UNIVERSITY OF CALIFORNIA,
IRVINE

Opportunities and Barriers to the American Dream: Impacts of In-State Tuition Policies on Higher Education Access for Undocumented and Documented Students

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Education Policy

by

Connie Kang

Dissertation Committee:
Distinguished Professor George Farkas, Chair
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2019

DEDICATION

I dedicate this to my family and friends, whose love, support, and encouragement have continually pushed me and encouraged me to pursue and complete this research. Without their support throughout this journey, none of this would be possible.

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Last but not least, I want to thank all of the other amazing mentors, colleagues, and peers I have had the privilege to work, collaborate, and commiserate with throughout the last five years. You have been a huge part of my support system and family at UCI. I would not be the person or researcher I am today without each and every single one of you.

Connie Kang

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Kang, C., Baker, R., Solanki, S., Hanna, K., & Malone, S. (2017, April). Racial segregation in California higher education: Examining trends between and within sectors. Poster session presented at the annual meeting of the American Educational Research Association, San Antonio, TX.

Baker, R., Solanki, S., Kang, C., Hanna, K., & Malone, S. (2017, March). Racial segregation in California higher education: Examining Latino student population trends between and within sectors. Poster session presented at the annual meeting of the Association for Education Finance and Policy, Washington, D.C.

Kang, C. Y., Duncan, G. J., Clements, D. H., Wolfe, C. B., Spitler, M. E., & Bailey, D. H. (2016, May). The roles of transfer and forgetting in the persistence and fadeout of early childhood mathematics interventions. Poster session presented at the annual Math Cognition Conference, Fort Worth, TX.

Kang, C. Y., Duncan, G. J., Clements, D. H., Wolfe, C. B., Spitler, M. E., & Bailey, D. H. (2016, April). The role of forgetting in the fadeout of the effects of an early childhood mathematics intervention. Poster session presented at the annual meeting of the American Educational Research Association, Washington, D.C.

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PUBLICATIONS

Kang, C. Y., Duncan, G. J., Clements, D.H., Sarama, J. S., & Bailey, D. H. (2018). The roles of transfer of learning and forgetting in the persistence and fadeout of early childhood mathematics interventions. *Journal of Educational Psychology*.

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Sigma Alpha Lambda	National Leadership and Honors Organization
Sigma Alpha Pi	The National Society of Leadership and Success

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School of Education DECADE Peer Mentor	2015-2019
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Invited Speaker/Panelist for Graduate School Panel	2017
Ready, Set, SOAR! Graduate Conference Volunteer	2017
Reader/Grader/Scorer for UCI Writing Project	2016-2019
Recruitment Weekend Planning Committee	2015-2019
Graduate Student Orientation Volunteer	2015-2019
UCI Graduate Fair Volunteer	2016
Head Start Family Festival Volunteer	2015, 2016
UCI Homecoming Volunteer	2016
UCI 50th Anniversary Celebration Volunteer	2015

ABSTRACT OF THE DISSERTATION

Opportunities and Barriers to the American Dream: Impacts of In-State Tuition Policies on Higher Education Access for Undocumented and Documented Students

By

Connie Kang

Doctor of Philosophy in Education Policy

University of California, Irvine, 2019

Distinguished Professor George Farkas, Chair

Because financial barriers are such a big obstacle to college access for students, and then even more so for vulnerable population such as undocumented immigrants who are unable to qualify for tuition benefits due to immigration status, the purpose of this dissertation is to explore what the effects of policies that extend in-state tuition to undocumented students and those that ban these benefits to undocumented students on their college access and persistence. This study also explores the impacts on documented immigrants as while this population isn't the targeted population of these policies, they may also be impacted due to higher education being a limited good in terms of the total number of students they can admit each year. To do this, this study utilizes an original database built from combing through records of policies passed over the time period from 2000-2016 as well as an imputation strategy that has never been utilized to specifically study the impacts of these education policies. The results of the study are consistent with previous studies that have shown that policies banning in-state tuition have a detrimental impact on undocumented students' college enrollment. However, this study shows that while enrollment of undocumented immigrants in states with these policies extending in-state tuition benefits to undocumented students was higher than enrollment of undocumented immigrants in

states without these policies, states that implemented these policies had higher college enrollment of undocumented immigrants to begin with. These results differ from previous studies and seem to suggest reverse causality, where states with higher rates of undocumented immigrants in college may have introduced these policies as a consequence, not a cause, of this undocumented college enrollment. Or, perhaps more likely, states with relatively large Hispanic communities may have had higher undocumented college enrollment as well as a stronger "push" to pass the relevant legislation.

INTRODUCTION

Education has often been touted as the gateway to upward social mobility in the United States. Thus, it important to consider whether the opportunities to acquire more education are similar across different subgroups within the U.S. population. This research study focuses more specifically on the educational attainment opportunities for foreign-born populations, particularly undocumented immigrants. This is a critical issue as many immigrants come to the U.S. specifically for the purpose of attaining better opportunities than they were afforded in their native countries. The number of immigrants in the United States has quadrupled since 1960, with many of them coming to the United States pursuing the "American Dream" to seek better opportunities for themselves and their children. According to the Immigrant Policy Project (2017), the current immigrant population is estimated at 44.2 million, making up 13.7% of the population.

The particular focus of my dissertation is on undocumented immigrant youth, which is a particularly vulnerable and understudied population (Rodriguez and Cruz, 2009). I classify immigrants who are "undocumented" as those individuals residing in the United States "who are not U.S. citizens, who do not hold current permanent resident visas, or who have not been granted permission under a set of specific authorized temporary statuses for longer-term residence and work" (Passel & Cohn, 2009, p. vi). Of the foreign-born population (those born outside of the United States), approximately 11.1 million are undocumented, making up about 25% of the immigrant population. Unauthorized immigrants are a particularly marginalized group, as they often are not afforded opportunities provided to U.S. citizens or even other immigrants. A report by the Pew Research Center finds that undocumented immigrants have much higher poverty rates and lower household incomes than U.S. citizens or legal immigrant

residents due to having lower levels of educational attainment and lower-skilled occupations (Passel & Cohn, 2009). This points to a greater need to focus on creating more opportunities and access to higher education for this marginalized population to promote diversity and equity both in higher education as well as the workforce.

Over the last couple of decades, numerous federal- and state-level immigration policies have been enacted that might affect higher education access and persistence for the undocumented. While some of these policies attempt to provide more access to resources and opportunities for this community, such as the Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA) and the Deferred Action for Childhood Arrivals (DACA), others are meant to create barriers to opportunities and resources for this community. Examples include bans on in-state resident tuition for college students. Many of these policies have been changing over time. One example is that within the first year of serving his term as president, Donald Trump and his administration have already rescinded DAPA and DACA.

While that has just been the most publicly widespread news about policy changes regarding undocumented immigrants and issues of immigration, states and localities have also enacted changes in immigration policies for years that may impact access and persistence in higher education, including policies granting or banning access to in-state resident tuition for undocumented immigrants. Even with these policies in existence, there is much variation in both the extent of the policy as well as the timing of implementation. These factors all play a role in the potential impacts it could have on the intended population it is meant to serve as well as potential unintended consequences. This is why it is important to study the variations in the extent and timing of policies to see the potential impacts it may have on populations. Since there is limited capacity in higher education, there is the possibility of having potential unintended

consequences for those that the policies are not intended to impact as increasing the chances of one person getting into college potentially reduces the chances of another getting into college due to limited admission at colleges and universities. Given the importance of education and the recent political climate and changes in policy, especially revolving around immigration issues, it is especially important to examine the impacts, whether intended or unintended, that the aforementioned policies have had on the affected communities. Hopefully, this will lead to better designed policies in this important and controversial arena.

Due to limited databases containing information about undocumented immigrants, who are hesitant to report their status, many of the earliest studies of policy impacts on undocumented communities have relied on qualitative anecdotal studies of the personal experiences of undocumented immigrants. Despite the increasing emergence of research studies that attempt to assess the quantitative impacts of these programs and other policies providing benefits to the undocumented community, many of these studies only provide descriptive data rather than attempting to identify causal impacts of these policies and programs. In particular, these studies have focused on the impacts on access and persistence in higher education as it plays a key role in upward social mobility (e.g. Abrego & Gonzales, 2010; Gonzales & Terriquez, 2013). Among studies that attempt to identify causal impacts, most only focus on individual programs and or policies (usually in-state tuition policies) for a narrow subset of years or time periods that may not be able to accurately capture the effects of these policies. Further, most of these studies focus on only a subset of the population (e.g. by race, gender, or geographic regions), with a majority of studies focusing on Latinx, as they make up the largest proportion of undocumented immigrants (e.g. Flores, 2010; Martinez, 2014).

This dissertation uses a different methodological approach that provides a more comprehensive study of the causal impacts of various policies granting or banning access to in-state resident tuition for undocumented immigrants on the college enrollment of this group. Two research questions are addressed:

1. To what extent and with what timing did each of the 50 U.S. states, plus the District of Columbia, implement various levels of policies regarding extending (or banning) in-state tuition to undocumented immigrants?
2. What are the impacts of these in-state tuition related policies on access and persistence in higher education for *undocumented* and *documented* immigrant students?

To answer these questions, it is important to enumerate the wide variety of relevant policies as well as when they were implemented and/or rescinded in each state. Chapter 1 gives a brief overview of some of the more recent immigration trends and policies relevant to this study. Chapter 2 reviews the literature on policy impacts on college access and persistence for undocumented immigrant students. To summarize the relevant policies, I have created an original database containing information on the type of policy as well as the years in which the policy was in place (or not) for each of the 50 states and Washington D.C. This is presented in detail in Chapter 3, along with descriptions of the data used and how variables were measured. This database draws upon a thorough review of in-state tuition relevant policies regarding undocumented immigrants in the last two decades within each of the 50 states in the U.S. as well as within the District of Columbia. Some policies were state-wide while others only affected particular geographic locations within the state. This policy database serves as the foundation for my dissertation. Chapter 3 also elaborates on the analysis and empirical model used, while analysis results are presented in Chapter 4. I estimate the impacts of these policies on the access

to and persistence in higher education, using college enrollment as a proxy, for the undocumented immigrant community in the United States. While there are a multitude of immigration policies, this study focuses on those regarding in-state tuition benefits for undocumented immigrants that are likely to have particularly strong impacts on access and persistence in higher education for this community as financial barriers are key reasons preventing this population from attaining higher education.

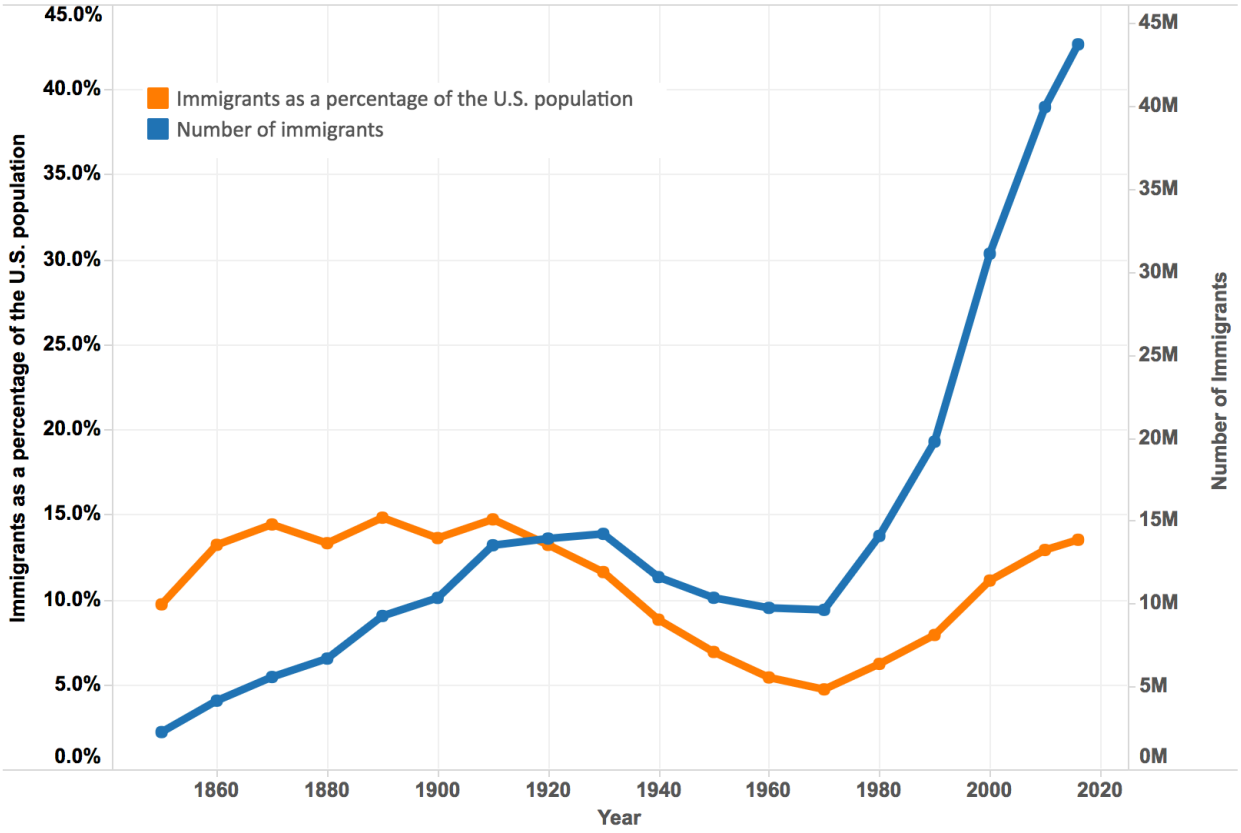
To test the effects of these policies, I analyzed data from the American Community Survey (ACS). The ACS 1-year dataset is well-suited for this study since it contains information on state identifiers and educational attainment and status, along with other demographics such as gender, race, and immigration status to allow for the imputation of an individual's undocumented status. I pooled together single-year ACS data from 2001-2016, and merged on state- and year-specific information on relevant policies. I then used this merged dataset to test whether implementation of these policies appeared to increase the college enrollment rate of undocumented students in the affected states. Additionally, since policies directed at one population may affect the behavior of closely related populations, I also tested for effects on documented immigrant students. Few previous studies have examined the impacts of these policies on this population, and where this has been studied, the results have been inconclusive.

CHAPTER 1: Immigration Trends and Policies

Changing Demographics of the U.S.

With the changing demographics of the United States, state and federal policies targeting immigrants have come to apply to an ever-larger group of individuals. The number of immigrants as well as their share of the overall U.S. population has been steadily increasing since 1970, with over 43.7 million immigrants making up 13.5% of the population in 2016 (Migration Policy Institute, "U.S. Immigrant Population and Share over Time, 1850-Present").

Figure 1.1. Number of Immigrants and Their Share of the Total U.S. Population, 1850-2016

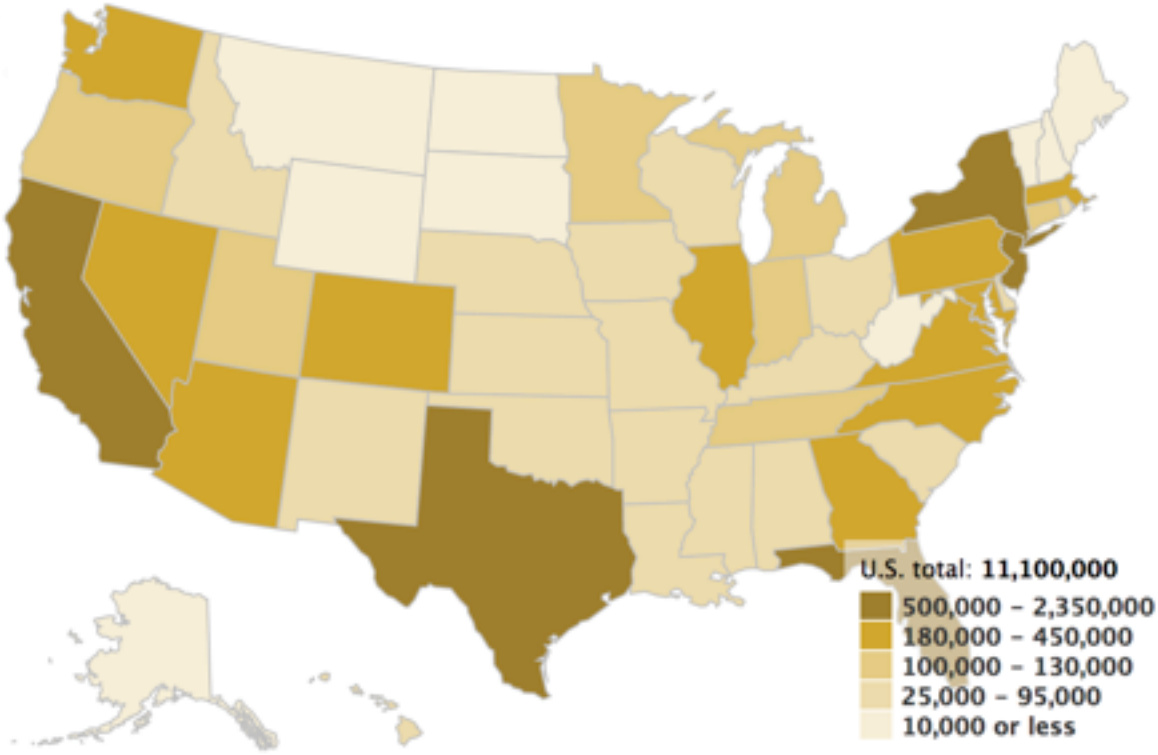


Source:
Migration Policy Institute (MPI) tabulation of data from U.S. Census Bureau, 2010-2016 American Community Surveys (ACS), and 1970, 1990, and 2000 Decennial Census. All other data are from Campbell J. Gibson and Emily Lennon, "Historical Census Statistics on the Foreign-Born Population of the United States: 1850 to 1990" (Working Paper no. 29., U.S. Census Bureau, Washington D.C., 1999).

Of the rising population of immigrants, approximately 1 in 4 are undocumented. It has been estimated that there were 11.3 million undocumented immigrants in the U.S. in 2016

(Krogstad, Passel, & Cohn, 2017), making up about 3.5% of the overall population of the U.S. However, the undocumented immigrant population is highly concentrated in certain geographic areas. According to data from the 2014 American Community Survey, approximately 60% of undocumented immigrants live in only six states that hold the largest populations of undocumented immigrants: California, Texas, Florida, New York, New Jersey, and Illinois (Pew Research Center, 2016).

Figure 1.2. Distribution of Undocumented Immigrants Across the United States



Note. Population figures are rounded.
Source: Pew Research Center estimates for 2014 based on augmented American Community Survey data from Integrated Public Use Microdata Series (IPUMS).

With much of the undocumented immigrant population concentrated in a few states and areas, it is important to examine how different immigration policies may impact these communities. Thus, the first part of this study looks at the types of policies as well as the different states that have implemented such a policy to examine the potential magnitude of

impact for these policies on the undocumented immigrant population. This provides an estimate of the proportion of the undocumented immigrant population that is potentially impacted by the policies studied. The remainder of this chapter provides further background on issues surrounding the college education of undocumented immigrants in this country.

Barriers/Challenges Faced by Undocumented Immigrants in Access to Higher Education

As higher education has often been found to be a key to upward mobility (Chetty, Hendren, Kline, & Saez, 2014; Rothstein, 2017), it is important to assess the impacts that these policies have on access to higher education, especially for undocumented students as they are a particularly vulnerable and marginalized population.

While the 1982 Supreme Court case *Plyler v. Doe* ruling, indicating that denying education to children who cannot dictate their own legal immigration statuses would cause a lifetime hardship for them, allowed all undocumented students access to K-12 education, the same cannot be said for access to higher education. Equal access to education ends every year for approximately 65,000 undocumented students when they graduate from high school (Fix & Passel, 2003). Pursuit of the American Dream soon becomes just an elusive dream for a majority of these students, as only about 5 to 10 percent of these undocumented high school graduates go on to pursue a college education (Gonzales, 2007).

The small percentage of undocumented students attending college stems from multiple factors, including challenges in access to higher education opportunities. Some of the biggest challenges that undocumented students face are low academic preparation, financial obstacles, legal barriers, and a lack of a sense of belongingness (Frum, 2007; Garcia & Tierney, 2011). Undocumented students often attend low-performing, ethnically-isolated schools in urban, inner-city communities (Gonzales, 2009; Teranishi & Briscoe, 2006), and face violence both in the

schools they attend as well as the neighborhoods they reside, reducing their ability to focus on schoolwork (Abrego, 2006). When students have to face potential trauma and other detrimental social and environmental factors outside of school, this reduces their ability to focus on schoolwork and learning leading to lower academic outcomes just based on where they live and having to be concerned and worry about their safety and other issues outside of school. In addition, these low-performing schools have less qualified teachers, offer fewer college preparatory classes, and receive less government funding leaving undocumented students, as low-income students, underprepared for college compared to their more privileged counterparts (Conway, 2009). Despite these challenges that these students are faced with, many are resilient and work hard to make it through high school. However, the limited number of undocumented students who do make it through high school still face challenges in gaining access to institutions of higher education due to their residency and legal status. In addition, most do not have the financial means to afford college expenses, and in the majority of states in the U.S. are still denied access to in-state resident tuition benefits or access to financial aid options available to their documented peers. These students may also feel unwelcome or excluded from communities and society due to their immigration status, which has been found to affect college enrollment and success Huber, 2009).

One of the major obstacles to higher education for any student is financial challenges. This is even more of a problem for undocumented students because without access to in-state tuition rates, college is unaffordable to most undocumented students, especially as their families often have limited finances due to lack of opportunities in the labor market. The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) stated that undocumented immigrant students “shall not be eligible on the basis of residence within a State

(or a political subdivision) for any postsecondary education benefit unless a citizen or national in the United States is eligible for such a benefit." The consequence was to leave it up to states to decide whether to offer in-state tuition to undocumented students as long as other citizens including nonresidents are eligible for the same benefits. While many of these policies are beneficial for undocumented students and serve as ways to help promote access to higher education, there are also some policies that were meant to serve to deter undocumented students from attaining higher education, including those that ban access to in-state resident tuition. The impacts of these policies will also be examined in the present study.

CHAPTER 2: Literature Review

Due to the rising population of immigrants as well as the increased awareness of immigration issues due to political debates during the past two decades, a number of policies affecting immigrants have been implemented in differing states and years over this time period. This has increased uncertainty regarding the futures of those impacted by these policy changes, but few people, particularly those not directly affected by these policies, understand the extent of the impact that these policies have had on documented and undocumented immigrants. In this chapter I will review previous studies that have examined this issue using quantitative analysis techniques.

As shown in Table 2.1 five principal recent studies attempted to empirically estimate the effect of in-state tuition policies on various educational outcomes for undocumented students. These studies varied by the years analyzed and dataset that was used, how they estimate legal immigration status for individuals, educational outcomes and policy examined (all relate to in-state tuition only, but some extend benefits to undocumented immigrants while others ban privileges), empirical strategy/estimation models, and findings. I provide a summary and critique of the literature below for each of these characteristics.

Theoretical Framework

In modern human capital theory, all human behavior is based on the economic self-interest of individuals operating within freely competitive markets. Education is one of the major investments that enhances an individual's productivity, and thus resulting in higher wages and earnings later on (Becker, 1962). Rationalizing an individual's decision of whether to pursue and finish higher education involves an informal analysis of costs and benefits of education. The

Table 2.1. Summary of Empirical Studies that Estimate Impact of In-State Resident Tuition on Educational Outcomes

Paper Citation	**Analysis Years (years examined)**	**Individual Data Source (e.g. CPS, ACS, etc…)**	**How Legal Immigration Status was Estimated**	**Outcome/ Dependent Variable**	**Policy Tested**	**Empirical Strategy/Estimation Model**	**Findings**
Kaushal (2008)	1997-2005	Current Population Survey monthly outgoing rotation group (CPS-ORG) Sample: Used a sample of most likely to be undocumented: noncitizen Mexican young adults (17-22 year olds) who arrived in the U.S. after 1987 (since a lot of immigrants legalized under the Immigration Reform and Control Act of 1986) who have lived in the United States for at least three years (since most in-state tuition rates require immigrants to	Used a group of noncitizen Mexican young adults as a proxy	4 different educational outcomes: 1. Enrolled in college 2. Has at least some college education 3. Has an Associate or higher degree 4. Has a high school diploma (to see if providing in-state tuition rates incentivizes more undocumented students to finish high school)	In-State Tuition	$\boldsymbol{E_{ijt} = \delta_t + \delta_j + \delta_m + \lambda Policy_{jt-1} + Z_{jt}\,\Phi + X_{ijt}\,\Gamma + u_{ijt}}$ $i = 1, \ldots, N$ (persons) $j = 1, \ldots, 51$ (states) $t = 1997, \ldots, 2005$ (years) $m = 1, \ldots, 12$ (month) $\boldsymbol{E_{ijt}}$ = educational outcome $\boldsymbol{Policy_{jt-1}}$ = dichotomous variable coded as 1 if a state provided in-state tuition to undocumented students in year $t - 1$; otherwise 0 $\boldsymbol{Z_{jt}}$ = time-varying characteristics (see above) $\boldsymbol{X_{ijt}}$ = individual characteristics (see above) $\boldsymbol{\delta_t}$ = year fixed effects $\boldsymbol{\delta_j}$ = state fixed effects $\boldsymbol{\delta_m}$ = month of the year fixed effects $\boldsymbol{u_{ijt}}$ = error term	In-state tuition policies are associated with a 2.5 percentage point (31 percent) increase in college enrollment, a 3.4 percentage point (14 percent) increase in the proportion with at least a high school diploma, a 3.7 percentage point (37 percent) increase with at least some college education (including those without a college degree), and a 1.3 percentage point (33 percent) increase in the proportion of

		have lived in that state for at least three years).					noncitizen Mexican young adults with a college degree.
Chin & Juhn (2011)	2000-2005	2001-2005 American Community Surveys (ACS) supplemented by the 2000 U.S. Census Sample: focus on 18-24 year olds with a high school degree when examining measures of college attendance; focus on 16-17 year olds when examining dropping out of high school	The authors define the affected group (as a proxy of undocumented immigrant group), which is known to contain much more undocumented immigrants than any of the comparison groups as follows: individuals who are foreign-born, not U.S. citizens, arrived in the U.S. after 1981 and by the age of 14 and are Hispanic (excluding Puerto Ricans) They compare this group to U.S. born Hispanics.	2 different educational outcomes: 1. College attendance among 18-24 year old with a high school degree 2. Dropping out of high school among people who are currently aged 16-17 years old (wanted to capture early dropout behavior)	In-State Tuition	**Difference-in-Difference (DD) Model** $\boldsymbol{Y_{istj} = \alpha_j + \kappa\, INSTATE_{st} \times I(j = 1) + \lambda\, INSTATE_{st} + \delta_{sj} + \gamma_{tj} + x_{istj}'\rho_j + \varepsilon_{istj}}$ *i* = individual *s* = state *t* = time *j* = affected group $\boldsymbol{Y_{istj}}$ = educational outcome $\boldsymbol{\alpha_j}$ = constant $\boldsymbol{INSTATE_{st}}$ = binary variable indicating whether state *s* has a law permitting undocumented immigrants to pay in-state tuition at time *t* $\boldsymbol{INSTATE_{st} \times I(j = 1)}$ = interaction term between whether an individual is undocumented and whether the state they live in has a law allowing undocumented immigrants to pay in-state tuition $\boldsymbol{\delta_{sj}}$ = state fixed effects $\boldsymbol{\gamma_{tj}}$ = time fixed effects $\boldsymbol{x_{istj}'\rho_j}$ = vector of exogenous explanatory variables (e.g. age and sex of the individual, and time-varying state attributes) $\boldsymbol{\varepsilon_{istj}}$ = error term	Generally, didn't find any statistically significant findings of policy impact on college attendance or high school dropout behavior (no impacts at the 5% significance level/95% confidence level).

Potochnick (2014)	1998-2011	Current Population Survey (CPS)-Merged Outgoing Rotation Group (MORG) Sample: Focus on 16-19 year olds (use a narrower age range than the standard 16-24 year old range to exclude labor migrants who come to the US to work and never enter the school system)	Used Mexican foreign-born non-citizen (FBNC) as a proxy for undocumented immigrants (59% of undocumented immigrants are of Mexican origin and 56% of foreign-born Mexicans are undocumented and 80-85% of foreign-born Mexicans who have been in the US for less than ten years are undocumented -Passel & Cohn 2008)	High school dropout behavior (binary whether dropout or not)	In-State Resident Tuition	**Difference-in-Difference Model** $\boldsymbol{DROPOUT_{ijtm}} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}(\boldsymbol{POLICYSTATE_{jt-1}}) + \boldsymbol{\beta_2}\begin{pmatrix}\boldsymbol{INDIVIDUAL}\\ \boldsymbol{CHARACTERISTICS_{itjm}}\end{pmatrix} + \boldsymbol{\beta_3}(\boldsymbol{STATE\ CONDITIONS_{jtm}}) + \boldsymbol{\beta_4}(\boldsymbol{STATE\ DUMMIES_j}) + \boldsymbol{\beta_5}(\boldsymbol{YEAR\ DUMMIES_t}) + \boldsymbol{\beta_6}(\boldsymbol{MONTH\ DUMMIES_m}) + \boldsymbol{\beta_7}(\boldsymbol{STATE\ DUMMIES_j} \times \boldsymbol{YEAR_t}) + \boldsymbol{\varepsilon_i}$ $i = 1, \ldots, N$ (individuals) $j = 1, \ldots, 51$ (states) $t = 1998, \ldots, 2011$ (years) $m = 1, \ldots, 12$ (month) $\boldsymbol{DROPOUT_{ijtm}}$ = binary indicator whether the individual is a high school dropout $\boldsymbol{POLICYSTATE_{jt-1}}$ = binary indicator of whether a state provided in-state tuition to undocumented immigrants in year $t - 1$ (variable of interest) $\boldsymbol{INDIVIDUAL\ CHARACTERISTICS_{itjm}}$ = vector of individual and household demographic controls that have been shown to affect an individual's likelihood dropping out (e.g. age, gender, living in an MSA, employment status, household structure, highest	The enactment of an in-state resident tuition policy is associated with a 8 percentage point (19% decrease) decrease in the likelihood of dropping out of high school for Mexican FBNCs. In falsification tests, detected some effect for the year prior to state-level adoption and enactment of IRST policy. This may be due to some of the mixed policy signals undocumented youth were receiving prior to the actual adoption and enactment of these policies or were hopeful that by the time they became college age, the

						household education level, and average years in the US) $\boldsymbol{STATE\ CONDITIONS_{jtm}}$ = vector of time varying state-characteristics that may be correlated with policy adoption (e.g. monthly unemployment rate to control for state specific economic shocks, proportion of non-Latino white adults with at least a high school diploma and proportion with some college to control for state-specific trends in education, proportion of Mexican adults with at least a high school diploma to control for state trends in Mexican educational aspirations, proportion of Mexican FBNCs in the population to control for state-specific migration trends) $\boldsymbol{STATE\ DUMMIES_j}$ = state fixed effects $\boldsymbol{YEAR\ DUMMIES_t}$ = year fixed effects $\boldsymbol{MONTH\ DUMMIES_m}$ = month fixed effects $\boldsymbol{STATE\ DUMMIES_j \times YEAR_t}$ = interaction between state and year fixed effects to capture the remaining unobserved state-specific linear trends that influence the likelihood of dropping out $\boldsymbol{\varepsilon_i}$ = random error	policy would be passed. However, policy effect is still strongest one-year post-enactment.
Villarraga-Orjuela &	2005-2012	American Community Survey	Same as Chin and Juhn (2011)	3 different educational outcomes:	In-State Resident Tuition	**Linear Probability Model (OLS)**	Policies banning in-state tuition to

Kerr (2017)		Complementary Databases: 1. For State unemployment rates and minimum wages • Bureau of Labor Statistics • Wage and Hour Division at the U.S. Department of Labor 2. For in-state tuition rates and fees at postsecondary education institutions • Provided by College Board	The authors define the affected group (as a proxy of undocumented immigrant group), which is known to contain much more undocumented immigrants than any of the comparison groups as follows: individuals who are foreign-born, not U.S. citizens, arrived in the U.S. after 1981 and by the age of 14 and are Hispanic (excluding Puerto Ricans) They compare this group to U.S. born Hispanics.	1. college participation rates of undocumented immigrant students (UIS) 2. High school dropout rates among UIS 3. College participation rates of native and naturalized citizens	Bans (specifically focuses on states that explicitly ban ISRT)	$\boldsymbol{Y_{istj} = \alpha_j + \delta\, BAN\_STATE_{st} \times I(j = 1) + \gamma\, BAN\_STATE_{st} + \theta_{sj} + \lambda_{tj} + X'_{istj}\rho_j + \varepsilon_{istj}}$ *i* = individual *s* = state *t* = year *j* = group affected or unaffected by policy $\boldsymbol{Y_{istj}}$ = educational outcome variable $\boldsymbol{BAN\_STATE_{st}}$ = binary variable indicating whether state *s* bands access to ISTR for undocumented immigrant students at year *t* $\boldsymbol{I}$ = binary indicator or whether an individual is in the category of foreign-born not-a-citizen defined as the group affected by the banning ISTR policy and consisting of individuals highly likely to undocumented immigrants $\boldsymbol{BAN\_STATE_{st} \times I(j = 1)}$ = interaction term indicating the group targeted by the policy intervention living in those states that implemented the ISTR restriction after they effectively implemented it (main variable of interest) $\boldsymbol{\theta_{sj}}$ = state fixed effects (state-specific affected group effects) $\boldsymbol{\lambda_{tj}}$ = year fixed effects (time-varying affected group effects)	undocumented immigrants are associated with a statistically significant 8.4 percentage point decrease (31.1% reduction in enrollment over the base-level enrollment) in college enrollment among Hispanic FBNCs who are highly likely unauthorized immigrants. There is no statistically significant impact on high school dropout behavior. The authors also find that banning in-state tuition to undocumented students actually decreases college attendance of non-Hispanic Whites by 0.97 percentage

						X'_{istj} = individual and state level control variables that may affect the outcome variable	points, but had no significant effect on other groups of U.S. citizens.
Flores (2010)	1998-2005	Current Population Survey (CPS)-Merged Outgoing Rotation Group (MORG) Sample: restricted to Latino population young adults (18-24) in the data and further restricted by restrictions dictated by each state in-state resident tuition policy, such as years of residency/year of entry and high school graduation (e.g. if a policy required two years of residency, a student would have had to be in the U.S. for	The author used foreign-born non-citizen status as a proxy or identifier of undocumented status The comparison group is then anyone who is not a foreign-born non-citizen since the sample is Latino young adults (The author uses the term Hispanic and Latino interchangeably.)	College enrollment/ college participation	In-State Resident Tuition Policy	**Difference-in-Difference Model (Logistic Regression)** $\boldsymbol{LOGISTIC\ (INCOLL = 1) = \beta_0 + \beta_1 DIMMIGTUITION + \beta_2 FBNC + \beta_3 (DIMMIGTUITION \times FBNC) + \beta_4 STATEDUMMIES + \beta_5 YEARDUMMIES + \beta_6 (STATEDUMMIES \times FBNC) + \beta_7 (YEARDUMMIES \times FBNC) + \beta_8 X + \varepsilon}$ **INCOLL** = binary variable measure of whether enrolled in college during week prior to being surveyed **DIMMIGTUITION** = binary variable equal to 1 in states, months, and years with an in-state tuition policy for undocumented immigrants **FBNC** = binary variable indicating whether individual is classified as a foreign-born non-citizen **DIMMIGTUITION × FBNC** = interaction term between whether individual is a foreign-born non-citizen and whether they are in the "treatment group" (in a state in a	Foreign-born Latinos are 1.54 times more likely than not to enroll in college after the enactment of in-state tuition policies compared to the same population in the rest of the United States without the enactment of such policies.

		at least two years); main analysis focuses on a sample of those that have a high school diploma/GED Also, used a separate sample of Latinos who are U.S. citizens (both U.S. born and naturalized in the U.S.) as a robustness check				year where there exists an in-state resident tuition policy for undocumented immigrants in effect); variable of interest **STATEDUMMIES** = state fixed effects **YEARDUMMIES** = year fixed effects **STATEDUMMIES × FBNC** = interaction term between state fixed effects and foreign-born non-citizens in sample to allow for variance in immigration trends by state **YEARDUMMIES × FBNC** = interaction term between year fixed effects and foreign-born non-citizens in sample to allow for variance in immigration trends by year **X** = vector of individual covariates to measure demographic characteristics and economic conditions that may be correlated with educational attainment **ε** = error term	

References (Full Citations)

Chin A., & Juhn C. (2011) 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. In Leal D., & Trejo S. (eds.) *Latinos and the Economy* (p. 63-94). Springer, New York.

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.

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

Potochnick, S. (2014). How states can reduce the dropout rate for undocumented immigrant youth: The effects of in-state resident tuition policies. *Social Science Research*, *45*, 18-32.

Villarraga-Orjuela, A., & Kerr, B. (2017). Educational effects of banning access to in-state resident tuition for unauthorized immigrant students. *Educational Evaluation and Policy Analysis*, *39*(4), 620-643.

costs (both direct and indirect) are weighed against the expected economic returns to the additional education. Studies on educational decisions for undocumented immigrant students have shown that this population of students face more conditional considerations than most other students, including financial barriers, risk of deportation, and lack of job prospects and opportunities upon graduating from college (Chin & Juhn, 2011; Flores, 2010; Kaushal, 2008). Thus, it is important to make sure that policies that may influence these additional factors are taken into account when estimating impacts of immigration policies on higher education access and persistence for undocumented students.

Data Analyzed and Years Covered

Previous empirical studies on the effects of in-state resident tuition policies have either utilized data from the Current Population Survey (CPS), specifically the outgoing rotation group (ORG) and merged outgoing rotation group (MORG) or the American Community Survey (ACS). Two of the earlier papers (Kaushal, 2008; Flores, 2010) utilized data from the CPS for years from the late 1990s (1997 and 1998 respectively) to 2005. Chin and Juhn (2011) covered a span of even fewer years from 2000-2005 using data from the ACS but had the same essential policy years as Kaushal (2008) and Flores (2010) since the first state policies (California and Texas) weren't enacted until 2001. Since the passing and implementation of state policies regarding in-state tuition for undocumented immigrants only began in 2001, restricting the data analysis to years before 2006 greatly limits the cross-state variation available for study.

Potochnick (2014) and Villarraga-Orjuela & Kerr (2017) improved upon these studies by covering a wider timeframe. Potochnick (2014) was able to examine data from 1998 to 2011 using CPS-MORG, and Villarraga-Orjuela & Kerr (2017) utilized ACS data from 2005 to 2012. While these studies are able to capture more variation across states (as states implemented

policies between 2005-2012 that the previous earlier studies were unable to capture), they fail to account for not only the policies passed in two of the states with the largest populations of undocumented immigrants but also the wave of policies passed after 2011/2012. This is an especially crucial time period to capture as Obama passed the Deferred Action for Childhood Arrivals in 2012 leading to a massive immigration movement when many more states passed policies regarding in-state tuition benefits for undocumented immigrants.

How Legal Immigration Status Was Determined

The CPS and ACS are the most commonly used datasets when studying undocumented immigrants as they are included in these large, nationally representative datasets. However, due to the sensitive nature of their legal immigration status, there has not been a good source of data on legal immigration status making it extremely difficult to accurately identify the undocumented immigrant population in most cases. While the ACS and CPS data do not provide information about legal immigration status, they do contain information about citizenship status of a foreign-born individual, country of origin, and year of arrival into the United States. Due the limitations in the information provided from these datasets, previous studies have not used rigorous empirical methods to determine legal immigration status but instead have utilized this information in different ways to identify those most likely to be undocumented within the dataset as a proxy for being undocumented. Kaushal (2008) and Potochnick (2014) restricted their sample to just a group of Mexican foreign-born non-citizen young adult individuals as a group they define to be most likely undocumented to serve as a proxy for undocumented immigrants. Flores (2010), Chin & Juhn (2011), and Villarraga-Orjuela & Kerr (2017) define their group of individuals most likely to be undocumented as Hispanic/ Latino foreign-born non-citizen young adult individuals and compare them to either their U.S.-born Hispanic counterparts (Chin &

Juhn, 2011; Villarraga-Orjuela & Kerr, 2017) or to a sample of all other non-foreign-born non-citizen Hispanic individuals (Flores, 2010). These methods of identifying those most likely to be undocumented include immigrants who are documented as well as those who are undocumented. Because even within the same ethnic group, undocumented and documented immigrants may vary widely, estimating impacts on these groups may be heavily biased especially if the ratio of undocumented to documented immigrants within that racial/ethnic group varies greatly by year or across states. Thus, more rigorous approaches are needed to determine an individual's legal immigration status, even if it is within a specific ethnic group.

Outcome Variables and Policies Examined

While all of the relevant previous empirical studies have estimated the impacts of policies revolving around the issue of whether or not states will provide in-state tuition benefits to undocumented immigrant students on various educational outcomes, few have examined the impacts of state policies that deny these privileges to undocumented students. Villarraga-Orjuela & Kerr (2017) most recently looked at the impact of policies that explicitly banned in-state tuition to undocumented students on educational outcomes. These policies have also all been coded through the use of dichotomous variables with 1 indicating the presence of a policy regarding in-state tuition for undocumented students or 0 if not.

Due to the time frame limitations with many studies having only examined a few years past the first policy implemented, this constrained the potential educational outcome variables they could examine the effects of the policies on. Most of the previous studies have examined the impact of almost immediate educational outcomes such as in-state resident tuition policies on college participation/enrollment (Chin & Juhn, 2011; Flores, 2010; Kaushal, 2008; Villarraga-Orjuela & Kerr, 2017) and high school dropout behavior (Chin & Juhn, 2011; Potochnick, 2014;

Villarraga-Orjuela & Kerr, 2017). Kaushal (2008) additionally examined some educational attainment outcomes (e.g., high school completion, some college, and having an Associate or high degree), but considering that the study only examined years 1997-2005 and the first state policy allowing in-state tuition to undocumented students was implemented in 2001, it is hard to assess whether these impacts, particularly whether getting a college degree was caused by implementation of the in-state tuition policies.

Empirical Strategies

Across all of the relevant empirical studies assessing the impacts of in-state tuition policies on educational outcomes, there seemed to be little variation in the types of empirical strategies used with most of them using a difference-in-difference model or some variation of this model. Difference-in-difference quasi-experimental designs are generally used when there may be pre-existing differences between treatment and control groups under the assumption that in the absence of any treatment or intervention, these differences grow at the same rate over time. A key strength of this strategy is that if the assumptions hold true, a causal estimate of the effect of the intervention can be found using this strategy, but if the assumptions do not hold true, the estimate may be biased leading to a wrong conclusion.

For the previous studies examined, one of the biggest differentiating factors in empirical strategies was the sample restriction. Some studies utilized a sample of both undocumented and documented individuals (Chin & Juhn, 2011; Flores, 2010; Villarraga-Orjuela & Kerr, 2017); others only used a sample solely restricted to those they classify as undocumented (or most likely to be undocumented as a proxy for being undocumented; Kaushal, 2008; Potochnick, 2014). All studies use state and year fixed effects and a dummy variable for states and years when policy was implemented (most of the studies lag the policy by a year for policy to take effect).

Findings From These Studies

Findings across these studies were mixed considering that the studies were fairly similar and should be comparable to one another. Kaushal (2008) found that policies that allowed undocumented students to pay in-state tuition rates led to an increase in college attendance and an increase in all levels of educational attainment (high school, some college, Associate's or higher) for Mexican foreign-born non-citizens. Flores (2010) found that these policies increased the college enrollment of foreign-born Latinos by a multiplicative factor of 1.54. In addition, Potochnick found that enactment of in-state resident tuition policies was associated with a decrease in the likelihood of dropping out of high school for foreign-born non-citizen Mexicans. However, Chin & Juhn (2011) found no statistically significant effect of these policies on college attendance or high school dropout behavior for foreign-born non-citizen Hispanics. Villarraga-Orjuela & Kerr (2017) looked at in-state tuition policy bans and found that this was associated with a decrease in college enrollment for Hispanic foreign-born non-citizens, but had no statistically significant effect on high school dropout behavior. Due to these mixed findings, more research is needed to investigate the policy impacts and their implications for future policies regarding undocumented immigrants.

Current Study

In this study I use the ACS (similar to Chin & Juhn, 2011 and Villarraga-Orjuela & Kerr, 2017), but I look at all years between 2000-2016 to examine the impact of in-state tuition policies and bans. This wider time range allows me to capture the changes that happened across this time and incorporates the time period revolving around the two large immigration movements in the last two decades as well. The first of these, in 2005, involved the waves of

immigration protests and the second, in 2012, was associated with the passing of DACA and the increased awareness of immigration issues.

In order to estimate the impact of these policies on higher education access for undocumented immigrants, I use a two-stage imputation strategy to identify those individuals that are most likely to be undocumented. In the first stage I use an imputation methodology similar to the one developed by Hall, Greenman, and Farkas (2010) and subsequently largely validated by Sohn & Pebley (2018) to identify individuals who are likely to be undocumented through the use of combining responses from the SIPP (Survey of Income and Program Participation) dataset and then using this information to impute legal immigration status of individuals in the ACS dataset which I will be using for my dissertation. This method allows me to analyze data for both undocumented and documented foreign-born immigrants and is described in more detail below. I also closely examine the database of year-by-year policies in the states to assess the ability of these time-series cross-sectional data to support the difference-in-differences methodology employed by previous investigators (e.g. Kaushal, 2008; Potochnick, 2014 also analyzed in further detail below. As we shall see, I found that the implementation dates of these policies across states *does not* support the usual difference-in-differences methodology, which requires measures of the outcome variable for a significant number of years prior to policy implementation as a basis for comparison with the post-policy outcomes. Others may have been able to utilize this strategy for the following reasons: 1) because they estimated legal immigration status using ethnic groups most likely to be undocumented as a proxy, this potentially included both documented and undocumented immigrants in the group making the trends seem more similar across treatment and control groups and 2) because many studies focused on a shorter timeframe and study period, they may not have been able to fully capture

the trends across the treatment and control groups as a whole. Instead, I use an analysis strategy tailored to differences in the patterns of inter-state differences in the timing of policy implementation. This is more fully described in the following chapter.

CHAPTER 3: Data, Measurement, and Methodology

Data

I utilized data from multiple sources: 1) American Community Survey (ACS) data for years 2000-2016 downloaded from the Integrated Public Use Microdata Series (IPUMS), 2) Survey of Income and Program Participation (SIPP) data for 2008 panel from the National Bureau of Economic Research (NBER), and 3) original policy database that I have compiled from multiple online sources to gather information about policies.

I first used various online sources to search for information regarding immigration policies as well as the original laws and policies to determine whether they were local, state, or federal law and policies. I incorporated this information into a database, as mentioned previously. Unlike most other databases and studies that utilize temporal differences in policies, I recorded policies by their year of implementation rather than year that it was passed, especially considering some policies were not able to be implemented until a year or two after it had been passed. I then utilized data from this original policy database as mentioned previously to serve as the foundation for my dissertation. The compilation and details on the creation of the policy database are described in the next section.

In addition, I combined responses from the Survey of Income and Program Participation (SIPP) Wave 2 Immigration Topical Module Panel Data with data from the American Community Survey (ACS) for years 2000-2016. While main analyses are done utilizing only the policy database and the ACS data, the SIPP responses are necessary for a unique imputation method of identifying legal immigration status, as described below. Data from the single-year American Community Surveys (ACS) from 2000-2016 are used to estimate population demographics by state and estimate the number and share of undocumented immigrants living in

each state as well as provide information for the main analyses of the policy impacts on higher education access and persistence for undocumented immigrants as well as documented immigrants. This dataset provides a larger, nationally representative sample of the population and contains more detailed information on educational attainment and immigration information that is needed to impute legal immigration status and later determine the effects of different immigration laws and policies on higher education access and persistence than some of the other commonly used datasets for studying undocumented immigrants, such as the Survey of Income and Program Participation (SIPP) and the Current Population Survey (CPS).

However, I initially also drew upon responses from the SIPP, particularly the responses from the Wave 2 Immigration Topical Module, to help impute legal immigration status for individuals in the ACS. The Wave 2 Immigration Topical Module from the SIPP includes specific immigration response variables such as whether a foreign-born non-citizen individual was originally a permanent resident when they entered the United States and whether or not their immigration status has changed to be a permanent resident of the United States since immigrating. In addition, the SIPP contains information about participation in various governmental subsidy and assistance programs. These responses are crucial for identifying and helping to differentiate between legally documented immigrants from those that are undocumented and help to more accurately predict legal immigration status for individuals surveyed in the ACS. The unique imputation strategy for identification of legal immigration status is described in more detail below.

Policy Database

I utilized various online sources to search for archived bills and legislative documents including information about immigration policies as well as years implemented that may potentially impact the access and persistence into higher education for undocumented immigrants, particularly regarding in-state tuition benefits. These were then combined into a database that is easy to read and understand to get a comprehensive overview of the variations in policies across federal, state, and local governments across the United States.

Federal-Level Policies

Since Donald Trump was elected president, the Deferred Action for Childhood Arrivals (DACA) and Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA) programs have both been cancelled. Both of these programs were attempts under the Obama administration to provide amnesty to undocumented immigrants in the United States. DACA was announced on June 15, 2012 and took effect later that same year that allowed some undocumented immigrants, who either entered the country illegally or remained in the country without legal permission to do so as minors, to receive a renewable two-year period of deferred action from deportation as well as eligibility for a work permit so they can legally work in the United States. DAPA was announced on November 20, 2014 that would have granted certain undocumented immigrants, who were parents to either U.S. citizens or lawful permanent residents, a three-year renewable work permit allowing them to legally work in the United States and provide for their families as well as a deferred action from deportation. However, this policy never went into effect as a temporary court injunction was issued shortly after the announcement of the policy in February 2015, blocking the program from going into effect while the lawsuit was in place, and a 4-4 Supreme Court tied decision in June 2016 effectively left the block in

place until the policy was formally rescinded on June 15, 2017 under the Trump administration. While DACA and DAPA have been widely discussed, an earlier federal policy shaped immigration rules almost a decade earlier.

This was the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), which was passed in 1996. This Act tightened restrictions for undocumented immigrants in terms of deportation issues and also allowed local law enforcement officers to perform immigration law enforcement duties. There were also additional restrictions in regard to higher education for undocumented immigrants. With the passing of this law, states were specifically prohibited from offering any postsecondary educational benefits (i.e., enrollment, in-state tuition rates, financial aid) at public institutions of higher education to undocumented immigrant students unless the same benefits are offered to citizens and other nonresidents in the United States as well. This left it up to states to decide whether or not they would extend privileges to undocumented immigrants and resulted in varying policies across states regarding higher education benefits as described in the sections below. Appendix A provides a detailed list of each of the types of policies by state (including the bill or law passed and the year implemented).

State- and Local-Level Policies

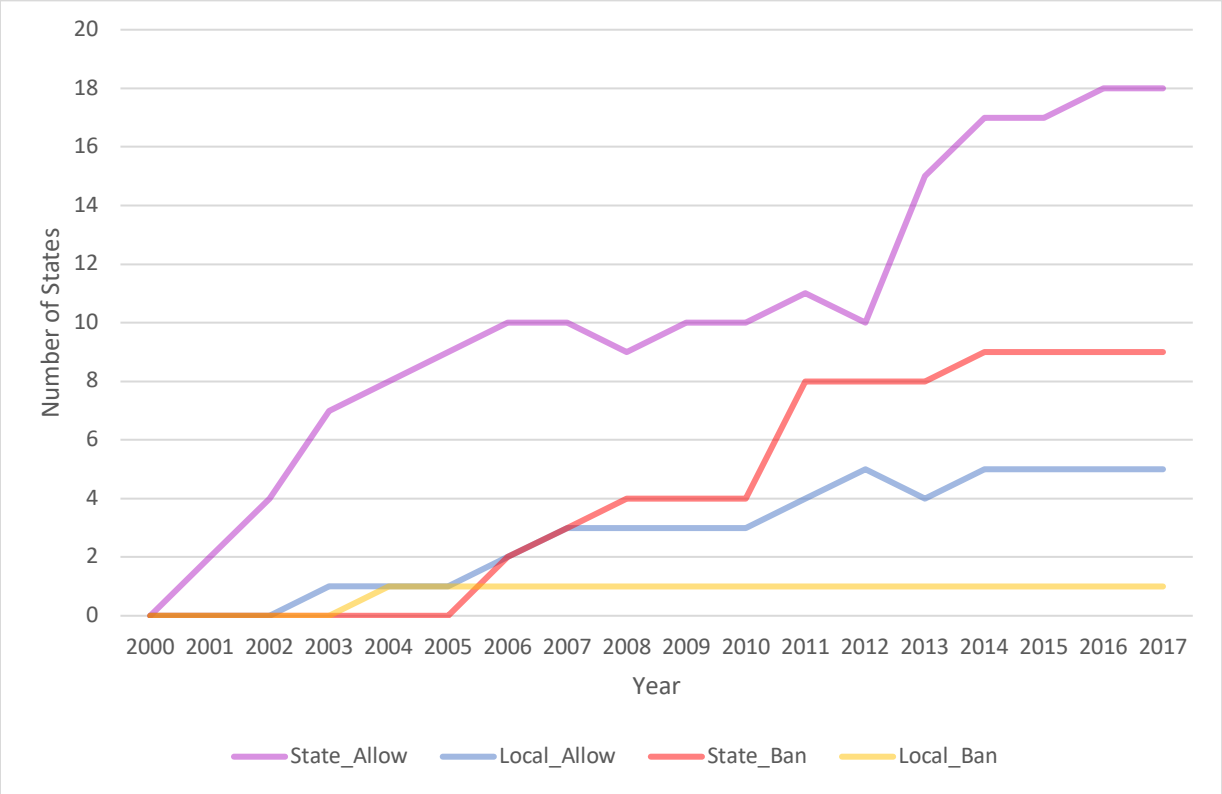
As mentioned earlier, the IIRIRA allowed for states and local governments to establish policies regarding whether or not they would provide postsecondary education benefits to undocumented students. This resulted in a variety of different policies across states regarding in-state tuition rate benefits, one of the most widely varying policies directly affecting higher education access for undocumented immigrants and a primary focus of this dissertation.

In-State Resident Tuition

A large percentage of undocumented immigrant youth have been living in the United States for much of their lives and consider the United States their home. Yet, in many states they do not have access to the same state-level programs as legal residents. Financial difficulties are barriers to many students, particularly those first-generation students coming from low-income backgrounds similar to the situation of most undocumented immigrant students. The differences in the cost of attendance at institutions of higher education in tuition for in-state versus out-of-state students is usually quite drastic with out-of-state tuition rates usually averaging approximately twice as much as the in-state tuition rate for students who can legally prove legal residency in the state. The IIRIRA allowed state and local (any non-statewide agency within the state) governments to pass their own legislation regarding in-state resident tuition benefits, resulting in some states taking actions to extend in-state resident tuition rate benefits to undocumented immigrant students and other states taking actions to ban undocumented students from these benefits.

The over-time pattern of these state-level policies is shown in Figure 3.1. While most states do not have specific policies, this figure shows a great deal of variation among states that do have stipulated policies. There has been an increase in the total number of states having instituted such policies, both those providing in-state resident tuition benefits and those banning them to undocumented immigrants. The upward trend in this figure may have been associated with the massive immigration rights protests in 2006 triggered by the passing of HR4437 through the House of Representatives in December of 2005, which increased restrictions on immigration and undocumented immigrants as well as by the passing of DACA in 2012.

Figure 3.1. Number of States with In-State Resident Tuition Policies for Undocumented Students by Year

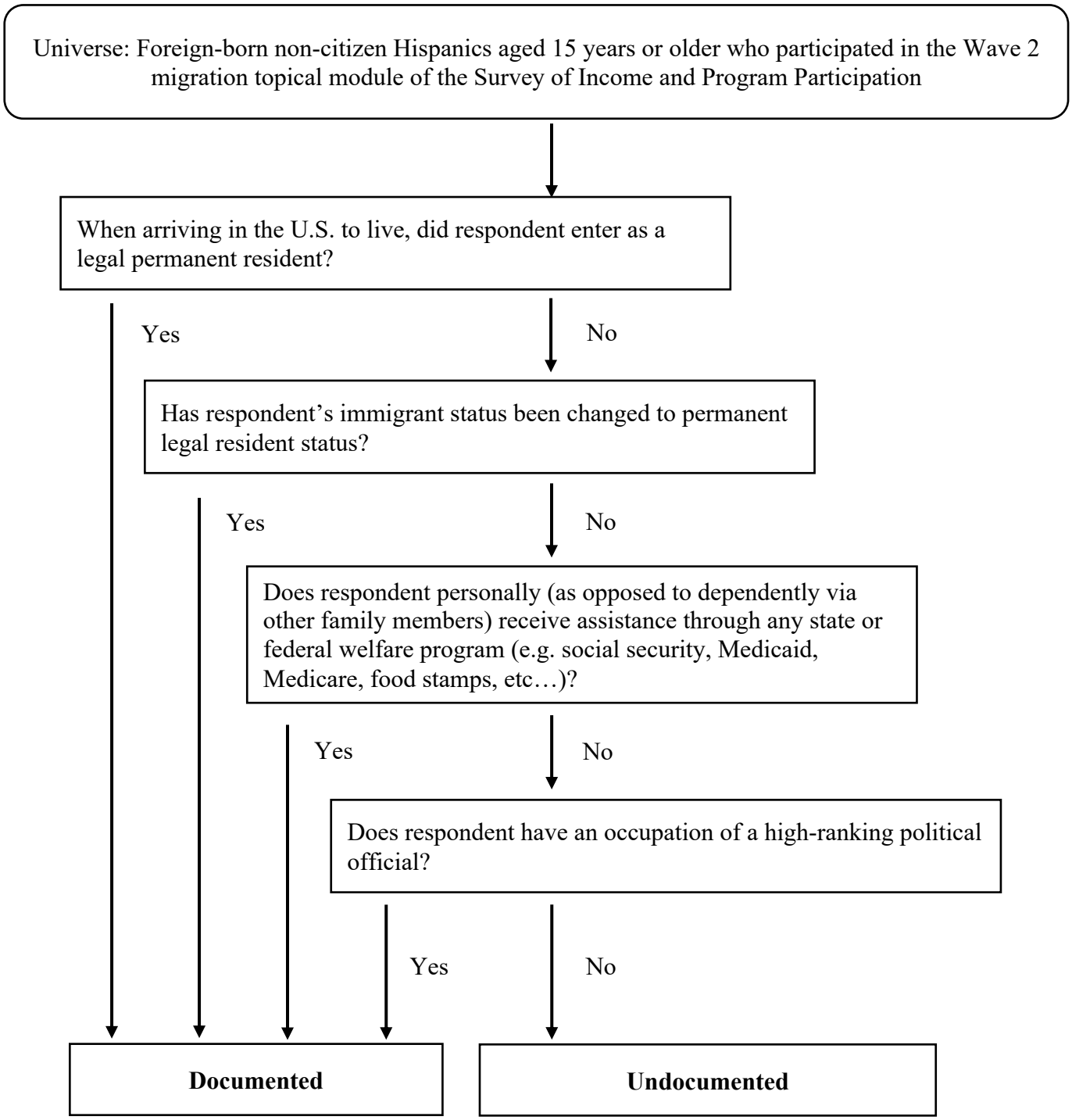


Imputation of Legal Immigration Status

Imputation of legal immigration status required the use of two separate datasets in a multiple step process. I first started with the Survey of Income and Program Participation (SIPP) as this dataset provided more information about immigration, particularly about legal permanent resident status that allowed for better distinction between legally documented and undocumented immigrants than most other nationally representative datasets with information about immigrants. Since Hispanics make up a large majority of undocumented immigrants, I first restricted the sample to only looking at those who were of Hispanic origin and considered to be foreign-born non-citizens who were 15 years of age or above (since I am looking at higher education outcomes and there was no one below the age of 15 who attended college). I then use a

unique imputation technique similar to the one outlined in Hall, Greenman, & Farkas (2010) to identify those individuals most likely to be undocumented in the SIPP through looking at various conditions outlined in the diagram in Figure 3.2 below.

Figure 3.2: Imputation of Legal Status for Hispanic Immigrants in the Survey of Income and Program Participation (SIPP)



Legal immigration status was determined by various factors for those in the foreign-born non-citizen category. Since there is no information that allows for a clear distinction between legally documented immigrants and undocumented immigrants, I use various pieces of information to determine legal immigration status such as whether they arrived in the U.S. with permanent status (and whether their status has since changed to permanent since they have been in the U.S.). I used participation in government assistance programs as an indicator of being here legally, including individual qualification and participation in Social Security, WIC, food stamps, Medicaid, and other welfare and public assistance programs. I also looked at individual recipients of Federal Grants for those that are in school as recipients of these types of benefits are typically restricted to citizens and legal immigrants of the U.S. The remainder of the foreign-born non-citizens who did not meet the criteria were categorized as being undocumented.

To determine legal immigration status for individuals in the ACS data, I used a cross-survey multiple imputation method. In this method I first used logistic regression to determine an equation to predict the likelihood of being undocumented using the SIPP data and then applied the predictive equation to the ACS data to estimate legal immigration status (if 0.5 or above probability of being undocumented, coded as undocumented and 0 if below 0.5). I used logistic regression with state and year fixed effects using various demographic characteristics to predict likelihood of being undocumented. The imputation method is approximately 70% accurate (and this is robust using different probability cutoffs, though 0.5 seemed to be the most logical cutoff to use as these are probabilities of likelihood of being undocumented) in predicting the true legal immigration status of the individual. The accuracy of this imputation method was determined by predicting the legal imputation status of the individuals in SIPP and checking whether the

predicted values were different from actually being undocumented based on the criteria I listed earlier.

With the predictions in SIPP, I then used cross-survey multiple imputation to use the responses from SIPP to estimate probabilities of being undocumented for individuals in the ACS. As mentioned earlier, this is approximately 70% accurate in predicting correct legal immigration status. This was done by first using logistic regression of being undocumented on different demographic characteristics variables that were included in both the SIPP and ACS (or at least variables that were able to be derived from both datasets) with both state and year fixed effects using the 2008 panel of SIPP data for individuals who participated in the Wave 2 Immigration Topical Module panel. I then used the predict function in STATA to impute the probabilities of an individual being undocumented in the ACS dataset for years 2000-2016. Again, I used a cutoff of 50% probability to determine undocumented status. After attaining the probability of an individual being undocumented in the ACS, I created a dichotomous variable of undocumented status that was equal to 1 if the probability of being undocumented was 0.5 or higher and 0 if the probability of being undocumented was below 0.5. Since realistically, an immigrant individual is either documented or undocumented in terms of their legal immigration status, to increase the accuracy even further, I ended up with a dichotomous variable of being undocumented that was coded as 1 if the probability of being undocumented was 0.5 or higher and 0 otherwise. I then manually recoded individuals to not being undocumented if they received any form of individual welfare or public assistance (excluding food stamps since that data was only available at the household level) to ensure I wasn't overestimating the undocumented population. In fact, by doing so, the undocumented population in my dataset should now be undercounted as there are

individuals classified as not undocumented that may be undocumented. I also restricted attention to individuals aged 17-22 because this is the typical college age range.

The ACS is a time-series cross-sectional data which means that there are repeated observations on multiple variables across time but not individuals. Table 3.1 below shows a summary of the full sample with imputed documented and undocumented Hispanic adolescent/young adult (aged 17-22) immigrant population proportions by states across all years (that is, this dataset is the result of combining the datasets for each of the years 2000-2016). From this table, we see that Arizona, California, Florida, Illinois, New Jersey, New York, and Texas have the largest Hispanic populations aged 17-22. Similarly, these are mostly also the states that have the highest undocumented immigrant populations, which are California, Florida, Illinois, New Jersey, New York, North Carolina, and Texas. It also appears that of the Hispanic immigrant population aged 17-22 within each state, on average, half of these individuals are undocumented.

Table 3.1. Distribution and Proportion of Documented and Undocumented Hispanic Immigrants Aged 17-22 by State

	Not Undocumented		Undocumented		
	Count	**Proportion**	**Count**	**Proportion**	**Total Count by State**
Alabama	263	0.394302849	404	0.605697151	667
Alaska	11	0.275	29	0.725	40
Arizona	2,408	0.573879886	1,788	0.426120114	4196
Arkansas	290	0.43348281	379	0.56651719	669
California	16,651	0.535247035	14,458	0.464752965	31,109
Colorado	1,034	0.564718733	797	0.435281267	1,831
Connecticut	261	0.350806452	483	0.649193548	744
Delaware	113	0.474789916	125	0.525210084	238
District of Columbia	83	0.423469388	113	0.576530612	196
Florida	5,323	0.551434787	4,330	0.448565213	9,653
Georgia	1,434	0.439338235	1,830	0.560661765	3,264
Hawaii	25	0.5	25	0.5	50
Idaho	277	0.549603175	227	0.450396825	504
Illinois	2,108	0.517300613	1,967	0.482699387	4,075
Indiana	418	0.426095821	563	0.573904179	981
Iowa	195	0.475609756	215	0.524390244	410
Kansas	325	0.515873016	305	0.484126984	630
Kentucky	153	0.341517857	295	0.658482143	448
Louisiana	150	0.343249428	287	0.656750572	437
Maine	4	0.363636364	7	0.636363636	11
Maryland	572	0.363405337	1,002	0.636594663	1,574
Massachusetts	426	0.321024868	901	0.678975132	1,327
Michigan	331	0.425449871	447	0.574550129	778
Minnesota	246	0.440860215	312	0.559139785	558
Mississippi	113	0.335311573	224	0.664688427	337
Missouri	195	0.393939394	300	0.606060606	495
Montana	9	0.409090909	13	0.590909091	22
Nebraska	245	0.519067797	227	0.480932203	472
Nevada	1,010	0.55801105	800	0.44198895	1,810
New Hampshire	30	0.576923077	22	0.423076923	52
New Jersey	1,429	0.406427759	2,087	0.593572241	3,516
New Mexico	525	0.571273123	394	0.428726877	919
New York	2,256	0.365818064	3,911	0.634181936	6,167
North Carolina	1,376	0.413834586	1,949	0.586165414	3,325
North Dakota	9	0.75	3	0.25	12
Ohio	194	0.335060449	385	0.664939551	579
Oklahoma	421	0.429153925	560	0.570846075	981
Oregon	615	0.521628499	564	0.478371501	1,179
Pennsylvania	361	0.372933884	607	0.627066116	968
Rhode Island	145	0.383597884	233	0.616402116	378
South Carolina	310	0.337323177	609	0.662676823	919
South Dakota	22	0.35483871	40	0.64516129	62
Tennessee	423	0.386654479	671	0.613345521	1,094
Texas	10,514	0.563632465	8,140	0.436367535	18,654
Utah	533	0.555208333	427	0.444791667	960
Vermont	6	0.3	14	0.7	20
Virginia	750	0.420875421	1,032	0.579124579	1,782
Washington	853	0.448475289	1,049	0.551524711	1,902
West Virginia	14	0.325581395	29	0.674418605	43
Wisconsin	306	0.444767442	382	0.555232558	688
Wyoming	51	0.607142857	33	0.392857143	84
Total	55816	0.499204007	55,994	0.500795993	111,810

Note. Estimates of legal immigration status for foreign-born individuals were done using a unique two-stage imputation process.

Methodology of the Data Analysis

Because the timing of the implementation of the immigration-related policies differed across states, it appears possible to estimate a causal effect using a difference-in-difference strategy, as many previous studies have done. This estimation method has been traditionally used to estimate the effect of specific interventions or treatments (e.g. law passages, policy enactments, or program implementations) by comparing the changes in outcomes over time between a group that receives the treatment/intervention/program (the "treatment" group) and another group that does not (the control group). Most previous studies of the college enrollment and graduation effects of allowing in-state tuition for undocumented students have followed this methodology. One of the goals of the present study is to critique these prior studies and seek to improve on them. In this chapter, I focus specifically on the study done by Kaushal (2008) as this has been frequently cited and can be considered to be a representative high-quality study in this research area. In the present study, I both examine the assumptions underlying Kaushal's analyses, and present results from a research design that is more appropriate to the data I am analyzing.

Data

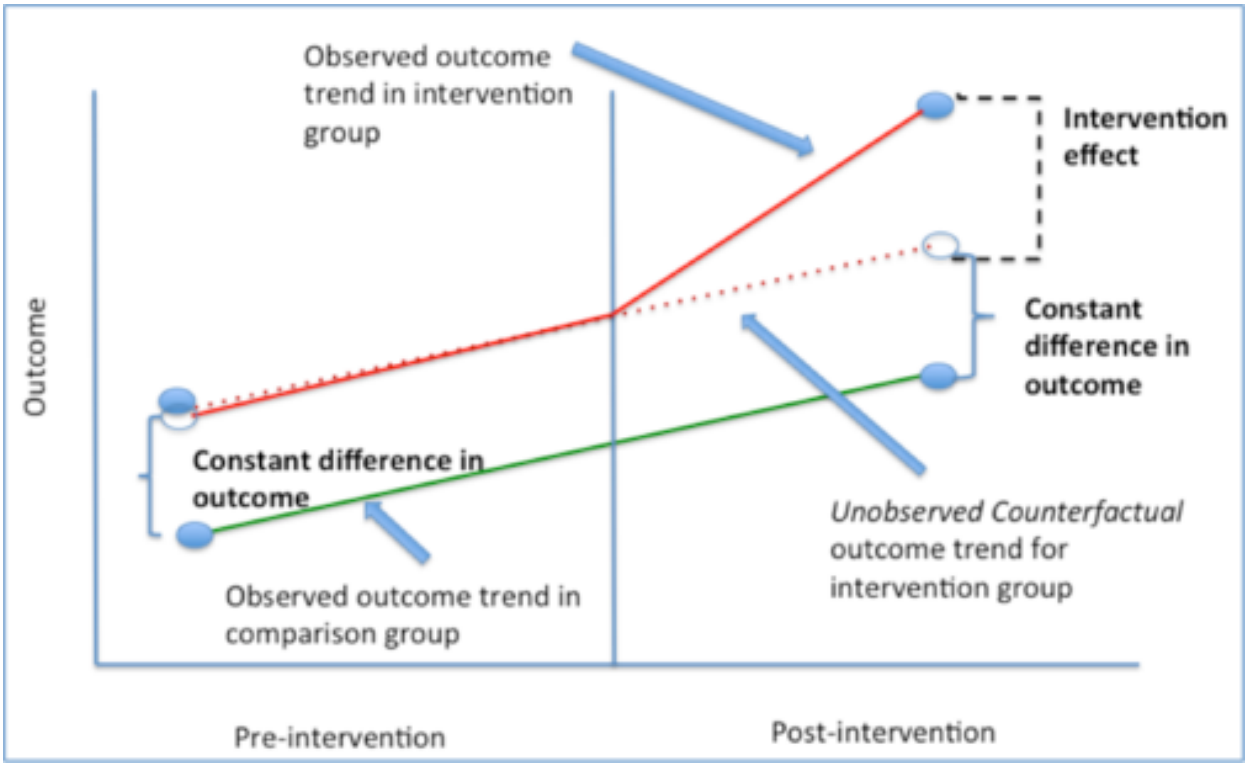
Previous empirical studies on the effects of in-state resident tuition policies have either utilized data from the Current Population Survey (CPS), specifically the outgoing rotation group (ORG) and merged outgoing rotation group (MORG) or the American Community Survey (ACS). The CPS-ORG dataset was employed by the Kaushal (2008) study. While the Kaushal study was most similar to my study overall, and used the CPS-ORG dataset, I chose to use the American Community Survey as this allowed for a large, nationally representative sample with variables that were similar to those found the in Survey of Income and Program Participation,

which was also used to impute legal immigration status for foreign-born individuals. However, the result of this decision was that the data for my analyses covers the years 2000 – 2016, whereas Kaushal analyzed data for 1997 – 2005. As we shall see, this necessitates a different analysis plan than that employed by Kaushal.

Difference-in-Differences Estimation Method

Difference-in-Difference quasi-experimental designs are generally used in settings where there may be pre-existing differences between treatment and control groups, but with the assumption that in the absence of any treatment or intervention, these differences grow at the same rate over time. This assumption is also known as the "parallel-trends" assumption, which is the most crucial requirement to fulfill in order to obtain and unbiased estimate of the causal effect. In addition, the allocation of receiving the intervention should not be determined by baseline outcomes and the composition of the intervention and control groups should not change drastically across time. If these assumptions and requirements hold, it is possible to then estimate the causal effect of the treatment as the difference of the difference in outcomes before and after the implementation of the treatment between the treatment and control groups. This is illustrated in Figure 3.3 below. As shown in the figure, I can find the effect by calculating two differences. The first difference is represented by the difference in the outcome before and after the treatment, which should only change for the treatment group at the intervention time "cutoff" as indicated by the change in slope of the line for the treatment group. The second difference is the difference of the differences between the treatment and control groups. Assuming the aforementioned assumptions hold, this is the estimate of the causal effect of the intervention.

Figure 3.3. Graphical Explanation of Difference-in-Difference



Implementation of the Model by Kaushal (2008)

To estimate the impacts of policies allowing undocumented students to pay in-state tuition rates, Kaushal (2008) utilized this strategy by capitalizing on the differences in timing of the implementation of these policies across states. For each state that implemented such a policy, the year it was implemented serves as the time cutoff for that state. Since the author uses a sample of those most likely to be undocumented as a proxy for being undocumented already, it is possible to treat this as a case of a difference-in-difference analysis of policy impacts. Traditionally, this would be done by first computing the change in outcomes before and after the policy was implemented (the first difference) and then comparing these differences between

states that ever implemented such a policy and states that did not ever implement a policy (the difference-in-difference or second difference).

However, the analysis is not that simple in this case in examining multiple policies across many different states over a period of time when states do not all implement policies at the same time. Thus, the control group is no longer just the states that never implemented an in-state tuition policy, but also the years prior to implementation in the states that eventually implemented the policy. The policy variable is "turned on" or in effect to be coded 1 beginning in the year the policy was implemented, and then stays at 1 as long as the policy is in effect. The policy variable is lagged a year to allow it time to affect individual outcomes. So the unit of analysis is a state in a given year, where all the state-year combinations are included in the regression model below. State-year combinations with and without the policies are then compared to one another. A slight limitation is that if a state only had one year prior to the policy being implemented for that state, there is not much of a control period for that state, but this can still be used to account for over time trend differences for other states with policies that had more balance between time before and after the policy implementation. To account for different trends in the outcomes across different states and across multiple years, Kaushal's model used state, year, and month fixed effects. This minimizes the amount of bias in the estimate if there was an upward trend in the educational outcome variable over time or across different states.

The estimation model can be represented as follows:

$$\boldsymbol{E_{ijt} = \delta_t + \delta_j + \delta_m + \lambda Policy_{jt-1} + Z_{jt}\,\Phi + X_{ijt}\,\Gamma + u_{ijt}}$$

$i = 1, \ldots, N$ (persons)
$j = 1, \ldots, 51$ (states)
$t = 1997, \ldots, 2005$ (years)
$m = 1, \ldots, 12$ (month)

$\boldsymbol{E_{ijt}}$ = educational outcome
$\boldsymbol{Policy_{jt-1}}$ = dichotomous variable coded as 1 if a state provided in-state tuition to undocumented students in year *t* – 1; otherwise 0
$\boldsymbol{Z_{jt}}$ = time-varying characteristics (see above)
$\boldsymbol{X_{ijt}}$ = individual characteristics (see above)
$\boldsymbol{\delta_t}$ = year fixed effects
$\boldsymbol{\delta_j}$ = state fixed effects
$\boldsymbol{\delta_m}$ = month fixed effects
$\boldsymbol{u_{ijt}}$ = error term

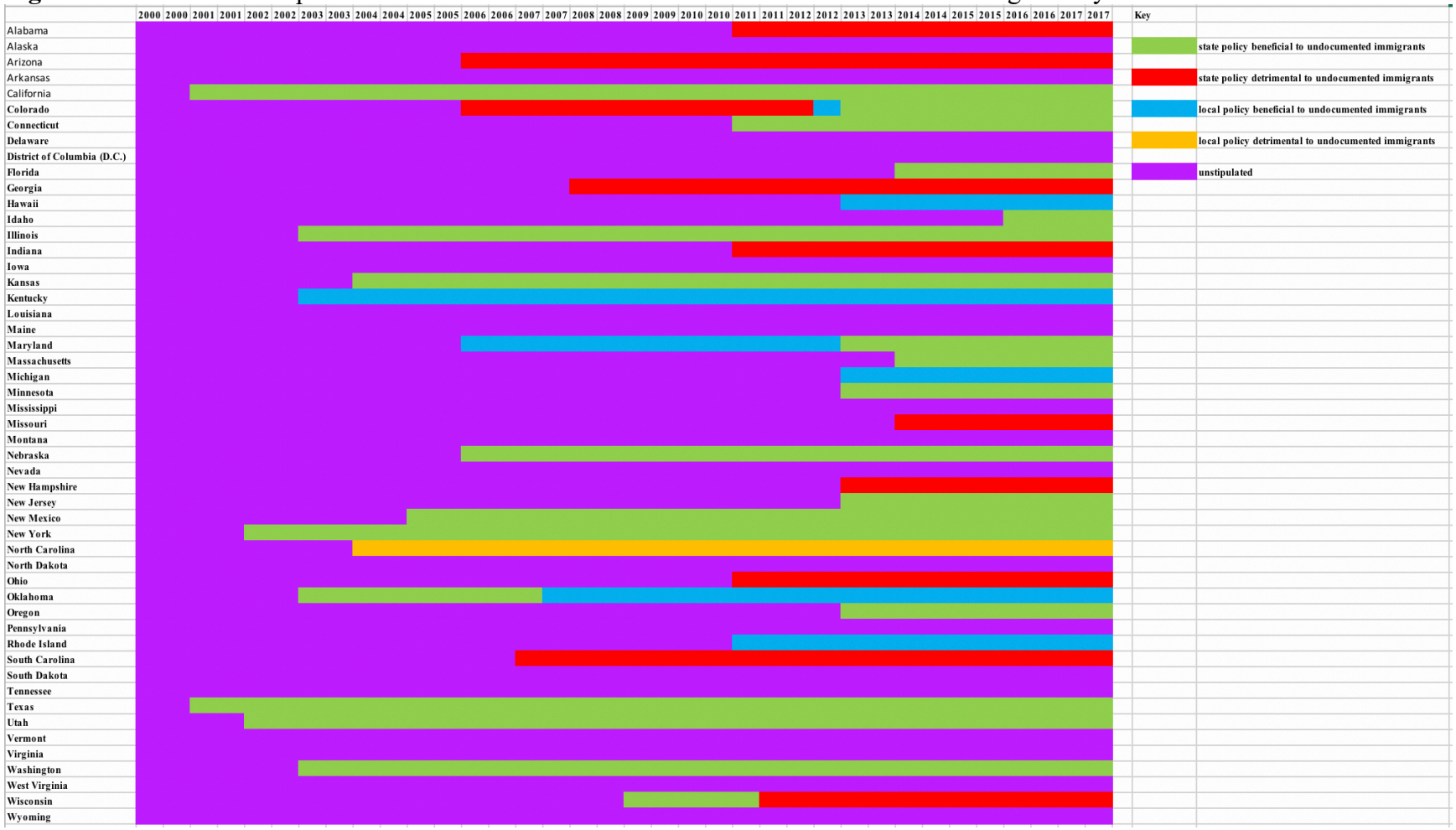
In this model, the estimate of the causal effect of policies allowing in-state tuition rates to undocumented students is represented by the coefficient $\boldsymbol{\lambda}$.

My initial analysis plan was to estimate a very similar equation using the database I created from the ACS. The only differences were to be an analysis period going from t = 2000 - 2016 years and the use of annual data and fixed effects instead of monthly data and fixed effects. Further, I intended to differentiate between the effects of different levels of policies as there were some enacted by states at local levels within the state and some that were enacted across the entire state, which is accounted for in these predictors. However, due to reasons described later, this analytic strategy does not work in this instance.

Before estimating these equations, it was necessary to examine the over-time pattern of policy implementation in order to check the validity of the assumptions of the difference-in-difference method applied to these data. Figure 3.4 shows the over-time implementation of four types/levels of policies separately by state. Unfortunately, we see that many of the states - California, Illinois, Kansas, Nebraska, New Mexico, New York, Texas, Utah, and Washington – that implemented policies beneficial to undocumented immigrants did so relatively early in our study period. This is unfortunate because it negates the use of difference-in-difference (DID) for data from these states. The problem is that these states have few years in our data prior to the implementation of the policy. Therefore, the "first difference" in the DID method cannot be

reliably calculated for these states. Instead, I used the pattern of policy implementation across the states to sort them into 3 groups: early program implementation, later program implementation, and no program implementation. This was coded as a dichotomous variable of whether a state implemented a specific in-state tuition policy early (2002-2006), mid-period (2007-2011), or late (2012-2016) with a baseline of the initial period of 2000-2001 in our time frame studied within our data. I then employed a methodology of comparing the post-2000 college enrollment trends for each of implementation states – either early or late – to the trends for the states that never implemented these programs. This analytic strategy is the basis for the results presented in Chapter 4.

Figure 3.4. Timeline of Implementation of In-State Tuition Policies for Undocumented Immigrants by State



CHAPTER 4: Results

As noted in the previous chapter, I employed an analysis strategy that compared the college enrollment rates of undocumented and documented Hispanic immigrants between states that were either early or late program adopters and the control states that never implemented such a policy. That is, I first compared the over-time college enrollment rates for the nine states that implemented the in-state tuition policy early (2000-2006) and maintained it to the end of the time period to the enrollment rates for the eighteen states that never implemented a policy like this during the study period. With this configuration of implementation dates, we might expect that states that implemented early and maintained the policy up through 2016 would show higher enrollment rates for the undocumented immigrant population over this time period than states that never implemented such a policy. To test this hypothesis, I began by examining the college enrollment rates of the undocumented population for every state and every year. These results are shown in Table 4.1. This table shows the enrollment rate with the sample size it is based on in parentheses below. Looking at the states that implemented the policy early, we see the following. California shows relatively rapid growth in enrollment with an inflection point in 2012. Illinois and New York show a similar pattern. Kansas, Nebraska, New Mexico and Washington show a somewhat similar pattern which is made less reliable by small sample sizes. Texas shows an upward movement, but without an inflection point around 2012. Utah does not show this growth pattern.

Table 4.1. Percent Undocumented Hispanic Immigrants Enrolled in College and Totals by State and Year

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alabama	.0000 (2)	.0000 (5)	.0000 (7)	.0769 (13)	.0000 (6)	.0250 (40)	.0455 (44)	.0465 (43)	.0250 (40)	.0000 (41)	.0513 (39)	.0435 (23)	.1250 (16)	.0769 (26)	.0000 (15)	.2273 (22)	.0909 (22)
Alaska	.0000 (1)	.0000 (2)	N/A (0)	.0000 (1)	.1250 (8)	.5000 (2)	.0000 (3)	.0000 (2)	.0000 (1)	N/A (0)	.1429 (7)	.0000 (1)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	1.000 (1)
Arizona	.0000 (5)	.1429 (28)	.0465 (43)	.1154 (52)	.1778 (45)	.0733 (191)	.0642 (218)	.0648 (216)	.1077 (130)	.1360 (125)	.1633 (98)	.0778 (90)	.1143 (105)	.1075 (93)	.1138 (123)	.2017 (119)	.1308 (107)
Arkansas	.0000 (1)	.0000 (6)	.0000 (7)	.0000 (9)	.1250 (16)	.0769 (39)	.1379 (29)	.1351 (37)	.0588 (34)	.1923 (26)	.0357 (28)	.2273 (22)	.1905 (21)	.1250 (32)	.3529 (17)	.3333 (24)	.2581 (31)
California	.0833 (72)	.1288 (240)	.0783 (230)	.1047 (296)	.1478 (318)	.1072 (1185)	.1110 (1351)	.1146 (1484)	.1103 (1197)	.1258 (1240)	.1388 (1124)	.1440 (1111)	.2152 (948)	.2132 (938)	.2325 (942)	.2278 (869)	.2881 (913)
Colorado	.0000 (7)	.0000 (16)	.0000 (16)	.0000 (11)	.1429 (14)	.0548 (73)	.0270 (74)	.0500 (80)	.0213 (47)	.0581 (86)	.1356 (59)	.2192 (73)	.1429 (49)	.2800 (50)	.2105 (57)	.2667 (45)	.3000 (40)
Connecticut	.0000 (1)	.0000 (8)	.0000 (6)	.1667 (12)	.0000 (3)	.0294 (34)	.3529 (34)	.1944 (36)	.1622 (37)	.2143 (42)	.2326 (43)	.2979 (47)	.3256 (43)	.2195 (41)	.2821 (39)	.2759 (29)	.2143 (28)
Delaware	N/A (0)	.0000 (4)	.0000 (8)	.0000 (4)	.1111 (9)	.0000 (22)	.0909 (11)	.0000 (7)	.0000 (11)	.0000 (6)	.0833 (12)	.1429 (7)	.0000 (5)	.0000 (5)	.0000 (1)	.1429 (7)	.3333 (6)
District of Columbia (D.C.)	.0000 (2)	.1250 (8)	.0000 (10)	.0000 (6)	.1429 (7)	.0000 (6)	.0000 (11)	.0000 (7)	.2000 (5)	.1667 (6)	.0000 (4)	1.000 (2)	.1250 (8)	.5000 (14)	.1667 (6)	.2000 (5)	.3333 (6)
Florida	.1667 (12)	.1250 (64)	.2000 (40)	.1781 (73)	.0805 (87)	.1677 (328)	.1119 (447)	.1218 (427)	.1667 (342)	.1950 (318)	.2098 (367)	.2277 (347)	.2481 (266)	.2376 (282)	.2932 (307)	.2673 (303)	.2125 (320)
Georgia	.1250 (8)	.0690 (29)	.0500 (40)	.0769 (52)	.0435 (69)	.0376 (186)	.0345 (203)	.0814 (172)	.0718 (181)	.0827 (133)	.0608 (148)	.0880 (125)	.1235 (81)	.1358 (81)	.1532 (111)	.1379 (116)	.1895 (95)
Hawaii	N/A (0)	.0000 (1)	.0000 (1)	N/A (0)	.0000 (1)	.0000 (1)	.0000 (1)	.1667 (6)	.5000 (2)	.0000 (1)	.0000 (1)	NA (0)	.0000 (2)	.6667 (3)	.5000 (4)	N/A (0)	.0000 (1)
Idaho	.0000 (7)	.1667 (6)	.0000 (8)	.0000 (6)	.0833 (24)	.0667 (15)	.0000 (17)	.1053 (19)	.0000 (13)	.0588 (17)	.0625 (16)	.1429 (14)	.0833 (12)	.0714 (14)	.0000 (10)	.1538 (13)	.2500 (16)
Illinois	.2000 (10)	.1296 (54)	.0385 (52)	.0800 (50)	.1111 (63)	.1118 (152)	.1026 (195)	.0751 (213)	.1250 (136)	.1243 (169)	.0758 (132)	.1325 (151)	.1944 (144)	.1852 (108)	.2362 (127)	.2451 (102)	.2477 (109)
Indiana	.0000 (1)	.0556 (18)	.0000 (7)	.1765 (17)	.0476 (21)	.0877 (57)	.0312 (64)	.1136 (5)	.0500 (60)	.0000 (35)	.0465 (43)	.1471 (34)	.2222 (27)	.2692 (26)	.3182 (44)	.1613 (31)	.1765 (34)
Iowa	.0000 (1)	.0000 (8)	.0000 (3)	.0000 (14)	.0000 (6)	.0714 (14)	.0909 (22)	.1667 (12)	.2143 (14)	.0000 (13)	.0588 (17)	.2143 (14)	.0000 (5)	.3333 (15)	.1538 (13)	.3750 (16)	.4643 (28)
Kansas	.0000 (1)	.1429 (7)	.0000 (7)	.3333 (6)	.0000 (3)	.0417 (24)	.0588 (34)	.0455 (22)	.0800 (25)	.1154 (26)	.1875 (16)	.1304 (23)	.1053 (19)	.3448 (29)	.1333 (15)	.2857 (21)	.1481 (27)
Kentucky	N/A (0)	.0000 (5)	.0000 (6)	.1250 (8)	.0000 (7)	.0000 (21)	.0312 (32)	.1500 (20)	.0667 (15)	.0606 (33)	.1429 (28)	.1250 (24)	.2667 (15)	.2174 (23)	.3214 (28)	.0667 (15)	.4000 (15)
Louisiana	N/A (0)	.0909 (11)	.5000 (2)	.0000 (3)	.6000 (5)	.2000 (10)	.0556 (18)	.2000 (20)	.0000 (27)	.1600 (25)	.0938 (32)	.1429 (14)	.0385 (26)	.0000 (28)	.1852 (27)	.1333 (15)	.2917 (24)
Maine	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	.0000 (2)	N/A (0)	N/A (0)	N/A (0)	1.0000 (1)	.0000 (1)	N/A (0)	N/A (0)	.0000 (1)	.0000 (1)	N/A (0)	.0000 (1)
Maryland	.0000 (5)	.0833 (12)	.0769 (13)	.1667 (12)	.0526 (19)	.0988 (81)	.0824 (85)	.0568 (88)	.0851 (94)	.0843 (83)	.0778 (90)	.0526 (57)	.1294 (85)	.0962 (52)	.2143 (70)	.1571 (70)	.1860 (86)
Massachusetts	.0000 (5)	.0000 (5)	.0714 (14)	.1538 (13)	.2000 (10)	.3556 (45)	.3404 (47)	.2692 (52)	.1522 (46)	.1972 (71)	.1948 (77)	.2442 (86)	.2651 (83)	.3521 (71)	.3368 (95)	.3333 (96)	.4000 (85)
Michigan	.0000 (3)	.2000 (5)	.1538 (13)	.0714 (14)	.2353 (17)	.0645 (31)	.0556 (36)	.0000 (49)	.0889 (45)	.0882 (34)	.2414 (29)	.1290 (31)	.2000 (25)	.3125 (16)	.2051 (39)	.0526 (19)	.0244 (41)
Minnesota	.0000 (3)	.0000 (7)	.0000 (10)	.1667 (6)	.0000 (7)	.0667 (15)	.0333 (30)	.0870 (23)	.0769 (26)	.1481 (27)	.0385 (26)	.0000 (17)	.2222 (27)	.3000 (20)	.3182 (22)	.5000 (28)	.1111 (18)
Mississippi	.0000 (1)	.0000 (8)	.0000 (2)	.0000 (5)	.0000 (6)	.0000 (21)	.1875 (16)	.0000 (31)	.2500 (24)	.0625 (16)	.0455 (22)	.1429 (14)	.0000 (16)	.1429 (7)	.0714 (14)	.01250 (16)	.2000 (5)

Missouri	N/A (0)	.0000 (3)	.2500 (8)	.6250 (8)	.0000 (5)	.0000 (24)	.0400 (25)	.0455 (22)	.0312 (32)	.0000 (16)	.0345 (29)	.1538 (26)	.1905 (21)	.2143 (14)	.3913 (23)	.1765 (17)	.2222 (27)
Montana	N/A (0)	N/A (0)	N/A (0)	.0000 (1)	.0000 (1)	.0000 (3)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	1.0000 (1)	1.0000 (2)	.0000 (1)	N/A (0)	1.0000 (1)	.0000 (1)	1.000 (2)
Nebraska	.0000 (1)	.0000 (9)	.0000 (10)	.0625 (16)	.0667 (15)	.1429 (21)	.0357 (28)	.0000 (8)	.2727 (11)	.0625 (16)	.1667 (6)	.1250 (16)	.0476 (21)	.1538 (13)	.3750 (8)	.3636 (11)	.1765 (17)
Nevada	.0000 (6)	.0000 (8)	.1250 (8)	.0500 (20)	.0000 (20)	.0204 (49)	.0345 (87)	.0513 (78)	.1579 (57)	.0328 (61)	.1000 (60)	.1633 (49)	.1471 (68)	.0400 (50)	.1184 (76)	.1915 (47)	.2500 (56)
New Hampshire	N/A (0)	N/A (0)	.0000 (2)	.0000 (2)	N/A (0)	N/A (0)	.0500 (2)	.0000 (2)	.0000 (1)	.0000 (1)	.0000 (2)	1.0000 (1)	N/A (0)	1.0000 (1)	1.0000 (1)	.6667 (3)	.2500 (4)
New Jersey	.1250 (8)	.0000 (32)	.0833 (24)	.0652 (46)	.1136 (44)	.1472 (163)	.1058 (189)	.1195 (159)	.1374 (131)	.1094 (192)	.1675 (209)	.1503 (153)	.1558 (154)	.1688 (154)	.2680 (153)	.2098 (143)	.2481 (133)
New Mexico	N/A (0)	.2500 (4)	.4000 (5)	.1250 (8)	.0000 (11)	.1111 (27)	.0606 (33)	.0690 (29)	.1034 (29)	.1613 (31)	.2222 (27)	.1875 (32)	.2222 (27)	.1224 (49)	.3261 (46)	.2500 (24)	.2500 (12)
New York	.2222 (18)	.2588 (85)	.0893 (56)	.1591 (44)	.0959 (73)	.1835 (278)	.1227 (326)	.1280 (328)	.1434 (286)	.1327 (339)	.1810 (337)	.1632 (288)	.2542 (295)	.2039 (304)	.2509 (283)	.2644 (295)	.2428 (276)
North Carolina	.0000 (7)	.0500 (40)	.0476 (42)	.0000 (46)	.0312 (32)	.0613 (163)	.0478 (209)	.0357 (196)	.0575 (174)	.0529 (189)	.0556 (144)	.0538 (130)	.1538 (104)	.1270 (126)	.1377 (138)	.1852 (108)	.1584 (101)
North Dakota	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	.5000 (2)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)	.0000 (1)	N/A (0)	N/A (0)
Ohio	.0000 (2)	.0000 (8)	.0000 (4)	.0000 (7)	.3333 (6)	.1522 (46)	.1304 (46)	.0800 (25)	.0000 (32)	.0800 (25)	.0455 (44)	.2308 (26)	.2222 (18)	.1600 (25)	.1333 (15)	.1143 (35)	.4762 (21)
Oklahoma	.0000 (3)	.0625 (16)	.0000 (6)	.0000 (14)	.1818 (11)	.0833 (36)	.0962 (52)	.0526 (38)	.1562 (32)	.0682 (44)	.1707 (41)	.0882 (34)	.0870 (46)	.1429 (56)	.2292 (48)	.2340 (47)	.1667 (36)
Oregon	.0000 (2)	.1111 (9)	.1000 (10)	.1250 (8)	.1875 (16)	.0208 (48)	.1136 (44)	.0213 (47)	.0545 (55)	.0968 (62)	.1000 (50)	.0625 (32)	.2647 (34)	.1406 (64)	.1562 (32)	.2121 (33)	.2222 (18)
Pennsylvania	.0000 (3)	.0000 (5)	.1818 (11)	.0000 (14)	.0714 (14)	.0426 (47)	.1458 (48)	.0667 (45)	.1087 (46)	.1951 (41)	.1167 (60)	.4375 (48)	.2381 (42)	.2105 (38)	.2195 (41)	.2545 (55)	.3469 (49)
Rhode Island	.0000 (1)	.0000 (3)	.2308 (13)	.3333 (3)	.0909 (11)	.0000 (10)	.1667 (18)	.1429 (21)	.1875 (16)	.0385 (26)	.3158 (19)	.4286 (21)	.2308 (13)	.2000 (15)	.2000 (10)	.6667 (15)	.1667 (18)
South Carolina	.0000 (2)	.1429 (7)	.0000 (9)	.1111 (9)	.0000 (18)	.0000 (78)	.0169 (59)	.0149 (67)	.0411 (73)	.1277 (47)	.0213 (47)	.0000 (47)	.1707 (41)	.1290 (31)	.1429 (21)	.1429 (28)	.2800 (25)
South Dakota	N/A (0)	.3333 (3)	.0000 (3)	N/A (0)	.0000 (3)	N/A (0)	.2500 (4)	.0000 (8)	N/A (0)	N/A (0)	.1429 (7)	.0000 (3)	.0000 (1)	.3333 (3)	.2500 (4)	N/A (0)	.0000 (1)
Tennessee	N/A (0)	.0000 (13)	.0000 (5)	.0000 (25)	.0000 (16)	.0185 (54)	.0152 (66)	.0000 (62)	.0588 (51)	.0571 (70)	.0000 (44)	.0000 (52)	.0400 (25)	.0909 (44)	.1136 (44)	.3659 (41)	.1017 (59)
Texas	.1143 (35)	.0423 (142)	.0248 (121)	.0649 (154)	.0929 (140)	.0714 (574)	.0886 (734)	.0754 (663)	.0916 (622)	.1101 (681)	.1158 (665)	.1607 (697)	.1489 (564)	.1831 (590)	.1580 (595)	.1778 (585)	.1851 (578)
Utah	.0000 (1)	.0000 (5)	.2000 (10)	.0588 (17)	.0833 (12)	.0000 (20)	.0732 (41)	.1489 (47)	.2963 (27)	.3030 (33)	.1750 (40)	.1818 (33)	.3333 (30)	.2083 (24)	.0968 (31)	.0870 (23)	.3030 (33)
Vermont	N/A (0)	N/A (0)	1.0000 (1)	N/A (0)	N/A (0)	.0000 (1)	1.0000 (1)	.0000 (2)	.0000 (3)	N/A (0)	.0000 (2)	N/A (0)	N/A (0)	.0000 (3)	1.0000 (1)	N/A (0)	N/A (0)
Virginia	.0000 (4)	.0000 (19)	.2000 (15)	.0667 (15)	.0571 (35)	.1294 (85)	.1471 (102)	.0938 (96)	.1538 (65)	.1000 (90)	.0694 (72)	.1000 (80)	.1176 (68)	.1719 (64)	.3651 (63)	.3289 (76)	.2651 (83)
Washington	.0000 (6)	.0556 (18)	.0000 (16)	.2000 (10)	.0588 (17)	.0349 (86)	.0882 (102)	.0706 (85)	.0380 (79)	.0353 (85)	.0625 (80)	.1059 (85)	.1413 (92)	.1538 (65)	.1343 (67)	.1642 (67)	.2472 (89)
West Virginia	N/A (0)	.0000 (1)	N/A (0)	1.0000 (2)	.0000 (1)	N/A (0)	.3333 (3)	.0000 (1)	N/A (0)	1.0000 (1)	.2500 (4)	.7500 (4)	.5000 (8)	N/A (0)	1.0000 (1)	1.0000 (1)	1.0000 (2)
Wisconsin	.0000 (8)	.0833 (12)	.0909 (11)	.0000 (19)	.0000 (15)	.0000 (24)	.1667 (36)	.0833 (36)	.2000 (20)	.0526 (38)	.0645 (31)	N/A (0)	.1818 (22)	.2083 (24)	.0909 (22)	.1500 (20)	.0588 (17)
Wyoming	N/A (0)	.0000 (2)	.0000 (2)	.0000 (1)	.3333 (3)	.0000 (5)	.0000 (4)	.0000 (1)	N/A (0)	.0000 (3)	.0000 (1)	.2593 (27)	.5000 (2)	.0000 (2)	.0000 (2)	.0000 (2)	1.0000 (3)

To more formally test this hypothesis, I ran the following regression, which compared enrollment for states that started a policy allowing undocumented immigrant students access to in-state tuition early and kept it throughout the study period to those states that never implemented in-state tuition policies.

$$Enrollment = \beta_0 + \beta_1 bin2 + \beta_2 bin3 + \beta_3 bin4 + \beta_4 earlytreatmentstate + \beta_5 bin2\_earlytreatmentstate + \beta_6 bin3\_earlytreatmentstate + \beta_7 bin4\_earlytreatmentstate + e_i$$

where the variables are defined as follows:

- enrollment is a dichotomous indicator of whether an individual in a given year and state was enrolled in college
- bins2-4 cover years 2002-2006, 2007-2011, and 2012-2016 respectively (with the base category bin covering years 2000-2001)
- earlytreatmentstate is a dichotomous variable with a value of 1 if the state the individual resides in had an in-state tuition policy beneficial to undocumented immigrant students that was implemented early and lasted throughout the study period or a value of 0 if the state never passed any policies regarding in-state tuition
- bin2_earlytreatmentstate-bin4earlytreatmentstate is the interaction term between the corresponding years bin variable and whether the individual is in a state that had an in-state tuition policy beneficial to undocumented immigrant students that was implemented early and lasted throughout the study period
- e_i is the error term

For the purposes of the study, for states that had shifts in policy, throughout the time period observed, only the policy that the state ended with in 2012 was counted as this analysis is not

conducive to analyzing shifts in policy within the time frame analyzed. In this equation, the difference in enrollment rates between treatment and control states at the beginning of the time period is measured by β_4. The treatment effects of the program for successive years are measured by β_5, β_6, and β_7. The results of estimating this equation for documented, undocumented, and the full sample (all Hispanic immigrants) are shown in Table 4.2 below.

Table 4.2. The Effect of Early Implementation of In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0340)	(0.0296)	(0.0221)
Years 2007-2011	0.0792*	0.0695*	0.0606*
	(0.0334)	(0.0290)	(0.0217)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0336)	(0.0298)	(0.0219)
Early Policy/Treatment State	0.0916**	0.0333	0.0540*
	(0.0349)	(0.0285)	(0.0219)
2002-2006 × Early Policy	-0.0663	0.0271	-0.0055
	(0.0367)	(0.0314)	(0.0235)
2007-2011 × Early Policy	-0.0745*	0.0084	-0.0198
	(0.0360)	(0.0307)	(0.0230)
2012-2016 × Early Policy	-0.0879*	-0.0005	-0.0333
	(0.0362)	(0.0315)	(0.0233)
Constant	0.0256	0.0909**	0.0682*
	(0.0324)	(0.0269)	(0.0206)
N	35499	37624	73123
R^2	0.0195	0.0162	0.0155

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.

* p<0.05 ** p<0.01 *** p<0.001

This table shows regressions predicting college enrollment separately for undocumented, documented, and all Hispanic immigrant individuals. As we saw in Table 4.1, the dummy variables for year bins 2, 3, and 4 show a sharp upward slope, particularly for bin 4, the years 2012-2016. (Note that these bin dummy variables compare results to bin 1, the base category representing enrollment in 2000-2001, before any state had instituted any of the policies I am studying.) For the undocumented population, we also see a significant positive coefficient of 0.09 for the early policy treatment states. This indicates that the states that implemented the policy early were ones that already had higher undocumented student enrollment. Tests for the effects of early implementation of in-state tuition policies are given by the coefficients of the interactions between the bins and the early policy state variable. Counterintuitively, the coefficients on these interactions are negative and are significant for the interactions with bins 3 and 4. In other words, although the early policy treatment states began with higher college enrollment in 2000-2001, by 2016, the comparison states that never implemented in-state tuition policies had essentially caught up in their enrollment rates of undocumented students.

A similar equation was estimated for the documented students. They too showed an overall positive trend in college enrollment over this entire time period. However, they did not show a significant positive difference in early enrollment level between early policy treatment and control states. Instead, the coefficient is 0.03 and is not statistically significant. As for the interactions between early policy states and the year bin variables, none of these coefficients are statistically significant. Also, the equation for documented Hispanic immigrants has a positive and significant intercept of 0.09 whereas the intercept for the undocumented students was essentially 0. What this indicates is that the documented Hispanic immigrant students started with higher enrollment in 2000-2001 than undocumented Hispanic immigrant students but this

was approximately equally the case between the early policy treatment states and the control states.

One interpretation for these patterns is that among undocumented students, college enrollment at the beginning of the analysis period was already higher in treatment than in control states so that it appears that this already higher level of college enrollment may have helped bring the policy into effect. In other words, early implementation states were ones in which a relatively large population of undocumented immigrants were already attending college, and this may have created a political climate and Hispanic community support, that helped pass the legislation allowing them access to in-state tuition rates. By contrast, this was not the case in the control states that never implemented the policy. However, the undocumented Hispanic immigrant students in these states were affected by a nationwide trend in their college enrollment so that by the end of the analysis period, their college enrollment rates had risen to a level similar to that of the early treatment states. This points to an increasing trend in the enrollment of undocumented Hispanic immigrants in higher education over time, and may be due to unmeasurable things occurring in the states that are not official policy related but may still impact the college enrollment of undocumented and documented Hispanic immigrants.

By contrast, the college enrollment rates of documented Hispanic immigrant students were more similar in the control and treatment states at the beginning of this time period (2000-2001). However, these documented immigrant students were also subject to the rising trend in college enrollment so that by 2016, their enrollment in both treatment and control states had exceeded those of the undocumented immigrant students.

Table 4.3 shows predicted enrollment rates for documented, undocumented and the total Hispanic immigrant sample from the equations estimated from the regression above.

Table 4.3. The Effect of Implementing In-State Tuition Policies Beneficial to Undocumented Students Early on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.1172	0.0256	0.1242	0.0909	0.0122	0.0682
2002-2006	0.1012	0.0759	0.1637	0.1033	0.1376	0.0891
2007-2011	0.1219	0.1048	0.2021	0.1604	0.1630	0.1288
2012-2016	0.2141	0.2104	0.2797	0.2469	0.2451	0.2244

These rates illustrate the points just made. We see that documented students, particularly in control states, began in 2000-2001 with higher college enrollment rates than their undocumented counterparts. However, the strongest pattern in these values from the estimated equations above involve a strong upward trend in enrollment for both undocumented and documented students in both treatment and control states. It does appear as though in contradiction to the prior studies I have reviewed, the in-state tuition policy was more of an artifact than a determinant of college enrollment during this time period.

Following this analysis comparing states that implemented in-state tuition policies early in this time period to those that never implemented such a policy, I replicated this analysis comparing the states that implemented policies later in the time period-Connecticut, Florida, Idaho, Maryland, Massachusetts, Minnesota, New Jersey, and Oregon-with those that never implemented it. The results are shown in Table 4.4.

Table 4.4. The Effect of Later Implementation of In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0355)	(0.0311)	(0.0230)
Years 2007-2011	0.0792*	0.0695*	0.0606**
	(0.0349)	(0.0304)	(0.0226)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0350)	(0.0312)	(0.0228)
Late Policy/Treatment State	0.0550	0.0815*	0.0790**
	(0.0431)	(0.0339)	(0.0262)
2002-2006 × Late Policy	-0.0020	0.0187	0.0018
	(0.0452)	(0.0372)	(0.0281)
2007-2011 × Late Policy	-0.0058	0.0256	-0.0009
	(0.0444)	(0.0365)	(0.0275)
2012-2016 × Late Policy	-0.0247	0.0154	-0.0198
	(0.0445)	(0.0374)	(0.0278)
Constant	0.0256	0.0909**	0.0682**
	(0.0338)	(0.0282)	(0.0214)
N	14527	12763	27290
R^2	0.0231	0.0298	0.0229

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.
* p<0.05 ** p<0.01 *** p<0.001

This table resembles Table 4.2 because the sample in this table is individuals in states with late in-state tuition policy implementation as well as those in states with no policy implementation. Thus, predicted values for the latter (individuals in the control states) are identical in each of these tables. Whereas the early policy treatment state coefficient for undocumented Hispanic individuals in Table 4.2 was 0.0916, that for the late policy treatment state in Table 4.4 is 0.0550. That is, even the late policy treatment states had a higher college enrollment rate in 2000-2001 compared to the control states. This is the same pattern that was shown in Table 4.2. This pattern is also found for documented immigrants in Table 4.4. Further, the interactions between late policy implementation states and the three bins representing time

periods in Table 4.4 are insignificant, showing that the late policy implementation states did not increase college enrollment more than the no-implementation states during the period 2002-2016. This further supports the inference from Table 4.2 that the states implementing this policy, whether early or late, did so after they already had higher Hispanic immigrant college enrollment than the comparison states.

Table 4.5 shows predicted enrollment rates for documented, undocumented and the total Hispanic immigrant sample from the equations estimated from the regression above. As in Table 4.3, we see that Hispanic immigrant college enrollment in treatment states in 2000-2001 was already higher than for control states. Both treatment and control states' enrollment increased dramatically from 2002-2016, with the enrollment of late policy implementation states actually rising higher than enrollment in early policy implementing states for both documented and undocumented Hispanic immigrants.

Table 4.5. The Effect of Late Implementation of In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.0806	0.0256	0.1724	0.0909	0.1472	0.0682
2002-2006	0.1289	0.0759	0.2035	0.1033	0.1699	0.0891
2007-2011	0.1540	0.1048	0.2675	0.1604	0.2069	0.1288
2012-2016	0.2406	0.2104	0.3438	0.2469	0.2836	0.2244

I now turn to an analysis of state policies detrimental to undocumented immigrants. As we see in Figure 4.4, no states had early implementation of this type of policy. However, the following states began implementing such a policy between 2006-2014 and continued this policy to the end of the study period. These states were Alabama, Arizona, Georgia, Indiana, Missouri, New Hampshire, Ohio, South Carolina, and Wisconsin. In the following tables, I repeat the prior analyses of college enrollment, comparing outcomes for these implementors of detrimental

policies to those of states that never implemented any in-state tuition policy. The results are shown in Table 4.6.

Table 4.6. The Effect of Implementation of Policies Banning In-State Tuition for Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0302)	(0.0265)	(0.0195)
Years 2007-2011	0.0792**	0.0695**	0.0606**
	(0.0297)	(0.0259)	(0.0191)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0298)	(0.0266)	(0.0193)
Ban Policy/Treatment State	0.0468	-0.0338	-0.0060
	(0.0391)	(0.0322)	(0.0244)
2002-2006 × Ban Policy	-0.0602	0.0337	-0.0012
	(0.0408)	(0.0351)	(0.0261)
2007-2011 × Ban Policy	-0.0744	0.0057	-0.0201
	(0.0402)	(0.0345)	(0.0256)
2012-2016 × Ban Policy	-0.0939*	0.0337	-0.0175
	(0.0405)	(0.0354)	(0.0260)
Constant	0.0256	0.0909**	0.0682***
	(0.0287)	(0.0241)	(0.0182)
N	10904	9172	20076
R^2	0.0278	0.0270	0.0250

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.

* p<0.05 ** p<0.01 *** p<0.001

This table shows the same overall pattern of enrollment growth over this time period as found in the previous tables. However, for undocumented immigrant individuals only, the coefficients on the interactions between the ban policy and each of the time specific bins is negative and increases over time culminating in a value of -0.09 that is statistically significant for the 2012-2016 time period. These results occur only for the undocumented immigrant individuals, and not for those who are documented immigrants. This indicates that these policies banning in-state tuition rates to undocumented students negatively affected enrollment for undocumented individuals.

Table 4.7 shows predicted enrollment rates for documented, undocumented and the total Hispanic immigrant sample from the equations estimated from the regression above.

Table 4.7. The Effect of Implementation of Policies Banning In-State Tuition for Undocumented Students on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.0724	0.0256	0.0571	0.0909	0.0622	0.0682
2002-2006	0.0625	0.0759	0.1032	0.1033	0.0819	0.0891
2007-2011	0.0772	0.1048	0.1323	0.1604	0.1027	0.1288
2012-2016	0.1633	0.2104	0.2468	0.2469	0.2009	0.2244

This table further shows the strong effects of the negative policies on the undocumented immigrant individuals. The result is that the enrollment growth in states with policies banning in-state tuition rates to undocumented students peaks at a value of 0.16 in 2012-2016, which is well below the rate of 0.21 for undocumented individuals in the control states as well as below the rates of approximately 0.25 for documented immigrant individuals in both treatment and control states. This is strong evidence of the effectiveness of these in-state tuition bans in reducing college enrollment of undocumented immigrant individuals.

I turn now to analyses of *local* in-state tuition policies, both beneficial and detrimental, to the college enrollment of undocumented immigrants. Figure 4.4 shows that two states, Kentucky and Maryland, implemented beneficial local policies relatively early in the time period under study. Other states—Hawaii, Michigan, Oklahoma, and Rhode Island—implemented such beneficial policies later in the time period and kept these policies through to 2016. Tables 4.8 and 4.9 repeat the prior analyses for the early adopters of local beneficial policies. Tables 4.10 and 4.11 do so for the states with later adoption of local beneficial policies. Only one state—North Carolina—implemented local policies detrimental to undocumented immigrants and did so early on within the study period. Tables 4.12 and 4.13 repeat the analyses for this case.

Table 4.8. The Effect of Early Implementation of Local In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0320)	(0.0277)	(0.0205)
Years 2007-2011	0.0792*	0.0695*	0.0606**
	(0.0314)	(0.0271)	(0.0200)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0315)	(0.0278)	(0.0203)
Early Policy/Treatment State	0.0198	0.0877	0.0518
	(0.0765)	(0.0749)	(0.0530)
2002-2006 × Early Policy	-0.0218	-0.0229	-0.0246
	(0.0796)	(0.0796)	(0.0557)
2007-2011 × Early Policy	-0.0438	-0.0488	-0.0598
	(0.0782)	(0.0789)	(0.0548)
2012-2016 × Early Policy	-0.0494	-0.0202	-0.0557
	(0.0785)	(0.0804)	(0.0552)
Constant	0.0256	0.0909***	0.0682*
	(0.0304)	(0.0252)	(0.0191)
N	5918	4339	10257
R^2	0.0294	0.0262	0.0237

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.

* p<0.05 ** p<0.01 *** p<0.001

Table 4.9. The Effect of Implementing Local In-State Tuition Policies Beneficial to Undocumented Students Early on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.0454	0.0256	0.1786	0.0909	0.0120	0.0682
2002-2006	0.0739	0.0759	0.1681	0.1033	0.1163	0.0891
2007-2011	0.0808	0.1048	0.1993	0.1604	0.1208	0.1288
2012-2016	0.1808	0.2104	0.3144	0.2469	0.2205	0.2244

Table 4.8 shows an upward trend of college enrollment for both undocumented and documented immigrant students over this time period. However, the interactions between early policy adoption and each of the time period bins from 2002-2016 are not significant for both undocumented and documented immigrant students. Thus, it appears that these local in-state tuition policies did not have any significant effects on college enrollment. Further examination of

this is provided in Table 4.9. For undocumented immigrant students, we see that by the last time period, the control group had a higher college enrollment rate than the treatment group. A somewhat different pattern emerges for the documented immigrants. For this population, the treatment group had an enrollment rate in 2000-2001 almost twice that of the control group. This treatment-control group difference was at a similar value during the 2012-2016 time period. Since this difference was unchanged from the 2000-2001 time period, we conclude that the treatment had no effect on the documented immigrant population.

Table 4.10 repeats these analyses for later implementation of local in-state tuition policies beneficial to undocumented students. Once again, the interactions between late policy implementation and the time period bins are small and not statistically significant. This pattern is shown further in the predicted values in Table 4.11. Overall, we can conclude that the local in-state tuition policies had no effect on college enrollment for either the documented or undocumented immigrant populations.

Table 4.12 shows the effect of local policies banning in-state tuition for undocumented students on college enrollment. Because these are policies enacted within states and can vary widely in terms of the extent of enactment of the policy within the state, this resulted in more noise within the data, potentially impacting the ability to detect a true effect of the policy. For undocumented immigrants, none of the interactions with the ban-policy states and the time period bins are statistically significant. However, the interactions with both the 2007-2011 and 2012-2016 are relatively large at values of -.07 and -.08 respectively. The result, as shown more clearly in Table 4.13, is that beginning in the 2002 time

Table 4.10. The Effect of Late Implementation of Local In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0326)	(0.0274)	(0.0206)
Years 2007-2011	0.0792*	0.0695**	0.0606**
	(0.0321)	(0.0268)	(0.0201)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0322)	(0.0275)	(0.0204)
Late Policy/Treatment State	0.0369	0.0381	0.0381
	(0.0670)	(0.0530)	(0.0410)
2002-2006 × Late Policy	-0.0125	-0.0100	-0.0124
	(0.0706)	(0.0590)	(0.0443)
2007-2011 × Late Policy	-0.0151	-0.0246	-0.0209
	(0.0692)	(0.0575)	(0.0432)
2012-2016 × Late Policy	-0.0600	-0.0389	-0.0537
	(0.0694)	(0.0589)	(0.0436)
Constant	0.0256	0.0909***	0.0682***
	(0.0311)	(0.0249)	(0.0191)
N	5886	4536	10422
R^2	0.0260	0.0221	0.0222

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.

* p<0.05 ** p<0.01 *** p<0.001

Table 4.11. The Effect of Late Implementation of Local In-State Tuition Policies Beneficial to Undocumented Students on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.0625	0.0256	0.1290	0.0909	0.1063	0.0682
2002-2006	0.1003	0.0759	0.1314	0.1033	0.1148	0.0891
2007-2011	0.1266	0.1048	0.1739	0.1604	0.1460	0.1288
2012-2016	0.1873	0.2104	0.2461	0.2469	0.2088	0.2244

period and continuing through 2016, the control group college enrollment exceeded that of the treatment group. This suggests that these policies banning in-state tuition for undocumented students may have in fact reduced their college enrollment. This is shown more clearly in Table 4.13 where throughout the 2002-2016 time period, the treatment group of undocumented immigrants had a lower college enrollment rate than the control group. As for the documented immigrants, the enrollment rate of the treatment group lagged that of the control group from 2000-2011, but by the 2012-2016 period, the two groups had very similar enrollment rates. We conclude that if these banning policies had a negative effect on college enrollment, it was primarily for the undocumented immigrants.

Table 4.12. The Effect of Implementation of Local Policies Banning In-State Tuition for Undocumented Students on College Enrollment for Hispanic Immigrants

	Undocumented	Documented	All Hispanic
Years 2002-2006	0.0503	0.0124	0.0209
	(0.0306)	(0.0263)	(0.0195)
Years 2007-2011	0.0792**	0.0695**	0.0606**
	(0.0300)	(0.0257)	(0.0191)
Years 2012-2016	0.1848***	0.1560***	0.1562***
	(0.0302)	(0.0264)	(0.0193)
Ban Policy/Treatment State	0.0169	-0.0276	-0.0127
	(0.0544)	(0.0465)	(0.0348)
2002-2006 × Ban Policy	-0.0461	-0.0043	-0.0189
	(0.0570)	(0.0511)	(0.0373)
2007-2011 × Ban Policy	-0.0713	-0.0426	-0.0502
	(0.0560)	(0.0499)	(0.0364)
2012-2016 × Ban Policy	-0.0765	0.0184	-0.0261
	(0.0565)	(0.0239)	(0.0370)
Constant	0.0256	0.0909***	0.0682***
	(0.0291)	(0.0239)	(0.0181)
N	6570	4990	11560
R^2	0.0355	0.0313	0.0308

Note. Linear probability regression models. Policy coefficients are regarding differences in policy effects as compared to effect of state with unstipulated policy of similar type. Standard errors in parentheses.

* p<0.05 ** p<0.01 *** p<0.001

Table 4.13. The Effect of Implementation of Local Policies Banning In-State Tuition for Undocumented Students on College Enrollment for Hispanic Immigrants

Years	Undocumented		Documented		All Hispanic	
	Treatment	***Control***	***Treatment***	***Control***	***Treatment***	***Control***
2000-2001	0.0425	0.0256	0.0633	0.0909	0.0555	0.0682
2002-2006	0.0467	0.0759	0.0714	0.1033	0.0575	0.0891
2007-2011	0.0504	0.1048	0.0902	0.1604	0.0659	0.1288
2012-2016	0.1508	0.2104	0.2377	0.2469	0.1856	0.2244

Chapter 5: Summary and Discussion

This study differed from previous research in four principal ways: (1) the combination of data set used and the time period examined, (2) the search for dates of policy implementation dates and differentiation of varying levels of policy/program implementation, (3) the methodology employed for estimating legal immigration status for individuals, and (4) the methodology utilized to assess the effects of these policies on college enrollment for both documented and undocumented Hispanic immigrants.

Previous studies have examined policies over shorter time periods, and thus have not estimated effects of policies implemented during later time periods. This study used data from the American Community Survey for the years 2000-2016, a more recent and lengthy time period than that employed by previous studies. This dataset was combined with information from the 2008 Migration Module of the Survey of Income and Program Participation (SIPP) providing for better identification of legal immigration status based on individual characteristics.

With the longer time frame, I was able to examine the impacts of a greater number of policies than many of the previous studies. Some of these policies were implemented early or late during the study period and may have been associated with periods of political turmoil in 2005 and 2012. Another difference from previous studies is that although the sample was restricted to Hispanics, this study attempts to differentiate between documented and undocumented immigrants. Previous studies, due to the lack of information about legal immigration status, used ethnicity groups most likely to be undocumented (usually Mexican or Hispanic groups) as a proxy for being undocumented. In this study, I used a two-stage imputation process and utilized information from two separate datasets to estimate legal immigration status.

Regarding the analysis of the impacts of these policies, I showed that the timing of the in-state tuition policies left many implementing states with little or no pretest period, negating the possibility of using the difference-in-differences methodology. Instead, I adopted a methodology that compared college enrollment of early adopters of the state-wide policy with the enrollment rates of those states that never adopted in-state tuition policies for undocumented immigrants. State college enrollment rates were examined for the early, middle, and late portions of the study period. I found that, at the beginning of the time period under study, the early adopting states already had higher college enrollment for these groups than those states that never implemented such policies. However, these early adopters did not show more rapid enrollment rate growth than the never-adopted states. I also repeated these analyses for states that adopted policies later over the study period, and compared enrollment for these states to that of those that never adopted these policies. These analyses for later policy implementation yielded similar findings – states late-adopting policies beneficial to undocumented immigrants did not show greater enrollment growth than states that never adopted the policy.

I used the same analytic strategy to analyze the effects of the opposite type of state-wide policies, those banning in-state tuition benefits to undocumented immigrants. I found significant evidence that these policies were detrimental to the college enrollment of undocumented individuals. I also repeated these analyses for local policies within states, both granting and banning in-state tuition benefits to undocumented immigrants, but found no statistically significant effects of these local policies on college enrollment for undocumented or documented immigrant individuals.

The results of this study differed from previous studies that have found positive effects of state policies granting in-state tuition benefits to undocumented immigrants. This study shows

that while enrollment of undocumented immigrants in states with these policies was higher than enrollment of undocumented immigrants in states without these policies, states that implemented these policies had higher college enrollment of undocumented immigrants to begin with. This may have been because the present study focused on a different time period than that of prior studies. However, it also raises the possibility that it was the college enrollment demand by undocumented Hispanic immigrants in some states, strongly supported by others in the Hispanic community in these states, which drove the passage of legislation within these states allowing in-state tuition benefits. In other words, the existing college enrollment of these groups may have led to the passage of legislation regarding in-state tuition benefits rather than vice versa. This might have occurred because once sufficient numbers of these students had entered college, they became a lobbying group, with Hispanic community support, for policies to reduce the hardships they experienced to seeking to continue college enrollment and gain the degree. Relatedly, it may be that only when the Hispanic community within a state had reached a critical mass, one consequence of which was higher levels of college enrollment, that the community was able to exert sufficient political pressure to achieve passage of programs assisting their college enrollment.

Regarding the effects of state-wide policies banning the provision of in-state tuition for undocumented immigrants, my findings are consistent with those of previous studies that have reported a detrimental effect of these policies on college enrollment for undocumented immigrants. However, this effect was significant only for those policies that are implemented throughout the state, but not for those that are implemented in local areas within states.

My findings contradict previous studies reporting a positive effect of policies providing in-state tuition to undocumented immigrants. Instead they suggest reverse causality, that states

with higher rates of undocumented immigrants in college may have introduced these policies as a consequence, not a cause, of this undocumented college enrollment. Or, perhaps more likely, states with relatively large Hispanic communities may have had higher undocumented college enrollment as well as a stronger "push" to pass the relevant legislation. On a negative note, policies banning in-state college tuition for undocumented immigrants *do* appear to have been effective in achieving their goal.

Future research should make greater efforts to resolve the inconsistency between the findings reported here and those of previous researchers. The recent proposal of California amendment AB1620, providing expansion of in-state tuition eligibility for immigrant students, may provide another opportunity to test the effectiveness of this and related state-level legislation. More generally, the dynamic interplay between outcomes for target populations and state legislation to promote these outcomes is a topic worthy of more widespread examination.

REFERENCES

Abrego, L. J. (2006). "I can't go to college because I don't have papers": Incorporation patterns of Latino undocumented youth. *Latino Studies*, *4*(3), 212-231.

Abrego, L. J. & Gonzales, R. G. (2010). Blocked paths, uncertain futures: The postsecondary education and labor market prospects of undocumented Latino youth. *Journal of Education for Students Placed at Risk*, *15*(1-2), 144-157.

Behrman, J. R., & Deolalikar, A. B. (1995). Are there differential returns to schooling by gender? The case of Indonesian labour markets. *Oxford Bulletin of Economics and Statistics*, *57*(1), 97-117.

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, *129*(4), 1553-1623. doi: 10.1093/qje/qju022

Chin A., & Juhn C. (2011) 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. In Leal D., & Trejo S. (eds.) *Latinos and the Economy* (p. 63-94). Springer, New York.

Conway, K. M. (2009). Exploring persistence of immigrant and native students in an urban community college. *Review of Higher Education*, *32*(3), 321-352.

Fix, M., & Passel, J. S. (2003). U.S. immigration: Trends and implications for schools. *The Urban Institute*. Washington D.C.

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.

Frum, J. L. (2007). Postsecondary educational access for undocumented students: Opportunities and constraints. *American Academic*, *3*(1), 81-108.

Garcia, L. D., & Tierney, W. G. (2011). Undocumented immigrants in higher education: A preliminary analysis. *Teachers College Record*, *113*(12), 2739-2776.

Gonzales, R. G. (2007). Wasted talent and broken dreams: The lost potential of undocumented students. *Immigration Policy in Focus*, *5*(13), 1-11.

Gonzales, R. G. (2009). Young lives on hold: The college dreams of undocumented students. *College Board Advocacy & Policy Center.*

Gonzales, R. G., & Terriquez, V. (2013). How DACA is impacting the lives of those who are now DACAmented. *Washington, DC: Immigration Policy Center*, *American Immigration Council*.

Hall, M., Greenman, E., & Farkas, G. (2010). Legal status and wage disparities for Mexican immigrants. *Social Forces*, *89*(2), 491-513.

Huber, L. P. (2009). Challenging racist nativist framing: Acknowledging the community cultural wealth of undocumented Chicana college students to reframe the immigration debate. *Harvard Educational Review*, *79*(4), 704-730.

Illegal Immigration Reform and Immigrant Responsibility Act of 1996, Division C of Pub. L. No. 104-208, 110 Stat. 3009-546 (1996).

Immigrant Policy Project. (2017). Snapshot of U.S. immigration 2017. *National Conference of State Legislatures*. Retrieved from http://www.ncsl.org/research/immigration/snapshot-of-u-s-immigration-2017.aspx#1

Immigration, U. S. (2017). Fiscal year 2017 ICE enforcement and removal operations report. *Washington, DC: Department of Homeland Security*.

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

Krogstad, J. M., Passel, J. S., & Cohn, D. (2017). 5 facts about illegal immigration in the U.S. *Pew Research Center*. Retrieved from http://www.pewresearch.org/fact-tank/2017/04/27/5-facts-about-illegal-immigration-in-the-u-s/

Luo, T. (2009). Education and wage differential by race: Convergence or divergence? *University of California, Berkeley Department of Economics*. Retrieved from https://www.econ.berkeley.edu/sites/default/files/tian_luo_thesis.pdf

Martinez, L. M. (2014). Dreams deferred: The impact of legal reforms on undocumented Latino youth. *American Behavioral Scientist*, *58*(14), 1873-1890.

Migration Policy Institute. Unauthorized immigrant populations by country and region, top states and counties of residence, 2010-14. Retrieved from https://www.migrationpolicy.org/programs/data-hub/charts/unauthorized-immigrant-populations-country-and-region-top-state-and-county

Migration Policy Institute. Unauthorized immigrant population profiles. Retrieved from https://www.migrationpolicy.org/programs/us-immigration-policy-program-data-hub/unauthorized-immigrant-population-profiles

Migration Policy Institute. U.S. immigrant population and share over time, 1850-present. Retrieved from https://www.migrationpolicy.org/programs/data-hub/us-immigration-trends#history

Passel, J. S., & Cohn, D. (2009). A portrait of unauthorized immigrants in the United States. *Pew Research Center.*

Pew Research Center. (2016). U.S. unauthorized immigration population estimates. Retrieved from http://www.pewhispanic.org/interactives/unauthorized-immigrants/

Platt, L. (2007). Making education count: the effects of ethnicity and qualifications on intergenerational social class mobility. *The Sociological Review*, *55*(3), 485-508.

Plyler v. Doe, 457 U.S. 202 (1982).

Potochnick, S. (2014). How states can reduce the dropout rate for undocumented immigrant youth: The effects of in-state resident tuition policies. *Social Science Research*, *45*, 18-32.

Rodriguez, G. M., & Cruz, L. (2009). The transition to college of English learner and undocumented immigrant students: Resource and policy implications. *Teachers College Record*, *111*(10), 2385-2418.

Teranishi, R., & Briscoe, K. (2006). Social capital and the racial stratification of college opportunity. In J. C. Smart (Ed.), *Higher education handbook of theory and research* (Vol. 21, p. 591-614). Amsterdam: Springer.

Van Hook, J., Bachmeier, J. D., Coffman, D. L., & Harel, O. (2015). Can we spin straw into gold? An evaluation of immigrant legal status imputation approaches. *Demography*, *52*(1), 329-354.

Villarraga-Orjuela, A., & Kerr, B. (2017). Educational effects of banning access to in-state resident tuition for unauthorized immigrant students. *Educational Evaluation and Policy Analysis*, *39*(4), 620-643.

Webber, D. (2014). Is the return to education the same for everybody? *IZA World of Labor*, *2014*(92), 1-10. doi: 10.15185/izawol.92

APPENDIX A

Detailed List of Policies by Type with State and Years of Implementation

Access to In-State Resident Tuition

- California (2001)
  - AB 540 (2001)
    - Passed in 2001
    - Effective 2001
  - AB 2000 (2014)
    - Passed in 2014
    - Amendment to AB 540
- Colorado
  - Local policies (2012)
    - Metro State College of Denver
      - Board of Trustees approved in-state tuition for undocumented students who graduated from a Colorado high school
    - Colorado Heights
      - Gave qualified undocumented students in-state tuition rates
  - SB 13-033 (2013)
    - Also known as ASSET (Advancing Students for a Stronger Economy Tomorrow) Bill
- Connecticut
  - HB 6390 (2011)
    - Allowed undocumented students who meet certain criteria to receive in-state tuition
  - HB 6844 (2015)
    - Reduced number of high school years undocumented students had to attend in the state to 2 years to be eligible for in-state tuition
- Florida
  - HB 851 (June 9, 2014)
    - Effective July 1, 2014
    - Allowed undocumented students who meet certain criteria to receive in-state tuition
- Hawaii
  - Hawaii Statute 304A-402 (2013)
    - Gives the University of Hawaii Board of Regents the power to waive or reduce tuition fees for non-residents
      - University of Hawaii system has allowed undocumented students to qualify for in-state tuition, financial assistance, and university program participation
- Idaho
  - SB 1280 (March 22, 2016)
    - Effective July 1, 2016
    - Extended in-state tuition to undocumented students who enroll at an Idaho public college within 6 years of graduating high school
- Illinois
  - Public Act 093-007 (HB 0060) (2003)
    - Effective May 20, 2003
    - Allows for in-state tuition for undocumented students

- Kansas
  - HB 2145 (K.S.A. 76-731a) (May 24, 2004)
    - Effective July 1, 2004
    - Allows undocumented students to pay in-state tuition at a college or university
- Kentucky
  - Kentucky Council on Postsecondary Education has the power to determine in-state residency policy for tuition purposes
    - Enables select colleges and universities to offer in-state tuition residency to undocumented students
      - Since 2003, undocumented students at the University of Kentucky, Eastern Kentucky University, NKU, technical schools and community colleges have been eligible for in-state tuition
- Maryland
  - Local policy
    - Montgomery College offered in-state tuition to undocumented students dating back to at least 2006
  - SB 167
    - Passed in 2011, but not upheld until 2013
    - Enables qualified undocumented students to receive in-state tuition in Maryland
    - However, eligible undocumented students must first attend a community college prior to qualifying for in-state tuition at a four-year institution
- Massachusetts
  - HB 1078/SB 577 (June 2014)
    - Provides in-state tuition to undocumented students who meet certain criteria
- Michigan
  - Michigan State Board of Education (March 2013)
    - Gave statement in support of in-state tuition for undocumented students at the state's institutions of higher education
- Minnesota
  - Minnesota Dream Act (also known as Prosperity Act) as part of SF 1236 (May 24, 2013)
    - Effective July 1, 2013
    - Extends in-state tuition rates to undocumented students
- Nebraska
  - LB 239 (April 13, 2006)
    - Allows undocumented students to receive in-state tuition if they meet eligibility requirements
- New Jersey
  - SB 2479 (December 20, 2013)
    - Also known as the New Jersey Dream Act
    - Effective 2013
    - Provides eligible undocumented students with in-state tuition
- New Mexico

    - SB 582 (March 15, 2005)
        - Effective 2005
        - Makes all qualified residents of New Mexico eligible for in-state tuition regardless of immigration status
- New York
    - SB 7784 (Bill No. A 9612-A) (August 6, 2002)
        - Effective 2002
        - Provides qualified undocumented students with in-state tuition
- Oklahoma
    - SB 596 (2003-2007)
        - Oklahoma extended in-state tuition eligibility to undocumented students
    - HB 1804 (May 08, 2007)
        - Effective November 1, 2007
            - Placed the burden of whether to provide in-state tuition to undocumented students on the Oklahoma Board of Regents
                - Oklahoma Board of Regents still allows undocumented students that meet the original requirements to receive in-state tuition
- Oregon
    - HB 2787 (April 2, 2013)
        - Effective July 1, 2013
        - Grants in-state tuition to undocumented students
- Rhode Island
    - Rhode Island Board of Governors for Higher Education (2011)
        - Voted unanimously in favor of in-state tuition access at public higher education institutions for qualified undocumented students
- Texas
    - HB 1403/SB 1403 (2001)
        - Effective 2001
        - Offered in-state tuition to eligible undocumented students
- Utah
    - HB 144 (2002)
        - Effective 2002
        - Makes qualifying undocumented students eligible for in-state tuition
- Washington
    - HB 1079 (May 7, 2003)
        - Effective July 1, 2003
        - Extended in-state tuition eligibility to undocumented students
- Wisconsin
    - AB 75 (2009-2011)
        - Effective 2009
        - Extended in-state tuition eligibility to undocumented students meeting certain criteria
        - Overturned with the passing of AB 40 in 2011, which revoked eligibility for in-state tuition

Bans on In-State Resident Tuition

- Alabama
  - HB 56 (2011)
    - Bars undocumented students from enrolling in or attending any public postsecondary education institution and making them ineligible for any postsecondary education benefits such as in-state resident tuition, scholarships, grants, or financial aid
- Arizona
  - Prop 300 (SCR 1031) (2006)
    - Prohibited public institutions from providing undocumented students with in-state tuition rates and requires institutions to charge out-of-state tuition rates for undocumented students
- Colorado
  - HB 1023 (2006-2012)
    - Passed in 2006
    - Cancelled out in 2012 when local policies allowed in-state resident tuition for undocumented students
- Georgia
  - SB 492 (2008)
    - Explicitly denies in-state tuition to undocumented students who attend its public colleges and universities
- Indiana
  - HB 1402 (2011)
    - Prohibited in-state tuition for undocumented students
- Missouri
  - Bills HB 2001-2013 (2014)
    - Missouri's Senate Appropriations Committee adopted a state budget that continues to prevent public colleges and universities from knowingly offering in-state tuition to undocumented students
  - HB 3 (2015)
    - Passed with language clarifying that students with DACA status are ineligible for in-state tuition rates
- New Hampshire
  - HB 1383 (June 18, 2012)
    - Effective January 1, 2013
    - Denied in-state tuition to undocumented students by requiring students applying for in-state tuition to sign an affidavit certifying their legal status
- North Carolina
  - Local Policy
    - North Carolina System (November 12, 2004)
      - UNC Policy Manual formally states that undocumented students could only attend one of their 17 institutions if they had graduated from a U.S. high school and were required to pay out-of-state tuition
    - Policy 23 NCAC 02C .0301 (March 2010)

        - North Carolina's State Board of Community Colleges approved this policy to allow undocumented students to attend community colleges in North Carolina as long as they graduated from a United States high school
        - However, all undocumented students must pay out-of-state tuition, even if the resides in or graduates from a high school in North Carolina
- Ohio
    - HB 153 (2011)
        - Effective 2011
        - Prohibited public colleges and universities in the state from extending in-state tuition to undocumented students
- South Carolina
    - HB 3620 (June 2007)
        - Effective July 25, 2007
        - Specifies that undocumented immigrants may not receive tuition assistance
    - HB 4400 (June 4, 2008)
        - Effective 2008
        - Banned undocumented students from enrolling in public postsecondary institutions and from receiving public higher education benefits such as scholarships, grants, financial aid, and resident tuition status
- Wisconsin
    - AB 40 (2011)
        - Effective 2011
        - Revoked eligibility for in-state tuition for undocumented students from AB 75