Annual Report on Articulation and Transfer

2012

October 1, 2012

Tennessee Higher Education Commission
404 James Robertson Parkway, Suite 1900 | Nashville, TN 34243

TENNESSEE HIGHER EDUCATION COMMISSION

2012 – 2013 COMMISSION MEMBERS

VACANT, 5th Congressional District

Mr. Charles W. Bone, Hendersonville, 6th Congressional District

Mr. Evan Cope, Vice Chair, Murfreesboro, 4th Congressional District

Mr. Gregory Frye, University of Tennessee, Martin

Mr. Tre Hargett, Secretary of State

Ms. Sharon Hayes, Brownsville, 8th Congressional District

Mr. Greg Isaaks, Knoxville, 2nd Congressional District

Mr. Adam Jarvis, East Tennessee State University

Mr. Cato Johnson, Bartlett, 7th Congressional District

Mr. Jon Kinsey, Chattanooga, 3rd Congressional District

Mr. David Lillard, Jr., State Treasurer

Dr. Gary Nixon, Executive Director, State Board of Education

Mayor A C Wharton, Secretary, Memphis, 9th Congressional District

Mr. Robert White, Chair, Johnson City, 1st Congressional District

Mr. Justin Wilson, State Comptroller

TENNESSEE
HIGHER EDUCATION COMMISSION

TABLE OF CONTENTS

I. Overview 1

II. Executive Summary 3

III. Tennessee Transfer Pathway Update 6

IV. Tennessee Transfer Student Profile: Fall 2011 8

A. Statewide Student Transfer Activity 8

B. Transfer Activity in Public Higher Education 11

C. Student Transfer Activity by Institution 14

D. Academic Characteristics of Transfer Students 19

V. Student Migration from Tennessee Technology Centers 22

VI. Related Analyses 27

VII. Conclusion 28

APPENDIX A. Transfers by Sector of Origin and as a Percent of Undergraduate Enrollment, Public Institutions, Fall 2011 30

APPENDIX B. Transfers by Sector of Origin and as a Percent of Undergraduate Enrollment, TICUA Institutions, Fall 2011 31

APPENDIX C. Transfer Student Activity by Sending Institution and Receiving University, Public Institutions, Fall 2011 32

APPENDIX D. Transfer Student Activity by Sending Institution and Receiving Community College, Public Institutions, Fall 2011 33

APPENDIX E. Transfer Students by Credits and Degrees at Transfer, Fall 2011 34

LIST OF FIGURES

Figure 1. Student Transfer Patterns, Fall 2011 8
Figure 2. Transfers by Originating Location (In-State vs. Out-of-State), Fall 2011.....9
Figure 3. Transfers into Tennessee Public and TICUA Institutions by State of Origin, Fall 2011.....10
Figure 4. Transfer and Total Undergraduate Headcount, Public Institutions, Fall 2006-2011.....11
Figure 5. Transfer and Native Student Demographics, Fall 2011 12
Figure 6. Transfers into Public Institutions, Fall 2011 13
Figure 7. Public Transfer Activity, Fall 2011 13
Figure 8. Transfer Students as a Percent of Undergraduate Enrollment, Fall 2011 15
Figure 9. Transfer Students as a Percent of TICUA Undergraduate Enrollment, Fall 2011.....17
Figure 10. Academic Major at Transfer, Transfer Students, Fall 2011.....19
Figure 11. Credit Hours and Degrees at Transfer, Fall 2011 20
Figure 12. Academic Major at Transfer with More than 60 Credits and No Prior Degree, Fall 2011.....21
Figure 13. Demographic Characteristics of TTC Transfers and Traditional Public Transfers, Fall 2011 25

LIST OF TABLES

Table 1. Frequently Visited Transfer Pathway Sites, www.tntransferpathway.org.....7
Table 2. Frequently Visited Transfer Pathway Institutions, www.tntransferpathway.org 7
Table 3. Student Transfer Activity by Sector of Origin, Fall 2011 9
Table 4. Fall Semester Transfer Activity within Tennessee Public Sector, Fall 2007-Fall 2011 14
Table 5. Transfers as a Percent of Undergraduate Enrollment, Fall 2006-Fall 2011 ...16
Table 6. Each Institution's Share of Total Public Transfer Activity, Fall 2011.....18
Table 7. Migration of TTC Transfers into Tennessee Public Institutions, Fall 2011.....23
Table 8. Migration of TTC Transfers by Receiving Institution, Fall 2011.....24
Table 9. Student Registration Types of TTC Transfers, Fall 2011 26
Table 10. Academic Majors of TTC Transfers Prior to Transferring, Fall 2011 26

I. Overview

The annual Articulation and Transfer report fulfills a statutory requirement of the Tennessee Higher Education Commission (THEC) to evaluate the progress of articulation and transfer policy implementation and transfer student activity.

The 2012 Articulation and Transfer report presents an update on the implementation status of the *Complete College Tennessee Act* of 2010 regarding the creation of a statewide university parallel track program, provides a snapshot of Tennessee student transfer activity in fall 2011, and for the first time examines institutional migration patterns and student characteristics of enrollees of Tennessee Technology Centers (TTC) moving into the state's public colleges and universities.

Definitions

In this report, a **transfer student** is a person who enrolled as an undergraduate at the receiving institution for the first time (that is, was not a returning or readmitted student) and brought in credits received at another postsecondary institution. In contrast to past reports, we count as transfer students individuals returning to higher education with degrees at the baccalaureate level or above.

A **TTC transfer** is a student who was enrolled in a public Tennessee institution in fall 2011 and who had taken classes at a Tennessee Technology Center in summer or spring of 2011. No assumption of transferred credits is made with these students.

Tennessee Transfer Pathways

To meet the requirements of the CCTA, the Tennessee Board of Regents (TBR), University of Tennessee (UT), and THEC developed a comprehensive array of transfer pathways among the state's community colleges and public universities. These pathways provide seamless transfer for community college students to any public university in Tennessee in the fields of study covered. Forty-nine transfer pathways have been developed across 28 disciplines. The increasingly popular *Tennessee Transfer Pathways* website (www.tntransferpathway.org) provides essential information for students concerning the mechanics of the transfer process, a curriculum for each pathway, progress worksheets for students, and links to relevant information.

Student Transfer and Migration Activity

The student population in Tennessee is quite mobile. During the fall 2011 semester, more than seven percent of the undergraduate student body transferred into Tennessee public institutions or member institutions of the Tennessee Independent Colleges and Universities Association (TICUA). Most transfers take place within Tennessee (almost 61 percent), and a plurality of students transferring from out-of-state institutions are returning Tennessee residents (almost 48 percent of out-of-state transfers). Transfer activity within the public sector is multidirectional but is mostly vertical, among community colleges and universities. Although quite similar to their non-transfer counterparts, transfer students include more adults (35.8 percent compared to 29.3 percent). About 35 percent of students transfer with more than 60 credit hours, and most of these do so without an associate's degree. Individuals

migrating into public college and universities from Tennessee Technology Centers are similar to traditional transfer students but include mostly returning and readmitted students and first time college students; the majority of these TTC transfers (76 percent) change their major at transfer.

Protecting Personally Identifiable Information

Throughout this report, THEC seeks to comply with *Family Educational Rights and Privacy Act* (FERPA) requirements to protect students' personally identifiable information by suppressing individual cells containing ten observations or fewer. As a result, the totals reported in some tables may not equal the real total due to omission of suppressed values. All such cases are identified with a special note under the respective table, with the unsuppressed total for the entire table reported separately.

Acknowledgments

This report is made possible through the constant effort of the Tennessee Board of Regents and University of Tennessee systems and their member institutions to provide quality data on their student populations. Tennessee public institutions submit data to the Student Information System (SIS), which is operated and managed by THEC.

For the third year, the THEC acknowledges the unremitting effort of the TICUA and its member institutions to provide data on transfer students for this report. This collaboration has made possible a statewide snapshot of student transfer activity.

The THEC is deeply appreciative of the TBR universities' voluntary participation in the General Education Transcript Study of Transfer Students—summarized in the Executive Summary—and expresses gratitude to their research and data personnel for providing data and guidance on the study.

II. Executive Summary

Statewide Student Transfer Activity

- In fall 2011, the public sector of Tennessee higher education received 3.6 times more transfer students from both outside and within the sector than TICUA member institutions and experienced much more internal transfer activity than TICUA (Figure 1; Table 3).
- More than half (52.5 percent) of fall 2011 transfer students moved from Tennessee public institutions (Figure 1; Table 3).
- Most transfers (60.9 percent) take place within Tennessee higher education, whereas about 35 percent of transfer students move in from other states (Figure 1; Figure 2).
- Almost 48 percent of students transferring from out-of-state institutions are returning Tennessee residents (Figure 2).
- Half of out-of-state students transfer from just seven states: Mississippi, Kentucky, Alabama, Georgia, Virginia, Florida, and California (Figure 3).

Trends and Demographics

- Transfer students have constituted a steady percentage of the overall public undergraduate enrollment in Tennessee over time: on average, 7.6 percent for the past six years (Figure 4).
- Transfer students are similar to native students in terms of their demographic and academic characteristics; at the same time, as a group, they include more adult students (Figure 5).

Public Sector Transfers

- In comparison to community colleges, state public universities receive more students from other Tennessee public institutions both in terms of counts and percentages of the total number of in-transfers for each sector. Although the number of transfers from out-of-state institutions into community colleges is lower than for universities, it represents a higher percentage of transfers for the two-year institutions (Figure 6).
- Almost 57 percent of transfers into the public sector are from other Tennessee public institutions (Figure 1; Figure 7).
- Transfer activity within the public sector is multidirectional; however, the majority of transfers is vertical, among community colleges and universities (73 percent), rather than horizontal (27 percent). The direction and relative shares of transfers among Tennessee public institutions have been consistent for the past several years (Figure 7; Table 4).
- Transfers from community colleges to public universities account for about half of all transfer activity within Tennessee public higher education. The share of community college transfers into public universities has remained stable over time (Figure 7; Table 4).

- In fall 2011, almost 23 percent of internal public-sector transfers moved from a university into a community college. This percentage is consistent with the previous years. Less than two percent of these students were still simultaneously enrolled in universities (Figure 7; Table 4).

Transfer Activity by Institution

- On average, Tennessee public universities have a higher proportion of transfer students than community colleges (Figure 8; Table 3; Appendix A).
- In fall 2011, institutions with the greatest percentage of transfer students were East Tennessee State University, Austin Peay State University, University of Memphis, and Middle Tennessee State University (Table 5).
- The share of transfer students, measured as a percent of public undergraduate enrollment, has been consistent across institutions and systems over time (Table 5).
- In fall 2011, the top transfer sending institutions, measured as a percent of all public out-transfers, were Middle Tennessee State University, Southwest State, Nashville State, and Pellissippi State (Table 6).
- In fall 2011, the top transfer receiving institutions, measured as a percent of all public in-transfers, were Middle Tennessee State University, University of Memphis, East Tennessee State University, University of Tennessee at Knoxville, and Tennessee Technological University (Table 6).

Academic Characteristics of Transfer Students

- Forty-six percent of all public transfer students major in just three broad areas: *Liberal Arts and Sciences*, *Health Professions and Related Services*, and *Business, Management and Administrative Services* (Figure 10).
- About 15 percent of public transfer students transfer before they earn 12 credits and over 54 percent before they earn 50 credits hours (Figure 11).
- Although students transfer with various numbers of credits, over 35 percent of them transfer with more than 60 hours; most of these do so without earning an associate's degree (Figure 11).
- For students who transfer with more than 60 credits but without a degree, the most popular major at a new institution is *Health Profession and Related Services* (Figure 12).

Student Migration from Tennessee Technology Centers

- In fall 2011, Tennessee Technology Centers sent 809 students to the state's public colleges and universities (Table 7).
- The top TTC-transfer sending institutions were Tennessee Technology Centers at Chattanooga, Murfreesboro, Nashville, Knoxville, Pulaski, and Livingston. These institutions accounted for almost 52 percent of all TTC transfers in fall 2011 (Table 7).

- The top TTC transfers receiving institutions were Chattanooga State Community College, Roane State Community College, Volunteer State Community College, and Columbia State Community College (Table 8).
- Students migrating from Tennessee Technology Centers are similar to traditional public transfers in terms of their demographic characteristics, with more adult and fewer male students (Figure 13).
- In relation to their transfer institutions, most of TTC transfers are returning or readmitted students as well as first-time college students (Table 9).
- After transfer, about 73 percent of TTC transfers choose one of the following four majors: *Health Professions and Related Services* (33.4 percent); *Liberal Arts and Sciences* (26.7 percent); *Business, Management and Administrative Services* (6.9 percent); and *Personal Improvement and Leisure Programs* (6.3 percent).
- About 76 percent of TTC transfers change their broad major fields after transferring into a college or university (Table 10).

Summary of Findings of Related Analyses

Analysis of Degree Completers at Tennessee Public Universities:

- Among 2010-11 baccalaureate completers, 53.4 percent had changed schools at least once during their academic career (had ever been transfer students).
- Among 2010-11 baccalaureate completers, 48.6 percent previously enrolled at any two-year institutions and 45.3 percent previously attended a Tennessee community college.

The Study of Impacts of Pre-Transfer General Education Completion:

In general, students who complete the general education core are quite different from students who do not complete the core in terms of their background and educational experiences. However, when we compare students who are similar in terms of their background and educational experiences, we find the following:

- Pre-transfer completion of the common general education requirements, in whole or in part, has a large statistically significant effect on the probability of graduation, time to a bachelor's degree, and college GPA.
- Completion of the entire general education core is predicted to:
  - increase the probability of graduation by about 22 percentage points;
  - increase the *relative risk* of graduation by about two times (in other words, it reduces time to a bachelor's degree for GenEd core completers); and
  - increase the cumulative college GPA by about 0.3 points.
- Completion of each of the individual general education clusters also has a statistically significant effect on the outcomes of interest.
- The clusters' effects vary considerably, with the *Mathematics* and *Communications* components exerting the greatest impact and the *Humanities* cluster having the lowest impact on the outcomes.

III. Tennessee Transfer Pathway Update

Background

A central focus of the *Complete College Tennessee Act* (CCTA) of 2010 was to improve the transferability and articulation of college credit between the community college and university sectors of higher education. Specifically, the CCTA directed the Tennessee Higher Education Commission (THEC), in cooperation with the University of Tennessee (UT) and the Tennessee Board of Regents (TBR), to ensure that 60 hours of instruction can be fully transferred from community colleges and applied toward the requirements for a bachelor's degree at state universities.

The CCTA mandated a fall 2011 implementation date for universal transfer of a 41 hour general education core and 19 hours of pre-major instruction, which was successfully met.

The process for building these pathways was an 18-month collaborative effort that included broad engagement of faculty, data-driven selection of pathways, development of distinct institutional mission statements, and a cooperative effort between THEC, TBR and UT.

Current Status of the Tennessee Transfer Pathways

The joint effort between TBR and UT to develop a comprehensive array of transfer pathways was completed in May 2011. In total, 46 pathways were developed across 28 disciplines. Two pathways in psychology and one in business were completed previously under the auspices of Public Chapter 863, Acts of 2008. Thus, 49 transfer pathways now exist. These pathways provide seamless transfer for community college students to any public university in Tennessee in the fields of study covered.

Transcript and Student Records Revisions

Transcripts of community college students who complete the transfer pathways clearly state that the record involves a transfer pathway and denote the specific Area of Emphasis completed (history, psychology, accounting, etc.). Further, through the use of distinct program codes, tracking of both student headcount and completion rates are being collected and reported. Common course numbering is established for all transfer pathways.

Tennessee Transfer Pathways Website

One of the primary methods of communicating information regarding the transfer pathways to students is through the Tennessee Transfer Pathways website (www.tntransferpathway.org). The two systems collaborated to develop this site as a comprehensive, one-stop reference point for students, faculty, advisors, and administrators. The website provides essential information for students concerning the mechanics of the transfer process, a curriculum for each pathway, progress worksheets for students, and links to relevant information.

This site has seen tremendous success in its first year of operation. Since its launch in August 2011, the website has seen 77,659 visits, for an average of 205 visits daily. Traffic analysis of the site, categorized by transfer pathway and institution, is presented in **Table 1** and **2**.

Table 1. Frequently Visited Transfer Pathway Sites, www.tntransferpathway.org

Ranking	Academic Pathway
1	Business Administration
2	Pre-Nursing
3	Accounting
4	Psychology
5	Pre-Health (Dental, Medicine, Vet, etc.)

Table 2. Frequently Visited Transfer Pathway Institutions, www.tntransferpathway.org

Ranking	Institution
1	Volunteer State Community College
2	Middle Tennessee State University
3	Chattanooga State Community College
4	University of Tennessee-Knoxville
5	Pellissippi State Community College

Future Activity

The systems, in collaboration with THEC, will continue to monitor the health and productivity of the transfer process. There will be new focus on exploring the *Reverse Transfer* process, which allows students that have accrued the appropriate amount of credit after transfer to a public university to also receive an associate's degree from their originating community college.

Additionally, THEC will continue to convene and lead the *Prior Learning Assessment Taskforce*. This taskforce, funded by a competitive grant award by the Bill and Melinda Gates Foundation and Complete College America, has developed a broad statewide team to consider how non-traditional forms of credit that many students accrue during their career may be evaluated for academic credit. During the course of its operation, the taskforce collaboratively developed standards for evaluation of Prior Learning Assessment, focused on consistency, accessibility, and quality.

IV. Tennessee Transfer Student Profile: Fall 2011

This section examines patterns in Tennessee student transfers in fall 2011 and, when appropriate, trends over time. The analysis of student transfer activity is conducted and presented at the following levels: (1) statewide transfer activity, (2) transfers within public higher education, (3) transfers by sending and receiving institutions, and (4) select academic characteristics of transfer students.

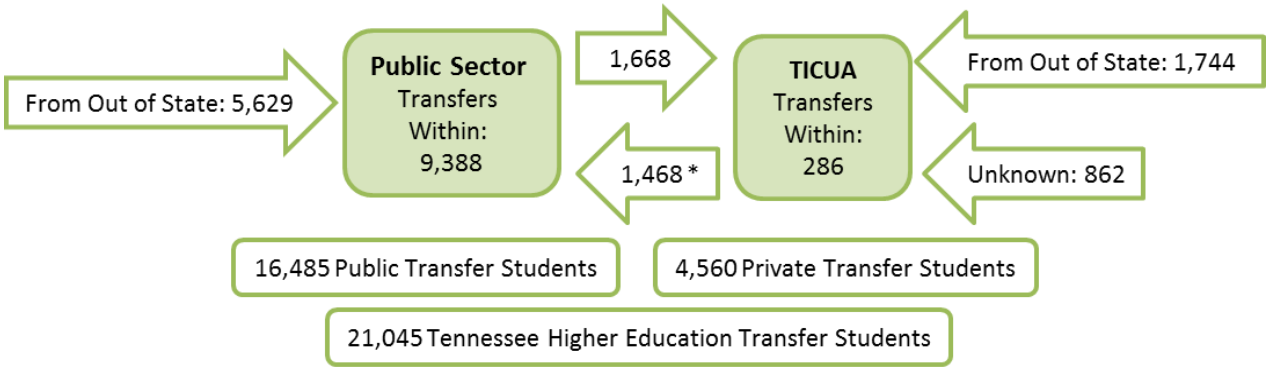
This section also compares various characteristics of transfer and non-transfer students. In this report, the terms "non-transfer students" and "native students" are used interchangeably. However, these terms apply to students' status just in fall 2011; these students may have been transfer students in preceding terms or may be transfer students in subsequent semesters.

A. Statewide Student Transfer Activity

Patterns in Student Transfer Activity

In fall 2011, 21,045 students transferred into a Tennessee public or TICUA member institution of higher education, representing 7.7 percent of all undergraduate enrollees in both sectors (**Figure 1**).

Figure 1. Student Transfer Patterns, Fall 2011



* Includes transfers from TICUA and other in-state independent institutions.

- The majority of students (60.9 percent or 12,810 students) moved within Tennessee higher education from one state public or private nonprofit institution to another.
- Thirty-five percent (7,373 students) transferred from out-of-state institutions.
- The remaining 4.1 percent of students transferred to TICUA institutions from unknown locations (862 students).

Commensurate proportions of out-of-state students moved into the public sector (34.1 percent) and TICUA institutions (38.2 percent). In sharp contrast, within-sector transfers accounted for 56.9 percent (9,388 students of 16,485 transfers) of the public institution total, but only 6.3 percent (286 students of 4,560 transfers) of TICUA transfers were from within private institutions. This indicates that more internal transfer activity takes place within the public sector compared to transfers among TICUA member institutions.

Student Transfer Activity by Sector of Origin

In fall 2011, the public sector received 16,485 transfer students (78.3 percent of the total), while TICUA institutions received 4,560 transfers (21.7 percent). A majority of students (11,056 or 52.5 percent) came from Tennessee public institutions; out-of-state institutions sent 7,373 students (35 percent); and 1,754 students (8.3 percent) transferred from Tennessee's independent sector (**Table 3**).

Table 3. Student Transfer Activity by Sector of Origin, Fall 2011

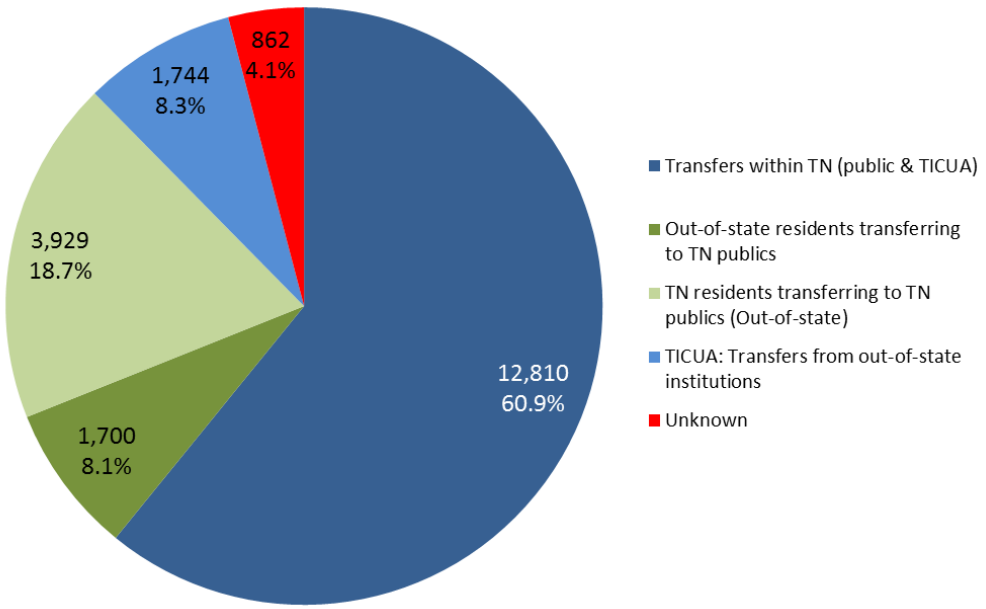
RECEIVING SECTOR	TRANSFERS BY SECTOR OF ORIGIN				Total Transfers	Overall Enrollment
	Tennessee Public	Tennessee Independent	Out-of-State	Unknown		
Public University Total	6,042	781	3,211		**10,034**	119,780
Community College Total	3,346	687	2,418		**6,451**	96,777
PUBLIC HIGHER ED. TOTAL	9,388	1,468	5,629		**16,485**	216,557
TICUA TOTAL	1,668	286	1,744	862	**4,560**	56,828
GRAND TOTAL	11,056	1,754	7,373	862	**21,045**	273,385

See **Appendix A** and **Appendix B** for a detailed table of fall 2011 enrollment and transfer activity by sector and by institution.

Out-of-state Student Transfer Activity

The following caveats should be considered when interpreting the data on out-of-state transfers. First, for different graphs on public institutions, this report relies on either the resident status of transfer students or on the state of the previous institution. Due to the data structure at TICUA, the report uses only the state of the prior institution when examining the private sector. Second, out-of-state students are not homogeneous. These students comprise two large groups: residents of other states and Tennessee residents transferring from out-of-state colleges and universities to institutions in their home state. These two groups of transfer students, out-of-state residents and returning Tennessee residents, are reported separately (**Figure 2**).

Figure 2. Transfers by Originating Location (In-State vs. Out-of-State), Fall 2011



As Figure 2 shows, Tennessee residents transferring into the state's public and private institutions accounted for 60.9 percent of all fall 2011 transfers into Tennessee higher education. The general group of out-of-state students accounted for 39.1 percent of all transfers and included the following categories: transfers into TICUA institutions (8.3 percent from out-of-state institutions and 4.1 percent from unknown locations), transfers by residents of other states (8.1 percent), and transfers of Tennessee residents returning to their home state (18.7 percent).

It is remarkable that for public transfers the group of returning Tennessee residents is 2.3 times larger than the group of "true" out-of-state students and constitutes almost 48 percent of all out-of-state transfers. From a policy perspective, this observation is critical because it may allow for better understanding of reasons for student transfer. One may suppose that Tennessee students return due to a combination of financial, academic, convenience, and personal considerations. Such a large number of returning residents suggests that, in the long run, Tennessee may be losing fewer students to other states than the data on high-school graduate out-migration would suggest. Availability of lottery scholarships could be a major factor in making a decision to transfer to a home state's public institution.[1] **Figure 3** shows the state of origin for out-of-state transfers.

Figure 3. Transfers into Tennessee Public and TICUA Institutions by State of Origin, Fall 2011

[1] Tennessee residents, who were eligible for Tennessee Education Lottery Scholarships (TELS) upon completion of high school requirements, but who enrolled in a regionally accredited out-of-state postsecondary institution after high school graduation, may transfer to an eligible Tennessee postsecondary institution and receive a TELS award.

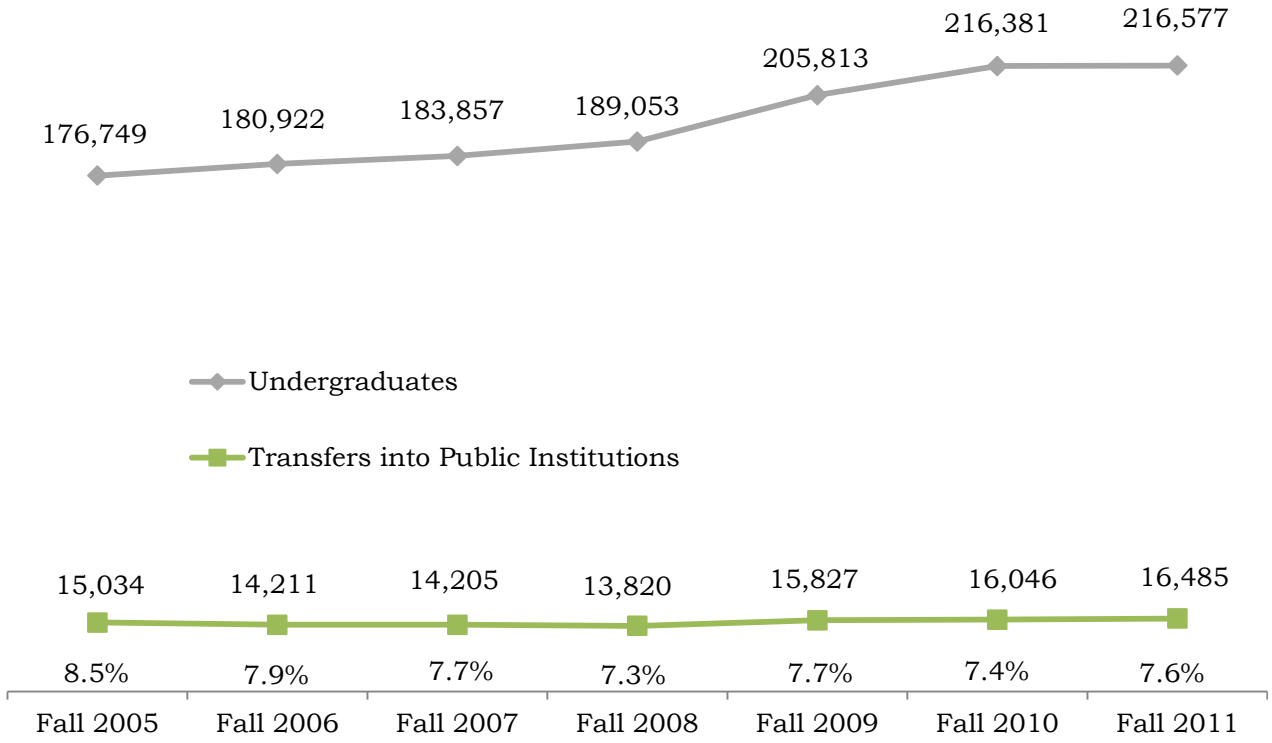
Figure 3 shows the state of origin for transfer students based on the location of their sending institution. To capture a holistic picture of out-of-state transfers, this year's report examines transfers into the public sector and TICUA institutions together. As the figure shows, states differ greatly in the number of students they send to Tennessee. In fall 2011, seven states with the highest number of transfer students sent to Tennessee (the category "More than 300 students") accounted for exactly 50 percent of out-of-state transfers. This group of prolific states included five neighboring states: Mississippi (9.8 percent), Kentucky (7.2 percent), Alabama (7.1 percent), Georgia (7 percent), and Virginia (6.8 percent). It also included two traditionally big providers of transfer students: Florida and California (6 percent each).

B. Transfer Activity in Public Higher Education

Trends in Public Transfer Enrollment

In fall 2011, transfer students constituted 7.6 percent of the undergraduate enrollment in Tennessee public education. This figure is consistent with transfer enrollment in previous years. Undergraduate enrollment in state public institutions has grown steadily and, from fall 2005 to fall 2011, increased by 22.5 percent. However, over the same period, the proportion of transfer enrollment remained stable, decreasing by less than one percentage point. In absolute figures, it translates to transfer student growth of 1,451 students (**Figure 4**).

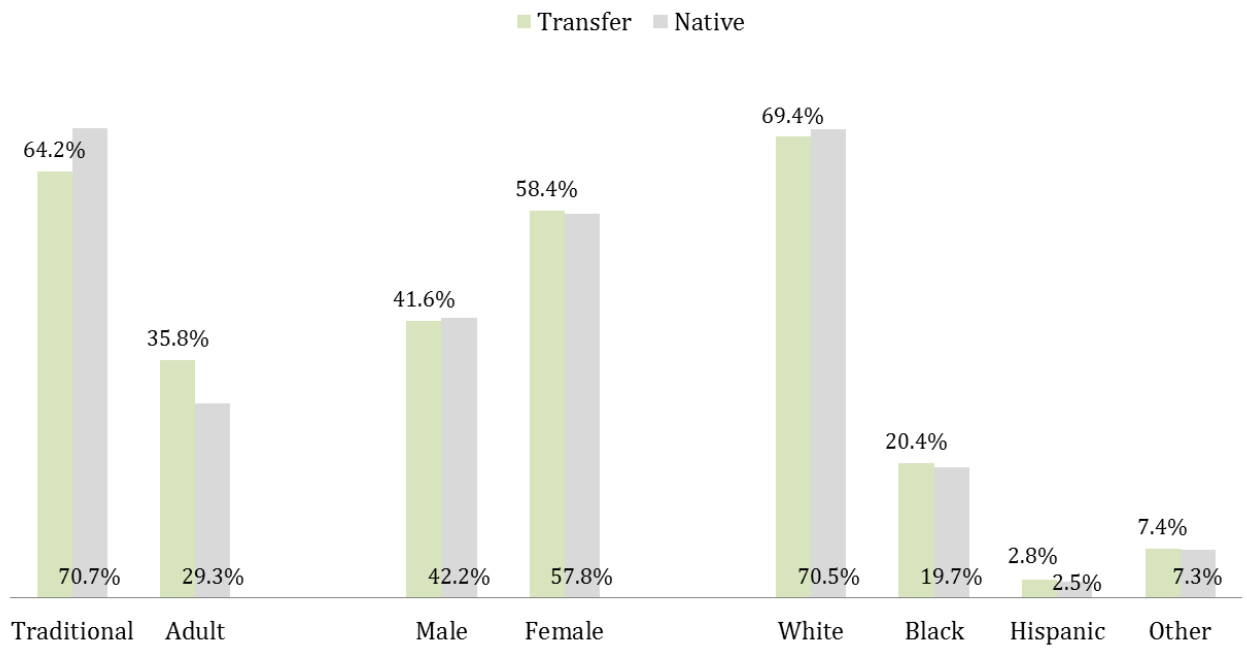
Figure 4. Transfer and Total Undergraduate Headcount, Public Institutions, Fall 2006-2011



Public Transfer Student Demographics

Transfer students are very similar to non-transfer students in terms of their demographic and academic characteristics (**Figure 5**). The only noticeable difference between these groups is age. There are more native students among traditional-age undergraduates and more transfer students among adults. In this report, adult students are defined as 25 years old or older. The comparison of transfer and native students by gender, race, cumulative GPA, and credit hours does not indicate any substantive differences between these groups.

Figure 5. Transfer and Native Student Demographics, Fall 2011

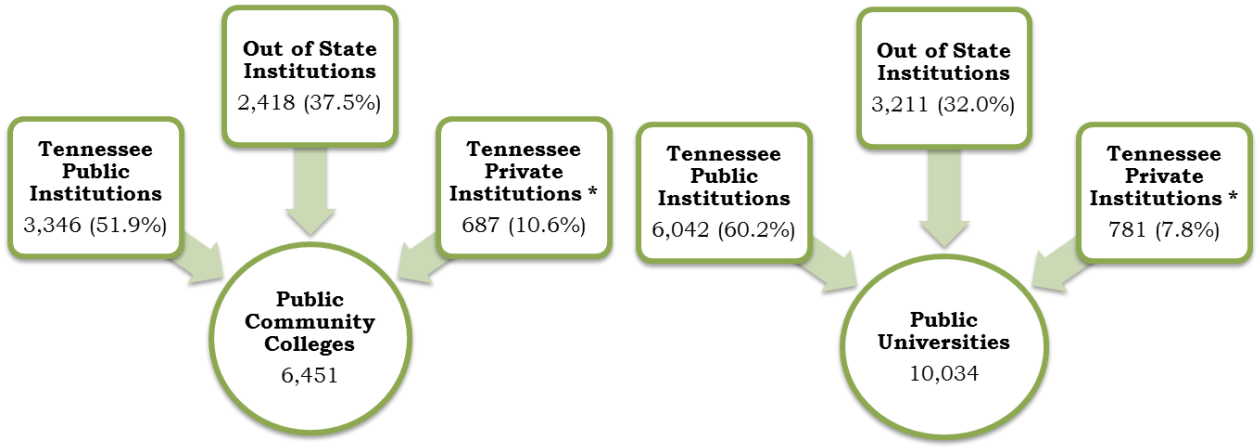


Public Transfer Activity

Public higher education institutions in Tennessee receive transfer students from three main sources: other public colleges and universities in the state, private not-for-profit institutions in Tennessee, and out-of-state institutions. Based on the definition of transfer students in the Executive Summary, this section omits from analysis students migrating from Tennessee Technology Centers (TTC) and for-profit institutions. TTC transfers are examined in Section V of this report.

For purposes of this analysis, transfers into the public sector have two destinations: community colleges and universities (**Figure 6**). The comparative analysis shows that the relative size of each source of transfer students for these two sectors is different. Most of the transfer students into community colleges come from other public institutions in the state (51.9 percent) and out-of-state institutions (37.5 percent). The independent sector provides 10.6 percent of all transfers into community colleges. In contrast, the universities rely more heavily on other Tennessee public institutions (60.2 percent of transfers into universities) and less heavily on out-of-state institutions (32 percent of their transfers). Tennessee private institutions supply 7.8 percent of transfers into public universities.

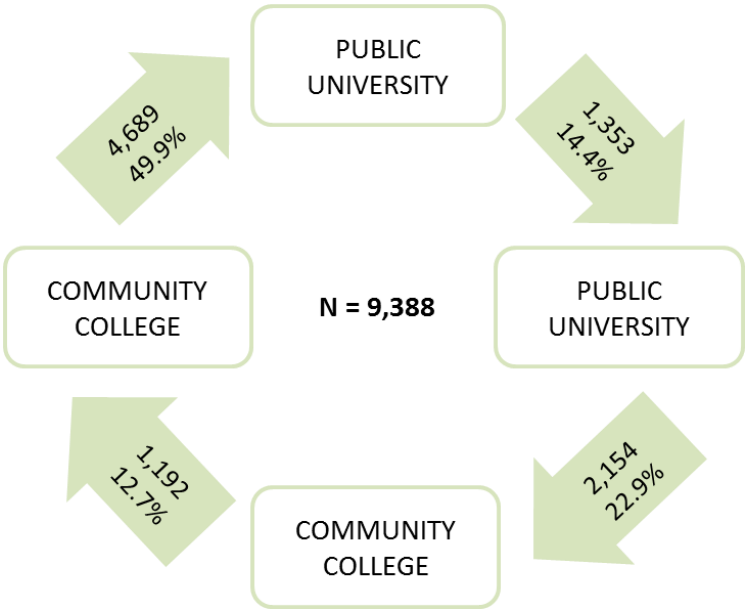
Figure 6. Transfers into Public Institutions, Fall 2011



* Includes TICUA, non-TICUA, and private for-profit institutions.

Transfer activity within the public sector is multidirectional, with noticeable patterns (**Figure 7**). In fall 2011, almost 57 percent (9,388 students) of all transfers into the public sector took place among public institutions. Most of transfer activity is vertical: 49.9 percent of students moved from community colleges into public universities, and 22.9 percent transferred from universities to community colleges. The horizontal transfer activity is comparatively less pronounced but is still sizeable: 14.4 percent of students moved among public universities, and 12.7 percent transferred from one community college to another.

Figure 7. Public Transfer Activity, Fall 2011



The observed patterns are consistent with previous reports released from fall 2007 to fall 2011 (**Table 4**). One may conclude that transfers among Tennessee public institutions have maintained the same relative size and direction for the past several years.

Table 4. Fall Semester Transfer Activity within Tennessee Public Sector, Fall 2007-Fall 2011

	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
VERTICAL TRANSFERS					
from community colleges to universities	49.8%	50.2%	48.2%	50.3%	49.9%
from universities to community colleges	22.8%	23.4%	23.9%	22.2%	22.9%
HORIZONTAL TRANSFERS					
among community colleges	11.9%	10.7%	12.7%	12.4%	12.7%
among universities	15.4%	15.6%	15.1%	15.1%	14.4%
PUBLIC TRANSFERS TOTAL	**7,868**	**7,804**	**8,645**	**9,008**	**9,388**

It is remarkable that the number of students transferring from universities into community colleges has been sizeable over time: for the past five years it has never fallen below 22 percent of all transfers within the public sector. In fall 2011, only 43 students (less than two percent of the total 2,154 transfers) were still simultaneously enrolled in universities.

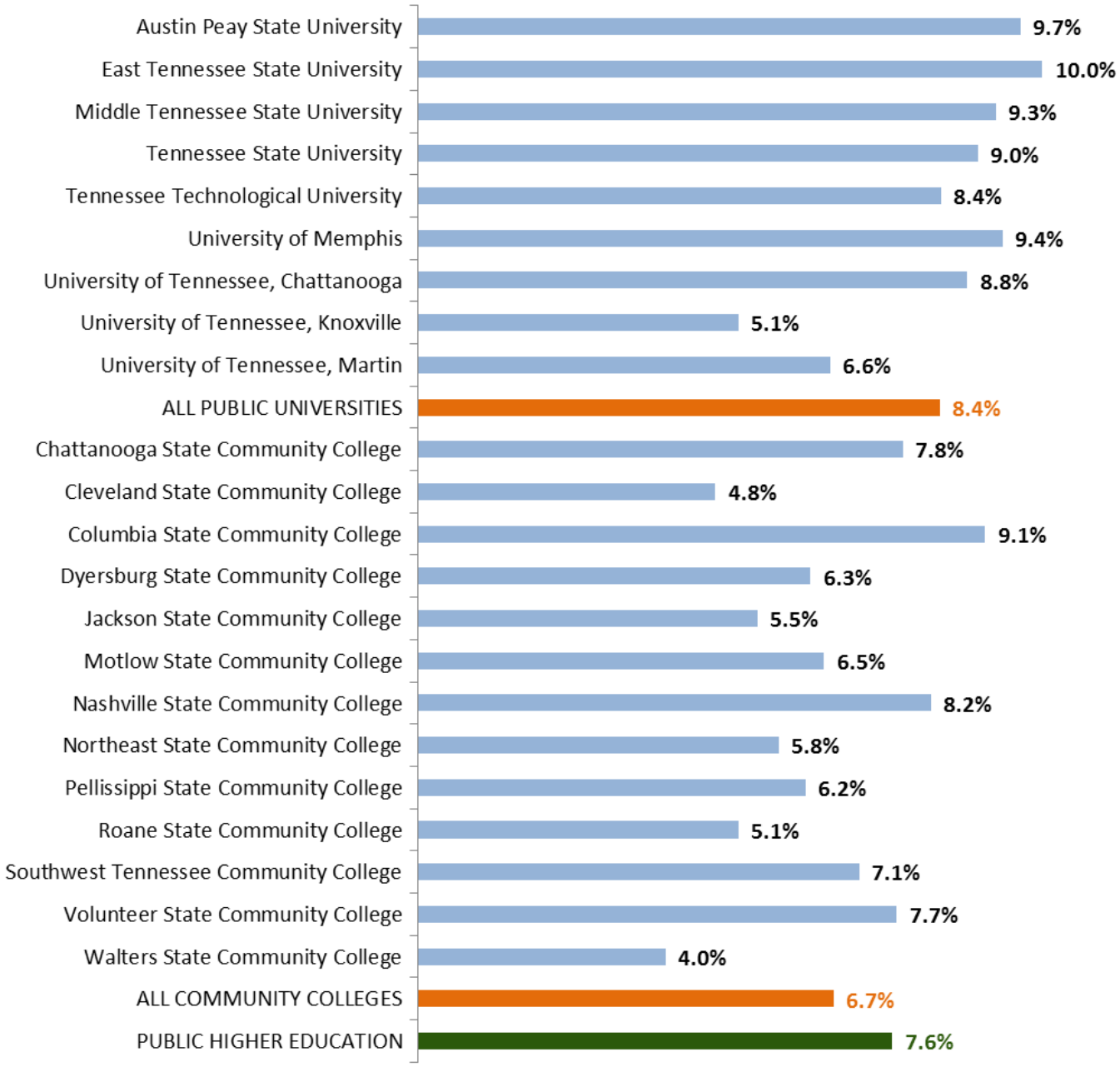
C. Student Transfer Activity by Institution

Transfer Students as a Percent of Undergraduate Enrollment

Figure 8 presents incoming transfer students as a percentage of undergraduate enrollment by institution and sector. The total undergraduate enrollment in Tennessee public institutions in fall 2011 was 216,557 students. Consistent with previous reports, 7.6 percent of these (16,485 individuals) were transfer students. Of 96,777 students enrolled in community colleges, 6.7 percent (6,451 students) were transfers. The percent of enrollees that had moved into the university sector was higher, at 8.4 percent (10,034 students).

All six TBR universities were at or above the average percentage for public universities. For the University of Tennessee, the Chattanooga campus was above the university average; the campuses in Knoxville and Martin had percentages below the average for universities and the entire public sector (7.6 percent). For community colleges, five institutions enrolled transfer students at a higher proportion than the average for the sector (6.7 percent), and eight colleges were below this sector-wide average. East Tennessee State University, Austin Peay State University, University of Memphis, and Middle Tennessee State University had the largest populations of transfers, ranging from 9.3 percent to 10 percent of public undergraduate enrollment. Walters State enrolled the smallest percentage of transfer students (4 percent).

Figure 8. Transfer Students as a Percent of Undergraduate Enrollment, Fall 2011



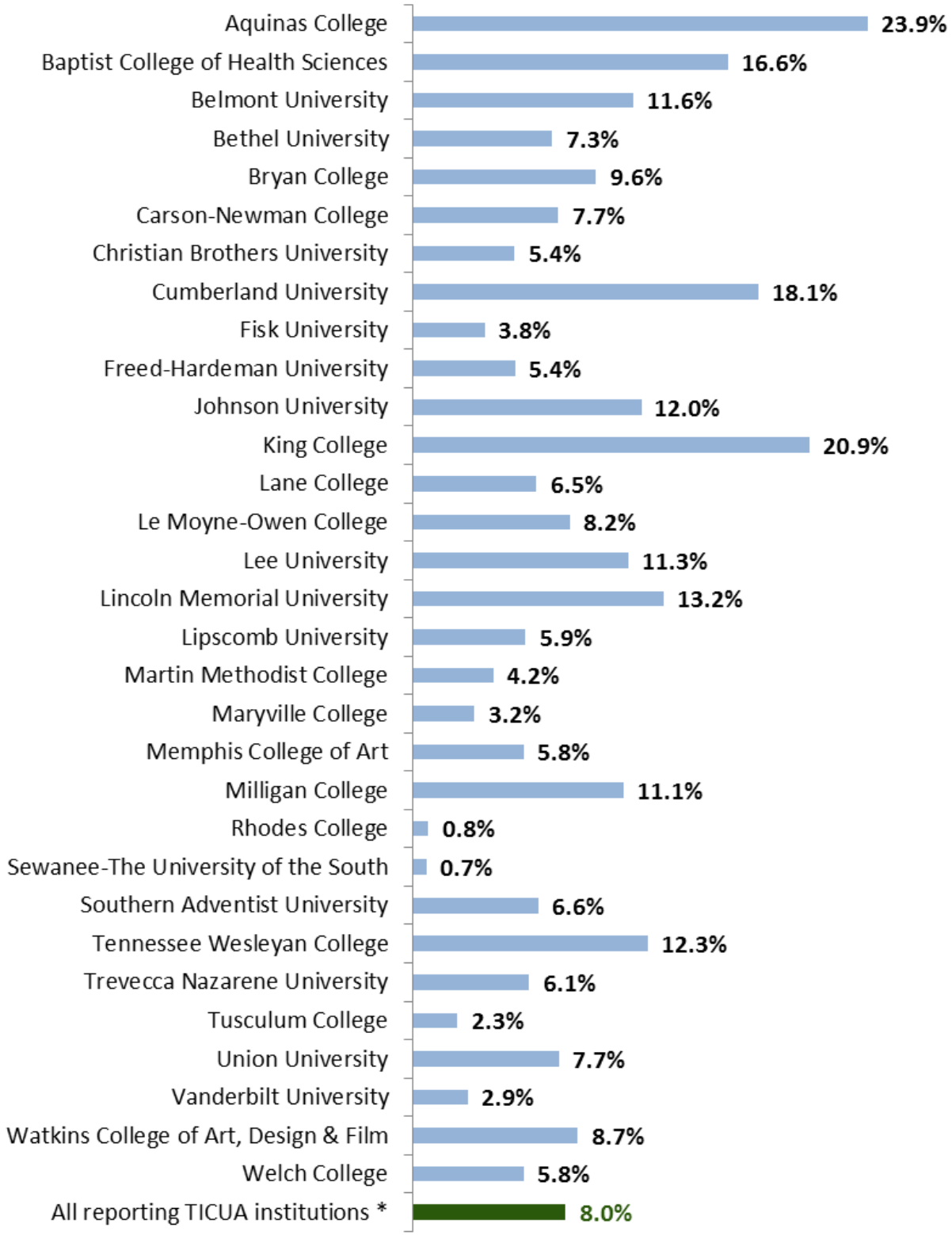
The share of transfer students measured as a percent of public undergraduate enrollment has been consistent across institutions and systems over time (**Table 5**). For universities, the TBR system traditionally has a greater percentage of transfers than the University of Tennessee System. Public universities, on average, have more transfer students than community colleges. It bears remembering that various Articulation and Transfer reports have used an evolving definition of a transfer student; using slightly different criteria for selecting "true" transfer students in different years affected the reported number and the share of transfer students.

Table 5. Transfers as a Percent of Undergraduate Enrollment, Fall 2006-Fall 2011

Institution	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
Austin Peay State University	10.8%	12.1%	7.7%	9.6%	9.1%	9.7%
East Tennessee State University	9.8%	9.8%	7.5%	8.4%	8.8%	10.0%
Middle Tennessee State University	9.6%	9.3%	8.2%	8.4%	9.4%	9.3%
Tennessee State University	9.0%	8.7%	6.1%	6.4%	8.0%	9.0%
Tennessee Technological University	12.1%	9.5%	6.7%	6.9%	8.0%	8.4%
University of Memphis	8.4%	7.8%	6.0%	6.7%	8.9%	9.4%
TBR system	**9.7%**	**9.3%**	**7.1%**	**7.8%**	**8.9%**	**9.3%**
University of Tennessee, Chattanooga	8.6%	8.0%	6.8%	6.6%	9.5%	8.8%
University of Tennessee, Knoxville	5.6%	5.4%	4.4%	4.4%	5.6%	5.2%
University of Tennessee, Martin	6.0%	5.2%	6.5%	6.1%	6.4%	6.6%
UT System	**6.4%**	**5.9%**	**5.3%**	**5.2%**	**6.7%**	**6.4%**
All Public Universities	**8.6%**	**8.2%**	**6.5%**	**6.9%**	**8.2%**	**8.4%**
Chattanooga State Community College	7.9%	7.9%	6.6%	7.1%	6.8%	7.8%
Cleveland State Community College	5.7%	5.7%	6.1%	5.8%	5.6%	4.8%
Columbia State Community College	9.6%	9.6%	8.0%	7.7%	9.5%	9.1%
Dyersburg State Community College	5.6%	5.6%	6.0%	6.9%	5.9%	6.3%
Jackson State Community College	5.8%	5.8%	5.4%	6.3%	5.8%	5.5%
Motlow State Community College	7.8%	7.8%	8.3%	8.2%	6.5%	6.5%
Nashville State Community College	8.3%	8.3%	7.9%	8.4%	7.1%	8.2%
Northeast State Community College	6.8%	6.8%	6.4%	6.9%	6.7%	5.8%
Pellissippi State Community College	7.0%	7.0%	6.2%	7.6%	7.0%	6.2%
Roane State Community College	6.7%	6.7%	6.1%	5.4%	5.1%	5.1%
Southwest Tennessee Community College	6.4%	6.4%	6.8%	6.7%	6.4%	7.1%
Volunteer State Community College	8.5%	8.5%	6.6%	7.4%	7.2%	7.7%
Walters State Community College	4.2%	4.2%	4.7%	4.8%	4.1%	4.0%
All Community Colleges	**7.0%**	**7.0%**	**6.6%**	**7.0%**	**6.5%**	**6.7%**
Public Higher Education	**7.7%**	**7.6%**	**6.5%**	**6.9%**	**7.4%**	**7.6%**

Figure 9 presents transfer students as a percent of undergraduate enrollment for the TICUA member institutions. For TICUA, the sector-wide percentage of transfer students of eight percent was higher than for public institutions (7.6 percent). In contrast to public institutions, the differences among TICUA institutions were larger. Aquinas College enrolled the largest percentage of transfer students at 23.9 percent, while The University of the South had the lowest proportion at 0.7 percent (11 students). Ten TICUA institutions had transfer enrollment of more than ten percent. Seven institutions had transfer enrollment of less than five percent.

Figure 9. Transfer Students as a Percent of TICUA Undergraduate Enrollment, Fall 2011



Top Sending and Receiving Public Institutions

Table 6 presents each institution's share of transfer-in and transfer-out students statewide. Middle Tennessee State University received a considerably larger portion of transfers (14.9 percent of all transfers received by public institutions) than the other institutions. The other top receiving institutions were the University of Memphis (10 percent), East Tennessee State University (8.6 percent), Tennessee Technological University (7.3 percent), and University of Tennessee at Knoxville (7.3 percent). Middle Tennessee State University was also the top sending institution (accounting by itself for 7.9 percent of all transfers sent by public institutions), followed by Southwest State Community College (7.2 percent), Nashville State Community College (6.9 percent), and Pellissippi State Community College (6.6 percent).

See **Appendix C** and **Appendix D** for a detailed count of transfer activity among all public institutions, showing the sending and receiving partners for each institution.

Table 6. Each Institution's Share of Total Public Transfer Activity, Fall 2011

PUBLIC INSTITUTION	SENT *	RECEIVED *
Austin Peay State University	2.1%	3.3%
East Tennessee State University	4.0%	8.6%
Middle Tennessee State University	7.9%	14.9%
Tennessee State University	2.5%	4.0%
Tennessee Technological University	3.3%	7.3%
University of Memphis	4.3%	10.0%
TBR SYSTEM	**24.1%**	**48.1%**
University of Tennessee, Chattanooga	5.2%	5.7%
University of Tennessee, Knoxville	5.5%	7.3%
University of Tennessee, Martin	2.5%	3.3%
UT SYSTEM	**13.3%**	**16.3%**
Chattanooga State Community College	4.5%	4.4%
Cleveland State Community College	2.5%	0.8%
Columbia State Community College	4.4%	2.6%
Dyersburg State Community College	2.4%	1.6%
Jackson State Community College	3.2%	1.5%
Motlow State Community College	5.4%	2.1%
Nashville State Community College	6.9%	4.4%
Northeast State Community College	3.6%	2.1%
Pellissippi State Community College	6.6%	4.4%
Roane State Community College	5.0%	2.2%
Southwest Tennessee Community College	7.2%	4.7%
Volunteer State Community College	6.3%	3.7%
Walters State Community College	4.7%	1.2%
COMMUNITY COLLEGES	**62.6%**	**35.6%**
PUBLIC HIGHER EDUCATION	**100%**	**100%**

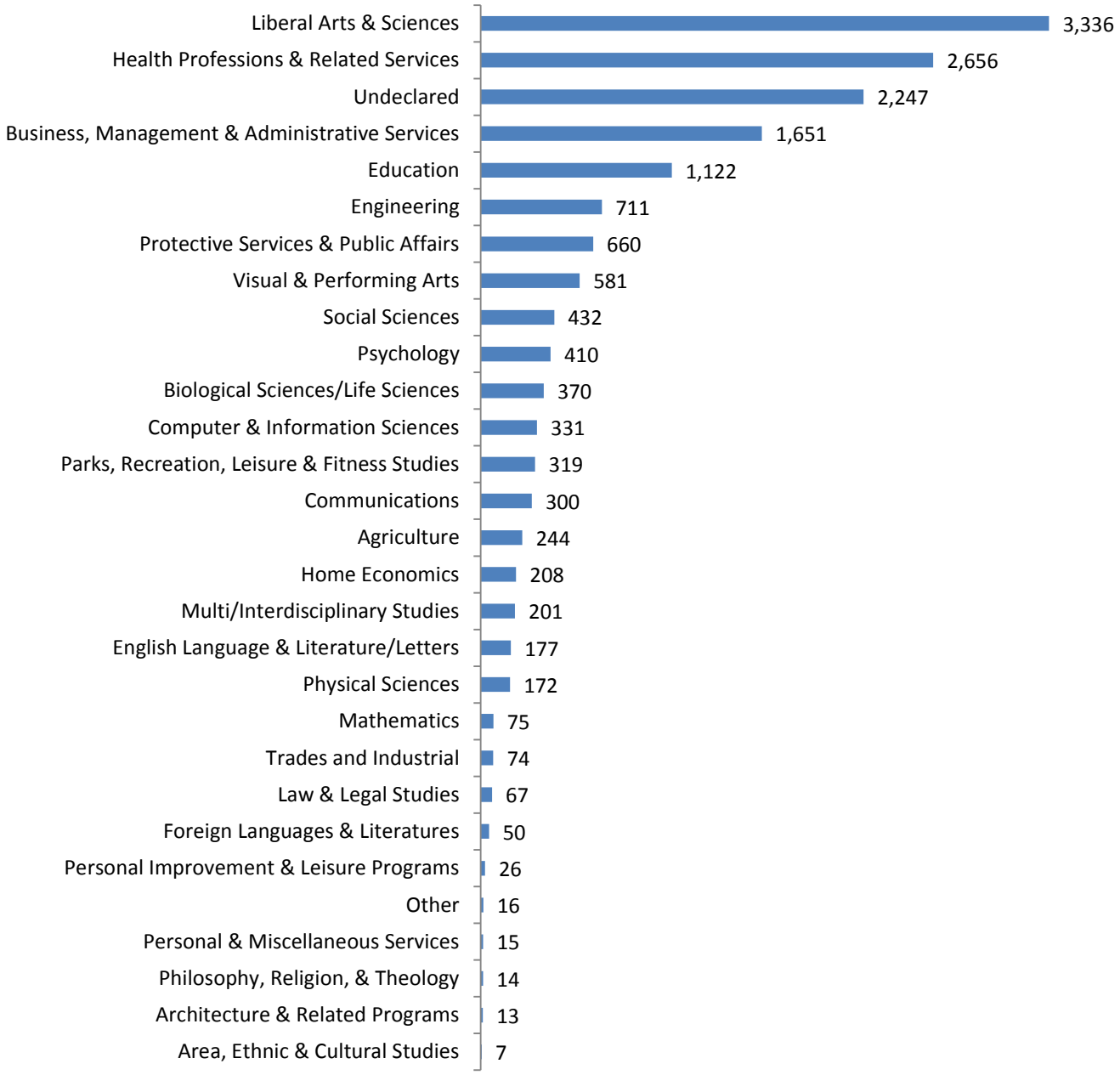
* Percent of the total transfers by category

D. Academic Characteristics of Transfer Students

Academic Major at Transfer

A few academic program choices were dominant among transfer students in fall 2011. Three broad areas, *Liberal Arts and Sciences*, *Health Professions and Related Services*, and *Business, Management and Administrative Services*, were chosen by nearly half (46.3 percent) of all transfers into the public sector. Additionally, nearly 14 percent transferred with an unknown major, while the remaining 40 percent of transfer students chose from 25 other fields of study (**Figure 10**).

Figure 10. Academic Major at Transfer, Transfer Students, Fall 2011



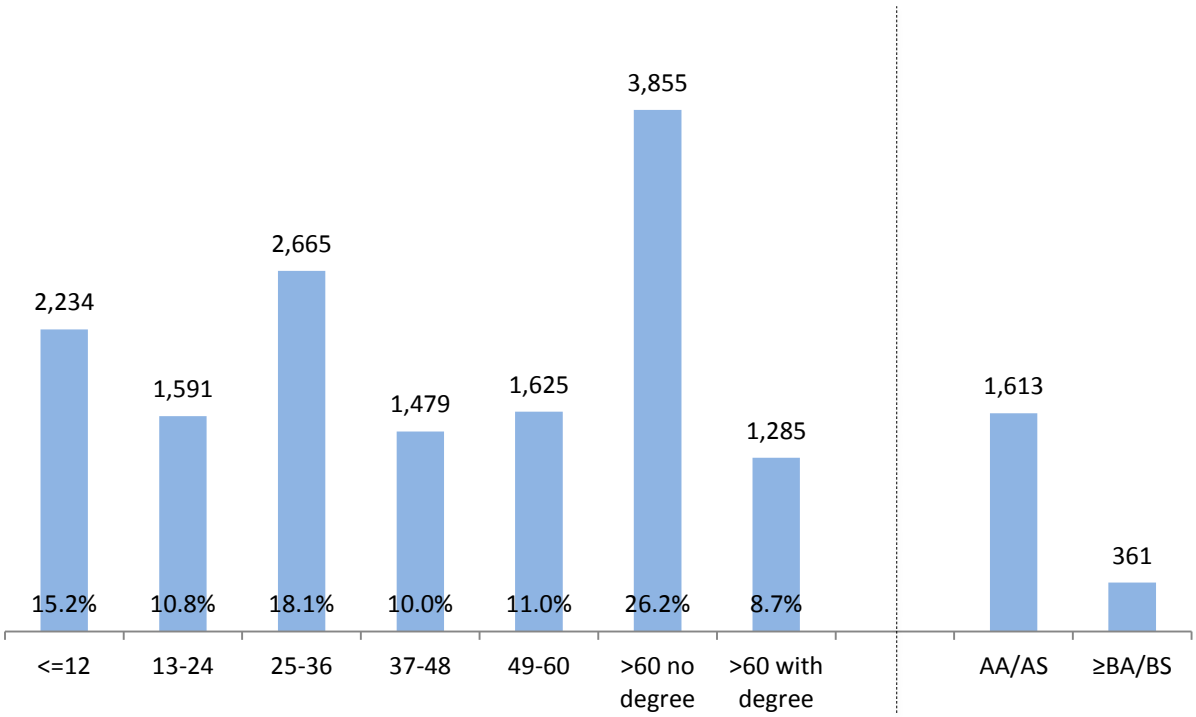
Credit Hours and Degrees at Transfer

Students transfer in the public sector at various points in their academic careers. In fall 2011, about 15 percent of public students transferred before they earned 12 credit hours and over 54 percent before they earned 50 credits. Consistent with previous reports is the finding that 3,855 students (26.2 percent of students with reported credits) had accumulated more than 60 hours without earning an associate's degree. Another 1,285 students (8.7 percent of students with reported credits) transferred with more than 60 credit hours after obtaining a degree (**Figure 11**).

Only 9.8 percent of public transfers (1,613 students) arrived with an associate's degree. Another small group of transfers (361 students) already had a degree at the baccalaureate level or higher, accounting for 2.2 percent of fall 2011 public transfers. The total number of degree holders (1,974 students) exceeds the number of undergraduates who transfer with more than 60 hours and with a degree (1,285 students). This happens because institutions do not always report all past credits and prior awards include degrees earned over the entire academic career. As a result, 689 students with previously earned degrees are included in various credit categories below 60 credits.

See **Appendix E** for a credit-hour description of fall 2011 transfer students for each public institution.

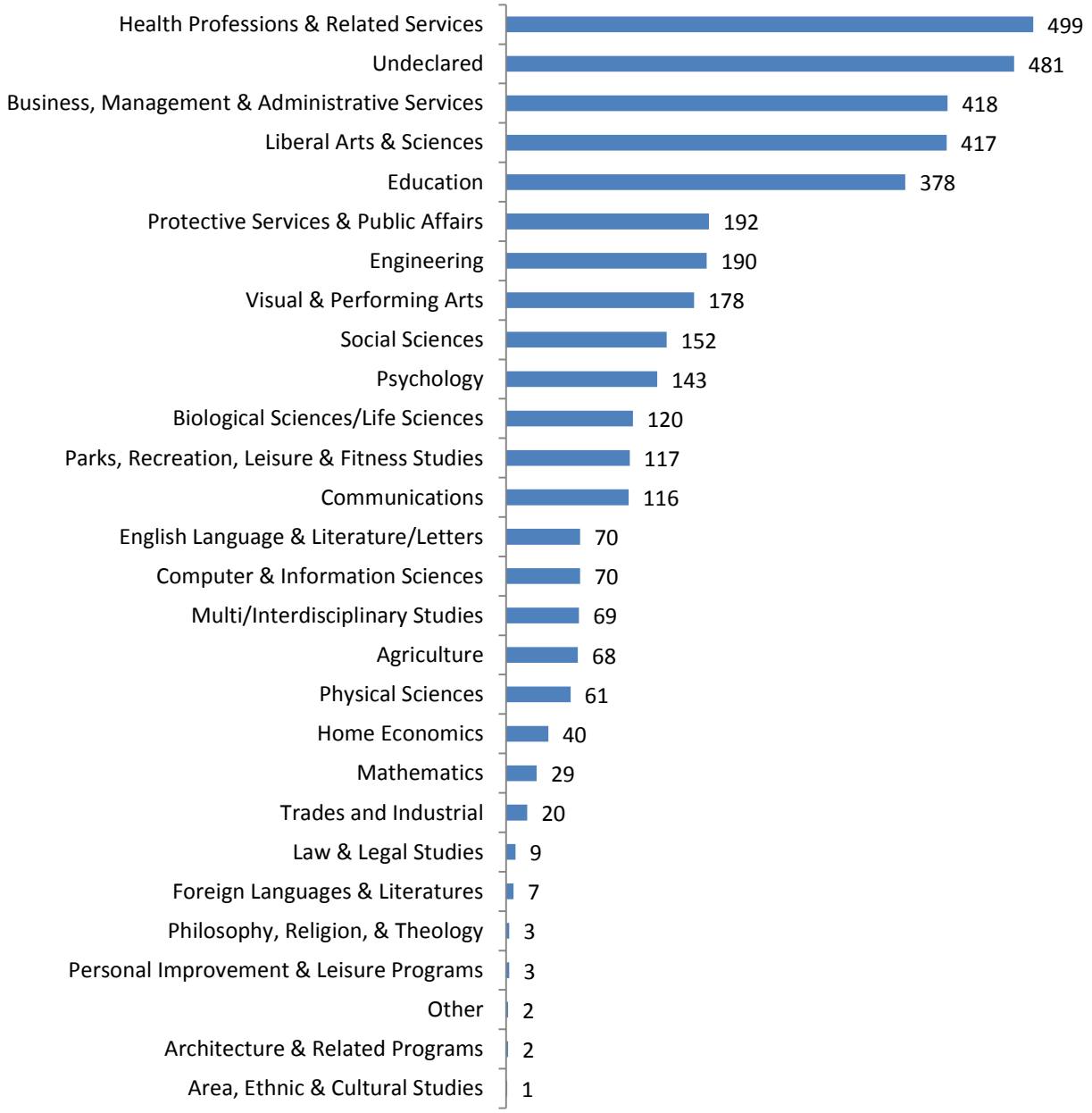
Figure 11. Credit Hours and Degrees at Transfer, Fall 2011



Graph and percentage exclude 1,751 students with missing data on credits or reported credits above 130

Figure 12 presents academic majors selected by students who transferred with more than 60 credits but without an associate's degree earned prior to transferring. Comparison of Figure 10 and Figure 12 shows that these students predominantly chose the same four broad academic fields as the majority of all transfer students; however, the order of major preferences was different. *Liberal Arts and Sciences*, the most popular field among all transfer students, occupies only the fourth position among students with many pre-transfer credits but no prior degree. For this group of students, *Health Professions and Related Services* becomes the most popular choice.

Figure 12. Academic Major at Transfer with More than 60 Credits and No Prior Degree, Fall 2011



V. Student Migration from Tennessee Technology Centers

This section examines institutional migration patterns and demographic and academic characteristics of Tennessee Technology Centers (TTC) transfers. In fall 2011, 809 students migrated from TTCs into the state's public colleges and universities.

The Articulation and Transfer Report has traditionally excluded TTC transfers. As emphasized in last year's report, given the recent emphasis on improving articulation between TTCs and community colleges, student migration between TTCs and Tennessee public colleges and universities warrants examination. Following on that suggestion, for the first time this report examines migration patterns and characteristics of this group of students.

Students analyzed in this section do not meet the traditional definition of transfer students, as specified in the Executive Summary. First, most of them return to their community college or university and thus are not first-time-at-institution students. Such students are classified as returning students (individuals who were enrolled at the institution in the preceding semester) or readmitted students (individuals returning to that institution after a gap in their attendance). Second, many former TTC enrollees do not transfer credit hours from a TTC to a community college or university.

To differentiate TTC students from the general transfer population, this report refers to them as **TTC transfers**. For the purposes of this analysis, TTC transfers include students who were enrolled in a public Tennessee institution in fall 2011 and who had taken classes at a Tennessee Technology Center in summer or spring of 2011. To be sure, this broad definition includes returning and readmitted students as well as students who had been simultaneously enrolled in a TTC and some other institution. Moreover, this definition does not use transferred credits as the basis for identifying TTC transfers.

Institutional Migration Patterns of TTC Transfers

Because this section examines just within-public sector student migration, the institutional transfer patterns are limited to one type of "departure institution"—Tennessee Technology Centers and two types of "destinations"—community colleges or public universities.

Table 7 presents the institutional migration patterns of TTC transfers by sending technology center and receiving sector. In fall 2011, Tennessee community colleges received 613 migrant students from 27 Tennessee Technology Centers while public state universities received 196 students from 24 technology centers.

Table 7. Migration of TTC Transfers into Tennessee Public Institutions, Fall 2011

SENDING INSTITUTION	COMMUNITY COLLEGES	PUBLIC UNIVERSITIES
Tennessee Technology Center at ATHENS	*	0
Tennessee Technology Center at CHATTANOOGA	80	*
Tennessee Technology Center at COVINGTON	*	*
Tennessee Technology Center at CROSSVILLE	22	*
Tennessee Technology Center at CRUMP	*	*
Tennessee Technology Center at DICKSON	*	*
Tennessee Technology Center at ELIZABETHTON	24	12
Tennessee Technology Center at HARRIMAN	11	0
Tennessee Technology Center at HARTSVILLE	18	*
Tennessee Technology Center at HOHENWALD	15	*
Tennessee Technology Center at JACKSBORO	*	0
Tennessee Technology Center at JACKSON	34	*
Tennessee Technology Center at KNOXVILLE	67	*
Tennessee Technology Center at LIVINGSTON	42	14
Tennessee Technology Center at MCKENZIE	*	*
Tennessee Technology Center at MCMINNVILLE	12	*
Tennessee Technology Center at MEMPHIS	14	*
Tennessee Technology Center at MORRISTOWN	19	*
Tennessee Technology Center at MURFREESBORO	47	29
Tennessee Technology Center at NASHVILLE	34	41
Tennessee Technology Center at NEWBERN	17	15
Tennessee Technology Center at ONEIDA	24	*
Tennessee Technology Center at PARIS	*	*
Tennessee Technology Center at PULASKI	41	17
Tennessee Technology Center at RIPLEY	18	*
Tennessee Technology Center at SHELBYVILLE	28	*
Tennessee Technology Center at WHITEVILLE	11	*
TOTAL (SUPPRESSED)	**578**	**128**
TOTAL (UNSUPPRESSED)	**613**	**196**

* To comply with FERPA requirements, cells containing 10 observations or fewer are suppressed.
TOTAL (SUPPRESSED) does not include the values of the suppressed cells.
Data suppression makes it impossible to directly retrieve data described in the narrative from this table.

Six Tennessee Technology Centers (Chattanooga, Murfreesboro, Nashville, Knoxville, Pulaski, and Livingston) sent to the public sector more than 50 students each for a total of 420 students, accounting for almost 52 percent of all TTC transfers. In contrast, six other technology centers (at Jacksboro, Athens, Covington, Crump, Paris, and McKenzie) sent 10 or fewer students each for a total of 4.6 percent of all TTC transfers. The average number of TTC transfers for all technology centers is 30 students, with the per-institution number ranging from three to over 80 students. Because of data suppression, these numbers are not directly retrievable from Table 7.

Table 8 shows the receiving public institutions that accepted TTC transfers in fall 2011. Among universities, Middle Tennessee State University received the most TTC transfers: 59 students. Tennessee State University and Tennessee Technological University followed with 29 and 26 TTC transfers respectively. At the other end, University of Tennessee at Knoxville accepted fewer than 10 TTC transfers. The average number of TTC transfers for universities is 21 students.

Table 8. Migration of TTC Transfers by Receiving Institution, Fall 2011

RECEIVING INSTITUTION	TTC TRANSFERS
Austin Peay State University	12 students
East Tennessee State University	17 students
Middle Tennessee State University	59 students
Tennessee State University	29 students
Tennessee Technological University	26 students
University of Memphis	12 students
University of Tennessee, Chattanooga	11 students
University of Tennessee, Knoxville	*< 10 students **
University of Tennessee, Martin	24 students
Chattanooga State	85 students
Cleveland State	12 students
Columbia State	63 students
Dyersburg State	43 students
Jackson State	49 students
Motlow State	60 students
Nashville State	39 students
Northeast State	29 students
Pellissippi State	46 students
Roane State	83 students
Southwest Tennessee	16 students
Volunteer State	64 students
Walters State	24 students

* To comply with FERPA requirements, cells containing 10 observations or fewer are suppressed.

For community colleges, Chattanooga State and Roane State community colleges had the highest number of TTC transfers: 85 students (76 moved from TTC at Chattanooga located on the Chattanooga State campus) and 83 students respectively. In contrast, Cleveland State and Southwest Tennessee received 12 and 16 TTC transfers. The average for community colleges is 47 TTC transfers.

Demographic and Academic Characteristics of TTC Transfers

Because comparison of TTC transfers with the native students at Tennessee public institutions is not very informative, this section compares TTC transfers to the group of traditional public transfer students, that is, students who satisfy the definition of a transfer student as specified in the Executive Summary.

Figure 13 shows that TTC transfers are quite similar to traditional transfer students. The most noticeable differences exist in the age and gender composition of these groups: there are more adult students and fewer males among TTC transfers. The racial/ethnic composition of TTC transfers resembles that of traditional transfer students (and the overall state student population), with Caucasian students being the predominant group and minorities accounting for slightly over 27 percent of all students coming from Tennessee Technology Centers.

Figure 13. Demographic Characteristics of TTC Transfers and Traditional Public Transfers, Fall 2011

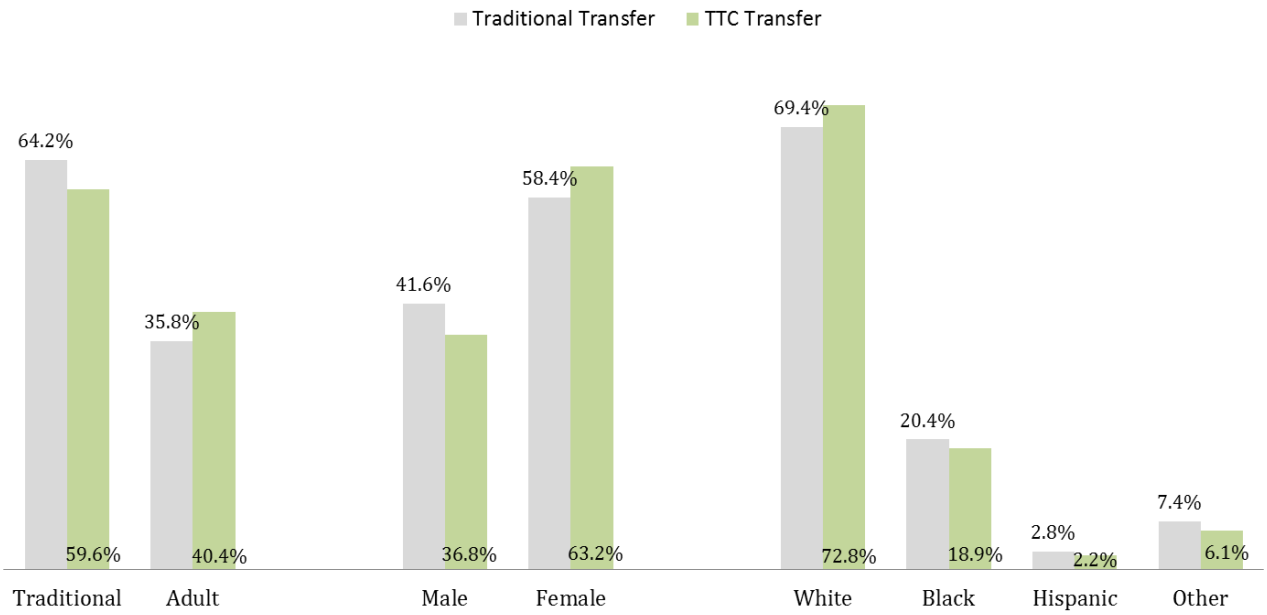


Table 9 clearly shows why TTC transfers do not fall under the traditional definition of transfer students and, as a rule, are not coded as such by institutions. In fall 2011, 408 students (about 50 percent) moving from TTCs into Tennessee public institutions were either *returning students* (individuals who were registered at the institution during the preceding term) or *readmitted students* (individuals who had previously attended the institution and had a gap in their attendance). Twenty three TTC transfers were coded as *pre-college students* (that is, high school students taking college courses in advance of high school graduation).

Table 9. Student Registration Types of TTC Transfers, Fall 2011

REGISTRATION TYPE	First-Time at Institution Student	Pre-College Student	Readmitted Student	Returning Student	TOTAL
First-Time College Student	293	-	-	-	293
Transfer Student	72	-	1	-	73
Transient Student	-	-	-	1	1
All Others	13	23	168	238	442
TOTAL	***378***	***23***	***169***	***239***	**809**

Out of 378 students who enrolled at the institution for the first time, 293 were first-time college students and only 72 former TCC students were coded as transfer students by receiving institutions.

Regarding academic majors, TTC transfers predominantly chose the following fields at their TTC: *Health Professions and Related Services* (328 students); *Trades and Industrial* (203 students); and *Business, Management and Administrative Services* (109 students) (**Table 10**). In the new institution, 73 percent of all TTC transfers opted for four major academic fields: *Health Professions and Related Services* (270 students); *Liberal Arts and Sciences* (216 students); *Business, Management and Administrative Services* (56 students); and *Personal Improvement and Leisure Programs* (51 students). Out of 809 TTC transfers, 618 students (76.4 percent) changed their broad major field after transferring into a public institution from a Tennessee Technology Center.

Table 10. Academic Majors of TTC Transfers Prior to Transferring, Fall 2011

TTC MAJOR	TTC TRANSFERS		CHANGED MAJOR AFTER TRANSFER	
	Students	Percent of Total	Students	Percent of Total
Health Professions and Related Services	328	40.5%	158	19.5%
Trades and Industrial	203	25.1%	200	24.7%
Unknown	113	14.0%	113	14.0%
Business, Management and Administrative Services	109	13.5%	95	11.7%
Personal Improvement and Leisure Programs	51	6.3%	50	6.2%
Home Economics	3	0.4%	1	0.1%
Foreign Languages and Literatures	1	0.1%	1	0.1%
Visual and Performing Arts	1	0.1%	0	0%
Did not change major			191	23.6%

VI. Related Analyses

Two independent investigations were conducted in addition to the snapshot analysis of student transfer activity in fall 2011.

A. Analysis of 2010-11 Degree Completers at Tennessee Public Universities

This analysis examined past transfer history of 2010-11 bachelor's degree completers in Tennessee public universities. The main statistics of interest include the percent of baccalaureate degree recipients who ever changed institutions (from outside or within the Tennessee public sector) and the percent of bachelors graduates who ever attended a community college. The analysis found that in AY 2010-11:

- 19,121 students completed a bachelor's degree at a Tennessee public university;
- 53.4 percent (10,221 students) had changed institutions at least once. However, only 43.4 percent (8,300 students) were coded as transfer students by the receiving institution. The 10-percent difference (1,921 individuals) includes dually enrolled students, individuals who enrolled at a new institution as first-time college students, and students who did not transfer any credit hours;
- 48.6 percent (9,300 students) previously enrolled at any two-year college; and
- 45.3 percent (8,672 students) attended a Tennessee community college.

B. The Study of Impacts of Pre-Transfer General Education Completion

In 2011-2012, THEC conducted a comprehensive study of the effects of pre-transfer completion of the common general education requirements on transfer student success. The study included over 18.5 thousand students from three transfer cohorts (academic years 2006-07, 2007-08, and 2008-09) at five TBR universities.

In general, students who complete the general education core are quite different from students who do not complete the core in terms of their background and educational experiences. However, when we compare students who are similar in terms of their background and educational experiences, we find the following:

- Pre-transfer completion of the common general education requirements, in whole or in part, has a large statistically significant effect on the probability of graduation, time to a bachelor's degree, and college GPA.
- Completion of the entire general education core is predicted to:
    - increase the probability of graduation by about 22 percentage points;
    - increase the *relative risk* of graduation by about two times (in other words, it reduces time to a bachelor's degree for GenEd core completers); and
    - increase the cumulative college GPA by about 0.3 points.
- Completion of each of the individual general education clusters also has a statistically significant effect on the outcomes of interest. The clusters' effects vary considerably, with the *Mathematics* and *Communications* components exerting the greatest impact and the *Humanities* cluster having the lowest impact on the outcomes.

VII. Conclusion

Implications of Findings for Articulation and Transfer Policies

Examination of student transfer activity in fall 2011 has identified several important implications for articulation and transfer policies in the state.

Although Tennessee's student population is quite mobile (over half of bachelor's degree completers transfer at least once in their academic career), the share of transfer students has remained stable over time. Thus, institutions should expect steady increases in the absolute numbers of transfer students in the future; however, these increases are likely to be proportionate to the undergraduate enrollment overall.

A considerable amount of out-of-state students are returning Tennessee residents. Although understanding the exact reasons for their decision to transfer back to their home state remains speculative, Tennessee should continue to offer lottery opportunities to its returning students and strive to facilitate transfer of academic credit hours.

Many students transfer from universities to community colleges (more than 22 percent of all transfers among Tennessee public institutions). This could mean that some of these students did not find the proper fit at universities and could have been better off starting at community colleges. This finding signifies a number of issues ranging from decreased probability of graduation for such students to possible misallocation of state and institutional resources. At the same time, it offers an opportunity for devising policies that better direct students towards institutions where they can succeed.

A consistent finding is that many transfer students arrive with lots of credit, and the majority of these do so without earning an associate's degree. A related study has confirmed observations from past reports that transfer students take longer to graduate. These findings confirm the uniqueness of transfer students as a group and require targeted policies at the state and institutional levels. Such policies should aim to optimize time and credits to degree both prior to and after transferring.

Status of Articulation and Transfer and Future Developments

Tennessee is making big strides in implementing the mandate of the *Complete College Tennessee Act* of 2010 regarding articulation and transfer. The State is developing and implementing policies that provide for better articulation among institutions and more efficient transfer of students. Recently implemented *Tennessee Transfer Pathways* are serving to expedite student progression toward a bachelor's degree. The introduction of 60 hours of fully transferrable instruction from community colleges to state public universities and common course numbering have provided for a much smoother transition of students into baccalaureate programs.

At present, THEC and the two public higher education systems are collaborating to develop a comprehensive *Reverse Transfer Policy* that would allow students who transferred to a public university to also receive an associate's degree from their originating community college if, after transferring, they have accrued the

required number of credit hours. When implemented, the *Reverse Transfer Policy* will apply to all public and private institutions in Tennessee and serve as a national model.

THEC is also leading the work of the *Prior Learning Assessment Taskforce.* The Taskforce intends to develop ways of evaluating non-traditional forms of credit for academic credit at a Tennessee public institution. When implemented, this policy will decrease time to degree for many students who accumulated non-traditional credits during their prior academic career.

Developing Issues and Proposed Solutions

At the same time, despite obvious successes, there are a number of potential impediments that may dampen the effect of new policies. One of the biggest issues of the transfer policy is low degree efficiency: on average, transfer students take longer to graduate and accumulate many extra credits by graduation. To illustrate, in the study of three cohorts of TBR transfer students described in Section VI, the average number of extra credits [2] at the time of graduation is 143, with the median being equal to 138 credits. In this regard, Tennessee should continue efforts to revise standards for transferring credit hours for programs and degrees that are not included in the current transfer pathways and for transferring credits from out-of-state institutions.

Also, students in high schools should receive better counseling on their college plans, which may require special training of high school counselors. Based on students' personality type, career plans, academic performance, and aptitude, this training should focus on how to enable students to find an institutional type in which they can thrive personally and academically.

The other critical challenges and risks for transfer policy implementation include the following: changing demographics of Tennessee student population that may affect college outcomes of transfer students; changing determinants of higher education affordability that range from the general economic situation to tuition increases; and changing state support for higher education that affects institutional policies and productivity. To be sure, all these factors impact both transfer and native students.

Directions for the Future

In the final analysis, the efficacy of the above policies will be evident in changes in the percent of transfer students who graduate, their time to degree, and their academic performance. The study of the effects of completing the common general education requirements prior to transferring has provided solid evidence for the effectiveness of that policy. THEC will continue to investigate the impacts of relevant policies on transfer student college success.

Proposed research projects include the following investigations: (1) a longitudinal study of student enrollment patterns, transfer and migration activity, and determinants of college outcomes; and (2) a study of college outcomes of students who start at Tennessee community colleges and transfer to the state's public universities. Streamlining data provision from institutions will also allow conducting analyses of student transfer activity over the entire academic year in the future reports.

[2] In this case, by *extra credits* we mean cumulative credit hours exceeding 120 and without accounting for majors.

APPENDIX A. Transfers by Sector of Origin and as a Percent of Undergraduate Enrollment, Public Institutions, Fall 2011

RECEIVING INSTITUTION	TRANSFERS BY SECTOR OF ORIGIN			Transfer Student COUNT *	Transfers as PERCENT of Undergrad. Enrollment	Total Undergad. Enrollment
	Tennessee Public	Tennessee Independent	Out-of-State			
Austin Peay State University	312	27	630	**969**	**9.7%**	10,025
East Tennessee State University	806	99	353	**1,258**	**10.0%**	12,562
Middle Tennessee State University	1,398	170	621	**2,189**	**9.3%**	23,617
Tennessee State University	374	51	217	**642**	**9.0%**	7,142
Tennessee Technological University	686	45	100	**831**	**8.4%**	9,899
University of Memphis	939	147	609	**1,695**	**9.4%**	18,061
TBR System	**4,515**	**539**	**2,530**	**7,584**	**9.3%**	**81,306**
University of Tennessee, Chattanooga	533	74	261	**868**	**8.8%**	9,845
University of Tennessee, Knoxville	681	102	302	**1,085**	**5.1%**	21,121
University of Tennessee, Martin	313	66	118	**497**	**6.6%**	7,508
UT System	**1,527**	**242**	**681**	**2,450**	**6.4%**	**38,474**
PUBLIC UNIVERSITY TOTAL	**6,042**	**781**	**3,211**	**10,034**	**8.4%**	**119,780**
Chattanooga State	410	70	337	**817**	**7.8%**	10,498
Cleveland State	73	39	71	**183**	**4.8%**	3,832
Columbia State	241	63	198	**502**	**9.1%**	5,514
Dyersburg State	151	14	73	**238**	**6.3%**	3,777
Jackson State	143	48	78	**269**	**5.5%**	4,935
Motlow State	201	22	103	**326**	**6.5%**	5,004
Nashville State	412	73	328	**813**	**8.2%**	9,883
Northeast State	195	32	148	**375**	**5.8%**	6,478
Pellissippi State	409	78	226	**713**	**6.2%**	11,464
Roane State	208	48	99	**355**	**5.1%**	6,906
Southwest Tennessee	438	97	389	**924**	**7.1%**	13,038
Volunteer State	349	54	265	**668**	**7.7%**	8,694
Walters State	116	49	103	**268**	**4.0%**	6,754
COMMUNITY COLLEGE TOTAL	**3,346**	**687**	**2,418**	**6,451**	**6.7%**	**96,777**
PUBLIC HIGHER EDUCATION TOTAL	**9,388**	**1,468**	**5,629**	**16,485**	**7.6%**	**216,557**

* Transfer students include individuals meeting the definition on p. 1

APPENDIX B. Transfers by Sector of Origin and as a Percent of Undergraduate Enrollment, TICUA Institutions, Fall 2011

RECEIVING INSTITUTION	TRANSFERS BY SECTOR OF ORIGIN *					Transfer Student COUNT **	Transfers as PERCENT of Undergrad. Enrollment ***
	Tennessee Public	TICUA	Non-TICUA	Out-of-state	Unknown		
Aquinas College	101	*		32	*	133	23.9%
Baptist College of Health Sciences	76	*		72	*	148	16.6%
Belmont University	117	25		249	186	577	11.6%
Bethel University	95	23	*	71	31	220	7.3%
Bryan College	49	*	*	37	39	125	9.6%
Carson-Newman College	51	12	*	39	23	125	7.7%
Christian Brothers University	36	*		28	11	75	5.4%
Cumberland University	152	13	*	50	*	215	18.1%
Fisk University	*	*	*	*		*	3.8%
Freed-Hardeman University	28	*		38	*	66	5.4%
Johnson University	27	*	*	49	*	76	12.0%
King College	168	14		153	41	376	20.9%
Lane College					130	130	6.5%
Le Moyne-Owen College	44	15		18	13	90	8.2%
Lee University	104	*	*	321	83	508	11.3%
Lincoln Memorial University	143	*	*	90	*	233	13.2%
Lipscomb University	65	*		77	12	154	5.9%
Martin Methodist College	28	*		11	*	39	4.2%
Maryville College	19	*		*	*	19	3.2%
Memphis College of Art	*	*		12		12	5.8%
Milligan College	67	*		34	*	101	11.1%
Rhodes College					15	15	0.8%
Sewanee-The University of the South	*			*		*	0.7%
Southern Adventist University	16	*		152	15	183	6.6%
Tennessee Wesleyan College	99	12		14	*	125	12.3%
Trevecca Nazarene University	32	12		43		87	6.1%
Tusculum College	20	*		21	*	41	2.3%
Union University	101	38	*	85	*	224	7.7%
Vanderbilt University ****	n/a	n/a	n/a	n/a	198	198	2.9%
Watkins College of Art, Design & Film	14	*	*	13	*	27	8.7%
Welch College	*	*		*	*	*	5.8%
TOTAL (SUPPRESSED) *	**1,652**	**164**	**0**	**1,709**	**797**	**4,322**	
TOTAL (UNSUPPRESSED)						**4,560**	**8.0%**

* To comply with FERPA requirements, cells containing 10 observations or fewer are suppressed.
TOTAL (SUPPRESSED) does not include the values of the suppressed cells.

** Includes only values of the unsuppressed cells.

*** Based on all data (unsuppressed and suppressed).

**** Vanderbilt University does not report sending institution of transfer students.

APPENDIX C. Transfer Student Activity by Sending Institution and Receiving University, Public Institutions, Fall 2011

SENDING INSTITUTION	TOTAL SENT **	RECEIVING INSTITUTION *								
		APSU	ETSU	MTSU	TSU	TTU	UM	UTC	UTK	UTM
Austin Peay State University	**58**	-	*	43	15	*	*	*	*	*
East Tennessee State University	**74**	*	-	26	*	*	*	18	30	*
Middle Tennessee State University	**300**	26	18	-	42	38	63	20	60	33
Tennessee State University	**74**	*	*	40	-	*	34	*	*	*
Tennessee Technological University	**92**	*	15	54		-	*	*	23	*
University of Memphis	**68**	*	*	20	*	*	-	11	18	19
University of Tennessee, Chattanooga	**173**	11	*	70	*	*	39	-	53	*
University of Tennessee, Knoxville	**241**	14	36	73	*	20	47	32	-	19
University of Tennessee, Martin	**77**	17	*	23	*		37	*	*	-
Chattanooga State Community College	**323**	*	33	28	*	31	*	231	*	*
Cleveland State Community College	**141**	*	26	19		13		69	14	*
Columbia State Community College	**319**	29	*	214		20	*	20	11	25
Dyersburg State Community College	**162**	13	*	17	*	*	56	*	*	76
Jackson State Community College	**217**	18	*	32	*	*	86	11	*	70
Motlow State Community College	**403**	11	*	269		107	*	16	*	*
Nashville State Community College	**479**	64	*	179	155	56	*	11	*	14
Northeast State Community College	**282**	*	268	*		14		*	*	*
Pellissippi State Community College	**452**	*	85	41		74	*	20	232	*
Roane State Community College	**350**	12	57	29	*	196	*	*	56	
Southwest Tennessee Community College	**587**	*	*	41		*	535	*	*	11
Volunteer State Community College	**442**	50	*	155	121	72	*	15	29	*
Walters State Community College	**331**		217	21	*	14	*	*	79	*
TOTAL (SUPPRESSED) **	**5,645**	**265**	**755**	**1,394**	**333**	**655**	**897**	**474**	**605**	**267**
TOTAL (UNSUPPRESSED)	**6,042**	**312**	**806**	**1,398**	**374**	**686**	**939**	**533**	**681**	**313**

* To comply with FERPA requirements, cells containing 10 observations or fewer are suppressed.

** TOTAL SENT and TOTAL (SUPPRESSED) do not include the values of the suppressed cells.

APPENDIX D. Transfer Student Activity by Sending Institution and Receiving Community College, Public Institutions, Fall 2011

SENDING INSTITUTION	TOTAL SENT **	RECEIVING INSTITUTION *												
		CHSCC	CLSCC	COSCC	DSCC	JSCC	MSCC	NASCC	NESCC	PSCC	RSCC	STCC	VSCC	WSCC
Austin Peay State University	**56**	*		*	*	*	*	28		*	*	*	28	*
East Tennessee State University	**256**	25	*	*			*	*	149	33	15		*	34
Middle Tennessee State University	**406**	21	*	79	*	*	89	83	*	19	*	36	79	*
Tennessee State University	**105**	*		*	*	*	*	50		*	*	35	20	
Tennessee Technological University	**184**	21	*	11		*	24	55	*	13	15		45	*
University of Memphis	**291**	*	*	*	12	13		*	*	*		266	*	
University of Tennessee, Chattanooga	**254**	155	*	17	*	*	12	19	*	33	*	18	*	
University of Tennessee, Knoxville	**256**	29	*	19	*	*	*	13	*	125	14	17	12	27
University of Tennessee, Martin	**129**	*		*	43	50		14		*		22	*	
Chattanooga State Community College	**44**	-	33	*		*	*	*		11	*	*	*	
Cleveland State Community College	**75**	60	-	*			*	*		15	*	*	*	
Columbia State Community College	**64**	12	*	-	*	*	16	21		*	*	*	15	*
Dyersburg State Community College	**42**			*	-	28		*		*		14	*	
Jackson State Community College	**36**	*		*	36	-	*	*		*		*	*	
Motlow State Community College	**73**	14	*	15	*	*	-	22	*	*	*	*	22	
Nashville State Community College	**134**	*		32	*	*	15	-		*	*	*	87	*
Northeast State Community College	**19**	*						*	-	*	*			19
Pellissippi State Community College	**123**	15	*	*	*	*	*	*	*	-	96	*	*	12
Roane State Community College	**79**	12	*			*	*	*	*	67	-		*	*
Southwest Tennessee Community College	**34**	*		*	34	*	*	*	*	*		-	*	
Volunteer State Community College	**107**	*	*	19	*	*	12	65		11	*		-	*
Walters State Community College	**79**	*	*	*			*		20	40	19	*	*	-
TOTAL (SUPPRESSED) **	**2,846**	**364**	**33**	**192**	**125**	**91**	**168**	**370**	**169**	**367**	**159**	**408**	**308**	**92**
TOTAL (UNSUPPRESSED)	**3,346**	**410**	**73**	**241**	**151**	**143**	**201**	**412**	**195**	**409**	**208**	**438**	**349**	**116**

* To comply with FERPA requirements, cells containing 10 observations or fewer are suppressed.

** TOTAL SENT and TOTAL (SUPPRESSED) do not include the values of the suppressed cells.

APPENDIX E. Transfer Students by Credits and Degrees at Transfer, Fall 2011

RECEIVING INSTITUTION	CREDIT HOURS AT TRANSFER							Total Transfer Students *	DEGREE AT TRANSFER	
	<= 12	13-24	25-36	37-48	49-60	> 60 no degree	> 60 with degree		Associate's	Bachelor's or higher
Austin Peay State University	293	59	125	56	62	278	40	913	44	13
East Tennessee State University	58	43	167	89	148	421	228	1,154	290	10
Middle Tennessee State University	176	75	344	203	274	759	218	2,049	274	25
Tennessee State University	59	37	89	42	48	220	65	560	86	21
Tennessee Technological University	25	21	112	43	120	243	194	758	255	12
University of Memphis	36	55	243	143	174	678	163	1,492	202	36
University of Tennessee, Chattanooga	38	68	115	87	127	231	149	815	163	34
University of Tennessee, Knoxville	36	78	248	124	189	163	114	952	177	4
University of Tennessee, Martin	55	20	62	50	53	135	28	403	60	9
PUBLIC UNIVERSITY TOTAL	776	456	1,505	837	1,195	3,128	1,199	9,096	1,551	164
Chattanooga State	109	123	190	142	109	107	27	807	11	30
Cleveland State	94	43	28	11	3	4	0	183	1	1
Columbia State	172	140	116	38	17	18	1	502	7	14
Dyersburg State	44	47	54	30	18	34	1	228	1	3
Jackson State	38	27	70	38	38	52	4	267	2	10
Motlow State	41	53	90	54	15	52	2	307	1	13
Nashville State	153	33	22	8	4	2	3	225	8	29
Northeast State	78	50	76	50	37	67	11	369	0	18
Pellissippi State	84	116	171	114	85	125	13	708	9	21
Roane State	41	42	76	45	25	93	7	329	10	7
Southwest State	460	303	119	29	6	6	1	924	3	21
Volunteer State	118	133	77	42	49	110	14	543	7	27
Walters State	26	25	71	41	24	57	2	246	2	3
COMMUNITY COLLEGE TOTAL	1,458	1,135	1,160	642	430	727	86	5,638	62	197
GRAND TOTAL	**2,234**	**1,591**	**2,665**	**1,479**	**1,625**	**3,855**	**1,285**	**14,734**	**1,613**	**361**

* Table excludes 1,751 students with missing data on credits or reported credits above 130

APPENDIX E (Cont'd). Transfer Students by Credits and Degrees at Transfer, Fall 2011

RECEIVING INSTITUTION	CREDIT HOURS AT TRANSFER							Total Transfer Students *	DEGREE AT TRANSFER	
	<= 12	13-24	25-36	37-48	49-60	> 60 no degree	> 60 with degree		Associate's	Bachelor's or higher
Austin Peay State University	32.1%	6.5%	13.7%	6.1%	6.8%	30.4%	4.4%	913	4.8%	1.4%
East Tennessee State University	5.0%	3.7%	14.5%	7.7%	12.8%	36.5%	19.8%	1,154	25.1%	0.9%
Middle Tennessee State University	8.6%	3.7%	16.8%	9.9%	13.4%	37.0%	10.6%	2,049	13.4%	1.2%
Tennessee State University	10.5%	6.6%	15.9%	7.5%	8.6%	39.3%	11.6%	560	15.4%	3.8%
Tennessee Technological University	3.3%	2.8%	14.8%	5.7%	15.8%	32.1%	25.6%	758	33.6%	1.6%
University of Memphis	2.4%	3.7%	16.3%	9.6%	11.7%	45.4%	10.9%	1,492	13.5%	2.4%
University of Tennessee, Chattanooga	4.7%	8.3%	14.1%	10.7%	15.6%	28.3%	18.3%	815	20.0%	4.2%
University of Tennessee, Knoxville	3.8%	8.2%	26.1%	13.0%	19.9%	17.1%	12.0%	952	18.6%	0.4%
University of Tennessee, Martin	13.6%	5.0%	15.4%	12.4%	13.2%	33.5%	6.9%	403	14.9%	2.2%
PUBLIC UNIVERSITY TOTAL	8.5%	5.0%	16.5%	9.2%	13.1%	34.4%	13.2%	9,096	17.1%	1.8%
Chattanooga State	13.5%	15.2%	23.5%	17.6%	13.5%	13.3%	3.3%	807	1.4%	3.7%
Cleveland State	51.4%	23.5%	15.3%	6.0%	1.6%	2.2%	0.0%	183	0.5%	0.5%
Columbia State	34.3%	27.9%	23.1%	7.6%	3.4%	3.6%	0.2%	502	1.4%	2.8%
Dyersburg State	19.3%	20.6%	23.7%	13.2%	7.9%	14.9%	0.4%	228	0.4%	1.3%
Jackson State	14.2%	10.1%	26.2%	14.2%	14.2%	19.5%	1.5%	267	0.7%	3.7%
Motlow State	13.4%	17.3%	29.3%	17.6%	4.9%	16.9%	0.7%	307	0.3%	4.2%
Nashville State	68.0%	14.7%	9.8%	3.6%	1.8%	0.9%	1.3%	225	3.6%	12.9%
Northeast State	21.1%	13.6%	20.6%	13.6%	10.0%	18.2%	3.0%	369	0.0%	4.9%
Pellissippi State	11.9%	16.4%	24.2%	16.1%	12.0%	17.7%	1.8%	708	1.3%	3.0%
Roane State	12.5%	12.8%	23.1%	13.7%	7.6%	28.3%	2.1%	329	3.0%	2.1%
Southwest State	49.8%	32.8%	12.9%	3.1%	0.6%	0.6%	0.1%	924	0.3%	2.3%
Volunteer State	21.7%	24.5%	14.2%	7.7%	9.0%	20.3%	2.6%	543	1.3%	5.0%
Walters State	10.6%	10.2%	28.9%	16.7%	9.8%	23.2%	0.8%	246	0.8%	1.2%
COMMUNITY COLLEGE TOTAL	25.9%	20.1%	20.6%	11.4%	7.6%	12.9%	1.5%	5,638	1.1%	3.5%
GRAND TOTAL	15.2%	10.8%	18.1%	10.0%	11.0%	26.2%	8.7%	**14,734**	10.9%	2.5%

* Table excludes 1,751 students with missing data on credits or reported credits above 130