
	(0.042)	(0.030)	
Difference in Differences			-0.060
			(0.051)

Table 4: Does lowering tuition increase enrollment yields?

	Texas A&M	**UT-Austin**	**UT-Pan American**	**UT-San Antonio**	**Texas Tech**
Non-citizen	-0.018	0.414***	0.141***	-0.045*	0.012
	(0.020)	(0.050)	(0.034)	(0.026)	(0.059)
Policy	-0.025***	0.022***	-0.006	-0.045***	-0.026***
	(0.004)	(0.004)	(0.008)	(0.006)	(0.006)
Non-citizen*Policy	**0.021**	**-0.001**	**0.183*** **	**0.111*** **	**-0.059**
	(0.028)	(0.052)	(0.045)	(0.031)	(0.055)
Male	0.010**	0.035***	0.018**	0.030***	0.021***
	(0.004)	(0.004)	(0.008)	(0.006)	(0.006)
Black	-0.226***	-0.125***	-0.056**	-0.056***	-0.141***
	(0.012)	(0.011)	(0.022)	(0.013)	(0.016)
Hispanic	-0.164***	-0.077***	0.053***	-0.041***	-0.146***
	(0.007)	(0.006)	(0.010)	(0.007)	(0.009)
American Indian	-0.064**	-0.012	0.058	0.028	-0.015
	(0.030)	(0.031)	(0.060)	(0.044)	(0.043)
Asian	-0.237***	0.054***	-0.012	-0.0004	-0.148***
	(0.009)	(0.005)	(0.018)	(0.014)	(0.015)
SAT/100	-0.047***	-0.041***	-0.008***	0.024***	-0.027***
	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)
Top Decile	0.027***	-0.031***	-0.03	-0.082***	0.048***
	(0.006)	(0.007)	(0.020)	(0.009)	(0.009)
Class Rank	0.003***	0.003***	0.0002	0.002***	0.003***
	(0.0003)	(0.0003)	(0.0002)	(0.0002)	(0.0002)
Missing Rank	-0.029***	-0.052***	-0.495***	-0.043***	0.019
	(0.010)	(0.010)	(0.008)	(0.015)	(0.074)
Texas Resident	0.446***	0.463***	0.531***	0.281***	0.0001
	(0.011)	(0.026)	(0.012)	(0.016)	(0.065)
Feeder High School	-0.025***	0.001	-0.067***	-0.057***	-0.131***
	(0.006)	(0.005)	(0.012)	(0.011)	(0.008)
Private High School	-0.063***	-0.125***	0.095***	-0.035***	-0.176***
	(0.009)	(0.009)	(0.021)	(0.012)	(0.011)
Constant	0.756***	0.651***	0.158***	0.032	0.739***
	(0.023)	(0.033)	(0.030)	(0.031)	(0.072)
N	50214	56660	11481	27420	27359
R-squared	0.071	0.037	0.331	0.034	0.037

Notes: Robust standard errors are presented in parentheses. * denotes significance at 10%, ** denotes significance at 5%, *** denotes significance at 1%

Table 5: Robustness tests

	(1)	(2)	(3)	(4)	(5)
Texas A&M	0.021	0.021	0.0003	-0.012	-0.022
	(0.028)	(0.028)	(0.031)	(0.041)	(0.030)
UT-Austin	-0.001	0.001	-0.015	-0.049	-0.023
	(0.052)	(0.052)	(0.003)	(0.094)	(0.058)
UT-Pan American	0.183***	0.188***	0.137***	-0.242**	-0.237***
	(0.045)	(0.045)	(0.057)	(0.099)	(0.047)
UT-San Antonio	0.111***	0.112***	0.120***	-0.161***	-0.155*
	(0.031)	(0.030)	(0.006)	(0.052)	(0.033)
Texas Tech	-0.059	-0.06	-0.067	-0.049	0.041
	(0.055)	(0.055)	(0.056)	(0.116)	(0.061)
Student Characteristics	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	No	No	No
Probit Model	No	No	Yes	No	No
Placebo Law 1999-2000	No	No	No	Yes	Yes
All Years Available	Yes	Yes	Yes	Only 1998-2000	Yes

Notes: Each cell in the table presents the difference-in-differences estimate of the effects of the policy.

Table 6: Accepted Hispanic student characteristics

Variable	Texas A&M	UT-Pan American	UT-San Antonio	Texas Tech
Enroll = 1	0.526	0.501	0.505	0.357
Policy variables				
Non-citizen	0.043	0.012	0.039	0.031
Policy	0.429	0.482	0.616	0.625
Non-citizen * policy	0.021	0.005	0.026	0.021
Demographic Characteristics				
Male	0.479	0.441	0.423	0.543
Academic Characteristics				
SAT/100	11.176	8.297	9.622	10.639
Top Decile	0.580	0.069	0.231	0.315
Class Rank	11.979	39.713	28.214	23.416
Texas Resident	0.965	0.953	0.966	0.972
Feeder High School	0.083	0.007	0.032	0.086
Private High School	0.091	0.009	0.085	0.083
Sample size	5529	8745	13449	3126

Table 7: Does the policy affect Hispanic student enrollment yields?

	Texas A&M	**UT-Pan American**	**UT-San Antonio**	**Texas Tech**
Non-citizen	-0.056	0.022	-0.009	0.063
	(0.045)	(0.050)	(0.036)	(0.133)
Policy	0.001	0.003	-0.038***	0.004
	(0.014)	(0.009)	(0.009)	(0.018)
Non-citizen*Policy	**-0.003**	**0.155*** **	**0.044**	**-0.219***
	(0.062)	(0.058)	(0.043)	(0.017)
Male	0.002	0.021**	0.036***	0.011
	(0.013)	(0.009)	(0.009)	(0.017)
SAT/100	-0.027***	-0.007**	0.034***	0.002
	(0.005)	(0.003)	(0.003)	(0.007)
Top Decile	-0.004	-0.032	-0.077***	-0.086***
	(0.021)	(0.023)	(0.012)	(0.024)
Class Rank	0.005***	0.0002	0.002***	0.004***
	(0.001)	(0.0002)	(0.0002)	(0.0006)
Missing Rank	0.009	-0.517***	-0.093***	0.206
	(0.032)	(0.010)	(0.024)	(0.275)
Texas Resident	0.436***	0.495***	0.289***	-0.071
	(0.023)	(0.017)	(0.021)	(0.166)
Feeder High School	0.056**	-0.184***	0.003	-0.099***
	(0.024)	(0.033)	(0.024)	(0.032)
Private High School	-0.033	0.021	-0.023	-0.181***
	(0.024)	(0.035)	(0.015)	(0.031)
Constant	0.350***	0.245***	-0.128***	0.356*
	(0.061)	(0.035)	(0.042)	(0.183)
N	5529	8745	13449	3126
R-squared	0.046	0.282	0.037	0.048

Notes: Robust standard errors are presented in parentheses. * denotes significance at 10%, ** denotes significance at 5%, *** denotes significance at 1%