In-state tuition and financial aid for undocumented immigrants in the United States: impact on high school graduation, college enrollment and college graduation

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I. Introduction

There are over 11 million undocumented immigrants in the U.S., representing approximately 4% of the population (estimates by Passel and Cohn, 2011). Many of these undocumented immigrants come to the U.S. as school-age children. Young undocumented immigrants have become an increasingly important policy focus given the large recent immigration of unaccompanied and undocumented youth from Mexico and Central America. Undocumented immigrants have a legal right to attend free public primary and secondary schools in the United States. However, in most states undocumented immigrants are treated as out-of-state or international students in public community and four-year colleges. Since 2001, 21 of 50 U.S. states have implemented policies that allow undocumented immigrants to qualify for in-state resident tuition rates at public colleges and universities within their respective state. In-state tuition is significantly lower than the out-of-state or international student tuition rates that undocumented immigrants would pay without these laws. In 2011-12, the national average of the tuition and fees for public four-year institutions was $20,770 for out-of-state students and $8,244 for in-state students (Baum, Ma and Payea, 2012). In 7 of these states undocumented immigrants are also eligible for state-funded financial aid.

In-state tuition and eligibility for financial aid will lower the cost of a college education for undocumented immigrants and therefore is likely to increase the demand for a college education by these students. Because a high school degree is a prerequisite for college admission, it is also likely that the increase in demand for college education will lead to an increase in high school graduation. In this paper we use monthly individual-level data from the Current Population Surveys (CPS) from July 1998 to December 2014 to implement a difference-in-difference estimate that uses cross-state and over-time variation to identify the impact of these policies on high school graduation, college enrollment and college graduation. In this we follow the methodology used in Kaushal (2008), Flores (2010), Chin and Juhn (2011), Dickson and Pender (2014), Potochnick (2014) and Amuedo-Dorantes and Sparber (2014). Our present study extends and updates this research.

Kaushal (2008) finds that, for Mexican youth, in-state tuition laws lead to a 2.5 percentage point increase in college enrollment, a 3.4 percentage point increase in the proportion with a high school degree and a 1.3 percentage point increase in the proportion with at least an associate college degree. Potochnick (2014) estimates that in-state tuition laws reduced the high school dropout rates of Mexican

foreign-born non-citizens by 7 percentage points. Flores (2010), analyzes outcomes for all Latino non-citizens and demonstrates that the policy positively affects enrollment in college. Dickson and Pender (2013) show that the in-state tuition law in Texas increased college enrollment rates. On the other hand, Chin and Juhn (2011) reports no statistically significant effects of in-state tuition policy on college enrollment.

Our work follows most closely the methodology in the most recent of these articles, Amuedo-Dorantes and Sparber (2014), who estimate the impact of in-state tuition laws on college enrollment, tuition costs, student financial aid and indebtedness using data from the CPS for July 1998 to December 2012. The analysis in our paper extends the analysis in Amuedo-Dorantes and Sparber (2014) and other previous papers in several ways. First, we update these data to include data from December 2012 to December 2014. During this time period 9 additional states implemented in-state tuition for undocumented immigrants, so that we can examine the impact in the 21 states that have had such legislation, rather than the 12 used in the econometric analysis in Amuedo-Dorantes and Sparber (2014).[1] We find that the enrollment results presented in Amuedo-Dorantes and Sparber (2014) hold up when these additional two years of data and 9 states are included in the analysis. Second, we extend Ameudo-Dorantes and Sparber (2014) by estimating the impact of in-state tuition laws on high school and college graduation rates.

In 7 states with in-state tuition for undocumented immigrants, these students are also eligible for state-funded financial aid. The third way in which we extend Amuedo-Dorantes and Sparber (2014) is to estimate whether eligibility for financial aid has an impact on college enrollment and graduation that goes beyond that of in-state tuition laws.

This paper is in the preliminary stages. In the next stage we plan to update our data to December 2015 and to gather data on the dollar value of in-state tuition vs. out-of-state tuition. With this data and

[1] In their empirical analysis Ameudo-Dorantes and Sparber (2014) identify 15 states with in-state tuition for undocumented immigrant policies. However, because their data extends only to December 2012 and because they lag the policy variable one yea, three states drop out of the policy group in the regressions: Colorado, Oregon and Maryland. We also lag the policy variable one year. This implies that in the current draft of our paper, where we use data up to December 2014, we are only able to consider 19 states with in-state tuition policies and 8 states where undocumented immigrants are eligible for financial aid. We are currently working to incorporate data from the CPS surveys up to December 2015, which will increase the number of states that we can consider to all 21 states that have had policies granting in-state tuition for undocumented immigrants.

using the same difference-in-difference technique described in this paper, we will estimate the price elasticity of demand for a college education on the part of undocumented immigrants.

II. Data and Methodology

We use individual-level data from the monthly basic Current Population Survey (CPS) for July 1998 to December 2014. The CPS does not identify undocumented immigrants directly. We follow Amuedo-Dorantes and Sparber (2014) and other recent literature and use Mexican-born non-citizens as a proxy for likely undocumented immigrants. Following the methodology in Amuedo-Dorantes and Sparber (2014), our basic difference-in-difference model is shown in equation (1)

$$Y_{ist} = B_0 + B_1\, Policy_{st} + B_2\, X_{ist} + B_3\, Z_{st} + \alpha_t + \delta_s + E_{ist} \qquad \text{(EQ 1)}$$

Y_{ist} is a dummy variable that indicates the outcome of interest for individual i in state s at time t. We estimate three sets of regressions with three different dichotomous dependent variables: (1) Y equals one if the individual is attending college and zero otherwise, (2) Y equals one if the individual has an associates or four-year college degree and zero otherwise, and (3) Y equals one if the individual has at least a high school degree and zero otherwise. In the regressions examining the impact of in-state tuition policies on college enrollment we limit the analysis to 17-24 year olds who have a high school degree or GED and who have not yet attained a bachelor's degree. In the regressions examining the impact on college graduation we limit the sample to 23-28 year olds who have graduated from high school or have a GED. In the regressions examining the impact on high school graduation we limit the sample to 17-22 year olds who are not currently in high school.

The explanatory variable of interest in equation (1) is $Policy_{st}$, which is a dummy variable equal to one for individuals residing in states offering in-state tuition to undocumented immigrants. Table 1 lists the states that have implemented in-state tuition policies for undocumented immigrants, and the month and year these policies were implemented. Following the standard practice in the literature, we lag the policy variable for one year to take into account that the full effects of the policies are likely to take some time. We estimate equation (1) separately for foreign-born Mexican non-citizens (our proxy for undocumented immigrants) and for seven other demographic groups.

In addition to the policy, equation (1) controls for a set of individual characteristics (X_{ist}): gender, age, race, marital status and the number of years an immigrant has been in the United States. Z_{st} is a vector of state characteristics at time t and includes unemployment rate, the proportion of white individuals who have obtained a bachelor's degree, and the proportion of Mexican-born individuals who have obtained a bachelor's degree. These are the same explanatory variables as in Amuedo-Dorantes and Sparber (2014). Also following Amuedo-Dorantes and Sparber (2014) we also explore the sensitivity of our results to a range of state (δ_s) and time (α_t) fixed effects.

While 21 states have implemented in-state tuition policies for undocumented immigrants, 7 of these states have gone further and allow undocumented immigrants to be eligible for state-funded financial aid (see Table 1). In this paper we also examine whether providing access to financial aid has an additional effect (beyond simply the impact of in-state tuition) on college enrollment and graduation. To estimate the additional effect of eligibility for aid on college enrollment and college graduation, we estimate the following equation.

$$Y_{ist} = B_0 + B_1 \text{Policy}_{st} + a \text{Aid}_{st} + B_2 X_{ist} + B_3 Z_{st} + \alpha_t + \delta_s + E_{ist} \qquad \text{(EQ 2)}$$

In equation (2) all variables are defined in the same way as in equation (1) except for Aid_{st}, which is equal to one if state s in time t has an in-state tuition law and allows undocumented immigrants to be eligible for financial aid. The coefficient on this variable, a, measures the additional impact of aid eligibility (beyond in-state tuition) on college enrollment and college graduation rates.

Both equations (1) and (2) are estimated using linear probability models with robust standard errors clustered by state.

III. Preliminary Results

Our estimates of impact of in-state tuition policies on college enrollment rates (B_1 in equation 1) are presented in Table 2. Our estimates of the impact of in-state tuition policies on college graduation rates are presented in Table 3, and our estimates of the impact of in-state tuition policies on high school graduation rates are presented in Table 4. Table 5 presents estimates of the additional impact of aid

eligibility (beyond in-state tuition) on college enrollment rates (the coefficient a in equation 2). Table 6 presents the additional impact of aid eligibility (beyond in-state tuition) on college graduation rates.

Despite including two more years of data and 7 additional states with in-state tuition policies, our estimates of the impact of in-state tuition policies on college enrollment (Table 2) are very similar to those in Amuedo-Dorantes and Sparber (2014). For most specifications the impact of in-state tuition laws on Mexican-born non-citizens (our proxy for undocumented immigrants) is positive and significant. Even the magnitude of our estimates—that in-state tuition policies increase college enrollment of Mexican-born non-citizen by approximately 3 to 4 percentage points--is similar to Amuedo-Dorantes and Sparber (2014). Our estimate of the magnitude of the impact on college enrollment of undocumented immigrants is larger than that of Kaushal (2008), who analyzed data from 1997 to 2005.

As in Amuedo-Dorantes and Sparber (2014), our results also suggest that other Hispanic foreign-born citizens and other Hispanic non-citizens may pay an unintended price because college enrollment rates for this group fall with the introduction of in-state tuition for undocumented immigrants. However, when state-specific time trends are added (specification 5, the most complete specification) only the positive impact on Hispanic non-citizens is statically significant; the negative impact on Hispanic foreign-born citizens and non-Hispanic non-citizens becomes positive and insignificant in this specification. The impact of in-state tuition policies on all other demographic groups is insignificant in almost all specifications.

In-state tuition policies for undocumented immigrants also led to statistically significant increases in college graduation rates for Mexican-born non-citizens (Table 3), although the magnitude of the effect is smaller than the impact on college enrollments. This is reasonable as not all of the new students who enroll in college are likely to graduate. Our estimates suggest that in-state tuition policies increased college graduates by approximately 1 to 2 percentage points. This is consistent with the results found in Kaushal (2008) that in-state tuition policies led to a 1.3 percentage point increase in college graduation rates. As with college enrollment rates, in-state tuition policies have a statistically significant negative impact on college graduation rates for Hispanic foreign-born citizens. But once again, in the most general specification with state-specific time trends (specification 5), only the positive impact of in-state policies on Mexican non-citizens is statistically significant. Indeed, in specifications (4) and (5) the impact of in-state tuition policies on the graduation rates of other Hispanic non-citizens and Hispanic

foreign-born citizens is positive. Generally the impact of in-state tuition policies on other demographic groups is statistically insignificant in all specifications.

The impact of in-state tuition policies for undocumented immigrants on high school graduation rates is positive, although it is only statistically significant only for specifications (4) and (5)—the most complete specifications. Once again, the impact of in-state tuition policies on other Hispanic non-citizens and on Hispanic foreign-born citizens is negative, while the impact on all other demographic groups is statistically insignificant. The magnitude of our estimates, that in-state tuition policies increased high school graduation rates by 3 to 5 percentage points, is within the range of Kaushal's (2008) estimate of an increase of 3.4 percentage points in high school graduation rates, although our estimate is lower than Potochick's (2014) estimate that in-state tuition policies lowered high-school drop-out rates by 7 percentage points.

Finally, tables 5 and 6 present our estimates of the impact of adding eligibility for state-funded financial aid to in-state tuition policies. We find evidence that adding eligibility for financial aid for undocumented immigrants has an additional impact on college enrollment rates and graduation rates for Mexican non-citizens. The additional impact of adding eligibility for financial aid has a positive impact on college enrollment for Hispanic non-citizens and Mexican non-citizens. The impact is statistically significant for the three most complete specifications, and suggests that adding eligibility for financial aid to in-state tuition policies increases college enrollment of Mexican non-citizens by approximately 4 percentage points. This is as large as the impact of the in-state tuition policies themselves, and suggests that the combined impact of in-state tuition policies is to increase college enrollment of Mexican non-citizens by 7 to 8 percentage points.

Table 6 suggests that adding eligibility for state-funded financial aid to in-state tuition policies also increases college graduation rates for Mexican non-citizens; the impact is positive and statistically significant for 3 of 5 specifications. However, the impact is smaller than the impact of state-funded financial aid on college enrollment.

IV. Conclusions

We update previous research on the impact of in-state tuition policies by including additional years of data, which also allows us to consider additional states with in-state tuition laws. Kaushal (2008) used data from 1997 to 2005, Chin and Juhn (2011) used data from 2000-2005, and Potochnick (2014) used data from 1998 to 2008. Even the data in the most recent study, Amuedo-Dorantes and Sparber (2014), ended in December 2012. We update these data to include data from July 1998 to December 2014. During this time period 9 additional states implemented in-state tuition for undocumented immigrants, so that we can examine the impact in the 21 states that have had such legislation, rather than the 12 used in the econometric analysis in Amuedo-Dorantes and Sparber (2014).[2]

We also extend the previous analysis by analyzing concurrently the impact of in-state tuition policies on college enrollment rates, college graduation rates and high school graduation rates. Finally, we add to the previous literature by estimating the additional impact of adding eligibility for financial aid to in-state tuition policies.

We find that the results presented in the previous literature hold up well to the addition of more data and more states with in-state tuition for undocumented immigrants. Our estimates suggest that in-state tuition for undocumented immigrants increased high school graduation rates for undocumented immigrants by 3 to 5 percentage points, increased college enrollment rates of undocumented immigrants by 3 to 4 percentage points, and increased college graduation rates by 1 to 2 percentage points. The magnitude of these results is within the range of the estimates reported by other studies. Our study adds to the consistent evidence that in-state tuition for undocumented immigrants significantly increases attainment of higher education levels for this group.

One way in which we add to the literature is to examine the impact of adding eligibility for state-funded financial aid to in-state tuition for undocumented immigrants. Our results suggest that adding eligibility for state-funded financial aid does add to the positive impact of in-state tuition on college enrollment and graduation. Our estimates suggest that adding eligibility for financial aid to in-state tuition policies increases college enrollment of Mexican non-citizens by approximately 4 percentage points. This is as large as the impact of the in-state tuition policies themselves. Our results also suggest that eligibility for state-funded financial aid to in-state tuition policies also increases college graduation rates for Mexican

[2] Our present empirical analysis considers only 19 of these states. We are currently working to incorporate data from the CPS surveys up to December 2015, which will allow us to consider to all 21 states that have had policies granting in-state tuition for undocumented immigrants.

non-citizens. However, the impact is smaller than the impact of state-funded financial aid on college enrollment.

One unexpected result found in both our analysis and the analysis of Amuedo-Dorantes and Sparber (2014) is evidence that in-state tuition for undocumented immigrants has a negative impact on high school graduation rates, college enrollment rates and college graduation rates for Hispanic foreign-born citizens (although this negative impact is insignificant in the most general specification that includes state-specific time trends). An alternative interpretation of these results is to consider Hispanic foreign-born citizens as a control group for Mexican-born non-citizens, and to estimate a triple difference model. In effect, the triple difference estimate of the impact of in-state tuition policies on Mexican-born non-citizens would be our estimate of the impact on Mexican-born Citizens minus our estimate of the impact of Hispanic foreign-born citizens. This would strengthen and increase all of our estimates of the positive impact of in-state tuition policies on undocumented immigrants.

Because the price reduction for undocumented immigrants at public universities brought about by in-state tuition for undocumented immigrant policies will be different in different states, it is incomplete to identify the impact of such policies using only a dummy variable that indicates whether or not a state has such a policy. Shouldn't the impact be larger in states where the price reduction is larger? For this reason, in the next stage of our analysis we will gather data on the dollar value of in-state tuition vs. out-of-state tuition. With this data and using the same difference-in-difference technique described above we will estimate the price elasticity of demand for a college education on the part of undocumented immigrants. Knowing the impact on enrollments and graduation rates of specific price reductions will contribute to the literature on the price elasticity of demand for college education, help us to obtain a more precise estimate of the benefits and costs of different state legislation, and will facilitate predictions of the benefits and costs to states that are considering in-state tuition for undocumented immigrants. With this information we will develop a method for estimating the specific costs and benefits to a state (once we know the magnitude of the price reduction) of policies that grant in-state tuition to undocumented immigrants. Finally, we plan to implement this cost-benefit framework in Pennsylvania, a state that is currently considering legislation implementing a policy of in-state tuition for undocumented immigrants.

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Table 1: In-state Tuition and Financial Aid for Undocumented Immigrants

IN-STATE TUITION FOR UNDOCUMENTED IMMIGRANTS LEGISLATION		
STATE	EFFECTIVE DATE	COMMENTS
Texas	July 2001	
California	January, 2002;	
Utah	July, 2002	
New York	Sept. 2002	
Illinois	June 2003	
Oklahoma	June 2003	Law amended in 2001 to allow the state university Board of Regents to set the policy, who continued the policy.
Washington	July, 2003	
Kansas	July 2004	
New Mexico	April 2005	
Nebraska	Sept. 2006	
Wisconsin	July 2009	Revoked June 26, 2011*
Connecticut	July, 2011	
Rhode Island	Sept. 2012	Board of Governors decision
Maryland	Dec. 2012	
Hawaii	March 2013	Board of Regents Decision
Colorado	May 2013	
Oregon	July, 2013	
Michigan	Aug. 2013	Board of Regents Decision
Minnesota	July 2013	
New Jersey	Jan. 2014**	
Florida	July 2014**	

FINANCIAL AID AVAILABLE FOR UNDOCUMENTED IMMIGRANTS		
STATE	EFFECTIVE DATE	COMMENTS
California	January, 2012	
Colorado	May, 2013	
Hawaii	March, 2013	
Texas	July, 2001	
New Mexico	April, 2005	
Oregon	September, 2015**	
Utah	June, 2015**	

*In the regressions, the introduction of the law was lagged one year while the revocation was not lagged. ** Not yet included in regression analysis. We are currently updating our data.

Table 2: Impact of In-State Tuition for Undocumented Immigrant Policies on College Enrollment
Dichotomous dependent variable: individual is attending college

	(1)	(2)	(3)	(4)	(5)	Obs.
Citizenship groups						
[1] Hispanic non-citizens	0.013 (0.019)	0.015 (0.017)	0.018 (0.015)	0.010 (0.007)	0.032** (0.014)	49,927
[1a] Mexican non-citizens	0.045*** (0.017)	0.044*** (0.015)	0.040*** (0.014)	0.009 (0.008)	0.030 (0.020)	33,513
[1b] Other Hispanic noncitizens	-0.058** (0.027)	-0.048* (0.026)	-0.025 (0.020)	0.018 (0.026)	0.027 (0.032)	16,315
[2] Non-Hispanic non-citizens	-0.030 (0.026)	-0.024 (0.022)	-0.011 (0.023)	-0.022 (0.023)	-0.010 (0.024)	43,816
[3] Hispanic natives	0.007 (0.006)	0.010 (0.007)	0.017** (0.008)	0.023*** (0.007)	0.013 (0.012)	157,128
[4] Non-Hispanic natives	-0.001 (0.009)	-0.004 (0.007)	-0.003 (0.006)	0.012 (0.008)	0.005 (0.007)	1,258,794
[5] Hispanic foreign-born citizens	-0.103*** (0.028)	-0.108*** (0.029)	-0.105*** (0.033)	-0.012 (0.019)	-0.018 (0.041)	10,855
[6] Non-Hispanic foreign-born citizens	-0.016 (0.025)	-0.014 (0.024)	-0.020 (0.026)	-0.038 (0.026)	-0.020 (0.033)	22,111
Controls for						
Gender indicator	N	Y	Y	Y	Y	
Age indicators	N	Y	Y	Y	Y	
Marital status indicator	N	Y	Y	Y	Y	
Race indicators	N	Y	Y	Y	Y	
Unemployment rate	N	N	Y	Y	Y	
% of whites with a bachelor's degree	N	N	Y	Y	Y	
% of Mexicans with a bachelor's degree	N	N	Y	Y	Y	
Years in US	N	N	Y	Y	Y	
State	Y	Y	Y	Y	Y	
Date (year*month)	Y	Y	Y	N	Y	
Month	N	N	N	Y	N	
State time trends	N	N	N	Y	Y	

Notes: cluster-robust standard errors in parenthesis

* Significant at 10%

** Significant at 5%

*** Significant at 1%

Table 3: Impact of In-State Tuition for Undocumented Immigrant Policies on College Graduation
Dichotomous dependent variable: individual graduated with an associates or four-year degree or higher

	(1)	(2)	(3)	(4)	(5)	Obs.
Citizenship groups						
[1] Hispanic non-citizens	0.017 (0.018)	0.007 (0.016)	0.002 (0.014)	0.139*** (0.022)	0.014 (0.012)	49,363
[1a] Mexican non-citizens	0.029* (0.025)	0.025* (0.014)	0.017 (0.013)	0.160*** (0.018)	0.034** (0.014)	33,636
[1b] Other Hispanic noncitizens	-0.019 (0.025)	-0.019 (0.026)	-0.017 (0.025)	0.058 (0.044)	-0.021 (0.022)	15,538
[2] Non-Hispanic non-citizens	0.026* (0.015)	0.024* (0.013)	0.024* (0.013)	0.021 (0.030)	-0.029 (0.022)	51,656
[3] Hispanic natives	-0.005 (0.016)	-0.004 (0.017)	-0.002 (0.014)	0.132*** (0.039)	-0.009 (0.017)	80,090
[4] Non-Hispanic natives	0.012 (0.006)	0.006 (0.005)	0.006 (0.005)	0.084*** (0.023)	0.001 (0.007)	845,204
[5] Hispanic foreign-born citizens	-0.029 (0.028)	-0.046** (0.021)	-0.048** (0.024)	0.201*** (0.072)	0.004 (0.052)	9,659
[6] Non-Hispanic foreign-born citizens	0.001 (0.031)	-0.015 (0.026)	-0.012 (0.025)	0.058* (0.032)	0.004 (0.026)	24,115
Controls for						
Gender indicator	N	Y	Y	Y	Y	
Age indicators	N	Y	Y	Y	Y	
Marital status indicator	N	Y	Y	Y	Y	
Race indicators	N	Y	Y	Y	Y	
Unemployment rate	N	N	Y	Y	Y	
% of whites with a bachelor's degree	N	N	Y	Y	Y	
% of Mexicans with a bachelor's degree	N	N	Y	Y	Y	
Years in US	N	N	Y	Y	Y	
State	Y	Y	Y	Y	Y	
Date (year*month)	Y	Y	Y	N	Y	
Month	N	N	N	Y	N	
State time trends	N	N	N	Y	Y	

Notes: cluster-robust standard errors in parenthesis

* Significant at 10%

** Significant at 5%

*** Significant at 1%

Table 4: Impact of In-State Tuition for Undocumented Immigrant Policies on High School Graduation
Dichotomous dependent variable: individual is has a graduated with a high school degree or higher

	(1)	(2)	(3)	(4)	(5)	Obs.
Citizenship groups						
[1] Hispanic non-citizens	-0.008 (0.018)	-0.002 (0.017)	-0.013 (0.018)	0.018 (0.016)	0.026 (0.023)	46,596
[1a] Mexican non-citizens	0.027 (0.028)	0.030 (0.028)	0.017 (0.026)	0.032* (0.020)	0.054** (0.028)	33,859
[1b] Other Hispanic noncitizens	-0.105** (0.046)	-0.093** (0.045)	-0.088*** (0.032)	-0.057*** (0.017)	-0.059* (0.034)	12,572
[2] Non-Hispanic non-citizens	-0.013 (0.022)	-0.016 (0.025)	-0.008 (0.019)	-0.015 (0.033)	-0.011 (0.029)	23,554
[3] Hispanic natives	-0.003 (0.013)	-0.003 (0.012)	-0.003 (0.012)	0.014 (0.010)	0.022** (0.011)	153,052
[4] Non-Hispanic natives	-0.006 (0.004)	-0.006 (0.004)	-0.007 (0.004)	0.001 (0.004)	0.001 (0.004)	1,155,449
[5] Hispanic foreign-born citizens	-0.069 (0.055)	-0.064 (0.051)	-0.096* (0.050)	-0.123** (0.057)	-0.090 (0.061)	7,281
[6] Non-Hispanic foreign-born citizens	-0.005 (0.020)	-0.002 (0.017)	0.004 (0.018)	0.012 (0.014)	0.013 (0.020)	15,035
Controls for						
Gender indicator	N	Y	Y	Y	Y	
Age indicators	N	Y	Y	Y	Y	
Marital status indicator	N	Y	Y	Y	Y	
Race indicators	N	Y	Y	Y	Y	
Unemployment rate	N	N	Y	Y	Y	
% of whites with a bachelor's degree	N	N	Y	Y	Y	
% of Mexicans with a bachelor's degree	N	N	Y	Y	Y	
Years in US	N	N	Y	Y	Y	
State	Y	Y	Y	Y	Y	
Date (year*month)	Y	Y	Y	N	Y	
Month	N	N	N	Y	N	
State time trends	N	N	N	Y	Y	

Notes: cluster-robust standard errors in parenthesis

* Significant at 10%

** Significant at 5%

*** Significant at 1%

Table 5: Additional Impact of Access to Financial Aid for Undocumented Immigrant Policies on College Enrollment
Dichotomous dependent variable: individual is attending college

	(1)	(2)	(3)	(4)	(5)	Obs.
Citizenship groups						
[1] Hispanic non-citizens	0.011 (0.016)	0.021 (0.017)	0.028* (0.015)	0.044** (0.021)	0.038*** (0.015)	52,576
[1a] Mexican non-citizens	0.018 (0.017)	0.009 (0.025)	0.036** (0.017)	0.043***(0.017)	0.038** (0.017)	35,384
[1b] Other Hispanic noncitizens	-0.036 (0.031)	-0.025 (0.033)	-0.003 (0.039)	0.021 (0.059)	0.024 (0.060)	17,103
[2] Non-Hispanic non-citizens	-0.067***(0.020)	-0.059***(0.018)	-0.035 (0.025)	-0.024 (0.021)	-0.013 (0.029)	46,586
[3] Hispanic natives	0.001 (0.010)	0.001 (0.011)	0.013* (0.008)	0.005 (0.005)	0.012** (0.006)	171,321
[4] Non-Hispanic natives	0.019* (0.010)	0.013 (0.010)	0.023***(0.007)	0.018***(0.007)	0.023*** (0.005)	1,333,377
[5] Hispanic foreign-born citizens	-0.066 (0.047)	-0.080 (0.050)	-0.079 (0.052)	-0.062** (0.027)	-0.056***(0.021)	11,657
[6] Non-Hispanic foreign-born citizens	-0.047* (0.025)	-0.052** (0.024)	-0.054* (0.030)	-0.007 (0.029)	0.001 (0.032)	23,584
Controls for						
Policy	Y	Y	Y	Y	Y	
Gender indicator	N	Y	Y	Y	Y	
Age indicators	N	Y	Y	Y	Y	
Marital status indicator	N	Y	Y	Y	Y	
Race indicators	N	Y	Y	Y	Y	
Unemployment rate	N	N	Y	Y	Y	
% of whites with a bachelor's degree	N	N	Y	Y	Y	
% of Mexicans with a bachelor's degree	N	N	Y	Y	Y	
Years in US	N	N	Y	Y	Y	
State	Y	Y	Y	Y	Y	
Date (year*month)	Y	Y	Y	N	Y	
Month	N	N	N	Y	N	
State time trends	N	N	N	Y	Y	

Notes: cluster-robust standard errors in parenthesis
* Significant at 10%
** Significant at 5%
*** Significant at 1%

Table 6: Additional Impact of Access to Financial Aid for Undocumented Immigrant Policies on College Graduation
Dichotomous dependent variable: individual has an associate's degree or higher level of education

	(1)	(2)	(3)	(4)	(5)	Obs.
Citizenship groups						
[1] Hispanic non-citizens	0.001 (0.010)	-0.006 (0.008)	-0.001 (0.008)	-0.013 (0.011)	0.005 (0.010)	54,110
[1a] Mexican non-citizens	0.010 (0.009)	0.018** (0.009)	0.022*** (0.008)	-0.003 (0.013)	0.029*** (0.010)	36,932
[1b] Other Hispanic noncitizens	-0.029 (0.035)	-0.045** (0.020)	-0.039 (0.026)	-0.068*** (0.023)	-0.071*** (0.018)	17,040
[2] Non-Hispanic non-citizens	0.030 (0.042)	0.037 (0.044)	0.040 (0.041)	0.017 (0.011)	0.051*** (0.016)	56,197
[3] Hispanic natives	-0.013 (0.011)	-0.022** (0.010)	-0.015* (0.008)	-0.022 (0.016)	-0.018 (0.011)	91,377
[4] Non-Hispanic natives	-0.009 (0.006)	-0.002 (0.006)	0.002 (0.007)	-0.015 (0.016)	0.002 (0.006)	925,366
[5] Hispanic foreign-born citizens	-0.075** (0.036)	-0.093*** (0.036)	-0.098*** (0.033)	-0.043*** (0.016)	-0.071*** (0.017)	10,868
[6] Non-Hispanic foreign-born citizens	-0.027 (0.022)	-0.036* (0.022)	-0.035 (0.022)	-0.067*** (0.016)	-0.043** (0.023)	26,207
Controls for						
Policy	Y	Y	Y	Y	Y	
Gender indicator	N	Y	Y	Y	Y	
Age indicators	N	Y	Y	Y	Y	
Marital status indicator	N	Y	Y	Y	Y	
Race indicators	N	Y	Y	Y	Y	
Unemployment rate	N	N	Y	Y	Y	
% of whites with a bachelor's degree	N	N	Y	Y	Y	
% of Mexicans with a bachelor's degree	N	N	Y	Y	Y	
Years in US	N	N	Y	Y	Y	
State	Y	Y	Y	Y	Y	
Date (year*month)	Y	Y	Y	N	Y	
Month	N	N	N	Y	N	
State time trends	N	N	N	Y	Y	

Notes: cluster-robust standard errors in parenthesis
* Significant at 10%
** Significant at 5%
*** Significant at 1%