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## The First State Dream Act: In-State Resident Tuition and Immigration in Texas

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*In 2001, Texas became the first state to pass an in-state resident tuition policy that benefits undocumented immigrant students, a majority of whom are of Latino/a origin. This analysis estimates the effect of the Texas in-state resident tuition policy on students likely to be undocumented. Using a differences-in-differences strategy and two extensive data sets, results indicate that foreign-born non-citizen Latino/a students were more likely to attend college after the introduction of the Texas benefit. The results were strongest for older high school graduates, who were found to be 4.84 times more likely to have enrolled in college than not after the tuition policy than their counterparts in Southwestern states without a tuition policy. Multiple tests show that results are robust regardless of specification.*

Keywords: *immigrant students, state policy, financial aid, college access*

AS THE number of undocumented students in U.S. public schools has increased over the past few decades, concerns about their educational outcomes have become a matter of state interest (Berger, 2001).<sup>1</sup> The U.S. Supreme Court first considered how education systems should treat undocumented students in the 1982 case *Plyler v. Doe*, which struck down a 1975 Texas law seeking to deny undocumented children a free elementary and secondary public education by charging them tuition to attend the state's schools (*Plyler v. Doe*, 1982). Nearly 20 years after the implementation of this decision, Texas became the first state to successfully pass a tuition-related bill addressing undocumented students' access to all in-state public higher education. This bill, referred to as the first state "dream act" or, more

formally, as House Bill 1403 (HB 1403), followed passage of the 1996 Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and the Personal Responsibility and Work Opportunity Reconciliation Act, two federal laws that define the most recent context in which immigrants, both legal and undocumented, can receive certain educational and social benefits (Olivas, 2004, 2009).<sup>2</sup> Formally enacted in 2001, HB 1403 granted undocumented students in Texas the same in-state resident tuition (ISRT) discount as legal residents, providing they met specific residency and graduation requirements. The in-state resident tuition discount in Texas is substantial for all students, but it is especially significant for undocumented students because they do not qualify for federal

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aid to finance a postsecondary education.<sup>3</sup> The Texas law also makes undocumented students eligible for state financial aid, a component not present in most other states that offer a similar tuition benefit. Since 2001, more than half of the 50 states have considered in-state residency tuition bills; 11 states in total have passed such legislation: Texas, California, New York, Illinois, Washington, Oklahoma, New Mexico, Kansas, Utah, Nebraska, and now Wisconsin.

Nonetheless, several states still have faced challenges to their tuition policy; Texas is the most recent with a lawsuit filed in December 2009 (Carroll, 2009). Despite the significant legal, policy, and electoral attention given this tuition legislation, there is as yet virtually no empirical evidence of the quantitative effect it has had on the college-enrollment rates of undocumented Latino/a students in Texas. This study explores whether the introduction of resident tuition benefits for undocumented students in Texas in 2001 has had an effect on the college participation of students likely to be of this citizenship status. The specific research questions for this analysis are, therefore, as follows:

*Research Question 1:* Did the introduction of an in-state resident tuition policy in Texas increase the college-participation rate of students likely to be undocumented in the period examined?

*Research Question 2:* Did the introduction of an in-state resident tuition policy have differential effects, if any, by year, after initial policy implementation?

The introduction of the tuition benefit is in fact a good example of a natural experiment in public policy, which occurs when an exogenous event, such as the adoption of a program or law, occurs to affect some groups but not others. The changes in policy brought about in Texas by HB 1403 provide a unique opportunity to investigate the causal effect of policies targeting undocumented Latino/a students using quasi-experimental methods employed by other researchers (Dynarski, 2003, 2008; Kane, 2003; B. T. Long, 2004a). I use a treatment-comparison research design similarly applied to the introduction of merit aid in previous studies (Dynarski, 2004, 2008). For example, I compare Texas to states in the

Southwest that never introduced an in-state resident tuition policy or that introduced such legislation after the period under analysis. More specifically, I examine the effects of in-state resident tuition eligibility in Texas on the college decisions of students likely to be undocumented immigrants—foreign-born non-citizens (FBNCs) from Latin American countries—which is the group most likely to include undocumented residents who may benefit from the policy.<sup>4</sup> Although the proxy for undocumented students in this analysis is imperfect, this category of students has the highest likelihood of containing the greatest percentage of undocumented individuals using available data (Passel, 2005a; Smith, 2006).<sup>5</sup> I first examine whether the Texas policy does in fact have an effect on the college enrollment of FBNC Latinos/as and then whether this outcome varies by year during the period in which HB 1403 remained in its original format (it was modified in 2005 by Senate Bill 1528).

In the following section, I first summarize the demographic and educational context of undocumented immigrants and Latinos/as in the United States and Texas and then lay out the details of House Bill 1403. In the section Theoretical Framework and Review of the Literature, I provide the theoretical framework and associated research relating to the college-participation rates of Latinos/as and Latino/a immigrants in the United States. I follow in the fourth section with a description of the research design, including data, analytic strategy, and threats to validity associated with the potential limitations of the design. In the fifth section, I describe the results of the estimated effect of HB 1403 on the college-enrollment outcomes of Latino/a immigrant students in Texas and discuss the range of additional checks to test the robustness of my results. I conclude in the final section with implications for subsequent policy analysis research.

### **Context and Background: Immigrants and HB 1403**

#### *Undocumented Immigrants and Latinos/as*

Although undocumented status is not exclusive to one racial or ethnic group, Latin American

immigrants make up approximately 85% of the estimated 11.3 million undocumented immigrants in the United States (Passel, 2005a). Of the undocumented population in the United States from Latin America, 57% are from Mexico. Texas includes the second-largest percentage of undocumented immigrants at 14%. Furthermore, individuals of Mexican origin make up 77% of all unauthorized immigrants in Texas, most of whom are between the ages of 15 and 29 (Passel, Van Hook, & Bean, 2004). Estimates also indicate that approximately 6.3 million U.S. households include undocumented residents and that one sixth of the undocumented population is younger than age 18 (Passel, 2005a).

The U.S. naturalization rate also differs among groups of various national origins; detailed government-sponsored surveys such as U.S. Census datasets and the Current Population Survey (CPS) combined with other unique immigration surveys have been used to estimate the proportion of undocumented individuals among these various groups (Smith, 2006). Immigrants of Asian origin, for example, have some of the highest naturalization rates in the United States and are more likely to be citizens than other foreign-born individuals (Dixon, 2006). In contrast, foreign-born individuals from Latin America, in particular Mexico, historically have had some of the lowest naturalization rates (Margon, 2004). Smith (2006) argues that one way to begin determining the likelihood that an individual is undocumented is by corroborating his or her ethnicity and country of origin, as measured by the CPS in conjunction with other data sets such as the New Immigrant Survey–Pilot (NIS-P), a nationally representative sample of new legal immigrants.<sup>6</sup> Others have also used such surveys to estimate the percentage of undocumented immigrants by identifying their ethnicity, country of origin, and educational completion rates (Borjas, Freeman, & Lang, 1991). One conclusion is that analyses of immigrants as a group using government databases do not provide a representative assessment of either the legal resident immigrant population or the undocumented as separate populations (Betts & Lofstrom, 2000). Therefore, particular configurations of samples that use country of origin, ethnicity, and age are likely to produce more reliable estimates of

groups that have higher percentages of undocumented individuals than others—for example, Latinos/as compared to Asians. To estimate the undocumented population in the United States, I rely on the latest methods by Passel and colleagues (Passel et al., 2004), which account for various changes in demographic trends, including the number of refugees and asylees as well as changes in immigration policy categories.<sup>7</sup>

The educational attainment rates for undocumented immigrants are also below those of legal residents and U.S.-born students. The Urban Institute estimates that 49% of “unauthorized youth” of all races and ethnicities do not complete high school, compared to 21% of legal immigrants and 11% of native-born students in the United States (Passel, 2005b). Despite graduation rates well below those of other categories of students, a 2004 report indicates that approximately 48% of the 65,000 undocumented students who graduated from high school attended some college (Passel, 2005b). Determining what factors may have facilitated this college attendance and how they did so calls for further exploration.

#### *Background and Criteria of House Bill 1403*

By 2001, House Bill 1403 had considerable support from both houses of the state legislature, passing unanimously in the Texas senate (Berger, 2001).<sup>8</sup> One particular and somewhat peculiar condition, however, included the provision that any student who had previously attended an institution of higher education could not benefit from the in-state tuition benefit of the new bill. Therefore, the new legislation precluded any student who had enrolled in a Texas college or university prior to fall 2001 from receiving the tuition benefit. As written, HB 1403 required that a student meet the following criteria:

1. Must have graduated from a public or private high school or received the equivalent of a high school diploma in Texas.
2. Must have resided in the state for at least 3 years as of the date graduated from high school or have received the equivalent of a high school diploma.

3. Must register as an entering student in an institution of higher education not earlier than the 2001 fall semester.
4. Must provide to the institution an affidavit stating that the individual will file an application to become a permanent resident at the earliest opportunity the individual is eligible to do so (HB 1403, 77th Leg., Reg. Sess. [Tex. 2001]).

HB 1403 remained in stable legislative form until 2005. Additional provisions to the bill concerning timing in the application process were passed in 2005 and enacted in 2006.

### Theoretical Framework and Review of the Literature

#### *Costs, Benefits, and Uncertainty in the College Enrollment of Undocumented Students*

To understand how undocumented students may respond to a price reduction in college tuition stemming from a state law, I apply a cost-benefit framework developed by Becker (1964) as part of the human capital model. According to Becker, investing in education carries a cost, but it also increases human capital, which translates into skills that can be “rented out” to employers in exchange for income. In deciding whether to prepare for, enroll in, or complete college, an individual weighs the costs and benefits of the educational investment—both monetary and non-monetary. Within a basic human capital framework, the primary effect of the HB 1403 policy, which provides a tuition discount for students who would otherwise be required to pay international rates, is a reduction in price.

The typical cost-benefit analysis, however, may operate differently for a student who is undocumented and therefore susceptible to a number of uncertain factors and outcomes. Altonji (1993) suggested that deciding to invest in college is further complicated when individuals have incomplete information and/or are dealing with uncertain conditions when trying to make the most accurate cost-benefit analysis of their decision. Typical uncertainties for undocumented students may include the inability to pay

for school or to secure the financial aid from sources available to others, such as federal aid (loans and grants); risk of deportation; separation from family in the United States; and whether, after attending college as an undocumented individual, there will be any real returns in the labor market in that in-state resident tuition policy does not resolve issues of unauthorized residence in the United States. State support via HB 1403, then, may reduce undocumented student uncertainty by at least providing a safe space where they can continue their education. That is, HB 1403 may also reduce the uncertainty in the college-enrollment process for these undocumented students.

#### *The Immigrant College Student: Individual Characteristics, Response to Aid, and State Policy*

Research on immigrant college students has burgeoned over the past decade (Batalova & Fix, 2006; Gonzales, 2007; Hagy & Staniec, 2002; Leinbach & Bailey, 2006; Rincon, 2008). Of particular recent interest in the larger college-access puzzle for this population are the roles of financial aid and of state policies influencing educational attainment.

#### Individual Characteristics

Age, gender, and time in the United States are particularly strong determinants of general participation in school and of the college enrollment of immigrant students in the United States (Betts & Lofstrom, 2000; Fry, 2005). A foundational issue that leads to the likelihood of high school graduation followed by postsecondary enrollment is time spent in the United States. For example, foreign-born teens who have received much of their schooling in the United States, in particular if they arrived in the United States early in childhood, are much more likely to have a lower dropout rate than foreign-born teens who arrived later in life. Gender also plays an identifiably strong role in high school dropout rates, most notable for males. Immigrant males who arrive later in their school-age life and who had educational difficulties before they migrated are particularly likely to drop out of U.S. high schools. A conventional reason for failure to participate or continue in school is

often the individual motivation for migration: Males are more likely to be labor migrants, which may contribute to their having higher dropout rates (or never enrolling in school) than those of their immigrant female counterparts (Fry, 2005; Oropesa & Landale, 2008). Finally, for foreign-born individuals who do enter U.S. postsecondary institutions, immediate entry after high school or at the traditional college age of approximately 18 is not likely to occur. In a study examining foreign-born individuals for U.S. Census cohorts from 1970, 1980, and 1990, Betts and Lofstrom (2000) found that individuals in cohort groups older than age 20 enroll in college at higher rates than younger age groups. They suggest that such enrollment patterns by adult immigrants decrease the educational attainment gap with native groups over time. Age 21 and older is therefore a consistent marker of enrollment age for foreign-born individuals, as measured by U.S. Census databases for the three decades just mentioned.

#### Price, Aid, and Latino/a Immigrant Students

Numerous studies have suggested a causal link between particular types of financial aid, such as tuition subsidies, and an individual's decision to enroll in college (Dynarski, 2003; Kane, 1995, 2003). More specific, students' response to college financial aid has been shown to differ according to the type of aid available to mitigate costs, perceptions of price, and individual background characteristics, such as income status as well as race and ethnicity (Ellwood & Kane, 2000; Heller, 1997; Kane, 1994; Perna, 2000; St. John & Noell, 1989). Latinos'/as' response to various forms of financial aid has also received public and empirical attention. Post (1990) found that financial considerations in the form of college costs were a large determinant in college attendance plans, which depended on language status. Alfonso (2004) suggested that Hispanics appear to be more sensitive to college costs than non-Hispanics. Another national study found that Hispanic parents were twice as likely as non-Hispanics to have no idea how to pay for college, and they were less likely to receive any information related to financial aid while their child was young (Sallie Mae Foundation, 2004).

#### Relevant K–16 State Educational Policy in Texas

In attempting to decipher the exact role that the introduction of an in-state resident tuition benefit played in Texas, it is also important to examine whether other related state policies enacted or in operation at the same time as the ISRT policy and potentially associated with the college participation of foreign-born individuals of Latino/a origin in Texas may have played an important role. These policy factors may include (a) the presence and retraction of race-conscious policies in college admissions, (b) new state alternative admissions policies, (c) comprehensive postsecondary institutional outreach initiatives and state grant programs, and (d) K–12 accountability policies, such as promotion and graduation exams (PGEs).

Latino/a-origin individuals make up a large majority of all immigrants in Texas. The ethnicity of such students is therefore applicable to traditional race-conscious admissions practices associated with affirmative action practices. One earlier examination of the effect that immigrant students have on college admissions outcomes finds that some immigrant students, in particular those who are wealthier and whose parents have higher levels of education, "crowd out" U.S.-born Black and Hispanic students at selective institutions (Hoxby, 1998). However, this study focused on California's distinct higher education landscape and it also had inconclusive results in regard to non-selective institutions, the locations where Latinos/as, regardless of citizenship status, are most likely to attend college. Changes in admissions policy, as dictated by *Hopwood v. Texas* and subsequent legislative action as represented by the Top Ten Percent Plan, removed the role of race in college admissions for all students in Texas by 1997, although the practice was reinstated in 2005 by some Texas institutions with the *Grutter v. Bollinger* decision. By 1998, all public postsecondary institutions were required to admit the top 10% of a school's graduating class to the Texas college or university of their choice. This included any student, regardless of race or citizenship status. Research on the effects of the percent plan admissions policy, however, has consistently found that the level of underrepresented minority students, including Hispanics,

attending selective colleges and universities has not risen to the level of admissions prior to the retraction of race-conscious admissions practices in 1996 (M. Long, 2004; Long & Tienda, 2008).

Domina (2007) argued that a combination of admission and recruitment factors worked explicitly to link postsecondary opportunities to high school performance, ultimately operating as K–16 school reforms in the state. Although the institutional scholarship programs sponsored by the most selective flagship universities in Texas proved effective in increasing the percentage of underrepresented students at these institutions, undocumented students are not eligible, due to their citizenship status. Also at the K–12 level are school reform efforts via accountability policies. In Texas, promotion and graduation exams represent one of the most important and examined interventions. Harris (2007) provided a useful summary of the evidence on such exams across the United States, concluding that the overall research is mixed, although general gains from PGEs are offset by a reduction in rates of high school graduation. Of particular relevance to Texas is Martorell's (2005) study on the effects, by cohorts, of failing the state's high school exit exam in the early to mid-1990s. Although the author found that students who fail the exam in early high school grades are no more likely to drop out of high school than students who pass the exam, the exam reduces the number of individuals who receive a traditional high school diploma and increases the number who receive a general education diploma (GED). The study also found that failing the "last chance" PGE exam significantly reduces the rate of enrollment in Texas public postsecondary education institutions. Although perhaps one of most rigorous quantitative studies on PGEs in Texas, Martorell's (2005) study focused on differences between White and non-White groups and did not disaggregate by immigrant or foreign-born status as the unique data set employed is unfortunately not well-suited for analyzing educational outcomes by detailed immigration statuses. Overall, state policy initiatives active in Texas higher education that may relate to the educational performance of Latino/a foreign-born non-citizens do not appear to have significantly influenced the college enrollment of

ISRT students for reasons of non-applicability or lack of assessment of immigrant students in the study samples.

## Research Design

### *The Data*

Assessing the effect of a state financial aid benefit, such as an in-state resident tuition law, requires data that are timely, are as representative as possible, are sufficiently detailed to capture differences in citizenship status, are rich in educational trajectory outcomes, and have appropriate variables to reasonably define the characteristics of the policy requirements. Therefore, the best available data set to measure the effect of the HB 1403 policy and its associated requirements, such as information on length of time in the United States for the population of interest, is the U.S. Current Population Survey, a nationally representative sample sponsored by the U.S. Census Bureau and the U.S. Bureau of Labor Statistics.<sup>9</sup> I use two data sets for this analysis. The first and primary data set is an annual subset of data from the CPS, for the years 1998 to 2004, known as the Merged Outgoing Rotation Group Files (MORGs), which includes approximately 30,000 individuals nationwide per monthly extract for the civilian population age 16 and older.<sup>10</sup> In the CPS, households are interviewed each month for 4 months, ignored for 8 months, and then interviewed again for 4 months. These data are also representative at the state level and are specifically tailored to the demographic and labor market conditions present in that particular state, a primary requirement for this analysis (U.S. Census Bureau, 2006). Because the MORG data set has multiple observations for most individuals over time, I calculate robust standard errors to account for clustering of observations at the individual level (within person), and so that standard error estimates reflect the structure of the data. The second data set contains institutional data from the Texas Higher Education Coordinating Board on students admitted under the provisions of HB 1403.

Data on the undocumented have some limitations.<sup>11</sup> Since no government agency in the United States, including the Census Bureau,

directly counts the undocumented migrant population due to obvious legal and ethical reasons, their numerical presence cannot be measured with complete certainty (Passel, 2005a; Passel et al., 2004). However, the CPS does include undocumented immigrants in their survey, which is a principal source of information for current estimates of the number of unauthorized immigrants in the United States (U.S. Department of Labor, 2002). Undocumented individuals within this population are instead counted in the data category of foreign-born non-citizens. The CPS provides a further disaggregation of the foreign-born that is separate from those who become naturalized citizens in the identified category of foreign-born non-citizens (Flores, 2010). For this analysis, I use FBNC as a proxy for the undocumented. The presence of both legal permanent residents and undocumented individuals, however, causes a downward bias in estimating the effect of the tuition policy. That is, it would be more difficult to find an effect of the policy if it only affected undocumented students.

### *The Sample*

I focus on the Latino/a/Hispanic population in the sample and define Latino/a as any individual who has self-identified as Hispanic in the survey, has listed a Latin American country of origin, or has at least one foreign-born parent who has listed a Latin American country as his or her nation of origin. Specifically, I use the FBNC sample of Latinos/as in Texas as the treatment group, and as a control group, I use the FBNC sample of Latinos/as in states that have a large Latino/a immigrant population or similar regional higher education profile but do not have the tuition policy.

My primary control/comparison group is states in the Southwest, including Arizona, New Mexico, Colorado, and Nevada. The Southwestern states were chosen because they are among the states with the highest population of Latinos/as in the country; they experienced dramatic population growth between 1990 and 2000 that significantly surpassed the national average; they have a significant population of foreign-born non-citizens ages 18 to 24; they had similar unemployment rates in 2001

(except for Colorado); and they are all part of the Western Interstate Commission for Higher Education.<sup>12</sup>

I restrict the CPS portion of the sample in accordance with restrictions dictated by HB 1403: years of residency in the state, marked by year of entry into the United States, and the completion of a high school diploma and/or a GED. First, I limit the sample to individuals who were in the United States by 1998 for 2001 HB 1403 beneficiaries, and so on, based on year-of-entry categorizations available from the CPS, which allows for the 3-year residency period required to receive the state tuition benefit, within the time period analyzed. Second, I limit the analysis to students who have completed a high school diploma or GED and exclude all individuals who have completed a bachelor's degree or higher, also according to the policy requirements.<sup>13</sup> Third, I test my results for individuals within various age ranges (e.g., 18–24, 18–20, 21–24) by gender, and including whether an individual ever married as a covariate, as documented by the literature. The age categorization allows me to explore whether the “take-up” of the policy is likely to occur with recent high school graduates, older students, or both. Table 1 displays summary statistics for the sample that include the percentage of foreign-born students as well as year-of-entry restrictions for students age 18 to 24, by region.

### *Empirical Strategy*

In my analysis, I capitalize on the passing of HB 1403 as a plausible source of exogenous variation to measure the effects of a price reduction on college enrollment, using a quasi-experimental method to measure the causal effect of aid policies (Dynarski, 2003, 2004; Hoxby, 1998; Kane, 1994; B. T. Long, 2004b). Specifically, I employ a differences-in-differences strategy to estimate the effect of eligibility for in-state tuition on the college enrollment of FBNC Latino/a students, relative to this same population group in states without the tuition policy. It is important to note that this study examines the intent-to-treat effect; that is, students may not actually use the benefit even if they are eligible.

TABLE 1

Summary Statistics: Latino/a Foreign-Born Non-Citizens (FBNCs), Ages 18–24

	Before the policy, 1998 to July 2001		After the policy, August 2001 to 2004	
	(1) Texas	(2) Southwest	(3) Texas	(4) Southwest
% FBNC of all Latinos/as	0.35	0.34	0.34	0.33
Age	21.06 (0.03)	21.02 (0.03)	21.10 (0.04)	21.04 (0.03)
Female	0.47	0.47	0.48	0.47
Married	0.27	0.26	0.27	0.26
Employed	0.66 (0.01)	0.66 (0.01)	0.66 (0.01)	0.66 (0.01)
Live in metro area	0.91	0.84	0.90	0.83
% with HS diploma and no BA	0.51	0.55	0.54	0.56
% with BA and higher	0.02	0.02	0.03	0.02
Average year of entry to U.S.	7.58 (0.16)	5.90 (0.14)	8.22 (0.18)	5.91 (0.15)
Observations	3,620	6,227	3,036	5,870

Source. U.S. Current Population Survey, Merged Outgoing Rotation Groups.

Note. Policy intervention in summer 2001. Southwest states include Arizona, Colorado, New Mexico, and Nevada. For average year of entry, a value of 11 = entry in 1988–1989; 12 = entry in 1990–1991; 13 = entry in 1992–1995; 14 = entry in 1994–1997. Robust standard errors were calculated to account for clustering within person over time and so that standard error estimates would reflect the structure of the data. Robust standard errors in parentheses.

To answer whether HB 1403 increased college participation among FBNC Latino/a students in Texas public higher education, I use the MORG subsample to estimate the following logistic regression models:

$$\text{LOGISTIC}(\text{INCOLL}_i = 1) = \beta_0 + \beta_1 \text{TEXAS}_i + \beta_2 \text{AFTER}_i + \beta_3(\text{TEXAS}_i \times \text{AFTER}_i) + \beta_4 X_i + \delta_t + \delta_s + \varepsilon_i \quad (1)$$

$$\text{LOGISTIC}(\text{INCOLL}_i = 1) = \alpha_0 + \alpha_1 \text{TEXAS}_i + \alpha_2 \text{TXPOL}_01_i + \alpha_3 \text{TXPOL}_02_i + \alpha_4 \text{TXPOL}_03_i + \alpha_5 \text{TXPOL}_04_i + \alpha_6 X_i + \delta_t + \delta_s + \gamma_i \quad (2)$$

where in Equation (1),  $\text{INCOLL}_i$  is a binary variable and a measure of whether a person is currently enrolled in college (1 = yes; 0 = no).  $\text{TEXAS}_i$  is a binary variable set to 1 if a student is living in Texas; students residing outside of Texas are set to 0.  $\text{AFTER}_i$  is a binary variable set to 1 if after the date of the policy intervention (July 2001 or later).

The estimate  $X_i$  [ $\beta_4$  in Equation (1) and  $\alpha_6$  in Equation (2)] captures the effect of individual covariates, described in more detail below, in measuring relevant demographic characteristics correlated with educational attainment, as well as local economic conditions that may affect the schooling decisions of an individual: age, gender,

living in a metropolitan area, and state unemployment rate across time. In addition, I include  $\delta_t$  and  $\delta_s$  in both equations to account for time trend and state fixed effects of the dependent variable ( $\text{INCOLL}$ ), respectively. The variable  $\varepsilon$  represents an error term in Equation (1). Equation (2) follows the same definitions set forth in Equation (1), with one major difference. Whereas Equation (1) tests for a single discontinuous change in Texas relative to other states after the policy change in 2001 via the parameter  $\beta_3(\text{TEXAS}_i \times \text{AFTER}_i)$ , the variables of interest in Equation (2),  $\alpha_2$  to  $\alpha_5$ , represent the effect of the policy by year in Texas. These are included to test for an effect on enrollment as a result of the policy, if any, that may build over time. In Equation (2),  $\gamma_i$  represents an error term.

Previous work (Dynarski, 2003) has noted that the CPS collects only pertinent family background information related to educational outcomes, such as parental income and education, for individuals who live with their parents or are away at college. Limiting a sample to individuals with this information therefore introduces bias, especially when conducting an analysis using educational attainment as the dependent variable of interest. I do not include wage data since my population of interest is undocumented individuals who do not have a

legal right to live and work in the United States and it is therefore unclear whether missing wage information may be a function of a person's undocumented status.

The local and state conditions in which an individual attends college may also vary across regions of the United States. To account for this potential variation, I include variables to capture local characteristics by state. These include whether one lives in a metropolitan area, along with a state's unemployment rate for each year in the sample. The unemployment rate is included to account for state-specific economic shocks in the labor market. In addition, to account for lower college enrollment over the summer terms, I include a term for month fixed effects to capture enrollment variation over the course of the year. Similarly, I include year fixed effects for all states in the sample to control for general trends over time in the outcome variable of whether an individual is currently in college. To account for intrastate variation and control for the average differences in any observable or unobservable predictors not explained by state unemployment rate and year-specific trends in my outcome, I include a control for state fixed effects. I present models without (main effects model) and with state fixed effects. Finally, although I present the results of robust standard errors clustered at the individual level, I also provide estimates clustered at the state level, since the model employs a state-level covariate (before and after Texas implements the tuition policy). These estimates are provided in the event that standard errors at the individual level are too optimistic, using a group-level regressor while not allowing for group-level random effects (Moulton, 1986).

The coefficient of primary interest in this study is  $\beta_3$  in Equation (1), the coefficient for the interaction term of TEXAS and AFTER. Since undocumented immigrant students, who are more likely to live below the poverty level than the general population (Erismán & Looney, 2007), do not qualify for any federal financial aid that might reduce the cost of tuition charged to international students or out-of-state residents, I hypothesize that there will be a different effect of the in-state tuition policy on the college-enrollment rates of undocumented Latino/a students, relative to similar students in states that did not

experience the same policy change. Therefore, if  $\beta_3$  in Equation (1) is non-zero, positive, and statistically significant, then I will reject the null hypothesis that the tuition policy has no effect. This will be suggestive evidence that HB 1403 has a positive effect on the college-enrollment rates of Latino/a FBNC students in Texas. Similarly, in Equation (2), if  $\alpha_2$  to  $\alpha_5$  are non-zero, positive, and statistically significant, then I will reject the null hypothesis that the tuition policy has no effect. This will be suggestive evidence that HB 1403 has a positive effect for that particular year after the policy on the college-enrollment rates of Latino/a FBNC students in Texas.

### *Threats to Validity and Robustness Checks*

To address potential issues of measurement error, I apply the following strategies. First, although the CPS category of foreign-born non-citizens does include undocumented immigrants, it is also possible that people having this vulnerable legal status will not answer citizenship questions truthfully. To test the reliability of the citizenship question, I examine the effect of HB 1403 on all Latinos/as and on Latinos/as who are U.S. citizens (naturalized and U.S. born) across the various state contexts as well as within Texas. Second, to confirm that a policy effect on college enrollment, if any, is specific to Texas and not a trend affecting other states in the sample, I test my results on all individuals, using Texas as a predictor. Third, to test whether a policy effect is indeed occurring for the students most likely to benefit from this policy, foreign-born students of Latino/a origin, I test my results on students of different racial and ethnic groups, such as Black and Asian students who are U.S. citizens, as separate samples. Since Latinos/as of any citizenship status are associated with programs related to diversity or race-conscious programs, I examine other racial and ethnic groups to assess whether these students may be responding to other race-conscious programs, either directly or indirectly, operating in the state at this time. Finally, to assess the presence of other state educational policies that may be increasing the academic preparation leading to increased college-participation rate, I conduct similar treatment and comparison group analyses within Texas to further test the effect of

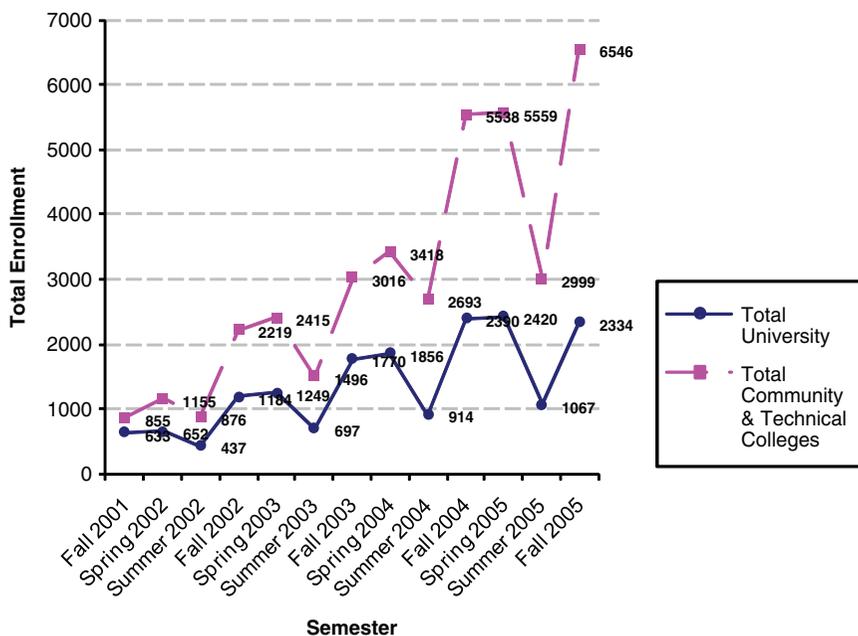


FIGURE 1. Total enrollment of HB 1403 students in Texas public higher education (Sections 2 and 4), fall 2001 to fall 2005.

Source. Texas Higher Education Coordinating Board, House Bill 1403 Students by Section Status, 2005.

Note. Section 2 students are individuals who have been classified as state residents. Section 4 students are individuals whose legal and state residency status is pending.

HB 1403. For example, I construct a series of alternative analyses with associated control groups within Texas (see Table 5) to ensure that the college enrollment odds of other populations have not significantly increased due to factors not related to the in-state resident tuition policy. These additional control groups include students who are FBNCs, non-Latino FBNCs, U.S. natives, U.S.-born Latinos/as, and non-Latino U.S. natives.

## Results

### *Program Take-Up: HB 1403 Student Enrollment Trends Since 2001*

Using data from the Texas Higher Education Coordinating Board, Figure 1 presents the enrollment figures of students classified as HB 1403 eligible by Section 2 and Section 4 status, for the period from fall 2001 to fall 2005. Under HB 1403, Section 2 students are individuals who have been classified as [state] residents, and Section 4 students are individuals whose legal and state residency status is pending.

Although aggregated in this graph, Section 4 students with pending resident status make up the majority of the HB 1403 students (author's calculations). According to the state enrollment data presented, the general enrollment trend has increased steadily since 2001 (including across the summer months) from 800 to 6,000 students at the public 2-year level, and from 600 to 2,000 students at the public 4-year level. Figure 1 also shows that an overwhelming majority of HB 1403 students are enrolling in the 2-year sector, a trend that is not surprising given the college-enrollment patterns of Latino/a students over the past three decades (Adelman, 2005). The results shown in Figure 1 signal a gradual increase in enrollment of HB 1403 students since 2001 rather than a sudden one-time jump in enrollment after the policy was enacted.

Data analysis on college enrollment for the population of interest prior to implementation of the 2001 policy is a necessary examination. Figure 2 displays the mean college enrollment rates of Latino/a foreign-born non-citizen individuals who are high school diploma/GED completers without a bachelor's degree, ages 18 to

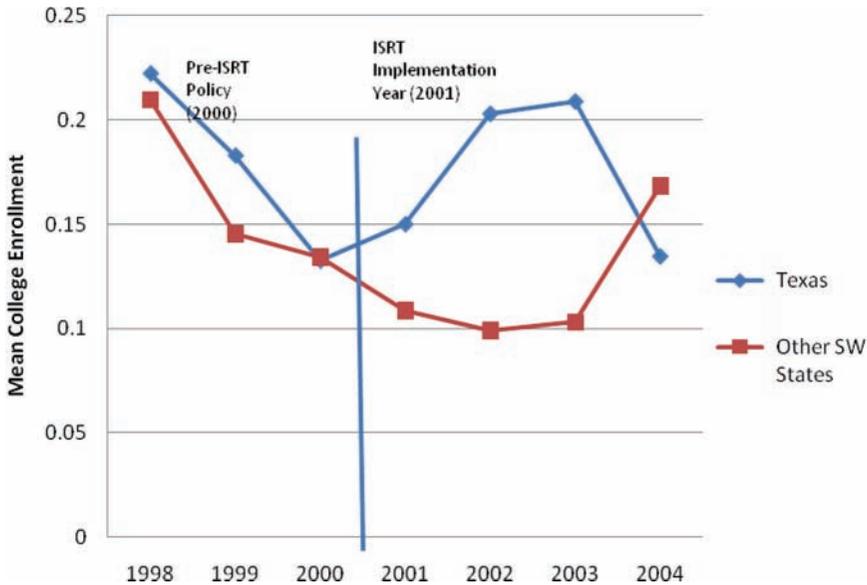


FIGURE 2. Mean college enrollment of Latino/a foreign-born non-citizen (FBNC) high school diploma/general education diploma (GED) completers, ages 18–24, 1998–2004. Source. U.S. Current Population Survey, Merged Outgoing Rotation Groups.

24, from 1998 to 2004, by treatment (Texas) and control group (Southwestern states). A vertical line marks the period immediately before the implementation of the Texas ISRT policy. The trend lines for both the treatment and comparison groups are relatively similar, with Texas having a slightly larger percentage of eligible Latino/a FBNCs from 1998 to 1999. Both groups experienced a sharp drop in enrollment odds during this period, culminating in nearly equal enrollment odds in 2000. However, 2001 marked the beginning of a distinct trend pattern. Latino/a FBNCs in Texas showed a steady increase in college-enrollment rates, with sharper jumps from 2001 to 2002, a slight increase in 2003, and a marked drop in 2004. The Southwest control group experienced a steady decline since 2000, with a sudden rebound in 2004. Three hypotheses may be considered relating to these trends. First, it is possible that the events of September 11, 2001, and the subsequent associated drop in immigration rates affected other states differently from Texas. Alternatively, it is possible that the in-state tuition benefit induced students and their families to stay in the country, despite a nationwide reaction to the terrorist attacks. Finally, spring 2003 marked the first year that tuition caps were removed from Texas public colleges and universities, which introduced a

new era of tuition deregulation for the state. A sudden increase in college price at some institutions may have induced some students who otherwise would have enrolled to not do so in 2004, the first full year of implementation of this new state policy.

#### Logistic Regression Analysis

I next use logistic regression analysis to estimate whether students living in Texas were more likely to be enrolled in college after the policy than students not living in Texas. I begin with a description of the results as an average effect in the years after the policy's enactment, as measured in Equation (1), and follow with a description of results by individual year after the policy change, as measured in Equation (2).

In the following tables, I present estimates of odds ratios and robust standard errors clustered at the individual level within the sample of FBNC Latinos/as in Texas, who are compared to similar students in the selected control group states in the Southwest that are without the policy. I also include results clustered at the state level for select tables. I then test the robustness of the results by adding a set of covariates at the individual and state levels to each regression model that include demographics, family background,

local conditions, and time trends comparing Texas to the selected control group. Finally, I conduct additional robustness checks to confirm the results of the policy on the intended population of interest and not on other groups. I limit the selection of covariates to those that are available for all individuals.

Table 2 presents estimated odds ratios and robust standard errors by age group, relative to states in the Southwest, from the sample of high school diploma/GED completers. The data indicate that there is a significant positive effect on the odds of college enrollment for older FBNC Latino/a Texans (ages 21–24) after the policy's implementation, compared to the same population of non-Texans in the Southwest (Table 2, column 7). Students ages 21 to 24 are 4.85 times more likely to be enrolled in college than not after the policy, in the full model with state fixed effects (pseudo  $R^2$  of 0.19). This shows that Latino/a FBNCs who live in Texas and meet the policy criteria have an increased likelihood of enrolling in college relative to their student counterparts in the Southwest. Figure 2 also suggests a similar pattern, albeit descriptively. I find a modest effect ( $p < .10$ ) on younger students ages 18 to 21. Results for data clustered at the state level, however, rather than the individual level (Table 2, column 3) indicate a significant effect of the policy on all age-range samples (ages 18–24) at 2.33 ( $p < .05$ ) times with a pseudo  $R^2$  of 0.13. Having been married plays a significant role in decreasing the odds of college enrollment in the larger age-range sample and in the sample with older students. Age is significant in the larger sample, although not by separate ranges of younger and older students. Living in a metropolitan area does not appear to have an effect on the odds of current college enrollment for any of the age groups in the sample. It is interesting that gender also does not appear to have an effect on the odds of college enrollment for Latino/a FBNCs who are high school diploma/GED completers as a result of the policy except for a modest effect for older females ages 21 to 24 at the  $p < .10$  level.

Table 3 presents the estimated odds ratios and robust standard errors from the fitting of the regression model in Equation (2) within the larger CPS sample of Latino/a FBNCs in Texas who have completed a high school diploma or GED, relative to the same population (Latino/a

FBNC) in the Southwest, by year at and after the policy's implementation. Specifically, this model tests whether there was a gradual increase in the policy's effect on a sample of students likely to be undocumented in each year after the policy's implementation.

Using the CPS data, Table 3 shows positive results for some years and age groups but not others. For example, column 2 indicates that the policy had no immediate effect in fall 2001 for students ages 18 to 24, or for any of the other groups of students assessed during that year, except for the model clustering at the state level (column 3). In this specification, the odds of enrolling in college after the policy's implementation were 2.6 times greater than for students in Texas before the policy ( $p < .01$  level). In 2002, however, the odds of enrolling increased and are significant for the larger 18 to 24 age group but are particularly higher for older students ages 21 to 24 (columns 6 and 7). The odds of enrolling in college for all students ages 18 to 24 are 4.09 times (column 2), and 10.3 times for students ages 21 to 24 (column 7) in the full model, with state fixed effects in 2002 (pseudo  $R^2$  of 0.13 and 0.20, respectively). By 2003, the increased odds of enrolling are reduced for students ages 18 to 24 and are only moderately significant at the .10 level (column 2), whereas they remain significant and increase to 11.34 times for older students ages 21 to 24 in 2003. I find no effect from the policy on any of the age groups examined in 2004.

#### *Additional Robustness Checks*

*Across states comparison.* To test whether results concerning the effects of the tuition policy are indeed measuring the behavior of FBNC Latinos/as or are instead a result of measurement error and may potentially be affecting all Latinos/as, I test the robustness of my results using the current estimated fitted regression model on the outcome on All Latinos/as, U.S. Citizen Latinos/as (naturalized and U.S. born), and U.S.-Born Latinos/as, as compared to their counterparts in states in the Southwest in Table 4. The data indicate that the policy has no effect on the college enrollment of these groups when compared to their counterparts in the Southwest for either of the samples examined (columns 1–3). These results provide further evidence that the effect of

TABLE 2  
*Effect of Texas Tuition Policy on College Enrollment (Average), High School Diploma/GED Completion, 1998–2004*

	Ages 18–24		Ages 18–20		Ages 21–24		
	Main model (1)	Add state fixed effects (2)	Cluster at state level (3)	Main model (4)	Add state fixed effects (5)	Main model (6)	Add state fixed effects (7)
HS graduates/GED completers							
Policy effect (TX × AFTER)	2.18* (0.98)	2.33* (1.05)	2.33** (0.7808)	1.30 (0.77)	1.60 (0.97)	4.94** (3.36)	4.85** (3.39)
Live in Texas	0.98 (0.32)			1.09 (0.45)		0.84 (0.39)	
After policy change	1.56 (0.86)	1.60 (0.88)	1.60 (0.64)	1.88 (1.38)	2.04 (1.53)	1.10 (0.97)	1.12 (1.00)
Age	0.82*** (0.05)	0.82*** (0.05)	0.82*** (0.04)	0.84 (0.14)	0.86 (0.15)	0.77* (0.11)	0.77* (0.11)
Female	1.15 (0.27)	1.14 (0.27)	1.14 (0.34)	0.75 (0.23)	0.73 (0.23)	1.66 (0.51)	1.71* (0.55)
Ever married	0.26*** (0.08)	0.26*** (0.08)	0.26*** (0.07)	0.53 (0.26)	0.53 (0.26)	0.16*** (0.06)	0.17*** (0.07)
Metro area	1.25 (0.41)	1.38 (0.46)	1.38 (0.80)	1.37 (0.60)	1.57 (0.71)	1.00 (0.43)	0.97 (0.45)
State unemp. Rate	0.88 (0.20)	0.66 (0.22)	0.66 (0.20)	0.90 (0.29)	0.45* (0.20)	0.87 (0.28)	1.43 (0.74)
Month fixed effects	yes	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes
State fixed effects	no	yes	yes	no	yes	no	yes
Pseudo R <sup>2</sup>	0.11	0.13	0.13	0.07	0.11	0.18	0.19
Observations	1,007	1,007	1,007	372	372	635	603

Source: U.S. Current Population Survey, Merged Outgoing Rotation Groups.

Note: Sample: Latino/a foreign-born non-citizens, by age group: 18–24, 18–20, 21–24. Outcome: Enrolled in college. Control group: Southwestern states—Arizona, Colorado, New Mexico, and Nevada. Policy intervention in July 2001. Robust standard errors were calculated to account for clustering within person over time and so that standard error estimates would reflect the structure of the data. Robust standard errors in parentheses.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

TABLE 3  
*Effect of Texas Tuition Policy on College Enrollment by Year, High School Diploma/GED Completion, 1998–2004*

HS graduates/GED completers	Ages 18–24			Ages 18–20		Ages 21–24	
	Main model	Add state fixed effects	Cluster at state level	Main model	Add state fixed effects	Main model	Add state fixed effects
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy effect in 2001	2.52* (1.36)	2.60* (1.40)	2.60*** (0.72)	1.89 (1.52)	2.00 (1.61)	3.34* (2.41)	4.22* (3.20)
Policy effect in 2002	3.87** (2.44)	4.09** (2.52)	4.09*** (1.93)	3.50 (2.87)	4.23* (3.57)	8.95** (9.40)	10.33** (10.59)
Policy effect in 2003	2.86 (1.86)	3.26* (2.10)	3.26*** (1.0)	0.77 (0.73)	1.33 (1.27)	15.97*** (16.01)	11.34** (12.31)
Policy effect in 2004	1.21 (0.82)	1.37 (0.95)	1.37 (0.61)	0.75 (0.67)	1.07 (0.99)	2.57 (2.60)	1.75 (1.85)
Live in Texas	0.93 (0.29)			0.97 (0.39)		0.83 (0.37)	
Age	0.82*** (0.05)	0.82*** (0.50)	0.82*** (0.04)	0.85 (0.14)	0.87 (0.16)	0.76** (0.11)	0.76* (0.11)
Female	1.14 (0.26)	1.13 (0.26)	1.13 (0.34)	0.74 (0.23)	0.71 (0.23)	1.58 (0.50)	1.64 (0.53)
Ever married	0.26*** (0.08)	0.26*** (0.08)	0.26*** (0.07)	0.54 (0.27)	0.54 (0.27)	0.16*** (0.06)	0.17*** (0.07)
Metro area	1.21 (0.39)	1.34 (0.45)	1.34 (0.80)	1.32 (0.58)	1.51 (0.69)	0.98 (0.44)	0.92 (0.45)
State unemp. rate	0.89 (0.21)	0.66 (0.23)	0.66 (0.26)	1.04 (0.35)	0.49 (0.23)	0.75 (0.25)	1.30 (0.76)
Month fixed effects	yes	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes
State fixed effects	no	yes	yes	no	yes	no	yes
Pseudo R <sup>2</sup>	0.12	0.13	0.13	0.08	0.11	0.19	0.20
Observations	1,007	1,007	1,007	372	372	635	603

Source: U.S. Current Population Survey, Merged Outgoing Rotation Groups.

Note: Sample: Latino/a foreign-born non-citizens, by age group: 18–24, 18–20, 21–24. Outcome: Enrolled in college. Control group: Southwestern states—Arizona, Colorado, New Mexico, and Nevada. Policy intervention in July 2001. Robust standard errors were calculated to account for clustering within person over time and so that standard error estimates would reflect the structure of the data. Robust standard errors are calculated at the state level for column 3 only. Robust standard errors in parentheses.  
 \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

the tuition policy on the college enrollment of students likely to be undocumented is a pattern particular to Latino/a FBNC students in the sample and not to all Latinos/as or U.S.-citizen Latinos/as (U.S. born and naturalized).

Next, I explore whether the effect of an increase in college enrollment on Latino/a FBNCs is a result of the policy and not a Texas-specific trend or a trend affecting racial and ethnic groups other than Latinos/as, such as Asians or African Americans (columns 4–8). For example, if the tuition policy does indeed have an effect on the college-attainment rates of Latino/a FBNCs, then we should not see any results for Texas as a state, other races and ethnicities, or separate samples of African American or Asian individuals. Using the specified fitted regression model with state fixed effects, Table 4 shows no significant effect for Texas as a state or any of the other selected U.S.-citizen populations for any age categories examined (18–24, 18–20, 21–24) with the exception of a moderate effect ( $p < .10$ ) for Black U.S. citizens, when compared to similar populations in states in the Southwest. A more detailed examination by age group for Black U.S. citizens in Texas (Table 4, column 8) as compared to a similar population in the Southwest states suggests that the moderate effect for Black U.S. citizens is driven by individuals ages 18 to 20 and not 21 to 24, the group of Latino/a FBNCs showing a 4.84 significant and increased odds of enrollment after the ISRT policy introduction. That is, I find no significant effect of the policy for Black U.S. citizen students ages 21 to 24. One important note concerning the sample of Black U.S. citizens is that there is a significantly larger number of Black students in Texas than in the control group states examined in the Southwest. A more appropriate comparison of the Black U.S. citizen rate might therefore involve a control group of states with a similar Black student demographic. In addition, a comparison of the Black population within Texas before and after the introduction of the policy (shown below) would be more useful.

*Within state comparison.* I employ a series of within state comparisons to test whether other trends in the state, such as other college access and readiness policies, might be affecting the academic preparation of students who are not likely to benefit from the in-state resident

tuition policy, thereby potentially increasing their college enrollment odds and signaling that other policies in Texas may be contributing to increased college enrollment odds of all students. Table 5 shows such analyses by a series of control groups that include all FBNCs, all non-Latino FBNCs, all U.S. natives, all U.S.-born Latinos/as, and all non-Latino U.S. natives. I report findings for the group comprising the entire 18 to 24 group although multiple age group compositions were also examined. I find no effect indicating an increase in the college enrollment odds after the policy's implementation for any of these groups examined by differing ages. Particular attention is paid to column 4, examining the behavior of U.S.-born Latinos/as within Texas. This category would be the most likely to capture Latino/a FBNCs within the state who may have misreported their citizenship status. In addition, Latino/a individuals who are U.S. born represent the most comparable group to Latino/a FBNCs in educational outcomes and financial barriers related to college access. It is interesting that the only significant effect found, although in a negative direction, was also among the Black U.S. citizen group, although among the age group 21 to 24. Table 5 (column 7) indicates that Black students within the state of Texas experienced a decline in college-enrollment odds after the policy's introduction. As they are not beneficiaries of the ISRT policy, and in that the group under examination, Latino/a FBNCs, does not qualify for a majority of the aid and institutional scholarships available to U.S.-citizen Black students, it is unclear why such a trend is evidenced.

### Conclusion and Policy Implications

This study is the first, to my knowledge, to estimate the effect of the first in-state resident tuition policy in the nation, Texas bill HB 1403, on the college-enrollment odds of students most likely to be undocumented: Latino/a foreign-born non-citizen students. The analysis, which is based on two extensive data sets—the individual-level data from the U.S. Current Population Survey Merged Outgoing Rotation Groups and institutional data from the Texas Higher Education Coordinating Board—finds that students likely to be undocumented Latinos/as were more likely to

TABLE 4  
*Robustness Checks for Effect of Texas Tuition Policy on College Enrollment (Average), High School Diploma/GED Completion, 1998–2004*

HS-GED Completers	HS graduates/GED completers													
	All Latinos/as		U.S. citizen		U.S.-born		All foreign born		All Texas U.S. citizens		Asian U.S. citizens		Black U.S. citizens	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)						
Policy effect (TX × AFTER)	1.13 (0.18)	0.98 (0.17)	0.80 (0.16)	0.88 (0.14)	0.89 (0.08)	1.03 (0.52)	2.02* (0.73)	1.04 (0.46)						
After policy change	1.28 (0.26)	1.26 (0.28)	1.29 (0.29)	1.12 (0.12)	1.16 (0.1272)	1.61 (1.11)	0.30** (0.15)	0.34* (0.20)						
Age	0.86*** (0.02)	0.87*** (0.02)	0.87*** (0.02)	0.88*** (0.01)	0.88*** (0.01)	.73*** (0.06)	0.89*** (0.03)	0.82*** (0.07)						
Female	1.34*** (1.0)	1.34*** (0.10)	1.35*** (0.11)	1.30*** (0.05)	1.30*** (0.05)	1.04 (0.28)	0.94 (0.13)	0.81 (0.16)						
Ever married	0.27*** (0.03)	0.28*** (0.03)	0.28*** (0.0351)	0.28*** (0.02)	0.28*** (0.02)	0.28** (0.28)	0.37*** (0.09)	0.36*** (0.10)						
Metro area	1.83*** (0.20)	1.93*** (0.23)	1.89*** (0.23)	1.64*** (0.11)	1.64*** (0.11)	2.47** (0.88)	2.47** (0.88)	2.06 (0.98)						
State unemp. rate	0.96 (1.0)	1.04 (0.11)	1.06 (0.12)	1.05 (0.05)	1.07 (0.05)	1.55 (0.46)	1.25 (0.35)	1.56 (0.56)						
Month fixed effects	yes	yes	yes	yes	yes	yes	yes	yes						
Year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes						
State fixed effects	yes	yes	yes	yes	yes	yes	yes	yes						
Pseudo R <sup>2</sup>	0.09	0.08	0.08	0.07	0.07	0.16	0.07	0.09						
Observations	5,708	4,701	4,516	18,032	18,251	376	1,255	790						

Source: U.S. Current Population Survey, Merged Outgoing Rotation Groups.

Note: Sample: Latinos/as by citizenship status, all races and ethnicities: 18–24. Outcome: Enrolled in college. Control group: Southwestern states—Arizona, Colorado, New Mexico, and Nevada. Policy intervention in July 2001. Robust standard errors were calculated to account for clustering within person over time and so that standard error estimates would reflect the structure of the data. Robust standard errors in parentheses.  
 \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

TABLE 5  
*Within Texas Only Robustness Checks for Effect of Texas Tuition Policy on College Enrollment (Average), High School Diploma/GED Completion, 1998–2004*

HS graduates/GED completers	All FBNCs		All non-Latino FBNCs		All U.S. natives		All U.S.-born Latinos/as		All non-Latino U.S. natives		Black U.S. citizens	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					
Policy effect (TX × AFTER)	0.92 (0.23)	0.62 (0.24)	0.88 (0.20)	0.65 (0.20)	1.27 (0.43)	0.534 (0.44)	0.11** (0.12)					
After policy change	0.90 (0.15)	0.77 (0.15)	1.00 (0.25)	1.99 (0.73)	0.60 (0.23)	0.93 (0.84)	2.61 (2.88)					
Age	0.90*** (0.01)	0.89*** (0.0167)	0.90*** (0.01)	0.89*** (0.02)	0.89*** (0.02)	0.89*** (0.04)	0.90 (0.09)					
Female	1.31*** (0.07)	1.31*** (0.09)	1.32*** (0.0751)	1.38** (0.14)	1.30*** (0.09)	1.16 (0.19)	1.04 (0.24)					
Ever married	0.22*** (0.02)	0.25*** (0.03)	0.22*** (0.02)	0.19*** (0.03)	0.25*** (0.023)	0.29*** (0.09)	0.34*** (0.11)					
Metro area	1.37** (0.15)	1.17 (0.15)	1.37** (0.15)	1.77** (0.34)	1.16 (0.15)	4.38** (2.46)	6.64* (7.53)					
State unemp. rate	1.07 (0.08)	1.10 (1.0)	1.08 (0.0782)	1.07 (0.14)	1.10 (0.10)	0.64 (0.23)	0.63 (0.30)					
Month fixed effects	yes	yes	yes	yes	yes	yes	yes					
Year fixed effects	yes	yes	yes	yes	yes	yes	yes					
County fixed effects	yes	yes	yes	yes	yes	yes	yes					
Pseudo R <sup>2</sup>	0.09	0.08	0.09	0.13	0.08	0.08	yes					
Observations	7,749	4,837	7,749	2,903	4,837	895	567					

Source: U.S. Current Population Survey, Merged Outgoing Rotation Groups.

Note: Sample: Latinos/as and non-Latinos by foreign-born and U.S.-born status. Outcome: Enrolled in college. Policy intervention in July 2001. Southwestern states include Arizona, Colorado, New Mexico, and Nevada. Robust standard errors were calculated to account for clustering within person over time and so that standard error estimates would reflect the structure of the data.

Robust standard errors in parentheses. FBNCs = foreign-born non-citizens.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

attend college after the introduction of the Texas benefit. The results were strongest for older high school graduates, who were found to be 4.84 times more likely to have enrolled in college after the tuition policy than their counterparts in the Southwest. This pattern is consistent with previous research documenting that immigrant individuals are more likely to enroll in college starting at the age of 21 (Betts & Lofstrom, 2000). Descriptive institutional data from the Texas Higher Education Coordinating Board on actual students classified as HB 1403 eligible, a majority of whom are of Latino/a origin, also confirm previous findings that Latino/a immigrant students are more likely to enroll in the community college sector than the 4-year sector. These patterns suggest that financial aid and admissions policies at non-selective institutions are particularly relevant for immigrant populations in Texas. By year of implementation, the CPS data also showed a gradual increase in the estimated take-up of the policy from 2001 to 2003, with no effect in 2004. Further attention should be paid to this year, as it represents a period in which tuition deregulation, also a critical financial cost related policy, was in operation in Texas. Finally, the data indicate that this effect of higher college-enrollment odds is particular to FBNC Latinos/as, the primary beneficiary group, and not to all Latinos/as or U.S.-citizen Latinos/as.

In comparison, recent work examining the national effect of the existing set of state dream acts that also use econometric-based methods, when examining a similar base of Latino/a populations, found significant yet slightly lower odds of enrollment than in Texas (Flores, 2010; Kaushal, 2008). Flores (2010), for example, found a national effect with an odds ratio of 1.54 times the increase in the likelihood of college enrollment for students likely to be undocumented. One explanation for the magnitude of the difference in these results may be that such odds combining the effect of all states may be a function of the various differences in the case histories and timing of the various tuition policies. Such differences may include variation in states' status as a traditional versus a new migration state, gender roles in migration patterns due to labor market differences, and the availability of the community-college sector by state (Card & Lewis, 2007; Massey & Capoferro, 2008).

Although previous versions of the federally proposed legislation, known as the Development, Relief, and Education for Alien Minors (DREAM) Act, would exceed all versions of current in-state tuition policy provisions by allowing eligible undocumented students to begin the path to legal residency and secure employment upon graduation (Olivas, 2004), the political atmosphere for this legislation remains unpredictable. Until a federal solution is reached, data at the state level on in-state resident tuition policies are the only formal evidence of the educational costs, benefits, and trajectories available to these students. For now, Texas is the longest standing example of the limits and opportunities that state legislation on this issue can provide.

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### Notes

1. *Undocumented* refers to a foreign-born person without proper authorization or legal basis of residence in the United States. I use the terms *undocumented* and *unauthorized* interchangeably and in place of *illegal*, due to data restrictions in the survey concerning people's exact reason for not having authorization to be in the United States. The terms *Latino* and *Hispanic* are also used interchangeably. For additional information on these terms, see Bean and Lowell (2007).

2. The Texas legislature considered, unsuccessfully, a bill in 1993 to address the issues of students with undocumented residency as it related to in-state tuition (Rincon, 2008).

3. The difference in in-state and out-of-state tuition at public community colleges in 2004 was close to \$2,000 per year; at 4-year public colleges, it was almost \$8,000 (McGee, 2005). Two-year in-state

tuition is \$1,631 per year; out-of-state tuition is \$3,405. Four-year in-state tuition is \$4,847, compared to \$12,927 for out-of-state tuition.

4. In this study, I refer to foreign-born non-citizen individuals from Latin America as foreign-born non-citizen Latinos/as. Refugees, or humanitarian migrants, are counted in the percentage of the foreign-born population without U.S. citizenship (U.S. Census Bureau, 2009).

5. Passel and colleagues (2004) estimated that of the foreign-born population, 29% are unauthorized, 29% are legal residents, and 32% are naturalized citizens.

6. Compiled in 1996 from Immigration and Naturalization Service (INS) records, this survey is not in yearly format like the CPS.

7. The Census Bureau defines *asylees* as people who (a) are unable or unwilling to return to their country of nationality because of persecution or a well-founded fear of persecution, (b) applied for asylum while living in the United States or upon arriving at a port of entry and have been granted asylum, or (c) applied for asylum during deportation and were granted asylum by the Executive Office of Immigration Review (Perry, Vandervate, Auman, & Morris, 2001).

8. Although the bill was the first state law of its kind in the nation, institutional policies with similar provisions for undocumented immigrants had previously been adopted in the state's two largest community college systems: the Dallas County Community College System in fall 1999 and the Houston Community College System in fall 2000 (Rincon, 2008). HB 1403, however, added two important components that had additional implications for college access: eligibility for state financial aid, and access to all institutions in Texas as an in-state resident. In addition, the U.S. Current Population Survey does not contain detailed enough data to account for all Texas counties. For example, these data have information on Dallas County but not on Harris County, where the Houston Community College District is located.

9. A series of quantitative analyses relating to the national effects of the in-state resident tuition policies using the CPS has recently emerged. See Flores (2010) and Kaushal (2008) as examples.

10. I limit the analysis to go through 2004 because New Mexico, which is included in the control group states, passed a tuition policy in 2005. In addition, HB 1403 was revised by SB 1528 in 2005.

11. For example, although the CPS is designed to measure demographic and labor force characteristics of the civilian non-institutionalized population 16 years of age and older, the immigrants in the sample compared to the U.S. Census as well as high school dropouts, most notably minority males, since the survey excludes military and institutionalized populations, are often undercounted (Orfield, 2004).

12. Previous versions of this analysis examined states in the Southeast as an additional comparison group. However, the South has experienced particularly distinct shifts in labor market conditions, occupational availability, and population characteristics, which have not occurred in other parts of the country (Card & Lewis, 2007; Dynarski, 2008; Massey & Capoferro, 2008). Some of these shifts suggest that the waves of migration in the South may make the region's immigrant population distinct from the typical population waves migrating to the Southwest. As such, states in the Southwest provide a better counterfactual to Texas as a state but also for the population of interest, Latino/a FBNCs, than other regions in the country.

13. Previous versions of this article also examined the effect of the policy on a sample without the high school/GED completion restriction. I found no results for this population in Texas compared to similar students in Southwestern states without an ISRT policy, suggesting that the high school degree requirement is relatively stringent for the population that is likely to benefit from this policy. Results are available from the author upon request.

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