

TRACKING TRANSFER

Four-Year Institutional Effectiveness in Broadening Bachelor's Degree Attainment





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A bachelor's degree is increasingly necessary for securing a job that pays a family-supporting wage, yet while most community college students aspire to transfer and complete a bachelor's degree, too few make it through to this goal. As is clear from the companion report on community college transfer outcomes, some responsibility for this lies with community colleges. But four-year institutions—which tend to have more financial resources to invest in student success—also need to do more to serve students who transfer from community colleges. These students make up a substantial proportion of four-year enrollments and tend to be more diverse in terms of family income, race, and age than students who start college at a four-year institution.

Yet, as this report shows, although more than 80% of community college transfer students are retained into their second year, only about half complete a bachelor's degree within four years after transferring, and completion rates are even lower for low-income, Black, Native American, and older students. This report, which provides first-of-its-kind data on four-year institution outcomes for community college transfer students, is designed to be used by university and state-system leaders to set clear goals for eliminating disparities and expanding transfer opportunity for all students who start at a community college with the dream of earning a bachelor's degree.

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Inside This Report:

Key Findings

The analysis in this report offers insights into how effective four-year institutions are in enrolling and supporting community college transfer students. Using data on students who entered four-year institutions in 2015–16, we report on the prevalence of transfer, the retention and bachelor's completion outcomes of community college transfer students, and the extent to which they are represented among graduates in various majors. We disaggregate findings and examine differential outcomes for low-income, Black, Hispanic, and older students (those 25 years old or older). Here are some major findings from the report.

Community college transfer pathways are a major source of enrollments and diversity at four-year institutions.

One in five entering students at public four-year institutions is a community college transfer—in California this ratio is one in four, and in Florida it is one in three. Community college transfer students are also more likely to be from low- and middle-income neighborhoods and to be Black and Hispanic than their non-transfer peers. Community college transfer students account for more than a quarter of low-income public four-year entrants in 8 states, more than a quarter of Black public four-year entrants in 6 states, and more than a quarter of Hispanic public four-year entrants in 14 states. These data demonstrate how crucial the community college transfer pathway is to state and national efforts to broaden bachelor's degree attainment.

Community college transfer students who enroll in very selective four-year institutions are more likely to be low-income, Black, and Hispanic in comparison to their non-transfer peers (those who enter as first-time freshman students).

Our analysis documents how community college transfer can be a key strategy for achieving socioeconomic and racial diversity at very selective four-year institutions. Community college transfer students collectively are more likely to be from a low-income background and to be Hispanic than non-transfer students (30% versus 25%, and 16% versus 11%, respectively). However, very selective institutions have a long way to go to realize the full potential of transfer pathways. For instance, very selective four-year institutions under-enroll community college transfer students (while 35% of non-transfer students enroll at very selective institutions, only 24% of community college transfer students do so). And although their transfer students are more diverse than their non-transfer peers (22%, 7%, and 14% of community college students transferring to very selective institutions are low-income, Black, and Hispanic, compared to

15%, 6%, and 8% of entering non-transfer students, respectively), they are much less diverse than community college students as a whole (36%, 14%, and 24% of whom are low-income, Black, Hispanic, respectively, as described in the community college-focused report that is a companion to this report).

Outcomes for community college transfer students after they arrive at four-year institutions are low overall and even lower for some student subgroups.

While 81% of community college transfer students are retained into their second year after transferring to four-year institutions, only about half complete a bachelor's degree within four years of transferring in. Transfer is often billed as a "2 + 2 pathway" (i.e., two years at the community college and two years at the four-year institution), yet only 18% of students complete a bachelor's degree within two years of transferring in. And disparities in retention and graduation rates are largest for low-income, Black, Native American, and older transfer students.

Transfer students who earn a pretransfer community college award have much stronger post-transfer outcomes.

The bachelor's degree completion rate for transfer students who complete a pre-transfer associate degree or certificate at the community college is 25 percentage points higher than for students who transfer without completing a community college award (67% versus 42%). Prior award completion is associated with a boost to transfer student bachelor's degree outcomes across demographic groups, with especially large positive differences for low-income (+27 percentage points) and Black (+29 percentage points) transfer students with

an award. However, the majority of community college transfer students—59%—do not arrive at four-year institutions with a pre-transfer award.

5 Students who transfer to four-year institutions from community colleges are retained at higher rates than students who transfer from other four-year institutions.

Eighty-one percent of community college transfer students are retained into the second year at the four-year institution, whereas among "lateral" transfers this rate is 66%. The higher retention rate among community college transfers is consistent across all demographic groups. Though not a direct comparison, the bachelor's completion rate (within four years) of community college transfer students also outpaces that of non-transfer and lateral transfer students (52% versus 37% and 35%, respectively).

Among different types of four-year institutions, for-profit colleges and predominately online institutions (POIs) have the weakest transfer outcomes.

For-profit colleges and POIs enroll smaller proportions of community college transfer students (6% and 7%, respectively) but fail the vast majority of these students: Only a quarter of community college transfers at these institutions (23% and 25%) complete a bachelor's degree within four years of transfer, and only modestly more (27% and 30%) do so within six years. Black community college transfer students are twice as likely as others to enroll at for-profits and POIs (13% do so at both types of institutions, versus 6% and 7% among all community college transfers), but they graduate with bachelor's degrees at nearly half (13% and 14%, within four years of

transfer) the already low rate of all community college transfers at these institutions.

Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs) and Hispanic-Serving Institutions (HSIs) exhibit stronger transfer outcomes.

Four-year AANAPISIs and HSIs enroll substantial numbers of community college transfer students: AANAPISIs serve at least 13% of Native American and Native Pacific Islander transfer students, and HSIs serve at least 29% of Hispanic transfer students. They also graduate community college transfer students at higher rates than do four-year institutions generally (58% and 65%, versus 55%). We do not find that this strong performance is because AANAPISIs and HSIs are more selective—many are moderately selective or nonselective and yet graduate community college transfer students at rates similar to those of very selective institutions. These institutions are especially successful at enrolling and graduating Hispanic transfer students, which suggests they play an outsized role in driving four-year completion rates for this demographic group.

Community college transfer students who graduate are less likely to earn a bachelor's degree in a STEM field than graduates who are not transfer students.

Community college transfer students who complete a bachelor's degree are overrepresented in public services and administration, business, health professions, and social and behavioral sciences fields, and they are underrepresented in STEM fields. As programs of study are strongly associated with post-graduate earnings and economic mobility, this finding should prompt college

leaders to consider how to increase community college transfer student participation in high-wage, high-demand STEM fields.

Among public four-year institutions, a handful of states have strong results overall without gaps for low-income, Black, Hispanic, and older community college transfer students.

More than three fourths of states have public four-year institutional outcomes that are below the national average for community college transfer students. In 24 states, the transfer-in bachelor's completion rate (within four years of transfer) is below 50%, and public four-years in relatively few states graduate low-income (12 states), Black (13 states), Hispanic (7 states), or older (8 states) community college transfer students at rates above the national average for these subgroups. Among low-income transfer students at public fouryear institutions, disparities relative to the completion rate of all community college transfer students persist in nearly every state. Public four-year institutions in only three states (Florida, California, and Washington) graduate Black transfer students at rates above the national average of 57% for all community college transfer students at public four-year institutions, and few states exhibit strong results overall without gaps for low-income (California and Washington), Black (Washington), Hispanic (California and Virginia), or older (California and Washington) community college transfers. Community college transfer student outcomes at private nonprofit four-year institutions—for both students overall and for low-income, Black, Hispanic, and older students are lower, on average, than those at public four-year institutions.

Key Findings From Companion Report Tracking Community College Transfer Performance

In a companion report, Tracking Transfer: Community College Effectiveness in Broadening Bachelor's Degree Attainment, we track transfer outcomes of community colleges nationally and by state. Here are seven major takeaways from that analysis:

Community college students who started in 2015 transferred to fourvear institutions at the same rate as those who started in 2007; however, steady gains nationally in bachelor's completion rates mean that more of the 2015 transfer students graduated.

Nationally, transfer pathways to four-year institutions from community colleges produce low transfer and bachelor's completion rates for students, especially for low-income, Black, and other populations underrepresented among bachelor's degree holders.

Some states produce stronger outcomes relative to others, but there are no states in which at least one in four entering community college students earns a bachelor's degree.

No state in which low-income,
Black, or older students comprise at least 10% of the entering cohort at their community colleges produces bachelor's completion rates for these groups above the national average for all students.

State-level bachelor's completion rates for Hispanic community college entrants are better than for other groups examined, with some states having no disparities in outcomes for Hispanic students; however, states with the largest shares of Hispanic students produce **Hispanic completion rates that are below** the national average for all students.

A small but noteworthy number of colleges achieve transfer outcomes for Black or Hispanic students that are high relative both to all students at their college and to all students nationally.

Transfer outcomes of prior high school dual enrollment students are stronger than those of students who start college without having taken any dual enrollment courses, suggesting the potential of dual enrollment to pave the way to bachelor's completion.

Introduction

Earning a bachelor's degree is the predominate educational path to securing a living-wage job, building intergenerational wealth, and supporting a vibrant, civically engaged democracy. Yet, nationally, only 15% of young adults from the lowest income backgrounds complete a bachelor's degree by age 24, compared with 59% of their wealthier peers (Pell Institute, 2022). Similarly, only 28% of Black adults and 21% of Hispanic adults over the age of 25 hold a bachelor's degree, compared with 42% of White adults (U.S. Census, 2022).

The community college transfer pathway has long held potential as an accessible and affordable route to the bachelor's degree for low-income, Black, Hispanic, and other populations underrepresented among bachelor's degree holders. However, too few entering community college students transfer to a four-year institution (as shown in the companion report on community college transfer outcomes), and too few of those who do transfer complete a bachelor's degree. Outcomes for low-income, Black, Hispanic, and older students are even lower.

Four-year institutions play an essential role in improving transfer outcomes. In partnership with community colleges, four-year institutions can achieve stronger rates of both bachelor's program enrollment and degree completion among community college transfer students. To date, national- and state-level reporting of measures of institutional and state effectiveness in serving community college transfer students has largely focused on community college performance (Jenkins & Fink, 2016; National Student Clearinghouse Research Center [NSCRC], 2022a). While there have been important advances in tracking four-year institutional effectiveness,

there remain no regularly reported four-year measures at either state or national levels that allow for cross-state or institutional benchmarking (Glynn, 2019; NSCRC, 2022b). This has resulted in a lack of transparency and accountability regarding how four-year institutions and state higher education systems are serving community college transfer students and how they could do better.

In this report, we use National Student Clearinghouse (NSC) data for the 2015–16 four-year institution entry cohort to measure the performance of four-year institutions in enabling community college transfer students, particularly those from groups underrepresented among bachelor's degree holders, to enter, progress toward, and complete a bachelor's degree program. We present a set of four metrics with national and state-level results describing four-year institutional measures of (1) the proportion of transfer students served, (2) retention one year after transfer, (3) completion of a bachelor's degree, and (4) representation among bachelor's degree majors at graduation.

GLOSSARY OF TERMS

CC-Community College

DE-Dual Enrollment

FTIC-First Time Ever in College

IPEDS-Integrated Postsecondary Education Data System

NSC- National Student Clearinghouse

PDE-Prior Dual Enrollment

Data and Definitions

Data Sample

To measure the rates at which four-year institutions enroll, retain, and graduate with bachelor's degrees students who start at a community college or other four-year institution (i.e., community college and lateral transfer students), we use NSC data on undergraduate students who were enrolled for the first time at any public or private four-year institution in the 2015–16 academic year and with no other prior enrollments at that four-year institution. For these students, NSC provides enrollment and degree records backward ten years and forward six years. That is, we can track students starting at a given four-year institution in the 2015–16 academic year who had any prior enrollment or degree completion at any other postsecondary institution, either four-year or two-year, back to August 2005, and we can observe their enrollments and degrees at any postsecondary institution up until August 2022. NSC reports enrollment data coverage rates of between 89%-98% for students enrolled at four-year institutions between 2005 and 2022 (with coverage rates above 95% for four-year institutions nationally since 2015-16). Our initial dataset included students who started at a four-year institution nationally during the 2015–16 academic year. We excluded students who were entering at the graduate level or had previously earned a bachelor's degree, leaving 3,233,163 entering undergraduate students.

NSC data enable us to distinguish whether entering students had previously or were currently during 2015–16 enrolled in college coursework before completing high school through dual enrollment programs.¹ Of the entering 3.2 million undergraduate students in 2015–16, 78% had no current or prior dual enrollment records, 15% had a prior dual enrollment record, and 7% were

Our analyses in this report focus on students with no current or prior dual enrollment.

currently dually enrolled at the four-year institution. Dual enrollment students comprise a considerable share of enrollments among the four-year institution entering cohort nationally, although the proportion varies considerably across states. *Appendix Figure A1* shows the distribution of students by dual enrollment status across states in the 2015–16 entry cohort at four-year institutions. For example, in Washington, DC, and Arizona (top rows in the figure), 89% of students had no current or prior dual enrollment records. But in Minnesota (bottom row in the figure), 24% of the entry cohort at four-year institutions were dual enrollment students, and 17% of students had some prior dual enrollment.

Our analyses in this report will focus on students with no current or prior dual enrollment. We chose these students as they share a similar starting point in their higher education experience. To shed light on transfer outcomes of dual enrollment students, the companion report on community colleges presents transfer metrics on dual enrollment students who started at community colleges in the fall of 2015. The final analytic sample for this report includes 2,508,907 entering undergraduate students at 1,514 four-year institutions nationally, excluding current and prior high school dual enrollees.

Student Characteristics

Below we present the definitions of the student characteristics examined in this report. We categorize transfer students at four-year institutions into two groups: community college transfer students and lateral transfer students (i.e., those transferring from one four-year institution to another four-year institution). Figure 1 provides descriptive statistics for the 2015–16 student cohort tracked in this report. Overall, compared to students who begin college for the first time at four-year institutions (referred to as "non-transfers"), community college transfer students are more likely to be in their early 20s (rather than 18 or 19 and just out of high school), Hispanic, and from low-income backgrounds.

- Community college transfer student: We define a student as a community college transfer if their last enrollment prior to their start at the four-year institution was at a community college and the student started at the community college within six years prior to transferring. Of the 2,508,907 who started at a four-year institution in 2015–16, 396,287 (16%) were community college transfers (they were enrolled at a community college within the prior six years).
- Lateral transfer student: We define a student as a lateral transfer if their last enrollment prior to their start at the four-year institution was at another four-year institution and the student started at that four-year institution within six years prior to transferring. Of the 2,508,907 who started at a four-year institution in 2015–16, 272,369 (11%) were lateral transfers (they were enrolled at another four-year institution within the prior six years).

- Non-transfer student (first-time student): Students entering four-year institutions during the 2015–16 academic year without any prior postsecondary enrollments (non-transfer students) comprise the remainder of the analytic sample, totaling 1,840,251 students (73% of the sample).
- Student race/ethnicity and gender: We use data provided by NSC on student racial/ethnic group and gender at the start of 2015–16. NSC has strong data coverage for this demographic information among transfer students at four-year institutions. Among community college transfer students, only 9% have missing information on race/ethnicity, and only 2% have missing information on gender. Among lateral transfer students, 11% have missing information on race/ethnicity and 2% have missing information on gender. The coverage is somewhat less strong among non-transfer students, as 17% of such students have missing information on race/ethnicity and 5% have missing information on gender. Forty-two percent of non-transfer and lateral transfer students are men, and 44 percent of community college transfer students are men.
- Age group: NSC provides the student age as of January 1, 2016. We use this to classify students into four age groups: students who were 17 years old or younger at that time, students who were 18 or 19 years old, students who were 20 to 24 years old, and students who were 25 years old or older. We refer to the latter group also as older students. Most non-transfer students were 18 or 19 years old, whereas the largest age group of community college and lateral transfer students were 20 to 24 years old. Older students make up 27%, 30%, and 32% of

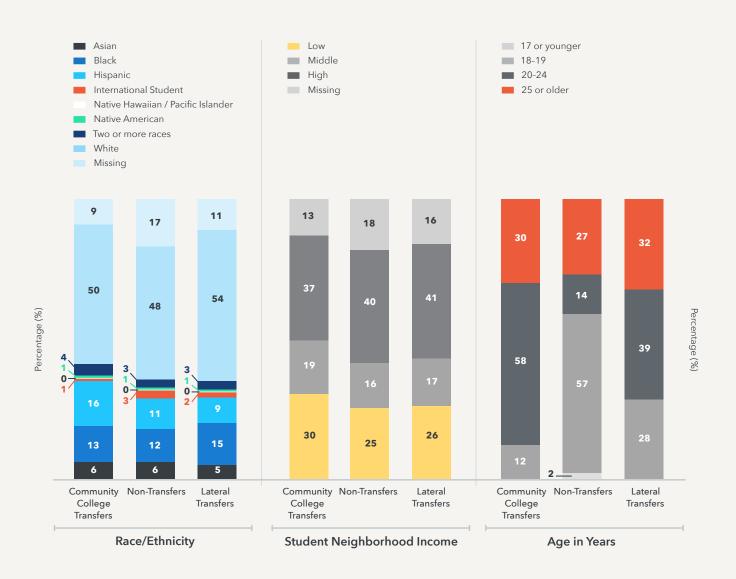
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non-transfer, community college, and lateral transfer students, respectively.

• Neighborhood income: We capture student income by using a proxy measure based on U.S. Census tractlevel estimates of household median income linking students' neighborhood income to their home address. To best approximate household socioeconomic origins, NSC uses the first U.S. home address that was reported for each student. Income data for each tract is taken from the U.S. Census 2009–2014 American Community Survey five-year estimates. Students from Census tracts with median household incomes in the bottom 40% nationally are identified as low-income, students from Census tracts with median household incomes in the top 40% nationally are identified as high-income, with the remaining middle 20% nationally identified as middle-income. The procedure yields a higher rate of missing data than other student-level variables: 18% of the non-transfer students are missing the income proxy information, and 13% and 16% of community college and lateral transfer students are missing this information.

• Community college transfer with an award: Among community college transfer students, we also flag those students who earned a community college certificate or associate degree prior to their start date at the four-year institution (and during the six years prior to transfer). Among community college transfer students in the 2015–16 cohort, 41% transferred with a community college award (38% with at least an associate degree, 8% with at least a certificate, and 5% with both), and the remaining 59% did not transfer with a community college award. See Figure 1 on the next page.

Figure 1. Student Characteristics at Four-Year Institutions by Transfer Status



Institutional Characteristics

We describe the institutional characteristics used in the analysis below.3 Table 1 provides descriptive statistics on institutional characteristics among four-year institutions students in the 2015-16 entry cohort.

- **Sector:** We classify four-year institutions into public, private nonprofit, and private for-profit sectors using IPEDS and Carnegie classification information from the 2021–22 academic year. Of the 1,514 institutions in our sample, 534 are public, 950 are private nonprofit, and 30 are private for-profit. Across all transfer groups, most students are enrolled in public institutions—fewer than 10% are enrolled in private for-profit institutions.
- **Urbanicity:** We use the urbanicity definition from the 2015 Carnegie classification, which categorizes institutions as rural, urban, or suburban/town. In our sample, 664 four-year colleges are in suburban/town areas, 770 are in urban areas, and 78 are in rural areas. About two thirds of students are enrolled in urban colleges, about one third are enrolled in suburban/town colleges, and 2% are enrolled in rural colleges. The distribution of students by college urbanicity is similar among transfer and non-transfer students.
- College selectivity: We use the 2015 Carnegie classification to categorize four-year institutions into three groups: very selective, moderately selective, and nonselective.4 In our sample, 395 four-year colleges are classified as very selective, 538 as moderately selective, and 498 as nonselective. Twenty-four percent of community college transfer students in the sample are enrolled at very selective institutions, whereas 35% of non-transfer and 28% of lateral transfer students are so enrolled. In contrast, 44% of community college transfer students are enrolled at moderately selective institutions,

- while 35% and 36% of non-transfer and lateral transfer students are so enrolled.
- Predominantly online institutions (POIs): Any institution in which the primary campus reports that more than 90% of its students (undergraduates and graduates combined) enrolled exclusively in distance education courses (online) before the Covid-19 pandemic began is flagged as a POI. This measure is based on the distance education survey items in the IPEDS fall 2021 enrollment survey. Eighteen four-year institutions are identified as POIs (3 are public, 7 are private nonprofit, and 8 are private for-profit institutions). Six percent and 7% of non-transfer and community college transfer students are enrolled at POIs, whereas 11% of lateral transfer students are at a POI institution.
- Minority serving institutions (MSIs): We classify minority serving institutions using 2023 data from the U.S. Department of Education. MSIs are classified with the purpose of assigning discretionary federal grants and funding to expand an institution's capacity to serve certain populations. We classify institutions according to these served subgroups: Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Asian American Native American Pacific Islander-Serving Institutions (AANAPISIs). Our analytic sample includes 68 HBCUs, 116 HSIs, and 96 AANAPISIs. Notably, 17% and 19% of community college transfer students are enrolled at HSIs and AANAPISIs, respectively, while only 2% of community college transfers are enrolled at HBCUs. Our sample does not include sufficient data coverage from Tribal Colleges and Universities to report those as an MSI category.

See Table 1 on the next page.

Table 1. Institutional Characteristics of Four-Year Institutions

		Percentage of Stud	dent Enrollments by Institut	ional Characteristics	
Characteristic	Number of Institutions (n = 1,514)	Community College Transfers (%) (n = 396,287)	Lateral Transfers (%) (n = 272,369)	Non-Transfers (%) (n = 1,840,251)	
Sector					
Public four-year	534	74	63	62	
Private nonprofit four-year	950	20	28	31	
Private for-profit four-year	30	6	9	6	
Urbanicity					
Rural	78	2	2	2	
Suburban/town	664	36	35	35	
Urban	770	62	63	62	
Missing	2	0	1	1	
College Selectivity					
Non-selective	498	32	33	28	
Moderately selective	538	44	36	35	
Very selective	395	24	28	35	
Missing	83	1	3	2	
Predominantly Online Institution					
No	1,496	93	89	93	
Yes	18	6	11	7	
Minority Serving Institutions					
Not an MSI	1,234	63	79	76	
HBCU	68	2	2	2	
HSI	116	17	9	9	
AANAPISI	96	19	11	13	

Transfer Outcome Definitions

We measure four-year institutions' transfer outcomes by tracking the progress of the cohort of students who started at a four-year institution in 2015-16 up to six years after enrollment. We focus our results on four metrics for four-year institutions that aim to capture (1) the significance of the community college transfer population as a proportion of overall new student enrollments, (2) how effective four-year institutions are at supporting community college transfer student progress and retention one year after transferring in, (3) how effective four-year institutions are at getting community college transfer students to complete a bachelor's degree within two, four, and six years after transferring in, and (4) the extent to which four-year institutions have equal representation of community college transfer student bachelor's degree completers among graduates in high-value majors.

- Transfer-serving proportion: the proportion of four-year institution entrants who transfer in from a community college, and separately, the proportion who transfer in "laterally" from another four-year institution.
- 2. **Transfer-in retention rate:** the percentage of students retained at the four-year institution into the second year after transferring. We compute this measure separately for community college and lateral transfer students. For comparison, in some analyses we compute the second-year retention rate among non-transfer students.

- 3. Transfer-in bachelor's completion rate: the percentage of students who complete a bachelor's degree at the receiving four-year institutions within two, four, and six years. We compute this metric separately for community college and lateral transfer students.
- 4. **Transfer representation across majors:** the distribution of majors of bachelor's degrees completed within six years after transferring in by community college transfer students, compared to the distribution of majors of bachelor's degrees completed by non-transfer (first-time freshman) students within six years of beginning at the four-year institution.

It is important to keep in mind that the community college transfer students we track in this report have already successfully made the transition to a four-year institution; they represent only a fraction of community college starters aspiring to transfer. As detailed in the companion report focusing on community college performance, only about one in three students transfer to a four-year institution within six years of community college entry, and this transfer-out rate has not changed much over the past decade. Therefore, the population of community college transfer students examined in this report is a selective subset of transfer-aspiring community college entrants, representing those students who made it to the four-year institution.

National Transfer Outcomes for Four-Year Institutions

Transfer Student Proportion by Subgroup and by State

The community college transfer pathway is a major source of enrollments and diversity for four-year institutions.

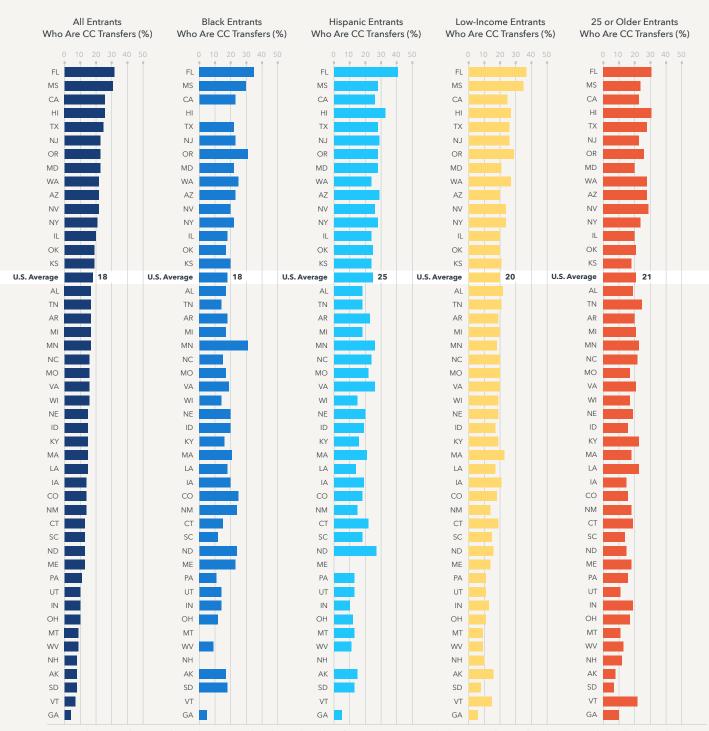
A fifth of entering students at public four-year institutions were community college transfers in 2015–16, and in five states, community college transfers made up a quarter or more of new enrollments (Florida, Mississippi, California, Hawaii, and Texas). Figures 2 and 3 show the transferserving proportions of four-year institutions, that is, the percentage of all entering students at public four-year or at private nonprofit four-year institutions who arrived via the community college transfer pathway (top row). Nationally, a larger share of the entering cohort at public than at private four-year institutions are community college transfer students (18% versus 11%). There is wide variation in the four-year entering cohort composition by state. In California and Texas, about one in every four students entering public four-years are community college transfer students, and in Florida community college transfers account for about one in three students entering public four-year institutions.

For four-year institutions in many states, the community college transfer pathway is a key source of undergraduate diversity in terms of student race/ethnicity, neighborhood income, and age. *Figures 2* and 3 show the percentage of Black, Hispanic, low-income, and older students entering four-year institutions who arrived via the community college transfer pathway. At public four-year institutions (*Figure 2*), community college transfers account for a quarter or more of entering Black students in six states (Florida, Minnesota, Oregon, Mississippi, Colorado, Washington), a quarter or more of entering Hispanic

students in 14 states (Florida, Hawaii, Arizona, New Jersey, Oregon, Texas, Mississippi, Maryland, New York, North Dakota, Minnesota, California, Virginia, and Nevada), a quarter or more of entering low-income students in 8 states (Florida, Mississippi, Oregon, Hawaii, Washington, Texas, New Jersey, California), and a quarter or more of entering older students in 8 states (Hawaii, Florida, Nevada, Washington, Texas, Arizona, Oregon, Tennessee).

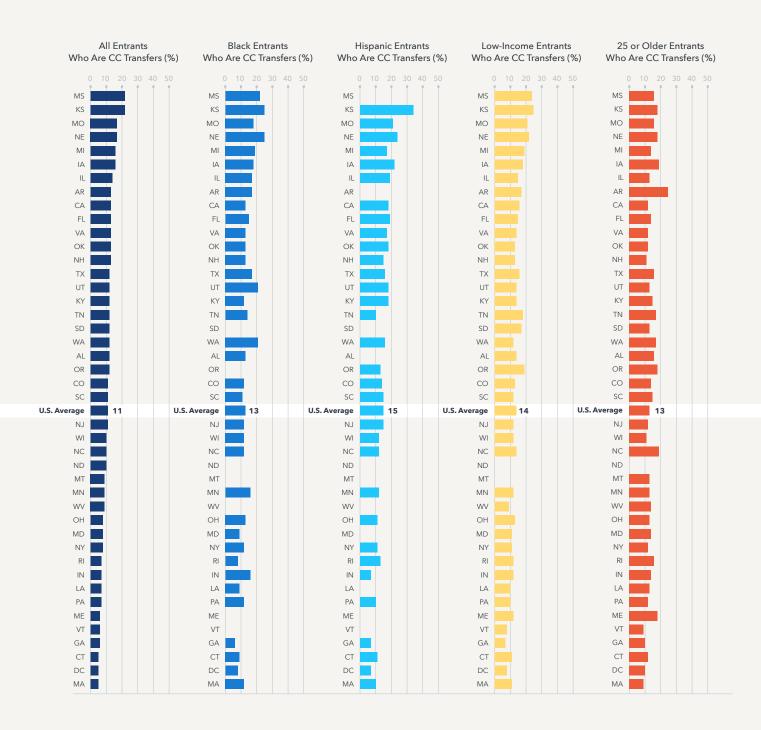
Nationally, only about one in 10 entering students at private nonprofit institutions arrived via the community college transfer pathway. However, more than one in five students entering such institutions in Mississippi and Kansas arrived via the community college transfer, and private nonprofit institutions in some states enroll even greater shares of their Black, Hispanic, low-income, and older populations via the community college transfer pathway (*Figure 3*). For example, community college transfers account for a quarter of entering Black students at private nonprofits in Kansas and Nebraska—two states that also have relatively large proportions of Hispanic and low-income students arriving at private nonprofits via the community college transfer pathway. *See Figures 2 and 3 on the following pages*.

Figure 2. Community College Transfer-Serving Proportions by State: Public Four-Year Institutions



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions and at least 30 students in the subgroup. We thus exclude entirely the District of Columbia (which we treat as a state) and the states of Delaware, Rhode Island, and Wyoming.

Figure 3. Community College Transfer-Serving Proportions by State: Private Nonprofit Four-Year Institutions



Transfer Diversity by Selectivity of Institution

Community college transfer students who enroll in very selective four-year institutions are more likely to be Hispanic, low-income, and Black compared to their non-transfer peers.

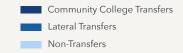
Community college transfer students at four-year institutions tend to have more diverse backgrounds than non-transfer students. Community college transfers are more likely to be Hispanic and from a low-income background than non-transfer students (16% versus 11%, and 30% versus 25%, respectively), and they are slightly more likely to be Black than non-transfer students (13% versus 12%). This is shown in *Figure 1* above, which presents the race/ethnicity and income distribution of community college transfers, lateral transfers, and non-transfers enrolled at four-year institutions in the 2015–16 academic year.

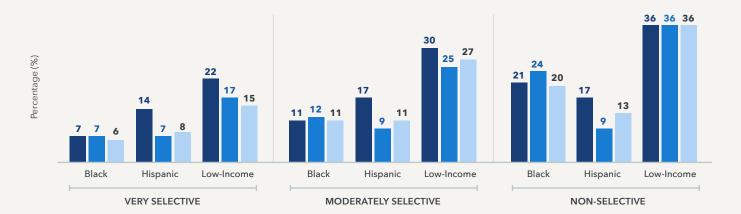
However, very selective institutions have a long way to go to realize the full potential of transfer pathways. As shown in *Table 1* above, very selective four-year institutions under-enroll community college transfer students (24% of the community college transfers enroll

at very selective institutions, compared to 35% of entering non-transfer students). Yet, when we examine the racial and income composition of students at very selective institutions (*Figure 4*), we find that their community college transfer students are more diverse than their non-transfer students: Fourteen percent and 22% of community college transfers at very selective institutions are Hispanic and low-income students, compared to 8% and 15% of their entering non-transfer students. Representation of Black community college transfers at very selective institutions is lower than that of Hispanic and low-income community college transfers, and it is only slightly above that of Black non-transfer students (7% versus 6%).

While the greater diversity among transfers is encouraging, comparisons with the cohort composition at community colleges—which very selective institutions could tap into more extensively—show that very selective institutions are still much less diverse than community colleges, where Black, Hispanic, and low-income students make up 14%, 24%, and 36% of the fall 2015 community college entry cohort.⁵ *See Figure 4 on the next page*.

Figure 4. Transfer Student Diversity at Four-Year Institutions





Retention and Bachelor's Completion

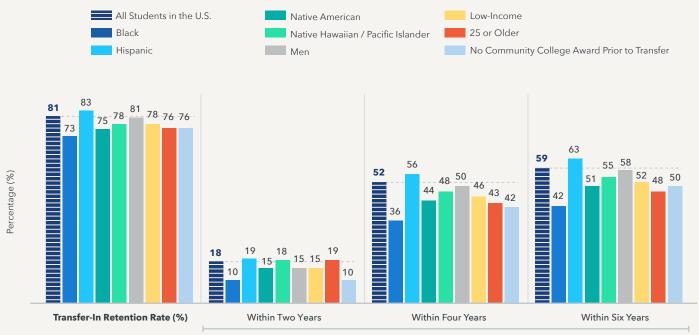
Outcomes for community college transfer students after they arrive at four-year institutions are low overall and even lower for many student subgroups.

Figure 5 shows transfer-in retention and transfer-in bachelor's completion rates within two, four, and six years at the four-year institution, disaggregating for priority subgroups of students. While 81% of community college transfer students are retained into their second year after transferring to the four-year institution, only 18% complete a bachelor's degree within two years of transferring in, and only about half complete a bachelor's within four years. Disparities are most stark for Black community college transfers, of whom only 10% and 36% complete within two and four years, respectively. Bachelor's completion rates increase only modestly (from

52% to 59% among all community college transfers) when students are tracked for six years rather than four, and disparities between groups remain similar.

Older students (25 years or older) and students who did not earn an award prior to transferring also have low retention rates (76% for each group) and bachelor's completion rates (43% and 42%) relative to national averages. Notably, the disaggregated data in *Figure 5* reveal disparities for most but not all of the selected subgroups. Four-year institutions have stronger retention and bachelor's degree completion rates within four years after transferring in for Hispanic community college transfer students (83% and 56%, respectively) compared to community college transfers overall (81% and 52%). *See Figure 5 on the next page*.

Figure 5. Community College Student Transfer Outcome Rates After Transferring to a Four-Year Institution



Transfer-In Bachelor's Completion Rate (%) in Years Since Entry to Four-Year Institution

Outcomes by Pre-Transfer Award Status

Those who complete a pre-transfer community college award have much stronger post-transfer outcomes.

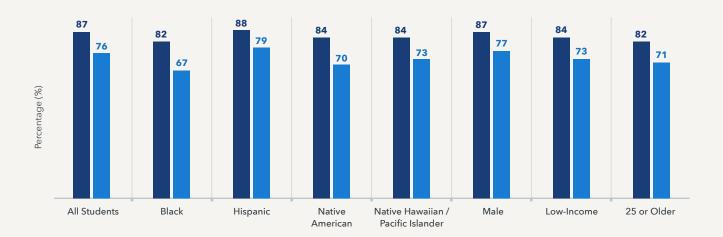
Figure 6 further breaks down community college transfer outcomes by whether or not students earned a credential at the community college prior to transfer. Community college transfer students who completed a pre-transfer award have much stronger transfer outcomes overall and within student subgroups. The transfer-in retention rate is more than 10 percentage points higher among students with a community college award (and 15 percentage points higher among Black students). The transfer-in bachelor's completion rate within four years after transfer

is 25 percentage points higher among students who transferred with an award (and it is 29 percentage points higher among Black students). Students with an associate degree, as opposed to a certificate, are the most likely to complete a bachelor's degree within four years (68%, see *Appendix Table A1*), suggesting the potential of the associate degree in advancing both four-year progression and completion. In theory, associate degree completers have satisfied half the requirements of a bachelor's degree. Their still-too-low four-year graduation rate suggests that major inefficiencies in credit transfer and applicability remain among associate degree completers. *See Figure 6 on the next page*.

Figure 6. Community College Transfer Outcome Rates by Pre-Transfer Award Status

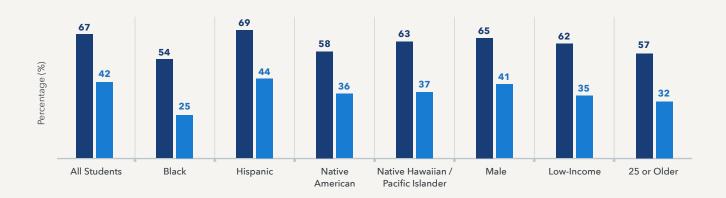
A. Community College Transfer-In Retention Rate by Pre-Transfer Community College Award





B. Community College **Transfer-In Bachelor's Completion Rate** Within Four Years by Pre-Transfer Community College Award





Outcomes Compared to Lateral Transfer and Non-Transfer Students

Community college transfer students are retained at four-year institutions at higher rates than lateral transfers and non-transfers.

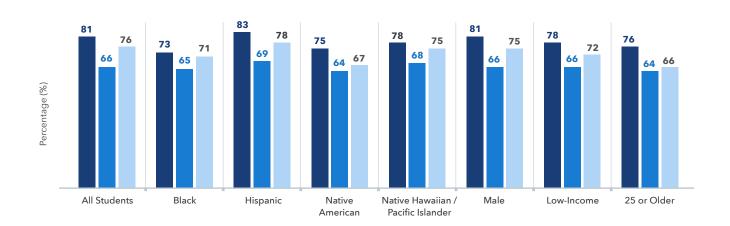
As shown in *Figure 7*, four-year institutions retain community college transfer students into their second year at higher rates on average than both lateral transfer students (from another four-year institution) and non-transfer entrants (who are enrolling for the first

time ever in college). Only 66% of lateral transfers and 76% of non-transfers are retained into their second year, whereas 81% of community college transfers are retained. Community college transfer students are retained at higher average rates than lateral transfers and non-transfers across racial, income, and age subgroups, with larger differences among Native American, low-income, and older student subgroups.

See Figure 7 below.

Figure 7. Retention Rates by Transfer Status





Outcomes by Institutional Characteristics

The type of four-year institution community college students transfer to matters for their post-transfer outcomes.

Table 1 above shows the share of four-year enrollments by student transfer status and institutional characteristics. Community college transfers are more likely to enroll at public, less selective, and HSI and AANAPISI institutions than lateral and non-transfer students. In *Table 2*, we further disaggregate the four-year institutional types to which community college students transfer. For example, while 6% of all community college transfer students enroll at private for-profit four-year institutions, 13% of Black community college transfers and 11% of older community college transfers do so. Similarly, 13% of Black and 14% of older community college transfers enroll at predominately online institutions, twice the rate of community college transfers overall (7%).

See Table 2 on the next page.

Table 3 disaggregates community college transfer-in bachelor's completion rates by institutional characteristic and student subgroup. Table cells are shaded white, blue, and orange in *Table 3*, indicating an outcome that is at, above, or below the national average, respectively. HSIs and AANAPISIs enroll outsized shares of transfer students and produce strong outcomes across most student subgroups. In general, four-year institutions, regardless of institutional characteristics, struggle to support Black and older students. Very selective four-year institutions graduate transfer students at high rates but enroll too few of them, especially Black, low-income, and older students.

Across all student subgroups, bachelor's completion rates are strikingly low among community college students who transfer to private for-profits or predominantly online institutions (POIs). While Black community college transfers are about twice as likely as students overall to transfer to private for-profits and POIs (13% do so at both types of institutions, versus 6% and 7% among all community college transfers), they are almost half as likely to complete a bachelor's degree at them within four years (13% and 14% at private for-profits and POIs, respectively) compared to community college transfers overall, who already complete at very low rates at these institutions (23% and 25%, respectively). The pattern of results is similar for transfer-in retention rates (Appendix Table A2), and it is consistent with Department of Education data documenting low transfer student completion rates at private for-profit institutions (Fink et al., 2023; Sotherland et al., 2023). See Table 3 on page 27.

As noted above, AANAPISI and HSI four-year institutions represent a subset of four-year institutions with stronger community college transfer outcomes, particularly for students of color and for male, low-income, and older students. It is important to recognize that these minority serving institutions are not more selective than other four-year institutions in the sample. Overall, 26% of four-year institutions in the sample are in the very selective category, and 26% of AANAPISIs and only 5% of HSIs are in the very selective category. In other words, there are many AANAPISIs and HSIs that are moderately selective or not selective that achieve strong outcomes for community college transfer students.

Table 2. Share of Community College Transfer Student Enrollments by Four-Year Institutional Characteristics

		Percentage (%)								
	All Students	Black	Hispanic	Native American	Native Hawaiian / Pacific Islander	Two or More Races	Men	Low- Income	25 or Older	
Sector										
Public four-year	74	65	80	75	73	77	78	72	63	
Private nonprofit four-year	20	22	16	16	20	19	18	20	26	
Private for-profit four-year	6	13	4	9	7	4	4	8	11	
Urbanicity										
Rural	2	3	1	3	1	2	2	2	2	
Suburban/town	36	31	33	36	31	36	37	33	33	
Urban	62	66	66	62	68	63	62	65	65	
College Selectivity										
Non-selective	32	50	35	31	39	30	28	38	46	
Moderately selective	44	37	45	43	39	43	45	44	38	
Very selective	24	13	21	26	22	26	27	18	17	
Predominantly Online Institution	7	13	4	9	9	4	5	9	14	
Minority Serving Institutions										
HBCU	2	10	1	3	2	1	2	3	2	
HSI	17	13	33	17	14	17	16	16	15	
AANAPISI	19	13	29	13	38	22	19	15	15	

Table 3. Community College Transfer-In Bachelor's Completion Rates Within Four Years by Institutional Characteristics



	Percentage (%)									
	All	Black	Hispanic	Native American	Pacific Islander	Two or More Races	Men	Low- Income	25 or Older	
All Students	52	36	56	44	48	51	50	46	43	
Sector				•						
Public four-year	57	42	59	47	53	55	54	52	49	
Private nonprofit four-year	44	29	46	42	40	44	42	38	38	
Private for-profit four-year	23	13	25	22	27	19	20	17	25	
Urbanicity										
Rural	44	31	47	35	*	41	41	40	41	
Suburban/town	54	39	57	45	43	50	51	48	46	
Urban	51	34	55	44	51	52	50	46	42	
College Selectivity										
Non-selective	40	26	48	31	39	39	37	35	36	
Moderately selective	55	43	58	46	50	53	52	51	49	
Very selective	65	53	65	57	62	61	62	60	53	
Predominantly Online Institution	25	14	25	23	27	20	23	19	27	
Minority Serving Institutions										
HBCU	35	32	35	35	42	32	31	33	40	
HSI	58	48	58	46	50	55	54	55	52	
AANAPISI	65	50	64	61	62	65	63	60	56	

Fields of Study Among Bachelor's Completers

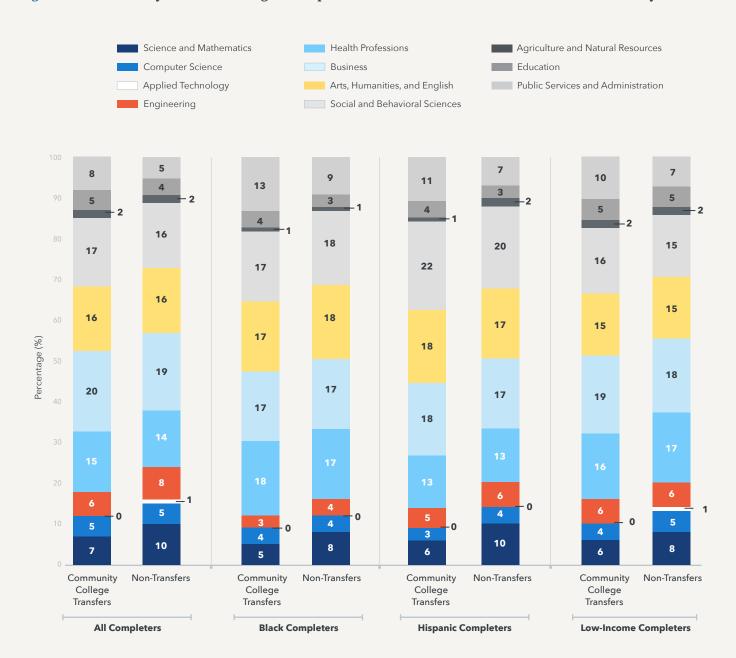
Community college transfer students are inequitably represented among STEM completers at four-year institutions.

Next we compare—among community college transfers and non-transfers who complete bachelor's degrees—the proportions of each graduating in particular program fields (or majors). We do this for all students and for Black, Hispanic, and low-income subgroups. *Figure 8* presents the fields of study of the bachelor's degrees completed within six years among community college transfer students and non-transfer students, for all students

and among Black, Hispanic, and low-income students. Compared to non-transfers, community college transfers are underrepresented among science and mathematics and engineering bachelor's completers, and they are overrepresented in public services and administration, business, health professions, and social and behavioral sciences fields. These patterns are similar for Black, Hispanic, and low-income completers. For example, whereas 10% of Hispanic non-transfer completers earn a bachelor's degree in science and mathematics, only 6% of Hispanic community college transfer completers do so.

See Figure 8 on the next page.

Figure 8. Fields of Study of Bachelor's Degree Completers Within Six Years After Four-Year Institution Entry



State-Level Transfer Outcomes for Four-Year Institutions

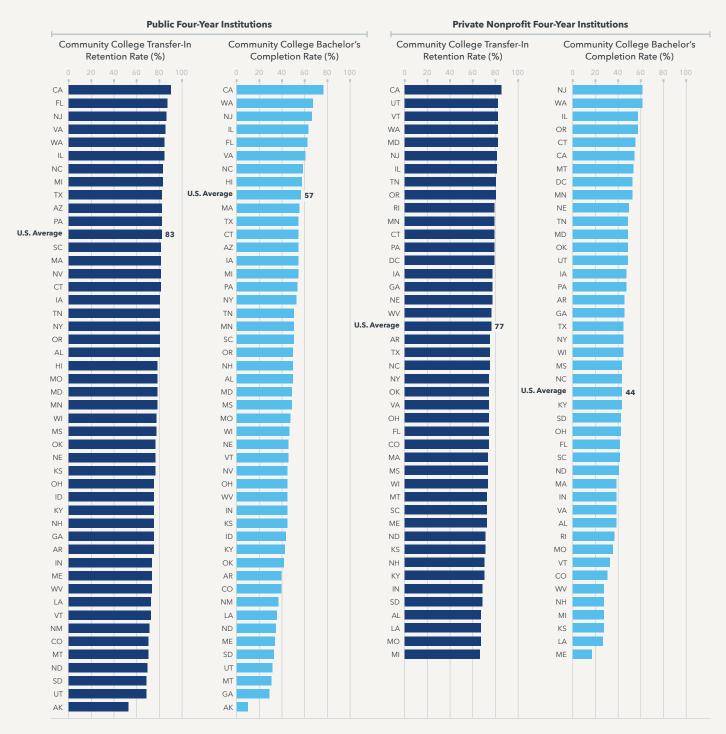
Retention and Bachelor's Completion

In 24 states, fewer than half of community college transfer students graduate from public four-year institutions.

Figure 9 shows retention and bachelor's completion rates among all community college transfer students at public four-year and private nonprofit four-year institutions by state. For public four-years, transfer-in retention rates range from 53% (Alaska) to 91% (California), and transfer-in bachelor's completion rates range from 10% (Alaska) to 77% (California). More than three fourths of states are below the national average on community college transfer outcomes at public four-year institutions, and in 24 states the transfer-in bachelor's completion rate within four years at these institutions is below 50%. Only a handful of states show above-average performance among their public four-year institutions on community college transfer outcomes, indicating that stronger performance among the subset of larger, top-performing states pushed up the national average for public four-year institutions. For example, there are only eight states in which public four-year institutions performed above the national average for the community college transfer-in bachelor's completion rate: California, Washington, New Jersey, Illinois, Florida, Virginia, North Carolina, and Hawaii. Moreover, as we will describe in the following subsections, most states have sizable disparities in outcomes among particular subgroups of students, including Black, Hispanic, low-income, and older students.

States also vary in the rate at which private nonprofit four-year institutions get their community college transfer students progressing toward and completing a bachelor's degree. Transfer-in retention rates for private nonprofits range from 67% (Michigan) to 86% (California), and bachelor's completion rates range from 17% (Maine) to 62% (New Jersey). Unlike state-by-state performance among public four-year institutions, for which relatively few states are above the national sectorwide average, there are similar numbers of states above and below the national average for private nonprofit fouryear institutions. Indeed, for the transfer-in bachelor's completion rate for private nonprofits, there are fewer states, only 20, below the national average of 44% than above it. In 3 states, the rate is below 50%. See Figure 9 and Table 4 on the following pages.

Figure 9. Community College Transfer Outcome Rates by Four-Year Sector and State: All Students



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions in the given sector and at least 30 community college transfer students in that sector. We thus exclude the District of Columbia and the states of Delaware, Rhode Island, and Wyoming in the public sector panels; we exclude the states of Alaska, Arizona, Delaware, New Mexico, Hawaii, Idaho, Nevada, and Wyoming in the private nonprofit sector panels.

Table 4. Community College Transfer Outcome Rates by Four-Year Sector and State: All Students

	Public Four-Ye	ear Institutions	Private Nonprofit Four-Year Institutions				
State	Transfer-In Retention Rate (%)	Community College Bachelor's Completion Rate (%)	Transfer-In Retention Rate (%)	Community College Bachelor's Completion Rate (%)			
U.S. Average	83	57	77	44			
Alabama	81	50	68	39			
Alaska	53	10	*	*			
Arizona	83	55	*	*			
Arkansas	76	40	76	46			
California	91	77	86	55			
Colorado	71	40	75	31			
Connecticut	82	55	80	56			
Delaware	*	*	*	*			
District of Columbia	*	*	80	53			
Florida	88	63	75	42			
Georgia	76	29	78	46			
Hawaii	79	58	*	*			
Idaho	76	44	*	*			
Illinois	85	64	82	58			
Indiana	74	45	69	39			
lowa	81	55	78	48			
Kansas	77	45	72	28			
Kentucky	76	43	71	44			
Louisiana	73	36	68	27			
Maine	74	34	73	17			
Maryland	79	49	83	49			
Massachusetts	82	56	74	39			
Michigan	84	55	67	28			
Minnesota	79	51	80	53			
Mississippi	78	49	74	44			
Missouri	79	48	68	36			
Montana	71	31	73	54			
Nebraska	77	46	78	50			
Nevada	82	45	*	*			
New Hampshire	76	50	71	28			
New Jersey	87	67	82	62			
New Mexico	72	37	*	*			
New York	81	53	75	45			
North Carolina	84	59	76	44			
North Dakota	70	35	72	41			
Ohio	76	45	75	43			
Oklahoma	77	42	75	49			
Oregon	81	50	81	58			
Pennsylvania	83	54	80	48			
Rhode Island	*	*	80	37			
South Carolina	82	51	73	42			
South Dakota	69	33	69	43			
Tennessee	81	51	81	49			
Texas	83	55	76	45			
Utah	69	32	83	49			
Vermont	73	46	83	33			
Virginia	86	61	75	39			
Washington	85	68	83	62			
West Virginia	74	45	77	28			
Wisconsin	78	47	74	45			
Wyoming	*	*	*	*			

NOTE: Cells for states that, in the 2015-16 cohort, have fewer than three four-year institutions in the sector or fewer than 30 community college transfer students in the sector are marked with an asterisk.

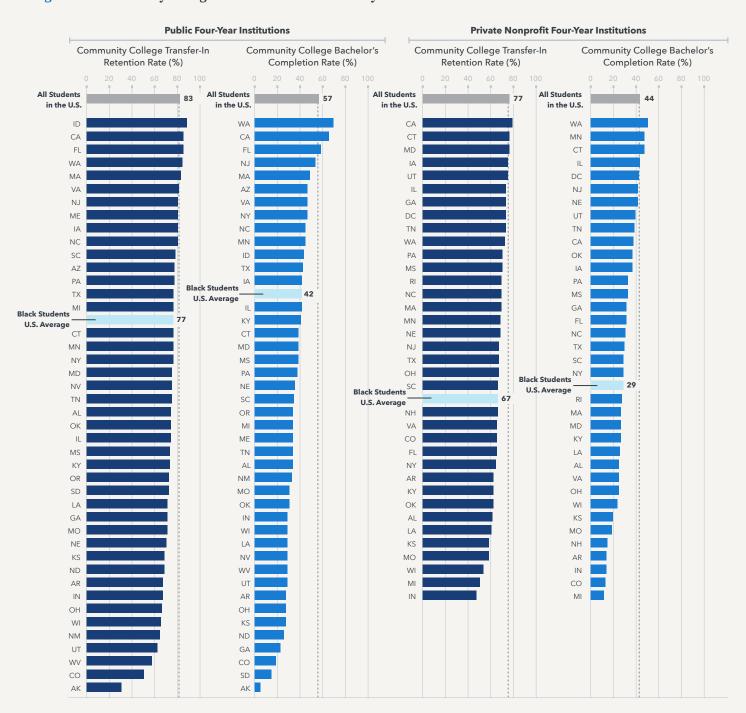
Black Student Outcomes

Public four-year institutions in only three states graduate Black community college transfer students at a rate above the national average for all community college transfer students.

Figure 10 shows state-by-state community college transfer outcomes for Black students for both public four-year and private nonprofit four-year institutions. Outcomes for Black transfer students in most states are below the national sector-wide average for all students. While public four-years in eight states outperform the national average in transfer-in bachelor's completion rates, public four-years in only three states (Washington, California, and Florida) do so among their Black transfer students. And in only Washington State is the Black transfer-in bachelor's

completion rate at public four-years (70%) at or above the completion rate for all community college transfers at public four-years in the state (68%). Every other state shows either disparities in outcomes compared to the national average for all students, the statewide average for all students, or both. Outcomes for Black transfer students at private nonprofit four-years show similar patterns as public four-years, with a small number of states with above-average results for Black transfer students. However, outcomes nationally and in most states are lower—for all community college transfers and for Black transfer students specifically—at private nonprofit four-years compared to public four-years. See Figure 10 on the next page.

Figure 10. Community College Transfer Outcome Rates by Four-Year Sector and State: Black Students



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions in the given sector and at least 30 community college transfer students in the subgroup in that sector. We thus exclude the District of Columbia and the states of Hawaii, Delaware, Montana, New Hampshire, Rhode Island, Vermont, and Wyoming in the public sector panels; we exclude the states of Alaska, Arizona, Delaware, Maine, Montana, New Mexico, Hawaii, Idaho, Nevada, Oregon, South Dakota, Vermont, West Virginia, and Wyoming in the private nonprofit sector panels. Gray bars at tops of panels and vertical dashed lines in panels indicate the U.S. average for all community college transfer students at either public or private nonprofit four-year institutions.

Hispanic Student Outcomes

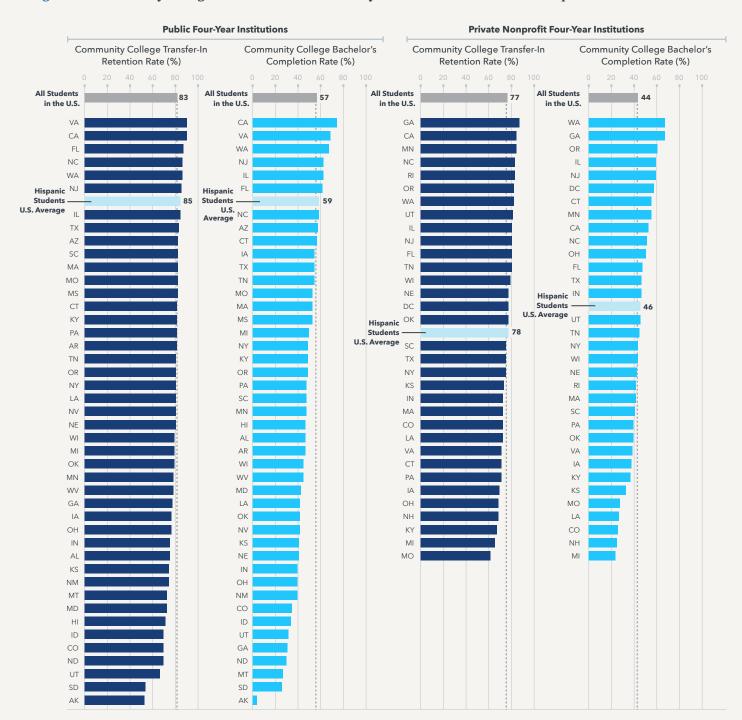
Most states graduate Hispanic community college transfer students at a rate below the national average, but a subset have stronger outcomes.

Figure 11 shows state-by-state community college transfer outcomes for Hispanic students at both public and private nonprofit four-year institutions. Nationally, Hispanic transfer students are retained and graduate at higher rates at both public and private nonprofit institutions compared to all community college transfers. However, outcomes for Hispanic transfer students in most states are below the national average for all students and for Hispanic students. In six states (California, Virginia, Washington, New Jersey, Florida, and Illinois), public four-years collectively outperform both the national transfer-in graduation rate for all students (57%) and for Hispanic students (59%), and in two other states (North Carolina and Arizona) public four-years outperform the national transfer-in graduation rate for all students.

And in these eight states, there are relatively small disparities (e.g., 1–3 percentage points in California, New Jersey, Illinois, Florida) or no disparities (Virginia, Washington, North Carolina, Arizona) in outcomes for Hispanic transfer students at public four-years compared to students overall. These top-performing states drive national findings showing stronger transfer outcomes among Hispanic students at public four-year institutions.

The national averages for community college transfer outcomes at private nonprofit institutions—for both students overall and for Hispanic students—are lower compared to public four-years. There is a broad range in the state-by-state results for Hispanic community college transfer students at private nonprofits, with some states well above the national transfer-in bachelor's completion rate for all transfers at private nonprofits. For example, there is a greater than 60% completion rate for Hispanic transfers in Washington, Georgia, Oregon, and Illinois. See Figure 11 on the next page.

Figure 11. Community College Transfer Outcome Rates by Four-Year Sector and State: Hispanic Students



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions in the given sector and at least 30 community college transfer students in the subgroup in that sector. We thus exclude the District of Columbia and the states of Delaware, New Hampshire, Maine, Rhode Island, Vermont, and Wyoming in the public sector panels; we exclude the states of Alaska, Alabama, Arizona, Arkansas, Delaware, Hawaii, Idaho, Nevada, Maryland, Maine, Mississippi, Montana, North Dakota, New Mexico, South Dakota, Vermont, West Virginia, and Wyoming in the private nonprofit sector panels. Gray bars at tops of panels and vertical dashed lines in panels indicate the U.S. average for all community college transfer students at either public or private nonprofit four-year institutions.

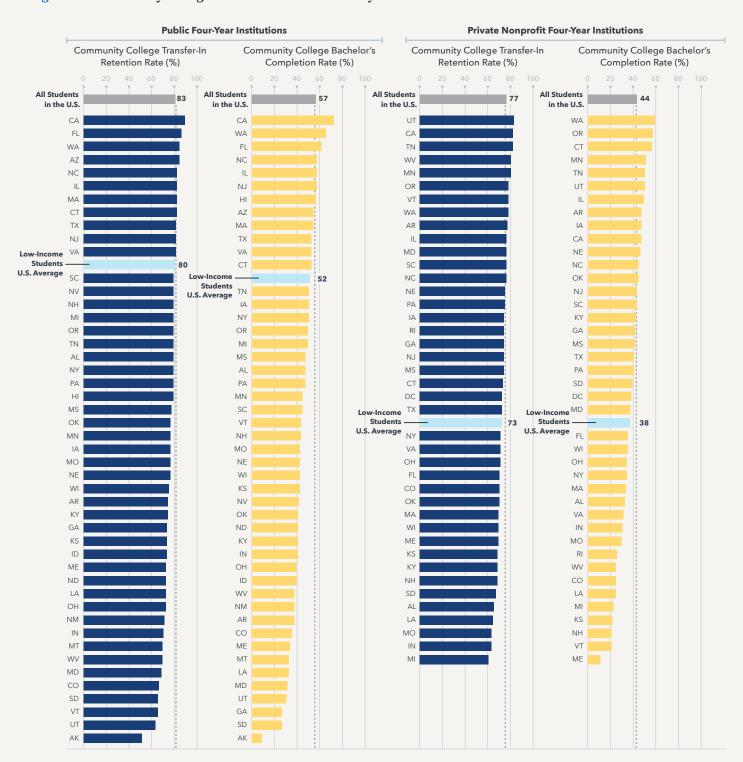
Low-Income Neighborhood Student Outcomes

While some states have stronger outcomes than others for low-income community college transfer students, disparities exist in nearly every state.

Figure 12 shows state-by-state community college transfer outcomes for students from low-income neighborhoods at both public and private nonprofit four-year institutions. In six states (California, Washington, Florida, North Carolina, Illinois, and New Jersey), public four-years have higher transfer-in bachelor's completion rates for low-income students compared to the national average for all students (57%) and for low-income students (52%) Yet, in these six higher performing states as well as in nearly every other state, there are disparities at public four-years in low-income community college transfer student graduation rates compared to the rate for all community college transfer students in the state.

The national averages for community college transfer outcomes at private nonprofit institutions—for both students overall and for low-income students—are lower compared to those at public four-years. Compared to the national average transfer-in bachelor's completion rate for public four-years (57%), only the private nonprofits in Washington (60%) and Oregon (58%) surpass that benchmark. And in five states (New Jersey, District of Columbia, Maryland, Rhode Island, and Vermont) there are larger than 10-percentage-point disparities in the transfer-in bachelor's completion rates for low-income students compared to community college transfer students overall at their private nonprofits. *See Figure 12 on the next page*.

Figure 12. Community College Transfer Outcome Rates by Four-Year Sector and State: Low-Income Students



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions in the given sector and at least 30 community college transfer students in the subgroup in that sector. We thus exclude the District of Columbia and the states of Delaware, Rhode Island, and Wyoming in the public sector panels; we exclude the states of Alaska, Arizona, Delaware, New Mexico, Hawaii, Idaho, Montana, North Dakota, Nevada, and Wyoming in the private nonprofit sector panels. Gray bars at tops of panels and vertical dashed lines in panels indicate the U.S. average for all community college transfer students at either public or private nonprofit four-year institutions.

Older Student Outcomes

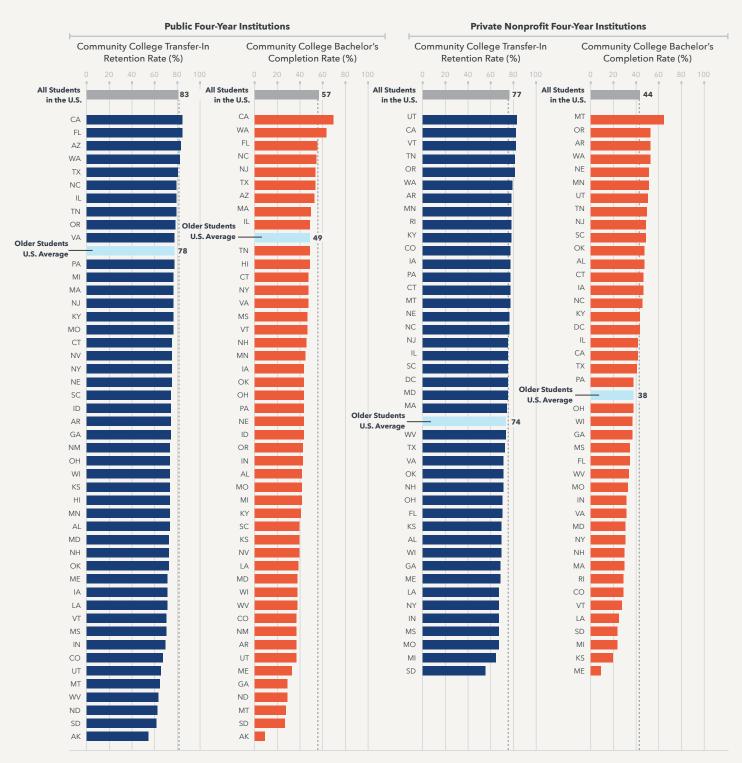
Public four-year institutions in only California and Washington graduate older community college transfer students above the national average for all community college transfer students.

Figure 13 shows state-by-state community college transfer outcomes for older students (25 years or older) at both public and private nonprofit four-year institutions. Outcomes for older transfer students at public four-years in all but two states—California (70%) and Washington (64%)—are below the national sector-wide average for all community college transfer students (57%). And in

nearly every state, including California and Washington, there are wide disparities in transfer-in bachelor's completion rates between older students and students overall. In eight states the disparity at public four-years in the transfer-in bachelor's completion rate between older students and all students is greater than 10 percentage points. Similar to other subgroups examined in this section, while some states do better than others, older community college student transfer outcomes are generally lower across states at private nonprofits compared to public four-years.

See Figure 13 on the next page.

Figure 13. Community College Transfer Outcome Rates by Four-Year Sector and State: Older Students



NOTE: Figure panels restricted to states that, in the 2015-16 cohort, have at least three four-year institutions in the given sector and at least 30 community college transfer students in the subgroup in that sector. We thus exclude the District of Columbia and the states of Delaware, Rhode Island, and Wyoming in the public sector panels; we exclude the states of Alaska, Arizona, Delaware, New Mexico, Hawaii, Idaho, Nevada, North Dakota, and Wyoming in the private nonprofit sector panels. Gray bars at tops of panels and vertical dashed lines in panels indicate the U.S. average for all community college transfer students at either public or private nonprofit four-year institutions.

Discussion and Conclusion

In this report, we have used data from the National Student Clearinghouse (NSC) to track the outcomes of community college students who transferred to a four-year institution during the 2015–16 academic year. We have presented national and state-level results employing novel measures of four-year institutional effectiveness in serving community college students, including transfer-serving proportion, transfer student retention, transfer student completion of a bachelor's degree, and participation of community college transfer graduates across bachelor's degree majors—all disaggregated by priority demographic subgroups of students. It is important to recognize that all the transfer students tracked in this report had already made the successful transition to a four-year institution. Only about one in three entering community college students ever transfer to a four-year institution within six years, and this transfer-out rate has not changed much over the past decade. The students tracked in this report thus represent only a subset of community college students aspiring to transfer.

Despite low and inequitable transfer-out rates (that we present in the companion report on community colleges), our findings in this report show that community college transfer pathways are still a key source of new student enrollments and of racial/ethnic, income, and age

Across all states and sectors, there remains substantial room for improvement in helping community college transfer students complete bachelor's degrees after they arrive at the four-year institution.

diversity for four-year institutions. What is more, four-year public and private institutions in most states under-enroll community college transfer students. This presents an opportunity for these institutions to strengthen their student bodies by enrolling and supporting more community college transfer students. Across all states and sectors, there remains substantial room for improvement in helping community college transfer students complete bachelor's degrees after they arrive at the four-year institution.

Insights From the Analysis

Only about half of community college transfer students complete a bachelor's degree within four years of transferring in, and very few-18%-do so in the first two years after transferring in. Even more improvement is needed in the support of Black community college transfer students, of whom 35% complete a bachelor's within four years and only 10% within two years of transferring in. Private for-profit and predominantly online institutions that receive Black, low-income, and other community college transfers have been particularly ineffective in helping these students cross the finish line, with bachelor's completion rates four years post-transfer spanning 13%-19% for Black and low-income students. While private nonprofit institutions have higher shares of community college transfers and higher completion rates for them than their for-profit counterparts, they substantially lag behind public institutions across all transfer student outcomes. Finally, we find that successful community college transfers who complete a bachelor's degree-especially Black students-are underrepresented in STEM majors compared to non-transfers, underlining calls from numerous scholars and advocates to promote equity in STEM transfer pathways.

Despite challenges nationally in four-year effectiveness in serving community college transfer students, some bright spots emerge from our analysis. First, community college transfers who arrive at four-year institutions with a pre-transfer award experience substantially stronger post-transfer outcomes, on average. This is especially true for those who transfer with an associate degree. Those students are more likely to complete a bachelor's degree on time (30% do so after two years), and they have the highest overall completion rates (67% after four years and

71% after six years). Unfortunately, only 41% of transfers enter the four-year institution with a prior award.

Second, we find that community college transfer students are retained at the four-year institution at higher rates than both lateral transfer students (those from another four-year institution) and non-transfer (first-time) entrants. And, while we might expect community college transfers to do well at more selective institutions given their more challenging admissions criteria, other institutional types—namely AANAPISIs and HSIs—also demonstrate strong outcomes for community college transfers (without being overrepresented by very selective institutions within these MSI categories).

Finally, some states demonstrate much stronger community college transfer outcomes than others. Only a handful of states are above the national average on community college transfer outcomes among public four-year institutions, indicating that the stronger performance among a subset of larger, top-performing states—such as California, Washington, Florida, Illinois, Virginia, North Carolina—serves to push up the national average for public four-year institutions. There are fewer states—but at least some—that have strong results overall without gaps for Black (Washington), Hispanic (California and Virginia), low-income (California and Washington), or older (California and Washington) community college transfers.

Implications for College Leaders, Policymakers, and Future Research

This report has focused on the outcomes of transfer students once they arrive at a four-year institution. We have aimed to make clear who is and is not being served well by current transfer systems, and likewise where there is opportunity for institutions and states to improve student outcomes across transfer pathways and experiences. We propose the following actions based on our findings.

• Report these measures annually. This report makes available at the national and state levels—for the first time in many cases—four-year measures of institutional effectiveness disaggregated by multiple student characteristics. It will be valuable to get a more detailed picture by understanding past trends and reporting data from future entering four-year cohorts. This will allow field leaders and researchers to track changes over time and to better understand the effects of any state transfer policy reform. At minimum, leaders of four-year institutions can direct their institutional research offices to include these measures in standard annual data reporting to the president in order to identify areas of opportunity and to track the effectiveness of reforms over time.

In reporting data, institutions can leverage other publicly available sources of transfer data, such as that recently published by the Department of Education (Sotherland et al., 2023). Four-year leaders can also adjust these measures to look at the effectiveness of partnerships with specific community colleges and use those findings to direct partnership improvements. Rather than relying on individual leaders only to scrutinize their effectiveness with transfer students, state higher education agencies

Recommendations for a successful transfer:

- Report measures annually.
- Prioritize increasing the number of transfer students and their graduation rates at public and private nonprofit four-year institutions.

or systems can support transfer reform statewide by hosting transfer data on publicly available dashboards. State leaders can also promote the use of transfer student outcome data by setting state/system-level transfer outcome goals and linking incentives to those goals.

• Prioritize increasing the number of transfer students and their graduation rates at public and private nonprofit four-year institutions (which may alleviate enrollment declines). While community college transfer already contributes to a sizeable portion of entering four-year students, this enrollment reflects the lower end of what is possible. As shown in the companion community college report, transfer rates from community college to four-year institutions are too low, with only 33% of the community college cohort transferring within six years. The current report shows that barriers to transfer student success persist after

students arrive at four-year institutions, resulting in transfer student progression and graduation rates that are far too slow and low than if both four-year and two-year institutions made timely and affordable completion a priority for transfer students. Increasing all four-year graduation rates to match that of the highest performing four-year institutional type (AANAPISIs at 64%) alone would amount to over 50,000 additional students enrolled each year.8 Combining greater effectiveness in transfer and graduation rates also has the potential to mitigate recent enrollment declines among four-year institutions.9 The opportunity is arguably even greater at tuition-dependent private institutions, where the threat of current Covid-driven and future demographically driven enrollment declines loom large. In these institutions, only one in 10 new students originate from community college transfer pathways, and just over one in three of those students graduate in four years.

the least means to afford paying for additional credits, low-income transfers are among the least likely to graduate within two years of transfer. Of those who do complete, too many take many more credits than they need to graduate. One possible explanation for the large difference between high retention rates one year after transfer and lower completion rates four years after transfer is that transfer students are taking many more credits than needed for degree completion, delaying graduation and ultimately, risking not graduating at all. For students who have transferred to a four-year institution—and thereby proven that they can be successful college students—it is unacceptable

- Heighten focus on timely completion.
- Promote associate degree completion prior to transfer.

that so few are helped to complete bachelor's degrees. Not completing puts a huge burden on students and families in unpayable debt and wastes diverse talent that is essential for economic growth in communities throughout the country. Institutional leaders can promote more timely degree completion by working with their community college partners to create transfer pathways to bachelor's degrees that do not require excess credit and by providing early advising to ensure that students are being helped to create a major-specific transfer plan to graduate on schedule and with a degree aligned to their interests, strengths, and aspirations. State policymakers can support these goals by using funding and financial aid to incentivize institutions and students toward timely completion.

• Promote associate degree completion prior to transfer. This shift in practice would be potentially consequential for Black and low-income transfers—the student groups least well served by current transfer pathways. Students who complete an award prior to transfer have bachelor's completion rates that are about 27 percentage points higher than their peers with no prior award. The companion community college report shows that while

transfer out rates have been flat for almost a decade, colleges in many states have succeeded in substantially increasing the rates at which students transfer with an award. While more research is needed to better assess the causal effect of degree completion prior to transfer on student outcomes, four-year institutions can work with their community college partners to prioritize enrollment of associate degree completers, and system and state policymakers can support this goal by creating incentives for students and institutions that give preference to associate degree completers.

 Discourage transfer to institutions that serve transfer students poorly, such as many for-profits and POIs.

Community college leaders can ensure that their advisors are aware of poor transfer student outcomes at particular four-year institutions and train them to redirect students to options where they are more likely to complete a bachelor's degree. If community college leaders agree to partnerships with for-profits and POIs, they should engage in data-sharing to ensure they can track how well students fare in programs at those institutions. Meanwhile, state and federal policymakers should hold all institutions accountable for how well they serve transfer students, including low-performing ones like many for-profits and POIs. There are roughly 23,500 community college students transferring into for-profits and POIs (based on the 2015–16 cohort data) each year. If these students were to transfer to fouryear institutions that matched the national average graduation rate for community college transfers, the nation would see approximately 6,000 additional bachelor's degree holders per year.

- Discourage transfer to institutions that serve transfer students poorly, such as many for-profits and POIs.
- **☑** Encourage more transfer into selective four-year institutions.
- · Encourage more transfer into selective four-year institutions. Very selective institutions—including many four-year public flagships—under-enroll community college transfer students. While 35% of non-transfer students enroll in very selective institutions, only 24% of community college transfer students do so. Yet the transfer students very selective institutions do enroll are more racially and socioeconomically diverse—so greater enrollments by transfer students at these institutions could lead to higher levels of diversity in their overall student populations. Increasing transfer enrollment at very selective four-year institutions may also contribute to an increase in overall transfer student graduation rates, as transfer students who enroll in very selective institutions are among the most likely to complete a bachelor's degree. Very selective institutions can enroll and graduate more transfer students by building partnerships and pathways with community colleges, ensuring fair major-specific credit transfer policies, providing generous financial aid, and creating inclusive environments once—or even before—students make the transition.

- · Increase opportunity for community college transfer students to earn bachelor's degrees in highopportunity fields like STEM. Students should of course be encouraged to pursue degrees in fields of interest to them. But students should not be discouraged from pursuing degrees in STEM and other high-opportunity fields if they want to. There is no evidence that students entering community colleges are less interested in education and careers in STEM than other students. Moreover, there is research indicating that students entering community colleges who intend to transfer in STEM face many barriers to doing so (Wang, 2020). The fact that community college transfers are more likely to complete bachelor's degrees in less remunerative fields like business and social and behavioral science is also potentially a concern if they do so because those paths are by default the best available paths to them to complete a degree. Four-year institutions, community colleges, and state systems need to take steps to ensure that students are helped to explore interests and to plan and complete bachelor's degrees in fields aligned with their interests and aspirations, particularly in fields like STEM that offer strong earning and career opportunities for students and that need a more diverse workforce.
- Conduct further research to understand the causes
 of observed disparities in outcomes and to inform
 improvements in practice and policy. The analysis
 in this report raises important questions about the
 intersection of income and race, the outcomes of parttime and full-time students, and the role of associate
 degree completion in advancing stronger and more
 equitable transfer outcomes. Other key questions
 include understanding how AANAPISIs and HSIs

- Increase opportunity
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are supporting stronger and more equitable transfer student outcomes. There is also an opportunity to examine what role improving transfer enrollment and graduation rates at HBCUs could play in strengthening Black transfer student outcomes more broadly. While research using national data can be helpful in highlighting disparities and opportunities for improvement, the most informative research for improving practice and policy needs to be done at the institutional and state-system levels.

Final Thoughts

In this and our companion report focusing on community college transfer outcomes, we find that analyzing four-year institution entering cohort data—in addition to community college entering cohort data—elucidates important aspects of transfer pathways. In both reports, we find that transfer systems serve no student group well but fall especially short in serving Black, low-income, and older transfer students. We encourage community college and four-year institution leaders as well as state and federal policymakers to use the findings in both reports to shape a community college transfer reform agenda aimed at dramatic improvements in transfer enrollment and graduation

rates. The last time a state-by-state accounting of multiple transfer outcomes was made available to the public was in 2017. And, until now, these measures have never been available disaggregated by race/ethnicity and other student characteristics. As the companion community college report shows, very little has changed in national transfer student outcomes over the eight years since we began tracking transfer. Moving forward, we cannot risk setbacks in our ability to know where states and institutions stand in serving community college transfer students. Continued transparency and accountability will be necessary to ensure that trends move in the right direction.

Endnotes

- ¹ NSC defines dual enrollment students as those who were either younger than 17.7 years old at the start of the academic term or who had a postsecondary enrollment prior to high school completion.
- 2 We follow categories and definitions used in Jenkins and Fink (2016).
- ³ We follow Jenkins and Fink (2016) in our institutional characteristic categories and definitions for four-year institutions, and, similar to more recent NSCRC Signature reports on transfer students and college completions (NSCRC, 2022a), we also include information on institutions that are predominately online and minority-serving.
- ⁴ Eighty-three colleges in our sample are missing information on college selectivity.

- ⁵ See *Table 1* in the companion report on community colleges *Tracking Transfer: Community College Effectiveness* in Broadening Bachelor's Degree Attainment.
- ⁶ Appendix Table A1 further delineates outcomes by whether students earned an associate degree or certificate prior to transfer.
- ⁷ ANNAPISIs are an exception with respect to older students, who have a 56% bachelor's completion rate after four years.
- ⁸ Authors' calculation using data from NSCRC (2023).
- ⁹ Between 2020 and 2023, enrollment at four-year institutions has been declining in all sectors between 0.5% and 3.1% (NSCRC, 2023).

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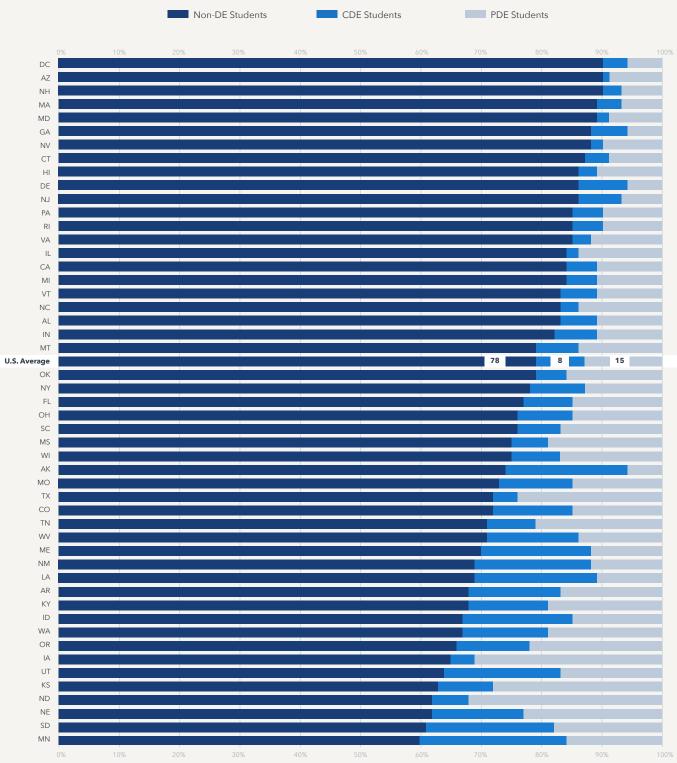
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Appendix: Supplementary Figure and Tables

Figure A1. 2015–16 Four-Year Institution Entry Cohort Composition by State



NOTE: States sorted in descending order by share of non-DE Students. Figure restricted to states that, in the 2015–16 cohort, have at least three four-year institutions. We thus exclude the state of Wyoming.

Table A1. Community College Transfer Outcome Rates by Community College Award Type

	Second-Year Rete at Entry In		Bachelor's Completion Rate (%) Within Four Years of Entry		
	With Associate Degree (n = 151,336)	With Certificate (n = 31,005)	With Associate Degree (n = 151,336)	With Certificate (n = 31,005)	
All Students	87	85	68	62	
Race/Ethnicity					
Asian	91	90	75	76	
Black	83	76	57	43	
Hispanic	89	91	77	78	
International student	88	89	69	70	
Native Hawaiian / Pacific Islander	84	82	64	59	
Native American	84	83	59	56	
Two or more races	88	86	68	66	
White	87	84	69	62	
Gender					
Women	87	84	69	62	
Men	87	86	66	62	
Student Neighborhood Income					
Low	85	82	64	63	
Middle	87	85	68	70	
High	89	82	73	56	
Age in Years					
17 or younger	*	*	*	*	
18-19	92	86	75	53	
20-24	89	88	72	71	
25 or older	82	79	59	51	

Table A2. Community College Transfer-In Retention Rates by Student and Institutional Characteristics



	Percentage (%)									
	All	Black	Hispanic	Native American	Pacific Islander	Two or More Races	Men	Low- Income	25 or Older	
All Students	81	73	83	75	78	80	81	78	76	
Sector										
Public four-year	83	77	85	77	79	82	83	80	78	
Private nonprofit four-year	77	67	78	74	76	78	76	73	74	
Private for-profit four-year	67	59	70	64	67	64	65	64	68	
Urbanicity										
Rural	75	70	76	66	*	75	73	74	72	
Suburban/town	81	74	84	76	74	80	81	78	78	
Urban	80	72	83	75	80	81	81	77	80	
College Selectivity										
Non-selective	74	67	79	69	72	73	73	72	68	
Moderately selective	82	77	84	76	78	82	82	80	74	
Very selective	86	82	88	81	87	86	86	84	80	
Predominantly Online Institution	67	59	67	65	70	64	65	64	82	
Minority Serving Institutions										
HBCU	74	74	76	82	*	66	72	74	72	
HSI	84	78	83	75	83	84	83	82	79	
AANAPISI	87	81	88	85	84	87	88	85	81	





 $\begin{array}{c} {\tt National \, Student \, Clearing house^*} \\ {\tt RESEARCH \, CENTER^{\tiny \mbox{\scriptsize TM}}} \end{array}$