In-State Tuition for the Undocumented: Education Effects on Mexican Young Adults

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Abstract

This paper examines the effect of tuition subsidy in the form of in-state tuition to undocumented students on the education of noncitizen Mexican young adults. The policy is found to be associated with a 2.5 percentage point increase in college enrollment (base mean = 8%), a 3.7 percentage point increase in the proportion of students with at least some college education (base mean = 10%), and a 1.3 percentage point increase in the proportion with at least an associate degree (base mean = 4%). These results are robust to a variety of specifications. When the analysis is restricted to samples more likely to be affected by the policy, point estimates become larger. The study finds no evidence that in-state tuition policy for the undocumented adversely affects the educational outcomes of natives. © 2008 by the Association for Public Policy Analysis and Management.

INTRODUCTION

States subsidize the college education of residents by charging a tuition that is lower than actual cost or the amount paid by out-of-state students. Ten states currently offer undocumented immigrant students a tuition subsidy in the form of in-state tuition, and legislators in 14 other states have been debating similar bills.[1] In recent legislative debates, however, the issue of providing tuition subsidy to undocumented students has become highly contentious, particularly in states with fast-growing immigrant populations (National Conference of State Legislatures, 2006). Legislators in five states—Arizona, North Carolina, Virginia, Colorado, and Alaska—have introduced bills to ban undocumented immigrants from receiving in-state tuition, and Utah recently passed a bill that would repeal a 2002 law that allowed undocumented students to pay in-state tuition (Krueger, 2006). In Arizona and Virginia, legislators have also introduced bills to provide in-state tuition to undocumented immigrants.

Despite its policy significance, there is no research on the effects of providing in-state tuition to undocumented students on their college enrollment and educational attainment. The objective of this paper is to estimate these effects on a group of noncitizen Mexican young adults, who have a high probability of being undocumented and are eligible for tuition subsidy in states that offer in-state tuition to the undocumented. In addition, the paper examines whether this policy has any adverse effects on the college education of U.S.-born young adults.

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[1] In the 2004–2005 academic year, community colleges in states that provided in-state tuition to the undocumented had average tuition and fees of $1,938 for residents and $5,783 for nonresidents; the average undergraduate tuition and fees in public colleges and universities in these states was $3,935 for residents and $10,860 for nonresidents (Washington Higher Education Coordination Board, 2005).

College education plays a vital role in determining labor market outcomes (Card & Lemieux, 2001; Katz & Autor, 1999). Individuals with a college education earn higher wages and are less likely to experience unemployment. Socioeconomic and immigration status, however, create barriers to higher education (Schneider, Martinez, & Owens, 2006). Undocumented youth come from predominantly low-income families that have little ability to fund their children's college education. These children do not qualify for federal financial aid and are denied access to most other nonfamilial sources of funding for higher education (for example, bank loans). As a result, college education is relatively rare among the undocumented. According to the 2005 Current Population Survey, among noncitizen Mexican adults aged 18 to 44 years, who are predominantly undocumented,[2] only 5 percent had any college degree (associate degree or higher), and only 7 percent of noncitizen Mexicans aged 18 to 24 years were enrolled in college. Access to affordable higher education can potentially open new opportunities for these youth, which may improve their future economic prospects, productivity, and contributions to the U.S. economy.

The broader policy issue is whether state governments should improve educational opportunities for undocumented immigrant youth, whose numbers have been growing in recent years.[3] Without opportunities for college education, these undocumented youth may be pushed into an underground economy and remain isolated from the mainstream American society. Critics argue that tuition subsidies for the undocumented channel educational resources away from native-born students (Berger, 2007; Miranda, 2004; Redden, 2007). Critics also contend that such subsidies reward persons whose presence in the U.S. is in violation of the law and that such a policy portends increased future inflows of undocumented immigrants.[4] Supporters of these policies claim that a large proportion of undocumented students are likely to remain in the U.S., irrespective of whether they have access to college education or not and that it is in the state's economic interest that these students acquire higher education (National Conference of State Legislatures, 2006). While these issues have been hotly debated, there is no scientific study on the effects of in-state tuition on the academic outcomes of undocumented youth. If, for instance, the policy does not effectively encourage college enrollment or progress in college education, it will not accomplish the larger goals of integrating undocumented youth into the society or improving their future economic well-being. If that is the case, states that currently provide in-state tuition to undocumented students need to engage in outreach initiatives to inform immigrant communities about these policies.[5] Further, if the policy adversely affects the educational outcomes of the U.S.-born students, it would need to be reassessed. This paper aims to investigate these issues to inform policymakers about the influence of this highly contentious state policy and to guide future integration policies for undocumented youth.

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[2] According to Passel (2005) and Hoefer, Rytina, and Campbell (2006), over 80 percent of immigrants from Mexico are undocumented. These estimates are based on the Current Population Surveys and data from the Office of Immigration Statistics and adjust for mortality and emigration. These estimates also adjust for an undercount in the CPS of the undocumented population to the order of about 10 percent.

[3] The Census Bureau and the Pew Hispanic Center estimate that in 2005 there were approximately 11 million undocumented immigrants in the U.S., of which over six million were from Mexico (Passel, 2005; Hoefer, Rytina, & Campbell, 2006). Inflows of undocumented persons have grown in recent years: Approximately 700,000 entered the country each year during 1995–2004, 450,000 entered annually during 1990–1994, and 130,000 entered annually during the 1980s.

[4] Potentially, by aiming to lower the gap in college education between undocumented and U.S.-born youth, tuition subsidies for the undocumented may limit gains from immigration that depend on human capital differences between immigrants and natives.

[5] For some undocumented persons even subsidized tuition may be unaffordable, and some may be ineligible because of lack of a high school diploma.

In-State Tuition Policy and College Education of Undocumented Youth

Hispanic youth are a fast-growing segment of the U.S. population and are projected to contribute to two-thirds of the growth of the high school–age population during the current decade (Vernez & Mizell, 2001). Their educational experience in the U.S. is marred with barriers stemming from parents' socioeconomic and immigration status (Fry, 2004, 2005; Grogger & Trejo, 2002; Schneider, Martinez, & Owens, 2006; Wojtkiewicz & Donato, 1995). These disadvantages result in Hispanic youth, particularly Mexican youth, having the lowest educational attainment of any racial/ethnic group (Schneider, Martinez, & Owens, 2006). In 2005, according to the Current Population Survey, 40 percent of Mexican youth (18–24 year olds) and 56 percent of non-Mexican Hispanic youth had completed a high school diploma as compared to 83 percent non-Hispanic whites and 76 percent non-Hispanic blacks. Furthermore, 6 percent of Mexican youth were enrolled in college as compared to 20 percent of non-Mexican Hispanic youth, 37 percent of non-Hispanic blacks, and 38 percent non-Hispanic whites. Latino high school graduates also tend to enter the labor market at younger ages, delaying or even forsaking higher education (Fry, 2002, 2004; Edelman, Holzer, & Offner, 2006). Among Mexicans aged 25 to 29, in 2005, only 8 percent had at least an associate degree as compared to 20 percent of non-Mexican Hispanics, 32 percent of non-Hispanic blacks, and 54 percent of non-Hispanic whites.

   According to the National Immigration Law Center (NILC) (2001), approximately 70,000 undocumented students graduate from high school every year. They are ineligible for federal financial aid. Until 1996, public universities in a few states (for example, New York, California before 1992) offered undocumented students in-state tuition if they met certain residency requirements. However, under the 1996 Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), the federal government banned public colleges from offering undocumented immigrants in-state tuition unless out-of-state U.S. citizens were allowed the same rate. Several large universities in New York (for example, the City University of New York, the State University of New York), however, continued to provide in-state tuition to undocumented students even after the federal ban.[6]

   Faced with unprecedented inflows of undocumented immigrants and their low college enrollment and graduation rates, nine other states have modified policies to circumvent the federal ban. In 2001, Texas and then California modified residency requirements to allow in-state tuition to undocumented students.[7] In the past five years, seven more states have passed laws with new eligibility standards to provide in-state tuition to undocumented immigrants (see Table 1). To be eligible for in-state tuition, an undocumented student is required to have attended school in the same state for at least three years[8] and also to have graduated from high school in that state. Due to the IIRIRA, out-of-state U.S. citizens who meet these criteria are also eligible for in-state tuition in these 10 states. In addition, undocumented students are asked to sign an affidavit stating that they have either applied to legalize their status or will do so as soon as they become eligible (NILC, 2006).

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[6] After the September 11, 2001, terrorist attacks, SUNY and CUNY barred undocumented immigrants from receiving in-state tuition, citing the 1996 federal law. The New York state legislature, however, changed residency requirements for in-state tuition to restore subsidized tuition to undocumented students in the fall of 2002.

[7] California has a tumultuous history with regard to in-state tuition for undocumented immigrants. In 1985, immigrant students in California won a court order that allowed undocumented students to establish state residency for tuition purposes for both the University of California and California State University systems. In the early 1990s, however, the two university systems implemented a court injunction that required newly enrolled undocumented students to be classified as nonresidents. In 1994, proposition 187, subsequently held unconstitutional by the courts, prohibited undocumented students from attending all public schools from kindergarten through college.

[8] Some exceptions are New York and Oklahoma, which require a minimum of two years residency, and New Mexico, which requires one year of residency for eligibility for in-state tuition.

Table 1. States providing in-state tuition to undocumented immigrants.

State	Year Undocumented Students Became Eligible for In-State Tuition
California	2001
Illinois	2003
Kansas	2004
Oklahoma	2003
Nebraska	2006
New Mexico	2005
New York	*
Texas	2001
Utah	2002
Washington	2003

* In NY, undocumented students were allowed in-state tuition throughout the period of this study (1997 to 2005) except for the spring of 2002.

Investment in College Education and Undocumented Youth

The decision to invest in human capital (for example, college education) depends on net returns from such investments. The economic benefits of education have been widely documented (Becker, 1975; Card, 1995, 1999; Kane & Rouse, 1995; Shultz, 1961; Witmer, 1970). Being undocumented, however, is an obstacle to most high-skilled jobs, and this deters undocumented aliens from seeking higher education. The risk of being deported, if found out, is also likely to discourage them from incurring such investments.

Potentially, college education can improve labor market opportunities and even help change the immigration status of the undocumented in a number of ways: by improving their labor market skills and employability in the U.S. economy, by providing them with skills to undertake jobs for which employers can sponsor undocumented persons for temporary legal visas,[9] and by opening new paths to legalization through marriage. College education improves marriageability and increases interethnic marriage (Bayer, 1972; Duncan & Trejo, 2007; Goldstein & Kenney, 2001; Qian, 1997). For undocumented college graduates, marriage to legal residents opens a pathway to legalization through family-sponsored visa.

To ascertain the probability of legalization for the undocumented, I examined the Citizenship and Immigration Services (CIS) data for 1990–1999, which provide information on all individuals who adjusted their status to permanent legal residents (henceforth referred to as adjustees) during the 1990s.[10] These data show that during 1990–1999, 329,420 adjustees entered the U.S. "without inspections." The visa status of 340,882 adjustees at the time of entry is unknown, and 696,490 entered the country on visitors' visas for pleasure. Clearly, those who enter without inspections are illegal. A vast majority of immigrants whose visa status is unknown at the point of entry are also likely to be undocumented; otherwise, there should be an official record of their visa status at entry. Similarly, those who enter the U.S. on visitors' visas for pleasure, provided for a maximum of six months at a time, are likely to be undocumented at some point of their stay in the U.S. Assuming that all adjustees who entered without inspections, as tourists (for pleasure), or whose status at entry was unknown were undocumented at some point in their stay, at least 1.37 million undocumented persons adjusted their status to legal residents during

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[9] While baby-sitters or cab drivers are unlikely to get sponsored for employment visas, persons with skills (for example, college education) to work in offices can be sponsored for temporary work visas or visas for optional practical training.

[10] The Department of Justice has stopped releasing the micro-data files of persons granted legal status after 2000.

the 1990s. According to the Urban Institute, during 1990–1999, there were approximately 5.5 million undocumented immigrants in the U.S. (Passel, 2005). The CIS data thus implies that about a quarter (=1.37 ÷ 5.5) of the undocumented adjusted their status to legal residents. These estimates are rough, but they provide evidence that undocumented immigrants are not a static group and that thousands legalize their immigration status every year.

Other national data sets also lead to similar conclusions. For instance, Massey and Malone (2002) used the New Immigrant Survey Pilot study data and found that among the 1996 cohort of legal immigrants (new immigrants as well as visa adjustees), 21 percent were illegal border crossers and 11 percent visa abusers. In all, 47 percent of all adjustees had either crossed the U.S. border illegally or abused their visa (Massey & Malone, 2002). According to CIS data for 1990–1999, among immigrants who are likely to be undocumented (for example, those who entered without inspections, whose immigration status at entry was unknown, or who entered as visitors for pleasure), 56 percent adjusted to permanent resident status as a spouse of a U.S. citizen or permanent legal resident, and 5 percent under the employment preference category.[11]

To sum up, this discussion suggests that a significant proportion of undocumented immigrants convert to legal permanent residents every year via family unification or employment categories. These individuals are therefore likely to have a high incentive to invest in a college education to obtain better economic and social opportunities and even improve their prospects for legalization.

DATA

A major challenge in this research, as in any research relating to undocumented immigrants, is the difficulty of identifying the undocumented population. Most data sets do not specify the visa status of immigrants. This analysis is based on the Current Population Survey monthly outgoing rotation group (CPS-ORG) files for 1997–2005, which provide information on the citizenship status of a foreign-born person, his/her country of origin, and period of arrival in the U.S. This information is used to identify Mexican youth most likely to be undocumented. Because a majority of the foreign-born individuals who arrived prior to 1987 legalized under the Immigration Reform and Control Act of 1986, the sample of the analysis is restricted to noncitizen youth from Mexico who arrived in the U.S. after 1987.[12] Since in most states eligibility for in-state tuition requires an immigrant to have lived in that state for at least three years, the analysis is conducted on a sample of noncitizen Mexican young adults who arrived in the U.S. after 1987 and have lived here for at least three years.[13] Sixty-one percent of this sample lived in the nine states that allowed in-state tuition to the undocumented during 2001–2005 (see Table 1).

According to Passel (2005) and Hoefer, Rytina, and Campbell (2006), over 80 percent of immigrants from Mexico are undocumented. Their estimates are based on the Current Population Surveys and data from the Office of Immigration Statistics, after adjusting for mortality and emigration. The CPS is based on in-person interviews, to which undocumented immigrants are less likely to respond for fear of being found out and deported. The presence of undocumented immigrants in the CPS data is therefore likely to be lower than their actual presence in the country. According to the Census Bureau, Census and CPS data undercount the undocumented

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[11] Of the adjustees, 66 percent were born in Mexico, and most Mexicans (about 76 percent) were younger than 30 at the time of adjusting their status.

[12] The CPS provides a single code if the year of entry is 1986 or 1987. Therefore, noncitizens who arrived in the U.S. in 1987 or before are dropped from the analysis.

[13] Limiting the sample to immigrants who have been in the U.S. for at least three years also reduces bias on account of return migration, which is highest among recent arrivals.

by 10 percent. The estimates above adjust for the undercount (Hoefer, Rytina, & Campbell, 2006).[14]

The CPS-ORG provides relatively large sample sizes, which are important given the paper's focus on a narrowly defined population of noncitizen Mexican young adults. The CPS-ORG is rich in outcomes relating to high school graduation, college enrollment, and progress in college. I examine three main educational outcomes: enrolled in college, has at least some college education, and has an associate or higher degree. To see if subsidy for college education is inducing undocumented students to finish high school, I also study a fourth educational outcome, namely, whether an individual has a high school diploma.

The CPS-ORG provides information on college enrollment among individuals aged 16 to 24 years. College enrollment is almost negligible among 16-year-old persons (less than 0.5 percent), and quite low among those aged 23–24 (between 3 to 4 percent). Therefore, in the analysis on whether enrolled in college, the sample is restricted to persons aged 17 to 22. The CPS-ORG provides data on the educational attainment of all respondents. In the regressions on outcomes relating to educational attainment (at least some college education, an associate or higher degree) the sample is restricted to 23–28-year-old young adults.

The CPS-ORG provides detailed information on respondents' demographic characteristics that is used to create control variables. The CPS-ORG is based on the outgoing rounds of the monthly CPS. Therefore, the data could potentially contain two observations on several individuals. The CPS-ORG also provides identifiers to match individuals across months. I used these identifiers to match individuals, repeated the regression analysis by clustering on individuals, and found that it made little difference to standard errors.[15] The sampling design of the CPS, particularly with respect to the foreign-born population, suggests that those in the same state may be more similar. Besides, since the policy of interest varies by state and year, I report the results of analyses for which standard errors are clustered at the state-year level.

State unemployment rates from the Bureau of Labor Statistics and data on in-state tuition policy are merged with the CPS-ORG by month, state, and year. Because policy announced during an academic year will affect enrollment and educational outcomes after at least one year, all policy variables are lagged by a year. Data on total academic year tuition and fees for state residents and nonresidents at community colleges and undergraduate colleges and universities come from the Higher Education Coordination Board surveys (see Appendices 2 to 5).[16] These data, based on a survey of 214 state public institutions (colleges and universities), provide a close approximation to state averages. Moreover, a comparison of tuition and required fees at the same set of institutions over time provides consistency. The CPS-ORG data are used to compute a three-year moving average of the proportion of non-Hispanic white adults (aged 30–54 years) with at least some college and the proportion of Mexican adults with at least a high school diploma.

RESEARCH METHODOLOGY

The objective of the empirical analysis is to test whether the provision of in-state college tuition for undocumented immigrants affects the college enrollment and educational attainment of undocumented young adults. The starting point of this empirical approach is the following regression model, estimated on a sample of noncitizen Mexican young adults who arrived in the U.S. after 1987 and have lived here for at least three years:

[14] Passel (2005) also assumes a 10 percent undercount of the undocumented in CPS and Census data.
[15] These results can be obtained from the author upon request.
[16] This appendix is available at the end of this article as it appears in JPAM online. Go to the publisher's Web site and use the search engine to locate the article at http://www3.interscience.wiley.com/cgi-bin/jhome/34787.

$$E_{ijt} = \delta_t + \delta_j + \delta_m + \lambda \; Policy_{jt\text{-}1} + Z_{jt} \; \Phi + X_{ijt} \; \Gamma + u_{ijt} \qquad (1)$$

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

In Equation (1), E_{ijt} is an educational outcome of individual i and is a function of the following variables: $Policy_{jt\text{-}1}$ (coded as 1 if a state provided in-state tuition to undocumented immigrants in t - 1, otherwise 0);[17] time varying state characteristics (Z_{it}) such as the monthly state unemployment rate, the proportion of the adult (aged 30 to 54 years) non-Hispanic white population with at least some college education to control for state-specific trends in education,[18] and the proportion of the adult (aged 30 to 54 years) Mexicans with at least a high school diploma to control for trends in educational aspirations of Mexicans;[19] individual characteristics (X_{ijt}) such as age (included as a dummy variable for each year of age), sex, marital status, and years lived in the U.S.; state fixed effects (δ_j); month of the year effects (δ_m) and year fixed effects (δ_t). The coefficient λ measures the effect of in-state tuition on the college education of undocumented youth. Robust standard errors clustered on state-year adjust for heteroscedasticity (Bertrand, Duflo, & Mullainathan, 2002; Huber, 1967).

The effect of in-state tuition policy may differ depending on the number of years an individual is potentially exposed to the policy. For instance, Texas allowed in-state tuition to undocumented students in 2001. Therefore, in 2002, any undocumented youth in Texas would have been a potential beneficiary of this policy for one year, irrespective of age. But in 2004, an 18-year-old would have been a potential beneficiary of the policy for one year and a 20-year-old would have been a potential beneficiary of the policy for three years. To study whether individuals who were exposed to the policy for a longer period were differently affected by it, I also do the analysis by setting the variable $Policy_{jt\text{-}1}$ as equal to the number of years an individual is potentially affected by the policy.[20]

In-state and out-of-state tuition vary by state. For instance, in 2004–2005, tuition per academic year for state residents was \$780 and for out-of-state students \$5,250 in California community colleges; in Texas, in-state tuition was \$1,552 and out-of-state tuition \$3,091 (Washington Higher Education Coordinating Board, 2005). The impact of in-state tuition subsidy may therefore differ by its dollar amount. To see if that is the case, I estimate Equation (1) by replacing the dichotomous policy variable with the average in-state tuition subsidy (out-of-state tuition minus in-state tuition) in state s and year t.[21] I examine the effect of two tuition-and-fees variables: community college tuition and fees, and undergraduate tuition and fees.[22]

[17] Policy variable is matched by state, month, and year.
[18] I also repeated the analysis controlling for the proportion of non-Hispanic white young adults (aged 25 to 30) with college education, a proportion that is likely to fluctuate more with changes in labor market opportunities and other time-varying factors. The estimated results were similar to those obtained after controlling for the proportion of non-Hispanic white adults (aged 30 to 54 years) with at least some college education.
[19] Estimates from regressions that did not control for the proportion of Mexican adults with a high school diploma were similar to those with the control.
[20] This assumes that the respondent has been living in the state since the implementation of the policy.
[21] I also performed the analysis with the policy variable equal to tuition for residents if a state allowed in-state tuition for undocumented students in year t; in all other cases, the tuition variable was kept equal to nonresident tuition. The estimated results were similar. Since it is easier to interpret results with tuition subsidy amount as the policy variable, I elect to present those results.
[22] The analysis that uses tuition in community colleges as the main explanatory variable is based on all states, except South Dakota, as I was not able to obtain community college tuition and fees for all the years for this state. The analysis that uses tuition in undergraduate colleges as the key explanatory variable is based on 46 states, excluding Alaska, Delaware, Hawaii, and Wyoming due to lack of a consistent series of tuition and fees in undergraduate colleges for these four states. All other analyses are based on all 50 states and Washington, DC.

Due to the presence of legal immigrants and the undercount of undocumented persons in the CPS sample of Mexican noncitizens, λ provides a downward biased estimate of the effect of in-state tuition on the educational outcomes of undocumented youth. However, it is possible to obtain a rough measure of the size of the bias. For instance, contamination due to the presence of roughly 20 percent legal immigrants in the CPS sample of noncitizen Mexicans and a 10 percent undercount of the undocumented would yield a 28 percent downward bias in the estimate—20 percent due to the presence of legal immigrants and 8 percent due to the undercount (=80% multiplied by 10%). Based on these rough calculations, the effect of in-state tuition on education would be 1.28 times the estimated value of λ.

Theoretically, it could be argued that undocumented immigrants move to states where they can obtain a tuition subsidy. If so, estimated coefficients drawn from Equation (1) would contain an upward bias, assuming that those who moved to benefit from the subsidy would have received college education even if they had not moved. Under certain assumptions of interstate mobility, it is possible to obtain a rough estimate of the possible bias—for instance, if 14 percent of the individuals who are estimated to enroll in college because of the tuition subsidy had actually moved from another state to benefit from the subsidy, the estimated coefficient would contain an upward bias of 28 percent, thereby canceling the downward bias on account of the presence of legal immigrants and undercount of the undocumented in the CPS sample.

However, given the residency conditions attached to eligibility, interstate mobility to obtain a tuition subsidy is less likely. In this paper, the empirical analysis is restricted to those who have been in the U.S. for at least three years, thereby excluding all post-2001 entrants. Thus the sample for the analysis comprises persons who entered the country prior to the implementation of in-state tuition for the undocumented in all states except New York.[23] Therefore, the analysis is less likely to suffer from bias on account of selective immigration of new immigrants to states with more generous in-state tuition policies. Moreover, recent research suggests that new immigrants' location choices are unaffected by state subsidies (Kaushal, 2005; Zavodny, 1999).

Yet another potential bias could arise if Mexicans with higher education legalize and subsequently acquire citizenship and exit the sample. However, this bias is less likely to influence the current analysis. According to the Office of Immigration Statistics, the average period for becoming a citizen after legalization is seven years for all foreign-born persons and 10 years for immigrants from North America, including those from Mexico (Simanski, 2007). Thus, while a college education resulting from tuition subsidy may help some undocumented persons legalize, they are unlikely to become citizens within the post-policy period covered by this analysis. The empirical analysis in this paper covers four post-policy years for California and Texas, and fewer post-policy years for the other seven states that allow in-state tuition for the undocumented.

The estimated effect of in-state tuition policy on Mexican noncitizens based on Equation (1) would be biased if state-year changes in tuition policy were correlated with factors that raised educational outcomes. To a large extent, time varying state characteristics (Z_{jt}) in Equation (1) adjust for these factors. Further, I also estimate Equation (1) with additional controls for state-specific linear trends to directly examine if pre-policy trends were confounding the estimated effect of policy on the educational outcomes of undocumented young adults.

I also estimate the effect of the policy on two groups of noncitizens who are less likely to be undocumented and therefore less likely to be affected by policy:

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[23] As mentioned above, New York provided in-state tuition to the undocumented for most of the period covered in this analysis.

non-Mexican Latino young adults and non-Latino young adults.[24] These samples are also restricted to post-1987 arrivals of noncitizens who have lived in the U.S. for at least three years. If in-state tuition policy had the same effect on these groups as it did on noncitizen Mexican young adults, that would suggest that there might be unobserved factors correlated with the policy that affected all foreign-born young adults irrespective of the legality of their presence in the U.S.

Finally, I examine the effect of in-state tuition for the undocumented on the educational outcomes of two groups of U.S. citizens: U.S. citizens of Mexican parentage and U.S.-born young adults. The 1996 IIRIRA banned public colleges from offering undocumented immigrants in-state tuition unless out-of-state U.S. citizens are allowed the same rate. Thus, changes in in-state tuition policy for the undocumented are not exclusively for the undocumented. Critics, however, assert that tuition subsidies for the undocumented adversely affect the educational opportunities of U.S. citizens. This analysis empirically tests this claim.

RESULTS

Descriptive Analysis

Table 2 presents average educational outcomes of young adults during 1997–2001, a period when public universities in most states, except New York, did not provide in-state tuition to undocumented students. Columns 1 and 2 present data on Mexican noncitizens who arrived in the U.S. after 1987, have been living here for at least three years, and therefore are highly likely to be both undocumented and eligible for in-state tuition in states that extend the benefit to undocumented students. For comparison, columns 3 to 6 present mean outcomes of the other noncitizen groups: non-Mexican Latino young adults and non-Latino young adults, who are similar to the sample of Mexican young adults in terms of citizenship status, period of arrival, and duration of stay in the U.S., but have low probabilities of being undocumented and therefore are less likely to be affected by in-state tuition policies for the undocumented. The last four columns provide data on U.S. citizens of Mexican parentage and all U.S.-born persons.

There is a stark difference in the college enrollment and educational attainment of Mexican young adults and the other four groups. Only 8 percent of noncitizen Mexican youth aged 17 to 22 are enrolled in college. Among noncitizen Mexicans aged 23 to 28, two-thirds do not have a high school diploma, only 10 percent have any college education, and just 4 percent have a college degree (including an associate degree). The non-Mexican Latino immigrants are the closest to the Mexican noncitizen sample in terms of college enrollment and educational attainment, but even between these two groups the gap in educational outcomes is wide. Twenty percent of the non-Mexican Latino immigrants are enrolled in college, a quarter have at least some college education, and 10 percent a college degree. Among U.S. citizens of Mexican parentage, 21 percent are enrolled in college, 43 percent have at least some college education, and 18 percent a college degree. The U.S.-born have somewhat better educational outcomes: 28 percent are enrolled in college, 60 percent have at least some college education, and 36 percent a college degree; and non-Latino immigrants have the highest educational outcomes of the five groups: 38 percent are enrolled in college, 66 percent have some college education, and 43 percent a college degree.

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[24] According to Passel (2005), approximately 31 percent (or about 2.5 million) of the foreign-born from other Latin American countries (other than Mexico) and 12 percent (or about two million) of the foreign-born from a region outside of Latin America are undocumented, with the corresponding proportion for Mexican noncitizens being 80 percent.

**Table 2.** Educational outcomes of young adults during 1997-2001.

| | Non-Citizens | | | | | | Citizens | | | |
| | Mexican Young Adults | | Non-Mexican Latino Young Adults | | Non-Latino Young Adults | | Young Adults of Mexican Parentage | | U.S.-Born Young Adults | |
	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Currently attending college	4887	0.08	2708	0.20+	3705	0.38+	8453	0.21+	249233	0.28+
Education < High school	8493	0.67	3945	0.40+	5612	0.12+	6563	0.26+	223934	0.09+
Education = High school	8493	0.24	3945	0.34+	5612	0.22	6563	0.34+	223934	0.31+
Education = Some college, no degree	8493	0.06	3945	0.16+	5612	0.23+	6563	0.24+	223934	0.24+
Education = Associate degree or higher	8493	0.04	3945	0.10+	5612	0.43+	6563	0.16+	223934	0.36+

Note: Data come from the Current Population Survey's Outgoing Rotation Files (CPS-ORG). N corresponds to the 1997 to 2005 period. Non-citizen samples are restricted to young adults who arrived after 1987 and have been in the U.S. for at least three years. The sample for currently attending college is further restricted to individuals aged 17-22 years; for all other outcomes samples are restricted to those aged 23-28.

+ denotes whether the values for the non-Mexican samples are statistically different from those for the Mexican sample at $p < 0.05$.

Has tuition subsidy induced Mexican noncitizens to obtain college education? Figure 1 presents the average level of college enrollment and college education for Mexican noncitizens in the four states that provided in-state tuition to the undocumented before 2003 (California, New York, Texas, and Utah), as well as the other 46 states plus the District of Columbia. Means are presented for three periods: 1997-1999, 2000–2002, and 2003–2005. In states that provided in-state tuition to the undocumented before 2003, college enrollment among Mexican noncitizen youth increased by a modest 1.2 percentage points over the 1997–1999 and 2000–2002 periods, and then by a relatively larger 3.5 percentage points over the 2000–2002 and 2003–2005 periods. In the other states, college enrollment fell by 0.8 percentage points over the 1997–1999 and 2000–2002 periods and by another 0.6 percentage points over the 2000–2002 and 2003–2005 periods. Nationally, the proportion of Mexican noncitizens with at least some college education fell marginally over the 1997–1999 and 2000–2002 periods; but in the following three years, 2003–2005, the proportion rose by 1.6 percentage points in states that provided in-state tuition for the undocumented, and fell by 1.6 percentage points in states that did not provide in-state tuition for the undocumented before 2003. There does not appear to be any discernible trend in the proportion of noncitizen Mexicans with a college degree in states with and without the policy.

Figure 1 is based on raw means of college enrollment and educational attainment. Next, I examine the effect of in-state tuition on Mexican noncitizens using multivariate regression models based on Equation (1), and the results are presented in Table 3.
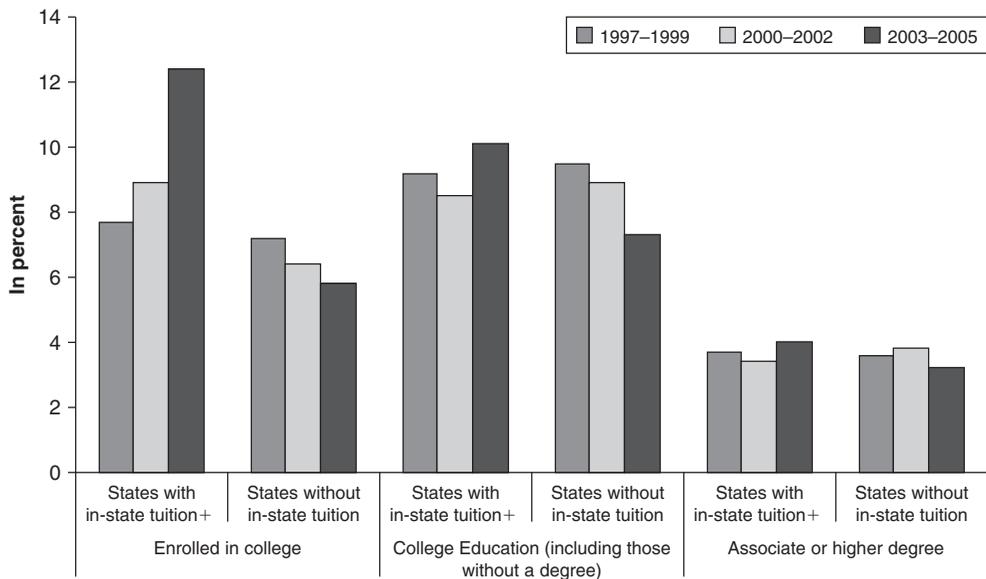
Note: Samples are restricted to young adults who arrived after 1987 and have been in the U.S. for at least three years. Further, the sample for currently attending college is restricted to individuals aged 17–22 years; for the other two outcomes samples are restricted to those aged 23–28.

+ Four states that granted in-state tuition to the undocumented before 2003 are: California, New York, Texas, and Utah.

Source: CPS-ORG.

Figure 1. College Enrollment and Educational Attainment of Mexican Non-Citizens.

Table 3. Estimated effects of in-state tuition policy for undocumented immigrants on the educational outcomes of noncitizen Mexican young adults.

	Currently Attending College (1)	Education ≥ High School (2)	Education ≥ Some College Some College (3)	Education ≥ Associate Degree (4)	Currently Attending College (5)	Education ≥ High School (6)	Education ≥ Some College (7)	Education ≥ Associate Degree (8)
Includes state-specific linear trends	No	No	No	No	Yes	Yes	Yes	Yes
Panel 1: All								
Policy	0.025**	0.034*	0.037***	0.013*	0.033**	0.006	0.050***	0.014
	(0.012)	(0.019)	(0.013)	(0.007)	(0.016)	(0.024)	(0.018)	(0.010)
Years of policy influence	0.007*	0.018***	0.012***	0.004*	0.007	0.017**	0.012**	0.005*
	(0.004)	(0.006)	(0.004)	(0.002)	(0.004)	(0.007)	(0.006)	(0.003)
Tuition subsidy (dollars in 1,000s)	0.004***	0.006**	0.005***	0.002**	0.006***	0.002	0.007***	0.002*
(Undergraduate colleges)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.004)	(0.003)	(0.001)
Tuition subsidy (dollars in 1,000s)	0.006	0.007*	0.005*	0.002	0.009***	0.005	0.005*	0.001
(Community colleges)	(0.003)	(0.004)	(0.003)	(0.002)	(0.003)	(0.005)	(0.003)	(0.002)
Panel 2: Samples restricted to persons with at least some secondary education								
Policy	0.026*	0.049*	0.056***	0.020**	0.043**	-0.001	0.079***	0.023
	(0.016)	(0.026)	(0.018)	(0.011)	(0.020)	(0.037)	(0.026)	(0.014)
Years of policy influence	0.007	0.015*	0.016***	0.006*	0.008	0.009	0.018**	0.006
	(0.005)	(0.008)	(0.006)	(0.004)	(0.006)	(0.010)	(0.009)	(0.004)
Tuition subsidy (dollars in 1,000s)	0.005**	0.009***	0.008***	0.003**	0.007**	0.002	0.012***	0.004*
(Undergraduate colleges)	(0.002)	(0.003)	(0.003)	(0.001)	(0.003)	(0.005)	(0.004)	(0.002)
Tuition subsidy (dollars in 1,000s)	0.006	0.011**	0.008*	0.003	0.011**	0.002	0.008*	0.001
(Community colleges)	(0.004)	(0.006)	(0.005)	(0.002)	(0.004)*	(0.005)	(0.005)	(0.003)
Panel 3: Samples restricted to persons who arrived in the U.S. before age 20								
Policy	0.025**	0.034*	0.030**	0.011	0.033**	0.006	0.031	0.004
	(0.012)	(0.019)	(0.013)	(0.008)	(0.016)	(0.024)	(0.020)	(0.010)
Years of policy influence	0.007*	0.018***	0.010**	0.005**	0.007	0.017**	0.008	0.004
	(0.004)	(0.006)	(0.004)	(0.002)	(0.004)	(0.007)	(0.005)	(0.003)
Tuition subsidy (dollars in 1,000s)	0.004***	0.006**	0.004**	0.002*	0.006***	0.002	0.006*	0.001
(Undergraduate colleges)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.004)	(0.003)	(0.001)
Tuition subsidy (dollars in 1,000s)	0.006	0.007*	0.007**	0.002	0.009***	0.005	0.004	−0.001
(Community colleges)	(0.003)	(0.004)	(0.003)	(0.002)	(0.003)	(0.005)	(0.004)	(0.002)

Note: CPS-ORG 1997-2005. The sample of analysis is restricted to noncitizen Mexicans who entered the U.S. after 1987 and have been in the country for at least three years. The dependent variables are listed as column subheadings. Each figure is based on a separate regression that controls for age, gender, marital status, years lived in the U.S., month of the year, state and year fixed effects, monthly state unemployment rate, the proportion of the non-Hispanic white population with at least some college education, and the proportion of Mexican adults with at least a high school degree. Samples are restricted to persons 17–22 years old in the analyses on currently attending college and education ≥ high school; and to persons 23–28 years old in the analyses on education ≥ some college and education ≥ associate degree. Regressions in columns (5) to (8) also include controls for state-specific linear trends. See Table 2 for sample sizes.

* $0.05 < p \leq 0.1$, ** $0.01 < p \leq 0.05$, *** $p \leq 0.01$.

Multivariate Analysis

Table 3 presents the analysis of the effect of offering in-state tuition to undocumented persons on the educational outcomes of noncitizen Mexican youth who arrived in the U.S. after 1987 and have been here for at least three years. The sample in the analysis that relates to the outcomes "whether the individual is currently enrolled in college" and "whether the individual has a high school or higher education" consists of 17–22-year-old noncitizen Mexicans, and for all other outcomes the sample is restricted to 23–28-year-old noncitizen Mexicans.

In columns labeled (1) to (4) of Table 3, each figure is based on a separate regression that controls for age (with a dummy variable for each year of age), gender, marital status, years lived in the U.S., month of the year, state and year fixed effects, monthly state unemployment rate, the proportion of non-Hispanic white population in state *s* in year *t* with at least some college education, and the proportion of Mexican adults with at least a high school diploma, by state and year, to adjust for trends in educational aspirations of Mexicans that may be correlated with policy. Robust standard errors clustered at state-year are in parentheses.

The estimate in row 1 of column 1 suggests that the policy of offering in-state tuition to undocumented students is associated with a statistically significant 2.5 percentage point increase in college enrollment among noncitizen Mexican youth. The point estimate is large and represents a 31 percent increase in enrollment over the base level enrollment of 8 percent (Table 2). In-state tuition policy is also associated with a statistically significant 3.4 percentage point (or 14 percent) increase in the proportion of noncitizen Mexican youth with a high school diploma, a statistically significant 3.7 percentage point (or 37 percent) increase in the proportion with at least some college education, and a statistically significant 1.3 percentage point (33 percent) increase in the proportion with an associate or higher degree.[25]

The impact of the policy appears to be larger on persons who were potentially exposed to the policy for a longer period of time (Table 3, row 2). A one-year increase in exposure to the policy increased enrollment by 0.7 percentage points, the proportion with at least a high school diploma by 1.8 percentage points, the proportion with at least some college education by 1.2 percentage points, and the proportion with an associate or higher degree by 0.4 percentage points. All the four coefficients are statistically significant.

Tuition amount, for residents as well as nonresidents, differs by state. The response to subsidized tuition should therefore vary by the amount of the subsidy. To see if that is the case, I repeat the above analysis but replace the policy variable with the subsidy amount. The estimates in columns (1) to (4) of the third row in Table 3 suggest that an increase in tuition subsidy is associated with an increase in college enrollment and education level of Mexican young adults. A $1,000 increase in tuition subsidy increased the probability of being enrolled in college by 0.4 percentage points, the proportion with at least a high school diploma by 0.6 percentage points, the proportion with college education by 0.5 percentage points, and the proportion with at least an associate degree by 0.2 percentage points. All the estimated effects are statistically significant.

In the 2004–2005 academic year, the average tuition subsidy (out-of-state tuition minus in-state tuition) in states that provided in-state tuition to undocumented immigrants was approximately $6,900. Multiplying the coefficients for policy variables in row 3 with 6.9 provides an estimate of the effect of in-state tuition subsidy

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[25] For high school graduates, the CPS-ORG provides information on whether an individual has a GED, but not for persons with more than a high school diploma. I found that for noncitizen Mexicans with just a high school diploma, in-state tuition policy was associated with a statistically insignificant 1.6 percentage point increase in GED (mean GED among noncitizen Mexican high school graduates = 3.6 percent). I also examined the effect of in-state tuition on the probability of having just a high school diploma. The estimated coefficient was positive, but statistically insignificant.

on the educational outcomes of this group. This calculation suggests that a $6,900 subsidy increased college enrollment among noncitizen Mexican youth by 2.8 percentage points, the proportion with at least a high school education by 4.1 percentage points, the proportion with at least some college education by 3.5 percentage points, and the proportion with a college degree by 1.4 percentage points. These numbers are quite close to the effects that were estimated when the policy was measured as a dichotomous variable. Note that all regressions control for the proportion of non-Hispanic white adults with at least some college education in state s and year t, thereby adjusting for state-level secular trends in educational outcomes for young adults, including trends in outcomes caused by state-level changes in tuition.

Row 4 of Table 3 presents estimates of the effect of tuition subsidy in community colleges on education outcomes, indicating that a $1,000 increase in the tuition subsidy increased the probability of being enrolled by a statistically insignificant 0.6 percentage points, the proportion with at least a high school degree by a statistically significant 0.7 percentage points, the proportion with college education by a significant 0.5 percentage points, and the proportion with a college degree by a statistically insignificant 0.2 percentage points. For states that provided in-state tuition to undocumented immigrants in the 2004–2005 academic year, the average tuition subsidy in community colleges was approximately $3,845. Multiplying the coefficients in row 4 by 3.8 provides the estimated effect of in-state tuition subsidy on educational outcomes of this group, suggesting that a $3,800 subsidy increased college enrollment among noncitizen Mexican youth by 2.3 percentage points, the proportion with at least a high school education by 2.7 percentage points, the proportion with college education by 2 percentage points, and the proportion with at least an associate degree by a statistically insignificant 0.8 percentage points.

In-state tuition is less likely to benefit persons who dropped out without a secondary education because in order to pursue a college education these individuals would first have to obtain a high school diploma. In panel 2 of Table 3, I repeat the above analysis after restricting the sample to those with at least some secondary education. The estimates in columns (1) to (4) of panel 2 are similar to the corresponding estimates in panel 1, with the point estimates being larger in panel 2, as is expected, since the proportion of persons likely to benefit from in-state tuition is higher in the samples used in panel 2 than in the samples used in panel 1.

As mentioned above, a requirement for in-state tuition eligibility is that the student has to have attended high school in the state. It is less likely that individuals who arrived in the U.S. at a relatively older age would enroll in high school in this country. To some extent, restricting the sample by age and years of stay in the U.S. takes care of this issue. Furthermore, I repeat the analysis in panel 1 by restricting the samples to noncitizens who entered the country before turning 20, and the results are presented in panel 3. Note that the sample for the analysis of "whether the person is currently enrolled in college" and "whether the person has at least a high school diploma" does not change with this restriction and therefore the estimated coefficients are the same for these two outcomes. For the other two outcomes, "whether the person has at least some college education" and "whether the person has at least an associate degree," the estimated effects are similar to those in panel 1.

Estimated coefficients in columns (1) to (4) would be biased if there were prepolicy state-specific trends correlated with factors that raise educational outcomes of noncitizen Mexicans. To a large extent, time varying state characteristics (Z_{jt}) in Equation (1) control for these factors; for example, a variable on the proportion of the adult (aged 30 to 54 years) non-Hispanic white population with at least some college education controls for state-specific trends in education and a variable on proportion of the adult (aged 30 to 54 years) Mexican population with at least a

high school diploma controls for trends in educational aspirations of Mexicans. Next, I address this issue directly by repeating the analysis in columns (1) to (4) of Table 3 with additional controls for state-specific linear trends, and the results are presented in columns (5) to (8) of Table 3. Inclusion of state-specific linear trends does not seem to alter the key finding that in-state tuition increased the enrollment and college education of noncitizen Mexican young adults. The estimated coefficient of the effect of in-state tuition on college enrollment is positive and statistically significant using various models, with the point estimates being somewhat larger than the corresponding estimates from models without the trends. The estimated coefficients on whether the respondent had any college education are also positive, using various models, and the point estimates are somewhat larger than those in corresponding models in column (3). However, estimates of whether the respondent had a high school or higher education are much smaller and statistically insignificant in most cases.

To sum up, the analysis so far suggests that the policy of offering undocumented students in-state tuition is associated with increased college enrollment and educational attainment for noncitizen Mexican young adults, of which a large majority are undocumented. Estimates remain robust to a variety of specifications. However, the magnitude of the effect of in-state tuition policy on noncitizen Mexican young adults is too small to narrow the huge gap in college education between Mexican noncitizens and natives (or other noncitizen young adults) in a substantial way. This could be due to the high uncertainty surrounding undocumented immigrants' legalization, which would dampen their demand for college education.[26] Moreover, because a vast majority (two-thirds) of noncitizen Mexican young adults do not have a high school diploma, they cannot pursue a college education even when the tuition subsidy is offered. Finally, despite the subsidy, some students may not have much enthusiasm about college education because of the stringent conditions attached to the policy (for example, the student has to have obtained a high school diploma in the state), which limit eligibility for the tuition subsidy or because even subsidized tuition could be unaffordable for some undocumented persons.

Specification Tests

The estimated effect of in-state tuition policy on Mexican noncitizens presented in Table 3 would be biased if state-year changes in tuition policy were correlated with factors that raised educational outcomes. I perform a number of additional tests to examine the validity of the results in Table 3. I begin with "falsification tests" that estimate Equation (1) by defining the policy variable with (a) a one-year lead, (b) a two-year lead, and (c) a three-year lead. The estimated coefficients on these "pseudo" policy variables should be small unless the policy leads are correlated with factors that raise educational outcomes. Thus, if the estimated value of the policy lead variable in the falsification tests is statistically different from zero, that would be evidence that pre-policy state-specific trends may be confounding the estimates of interest. Indeed, the results of the three falsification tests, presented in Appendix Table 1, show these estimates to be modest and statistically insignificant, thus providing some evidence that there were no state-specific pre-policy trends affecting the estimate of policy on enrollment and educational attainment of Mexican noncitizens.

Next, I examine the effect of in-state tuition for the undocumented on two groups of noncitizens, non-Mexican Latino young adults and non-Latino young adults, who are similar to the Mexican sample in terms of age, citizenship status, period of

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[26] Legalization that will grant both in-state tuition and the right to legally stay in the U.S. is likely to be more effective in improving educational and other life opportunities for undocumented immigrants than a tuition subsidy.

entry, and duration of stay in the U.S., but are less likely to be undocumented and therefore less likely to be beneficiaries of changes in in-state tuition policy for undocumented students.[27] If the in-state tuition policy had the same effect on these groups as it did on noncitizen Mexican young adults, that would suggest that there were unobserved factors correlated with the policy that affected all foreign-born young adults, irrespective of the legality of their presence in the U.S.

Estimated coefficients in Table 4 suggest that in-state tuition policy was associated with modest, sometimes negative, and always statistically insignificant effects on college enrollment and high school and college education of both non-Mexican Latino and non-Latino young adults. Estimated effects remain small and insignificant when the policy is defined in terms of years of policy influence and the subsidy amount. The overall results remain the same when samples are restricted to persons with at least some secondary education or to noncitizens who arrived in the U.S. before turning 20. These tests provide evidence that the estimated effects of in-state tuition policy observed for noncitizen Mexican young adults in Table 3 were not due to some unobserved factors correlated with the state tuition policies that influenced all noncitizens in the same manner.

Next, I examine whether the policy had an adverse effect on the educational outcomes of U.S.-born persons using models similar to those in Table 3 with state-specific linear trends. The sample for this analysis is restricted to persons with at least some secondary education. Table 5 presents the results. In-state tuition policy is found to have a negligible effect on college enrollment and the proportion with at least a high school diploma; however, it raises the proportion with college education by a statistically significant 1.8 percentage points (or 3 percent) and the proportion with a college degree by an insignificant 0.7 percentage points (or 2 percent). Estimates remain the same when the dichotomous policy variable is replaced by tuition subsidy. However, an additional year of exposure to the policy increases enrollment by 0.4 percentage points but lowers the probability of having a high school degree by 0.6 percentage points; it raises the proportion with a college education by 0.6 percentage points and the proportion with a college degree by a statistically insignificant 0.3 percentage points. The effect of years of policy influence on the proportion with at least a high school diploma seems somewhat odd, and appears to be spurious, particularly in light of the estimated effects using the other policy variables. Overall, the majority of the evidence from columns 1 to 4 in Table 5 suggests that in-state tuition policy has a negligible effect on the college enrollment of U.S.-born persons, but a modestly positive and statistically significant effect on their college education. This modestly positive effect may be due to the fact that under IIRIRA, in-state tuition for the undocumented did not exclusively benefit the undocumented, but rather some U.S. citizens as well.

Finally, I examine the effect of in-state tuition on U.S. citizens of Mexican parentage. This is a group of interest because many of these young adults may have undocumented siblings or family members (Fix & Zimmermann, 1999). Thus, in-state tuition for the undocumented influences the average cost of providing college education to children living in families with mixed immigration status. Panel 2 of Table 5 has the estimates of this analysis, using the same model as corresponding regressions in panel 1, with one additional control: whether the respondent is U.S. born. In-state tuition policy is estimated to increase college enrollment of U.S. citizens of Mexican parentage. Tuition subsidy amount is also positively associated with the probability of having a college degree, but the estimated effects of all other policy variables on educational attainment are statistically insignificant.

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[27] Legal noncitizen youth comprise legal temporary residents (for example, those on a student visa), who are ineligible for the tuition subsidy, and legal permanent residents, who have always been eligible for the subsidy and are unaffected by changes in in-state tuition policies for undocumented immigrants.

Table 4. Sensitivity check: Estimated effects of in-state tuition policy for undocumented immigrants on the educational outcomes of non-Mexican noncitizens.

	Non-Mexican Latino Young Adults				Non-Latino Young Adults			
	Currently Attending College (1)	Education ≥ High School (2)	Education ≥ Some College (3)	Education ≥ Associate Degree (4)	Currently Attending College (5)	Education ≥ High School (6)	Education ≥ Some College (7)	Education ≥ Associate Degree (8)
Panel 1: All								
Policy	0.005	−0.005	0.007	0.022	0.010	−0.007	0.015	−0.015
	(0.027)	(0.035)	(0.023)	(0.022)	(0.028)	(0.030)	(0.024)	(0.024)
Years of policy influence	0.005	0.006	0.003	0.011	0.013	−0.008	0.006	−0.002
	(0.010)	(0.013)	(0.009)	(0.008)	(0.008)	(0.007)	(0.009)	(0.010)
Tuition subsidy (dollars in 1,000s)	0.000	−0.001	−0.001	0.003	0.003	−0.002	0.002	−0.001
(Undergraduate colleges)	(0.004)	(0.005)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Tuition subsidy (dollars in 1,000s)	0.006	0.002	−0.001	0.008	0.008	0.001	0.002	−0.006
(Community colleges)	(0.008)	(0.010)	(0.006)	(0.006)	(0.006)	(0.007)	(0.005)	(0.007)
Panel 2: Samples restricted to persons with at least some secondary education								
Policy	0.004	0.010	−0.005	0.022	0.014	−0.005	0.018	−0.016
	(0.031)	(0.039)	(0.028)	(0.027)	(0.029)	(0.029)	(0.023)	(0.024)
Years of policy influence	0.006	0.008	0.000	0.013	0.013	−0.011	0.007	−0.002
	(0.012)	(0.013)	(0.012)	(0.010)	(0.008)	(0.007)	(0.008)	(0.010)
Tuition subsidy (dollars in 1,000s)	0.000	0.001	−0.003	0.004	0.004	−0.001	0.002	−0.001
(Undergraduate colleges)	(0.005)	(0.006)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Tuition subsidy (dollars in 1,000s)	0.004	0.003	−0.004	0.009	0.008	0.001	0.004	−0.005
(Community colleges)	(0.010)	(0.011)	(0.008)	(0.007)	(0.006)	(0.007)	(0.005)	(0.007)
Panel 3: Samples restricted to persons arrived in the U.S. before age 20								
Policy	0.005	−0.005	−0.005	0.027	0.010	−0.007	0.027	−0.025
	(0.027)	(0.035)	(0.032)	(0.024)	(0.028)	(0.030)	(0.031)	(0.034)
Years of policy influence	0.005	0.006	−0.013	0.013	0.013	−0.008	0.011	−0.009
	(0.010)	(0.013)	(0.013)	(0.009)	(0.008)	(0.007)	(0.010)	(0.013)
Tuition subsidy (dollars in 1,000s)	0.000	−0.001	−0.003	0.004	0.003	−0.002	0.001	−0.004
(Undergraduate colleges)	(0.004)	(0.005)	(0.005)	(0.003)	(0.004)	(0.003)	(0.004)	(0.004)
Tuition subsidy (dollars in 1,000s)	0.006	0.002	−0.004	0.010	0.008	0.001	0.005	−0.009
(Community colleges)	(0.008)	(0.010)	(0.009)	(0.006)	(0.006)	(0.007)	(0.006)	(0.008)

Note: CPS-ORG 1997–2005. The samples of analyses (listed as columns headings) are restricted to noncitizens who entered the U.S. after 1987 and have been in the country for at least three years. The dependent variables are listed as column subheadings. Each figure is based on a separate regression that controls for age, gender, marital status, years lived in the U.S., month of the year, state, year and country of birth fixed effects, monthly state unemployment rate, and the proportion of the non-Hispanic white population with at least some college education. Samples are further restricted to persons 17–22 years old in the analysis on currently attending college and education ≥ high school; and to persons 23–28 years old in the analysis on education ≥ some college and education ≥ associate degree. See Table 2 for sample sizes.

* $0.05 < p \leq 0.1$, ** $0.01 < p \leq 0.05$, *** $p \leq 0.01$.

Table 5. Estimated effect of in-state tuition policy for undocumented immigrants on the educational outcomes of U.S. citizens.

	Panel 1: U.S. Born				Panel 2: U.S. Citizens of Mexican Parentage			
	Currently Attending College	Education ≥ High School	Education ≥ Some College	Education ≥ Associate Degree	Currently Attending College	Education ≥ High School	Education ≥ Some College	Education ≥ Associate Degree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Policy	−0.001	−0.002	0.018***	0.007	0.034**	0.019	0.014	0.033
	(0.007)	(0.005)	(0.007)	(0.006)	(0.016)	(0.019)	(0.038)	(0.028)
Years of policy influence	0.004**	−0.006**	0.006***	0.003	0.018***	0.005	0.008	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.006)	(0.005)	(0.007)	(0.005)
Tuition subsidy (dollars in 1,000s)	−0.001	0.000	0.003**	0.002**	0.0036	0.002	0.003	0.007*
(Undergraduate colleges)	(0.001)	(0.001)	(0.001)	(0.001)	(0.0023)	(0.002)	(0.005)	(0.004)
Tuition subsidy (dollars in 1,000s)	0.000	−0.001	0.004**	0.002	0.010**	0.005	0.007	0.012**
(Community colleges)	(0.002)	(0.001)	(0.002)	(0.002)	(0.004)	(0.004)	(0.005)	(0.005)

Note: CPS-ORG 1997−2005. The dependent variables are listed as column subheadings. Each figure is based on a separate regression that controls for age, gender, marital status, race, month of the year, state and year fixed effects, state-specific linear trends, monthly state unemployment rate, and the proportion of the non-Hispanic white population with at least some college education. Regressions for samples of U.S. citizens with Mexican parentage also include a dummy variable for whether the respondent is U.S. born. Samples are further restricted to persons 17–22 year old in the analyses on currently attending college and education ≥ high school; and to persons 23 to 28 year old in the analyses on education ≥ some college and education ≥ associate degree. See Table 2 for sample sizes.

* $0.05 < p \leq 0.1$, ** $0.01 < p \leq 0.05$, *** $p \leq 0.01$.

To sum up, the analysis in Table 5 suggests that in-state tuition subsidy for the undocumented does not have any adverse effect on U.S.-born persons. Indeed, there appears to be some evidence that the policy has a modestly positive and statistically significant effect on the probability that U.S.-born young adults have at least some college education (including those without any degrees). Furthermore, I find that the policy had a positive effect on the college enrollment of U.S. citizens of Mexican parentage, and there is some weak evidence of an increase in their probability of having a college degree.

CONCLUSION

This paper examines the effect of in-state tuition for undocumented students on college enrollment and educational attainment of Mexican young adults who arrived in the U.S. after 1987 and have lived here for at least three years and, therefore, are highly likely to be both undocumented and eligible for in-state college tuition in states that offer this benefit to undocumented immigrants. I find that the policy is 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 in the proportion 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 Mexican young adults with a college degree. All of these estimated coefficients are statistically significant. When the analysis is restricted to samples more likely to be affected by in-state tuition policy (for example, restricted to Mexicans with at least some secondary education), the point estimates become larger. The results are robust to a variety of specifications, including those that measure policy as a dichotomous variable and those that measure policy in terms of tuition subsidy amount. I also find that among Mexican young adults, those potentially eligible for in-state tuition for a longer period are more likely to have experienced increases in college enrollment and college education.

Falsification checks in which the policy variable is defined with a one-, two-, and three-year lead demonstrate that the estimated coefficients of the "pseudo policy" are modest and statistically insignificant, providing some evidence that the estimated effects of in-state tuition policy were not due to pre-policy state-specific trends in factors that raise college education. I repeated the analysis on two groups of noncitizen young adults—non-Mexican Latinos and non-Latinos, who are similar to the Mexican sample in terms of period of arrival and length of stay in the U.S. but less likely to be undocumented and, therefore, less likely to be influenced by changes in in-state tuition policy for the undocumented. The estimated coefficients from this analysis were modest, sometimes negative, and always statistically insignificant, suggesting that the estimated effects of in-state tuition on educational outcomes of Mexican young adults were not due to secular trends in educational outcomes that affected all immigrants.

I do not find any evidence that in-state tuition policy for the undocumented has an adverse effect on the educational outcomes of natives. On the contrary, there is some evidence that the policy caused a small increase in the proportion of U.S.-born young adults with college education, and that it raised the college enrollment of U.S. citizens of Mexican heritage. This may result from the 1996 IIRIRA mandate requiring states to charge U.S. citizens in-state tuition if undocumented immigrants are offered the same. In addition, the latter finding may reflect the reality that many Mexican families in the U.S. are composed of a mixture of citizens, legal residents, and undocumented persons. Thus, a tuition subsidy for the undocumented may increase awareness of the benefits of college education and lower its costs, in turn improving opportunities for college education for citizens with Mexican parentage.

To sum up, this analysis suggests that access to subsidized education increases college enrollment and education of noncitizen Mexicans. However, despite the fact that most states with large immigrant populations now provide in-state tuition to undocumented students, college enrollment and education among Mexicans, who comprise a majority of the undocumented persons in the country today, remains low and the gap in college education between Mexican noncitizens and natives (or other noncitizen young adults) remains wide. It may be that uncertainties surrounding legalization dampen the demand for college education among the undocumented. In addition, because a vast majority (two-thirds) of noncitizen Mexican young adults do not have a high school diploma, they cannot obtain a college education even with the subsidy. Interest in pursuing college education may be curbed by the stringent conditions that limit eligibility for tuition subsidy (for example, the student has to have obtained a high school diploma in the state) and the fear that applying for a tuition subsidy would increase the chance of deportation, as it involves revealing immigration status to the college administration. Finally, even subsidized tuition may be unaffordable for some undocumented persons. Therefore, if the objective is to integrate undocumented youth with the mainstream economy and fully exploit their economic potential, states that offer in-state tuition to the undocumented should undertake or increase outreach programs to encourage undocumented persons to attend college. Such efforts would also help states understand why immigrant response to in-state college tuition has been lukewarm.

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