

## Abstract Title Page

**Title:** The Impact of Tuition Increases on Undocumented College Students' Schooling Decisions

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This paper examines the effect of a short-lived increase in tuition rates on undocumented college students' schooling decisions. In the spring of 2002, the City University of New York (CUNY) reversed its policy of charging in-state tuition rates to undocumented college students who could demonstrate that they migrated to New York at a relatively young age. The policy was in place for exactly one semester; by fall 2002, the New York legislature restored the in-state tuition policy for eligible undocumented youth. I use this unique policy context to examine the impact of tuition increases on undocumented students' schooling choices, including whether to remain enrolled or to disenroll for a semester ("stopout") and whether to enroll part-time instead of full-time. The data are provided by CUNY and the empirical models estimate the difference between documented and undocumented students in fall 2002 relative to earlier and later semesters. The results suggest that the removal of in-state tuition caused undocumented students in the bachelor's degree programs to stopout of school and shift from full-time to part-time enrollment. The findings provide strong evidence that college costs can have a large impact on the collegiate outcomes of undocumented students who have already chosen to attend college and, perhaps more generally, the outcomes of price sensitive college students, including those from low-income backgrounds.

## Abstract Body

### Background / Context:

Undocumented college students lie at the intersection of two major policy debates in the United States: how to reform the immigration system and what to do about the growing cost of obtaining a college diploma. In June of 2012, the Obama administration announced the *Deferred Action for Childhood Arrivals* program, which shields eligible undocumented immigrant youth from deportation and provides them with temporary work authorization. An estimated 1.7 million undocumented youth who migrated to the U.S. with their parents before they were 16 years old are considered eligible for the *Deferred Action* program (Passel and Lopez 2012). Congress is also considering immigration reform once again, with some proposals including elements of the previously-rejected *Development, Relief, and Education for Alien Minors* (DREAM) Act. The DREAM-like proposals would not only prevent deportation but also provide eligible youth with a pathway to permanent residency status and access to federal benefits, such as aid for college. In the meantime, over a dozen states have passed legislation to extend in-state tuition benefits to eligible undocumented college students and some state governments have debated state-level DREAM Acts, which would grant students' access to other public and private sources of college aid. The in-state tuition subsidy represents a nontrivial share of the current estimate of obtaining a four-year degree at a public institution; at most public four-year institutions, the out-of-state cost is more than twice the in-state cost (Hemelt and Marcotte, 2011).

A consensus is emerging on the substantial impact of tuition subsidies on the post-secondary schooling decisions of the nation's youth. A recent review by Deming and Dynarski (2010) points to significant increases in college-going among students whose sticker price dropped due to exogenous sources of aid, such as the introduction of a state merit-based aid program. And two of the three prior studies on the effect of state-level policies that provide in-state tuition benefits to eligible undocumented students find positive effects on Mexican students' college-going (Kaushal, 2009; Flores, 2010), while a third study finds positive estimates only for older Mexican males (Chin and Juhn, 2011).

There are two areas that remain relatively under-explored. The first is the degree to which tuition shocks impact the schooling decisions of inframarginal students—that is, students who have already made the decision to enroll in college and are no longer on the enrollment margin. Little is known, for example, about the effect of tuition changes on inframarginal students' choices to take a leave from school (sometimes referred to as “stopping out”) or to attend school part-time as opposed to full-time. Exceptions include work by Angrist et al. (2011); Bettinger (2004); DesJardins et al. (2002); and Dynarski (2008). The second concerns how tuition shocks affect the decisions of inframarginal students who are undocumented. Undocumented students represent a somewhat unusual subset of the college student population given the many barriers they face to normal young adult pursuits; chief among these barriers is a severely restricted labor market. Undocumented college students are also disproportionately from low-income families, first generation college students, and minorities, and likely more price sensitive than the average college student (Gonzales 2011; Perez 2009). To my knowledge, there are no studies on the effect of college costs on the schooling decisions of undocumented college students.

**Purpose / Objective / Research Question / Focus of Study:**

This paper directly informs these under-researched topics by identifying the impact of a tuition increase at a major urban university system on the enrollment decisions of inframarginal undocumented college students. For only one semester, the City University of New York (CUNY) reversed its long-standing policy of charging in-state tuition rates to undocumented youth who graduated from a New York high school. This one-semester tuition increase for undocumented students offers a natural experiment for examining the effect of tuition on undocumented students' enrollment choices, including their decision to remain enrolled (or stopout) and their choice of full- or part-time enrollment. Correspondingly, the estimation strategy compares the difference between undocumented and documented students college choices in the tuition shock semester to the differences between these two groups in choices made in proximate semesters.

**Setting:**

The data for this study are obtained from CUNY, which educates more than 480,000 students in over 20 public colleges and institutions in New York City.

**Population / Participants / Subjects:**

The analytic sample consists of students who entered a bachelors degree program at one of the CUNY colleges between Fall 1999 and Spring 2001 (N=52,694). These students are then observed for the five semesters that encompass the tuition shock, including Spring 2001 through Spring 2003 (with Spring 2002 at the center of the panel). The data contain information on students' schooling choices and outcomes in each semester, including whether they choose to enroll and the number of courses they pursue conditional on enrollment. Of key interest, the data also record students' citizenship or immigration status in the US for the purpose of tuition determination. Upon enrollment, students are asked to identify themselves as one of the following: US citizen, permanent resident, student visa holder, temporary visa holder, asylum or refugee, or expired visa holder, or undocumented. Students who report that they are US citizens are required to submit documentation and those who either report that they are undocumented or who fail to provide valid documentation (e.g., current or expired visa, temporary authorizations to live and work in the US) are recorded as undocumented.

**Intervention / Program / Practice:**

In the Fall of 2001, shortly after the terrorist attacks of 9/11, officials at CUNY announced that they would be charging out-of-state tuition rates to all immigrant students. This policy reversed the university's previous practice of charging in-state rates to undocumented immigrant students who could demonstrate that they lived in New York or attended a New York State high school for at least one year prior to enrollment. The new policy was in place for exactly one semester (spring of 2002) and was subsequently overturned by the New York State legislature, which passed a law in the summer of 2002 that reinstated in-state tuition benefits for eligible undocumented students. In the spring of 2002, the tuition rates for previously-eligible undocumented students at 4-year colleges more than doubled (from \$133 to \$283 per credit).

With a full-course load of 12 credits, this represented a tuition increase of \$1800 in the spring of 2002.

### **Research Design:**

The estimation approach compares the difference between undocumented and documented students enrollment choices in the tuition shock semester to the differences between these two groups in choices made in proximate semesters. The basic model is as follows:

$$(1) \quad Y_{it} = \gamma_0 + \gamma_1 \mathbf{S}(t) + \gamma_2 \mathbf{S}(t) \times U_{it} + \gamma_3 \mathbf{X}_i + e_{it}$$

where  $Y_{it}$  is one of several schooling choices for student  $i$  in semester  $t$ ; the vector  $\mathbf{S}(t)$  contains fixed effects for each of the five semesters observed;  $U_i$  is set to one if the student is undocumented (where all documented immigrants as well as US citizens comprise the reference group);  $\mathbf{X}_i$  is a vector of covariates, which includes time invariant pre-collegiate attributes (e.g., race/ethnicity, gender), major, and college fixed effects; and  $e_{it}$  is a random error component. The primary estimates of interest are found in  $\hat{\gamma}_2$ , which provide the difference between documented and undocumented students in the schooling outcomes in each semester. The policy change occurred in the middle of the five semesters observed and the treatment effect is determined by comparing the estimate in that semester to the estimates in proximate semesters. The results are also tested for sensitivity to the choice of comparison group (e.g., only in-state tuition eligible documented students), method for addressing correlated error terms, estimation strategy (OLS versus Probit), sample selection due to within-panel graduation, as well as heterogeneity in effects (e.g., by race, gender, and institution).

### **Data Collection and Analysis:**

All administrative data have been obtained from the CUNY system.

### **Findings / Results:**

Preliminary results, which are partially illustrated in the attached figures, reveal a large decrease in the enrollment (overall enrollment and full-time enrollment) of undocumented students in the bachelor's degree program as a result of the tuition increase. Figure 1, for example, shows the raw enrollment rates of students in the bachelor's degree programs by their immigration status (documented versus undocumented) and semester. The dashed line shows the enrollment rate among documented students and the solid line shows the enrollment rate among undocumented students, with the vertical line marking the spring of 2002, when the tuition rates doubled for undocumented students. (As a reminder, the sample includes students who had enrolled in a previous semester and who had not yet graduated from the system; thus, those who are not enrolled in any given semester are either stopouts or dropouts). Figure 1 shows that undocumented students are enrolled at higher rates than their documented peers in all semesters except spring 2002, when their enrollment drops. Regression-adjusted estimates suggest that undocumented students are 4 percentage-points *more* likely to be enrolled than observationally-equivalent documented students in fall 2001 and fall 2002, and approximately 2 percentage points *less* likely to be enrolled in spring 2002 (not shown in Figure). Interestingly, though the

increase in tuition induced students to stop out, the return of the subsidy in the next semester, induced them back into school, indicating that the short-term tuition shock did not cause students to permanently drop out of school. Similar findings are observed for full- versus part-time enrollment, with undocumented students showing marked decreases in full-time enrollment in the semester in which their costs increased (see Figure 2).

### **Conclusions:**

Over 40 percent of students who enroll in a four-year college fail to obtain their degrees within six years and the rates are even higher for students from low-income families (Radford et al., 2010). This paper provides evidence that the tuition supports provided to undocumented students during their college careers significantly increase their retention and increase their likelihood of taking a full course load. Thus, even if tuition subsidies (and, correspondingly, federal and state grants) have no impact on undocumented students' college enrollment, such supports can impact the time that it takes students to obtain their degrees.

A key remaining question is the extent to which undocumented students benefit from their college degrees. Research on immigrant students generally often finds that they are a positively-selected group who often outperform native-born students from similar socio-demographic profiles (e.g., Kao and Tienda 1995; Schwartz and Stiefel 2006). Consistent with this observation, a policy brief by Conger and Chellman (2013) finds that undocumented students in the CUNY system tend to resemble other immigrant groups (namely permanent residents and visa holders) on academics, all of whom earn higher GPAs and accumulate more credits than US citizens. Based on these accounts, it is possible that undocumented youth represent a relatively high ability group, such that the returns to a college degree could be large if barriers to employment were removed. Again, this question deserves further inquiry in order to fully evaluate the net benefits of reforms aimed at increasing the college-going and completion rates of undocumented youth.

The natural experiment examined in this study, combined with the unique data that tracks immigration status, provides for a relatively strong causal design. At the same time, the extent to which these results can be generalized beyond New York City, a city with a longstanding history of immigration, a diverse immigrant population, and an immigrant-supportive climate, is a question that should be further explored with applications in other areas.

## Appendices

### Appendix A. References

- Angrist, Joshua, Daniel Lang, and Philip Oreopoulos. (2009). "Incentives and Services for College Achievement: Evidence from a Randomized Trial." *American Economic Journal: Applied Economics* 1:1, 136-163.
- Bettinger, Eric. (2004). "How Financial Aid Affects Persistence." Chapter 6 in *College Choices: the Economics of Where to Go, When to Go, and How to Pay for It*. Caroline M. Hoxby (editor). University of Chicago Press.
- Chin, Aimee and Juhn, Chinhui. (2011). "Does Reducing College Costs Improve Educational Outcomes for Undocumented Immigrants? Evidence from State Laws Permitting Undocumented Immigrants to Pay In-State tuition at State Colleges and Universities." Chapter 4 (pages 63-94) in *Latinos and the Economy: Integration and Impact in Schools, Labor Markets, and Beyond*. David L. Leal, and Stephen J. Trejo (editors). Springer Press.
- Conger, Dylan and Colin Chellman (2013). "Undocumented College Students in the United States: In-State Tuition Not Enough to Ensure Four-Year Degree Completion." *Education Finance and Policy* 8(3), 364-377, 2013.
- Deming, David and Susan Dynarski. (2010). "Into College, Out of Poverty? Policies to Increase the Postsecondary Attainment of the Poor," in Phil Levine and David Zimmerman, eds. *Targeting Investments in Children: Fighting Poverty When Resources are Limited*.
- DesJardins, S.L., D.A. Ahlburg, and B.P. McCall. (2002). "Simulating the Longitudinal Effects of Changes in Financial Aid on Student Departure from College." *The Journal of Human Resources* 37(3): 653-679.
- Dynarski, Susan. (2008). "Building the Stock of College-Educated Labor." *Journal of Human Resources* 43(3): 576-610.
- Flores, Stella M. (2010). "State Dream Acts The Effect of In-State Resident Tuition Policies and Undocumented Latino Students." *The Review of Higher Education* 33(2), 239-283.
- Gonzales, Roberto G. (2011). "Learning to be Illegal: Undocumented Youth and Shifting Legal Contexts in the Transition to Adulthood." *American Sociological Review* 76(4): 602-619.
- Hemelt, Steven W. and David E. Marcotte. (2011). "The Impact of Tuition Increases on Enrollment at Public Colleges and Universities." *Educational Evaluation and Policy Analysis* 33(4): 435-457.
- Kao, Grace, and Tienda, Marta. (1995). "Optimism and Achievement: The Educational Performance of Immigrant Youth." *Social Science Quarterly* 76(1), 1-19.
- Kaushal, Neeraj. (2008). "In-state Tuition for the Undocumented: Education Effects on Mexican Young Adults." *Journal of Policy Analysis and Management* 27(4), 771-792.
- Passell, Jeffrey S. and Mark Hugo Lopez. (2012). *Up to 1.7 Million Unauthorized Immigrant Youth May Benefit from New Deportation Rules*. Pew Hispanic Center.

Perez, William. (2009). *We ARE Americans: Untold Stories of Undocumented Students in Pursuit of the American Dream*. Stylus Publishing: Sterling, VA.

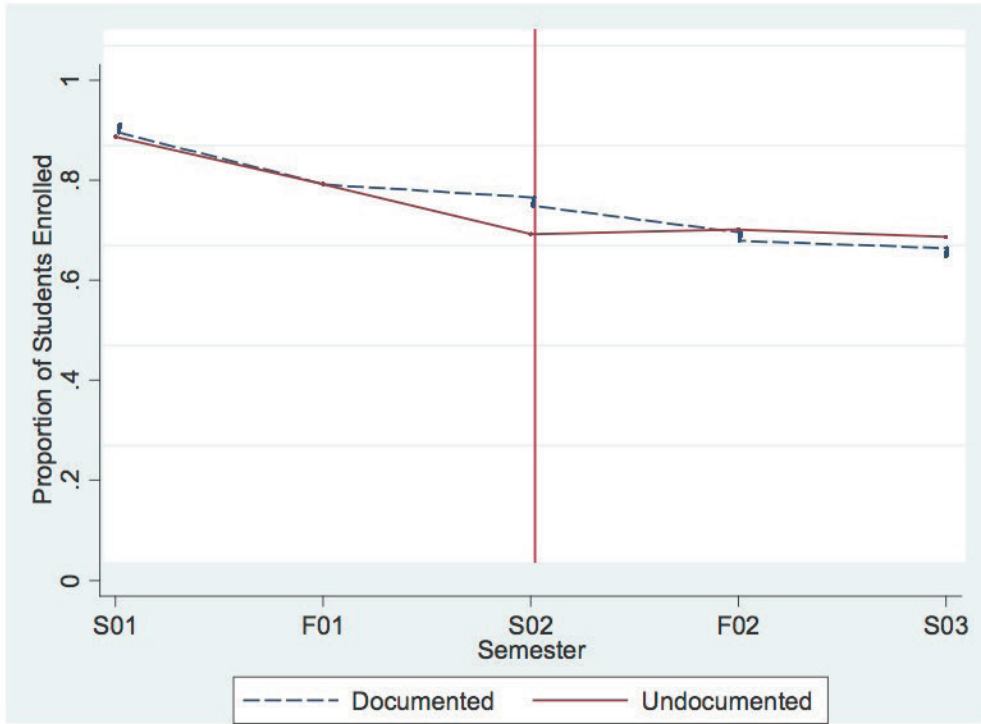
Radford, A.W., Berkner, L., Wheelless, S.C., and Shepherd, B. (2010). *Persistence and Attainment of 2003-04 Beginning Postsecondary Students: After 6 Years* (NCES 2011-151). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Schwartz, Amy Ellen, and Stiefel, Leanna. (2006). "Is There a Nativity Gap? Achievement of New York City Elementary and Middle School Immigrant Students." *Education Finance and Policy* 1, 17-49.



**Appendix B. Tables and Figures**

**Figure 1: Enrollment by Semester and Immigrant Status, Bachelors Degree Students**



**Figure 2: Full-time Enrollment by Semester and Immigrant Status, Bachelors Degree Students**

