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Though the U.S. census does not record immigration status, demographers estimate that approximately 12 million undocumented immigrants resided in the U.S. in 2008, and half of college-age undocumented immigrants are enrolled in college (Passel and Cohn, 2009). Beyond these estimates, almost nothing is known about the academic experiences of the nation's undocumented students. This information is absent from the research literature primarily because researchers have been unable to accurately identify undocumented students in federally-sponsored surveys and other administrative data sources. In this paper, we use restricted-access data from a large, urban public university system that records immigrant students' citizenship status and validates students' self-reports by requiring them to submit documentation. We use data on entrants to this large university system between the years 1999 and 2004 to compare the educational choices and performance of students who are undocumented to those who are U.S. citizens, permanent residents, student visa and temporary visa holders, and refugee and asylum seekers. Preliminary results suggest that undocumented students in both bachelor's and associate degree programs perform well in their first semester and year of college (high levels of credit completion and GPAs) relative to U.S. citizens. Undocumented students are also more likely than US citizens to graduate in two or three years from associate degree programs, but they are less likely to graduate within four and even six years from bachelor's degree programs.

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1. Introduction

Though the U.S. census does not record immigration status, demographers estimate that approximately 12 million undocumented immigrants resided in the U.S. in 2008 (Passel and Cohn, 2008). Nearly 1.5 million of these undocumented migrants are children under the age of 18 and half of undocumented migrants between the ages of 18 and 24 are enrolled in college (Passel and Cohn, 2009). Beyond these estimates, almost nothing is known about the academic experiences of the nation's undocumented students. This information is absent from the research literature primarily because researchers have been unable to accurately identify undocumented students in federally-sponsored surveys and other administrative data sources.

Despite the shortage of information on their progress in school, undocumented college-age students have received significant attention from the media, the public, and policymakers in recent years. State legislation ranges from banning undocumented immigrants from public colleges and universities to allowing them to qualify for in-state tuition if they graduate from a state high school.¹ At the federal level, the Development, Relief, and Education for Alien Minors (DREAM) Act, which would allow some undocumented students to apply for conditional permanent residency status, has been proposed several times. Empirical information on the educational choices and outcomes of undocumented students would improve lawmaker's ability

¹ Federal policy regarding undocumented college students is currently unclear. In the absence of federal guidelines, 12 states have passed legislation that allows undocumented students to qualify for in-state tuition while 4 states have banned the practice. Some states are also proposing to ban undocumented students from public colleges (Dougherty, Neinhusser, and Vega, 2010).

to design policies and programs that assist undocumented students in their pursuit of academic and labor market success.

In this paper, we use a unique dataset from a large university system that records students' immigration status and validates students' self-reports by requiring them to submit documentation. Immigrant students who fail to provide documentation, such as a current visa, are recorded as undocumented. We use data on entrants to this large university system between the years 1999 and 2004 to compare the educational choices and performance of students who are undocumented to those who are U.S. citizens, permanent residents, student visa holders, and temporary visa holders. More specifically, the research addresses the following two questions: 1) How do the educational choices (degree level, choice of major, and part- or full-time attendance status) of undocumented college students differ from those of US citizens and legal immigrants? and 2) How do the academic outcomes (grades, credit completion, and graduation) of undocumented college students differ from those of US citizens and legal immigrants?

2. Prior Research

There are two strands of research on undocumented college students. The first consists of qualitative studies that report detailed interviews from small samples of undocumented students (De Leon, 2005; Abrego, 2006; Diaz-Strong and Meiners, 2007; Perez, 2009; Perez et al., 2009). These studies document the formidable challenges faced by undocumented students, including accessing financial aid, obtaining driver's licenses, working, and avoiding deportation. This area of research also tends to show an ability of many to overcome barriers to college entry and completion (e.g., Perez, 2009).

The second strand of literature uses census data sources to identify the effect of state-level tuition policies on undocumented students' college-going rates (Kaushal, 2009; Flores, 2010). Since individuals who participate in federally-sponsored surveys, such as the Current Population Survey (CPS), are not asked about their immigration status, researchers typically proxy for undocumented status by identifying Mexican-born students who are not citizens. These studies suggest that states that enact in-state tuition policies for undocumented students experience increases in the college enrollment of their Mexican-origin non-citizen residents.

To our knowledge, there are no studies that both accurately identify undocumented college students and present large-N evidence on their academic choices and outcomes. There are, however, many studies on the academic experiences of the nation's immigrant students, irrespective of their citizenship status. These studies often suggest that despite the unique challenges faced by immigrant students, such as limited familiarity with U.S. culture and norms, they often outperform native-born students who have similar racial/ethnic and socioeconomic profiles (Kao and Tienda, 1995; Fuligni, 1997; Portes and Rumbaut, 2001; Glick and White, 2003; Schwartz and Stiefel 2006; Conger, Schwartz, and Stiefel, 2007; Stiefel, Schwartz, and Conger, 2009).

Undocumented students can be expected to face many more barriers to college entry and success than immigrant students with legal status. The absence of documentation restricts students' access to a number of essential opportunities, such as legal employment, federal financial aid (and many other sources of aid), driver's licenses, and other public benefits. One expectation is, therefore, that the educational choices of undocumented students will be more restricted and their academic outcomes will be significantly lower than those of legal immigrants and native-born students. For instance, given their limited access to federal aid, undocumented

students may disproportionately enroll in high-return degree programs or work part-time. They might also take longer to complete their degree or drop out at higher rates than observationally-equivalent native-born and documented immigrant students. In addition, though the students in our study come from a state that charges in-state tuition rates to many undocumented students, undocumented immigrant students are sometimes banned from certain majors, such as nursing programs due to restrictions promulgated by related professional associations or employers (e.g., hospitals are not allowed to hire nurses without proof of citizenship or residency status).

At the same time, prior research often points to a resiliency among the general immigrant population, and it is quite possible that undocumented students possess even greater ambitions and motivations than the average immigrant and native-born student. For these reasons, it is difficult to predict *a priori* whether the analysis will show undocumented students under- or out-perform their peers in college. We have organized our analysis in an effort to identify not only the experiences of undocumented students, but also those of other immigrant students with varying levels of security in their documentation, ranging from refugee/asylum grantees to permanent residents. To the extent that the security of documentation matters to students outcomes, we may see patterns among the immigrant students according to their level of documentation.

3. Data and Methodology

3a Data Source and Sample

The data are taken from an urban university system that educates more than 260,000 degree-seeking students on 17 campuses. In addition to tracking academic choices and outcomes in the university system, the data record students' demographic backgrounds, including their

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, asylee or refugee, 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. In addition to recording these essential data elements, the system tracks student academic choices (e.g., institution, major, full time attendance status, and coursework) and their academic progress. Our analytic sample consists of the 51,844 students who enrolled in bachelor's degree programs and the 42,501 students who enrolled in associate degree programs between the fall of 2004 and the fall of 2009. Students with complete data on all variables used in the analysis are included. All students are observed until 2009-2010, permitting analyses of 4- and 6-year graduation rates for the bachelor's degree students.

3b Method

Our first goal is to establish an empirical baseline on the educational choices and outcomes of students by their documentation status. Thus, we present several descriptive statistics on the demographic and high school experiences (e.g., race/ethnicity, SAT scores), college choices and enrollment characteristics (e.g., majors, need for remediation), and college outcomes (e.g., grade point average (GPA), retention, graduation) of undocumented students relative to the four other groups described above (refugees, asylee, and expired visa holders; student or temporary visa holders; permanent residents; and US citizens). The average characteristics of each group are presented, with a major focus on the differences between undocumented students and US citizens.

Our second goal is to determine how much of the raw differences in students college outcomes are due to students' documentation status versus other correlates of documentation status, such as race/ethnicity and high school performance. Thus, we estimate models of the following form:

$$(1) Y_{icm} = \beta_0 + \beta_1 I_i + \beta_2 X_i + d_c + d_m + v_{icm}$$

where Y_{icm} is one of several academic outcomes for student i , I_i are dummy variables that capture student i 's immigration/documentation status, X_i are pre-college student-level covariates (e.g., race/ethnicity, SAT scores) and enrollment characteristics (e.g., year of enrollment, need for remediation), d_c are college-level fixed effects, d_m are college major fixed effects, and v_{icm} is a random error component. In our two models of graduation (4- and 6-year graduation for bachelor's degree students and 2- and 3-year graduation for associate degree students), we add to the right-hand side of Equation (1) controls for students first semester GPA and credit completion rates. GPA and credit completion rate models are estimated with OLS while retention and graduation models are estimated with probits; all models are estimated with robust standard errors.

4. Results

4a. Unadjusted Differences in Backgrounds and College Choices

Table 1 provides a description of the demographic characteristics of the five groups of students according to their citizenship or documentation status, with the last column providing statistics on all students. Undocumented students comprise approximately 2% of the full sample of 94,345 students in the two degree programs. Undocumented students and students who are permanent residents or US citizens are equally likely to be enrolled in a baccalaureate program

(approximately 53-55%), while the other two groups (refugees, asylee, and expired visa holders as well as student or temporary visa holders) of students have somewhat higher rates of enrollment in a baccalaureate program.

Panel A of Table 1 provides the demographic characteristics of baccalaureate students and Panel B provides the characteristics for associate students (all tables from here forward provide the same two panels; figures shown are proportions except mean age). The largest differences between the groups are in their racial/ethnic composition: Compared to US citizens, all immigrant groups are two to three times more likely to be Asian. Approximately equal shares of US citizens and undocumented students are Hispanic, however.

(Tables 1 here)

Table 2, which provides the high school characteristics of the groups, shows that undocumented students are more likely to have graduated from a New York City public high school than US citizens and student or temporary visa holders. This difference is likely driven by the policy regarding in-state tuition rates, which are only available to undocumented students who graduated from a New York City high school. Table 2 also provides three measures of high school performance. The first two measures are the College Admissions Average (CAA) (or high school grade point average) and College Preparatory Initiative (CPI) units (or the number of college preparatory courses a student took in high school).² The third measure is the Scholastic

² High school units (or CPI units), total and by subject, are calculated as the number of units taken in courses designated as college-preparatory by the University Application Processing Center (UAPC), which is charged with standardizing high school course credits and grade point averages within and across school districts. Generally, a full year course is worth 1 unit; units are pro-rated for courses offered for less than a full-year (e.g., a one-semester course is worth 0.5

Aptitude Test (SAT) score, which provides the students' combined score on the verbal and math portions of the national college entrance exam, administered by the College Board. In terms of college prep credits and grades (the CPI and CAA), all groups of immigrants perform better than US citizens, with permanent residents as the second lowest scoring group. For the immigrants who were educated in foreign countries, their higher high school grades and credits could be due to differences across countries in curriculum and grading standards. Yet on SAT scores, undocumented students earn lower scores than their US citizen peers, only slightly higher than permanent residents.

(Table 2 here)

Table 3 presents a portrait of the students' post-secondary educational choices and program participation, including full-time versus part-time status, remedial needs, receipt of a Pell grant, majors, and semester and year of enrollment (all figures shown are proportions). Undocumented students are slightly less likely than citizens to be enrolled full-time in each year of enrollment.

Among the ~~bachelor's~~ baccalaureate students, the undocumented students have similar rates of remedial needs as citizens, while permanent residents have the highest rate of need (75%) and refugees and temporary visa holders the lowest rates. SEEK (Search for Education, Elevation, and Knowledge) is a program that allows students with some remedial need to enter senior (four year) colleges if they come from educationally and financially disadvantaged backgrounds. Students with remedial need in Reading, Writing, or Math are normally not admitted to senior colleges unless they are admitted through SEEK or they complete remedial coursework (and pass

units). A student's overall CAA is calculated as the weighted average of grades received in all high school courses designated as college preparatory by UAPC: English, Math, Social Sciences, Science, Foreign Language, and Fine Arts.

an exam) in the summer prior to college entry. The fact that undocumented students have lower rates of SEEK participation than US citizens suggests that they are more likely to have completed their remedial credits prior to enrolling in college. The enrollment figures in both panels reveal that the citizen population grew steadily from 1999 to 2004, while the undocumented share held at about 0.02 to 0.03 across the years. There was also a slight decrease in the share of students who are permanent residents and a slight increase in the share who are refugees, asylum seekers, or expired visa holders.

(Table 3 here)

Table 4 shows that undocumented students choose majors very similar to those of other students, with approximately half of all groups of students choosing Liberal Arts and Sciences or Business, Management, and Marketing as their majors. Interestingly, undocumented students are slightly more likely to major in Business and far less likely to major in Security and Protective Services at the baccalaureate level, perhaps reflecting their concerns about the documents required to obtain jobs in the latter industry.

(Table 4)

4b. Raw and Regression-Adjusted Differences in College Outcomes

Tables 5 and 6 provide regressions of college outcomes as described in Equation (1), where US citizens are the reference group. Table 5 focuses on first semester outcomes (GPA, credit completion rates, and retention) and Table 6 focuses on graduation rates. In Table 5, the first specification for each of the three dependent variables includes no controls, while the second specification holds constant all pre-college, college choice and enrollment variables shown in Tables 1, 2, and 3, as well as 10 college fixed effects.

The results from columns I, III, and V of Table 5 (the raw differences between groups) suggest that undocumented students in both degree programs have slightly higher GPAs and credit completion rates than US citizens. In the baccalaureate program, for instance, undocumented students earn 0.163 higher points on the 4-point GPA scale in their first semester than US citizens. The high rates of credit completion and GPAs do not seem to be unique to undocumented students; in fact, students who are on temporary or student visas or who are permanent residents also outperform US citizens in both programs. The refugee, asylee, and expired visa holders ~~associate~~ earn high GPAs and credit completion rates in the associate program, but less so in the baccalaureate program. The student/temporary visa and permanent resident groups have higher one-year rates of retention than US citizens at both the associate and baccalaureate levels; ~~associate~~ the undocumented and refugee groups are retained at higher rates than their US citizen peers only at the associate level.

With the full set of controls (see the results in columns II, IV, and VI), the story is somewhat, but not largely, changed. Undocumented students still earn higher GPAs in the first semester than US citizens, and in the associate program, they are more likely to be retained after one year. On credit completion, however, there are no differences between undocumented students and US citizens. The temporary/student visa holders and permanent residents also appear to earn lower rates of credit completion in the adjusted models compared to US citizens; perhaps reflecting the majors they choose. On balance, the results from Table 5 suggest that by the end of their first year, undocumented students fare well relative to US citizens and several other immigrant groups.

(Table 5 here)

Table 6 focuses on graduation rates. The unadjusted results (shown in columns I and IV for baccalaureate programs and columns VII and X for associate programs) suggest that

undocumented students graduate at the same rates as US citizens in the 4-year programs and at a higher rate in the 2-year programs. Adjusting for pre-college controls and early college choices (including major and college fixed effects), however, reveals lower rates of 4 and 6-year graduation for undocumented students versus citizens (see columns II and V – results in V are statistically insignificant). Controls for first semester performance (GPA and credit completion rate) further lowers the undocumented students graduation rates relative to US citizens (see columns III and VI). In the associate program, the advantage that undocumented students hold is attenuated, but not eliminated, with the addition of control variables. While permanent residents earn the highest 6-year baccalaureate graduation rates, refugees are less likely to graduate in 6 years by almost 11 percentage-points after conditioning on pre-college and early college experiences.

The results from the fully-adjusted models (after controlling for first year performance) suggest that gaps between undocumented students, refugees, and UC citizens in baccalaureate programs emerge after the first semester, perhaps reflecting choices (decisions to work full-time) and opportunities (e.g., limited access to aid) during college, although the same gaps do not exist in associate programs.

(Table 6 here)

5. Conclusions

This paper provides, to our knowledge, the first large-N empirical estimates of the educational experiences and outcomes of undocumented students in U.S. colleges and universities. Using restricted-access data from a city-wide university system that records students' documentation status, we compare the experiences of undocumented students in

baccalaureate degree programs to those who are US citizens, permanent residents, visa holders, and refugees. Though the focus of our paper is on the undocumented students, we also shed light on the experiences of these other non-citizen student populations.

Our results reveal several insights. First, undocumented students who enroll in baccalaureate and associate programs arrive with relatively competitive high school GPAs and credits (although they have lower SAT scores). Second, upon enrollment, they also choose similar majors as their US citizen peers, but are less likely to enroll full-time and more likely to require remediation prior to enrollment. Third, they fare relatively well in the first semester of college, earning higher GPAs and college credit completion rates than US citizens and, in the 2-year degree programs, experiencing higher one-year retention rates. At the same time, undocumented students in 4-year degree programs have a lower probability of graduating in 4 or 6 years than US citizens. The opposite story is true for students in associate programs, where undocumented students are more likely to graduate within 2-3 years.

These results can be viewed through two lenses. On the one hand, we might have expected undocumented college students to be struggling, given the challenges associated with lack of documentation. Yet this does not seem to be the case. Indeed, the findings here are consistent with the research on immigrants generally who, perhaps due to their selectivity, tend to outperform native-born students. This study suggests that, despite the barriers that the absence of documentation are likely to pose, immigrant students without authorization are perhaps just as positively selected as those with documentation. On the other hand, the lower rates of on-time and 6-year graduation for undocumented students in bachelor's degree programs raise concerns about additional barriers that they may be facing while in college and their labor market prospects. The same is true of refugee and asylee students who appear to have the lowest rates

of on-time graduation from bachelor's degree programs. These same barriers, however, do not seem affect associate students; rather, they may affect associate students differently. Barriers to entry into nursing programs at the associate level, for example, may force undocumented students into majors with higher graduation rates.

We offer two important reminders that may render the findings from this inquiry unique. First, the setting is one of the largest cities in the US with a relatively diverse student population (of both natives and immigrants) and a relatively unique immigrant population (e.g., compared to other urban areas such as Los Angeles, there are relatively few immigrants from Mexico). Thus, the undocumented students in this college system, many of whom attended high schools in the same city, may not be typical of undocumented students across the nation. Second, there is the possibility of differential selection into college (between undocumented students and US citizens), which may threaten the internal validity of the findings. While we have no way of estimating the proportion of all undocumented high school students who continue on to college, we think we can safely assume that undocumented students are less likely to enroll in college than US citizens. Thus, the undocumented youth who do enroll may be somewhat higher on the unobserved ability distribution than US citizens. If these patterns hold, then we expect an upward bias on our undocumented student coefficients (relative to US citizens), which would suggest that if college were made accessible to a larger population of undocumented students, we might observe them performing worse than what we have presented in this analysis.

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Table 1: Demographics by Documentation Status

	Undocumented	Refugee, Asylum Seeker, Expired Visa	Student or Temporary Visa Holder	Permanent Resident	Citizen	All
Number of students	2,165	403	3,002	20,831	67,944	94,345
Proportion of sample	0.02	0.00	0.03	0.22	0.72	1.00
Proportion Baccalaureate	0.53	0.63	0.61	0.55	0.55	0.55
Panel A: Baccalaureate						
Number of students	1,142	252	1,833	11,375	37,242	51,844
Proportion of sample	0.02	0.01	0.04	0.22	0.72	1.00
Female	0.61	0.55	0.56	0.61	0.58	0.59
White	0.17	0.19	0.21	0.28	0.38	0.34
Black	0.23	0.22	0.28	0.18	0.20	0.20
Hispanic	0.28	0.12	0.11	0.19	0.28	0.25
Asian	0.32	0.46	0.40	0.35	0.15	0.20
Age	18.60	18.80	19.00	18.70	18.40	18.50
Panel B: Associate						
Number of students	1,023	151	1,169	9,456	30,702	42,501
Proportion of sample	0.02	0.00	0.03	0.22	0.72	1.00
Female	0.58	0.61	0.58	0.57	0.56	0.57
White	0.14	0.21	0.16	0.17	0.30	0.26
Black	0.31	0.34	0.39	0.28	0.31	0.30
Hispanic	0.29	0.17	0.12	0.27	0.32	0.30
Asian	0.27	0.28	0.34	0.28	0.08	0.13
Age	19.00	19.20	19.60	19.50	19.00	19.10

Notes: i) Sample includes all cohorts entering in Fall or Spring between Fall 1999 and Fall 2004.

Table 2: High School Experience by Documentation Status

	Undocumented	Refugee, Asylum Seeker, Expired Visa	Student or Temporary Visa Holder	Permanent Resident	Citizen	All
Panel A: Baccalaureate						
NYC DOE high school	0.84	0.87	0.63	0.87	0.65	0.71
GED	0.005	0.008	0.002	0.007	0.009	0.008
Foreign high school	0.01	0.04	0.20	0.02	0.00	0.01
CPI	19.00 (3.60)	20.10 (3.80)	19.20 (4.00)	18.90 (3.80)	18.30 (3.40)	18.50 (3.60)
CAA	84.00 (5.80)	85.10 (5.90)	85.40 (6.30)	82.80 (6.40)	81.40 (6.30)	81.90 (6.40)
Combined SAT	959.20 (154.70)	990.60 (150.60)	1011.70 (156.00)	925.20 (169.20)	992.10 (168.30)	977.40 (170.10)
Panel B: Associate						
NYC DOE high school	0.84	0.85	0.64	0.85	0.69	0.73
GED	0.04	0.01	0.02	0.05	0.04	0.04
Foreign high school	0.01	0.02	0.20	0.04	0.00	0.02
CPI	15.90 (4.20)	16.90 (4.30)	16.00 (4.50)	15.20 (4.30)	14.80 (3.70)	14.90 (3.90)
CAA	77.00 (6.40)	77.70 (7.10)	77.70 (7.30)	75.50 (6.50)	73.70 (5.60)	74.30 (6.00)
Combined SAT	794.10 (142.10)	812.10 (150.10)	848.50 (162.20)	768.90 (149.40)	808.90 (140.90)	800.70 (144.70)

Notes: i) Sample includes all cohorts entering in Fall or Spring between Fall 1999 and Fall 2004. ii) Means are shown in cells and standard deviations appear in parentheses. iii) "NYC DOE" stands for New York City Department of Education, "GED" stands for General Equivalency Diploma, "CPI" stands for college preparatory initiative credits taken in high school, and "CAA" stands for high school grade point average in courses determined to be college preparatory by this large urban university system.

Table 3: College Choices and Enrollment Characteristics by Documentation Status

	Undocumented	Refugee, Asylum Seeker, Expired Visa	Student or Temporary Visa Holder	Permanent Resident	Citizen	All
Panel A: Baccalaureate						
Full-time attendance						
1st year	0.68	0.69	0.79	0.88	0.83	0.84
2nd year	0.58	0.62	0.70	0.80	0.76	0.76
3rd year	0.54	0.59	0.66	0.72	0.70	0.70
4th year	0.49	0.51	0.62	0.67	0.64	0.64
5th year	0.48	0.51	0.51	0.56	0.52	0.53
6th year	0.39	0.42	0.41	0.45	0.44	0.44
Needed any remediation	0.66	0.56	0.58	0.75	0.64	0.66
SEEK	0.01	0.02	0.00	0.07	0.05	0.05
Pell receipt	0.00	0.20	0.03	0.76	0.55	0.57
Spring entrant	0.12	0.16	0.16	0.13	0.11	0.12
Enrolled in school year						
1999-2000	0.02	0.00	0.03	0.29	0.66	1.00
2000-2001	0.03	0.00	0.03	0.25	0.70	1.00
2001-2002	0.03	0.00	0.03	0.25	0.70	1.00
2002-2003	0.02	0.00	0.03	0.21	0.73	1.00
2003-2004	0.03	0.01	0.03	0.17	0.77	1.00
2004-2005 (fall only)	0.03	0.01	0.02	0.16	0.78	1.00
Panel B: Associate						
Full-time attendance						
1st year	0.82	0.89	0.88	0.94	0.92	0.92
2nd year	0.78	0.79	0.86	0.91	0.90	0.90
3rd year	0.79	0.83	0.85	0.90	0.88	0.88
4th year	0.66	0.67	0.69	0.76	0.74	0.74
5th year	0.43	0.56	0.51	0.55	0.52	0.52
6th year	0.41	0.41	0.47	0.39	0.39	0.39
Pell receipt	0.00	0.17	0.03	0.74	0.49	0.52
Spring entrant	0.07	0.05	0.11	0.06	0.05	0.06
Enrolled in school year						
1999-2000	0.02	0.00	0.03	0.27	0.69	1.00
2000-2001	0.03	0.00	0.04	0.27	0.67	1.00
2001-2002	0.02	0.00	0.04	0.24	0.70	1.00
2002-2003	0.02	0.01	0.04	0.21	0.73	1.00
2003-2004	0.02	0.01	0.04	0.18	0.75	1.00
2004-2005 (fall only)	0.02	0.01	0.04	0.17	0.76	1.00

Notes: Sample includes all cohorts entering in Fall or Spring between Fall 1999 and Fall 2004.

Table 4: Majors by Documentation Status

	Undocumented	Refugee, Asylum Seeker, Expired Visa	Student or Temporary Visa Holder	Permanent Resident	Citizen	All
Panel A: Baccalaureate						
Liberal Arts & Sciences, General Studies	0.28	0.23	0.27	0.24	0.29	0.28
Business, Management, Marketing	0.22	0.22	0.25	0.28	0.17	0.20
Psychology	0.07	0.06	0.06	0.06	0.08	0.07
Social Sciences	0.07	0.07	0.07	0.07	0.07	0.07
Security & Protective Services	0.02	0.03	0.01	0.03	0.06	0.05
Education	0.03	0.04	0.02	0.03	0.05	0.05
Health Professions & Related Clinical	0.04	0.04	0.03	0.05	0.05	0.05
Computer & Information Sciences	0.04	0.02	0.06	0.05	0.03	0.03
English Language & Literature/Letters	0.03	0.03	0.02	0.02	0.04	0.03
Visual & Performing Arts	0.03	0.02	0.03	0.02	0.03	0.03
Other	0.17	0.25	0.18	0.15	0.14	0.14
Panel B: Associate						
Liberal Arts & Sciences, General Studies	0.26	0.25	0.23	0.22	0.30	0.28
Business, Management, Marketing	0.22	0.23	0.26	0.25	0.18	0.20
Psychology	0.03	0.03	0.02	0.03	0.03	0.03
Social Sciences	0.02	0.02	0.03	0.03	0.04	0.03
Security & Protective Services	0.05	0.08	0.03	0.05	0.08	0.07
Education	0.03	0.03	0.02	0.03	0.04	0.04
Health Professions & Related Clinical	0.12	0.11	0.10	0.10	0.08	0.09
Computer & Information Sciences	0.07	0.06	0.10	0.10	0.05	0.07
Engineering Technologies/Technicians	0.05	0.04	0.05	0.05	0.03	0.04
Visual & Performing Arts	0.03	0.03	0.06	0.03	0.04	0.04
Other	0.12	0.12	0.11	0.12	0.12	0.12

Notes: Sample includes all cohorts entering in Fall or Spring between Fall 1999 and Fall 2004.

Table 5: Regressions of Early College Outcomes

	GPA (1st Semester)		Credit Completion Rate (1st Semester)		1-Year Retention	
	I	II	III	IV	V	VI
Panel A: Baccalaureate						
Undocumented	0.163*** (0.026)	0.051*** (0.017)	3.744*** (0.637)	0.064 (0.441)	0.005 (0.010)	-0.017 (0.012)
Refugee, Asylum, Expired Visa	0.086 (0.059)	0.044 (0.034)	0.065 (1.569)	-1.576* (0.949)	0.001 (0.022)	-0.010 (0.024)
Student or Temporary Visa	0.302*** (0.021)	0.112*** (0.013)	4.279*** (0.512)	-1.456*** (0.347)	0.024*** (0.008)	0.013 (0.008)
Permanent Resident	0.099*** (0.010)	0.037*** (0.006)	2.052*** (0.252)	-0.494*** (0.174)	0.046*** (0.004)	0.023*** (0.004)
Controls	No	Yes	No	Yes	No	Yes
Observations	51055	51055	51055	51055	51055	51055
Panel B: Associate						
Undocumented	0.331*** (0.034)	0.048** (0.021)	7.326*** (0.895)	0.733 (0.577)	0.060*** (0.013)	0.026* (0.015)
Refugee, Asylum, Expired Visa	0.524*** (0.080)	0.152*** (0.046)	8.518*** (2.084)	-2.086 (1.270)	0.090*** (0.032)	0.049 (0.036)
Student or Temporary Visa	0.675*** (0.030)	0.187*** (0.019)	12.325*** (0.697)	-1.462*** (0.500)	0.100*** (0.011)	0.053*** (0.014)
Permanent Resident	0.305*** (0.013)	0.058*** (0.008)	6.999*** (0.362)	-0.106 (0.234)	0.075*** (0.005)	0.024*** (0.006)
Controls	No	Yes	No	Yes	No	Yes
Observations	41035	41035	41035	41035	41035	41035

Notes: i) Figures are estimates (and standard errors) from regressions of each dependent variable shown in the column on all variables in the rows. Controls include all variables shown in Tables 1, 2, and 3, major fixed effects, and 10 college fixed effects (omitting the most prevalent institution). Reference group are citizens. ii) The GPA and credit completion models are estimated with OLS, while the retention models are estimated with probit and marginal effects are reported. iii) Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Regressions of College Completion

	Four-year graduation			Six-year graduation		
<i>Panel A: Baccalaureate</i>	I	II	III	IV	V	VI
Undocumented	-0.012 (0.011)	-0.017* (0.010)	-0.021*** (0.008)	0.011 (0.017)	-0.028 (0.018)	-0.050*** (0.018)
Refugee, Asylum, Expired Visa	-0.044** (0.019)	-0.055*** (0.015)	-0.047*** (0.011)	-0.033 (0.035)	-0.099*** (0.034)	-0.108*** (0.034)
Student or Temporary Visa	0.043*** (0.010)	0.015* (0.009)	0.002 (0.007)	0.075*** (0.013)	0.026* (0.015)	-0.001 (0.015)
Permanent Resident	-0.001 (0.004)	-0.002 (0.004)	-0.005 (0.003)	0.056*** (0.006)	0.019*** (0.007)	0.012* (0.007)
Pre-college, college choice & enrollment controls	No	Yes	Yes	No	Yes	Yes
First semester college performance controls	No	No	Yes	No	No	Yes
Observations	51055	51055	51055	51055	51055	51055
	Two-year graduation			Three-year graduation		
<i>Panel B: Associate</i>	VII	VIII	IX	X	XI	XII
Undocumented	0.008** (0.004)	0.005* (0.003)	0.002* (0.001)	0.044*** (0.011)	0.034*** (0.011)	0.024*** (0.009)
Refugee, Asylum, Expired Visa	0.007 (0.009)	0.002 (0.006)	0.001 (0.002)	0.016 (0.026)	-0.003 (0.022)	-0.007 (0.018)
Student or Temporary Visa	0.018*** (0.004)	0.008*** (0.003)	0.002* (0.001)	0.077*** (0.011)	0.056*** (0.011)	0.028*** (0.009)
Permanent Resident	-0.000 (0.001)	-0.001 (0.001)	-0.000 (0.000)	0.008** (0.004)	-0.003 (0.004)	-0.007** (0.003)
Pre-college, college choice & enrollment controls	No	Yes	Yes	No	Yes	Yes
First semester college performance controls	No	No	Yes	No	No	Yes
Observations	41035	41035	41035	41035	41035	41035

Notes: i) Figures are estimates (and standard errors) from regressions of each dependent variable shown in the column on all variables in the rows. Models include 10 college fixed effects (omitting the most prevalent institution) and major fixed effects (omitting Liberal Arts And Sciences, General Studies And Humanities, the most prevalent major). "Pre-college, college enrollment, & choice controls" refers to characteristics shown in Tables 1, 2, and 3. "First semester college performance controls" include first year GPA and credit completion rates (in Associate models, it also includes Needing remediation in any subject). Reference group are citizens. ii) Models are estimated with probit models and marginal effects are reported. iii) "Other resident" includes refugees, asylum seekers, and students with expired visas. iv) Robust standard errors are reported in