

More to the Retention Story:

Exploring Second- to Third-Year Retention at 4-Year Colleges and Universities

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Introduction

For decades, higher education has focused on “first-year retention” (measured from fall to fall) as the key metric indicating whether students are on a path toward their degree. This metric emerged from the earliest models of college student success, which found first-year retention to be a key predictor of graduation—even though these researchers acknowledged the limitations of first-year retention, specifically in capturing the other points in time that students leave postsecondary education.¹

Still, because first-year retention is the only metric that applies widely—and therefore can be collected as part of federal data collections such as [IPEDS](#)—first-year retention figures dominate conversations about retention. The emphasis on first-year retention in accountability frameworks, as well as by higher education associations, advocacy organizations, and funders, reinforces this dominance of first-year retention measures—and may further drive resources and focus toward first-year experiences and interventions. But we know first-year retention provides an incomplete picture, as previous studies have estimated that over 40% of college students who do not graduate leave *after* their second year of college.²

How does departure vary *after* students are counted as “retained” in those first- to second-year retention metrics? What can we learn about *when* those students leave and *who* leaves *when*? And how would learning more about later departure help colleges think about options for improving longer term persistence and, ultimately, attainment?

This piece explores “second- to third- year retention,” tracking students who *did* enroll during their second year (and therefore are “retained” in official metrics) and examining whether they returned at any point during their third year. This analysis leverages data from the Postsecondary Data Partnership (PDP) to generate insights based on 17 four-year institutions. [These colleges and universities](#) are located across the United States and reflect a broad range of postsecondary institutional types, ranging from national research universities to regional comprehensive universities, historically Black colleges and universities, and Hispanic-serving

¹ See: Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.

² For more, see: Bowen, W.G., Chingos, M.M., & McPherson, M.S. (2009). *Crossing the Finish Line: Completing College at America's Public Universities*. Princeton University Press. And Mabel, Z., & Britton, T. A. (2018). Leaving late: Understanding the extent and predictors of college late departure. *Social Science Research*, 69, 34–51. <https://doi.org/10.1016/j.ssresearch.2017.10.001>

institutions. Still, these institutions may not fully represent the diversity of colleges and students nationwide. We recommend that institutions explore these patterns locally, but we hope this analysis serves as an example of how researchers or analysts can use PDP data to generate new insights around potentially underexplored topics related to student success. For more on the PDP or the metrics framework that inspired it, see the [PDP website](#) and the Institute for Higher Education Policy's [Postsecondary Metrics Framework](#).

Data Source and Analytic Approach

The student-level PDP data files used for this analysis were provided by the National Student Clearinghouse. Data include all credential-seeking undergraduate students who first enrolled at each institution in the 2015–16 cohort year, the most recent cohort for which students could be tracked from their first to fourth year of enrollment.

We focused primarily on examining the share of students who discontinued enrollment (“depart”) between their cohort’s first and fourth years. In the charts below, “Year 1 to Year 2” refers to the first- to second-year retention window, “Year 2 to Year 3” refers to the second- to third-year retention window, and “Year 3 to 4” refers to third- to fourth-year retention. Students were considered “still enrolled” if they took any credits in the subsequent year, “graduated” if they earned a credential from either their cohort institution or another institution, and “not enrolled” if they attempted zero credits or had not completed a credential at the cohort institution or another institution before the end of the subsequent year.³ This analysis focuses on enrollment as a binary measure and does not examine variation in students’ credit load (e.g., movement between full- and part-time status) due to data limitations. Note that data on whether students later enrolled at another institution were not available in the student-level data files, so are not included in this analysis. It is worth mentioning that such data, could they be made available, would add important context, because although an institution is no longer serving a student in both cases, a student persisting at *any* institution is preferable to a student leaving postsecondary education entirely.

³ The PDP data files do not include a “retention” variable beyond the first year. We used the “number of credits attempted” variables as proxies for whether a student was still enrolled at their cohort institution in a given year. “Number of credits attempted” variables are available for Years 1 through 4.

Key Findings

- First- to second-year retention still has the largest drop-off: The average share of students departing during that window was 23%, though this rate varied widely among institutions (ranging from 14% to 31%).
- Second- to third-year retention matters: These institutions consistently lost an additional 10% of their original students during the second- to third-year retention window (for a total of 33%). This 10% represents about half as many students as they lost in the first year.
- After that, it plateaus: Only a small additional share of the student cohort left their institutions during the third- to fourth-year retention window—on average, just 3%.
- Based on preliminary analyses, these trends appeared to hold when we disaggregated the data by race/ethnicity, age, Pell Grant recipient status, and whether students began as first-time full-time (FTFT) students in their first term. However, the additional share of students who departed in the second- to third-year window was slightly higher for Black and Latino students than for White students (by 3 and 1 percentage points, respectively) and higher for Pell Grant recipients than for non-recipients (by 2 percentage points).
- There appeared to be some demographic differences between students who depart during the first- to second-year retention window versus those who depart during the second- to third-year retention window. For instance, the share of Pell Grant recipients who departed during the second- to third-year window was 5 percentage points higher than the share who departed after the first- to second-year window (47% versus 42%).

Although first- to second-year retention still matters most for these four-year institutions, second- to third-year retention highlight an important issue for institutions to consider and address. This issue is particularly important because students leaving college in the latter window have invested more time and resources into their postsecondary education, and may lose that investment when they depart. Examining second- to third-year departure and considering ways to prevent stop-out at these points in the student journey might result in ways to improve completion overall.

How many students leave each year?

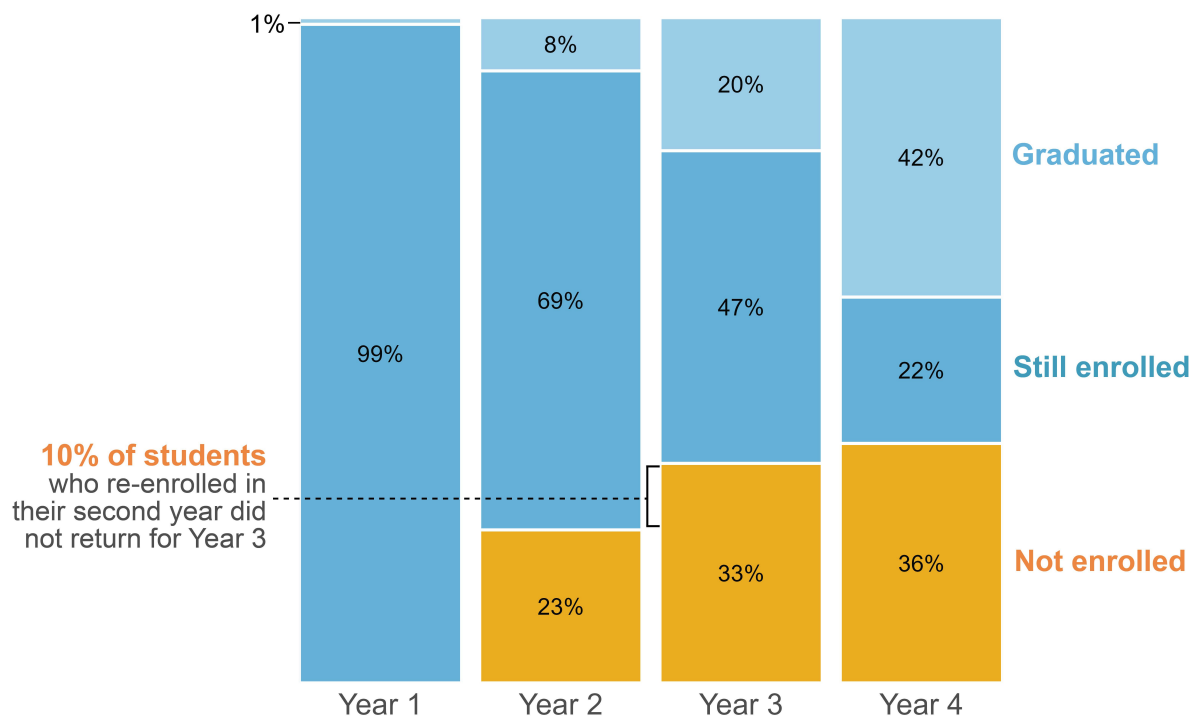
Answering this question helps colleges understand when students are particularly likely to leave, which is important because leaving often means that students cannot enjoy the benefits

of earning a degree. These departures also decrease institutions' graduation rates, which are key factors in state and federal accountability frameworks.

On average, most students who departed within a 4-year period did so during the first- to second-year retention window, though a sizeable share stopped out (without a degree) during the second- to third-year retention window.

Approximately 23% of students entering these 4-year institutions in 2015–16 did not return for their second year. Although first- to second-year departures were the largest, a notable share of the original cohort also left during the second- to third-year window (10% of the original cohort). A much smaller share during the third- to fourth-year retention window (3%). On average, by the third year, 33% of the 2015–16 cohort were no longer enrolled; even though we do not calculate their 4- or 6-year graduation rate, only 64% of the 2015–16 cohort were completers or potential completers by Year 4. Between Years 3 and 4, the share of students not enrolled increased by a much smaller margin—an additional 3%. This suggests that, while the first- to second-year transition remains a critical inflection point for students, losses during the second- to third-year retention window are non-trivial and may merit significant attention.

Exhibit 1. Average Year-to-Year Enrollment Status, 2015–16 Entering Cohort



Note. The “graduated” category includes students who earned a credential from either their cohort institution or another institution. On average, less than 3% of students earned a credential from another institution in any subsequent year.

Source. Postsecondary Data Partnership Analysis-Ready files, spring 2021.

How do these patterns vary across institutions?

Answering this question helps colleges understand how consistently students leave other institutions at specific times and allows them to consider whether and how their own patterns look similar or different.

First- to second-year departure rates varied widely across institutions, but regardless of an institution's first- to second-year departure rate, they consistently lost another 10% of students during the second- to third-year window.

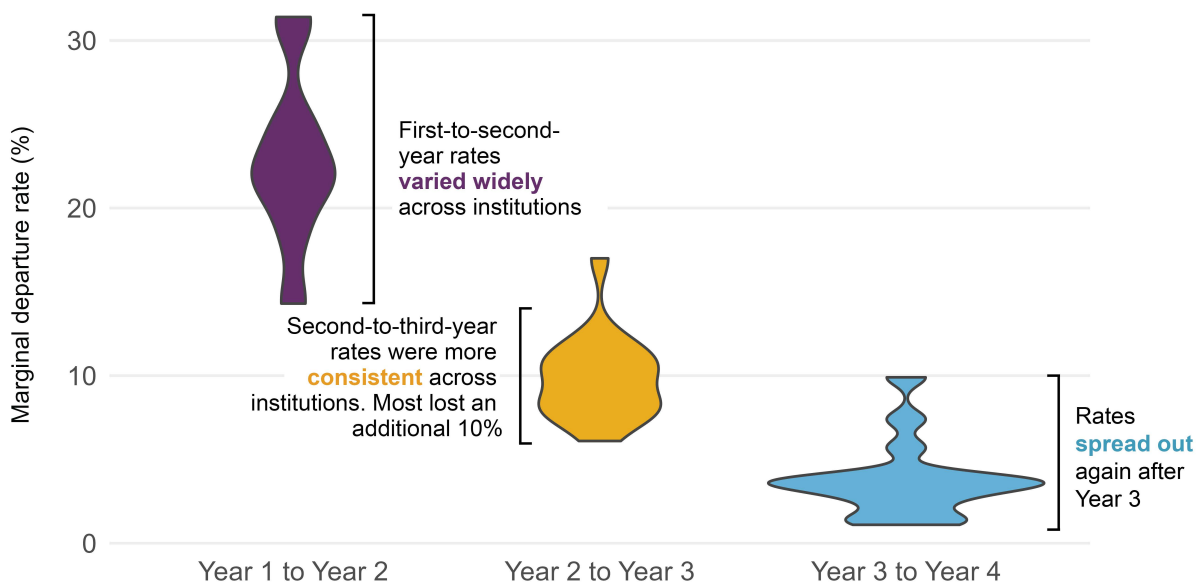
To further investigate the magnitude of second- to third-year losses, we examined the distribution in *marginal* departure rates (i.e., the *additional* share of students who discontinued enrollment between years). Exhibit 2 is a “violin chart” showing variation in marginal departure rates across institutions. The shape of the violin gives a general sense of spread. The taller the violin, the greater the range in marginal departure rates; the wider the violin, the more consistent the departure rates across institutions.

First- to second-year departure rates varied widely among these institutions. The chart, which reflects the variation in marginal departure rates across institutions, shows rates ranging from 14% to 32% (18 percentage points, or first-year retention rates ranging from 86% to 68%). The violin chart, therefore, appears tall and thin.

But patterns were different for second- to third-year departure rates. Regardless of their first- to second-year losses, institutions consistently lost approximately 10% of their original cohort in the second- to third-year window. The chart shows that this is much more concentrated, resulting in a short and wide violin shape. Excluding one outlier,⁴ institutions lost between 6% and 12% of students over this period. Far fewer students left during their third- to fourth-year retention window—most institutions lost an additional 4% of students over this period, though there were several outliers both above and below the median. Retention in the later years is still important for supporting overall completion, of course, but departures after the second- to third-year window affect a smaller set of students.

⁴ One institution had a marginal stop-out rate of 17% between Years 2 and 3.

Exhibit 2. Marginal Departure Rates, Year 1 to Year 2, Year 2 to Year 3, and Year 3 to Year 4, 2015–16 Entering Cohort



Source. Authors' calculation based on Postsecondary Data Partnership Analysis-Ready files, spring 2021.

How do these patterns vary across student groups?

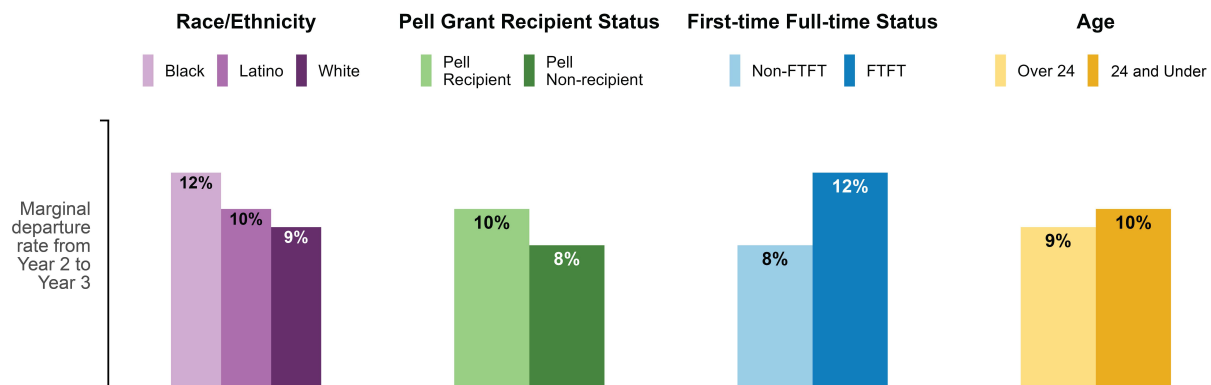
Answering this question helps institutions understand the equity motivations and implications for addressing departure in the second- to third-year window, including whether targeting changes or interventions by student group might be valuable.

Overall patterns were generally consistent across student groups, but marginal departure rates were slightly higher for students of color and Pell Grant recipients.

Based on a preliminary analysis, disaggregated rates generally followed the overall trends described in previous sections—approximately 10% of students who counted as retained in first- to second-year retention rates did not show up as retained in the second- to third-year retention rates. However, there were important between-group differences by race/ethnicity, Pell Grant recipient status, FTFT status, and age. Specifically, non-FTFT students and those over the age of 24 left at slightly lower rates, while Black, Latino, and Pell Grant recipient students left at higher rates during the second- to third-year retention window than their comparison groups.⁵

⁵ We limited this analysis to Black, Latino, and White students as an initial example based on data availability; we encourage institutions or groups exploring their own patterns and practices to disaggregate all race/ethnicity

Exhibit 3. Average Marginal Second- to Third-Year Departure Rates, by Race/Ethnicity, Pell Grant Recipient Status, FTFT Status, and Age, 2015–16 Entering Cohort



Note. Some institutions were removed from this figure due to missing data or small subgroup sizes (i.e., fewer than 30 students). One institution had fewer than 30 Black students, four had fewer than 30 Latino students, and three had fewer than 30 White students. One institution had fewer than 30 students over the age of 24. Eight institutions were removed from the Pell Grant recipient status panel due to missing data.

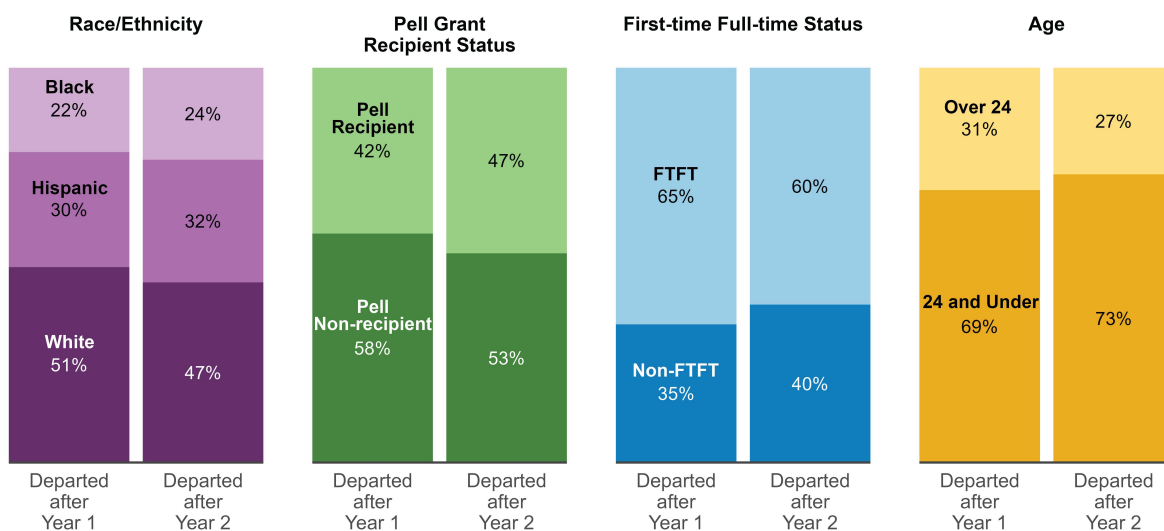
Source. Authors' calculation based on Postsecondary Data Partnership Analysis-Ready files, spring 2021.

There were some demographic differences between students who left during their first- to second-year retention window than those who left during their second- to third-year retention window.

Another question we considered is whether the students who leave during the second- to third-year retention window differ on key demographic characteristics from those who leave in their first year. Any differences could have implications for how colleges and universities design and target efforts to support students who depart later. When we looked at the data, we noticed some variation. For example, students who departed during the second- to third-year window were slightly more likely to be Black or Latino students and more likely to be Pell recipients. This exploration is just an initial cut, but it suggests it would be valuable to further explore by institution.

categories. Comparison groups included White students for race/ethnicity, Pell Grant non-recipients for Pell Grant recipient status, FTFT students for FTFT status, and students 24 and under for age.

Exhibit 4. Share of Students Who Departed Between Year 1 and Year 2 Compared to Year 2 to Year 3, by Race/Ethnicity, Pell Grant Recipient Status, FTFT Status, and Age, 2015–16 Entering Cohort



Note. Some institutions were removed from this figure due to missing data or small subgroup sizes (i.e., less than 30 students). One institution had less than 30 Black students, four had less than 30 Latino students, and three had less than 30 White students. One institution had less than 30 students over the age of 24. Eight institutions were removed from the Pell Grant recipient status panel due to missing data.

Source. Authors' calculations based on Postsecondary Data Partnership Analysis-Ready files, spring 2021.

Implications

The longstanding emphasis on first-year programming and support makes sense, given that about 1 in 4 students who started at these institutions did not return for their second year. But there are consistent losses during the second- to third-year window, too; at these institutions, 1 out of 10 from the original entering classes. These students are worth more attention, as they were sufficiently connected to their institutions that they returned for a second year, demonstrating some intent and promise toward continuing their education. They also accrue additional costs from that attendance, which may include further loans. Yet they still stop out

sometime during their second year or before their third, limiting the institutions' pool of students who could complete and count toward their 4- or 6-year graduation rates.⁶

Overall, this exploration serves as an initial example of potential analyses. We encourage institutions to explore their own data more deeply, particularly by disaggregating by key characteristics like those highlighted here, and to identify *who* is leaving and begin the process of understanding *why*—and then consider *how* to best address those factors to support more students on successful journeys toward their degree and beyond. For instance, institutions that discover that their second- to third-year departure rate is much higher than 10% might explore whether there are context-specific reasons for that or consider making changes to supports and structures in the second year to encourage students to stay enrolled. Similarly, institutions that identify substantial differences between student subgroups—for instance, between adult learners age 25 years and over and students under 24 or by race/ethnicity—might consider whether programs or interventions informed by interviews with students from these groups might be valuable.

⁶ Information on whether students transferred out to another institution could decrease an institution's stop-out rate. Though this may be less relevant for 4-year than 2-year schools, it would still add important context. Transfer-out data are not currently available in the PDP data files, however, and so this remains an area for further exploration.

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