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Articulation and Transfer in Tennessee Higher Education

2018 Report



Tennessee Higher Education Commission

Note: This report was first published in October 2018. The report was revised and re-published on 6/19/19.

Tennessee Higher Education Commission

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Executive Summary

The 2018 Articulation and Transfer Report provides an update on the progress made toward full articulation between public institutions in the State of Tennessee. This report is divided into three sections: (1) Transfer Behavior of the Fall 2011 Cohort; (2) Tennessee Transfer Pathways (TTPs); and (3) Transfer Behavior of Tennessee Promise Students. Key findings from the report are summarized below.

- In the Fall 2011 cohort of first-time, full-time freshmen, 40.4 percent enrolled at more than one institution (the definition of a transfer student in this report) in the six years after initial enrollment. Students in this cohort attended as many as seven institutions, but the vast majority of transfer students (76.8 percent) attended just two institutions.
- The six-year completion rate for transfer students in the Fall 2011 cohort was 56.4 percent, while the completion rate for non-transfer students was 41.1 percent.
- Transfer patterns are complex; there were 64 unique transfer patterns within the Fall 2011 cohort. These distinct groups of students vary substantially in terms of their demographic characteristics, academic performance, and degree outcomes.
- Between Fall 2012 and Spring 2016, 51,147 unique students enrolled in a TTP associate degree program at one of Tennessee's 13 community colleges. The number of students enrolled in TTP associate degree programs has increased each academic year.
- Since Fall 2012, 4,311 unique students have completed 4,317 TTP associate degrees. The number of completions has increased by 163.7 percent in three years, from 532 completions in academic year 2012-13 to 1,403 completions in academic year 2015-16.
- In the first cohort of Tennessee Promise students, 3,117 (19.9 percent) transferred to a different institution at least once between Fall 2015 and Spring 2018. Students who began at a Tennessee College of Applied Technology (TCAT) were much less likely to transfer (5 percent) than students who began at a community college (21.9 percent) or university (20.6 percent).
- Of the 3,117 transfer students in the first cohort of Tennessee Promise students, nearly two-thirds (65 percent) fit the traditional definition of "vertical" transfer, moving from a community college to a four-year institution. Smaller numbers of students transferred between community colleges, from a community college to a TCAT, or some other combination of institutions.

Introduction

The annual Articulation and Transfer Report is prepared pursuant to T.C.A. § 49-7-202(r)(5), which directs the Tennessee Higher Education Commission (THEC) to:

“...report to the chairs of the education and finance, ways and means committees of the senate and the chairs of the education administration and planning and finance, ways and means committees of the house of representatives no later than October 1 of each year on the progress made toward full articulation between all public institutions.”

The 2018 Articulation and Transfer Report presents an update on the implementation of the articulation and transfer mandate of the Complete College Tennessee Act of 2010. This report comprises three primary sections:

1. The first section examines transfer behavior and degree outcomes for the Fall 2011 cohort of first-time, full-time freshmen enrolled at Tennessee public institutions to provide a longitudinal view of transfer in the six years after initial enrollment.
2. The second section examines the characteristics, transfer behavior, and degree completion of students who enroll in a Tennessee Transfer Pathways (TTP) associate degree program.
3. The third section examines the transfer behavior of the first cohort of Tennessee Promise students, from their first enrollment in Fall 2015 through Spring 2018.

Data Sources

All data in this report are provided by THEC. The data used in each section are as follows:

- **Transfer Behavior of the Fall 2011 Cohort:** We examined enrollment and degree outcomes using data from the National Student Clearinghouse. We bolstered these data with demographic and academic information from THEC’s student information system as well as information from the Free Application for Federal Student Aid (FAFSA), which is available through the financial aid database (e*GRandS) managed by the Tennessee Student Assistance Corporation (TSAC).
- **Tennessee Transfer Pathways:** We explored TTP enrollment, TTP associate degree completion, and demographics of TTP students using data from THEC’s student information system. We also incorporated FAFSA information from TSAC’s financial aid database (e*GRandS).
- **Transfer Behavior of Tennessee Promise Students:** We analyzed enrollment, transfer, academic performance, and demographics of Tennessee Promise students using data from THEC’s student information system. We also included FAFSA information from TSAC’s financial aid database (e*GRandS).

Privacy Notice

Throughout this report, THEC complies with federal Family Educational Rights and Privacy Act (FERPA) requirements to protect students' personally identifiable information. Therefore, when tables are presented, individual cells containing five or fewer observations are suppressed. The suppressed counts are included in table totals. All cases in which observations are suppressed are identified with a note directly beneath the respective table.

Transfer Behavior of the Fall 2011 Cohort

Historically, the Articulation and Transfer Report has provided a cross-sectional perspective on transfer behavior by examining students who transferred within a particular academic year. This year's report will provide a longitudinal perspective on transfer by tracking a cohort for six years after initial enrollment. This section examines transfer behavior and degree outcomes for the Fall 2011 cohort of first-time, full-time freshmen enrolled at a Tennessee public university or community college.¹ Using data from the National Student Clearinghouse, we are able to track the enrollment and degree outcomes for students who transfer to public and private, two-year and four-year, in-state and out-of-state institutions across the United States.² This robust dataset provides a more complete view of the transfer behavior and eventual outcomes of students who begin in Tennessee public postsecondary education.

Of the 35,000 first-time, full-time freshmen in the Fall 2011 cohort,³ 32,488 (92.8 percent) matched to the National Student Clearinghouse's enrollment and graduation records. Of the matched students, 13,137 (40.4 percent) transferred to a different institution at least once in six years; throughout this section, these students are identified as "transfer students," while the remaining 19,351 are identified as "non-transfer students."

Transfer and Non-Transfer Students in the Fall 2011 Cohort

Table 1 displays the demographic characteristics of the Fall 2011 cohort, including gender, race/ethnicity, and age at first postsecondary enrollment. Transfer and non-transfer students were similar in terms of their racial/ethnic composition. On average, transfer students were about one year younger than non-transfer students at first enrollment (19.2 versus 20.1), and transfer students were more likely to be female than their non-transfer peers (58.6 percent versus 53.9 percent).

¹ The Fall 2011 cohort includes first-time, full-time freshmen who initially enrolled in Fall 2011 or who initially enrolled in Summer 2011 and returned in Fall 2011. The completion data provide degree outcomes through Summer 2017 (within six years of initial enrollment).

² In the enrollment years included in this section of the report (2011-2017), between 93 and 97 percent of all Title IV, degree-granting institutions reported enrollment and graduation data to the National Student Clearinghouse. Additional information about National Student Clearinghouse data is available on their website at <https://www.nscresearchcenter.org/>

³ As reported in Table 3.7 of THEC's 2018 Fact Book, available at <https://www.tn.gov/thecc/research/redirect-research/fact-book.html>

Table 1: Demographics of Fall 2011 Cohort by Transfer Status

Demographics	Non-Transfer Students	Transfer Students
Gender		
<i>Male</i>	46.1%	41.4%
<i>Female</i>	53.9%	58.6%
Race/ethnicity		
<i>White, not Hispanic</i>	68.7%	67.5%
<i>Black, not Hispanic</i>	20.3%	21.0%
<i>Hispanic</i>	3.0%	2.5%
<i>Asian/Pacific Islander</i>	1.6%	1.9%
<i>Other</i>	3.4%	4.1%
<i>Unknown</i>	3.1%	3.0%
Average age at first enrollment	20.1	19.2
Total	19,351	13,137

Table 2 provides additional information about students that filed the FAFSA, including parental education levels, eligibility for the need-based federal Pell grant, and adjusted gross income (AGI) of the student's family. Transfer students were more likely than non-transfer students to have at least one parent that completed college (59.6 percent versus 49.3 percent). Additionally, transfer students' family AGI was higher, on average, than the family AGI of their non-transfer counterparts (\$67,122 versus \$52,637), corresponding with a lower rate of Pell eligibility among transfer students compared to non-transfer students (52.4 percent versus 62.3 percent).

Table 2: FAFSA Information for Fall 2011 Cohort by Transfer Status

FAFSA Information	Non-Transfer Students	Transfer Students
Parent's highest level of education completed		
<i>College or beyond</i>	49.3%	59.6%
<i>High school</i>	43.9%	35.9%
<i>Less than high school</i>	3.8%	2.2%
<i>Unknown</i>	3.1%	2.4%
Eligible for a Pell grant	62.3%	52.4%
Average AGI	\$52,637	\$67,122
Median AGI	\$34,094	\$48,422
Total	18,345	12,378

Note: 94.6 percent of the Fall 2011 cohort filed the FAFSA, and these students are reflected in this table.

Table 3 displays the academic performance of the Fall 2011 cohort in their first semester of postsecondary enrollment, disaggregated by transfer status. Though transfer and non-transfer students attempted a similar number of credit hours in their first semester, transfer students earned slightly more credit hours (11.2 versus 10.4) and finished the semester with a higher grade point average (GPA) than their non-transfer peers (2.55 versus 2.41 on a four-point scale).

Table 3: Academic Performance of Fall 2011 Cohort by Transfer Status

Academic Performance	Non-Transfer Students	Transfer Students
Average credit hours attempted	13.7	13.8
Average credit hours earned	10.4	11.2
Average term GPA	2.41	2.55
Total	19,351	13,137

Figure 1 disaggregates the Fall 2011 cohort by the number of unique institutions attended within six years of initial enrollment. The 19,351 students (59.6 percent) who only attended one institution are the non-transfer students. Transfer students attended as many as seven institutions in six years, though the majority of transfer students (76.8 percent) attended just two institutions.

Figure 1: Number of Unique Institutions Attended, Fall 2011 Cohort

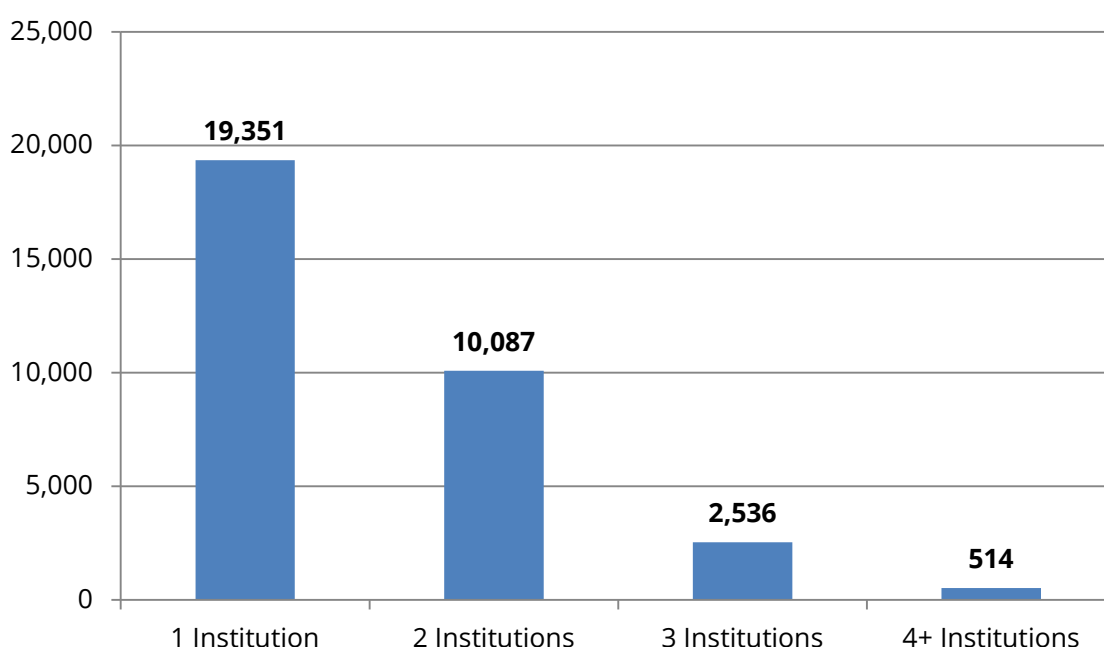


Figure 2 shows six-year completion rates for the Fall 2011 cohort, disaggregated by transfer status and sector of initial postsecondary enrollment (any institution, two-year institution, or four-year institution). Looking at transfer and non-transfer students in aggregate, it appears that the completion rate for transfer students was substantially higher (56.4 percent versus 41.1 percent). However, the difference in completion rate is primarily driven by low completion rate of non-transfer students that began at a two-year institution (16.5 percent); in fact, the completion rate for students that began at a four-year institution was actually higher for non-transfer students.

Figure 2: Completion Rates for Fall 2011 Cohort by Transfer Status and Initial Enrollment

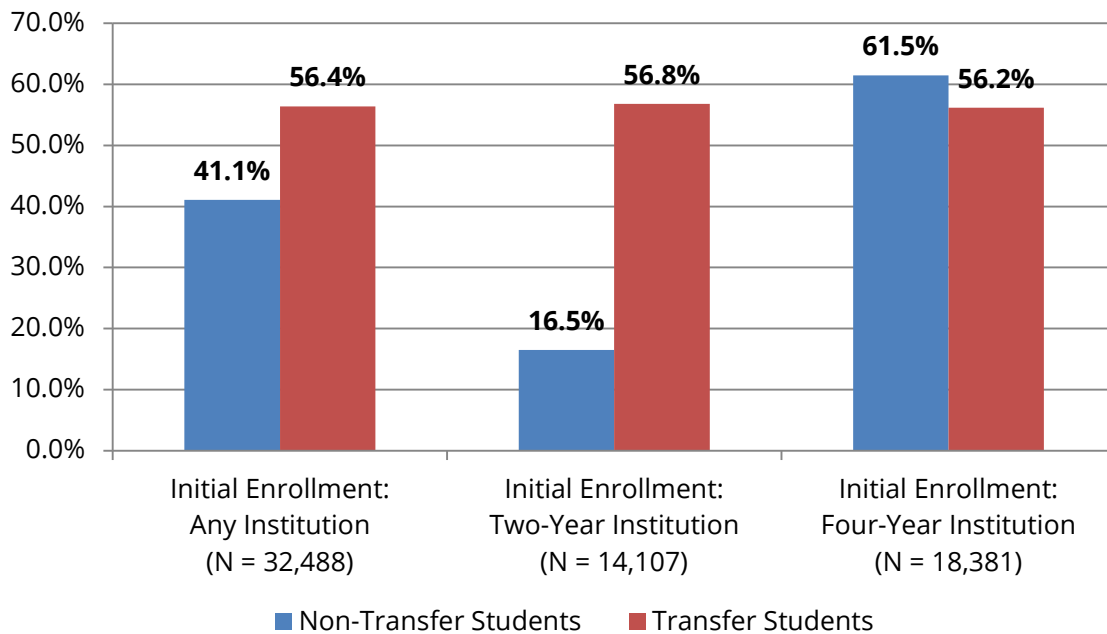
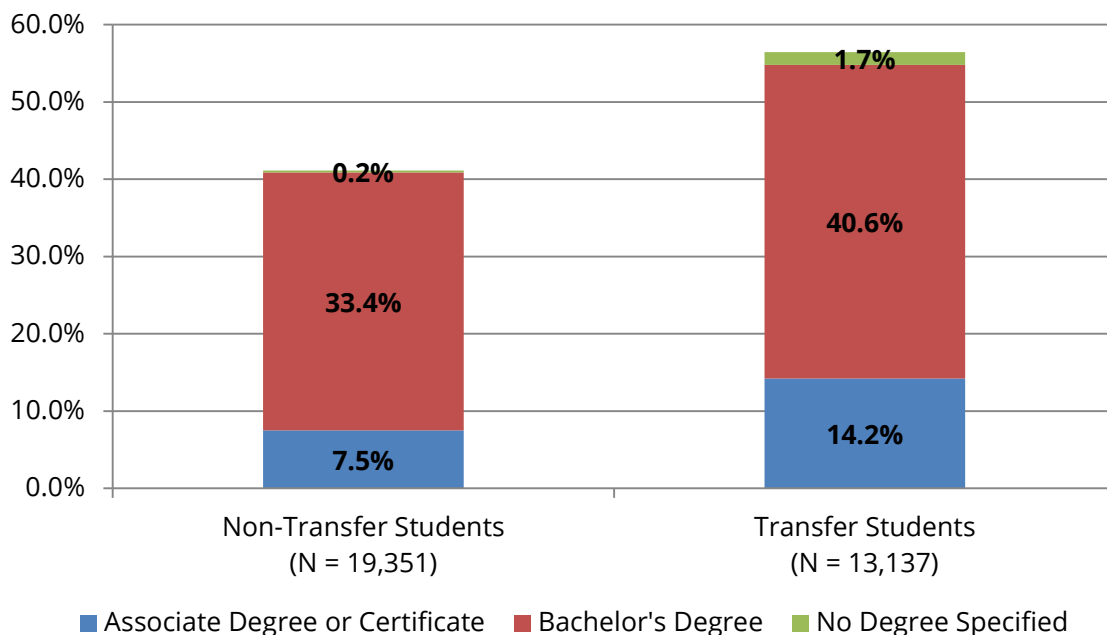


Figure 3 displays the highest undergraduate degree earned within six years for the Fall 2011 cohort, disaggregated by transfer status. Of the non-transfer students, 7.5 percent earned an associate degree or certificate, while 33.4 percent earned a bachelor’s degree. Of the transfer students, 14.2 percent earned an associate degree or certificate, while 40.6 percent earned a bachelor’s degree. A small number of students completed a degree, but their institution did not report any specific degree information; these students are identified as “No Degree Specified” in the figure.

Figure 3: Highest Undergraduate Degree Earned for Fall 2011 Cohort by Transfer Status



Transfer Patterns of the Fall 2011 Cohort

This section explores the transfer patterns among students in the Fall 2011 cohort. These transfer patterns were coded by the sector in which a student was enrolled (two-year or four-year institution), in chronological sequence based on the first date of a student's enrollment at an institution. For example, a student who began at a two-year institution then transferred to a four-year institution student is coded as "24" in this section; similarly, a student who began at a four-year institution, then transferred to a different four-year institutions is coded as "44." There were 64 unique transfer patterns within the Fall 2011 cohort, which demonstrates the many pathways of transfer students.

Figure 4 displays the eight most common transfer patterns for the Fall 2011 cohort. The two most common patterns were "4" and "2," which indicate that a student enrolled at a single four-year or two-year institution (i.e., a non-transfer student). Of the 13,137 transfer students, more than half (57.6 percent) fit the definition of "vertical" transfer, either moving from a two-year institution to a four-year institution ("24") or vice versa ("42"). Of the 14,107 students who began at a community college (any transfer pattern beginning with "2"), 31.6 percent (N = 4,458) transferred to a university within six years. This section will examine differences in characteristics and outcomes for the top six transfer patterns included in the figure (excluding the "4" and "2" non-transfer students).

Figure 4: Top Eight Transfer Patterns for the Fall 2011 Cohort

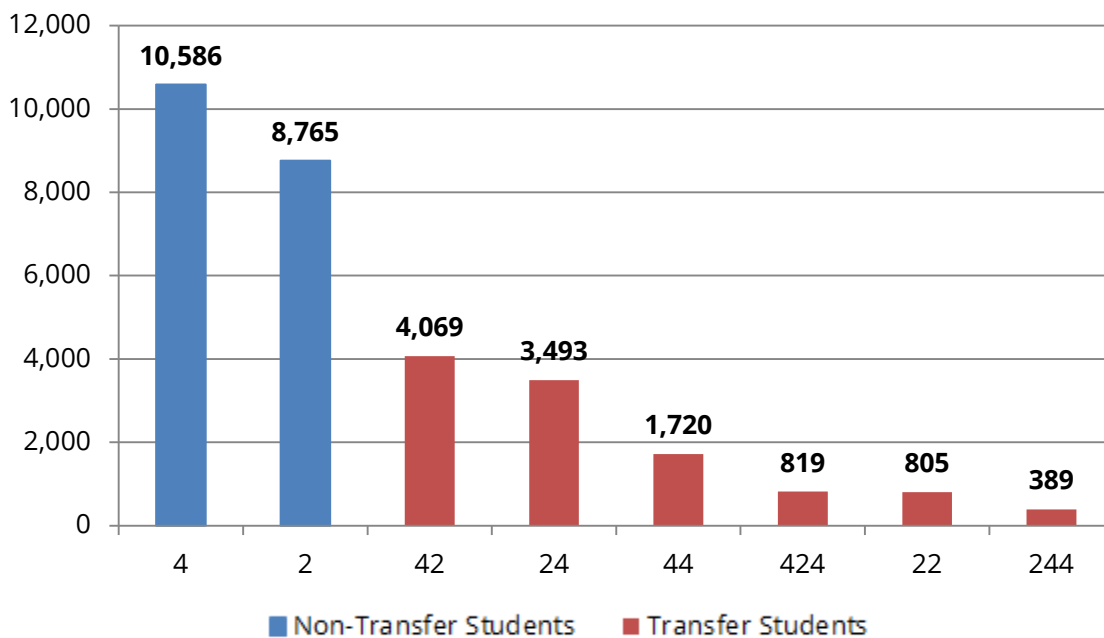


Table 4 displays the demographic characteristics of the Fall 2011 cohort, including gender, race/ethnicity, and age at first postsecondary enrollment, disaggregated by transfer pattern. Demographic characteristics varied considerably by transfer pattern. For instance, the share of female students ranged from 55.6 percent among "44" students to 65.1 percent among "424" students. Similar variation existed in

terms of race/ethnicity as well; the share of white students ranged from 61.3 percent among “44” students to 73.5 percent among “24” students, while the share of black students ranged from 17.6 percent among “24” students to 27.3 percent among “244” students. On average, students that began at a two-year institution were approximately two years older than students that began at a four-year institution.

Table 4: Demographics of Fall 2011 Cohort by Transfer Pattern

Demographics	42	24	44	424	22	244
Gender						
<i>Male</i>	43.7%	40.5%	44.4%	34.9%	36.4%	36.8%
<i>Female</i>	56.3%	59.6%	55.6%	65.1%	63.6%	63.2%
Race/ethnicity						
<i>White, not Hispanic</i>	67.6%	73.5%	61.3%	65.2%	64.8%	65.8%
<i>Black, not Hispanic</i>	19.7%	17.6%	24.8%	22.6%	24.8%	27.3%
<i>Hispanic</i>	2.4%	2.6%	2.7%	0.9%	3.5%	2.6%
<i>Asian/Pacific Islander</i>	2.2%	1.6%	1.7%	2.4%	1.5%	1.0%
<i>Other</i>	5.1%	1.8%	6.6%	5.0%	2.5%	1.0%
<i>Unknown</i>	2.9%	3.0%	2.9%	3.9%	2.9%	2.3%
Average age at first enrollment	18.5	20.3	18.6	18.5	20.3	20.1
Total	4,069	3,493	1,720	819	805	389

Table 5 provides additional information about students that filed the FAFSA, including parental education levels, eligibility for the Pell grant, and AGI of the student’s family. Generally speaking, students that began at a four-year institution were more likely to have at least one parent that completed college compared to students who began at a two-year institution. Further, the family AGI of students that began at a four-year institution is higher, on average, than the family AGI of students that began at a two-year institution, corresponding with lower rates of Pell eligibility among students that began at a four-year institution. These findings align with conventional wisdom, since two-year institutions often provide a more affordable option for students with a modest family income.

Table 5: FAFSA Information for Fall 2011 Cohort by Transfer Pattern

FAFSA Information	42	24	44	424	22	244
Parent’s highest level of education completed						
<i>College or beyond</i>	62.7%	48.4%	59.9%	61.8%	43.9%	46.0%
<i>High school</i>	29.7%	39.5%	31.2%	31.1%	43.5%	39.1%
<i>Less than high school</i>	1.3%	3.2%	1.6%	1.3%	3.4%	3.9%
<i>Unknown</i>	6.3%	9.0%	7.3%	5.7%	9.3%	11.1%
Eligible for a Pell grant	44.2%	60.2%	49.4%	44.2%	73.4%	61.1%
Average AGI	\$79,709	\$51,596	\$75,220	\$76,607	\$34,257	\$56,649
Median AGI	\$60,756	\$38,167	\$54,184	\$61,387	\$20,954	\$37,319
Total	3,876	3,301	1,622	783	751	357

Note: 94.6 percent of the Fall 2011 cohort filed the FAFSA, and these students are reflected in this table.

Table 6 displays the academic performance of the Fall 2011 cohort in their first semester of postsecondary enrollment, disaggregated by transfer pattern. Across the board, students attempted between 13 and 14 credit hours in their first semester, though the number of credit hours earned varied by transfer pattern, from 8.3 among “22” students to 12.3 among “44” students. First-term GPA also varied by transfer pattern, from 2.00 among “22” students (the minimum GPA required to maintain satisfactory academic progress) to 2.80 among “24” students. Differences in academic performance may be at least partially attributable to varying levels of academic preparation between students with different transfer patterns.

Table 6: Academic Performance of Fall 2011 Cohort by Transfer Pattern

Academic Performance	42	24	44	424	22	244
Average credit hours attempted	14.2	13.3	14.3	14.2	13.0	13.4
Average credit hours earned	11.5	11.2	12.3	11.4	8.3	10.6
Average term GPA	2.48	2.80	2.74	2.41	2.00	2.65
Total	4,069	3,493	1,720	819	805	389

Figure 5 shows six-year completion rates for the Fall 2011 cohort, disaggregated by transfer pattern. Completion rates capture students that completed postsecondary certificates, associate degrees, and bachelor’s degrees. Completion rates were relatively similar across transfer patterns (near 60 percent), with the exception of “22” students. The completion rate for students who began at a two-year institution and transferred to another two-year institution was considerably lower (22.4 percent).

Figure 5: Completion Rates for Fall 2011 Cohort by Transfer Pattern

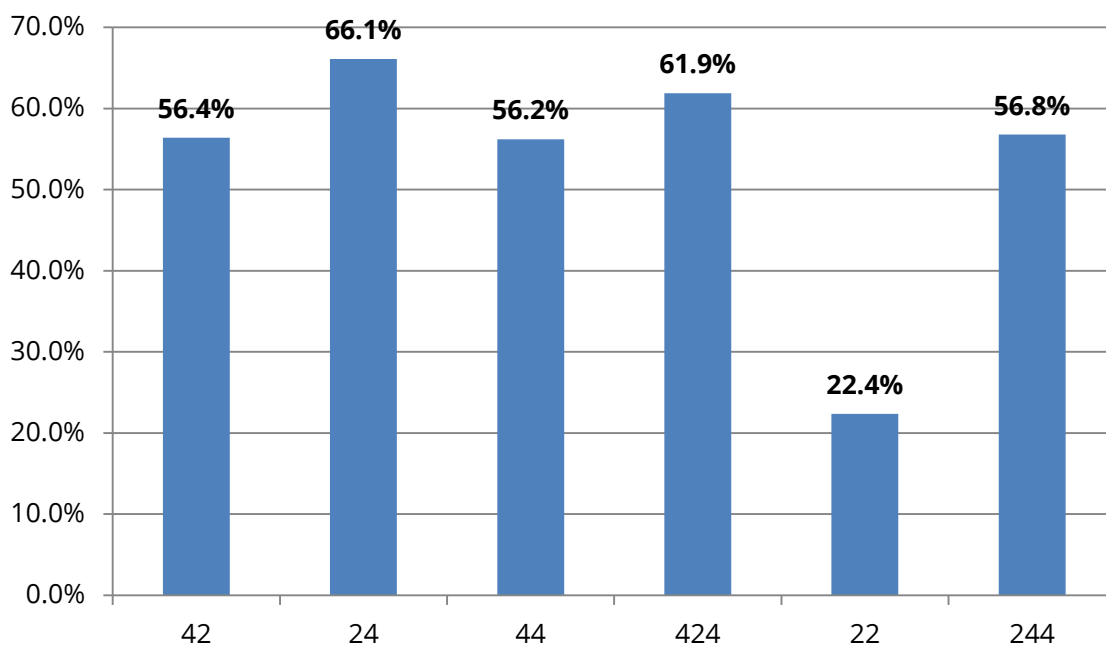
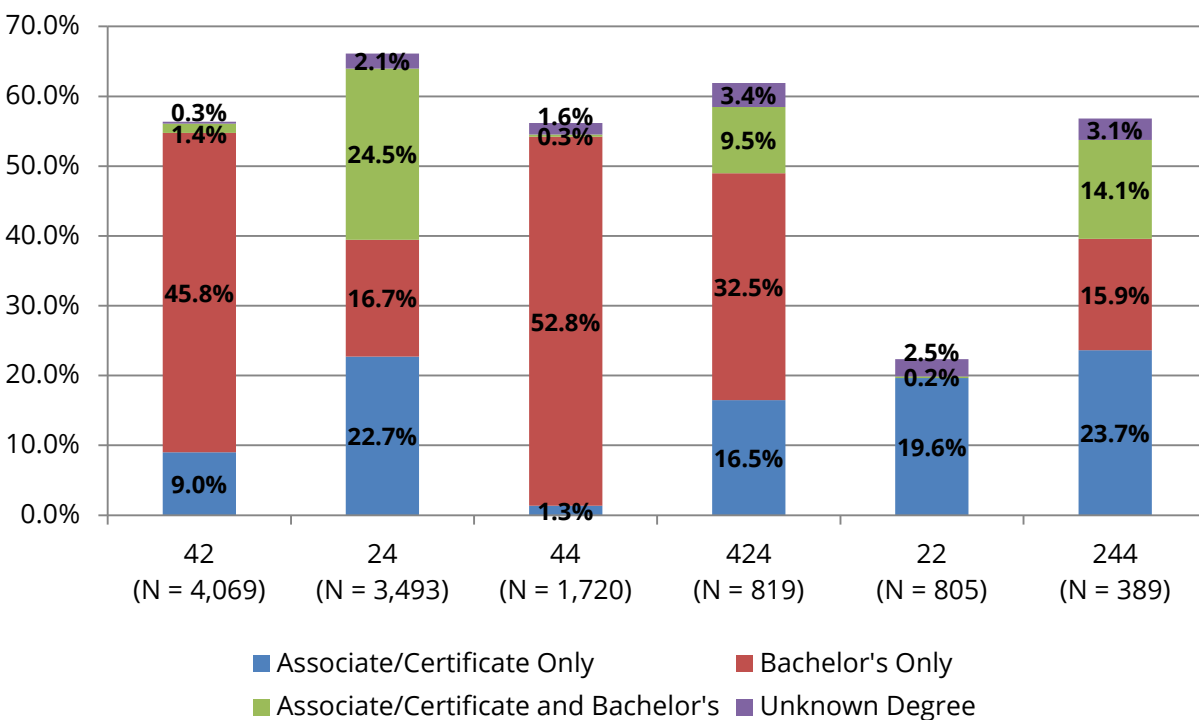


Figure 6 displays six-year completion rates for the Fall 2011 cohort, disaggregated by transfer pattern and degree earned. Blue represents students who only earned an associate degree or certificate; red represents students who only earned a bachelor’s degree; green represents students who earned both an associate degree or certificate and a bachelor’s degree; and purple represents students who earned a degree (according to data from the National Student Clearinghouse) but whose institution did not report the type of degree earned. For example, among the “24” students (who began at a two-year institution and transferred to a four-year institution), 22.7 percent earned only an associate degree or certificate, 16.7 percent earned only a bachelor’s degree, 24.5 percent earned both an associate degree or certificate and a bachelor’s degree, and 2.1 percent earned a degree at an institution that did not report the type of degree earned.

Of the 14,107 students who began at a community college (any transfer pattern beginning with “2”), 22.3 percent (N = 3,144) earned an associate degree within six years, while 13.4 percent (N = 1,894) earned an associate degree and transferred to a university within six years.

Figure 6: Completion Rates for Fall 2011 Cohort by Transfer Pattern and Degree Earned



Tennessee Transfer Pathways

TTPs are designed to expedite student progression toward a bachelor's degree by creating a seamless transfer process from a Tennessee community college to any public university or participating private university in Tennessee. A student who begins at a community college and completes all courses on the TTP will earn an associate degree from the community college. The transcript will certify that the student followed the TTP, which guarantees that all courses will count toward the corresponding bachelor's degree at the university.

TTP associate degrees require a minimum of 60 credit hours, comprising 41 credit hours of general education and at least 19 credit hours in the area of emphasis. Currently, there are 53 TTP majors within eight academic focus areas⁴ that have been developed by the Tennessee Board of Regents, the locally governed institutions (LGIs), the University of Tennessee system, and the Tennessee Independent Colleges and Universities Association (TICUA) member institutions. A curricular map is available for each pathway, listing all degree requirements for the associate degree.⁵

Enrollment and Characteristics of TTP Students

Between Fall 2012 and Spring 2016, 51,147 unique students enrolled in a TTP associate degree program at one of Tennessee's 13 community colleges. **Table 7** displays the demographic characteristics of TTP students, including gender and race/ethnicity.

Table 7: Demographics of TTP Students

Demographics	Count	Percent
Gender		
<i>Male</i>	25,196	49.3%
<i>Female</i>	25,949	50.7%
Race/ethnicity		
<i>White, not Hispanic</i>	35,761	69.9%
<i>Black, not Hispanic</i>	9,153	17.9%
<i>Hispanic</i>	2,334	4.6%
<i>Asian/Pacific Islander</i>	1,193	2.3%
<i>Other</i>	1,327	2.6%
<i>Unknown</i>	1,379	2.7%
Total	51,147	100.0%

Table 8 provides additional information about TTP students that filed the FAFSA, including parental education levels, eligibility for the need-based federal Pell grant, and AGI of the student's family.

⁴ The eight academic focus areas are as follows: Applied Technology, Arts, Business, Education, Health Sciences, Humanities, Social Sciences, and STEM.

⁵ Additional information about Tennessee Transfer Pathways is available at <http://www.tntransferpathway.org/>

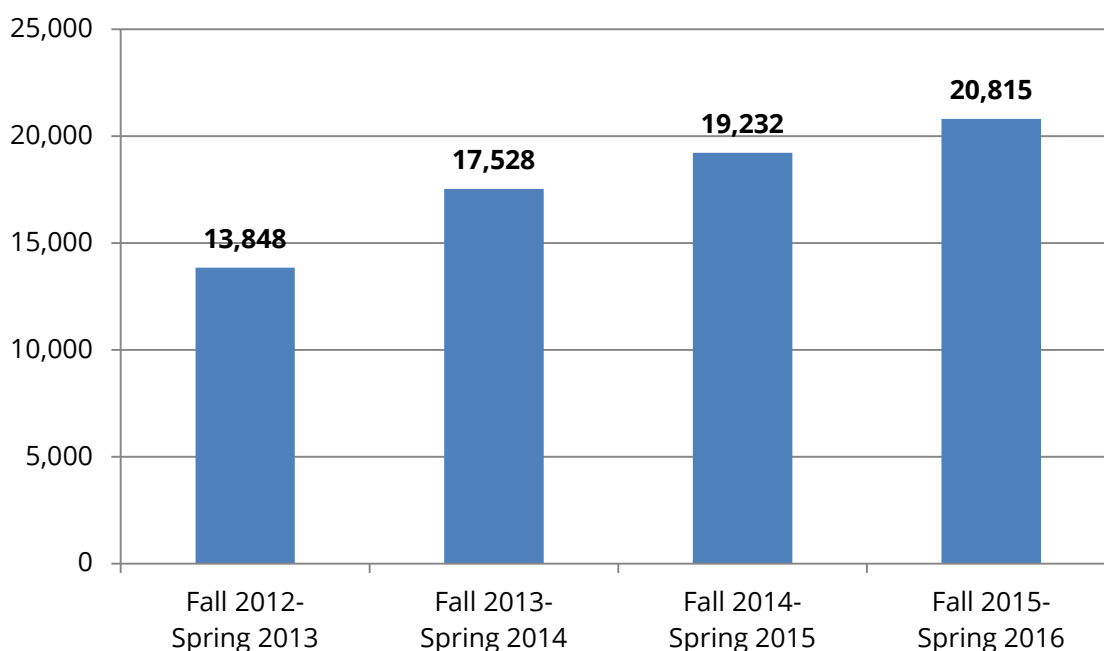
Table 8: FAFSA Information for TTP Students

FAFSA Information	
Parent's highest level of education completed	
<i>College or beyond</i>	47.5%
<i>High school</i>	44.5%
<i>Less than high school</i>	3.8%
<i>Unknown</i>	4.2%
Eligible for a Pell grant	65.0%
Average AGI	\$47,398
Median AGI	\$35,019
Total	49,930

Note: 97.6 percent of TTP students filed the FAFSA and are reflected in this table.

The number of students enrolled in TTP associate degree programs has increased each academic year (fall and spring semesters only), as displayed in **Figure 7**. The increase from 13,848 in academic year 2012-13 to 20,815 in academic year 2015-16 represents a three-year increase of 50.3 percent. TTP enrollment by the student's first declared major is available in **Appendix A**. The most common TTP majors are Business Administration, Psychology, and Pre-Health Professions.

Figure 7: Count of TTP Students by Academic Year



Note: Students are unduplicated within each academic year; however, students are duplicated across academic years if they enrolled in a TTP associate degree program in multiple academic years.

Table 9 displays the number of students enrolled in a TTP associate degree program by institution and academic year and provides the three-year change in TTP enrollment at each institution. The three-year

change varied by institution, ranging from a moderate decline at Roane State (-7.9 percent) to a substantial increase at Southwest Tennessee (167.4 percent).

Table 9: Count of TTP Students by Institution and Academic Year

Institution Name	Fall 2012- Spring 2013	Fall 2013- Spring 2014	Fall 2014- Spring 2015	Fall 2015- Spring 2016	3-Year Change
Chattanooga State	762	1,286	1,555	1,879	146.6%
Cleveland State	699	850	874	820	17.3%
Columbia State	1,147	1,351	1,446	1,704	48.6%
Dyersburg State	615	640	583	628	2.1%
Jackson State	745	755	802	897	20.4%
Motlow State	1,487	1,699	1,912	2,212	48.8%
Nashville State	2,767	3,242	3,609	3,883	40.3%
Northeast State	839	1,224	1,424	1,618	92.8%
Pellissippi State	1,265	1,905	2,135	2,211	74.8%
Roane State	783	987	868	721	-7.9%
Southwest Tennessee	451	959	1,227	1,206	167.4%
Volunteer State	1,858	2,047	2,150	2,321	24.9%
Walters State	430	583	647	715	66.3%
Total	13,848	17,528	19,232	20,815	50.3%

Note: Students are unduplicated within each academic year; however, students are duplicated across academic years if they enrolled in a TTP associate degree program in multiple academic years.

Figure 8 displays the percent of total community college headcount enrolled in a TTP associate degree program in each semester from Fall 2012 through Spring 2016. This share has increased each semester, from 10.4 percent in Fall 2012 to 19.3 percent in Spring 2016.

Figure 8: Percent of Total Community College Headcount Enrolled in a TTP by Semester

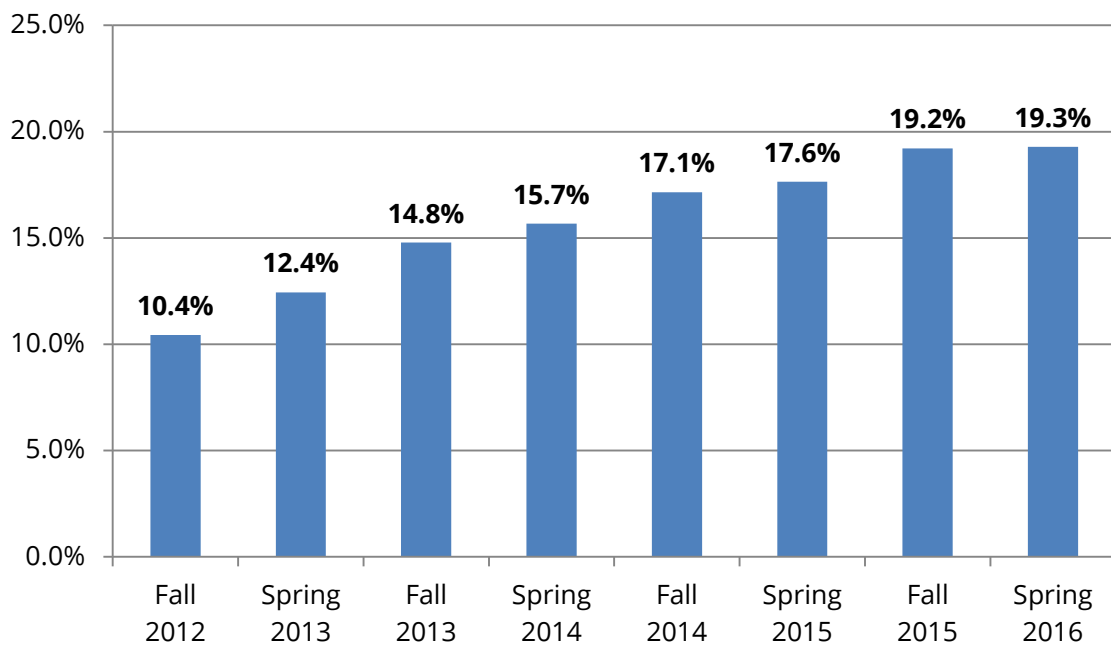


Table 10 displays the percent of headcount enrolled in a TTP associate degree program at each community college from Fall 2012 through Spring 2016. The share of students enrolled in a TTP varied by institution, from 9.1 percent at Roane State to 35.5 percent at Motlow State in the most recent semester. These differences may be partially attributable to the distinct mission of each community college; some colleges have high rates of transfer to four-year institutions, while other colleges focus on terminal associate degree programs that prepare students to immediately enter the workforce. From Fall 2012 to Spring 2016, the increased share of students enrolled in a TTP is notable at certain institutions, including Northeast State (14.7 percentage points), Motlow State (12.2 percentage points), and Chattanooga State (11.2 percentage points).

Table 10: Percent of Headcount Enrolled in a TTP by Institution and Semester

Institution Name	Fall 2012	Spring 2013	Fall 2013	Spring 2014	Fall 2014	Spring 2015	Fall 2015	Spring 2016
Chattanooga State	4.4%	6.3%	9.4%	9.7%	11.8%	12.7%	15.5%	15.6%
Cleveland State	14.5%	16.2%	18.7%	17.7%	19.6%	18.7%	19.2%	17.8%
Columbia State	16.8%	18.0%	19.7%	21.2%	22.2%	23.7%	25.2%	26.9%
Dyersburg State	12.9%	14.5%	16.0%	16.2%	17.1%	16.1%	18.1%	17.8%
Jackson State	12.3%	13.0%	13.1%	12.5%	12.8%	13.0%	16.6%	15.0%
Motlow State	23.3%	24.7%	27.4%	28.3%	31.6%	32.0%	34.9%	35.5%
Nashville State	20.0%	21.3%	24.2%	24.7%	26.4%	26.2%	28.9%	29.0%
Northeast State	6.2%	11.8%	15.4%	17.4%	18.8%	20.1%	21.8%	20.9%
Pellissippi State	8.3%	10.1%	13.0%	14.5%	16.6%	16.1%	16.7%	17.4%
Roane State	7.2%	10.2%	12.5%	11.9%	12.3%	11.8%	9.8%	9.1%
Southwest Tennessee	2.2%	3.4%	6.1%	7.4%	9.1%	9.9%	10.6%	10.7%
Volunteer State	17.0%	17.8%	19.2%	19.6%	21.9%	22.0%	23.9%	22.6%
Walters State	4.0%	5.8%	6.5%	8.3%	8.4%	9.1%	9.2%	10.4%
Total	10.4%	12.4%	14.8%	15.7%	17.1%	17.6%	19.2%	19.3%

Completion of TTP Students

Figure 9 displays the number of TTP associate degree completions by academic year and semester of completion (including the trailing summer semester). Since Fall 2012, 4,311 unique students have completed 4,317 TTP associate degrees. Due to the maturation of the program and the enrollment of multiple cohorts of TTP students, the number of completions rose over time, from 532 in the first year of implementation to 1,403 in academic year 2015-16, representing an increase of 163.7 percent.⁶ TTP associate degree completions by major are available in **Appendix B**. The most common TTP majors are Business Administration, Accounting, and Criminal Justice.

⁶ Completion data for academic year 2015-16 do not include the trailing summer semester.

Figure 9: TTP Associate Degree Completions by Academic Year and Semester

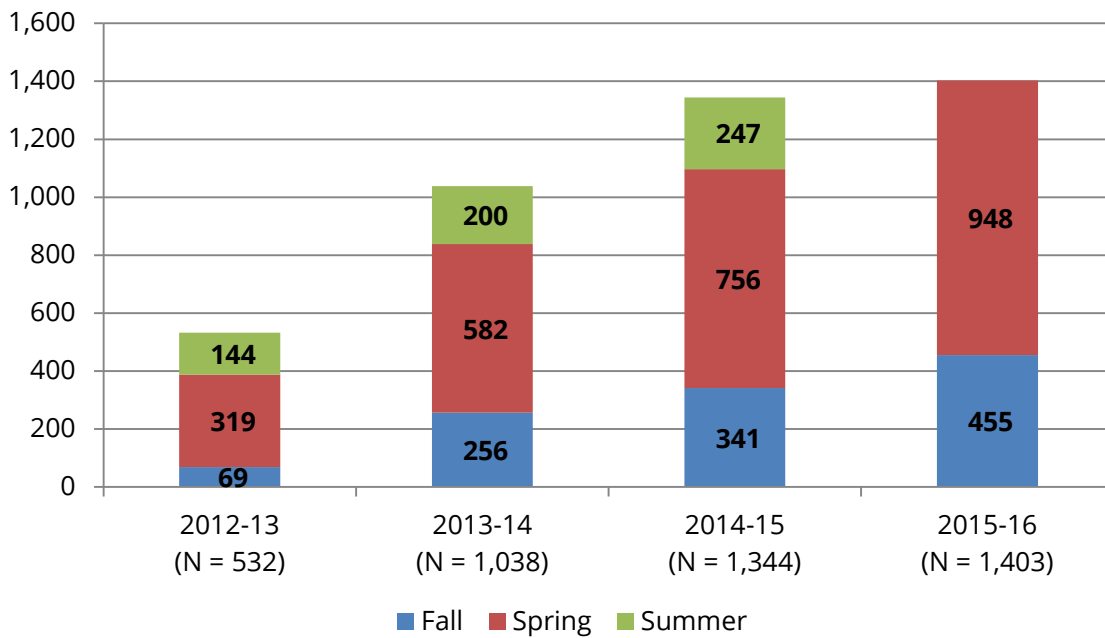


Figure 10 displays the degree outcomes through Spring 2017 (within five years of initial enrollment) for students who first enrolled in a TTP associate degree program in Fall 2012, identified in this section as the “Fall 2012 TTP cohort.” Of the 9,676 students in the Fall 2012 TTP cohort, 35.8 percent earned a certificate or degree within five years: 2.2 percent earned a certificate, 19.2 percent earned an associate degree, 14 percent earned a bachelor’s degree, and 0.4 percent earned a graduate degree.

Figure 10: Highest Degree Earned, Fall 2012 TTP Cohort

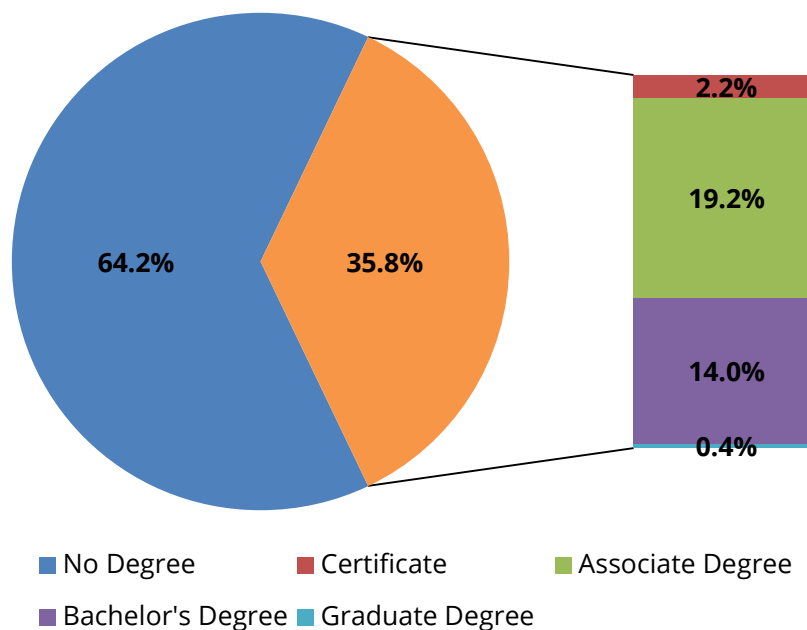


Table 11 shows the TTP completion status of the 3,461 students in the Fall 2012 TTP cohort that earned a degree or certificate within five years of initial enrollment. Overall, 62.1 percent of these students did not complete the TTP associate degree. For example, of the 1,858 students in the Fall 2012 TTP cohort that completed any associate degree within five years, only 798 (42.9 percent) completed all the requirements for the TTP associate degree. Ultimately, any degree completion (whether it is a TTP completion or not) is a success for the student, but understanding why students who enrolled in a TTP associate degree program decided to complete a different degree instead may provide the opportunity for program improvement.

Table 11: Highest Degree Earned by TTP Completion Status, Fall 2012 TTP Cohort

Highest Degree Earned	Did Not Complete TTP Associate Degree		Completed TTP Associate Degree		Total
	Count	Percent	Count	Percent	
Certificate	213	100.0%	0	0.0%	213
Associate Degree	1,060	57.1%	798	42.9%	1,858
Bachelor's Degree	859	63.4%	495	36.6%	1,354
Graduate Degree	17	47.2%	19	52.8%	36
Total	2,149	62.1%	1,312	37.9%	3,461

Transfer Behavior of Tennessee Promise Students

This section examines the transfer behavior of the first cohort of Tennessee Promise students, from their first enrollment in Fall 2015 through Spring 2018. Of the 16,206 students in Cohort 1,⁷ we were able to track semester-by-semester enrollment (using THEC’s student information system) for the 15,697 students enrolled at a TCAT, community college, or public university. Of these students, 3,117 (19.9 percent) transferred to a different institution at least once in three years; throughout this section, these students are identified as “transfer students,” while the remaining 12,580 are identified as “non-transfer students.”

Table 12 displays the demographic characteristics of the first cohort of Tennessee Promise students, including gender and race/ethnicity. Transfer students were slightly more likely to be female than their non-transfer counterparts (54.9 percent versus 51.8 percent). Transfer students were also more likely to be white (81.5 percent versus 75.9 percent) and less likely to be black (8.9 percent versus 12.8 percent) than non-transfer students.

Table 12: Demographics of Tennessee Promise Students by Transfer Status

Demographics	Non-Transfer Students	Transfer Students
Gender		
<i>Male</i>	48.2%	45.1%
<i>Female</i>	51.8%	54.9%
Race/ethnicity		
<i>White, not Hispanic</i>	75.9%	81.5%
<i>Black, not Hispanic</i>	12.8%	8.9%
<i>Hispanic</i>	3.5%	3.4%
<i>Asian/Pacific Islander</i>	1.1%	1.2%
<i>Other</i>	1.7%	1.4%
<i>Unknown</i>	5.0%	3.6%
Total	12,580	3,117

Table 13 provides FAFSA information for the first cohort of Tennessee Promise students,⁸ including first generation status⁹ and AGI of the student’s family. Transfer students were less likely to be first generation (32.4 percent versus 44.5 percent) and their family AGI was higher, on average, than non-transfer students (\$78,261 versus \$61,419).

⁷ As reported in THEC’s 2018 Tennessee Promise Annual Report, available at <https://www.tn.gov/thec/research/redirect-research/tn-promise-annual-report.html>

⁸ Filing the FAFSA is a requirement of Tennessee Promise, so all Tennessee Promise students are reflected in Table 14.

⁹ In this report, “first generation” means that neither of a student’s parents completed a college degree.

Table 13: FAFSA Information for Tennessee Promise Students by Transfer Status

FAFSA Information	Non-Transfer Students	Transfer Students
First generation	44.5%	32.4%
Average AGI	\$61,419	\$78,261
Median AGI	\$52,791	\$70,617
Total	12,580	3,117

Table 14 displays the attempted and earned credit hours of the first cohort of Tennessee Promise students in their first semester of postsecondary enrollment (Fall 2015), disaggregated by transfer status. Because TCAT students earn contact hours instead of credit hours, TCAT students are excluded; the table only includes Tennessee Promise students enrolled at a community college or university. Though transfer and non-transfer students attempted a similar number of credit hours in their first semester, transfer students earned approximately three more credit hours (12.7 versus 9.6) than their non-transfer peers. It is important to note that students are required to maintain full-time enrollment (a minimum of 12 credit hours per semester) to maintain eligibility for Tennessee Promise.

Table 14: Academic Performance of Tennessee Promise Students by Transfer Status

Academic Performance	Non-Transfer Students	Transfer Students
Average credit hours attempted	13.3	13.7
Average credit hours earned	9.6	12.7
Total	10,672	3,117

Figure 11 displays the share of the first cohort of Tennessee Promise students who transferred, disaggregated by the sector in which the student first enrolled. Overall, approximately 20 percent of Tennessee Promise students transferred to a different institution between Fall 2015 and Spring 2018. Students who began at a TCAT were much less likely to transfer (5 percent) than students who began at a community college or university (21.9 percent and 20.6 percent, respectively). This may be an indication that TCAT students desire to directly enter the workforce after earning a certificate or diploma, rather than continuing on to complete a degree.

Figure 11: Transfer Status of Tennessee Promise Students by Sector of First Enrollment

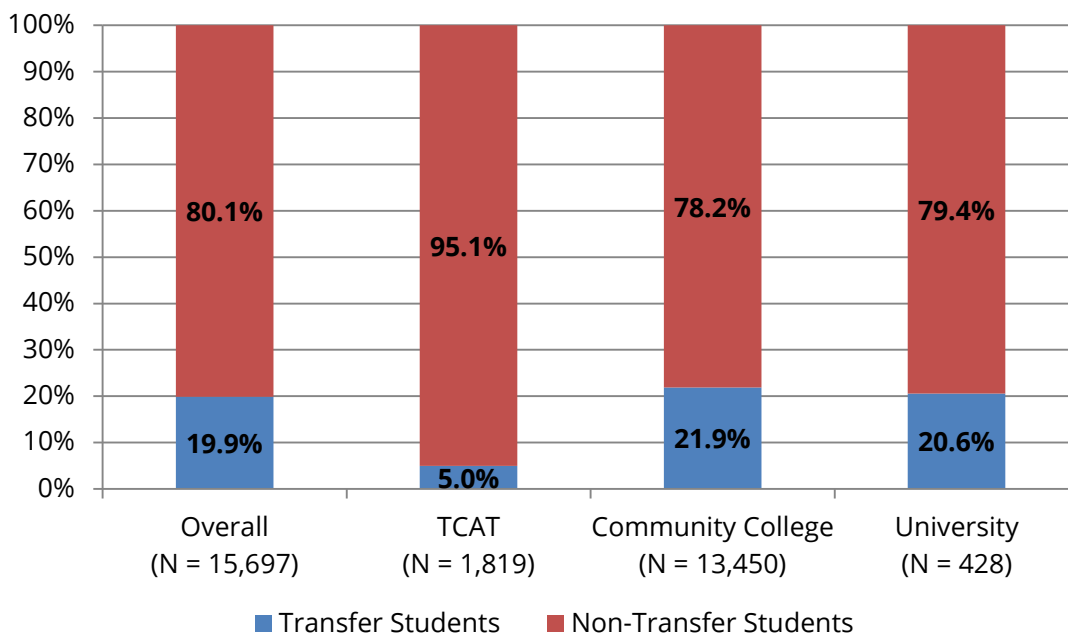
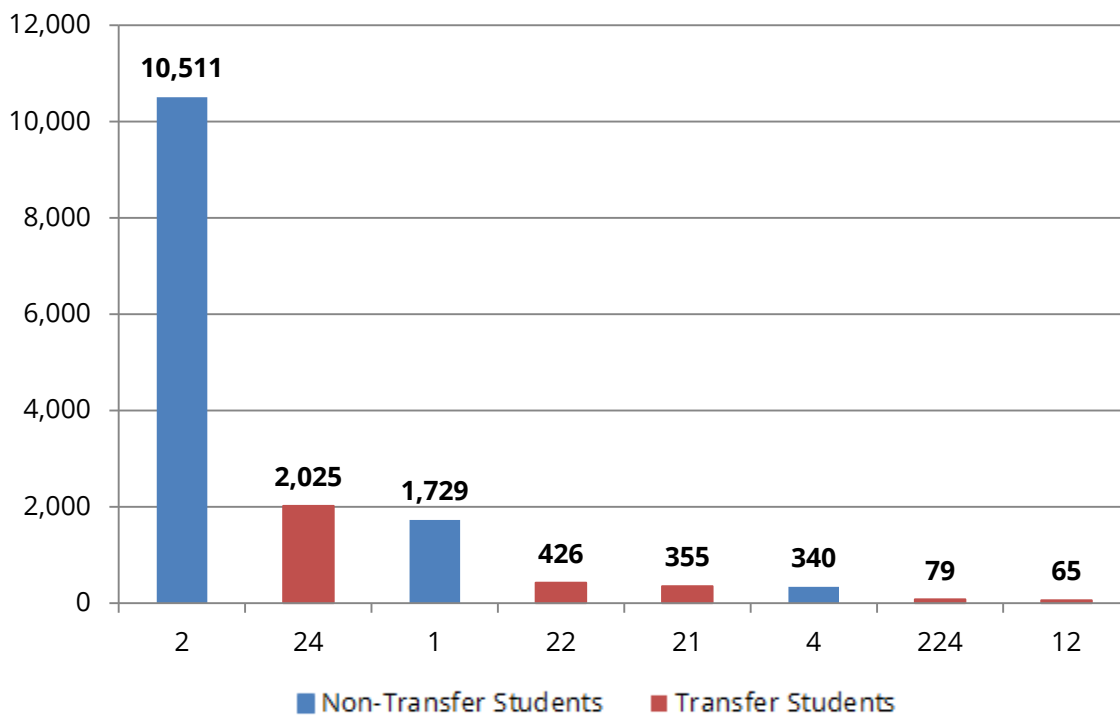


Figure 12 displays the eight most common transfer patterns for the first cohort of Tennessee Promise students. These transfer patterns were coded by the sector in which a student was enrolled (where “4” is a four-year institution, “2” is a two-year institution, and “1” is a TCAT), in chronological sequence based on the first date of a student’s enrollment at an institution. The “4,” “2,” and “1” patterns indicate that a student enrolled at a singular four-year institution, two-year institution, or TCAT, respectively (i.e., a non-transfer student). There were 28 unique transfer patterns for the first cohort of Tennessee Promise students.

Of the 3,117 transfer students, nearly two-thirds (65 percent) fit the traditional definition of “vertical” transfer, moving from a community college to a four-year institution (“24”). Smaller numbers of students transferred between two community colleges (“22”), from a community college to a TCAT (“21”), or some other combination of institutions.

Figure 42: Top Eight Transfer Patterns for Tennessee Promise Students



Additional analyses examined the share of the first cohort of Tennessee Promise students that enrolled at a Tennessee public university at any point between Fall 2015 and Spring 2018. Overall, 2,586 students (16.5 percent) enrolled at a university, which includes students who began at a university as well as students who transferred to a university from a community college or TCAT. As expected, the share of community college students who transferred to a university (15.9 percent) was much greater than the share of TCAT students that transferred to a university (0.8 percent). Of the 13,450 students who began at a community college, 13.6 percent (N = 1,830) earned an associate degree within three years, while 8 percent (N = 1,082) earned an associate degree and transferred to a university within three years.

Table 15 shows the share of the first cohort of Tennessee Promise students that began at a community college in Fall 2015 and transferred to a Tennessee public university at any point between Spring 2016 and Spring 2018, disaggregated by first institution (community college). The share of students that transferred to a university varied considerably by community college, ranging from 11.4 percent at Chattanooga State to 24.6 percent at Motlow State.

Table 15: University Enrollment for Tennessee Promise Students by First Institution

Institution Name	No University Enrollment	Any University Enrollment	Total	Percent with University Enrollment
Chattanooga State	969	125	1,094	11.4%
Cleveland State	366	78	444	17.6%
Columbia State	881	135	1,016	13.3%
Dyersburg State	247	53	300	17.7%
Jackson State	590	101	691	14.6%
Motlow State	1,022	334	1,356	24.6%
Nashville State	982	178	1,160	15.3%
Northeast State	895	187	1,082	17.3%
Pellissippi State	1,458	303	1,761	17.2%
Roane State	827	184	1,011	18.2%
Southwest Tennessee	850	118	968	12.2%
Volunteer State	1,248	213	1,461	14.6%
Walters State	971	135	1,106	12.2%
Total	11,306	2,144	13,450	15.9%

Table 16 provides a matrix with the number of students from the first cohort of Tennessee Promise that each community college sent to each Tennessee public university. Motlow State sent the largest number of students to universities (N = 334), and Middle Tennessee State University received the largest number of students from community colleges (N = 471). The most common pathways are Motlow State to Middle Tennessee State University (N = 218), Pellissippi State to the University of Tennessee, Knoxville (N = 196), and Northeast State to East Tennessee State University (N = 162).

Table 16: Tennessee Promise Transfer to Universities by Sending Community College

Sending Institution	APSU	ETSU	MTSU	TSU	TTU	UofM	UTC	UTK	UTM	Total
Chattanooga State	*	9	19	*	12	*	72	7	*	125
Cleveland State	*	10	7	0	11	0	36	12	*	78
Columbia State	8	*	61	*	17	*	23	8	14	135
Dyersburg State	*	0	*	0	*	14	*	*	21	53
Jackson State	*	0	13	*	0	30	0	*	44	101
Motlow State	*	*	218	*	55	0	22	19	8	334
Nashville State	32	*	29	17	62	*	*	8	17	178
Northeast State	0	162	7	0	7	0	*	8	*	187
Pellissippi State	*	35	26	0	22	*	20	196	*	303
Roane State	*	30	12	0	92	*	*	45	0	184
Southwest Tennessee	*	*	11	*	*	83	*	6	*	118
Volunteer State	30	*	62	9	54	*	21	28	7	213
Walters State	*	79	*	0	9	0	*	36	*	135
Total	98	339	471	37	347	138	213	380	121	2,144

*Individual cells containing five or fewer observations are suppressed, in accordance with FERPA requirements.

Note: Students that transferred to the University of Tennessee Health Science Center are included in the UTK counts.

Conclusion

Tennessee is making great strides in developing innovative policy solutions to support the Drive to 55 and the Complete College Tennessee Act of 2010. This report provides a longitudinal perspective on the transfer behavior of Tennessee students as well as an update on two major programmatic initiatives: Tennessee Transfer Pathways and Tennessee Promise. There are many additional programs and initiatives not mentioned here that support the State's ambitious attainment goal, including Reverse Transfer and efforts to expand Prior Learning Assessment for adult learners and veterans. Though great work is already underway, Tennessee should continue its efforts to develop standards for articulating credit for non-TTP programs, articulating TCAT contact hours into credit hours that apply to a degree, and transferring credit from out-of-state institutions to facilitate student success and degree completion at Tennessee's public institutions.

Due to Tennessee Promise implementation in Fall 2015 and the Focus on College and University Success Act of 2016, the landscape of higher education in Tennessee has changed considerably in recent years. Future iterations of the Articulation and Transfer Report will examine longer-term transfer behavior and bachelor's degree completion for Tennessee Promise students as well as longitudinal analyses of how transfer patterns at public institutions have changed over time. These additional analyses will enable THEC to support students on their postsecondary pathway and provide interventions that increase student success.

Appendix A: TTP Enrollment by Major

TTP Major Name	Count	Percent
Unknown	13,582	26.6%
Business Administration	7,044	13.8%
Psychology	3,483	6.8%
Pre-Health Professions	2,843	5.6%
Criminal Justice	2,627	5.1%
Biology	2,298	4.5%
Accounting	1,991	3.9%
Social Work	1,719	3.4%
Pre-Physical Therapy	1,529	3.0%
Computer Science	1,193	2.3%
English	1,028	2.0%
Mechanical Engineering	1,020	2.0%
History	1,006	2.0%
Exercise Science	854	1.7%
Mass Communication	833	1.6%
Sociology	824	1.6%
Art (Studio)	716	1.4%
Information Systems	700	1.4%
Music	612	1.2%
Chemistry	579	1.1%
Electrical Engineering	533	1.0%
Economics	532	1.0%
Civil Engineering	528	1.0%
Political Science	463	0.9%
Pre-Occupational Therapy	408	0.8%
Math	400	0.8%
Foreign Language	361	0.7%
Theatre Arts	259	0.5%
Speech Communication	242	0.5%
Early Childhood Education (Pre K-3)	201	0.4%
Physics	199	0.4%
Agricultural Business	120	0.2%
Plant and Soil Science	91	0.2%
Kinesiology	83	0.2%
Animal Science	78	0.2%
Engineering Technology	38	0.1%
Marketing	22	0.0%
Pre-Nursing	19	0.0%
Finance	14	0.0%
Pre-Dental Hygiene	11	0.0%
Anthropology	10	0.0%
Special Education	10	0.0%

TTP Major Name	Count	Percent
Nutrition and Food Science	9	0.0%
Physical Education	9	0.0%
Management	8	0.0%
Sport and Leisure Management	*	*
Geography	*	*
Geosciences	*	*
Family and Consumer Sciences	*	*
Imaging Sciences	*	*
International Affairs	*	*
Philosophy	*	*
Pre-Clinical Laboratory Sciences	*	*
Total	51,147	100.0%

*Individual cells containing five or fewer observations are suppressed, in accordance with FERPA requirements.

Appendix B: TTP Associate Degree Completions by Major

TTP Major Name	Count	Percent
Unknown	1,521	35.2%
Business Administration	518	12.0%
Accounting	309	7.2%
Criminal Justice	271	6.3%
Psychology	234	5.4%
History	174	4.0%
Sociology	161	3.7%
Social Work	138	3.2%
Mass Communication	109	2.5%
Exercise Science	90	2.1%
Pre-Health Professions	79	1.8%
English	71	1.6%
Political Science	57	1.3%
Music	55	1.3%
Information Systems	52	1.2%
Art (Studio)	46	1.1%
Biology	45	1.0%
Computer Science	45	1.0%
Pre-Physical Therapy	42	1.0%
Foreign Language	40	0.9%
Mechanical Engineering	40	0.9%
Theatre Arts	40	0.9%
Speech Communication	38	0.9%
Math	31	0.7%
Economics	23	0.5%
Chemistry	17	0.4%
Agricultural Business	13	0.3%
Plant and Soil Science	10	0.2%
Animal Science	9	0.2%
Early Childhood Education (Pre K-3)	9	0.2%
Pre-Occupational Therapy	8	0.2%
Civil Engineering	7	0.2%
Physics	6	0.1%
Electrical Engineering	*	*
Finance	*	*
Kinesiology	*	*
Nutrition and Food Science	*	*
Physical Education	*	*
Total	4,317	100.0%

*Individual cells containing five or fewer observations are suppressed, in accordance with FERPA requirements.