

Supply and Demand in the Higher Education Market: College Enrollment

Amal Kumar
The College Board

Michael Hurwitz
The College Board

Summary

- Between 2002 and 2012, the number of Hispanic/Latino first-time, degree-seeking students across all sectors doubled from 236,000 to 475,000. In 2002, these students comprised 10% of all first-time, degree-seeking students, and by 2012 their share had increased to 16%.
- In 2008, the number of Hispanic/Latino high school graduates exceeded the number of black/African American high school graduates for the first time. However, it was not until 2011 that the number of first-time, degree-seeking Hispanic/Latino postsecondary students outnumbered black/African American students.
- Between 2002 and 2012, the number of black/African American first-time, degree-seeking students at for-profit colleges and universities quadrupled, peaking in 2010 before declining slightly over the past few years.

Higher education in the United States is a complex and multilayered system where open-access community colleges coexist with highly selective, 4-year institutions to which only a handful of students each year gain access. Each institution plays a unique role in this marketplace, and students across the spectrum engage with the system at different — and often, multiple — levels. Much of the national debate about postsecondary education in the United States in recent years has centered on the pervasive gaps in access to, and success in, higher education — across racial/ethnic, socioeconomic, or gender lines. This discourse typically takes a narrow view, focusing on one type of institution (e.g., for-profit colleges) or one type of student (e.g., low-income, first-generation students). Much of this popular narrative misses the forest for the trees, failing to situate individual students' contexts in the larger narrative of supply and demand in the higher education marketplace.

This research brief, along with its companion brief *Supply and Demand in the Higher Education Market: College Admission and College Choice* (Hurwitz & Kumar, 2015), aims for a wider lens by including the universe of postsecondary institutions in the United States and situating the racial/ethnic gaps in

college enrollment in the context of the changing American demographic. This brief takes a data-based approach to describing trends in college admission, primarily focusing on how the changing face of the U.S. high school graduate has translated into the shifting demographic of the U.S. first-time college student. Data used in the following analyses come from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) and the Private School Survey, as well as from the Western Interstate Commission for Higher Education (WICHE).

We believe that the information contained in this brief will be useful to high school counselors and admission practitioners seeking to situate their particular experiences and challenges in a larger geographic and temporal context as well as to lay readers seeking to engage more fully with the national higher education debate. This brief unfolds in three parts: First, we briefly describe the high-level trends in high school graduation and college enrollment, paying special attention to the outcomes of different race/ethnic groups. We then disaggregate college enrollment by college institution level and examine how different racial/ethnic groups interact with the system at different levels, and finally, briefly identify a few key trends in the migration patterns in higher education market.

High School Graduates

Understanding the changing numbers and demographics of new high school

graduates over the past decade is a necessary precursor to any discussion of enrollment trends in higher education. Figure 1 displays the number of public and private high school graduates, in thousands, disaggregated by race/ethnicity between 2002 and 2012. Two patterns are immediately evident. First, the total number of high school graduates, represented by the height of each bar, has increased steadily over the first decade of the 21st century, peaking in 2011, according to WICHE estimates (Prescott & Bransberger, 2012). The peak-and-decline seen in the number of high school graduates in Figure 1 is in part due to declining birth rates in the United States starting in the late 1990s after a period of stability in the 1980s, and despite increasing high school graduation rates, the aggregate number of high school graduates is projected to continue declining in the next few years.

The second pattern to note from Figure 1 is the increasing diversification of each successive graduating class. While 70% of the high school graduating class of 2002 were white (2.02 million students), only 60% of the high school graduating class of 2012 were white, a decline in both number (an estimated 11,000 fewer students) and share (10 percentage points). Conversely, the decade spanning 2002 through 2012 saw increases in both the number and share of African American high school graduates (114,000 additional students; 1.7 percentage points) and Hispanic/Latino graduates (250,000 additional students, 6 percentage points). The rapid growth of the

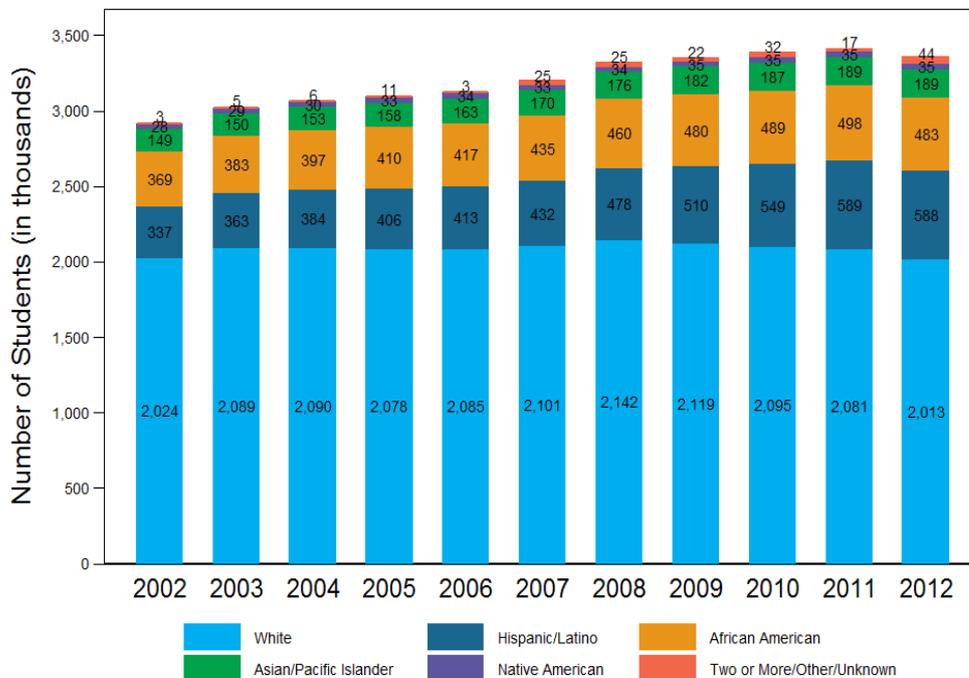
Hispanic/Latino subpopulation is perhaps best exemplified through the following statistic: By 2008, Hispanic/Latino students had overtaken African American students as the largest single minority ethnic group among high school graduates. The patterns remain much the same when we move from secondary to postsecondary education.

College Enrollment

Figure 2 displays the total number of first-time undergraduate students at colleges and universities within the United States between 2002 and 2012. Looking at the total height of the bars,

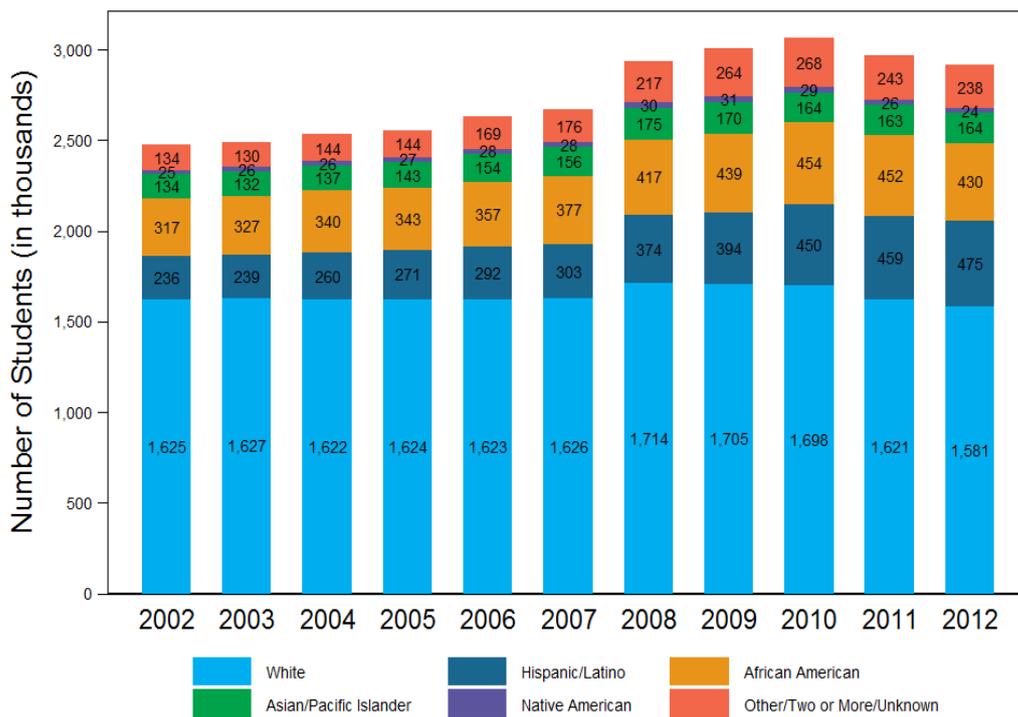
we see a consistent increase in the number of first-time, degree-seeking undergraduates through 2010, after which the numbers taper and decline slightly in 2012. We also see evidence that the increasing diversification of high school graduates is reflected in the American college student body — both the number and the proportion of white first-time, degree-seeking undergraduates decreased between 2002 and 2012, from 1.63 million (66%) to 1.58 million (54%), while the number and share of African American students increased slightly, from 317,000 (13%) to 430,000 (15%).

Figure 1: Estimated number of public and private high school graduates, by year



Source: Authors’ calculations based on data from the *Digest of Education Statistics 2012* (Snyder & Dillow, 2013), Prescott & Bransberger (2012), and the Private School Survey.

Figure 2: Number of first-time undergraduate students, by race/ethnicity



Source: IPEDS Annual Surveys.

The growth patterns for Hispanic/Latino undergraduates in Figure 2, however, differ somewhat from what we would expect, given the growth in the number of high school graduates. Although over a 10-year span, the number of Hispanic/Latino undergraduates has more than doubled, from 236,000 (10% of all first-time, degree-seeking undergraduates) to 475,000 (16%), much of that increase has come after 2008. Although the number of Hispanic high school graduates overtook the number of

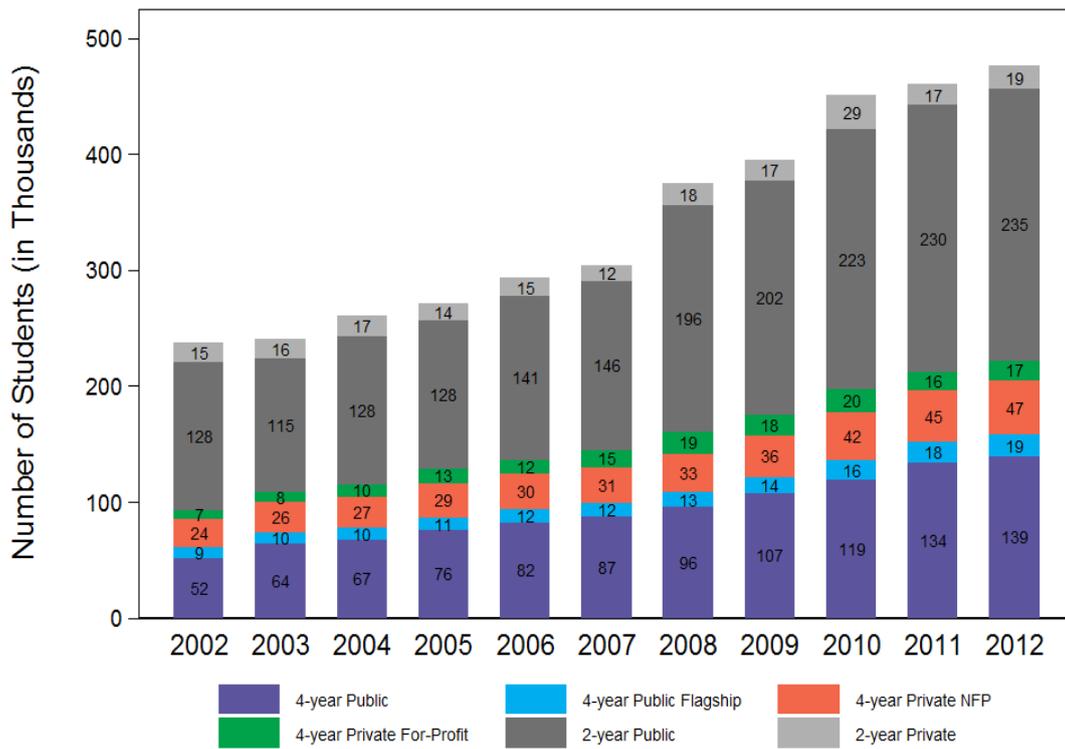
African American graduates by 2008, it was not until 2011 that the number of Hispanic/Latino first-time undergraduates overtook the number of African American undergraduates.

Narrowing our focus briefly to a more micro view, we examine patterns in the college-going behavior of the two largest minority racial/ethnic groups over the last decade. Figure 3 disaggregates the number of Hispanic/Latino first-time, degree-seeking undergraduate students by college sector. As seen earlier, the

total number of these students has more than doubled over the past decade, with much of the growth in college enrollment taking place after 2008. It is in the distribution of Hispanic/Latino enrollment among various postsecondary sectors, however, that we notice some interesting patterns. About half of Hispanic/Latino first-time

college enrollers between 2002 and 2012 were enrolled at a 2-year-public, open-access institution (the darker gray bars). In fact, the number of Hispanic/Latino students attending such institutions increased by approximately 107,000 between 2002 and 2012.

Figure 3: Number of first-time Hispanic/Latino undergraduates, by college sector



Source: IPEDS Annual Surveys.

However, despite this increase, the fraction of all Hispanic/Latino first-time, degree-seeking students attending 2-year public institutions has dropped,

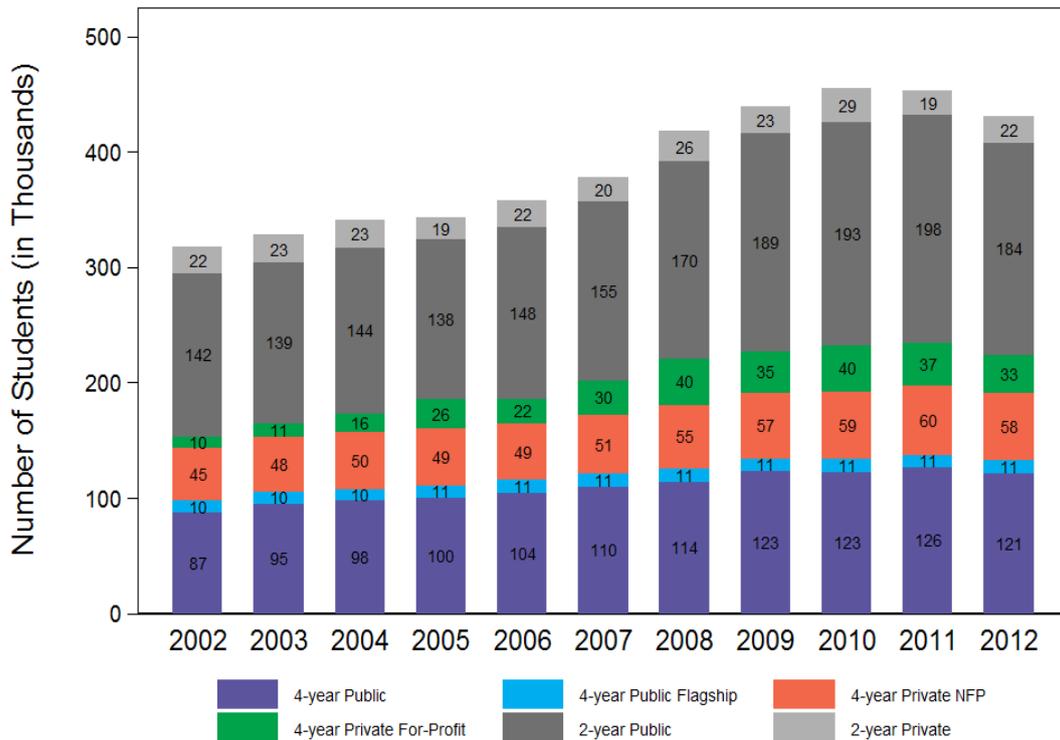
from 54% in 2002 down to 49% in 2012. Four-year public universities have seen the largest rate of growth in the number of Hispanic/Latino college enrollers,

Supply and Demand in the Higher Education Market: College Enrollment

with their numbers more than doubling (from 61,000 in 2002 to nearly 158,000 in 2012). Interestingly, although the number of Hispanic students attending 4-year public-flagship universities — the most selective, research-focused public universities — has more than doubled between 2002 and 2012 (from 9,000 to 19,000 students), their *share* of the Hispanic/Latino first-time, degree-seeking undergraduate enrollment has stayed constant, hovering around 4%.

Figure 4 disaggregates the number of African American first-time, degree-seeking undergraduate students by college sector. As the chart shows, the growth in the number of African American first-time college enrollers is much more modest than that of Hispanic/Latino students. However, where these students tend to go to college has changed substantially over the past 10 years.

Figure 4: Number of first-time African American undergraduates, by college sector



Source: IPEDS Annual Surveys.

African American first-time college students in 2012 were more likely to go to a 4-year college (52%) than a 2-year college; this represented a reversal from a decade ago, when African American college enrollers were more likely to go to a 2-year college (52%) than a 4-year college.

Among 4-year college attendees, both African American and Hispanic/Latino first-time, degree-seeking students are more likely to attend public institutions over private ones. However, the trends in the public versus private 4-year college-going differ markedly between African American and Hispanic/Latino students. In 2012, among African American students at 4-year colleges, 59% attended a public institution, down from 64% in 2002. This decrease has been largely fueled by the rapid growth in African American college enrollment at 4-year for-profit institutions (displayed by the green bars in Figure 4). Between 2002 and 2012, the number of African American first-time, degree-seeking students at for-profit colleges and universities quadrupled, peaking in 2010 before declining slightly over the past few years. At its peak in 2008, nearly one in 10 (40,000) first-time African American college enrollers attended a for-profit university. Given the general trend of low completion rates at these institutions, coupled with large student loans and high cohort default rates, this trend could be viewed as something of a cause for concern (Lynch, Engle, & Cruz, 2010).

Moving from examining trends within a given racial/ethnic group, we now examine trends in the student body composition in higher education across the various sectors. Figure 5 presents an 11-year trend in the racial/ethnic distribution of first-time undergraduates at each of the five major sectors in the American higher education system (the first five blocks of bars, on the left), as well as an aggregation across all sectors (the sixth block, on the right).

Picking up from where Figure 4 left off, Figure 5 shows the stark contrast in race/ethnicity at for-profit universities (the fourth block of bars), compared to every other postsecondary sector. In fact, in 2012, African American students comprised slightly more than one out of four first-time, degree-seeking students at these institutions, an increase of about 10 percentage points over 2002. White students, 50% or more in every other postsecondary sector, accounted for just one in three first-time, degree-seeking students in 2012, down from nearly 40% in 2002. Hispanic students comprised just over 13%.

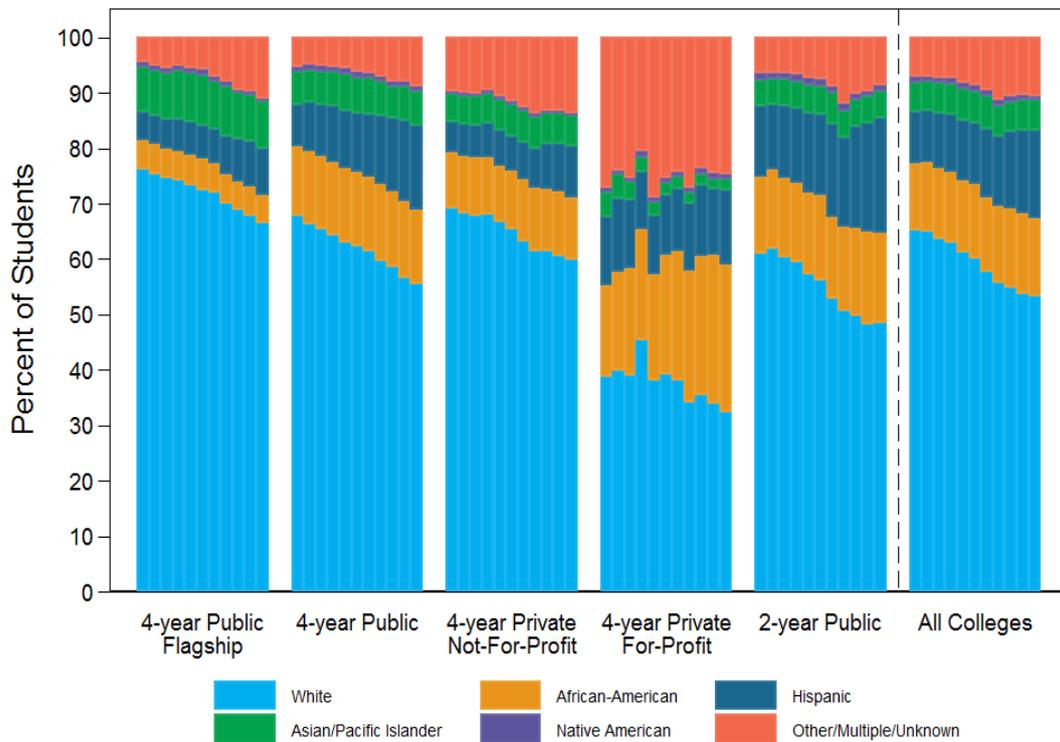
In general, however, Figure 5 illustrates the continued diversification of higher education in America. Across all postsecondary sectors, the share of white students among first-time, degree-seeking undergraduates has decreased steadily over the past decade, most notably at 4-year public non-flagship and 2-year public institutions, where the share has dropped by approximately 12 percentage points over the past decade. Despite this diversification, however,

4-year public flagship universities have, on average, less racial/ethnic diversity than either their 4-year public university peers or their private, not-for-profit peers. As an illustration, nearly two out of three students at 4-year public flagship universities in 2012 were white; by contrast, the share of white students at other 4-year public institutions has not been greater than two-thirds since 2002 and at 4-year private not-for-profit institutions since 2006.

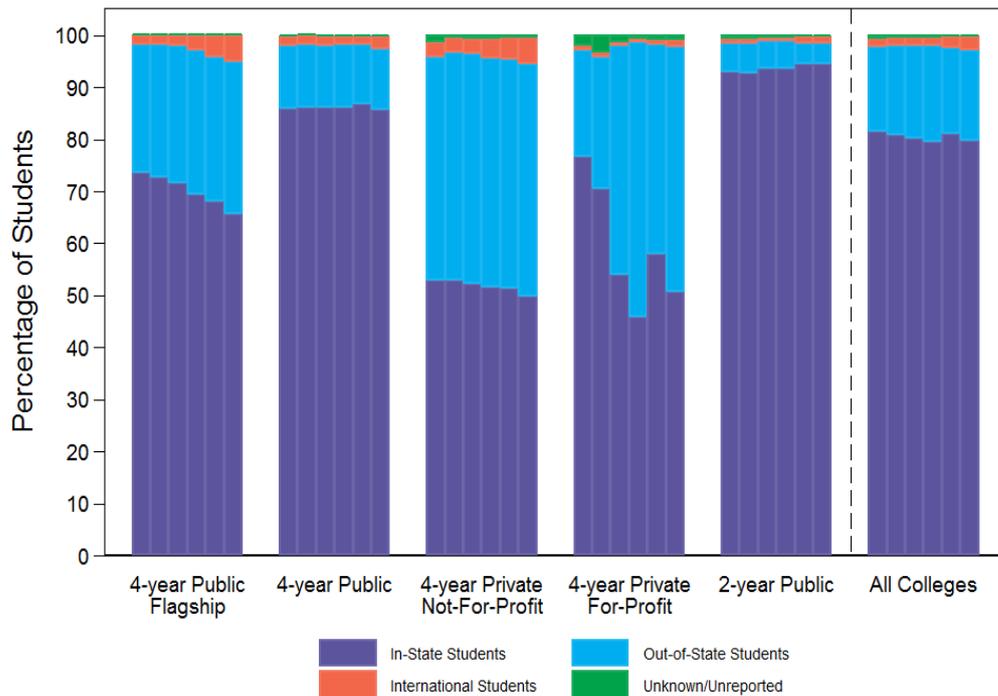
Migration Trends

A discussion of diversification in higher education would be incomplete without a mention of the migration patterns present in American higher education. Figure 6 presents first-time undergraduate enrollment, disaggregated by residence status, for each sector over a 10-year span.

Figure 5: Racial/ethnic distribution of first-time undergraduates, by college sector



Source: IPEDS Annual Surveys.
 Note: Years between 2002 and 2012 are depicted as the 11 bars within each sector.

Figure 6: Residential status of first-time undergraduates, by college sector and year

Source: IPEDS Annual Surveys.

Note: Even-numbered years between 2002 and 2012 are depicted as the six bars within each sector.

Overall, as seen by the right-most block of bars in Figure 6, roughly four out of every five first-time, degree-seeking postsecondary students in 2012 attend a college in their state of residence; this statistic has stayed remarkably stable over the past decade. There is, however, significant variation by college sector. At community colleges, for example, greater than 90% of students are state residents, while at 4-year for-profit institutions, the share of in-state students dropped over time from a high of 76% in 2002 to just over 50% in 2012.

The relatively high and increasing share of out-of-state students at for-profit universities can be explained in part by the fact that many, if not most, for-profit universities operate as online or distance education programs, so students often do not need a link to a physical campus.

Four-year public institutions present an interesting dichotomy. On the one hand, at 4-year public non-flagship institutions, the share of in-state students has remained stable at around

86%; on the other hand, flagship institutions have seen a steady decline from 74% (2002) to 66% (2012). Interestingly, this 8 percentage point difference has been accounted for by a nearly even split in the growth of out-of-state (5 percentage points between 2002 and 2012) and international students

(3 percentage points between 2002 and 2012). These data corroborate an anecdotal trend documented in the popular press (Redden, 2014), although why this steady increase in international students is confined to just the flagship institutions is an open question.

Bibliography

- Hurwitz, M., & Kumar, A. (2015). *Supply and Demand in the Higher Education Market: College Admission and College Choice*. New York: The College Board.
- Lynch, M., Engle, J., & Cruz, J. L. (2010). *Subprime Opportunity: The Unfulfilled Promise of For-Profit Colleges and Universities*. The Education Trust.
- Prescott, B., & Bransberger, P. (2012). *Knocking at the College Door: Projections of High School Graduates*. Boulder, CO: Western Interstate Commission for Higher Education.
- Redden, E. (2014). "Teaching International Students," *Inside Higher Ed*, December 1, 2014. Retrieved from <https://www.insidehighered.com/news/2014/12/01/increasing-international-enrollments-faculty-grapple-implications-classrooms>.
- Snyder, T. D., & Dillow, S. A. (2013). *Digest of Education Statistics 2012* (NCES 2014-015). National Center for Education Statistics, U.S. Department of Education.

Technical Note

There are small variations in the number of colleges included in the sample analyses in any given year due to failure to report data to IPEDS. However, the magnitude of this variation is likely insufficient to meaningfully alter any of the trends noted in this document.

About the Authors

Amal Kumar is a senior policy research analyst at the College Board. He can be reached at amkumar@collegeboard.org.

Michael Hurwitz is a policy research scientist at the College Board. He can be reached at mhurwitz@collegeboard.org.

About the College Board

The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT[®] and the Advanced Placement Program[®]. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools. For further information, visit www.collegeboard.org.

© 2015 The College Board. College Board, Advanced Placement Program, SAT, and the acorn logo are registered trademarks of the College Board. All other products and services may be trademarks of their respective owners. Visit the College Board on the Web: www.collegeboard.org.

15b-10318b