

Completing College

National and State Reports

With Longitudinal Data Dashboard on Six- and Eight-Year Completion Rates



About This Report

As the twelfth in the Completing College series, this report updates the six-year college completion rates nationally and by state, by tracking the enrollment and completion outcomes for the fall 2017 cohort of beginning college students through June 2023. The report also features national eight-year completion outcomes for fall 2015 through June 2023.

The national completion rate measures the performance of the entire higher education system. It counts all students who enter postsecondary education for the first time each fall, enrolling full-time or part-time at two-year or four-year institutions, and completing at any U.S. degree-granting institution. It includes those who complete after transfer, not just completions at the starting institution. Thus, the results more fully capture today's students' success, which increasingly involve mobility across institutions, re-entry after stop-out, and changes in enrollment intensities.

A longitudinal data [dashboard](#) accompanies this report and offers detailed six-year and eight-year completion outcomes by cohort year across starting institution sectors and student backgrounds, enabling national and state-level comparisons through interactive visualizations and analysis tools. Underlying data are available on the [website](#) for downloading.

Key Findings

- Progress in the national college completion rate has stalled. The six-year completion rate for the fall 2017 cohort was 62.2 percent, essentially unchanged since 2015.
- Six-year completion rates increased in over half of states, with nine states increasing 1 percentage point (pp) or more. This is up from the previous year when only five states had gains of at least 1 pp.
- Completions rates stalled or declined across all ethnicities, with Native American (-2.0 pp) and Black students (-0.4 pp) posting the largest decreases.
- The gender gap in completion rates continues to grow and is the widest seen since 2008 (7.2 pp)
- Traditional aged students entering college in fall 2017 saw declines in their overall six-year completion rate. Older students continue to make gains, but they still lag behind traditional aged students.
- The national eight-year completion rate for the fall 2015 cohort declined 0.5pp from 2014. Only 2.4 percent of the cohort completed in the seventh and eighth years.

1. Progress in the national college completion rate has stalled. The six-year completion rate for the fall 2017 cohort was 62.2 percent, essentially unchanged since 2015.

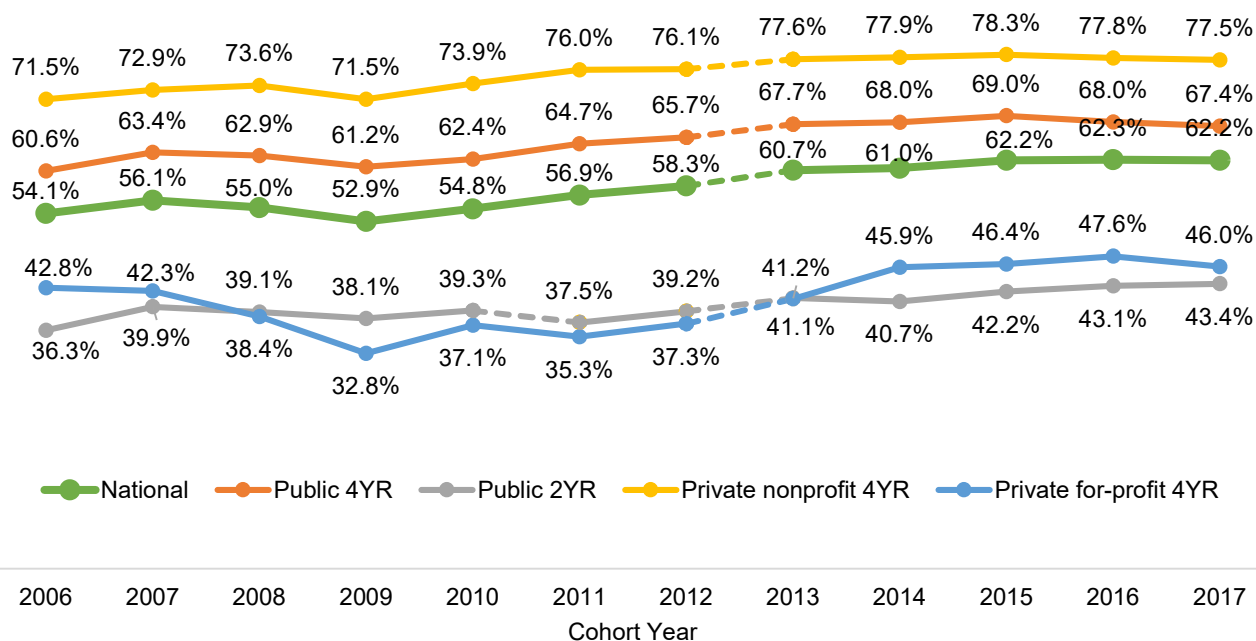
More than 2.4 million students enrolled in postsecondary education for the first time in fall 2017, an increase of 1.2 percent, or 28,500 students, over the previous cohort year. Their overall completion rate of 62.2 percent within six years of enrolling contributes to a national completion stagnation, wherein the six-year completion rate has remained essentially unchanged since 2015. Prior to this, the rate had steadily increased by 9.3 percentage points over six years, beginning with the 2009 entering cohort (see **Figure 1**).

All four-year sectors saw completion rate declines, with private for-profit institutions declining by 1.6 percentage points, to 46 percent, and public institutions declining by 0.7 percentage points, to 67.4 percent. Community colleges were the only sector to see increases (+0.4 pp to 43.4%).

While public four-year institutions bore the brunt of the national decline, their 2017 cohort size was 25,600 students larger than it was in 2016, accounting for 90 percent of the growth between these cohorts. Nearly 49 percent of the 2017 cohort started at public four-year institutions, an increase from the 48.4 percent in 2016.

Fewer students completing within six years appears to be a result of more students stopping out, not more staying enrolled longer. The proportion of students still enrolled anywhere in their sixth year declined 0.3 percentage points from the 2016 cohort, to 8.6 percent (see **Figure 3**), and a total decline of 0.7 pp from 2015 (see **Dashboard Figure 2**). Meanwhile, the share of students no longer enrolled increased by 0.4 pp to 29.2 percent, the highest rate since 2014.

Figure 1. Six-Year Completion Rates by Starting Institution Type: 2006 – 2017 Entering



Note: Over the years, three significant data reporting and processing changes occurred that improved the data shown. Beginning in 2011, two changes improved the definition of first-time beginning college students: (1) current dual enrolled students (those taking college courses while in high school) were excluded (impacting mainly two-year colleges); and (2) data enhancements enabled reliable exclusion of students with prior enrollments over a longer historical timeframe (impacting mainly older students). After these changes, year-over-year comparisons can still be reliably made. Trends should be interpreted with caution, however, because removing current dual enrolled students caused the completion rate to decline at two-year colleges (see Methodological Notes). The third change relates to improved student-level data matching in the Clearinghouse database, causing unusually large rate changes from 2012 to 2013, but the trendlines for 2006-2012 and 2013-2017 can be considered as reliable to use.

Figure 2. Entering Cohort by Starting Institution Type: 2016 and 2017

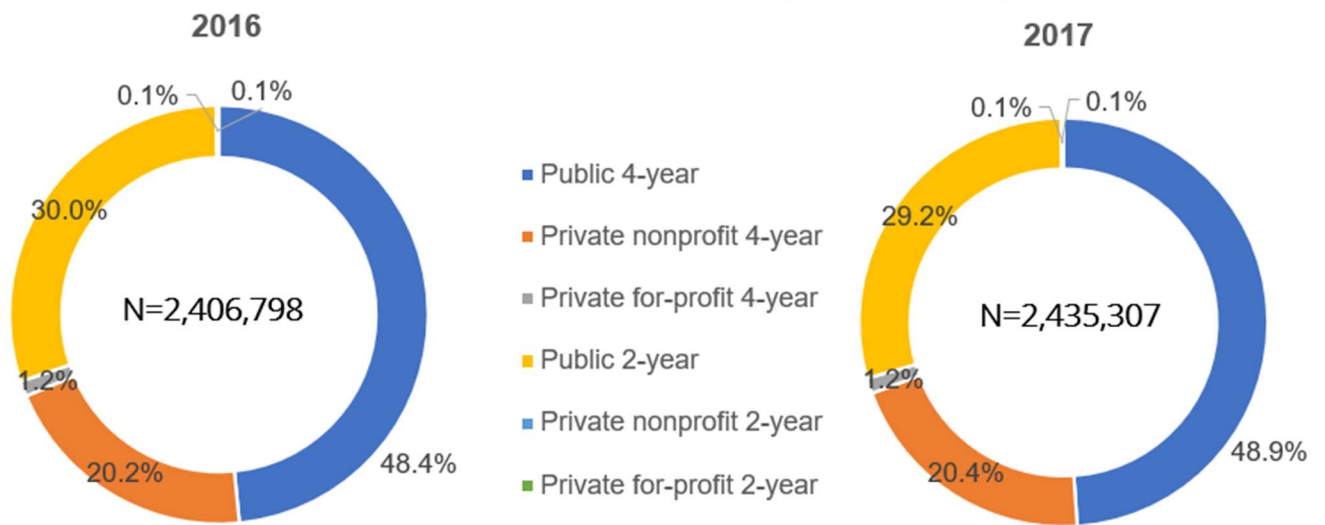
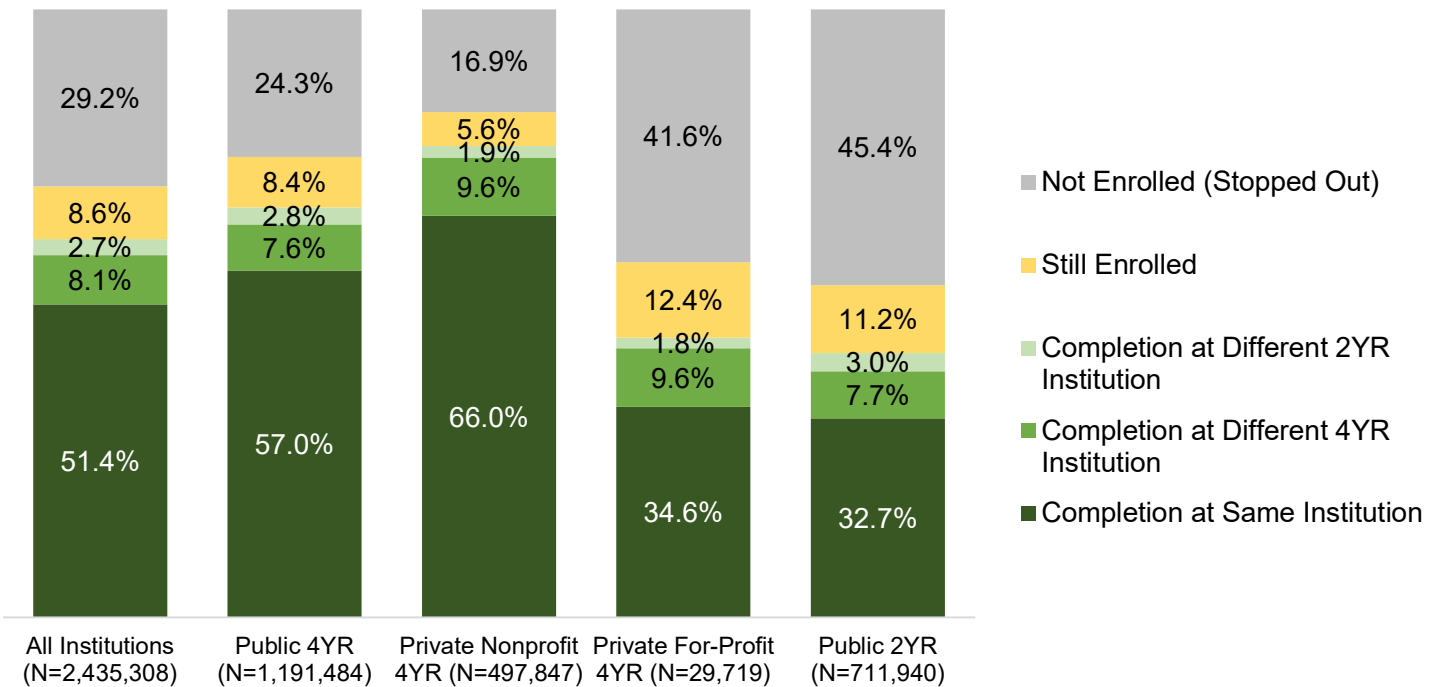


Figure 3. Six-Year Outcomes by Starting Institution Type: 2017 Cohort



2. Six-year completion rates increased in over half of states, with nine states increasing 1 percentage point (pp) or more. This is up from the previous year where only five states had gains of at least 1 pp.

Completion rates improved for most states (26 out of the 49 states with sufficient data coverage for reporting). While most gains seen at the state-level were small (less than 1 pp), nine states saw gains over 1 percentage point, with Idaho and New Mexico seeing gains over 2 pp (see Figure 4). Five states posted completion rate decreases of over 1 percentage point: Louisiana, Massachusetts, Oregon, Rhode Island, and Washington.

The national decline of 0.6 percentage points at public four-year institutions was driven by declines in 33 states, with the largest declines in Washington (-3.1 pp), New Hampshire (-2.8 pp), and Connecticut (-2.3 pp). Four states saw rates increase by over 1 percentage point (New Mexico, +2.2 pp; Utah, +1.6 pp; Montana, +1.3 pp; and Idaho, +1.2 pp; see Dashboard Figure 3).

The national growth of community college completion rates was driven by increases in 29 states, with nine states seeing gains of more than 2 percentage points. North Dakota and Idaho saw the largest increases (4.6pp and 3.7 pp respectively). Fifteen states saw community college completion rate declines, but only four states saw declines greater than 1 percentage point. Massachusetts and Oregon saw the largest declines (-2.8 pp and 3.7 pp respectively).

Figure 4. Change from Previous Year in Six-Year Completion Rate by State, All Sectors

State	Fall 2017 percent	2016-2017 pp	State	Fall 2017 percent	2016-2017 pp
Alabama	59.6%	-1.0	Montana	57.0%	1.4
Alaska	34.3%	-0.3	Nebraska	63.2%	0.5
Arizona	54.1%	1.2	Nevada	43.1%	-0.1
Arkansas	59.8%	0.5	New Hampshire	63.1%	0.3
California	55.5%	0.0	New Jersey	62.6%	-0.1
Colorado	61.6%	0.3	New Mexico	51.3%	2.1
Connecticut	67.1%	-0.5	New York	68.3%	-0.8
Delaware		*	North Carolina	66.0%	0.4
Florida	60.5%	-0.3	North Dakota	68.7%	1.3
Georgia	62.3%	-0.3	Ohio	66.5%	0.5
Hawaii	54.0%	1.0	Oklahoma	53.1%	0.2
Idaho	55.7%	2.2	Oregon	55.6%	-1.4
Illinois	65.0%	-0.2	Pennsylvania	71.6%	-0.3
Indiana	68.3%	1.9	Rhode Island	74.2%	-2.3
Iowa	70.2%	0.3	South Carolina	62.8%	0.3
Kansas	60.8%	0.2	South Dakota	69.3%	-0.1
Kentucky	60.5%	-0.9	Tennessee	59.5%	-0.8
Louisiana	55.5%	-1.7	Texas	57.3%	-0.2
Maine	63.1%	-0.3	Utah	56.9%	0.5
Maryland	62.6%	1.5	Vermont	74.1%	0.4
Massachusetts	73.3%	-1.1	Virginia	67.8%	0.3
Michigan	63.4%	1.3	Washington	56.7%	-2.1
Minnesota	70.5%	0.4	West Virginia	59.2%	-0.2
Mississippi	59.0%	-0.8	Wisconsin	69.9%	-0.1
Missouri	62.4%	0.9	Wyoming	60.0%	1.7

National Average = 62.2% (-0.1 pp)

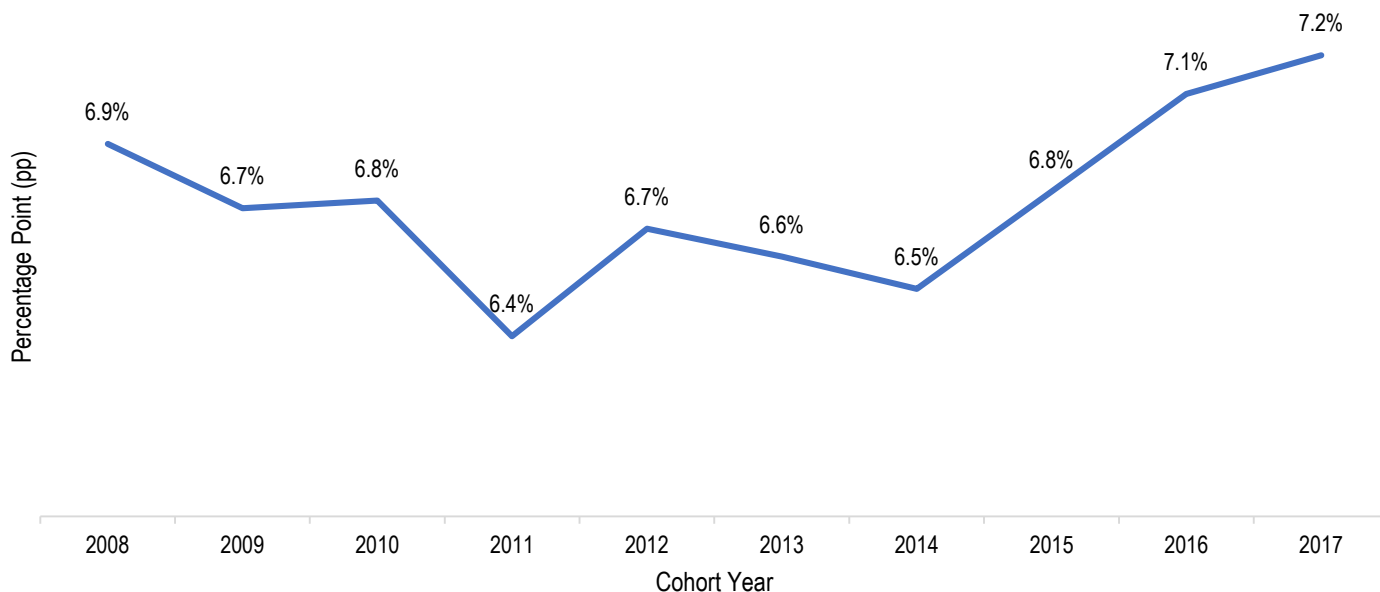
3. Completions rates stalled or declined across all ethnicities, with Native American (-2.0 pp) and Black students (-0.4 pp) posting the largest decreases. The completions gap between women and men continues to grow and is now the widest seen since 2008.

Declines in national completion rates varied by student race/ethnicities and genders. Native American students saw the largest declines of any group (-2.0 pp) to 47.5 percent. Black students also lost ground, but these losses were concentrated at public four-year institutions, where they fell by 1.5 percentage points (from 50.2% in 2016 to 48.7% in 2017, see [Appendix Table 4](#)). Unlike at four-year institutions, Black students at community colleges saw completion rate growth, increasing by 0.5 pp over the previous cohort year. Hispanic students experienced a similar phenomenon, with losses concentrated at public four-year institutions (-1.1 pp; from 57.1% in 2016 to 56.1% in 2017). Like Black students, Hispanic students at community colleges saw slight growth (+0.2 pp).

While the completion rate stalled nationally for female Hispanic students, it declined 0.5 percentage points for Hispanic men. At public four-year institutions, the six-year completion rates of Hispanic men declined by 1.4 percentage points compared to a 0.9 percentage point decline seen among Hispanic women. In contrast, rates of Black female students declined at twice the rate of their male counterparts (1.8 pp compared to 0.9 pp).

As we first reported last year, the gender gap in national completion rates continues to grow. In the last three years, it has increased by 0.7 pp and is currently the highest since at least 2008, when this series began. The fall 2017 national six-year completion rate for men was 58.4 percent – a gap of 7.2 percentage points from 65.6 percent for women (see [Figure 5](#)). The growing national gap is driven by the gap at public four-year institutions (7.4 pp; see [Dashboard Figure 9](#)).

Figure 5. National Completion Rate Gap by Gender: 2008 to 2017 Entering Cohorts



4. Traditional aged students entering college in fall 2017 saw declines in their overall six-year completion rate. Adult learners continue to make gains, but still lag behind traditional aged students.

Nationally, the six-year completion rate for traditional aged college students declined slightly, to 63.8 percent. This comes after two years of stability at the highest completion rates ever observed for this group. The decline was driven by a 0.8 pp completion rate decrease at public four-year institutions and a 0.7 pp decrease at private non-profit four-year institutions. Community colleges were the only sector to see completion gains for this age group, although they are smaller in magnitude (+0.2 pp) than the four-year declines.

Adult learners, who were over 24 when they began college in 2017, were the only age group to make gains this year (+0.9 pp), their eighth straight annual increase. Private nonprofit four-year institutions and community colleges both drove these gains, increasing completion rates for this age group by 1.7 pp and 1.3 pp respectively over the previous year (see **Appendix, Table 6**). While these gains are significant, it is important to note that adult learners comprised only 7.8 percent of the 2017 cohort (see **Figure 7**) a smaller share than in the 2016 cohort (8.3%).

Though completion rates for older students improved in recent years, traditional aged students continue to have higher completion rates (63.8% versus 54.0% for 20-24 and 52.0% for over 24, see **Figure 6**).

Figure 6. Six-Year Completion Rates by Student Age at First Entry: 2007-2016 Entering Cohorts

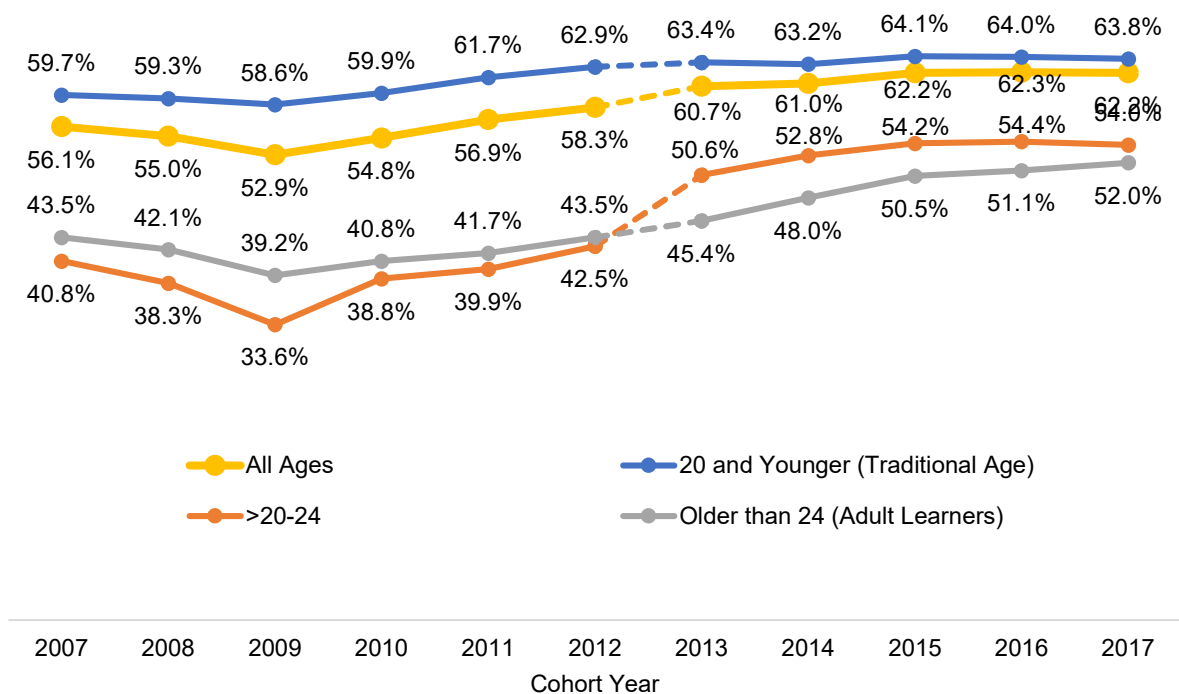
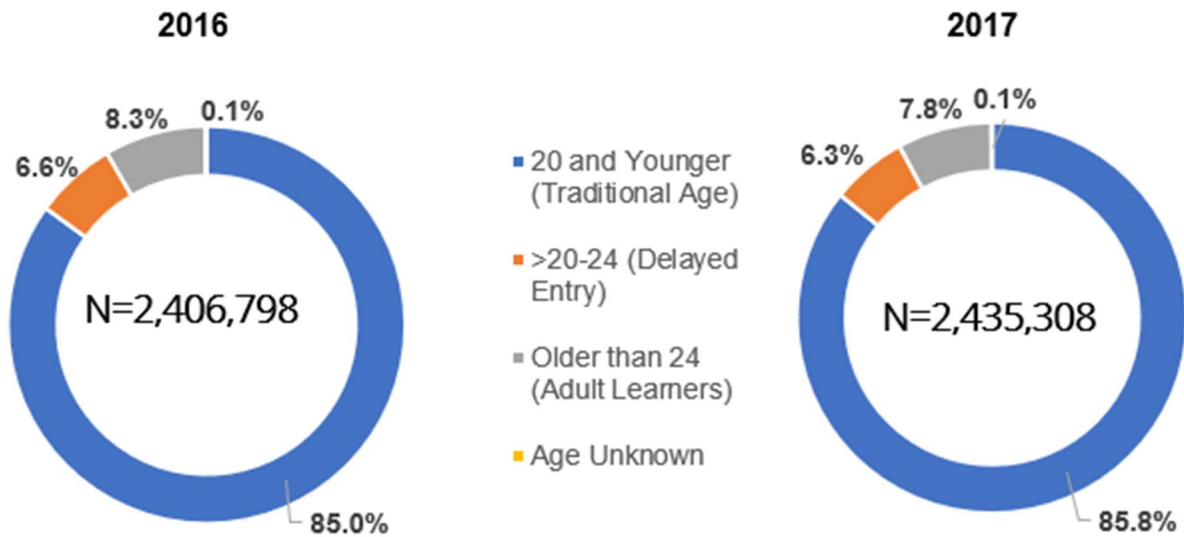


Figure 7. Entering Cohort by Student Age at First Entry: 2016 and 2017



5. The national eight-year completion rate for the fall 2015 cohort declined 0.5pp from 2014. Only 2.4 percent of the cohort completed in the seventh and eighth years, the lowest rate in the past five cohorts.

After two straight years of the highest eight-year completion rates ever observed, the fall 2015 cohort saw a decrease of 0.5 pp, to 64.7 percent, with declines across all sectors of enrollment. Among four-year public and private nonprofit institutions, eight-year completion rates tumbled (-0.8 pp and -1.0pp respectively, see **Figure 8**), spurring the national decline. Completion rates at private for-profit institutions continued to exceed community college rates, continuing a trend first seen with the 2013 cohort.

The six-year completion rate for the 2015 cohort was 62.3 percent. Extending the completion timeframe from six to eight years, yielded an additional 2.4 percent of students completing in the seventh and eighth years. These additional completions represent a smaller share of the starting cohort than observed in the past, however, meaning that the higher six-year rate for 2015 represents shorter times to degree than earlier cohorts, but not more total completers – in fact, fewer – in the long run (see **Figure 9**).

Hispanic, Native American, Asian, and Black students all had larger shares of completions in the seventh and eighth years than the overall cohort (ranging from 2.8 to 3.1%). White students had the lowest rate of additional completers in the subsequent two years (+2.3%). However, the total eight-year completion rates for all of these groups are lower than the previous year, with Asian students seeing the largest decline (-1.9 pp; from 78.6% to 76.7%).

Figure 8. Eight-Year Completion Rates by Starting Institution Type: 2009-2015 Entering Cohorts

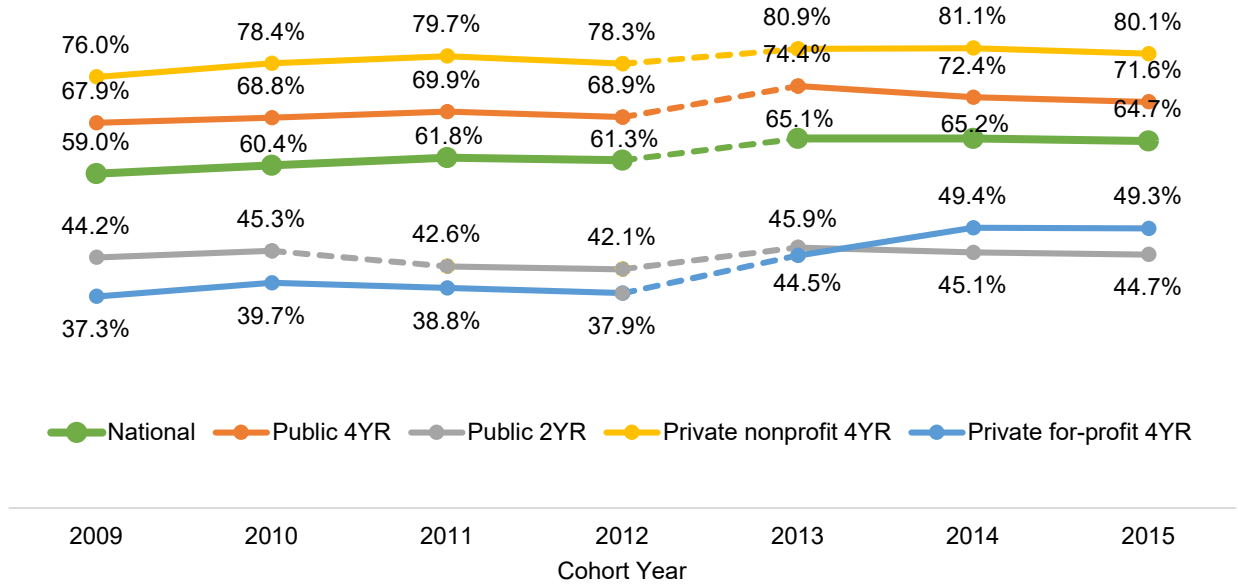
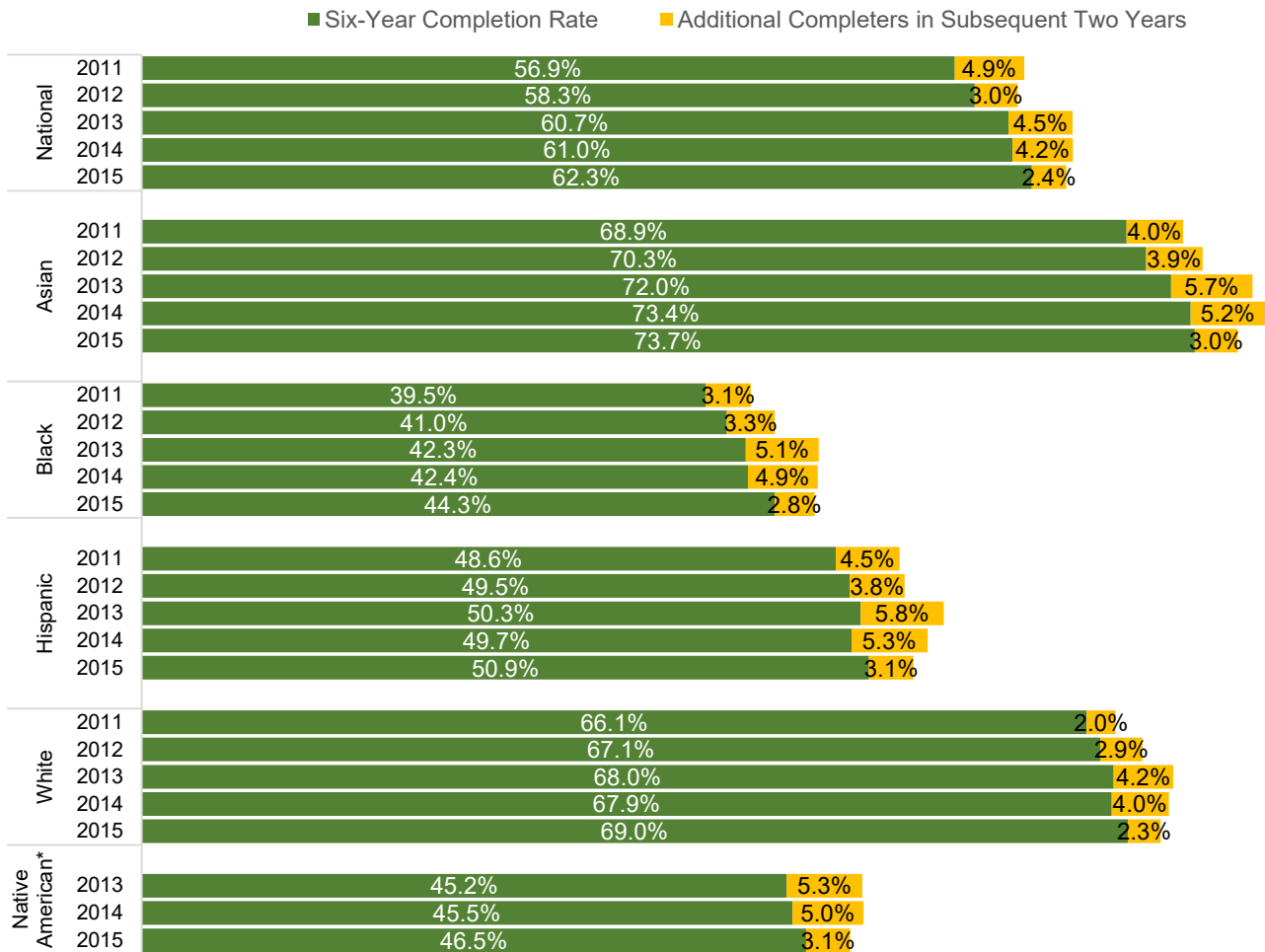


Figure 9. Eight-Year Cohort Completion Rates by Race and Ethnicity: 2011-2015 Entering Cohorts



Summary and Implications

Continuing a trend of stagnation over the last two years, the overall completion rates for the fall 2017 cohort remained at the level of the 2016 cohort (-0.1 pp). Trends differed at the sector level, however, with improvements in community college completion rates (+0.4 pp) building on their previous year's growth, while all four-year sectors experienced completion rate declines.

Most states saw completion rate gains continue, as well, however this also varied widely by sector. Nationally, only nine states saw completion rate gains of 1 percentage point or larger, an improvement from just five states gaining in the previous year. The national community college growth was driven by gains in 29 states, nine of which gained more than 2 percentage points. Similarly, the national decline in public four-year completion rates was driven by declines in 33 states.

The national six-year completion rates stalled or declined across race/ethnicity. Native American and Black students saw the largest declines (2.0 pp and 0.4 pp, respectively). Black and Hispanic students at public four-year schools saw declines greater than 1 percentage point, while their community college counterparts saw growth (0.5 pp and 0.2 pp, respectively). Nationally, completion rates of Hispanic men declined more steeply than their female counterparts.

The national eight-year completion rate for the 2015 cohort declined by 0.5 percentage points. This cohort's six-year completion rate was 62.3 percent, and an additional 2.4 percent completed in the seventh and eighth years. This was the smallest share of starters requiring the additional two years to finish since 2012.

The 2017 cohort was 28,500 students larger than the 2016 cohort. While public four-year institutions bore the brunt of the national decline, their 2017 cohort size was 25,600 students larger than it was in 2016, accounting for 90 percent of the growth between these cohorts. Nearly 49 percent of the 2017 cohort started at public four-year institutions, an increase from the 48.4 percent in 2016.

Regardless of the completion rate gains of the past decade, or their plateauing in recent years, the entire series of data presented reveals a single uncomfortable truth: that more than 1 in 3 students today, and in some cases closer to one in two, do not complete a credential within six years of starting college. And with more than three times as many stopped out as there are still enrolled at that point, allowing the cohort an additional two years to complete barely moves the needle any higher. This is true even though, for part-time students pursuing a bachelor's degree, eight years might be considered a normal time to completion. The implications of this uncomfortable truth are numerous and reflected in the growing population of [Some College, No Credential](#) adults, including many still repaying student loans for a non-existent award. They represent years of missed opportunities for institutions, state and federal policy makers, communities and, often, employers as well, to find more effective ways to fund and support all those who are willing to invest so much time and effort in their education beyond high school.

Methodological Notes

This report examines six-year college student success outcomes, focusing primarily on degree and certificate completion of a cohort of first time-in-college, degree-seeking students who started their postsecondary education at U.S. colleges and universities in the fall of 2017 through June 30, 2023. Outcomes examined include completion (i.e., receipt of any postsecondary credential by the end of the study period), major at completion, persistence (i.e., having enrollment records at any postsecondary institution during the last year of the study period), and stop-out without completion (i.e., having no enrollment records at any postsecondary institution during the last year of the study period). The report mainly focuses on students' first ever completions, with further distinctions drawn between completions awarded at the institution where a student first enrolled (his or her starting institution) and those awarded at an institution other than their starting institutions. For students who started at a two-year public institution, this report also presents an overview of their completions at a four-year institution, either as a first completion (i.e., those who completed at a four-year institution without having first earned a credential at a two-year institution¹) or as a subsequent degree after a first completion awarded in the two-year sector.

¹ Throughout this report, "two-year institution" is used broadly to designate institutions offering both associate degrees and less-than two-year degrees and certificates.

Data Coverage

The National Student Clearinghouse currently collects data from more than 3,600 postsecondary institutions, which represent 97 percent of the nation's postsecondary enrollments in degree-granting institutions, as of 2022. The enrollment data used in this report provide an unduplicated headcount for the fall 2017 first-time college entering student cohort. Clearinghouse data track enrollments nationally and are not limited by institutional and state boundaries. Moreover, because this database is comprised of student-level data, researchers can use it to link concurrent as well as consecutive enrollments of individual students at multiple institutions.

Cohort Identification, Data Cut, and Definitions

This report examines completion, over a span of six years, for the cohort of first time-in-college degree-seeking students who started their postsecondary studies at U.S. colleges and universities in the fall of 2017 for six-year outcomes (through June 30th, 2023). To limit the cohort to first-time undergraduate students only, the study uses data from the Clearinghouse's enrollment reporting and DegreeVerify

services to confirm that students included in the study fulfilled the following conditions:

1. Enrolled in a Title IV degree-granting institution in fall 2017, excluding territories outside the U.S. (e.g., Guam, Puerto Rico, or the U.S. Virgin Islands).
2. Did not have a previous enrollment record, as shown in the Clearinghouse data, prior to the first day of enrollment in the fall of 2017, unless the previous enrollment record was before the student turned 18 years old (qualified as former dual enrollment students);
3. Did not receive any degree or certificate from a postsecondary institution prior to the first day of enrollment in fall 2017, according to Clearinghouse data unless the award date was before the student turned 18 years old (dual enrollment);
4. Had at least one legitimate enrollment status throughout the study period; that is, enrolled for at least one term with full-time, part-time (i.e., halftime or less than half-time), or withdrawal status²;
5. Showed intent to seek a degree or certificate. That is:
 - For students who started at four-year institutions, enrolled at least one term with an intensity of halftime or higher.
 - For students who started at two-year institutions, either:
 - Enrolled full time for at least one term before August 10, 2017, or
 - Enrolled three-quarter time for at least one term or half time for any two terms before December 31, 2018³

² The Clearinghouse receives enrollment status data as full-time, half-time, less-than-half-time, withdrawal, or other statuses from its participating institutions.

³ We excluded 199,909 students who began at two-year institutions as non-degree-seeking students as a result.

Race and Ethnicity

The race and ethnicity categories include Asian, Black, Hispanic, White, Native American, or Other. The Other category includes Native Hawaiian or other Pacific Islander, International, Two or More Races, and Unknown/Missing. Eleven percent of the data are unknown or missing race/ethnicity in the 2017 cohort.

Former Dual Enrollment Students

Beginning with the fall 2011 entering cohort, our definition of first-time student excludes *current* dual enrollment students, impacting largely two-year institutions. Interpret the trends with caution for two-year starters because removing dual enrolled students from the entering cohort caused the completion rate to decline. The new cohorts used after this change do include *former* dual enrollment students: first-time college students who had previously taken dual enrollment

courses. In this report, these are the students who enrolled in college courses prior to fall 2017 while still in high school. Students were identified as former dual enrollment students if they had an enrollment or degree record prior to fall 2017 that was before they turned 18 years old. Former dual enrollment students represent 24.7 percent of the fall 2017 cohort. As a proportion of the sample for each sector, former dual enrollment students represent 28.4 percent of the students who started in four-year public institutions, 21.4 percent of the students who started in two-year public institutions and 21.7 percent of those who started in four-year private nonprofit institutions. Only 10.1 percent of the students who started in four-year private for-profit institutions had prior dual enrollments.

Enrollment Intensity

In this report, enrollment intensity is classified as exclusively full-time, exclusively part-time, or mixed enrollment (including both full-time and part-time enrollments) throughout the study period. Each enrollment type is based on all regular terms in which the student was enrolled, regardless of intervening stopouts. In establishing students' enrollment intensity in this way, enrollments during summer terms (defined as terms with both the start date and the end date falling between May 1 and August 31 in any given year) and short terms (defined as terms lasting less than 21 days) were excluded from consideration.

For terms in which a student showed concurrent enrollment records (i.e., records that overlapped by 30 days or more), the two highest-intensity enrollments were considered. For example, a student concurrently enrolled half-time at two institutions was categorized as enrolled full-time for that term. In doing this, we create one single enrollment record from a set of concurrent enrollment records. The enrollment status for the single enrollment record is defined as full-time if (1) for terms with concurrent enrollments, the two highest-status enrollment records included at least one full-time enrollment, or one three-quarter-time enrollment and one at least less than half-time enrollment; or (2) for terms with concurrent enrollments, the two highest-status enrollment records both reflected half-time enrollment. The enrollment status for the single enrollment record is defined as half-time, if for terms with concurrent enrollments, the two highest status enrollment records included some combination of half-time and less than half-time enrollments, but no full-time enrollment, and no more than one half-time enrollment. Overall, the "exclusively fulltime enrollment" designation was assigned to students whose enrollment showed full-time enrollment for all regular terms in which the student was enrolled. The "exclusively part-time enrollment" designation was assigned to students whose enrollment for each term was three-quarter time, half-time or less than half-time. The category of "mixed enrollment" was applied to students who showed a combination of full-time and part-time enrollments across the terms under consideration. Finally, students who

showed records indicating withdrawal (i.e., students who were enrolled, but withdrew before the term ended) but no full-time or part-time enrollments were randomly assigned to an enrollment intensity category.

Concurrent Completion

For this report, we examined completion by first-time students at either two-year or four-year institutions. We defined completion as having obtained a degree or certificate at any institution within the six-year study period (i.e., by June 30, 2023). Clearinghouse data provide a unique headcount of U.S. college enrollments during each term, which allows for the tracking of individuals including those with concurrent completion. In preparing data for this report, a small number of individuals showed more than one completion awarded at multiple institutions on the same day. In these instances, a primary completion record was selected using decision rules specific to the sector of the student's starting institution.

The first set of decision rules was applied to students with concurrent completions who started at a two-year institution:

1. Concurrent Completions at Two Different Two-Year Institutions
 - Same institution over different institution: Completions at the starting institution were selected over completions at other institutions.
 - Random selection: If the first decision rule did not result in a single completion record being selected, then a completion record was selected at random.
2. Concurrent Completions at a Two-Year Institution and a Four-Year Institution
 - Two-year then four-year: The two-year degree completion was considered the first completion and the four-year degree completion was considered a subsequent completion.
3. Concurrent Completions at Two or More Four-Year Institutions
 - Random selection: If a student started at a two-year institution but later completed at two or more four-year institutions concurrently, then a completion record was selected at random.

The second set of decision rules was applied to students who started at four-year institutions and later showed concurrent completion records:

1. Same institution over different institution: Completions at the starting institution were selected over completions at other institutions.
2. Four-year over two-year: If the first decision rule did not result in the selection of a single completion record, then completions at four-year institutions were selected over those at two-year institutions.
3. Random selection: If neither of the first two decision rules resulted in the selection of a single completion record, then a completion record was selected at random.

Imputation of Values for Gender

The Clearinghouse's coverage of student gender has increased dramatically for enrollments occurring in recent years. However, imputation of gender for the majority of enrollment records is still necessary in order to use the data for research studies using older cohorts. To meet this need, the Research Center developed an imputation process based on first names. Previously submitted name gender pairs throughout the Clearinghouse database are used to determine the probability of any first name being associated with either gender. To increase the accuracy of the imputation process, the Research Center also draws on name-gender data from the Social Security Administration (SSA) and the U.S. Census Bureau. Because the Clearinghouse collects transactional data, its data contain many more unique first names than other sources. The imputation used only those pairs in which the name occurred in at least two instances and was associated with a single gender in at least 95 percent of the instances. The SSA and Census data sets were used to ensure that name-gender pairs were consistent across every data set in which they occurred and to enhance the imputation process by contributing name-gender pairs that did not occur in the Clearinghouse data. The imputation process that yielded additional gender codes produced a total gender coverage rate of 94 percent.

Imputation of Missing DegreeVerify Graduation Data

The Clearinghouse collects graduation information from its participating institutions via two data reporting services: Enrollment Reporting and DegreeVerify. Enrollment Reporting has higher data coverage rates, but includes only basic completion information such as graduation indicator and the date of graduation. For the fall 2017 cohort, Enrollment Reporting covered 97 percent of all the students in Title IV degree-granting institutions listed in IPEDS (including 99 percent of the students in public institutions, 95 percent in private nonprofit institutions, and 71 percent in private for-profit institutions). DegreeVerify reports include enhanced information on completions, including degree title, major, level, and CIP code, but covered only 94 percent of enrollments in 2017. Institutions may participate either in Enrollment Reporting alone or in both services. Completions data for this report included information drawn from either service. An analysis conducted by the Clearinghouse on the 2016 cohort found that graduation data for the institutions that participated in DegreeVerify were relatively more complete for some of the years covered in this study than those for institutions that participated only in Enrollment Reporting, biasing completion rates slightly downwards for institutional sectors with lower participation rates in DegreeVerify. To correct for this bias, the Research Center conducted a randomized imputation procedure for missing graduation data among students at non-DegreeVerify institutions who were no longer enrolled but for whom outcome data were missing (that is, for whom the institution

had reported neither a graduation nor a withdrawal status in their Enrollment Reporting). This involved comparing the Enrollment Reporting and DegreeVerify records for institutions that participated in both services and estimating, for each institution type, the average percentage of students with missing outcomes in the enrollment data who had a reported graduation in the DegreeVerify data. We further specified these underreporting rates by taking into account student age and the academic year. We then used random assignment of graduation outcomes to students with missing data at the institutions that did not participate in DegreeVerify to match each institution's underreporting rate for each student age group and for every year of the study to the average rate for similar students at institutions of the same type that did participate in DegreeVerify. This imputation was performed only for students with missing outcomes data at institutions that did not participate in DegreeVerify. It is based on the typical underreporting of graduation outcomes from similar institutions that participate in both Enrollment Reporting and DegreeVerify. The table below shows, for each institution type, the percentage of the starting cohort for whom graduation data were imputed:

Starting Institutional Sector	Percentage of the Cohort with an Imputed Completion
Private For-Profit Two-Year	0.17%
Private Nonprofit Two-Year	0.51%
Community College	0.40%
Private For-Profit Four-Year	0.18%
Private Nonprofit Four-Year	0.28%
Public Four-Year	0.24%
Total	0.29%

Adjusting Noncoverage through Weighting by State and Institution Type

The institutions participating in the Clearinghouse Enrollment Reporting service do not cover 100 percent of all Title IV, degree-granting institutions in the U.S. To account for possibilities of not capturing a student's enrollment outcome because of non-coverage of Clearinghouse data, weights were calculated using the 2021 coverage rate of the sector, control, and state of the institution where a student was enrolled for the last enrollment record. Our data covers three different groups of students: First, students who completed a degree at the starting institution or were still enrolled at the starting institution by the end of the study period. Second, students who completed a degree or were still enrolled at a different institution by the end of the study period. And third, students who stopped out by the end of the study period. However, the number of students who stopped out is likely overestimated due to under coverage. Specifically, students that show up as no longer enrolled may have potentially transferred to an institution that does not submit data to the Clearinghouse. Therefore, the number of stop-outs in the U.S. is likely lower than observed in our data, and the number of transfer

students is likely higher. To take this into account, we overcount transfer students and undercount stop-outs (“missings”). For students who completed a degree or were still enrolled at a different institution by the end of the study period, a “transfer” weight > 1 was applied. This transfer weight is based on the coverage of the sector, control, and state of the institution in which the student was enrolled for the last enrollment record, as calculated by the formula provided below:

$$\text{Transfer Weight} = \frac{\text{Transfer Counts} + [\text{Missing Counts} \cdot \text{Noncoverage Rate}] \cdot \frac{\text{Transfer Counts}}{\text{Nonmissing Counts}}}{\text{Transfer Counts}} > 1$$

For students who stopped out by the end of the study period and for whom any further observations are missing, a “missing” weight < 1 was applied. This missing weight is based on the coverage of the sector, control, and state of the institution in which the student was enrolled for the last enrollment record, as calculated by the formula provided below:

$$\text{Missing Weight} = \frac{\text{Transfer Counts} - [\text{Missing Counts} \cdot \text{Noncoverage Rate}] \cdot \frac{\text{Transfer Counts}}{\text{Nonmissing Counts}}}{\text{Transfer Counts}} < 1$$

Note for completeness that we assign a weight of one to the first group of students who completed a degree at the starting institution or were still enrolled at the starting institution by the end of the study period.

Data Limitations

The data limitations in this report center mainly on the data coverage, the methods used for cohort identification, and the definition of key constructs (as outlined above). The representation of private for-profit institutions in the Clearinghouse data is lower than that of other institution types, with 82 percent coverage for four-year private for-profit institutions in fall 2017 compared to 96 percent and 99 percent respectively for four-year private nonprofit institutions and four-year public institutions. Despite the challenges presented by low participation in the early years covered in this report, current Clearinghouse data nevertheless offer

near-census national coverage, representing 97 percent of U.S. postsecondary enrollments. In an effort to correct for coverage gaps in this study, data were weighted (as explained above).

Data limitations resulting from the cohort identification methods used in preparing this report should also be noted. Because the Clearinghouse data on designations for class year are incomplete, the researchers identified first-time undergraduate students via two indirect measures:

- No previous college enrollments recorded in the Clearinghouse data, and
- No previous degree awarded in the Clearinghouse’s historical DegreeVerify database.

Given these selection criteria, the sample for this report may include students who had more than 30 Advanced Placement (AP) or International Baccalaureate (IB) credits. It is also possible that a small number of graduate students are included in the study cohort because of inconsistencies in the historical depth of DegreeVerify database records.

Finally, although Clearinghouse data contain some demographic information on students, historical coverage rates for the demographic data elements are uneven. Consequently, results on gender are based partially on imputed values, as described above and slightly over one in six students in the cohort had the race/ethnicity value unknown or missing. No imputation was attempted for missing race/ethnicity data.

Suggested Citation

Lee, S. & Shapiro, D. (December 2020), *Completing College: National and State Report with Longitudinal Data Dashboard on Six- and Eight-Year Completion Rates*. (Signature Report 22), Herndon, VA: National Student Clearinghouse Research Center

Special thanks to Diana Gillum and Jennifer Causey for their assistance with this report