

# **Profiles and Trends in Tennessee Higher Education**

## **2016 Annual Report**



**Tennessee Higher Education Commission**

## 2015 – 2016 COMMISSION MEMBERS

Mr. Evan Cope, **Chair**, Murfreesboro, 4<sup>th</sup> Congressional District

Mr. Tre Hargett, Secretary of State

Dr. Sara Heyburn, Executive Director, State Board of Education, non-voting ex-officio

Ms. Siri Kadire, Non-voting Student Member, University of Tennessee Health Science Center

Mr. Jon Kinsey, Chattanooga, 3<sup>rd</sup> Congressional District

Ms. Pam Koban, Nashville, 5<sup>th</sup> Congressional District

Mr. David Kustoff, **Vice Chair**, Germantown, 8<sup>th</sup> Congressional District

Mr. Bill Lee, Franklin, 7<sup>th</sup> Congressional District

Mr. David Lillard, Jr., State Treasurer

Mr. Alex Martin, Voting Student Member, Tennessee Technological University

Ms. Pam Martin, Mt. Juliet, 6<sup>th</sup> Congressional District

Ms. Mintha Roach, Knoxville, 2<sup>nd</sup> Congressional District

Mayor A C Wharton, **Secretary**, Memphis, 9<sup>th</sup> Congressional District

Mr. Justin Wilson, State Comptroller

Mr. Keith Wilson, **Vice Chair**, Kingsport, 1<sup>st</sup> Congressional District



## **PURPOSE OF THE REPORT**

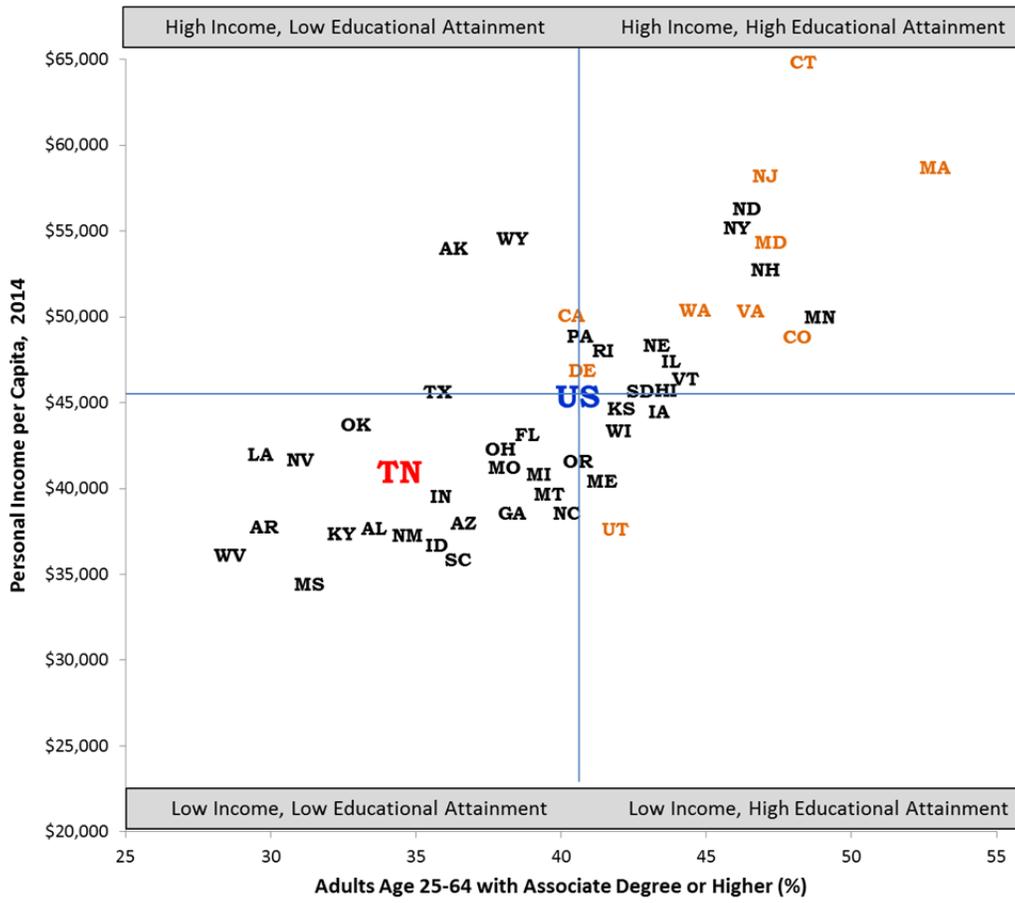
The Tennessee Higher Education Commission prepares this report for the Governor and the General Assembly, commenting upon major developments, trends, new policies, budgets and financial considerations which in the judgment of the Commission will be useful in planning for the sound and adequate development of the State's program of public higher education.

The purpose of this report is to provide state policymakers with a brief overview of Tennessee higher education. This report presents data and analyses on five broad policy areas important to the state: 1) State context of higher education, 2) Student preparation, 3) Student participation, 4) Student progression, and 5) State higher education finance.



## 1. STATE CONTEXT OF HIGHER EDUCATION

### 1.1. Educational Attainment of Working-age Adults and Personal Income per Capita, 2014



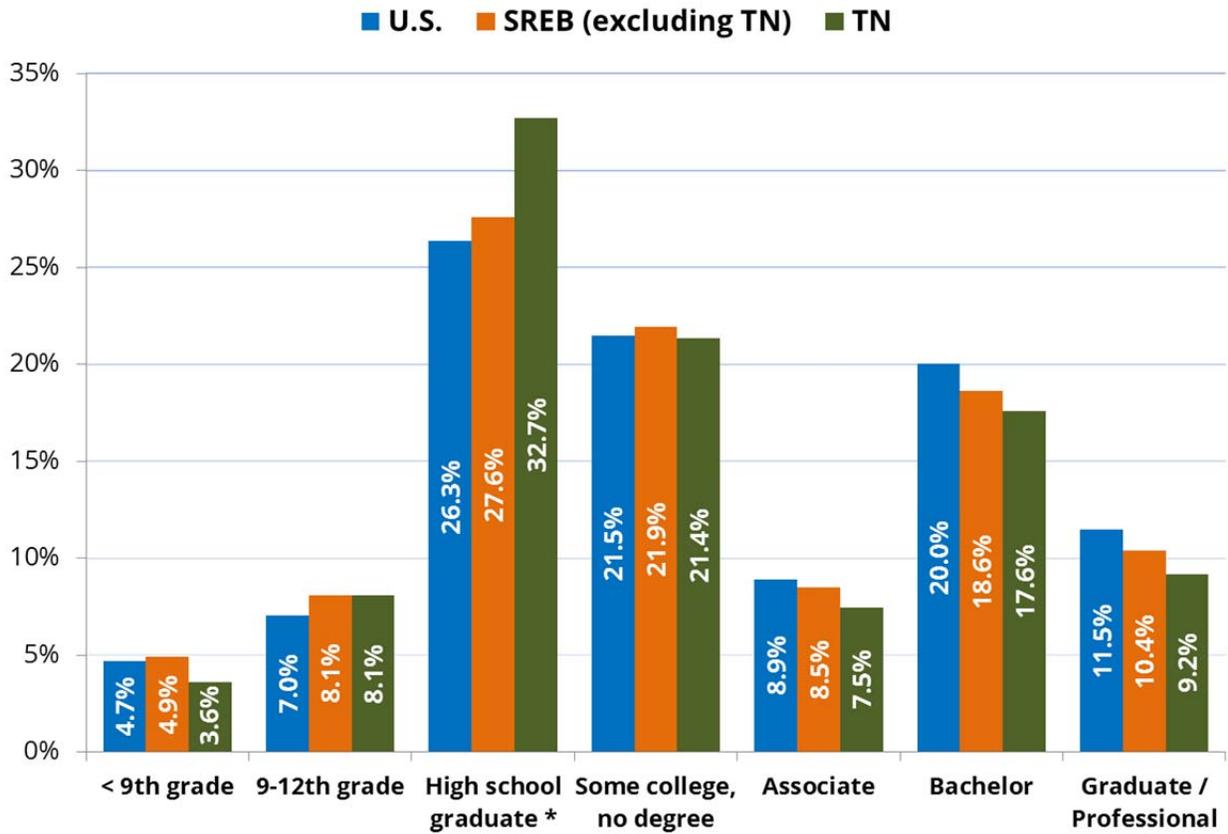
Sources: 2014 American Community Survey, U.S. Bureau of Economic Analysis

Educational attainment and personal income show a positive correlation and are linked to a state's economic competitiveness.

In 2014, Tennessee's per capita income was \$40,457, ranking 36<sup>th</sup> in the United States. Meanwhile, 34.3 percent of adult state residents (25-64) had at least an associate degree, ranking Tennessee 42<sup>nd</sup> in the nation. The orange-lettered states in the upper right quadrant of Figure 1.1 scored in the top ten on the New Economy Index, which measures the extent to which state economies are knowledge-based, innovative, and globalized. In 2014, Tennessee ranked 40<sup>th</sup> in the New Economy Index, a slight drop from the 39<sup>th</sup> position in 2012.<sup>1</sup>

<sup>1</sup> The indicators of the New Economy Index are grouped under 5 categories: *Knowledge Jobs*, *Globalization*, *Economic Dynamism*, *The Digital Economy*, and *Innovation Capacity* [[www.itif.org/publications/2014-state-new-economy-index](http://www.itif.org/publications/2014-state-new-economy-index)]

## 1.2. Educational Attainment of Adult Population (25-64): United States, SREB states (excluding Tennessee), and Tennessee (2014)



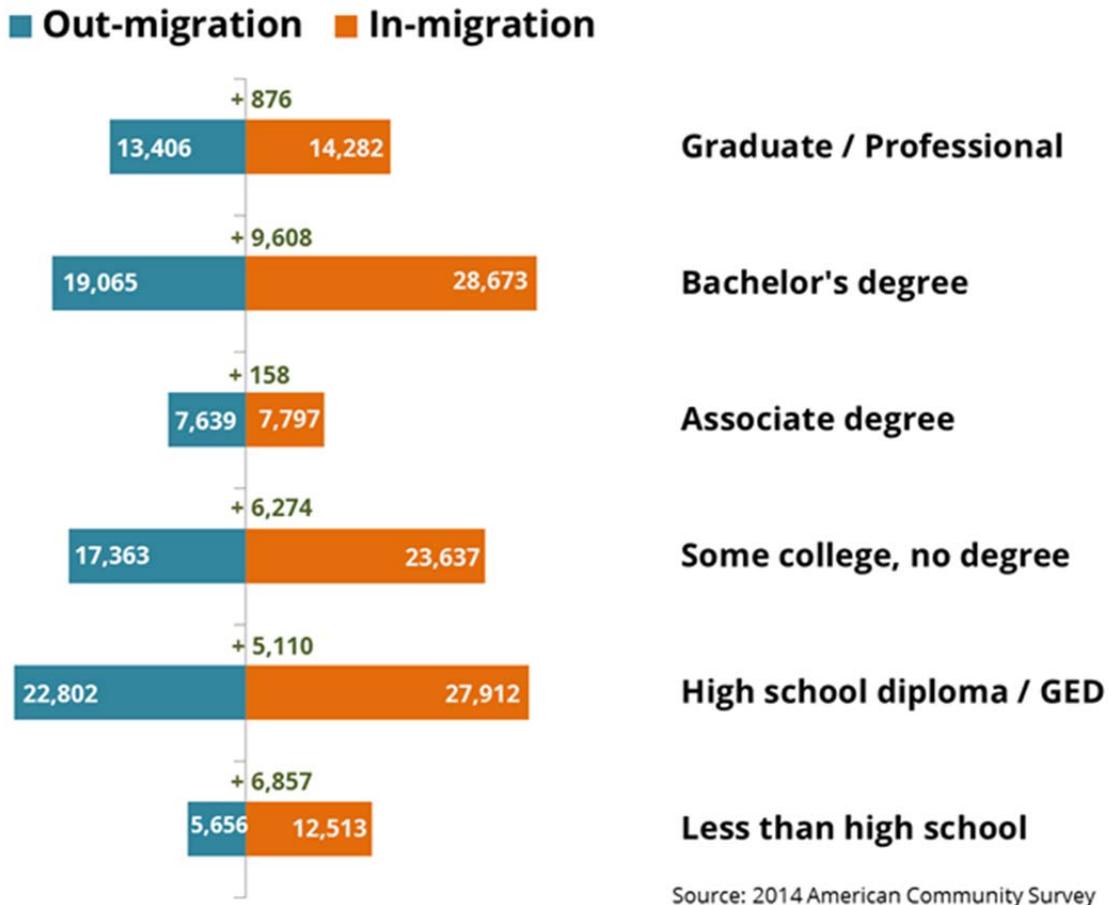
\* Includes equivalency.

Source: 2014 American Community Survey

Research has demonstrated positive relationships between educational attainment and various economic and social measures. The Drive to 55 campaign places high premium on raising educational attainment in Tennessee. The key factors affecting educational attainment are college participation and completion, migration of students and graduates, and economic climate.

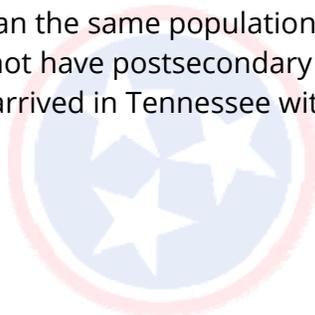
Although Tennessee has a comparatively large percentage of its adult population with a high school diploma or equivalent, it is below the averages for the United States and Southern Regional Education Board (SREB) states in college educational attainment. In 2014, 11.7 percent of Tennessee’s adult population (25-64) did not have a high school diploma, and 54.1 percent of adults had completed either high school or some college. About 34.3 percent of the state’s citizens aged 25-64 had a college degree, ranking Tennessee 42<sup>nd</sup> nationally on this measure.

### 1.3. In-migration, Out-migration, and Net Migration to Tennessee by Educational Attainment: Age 25–64 (2014)

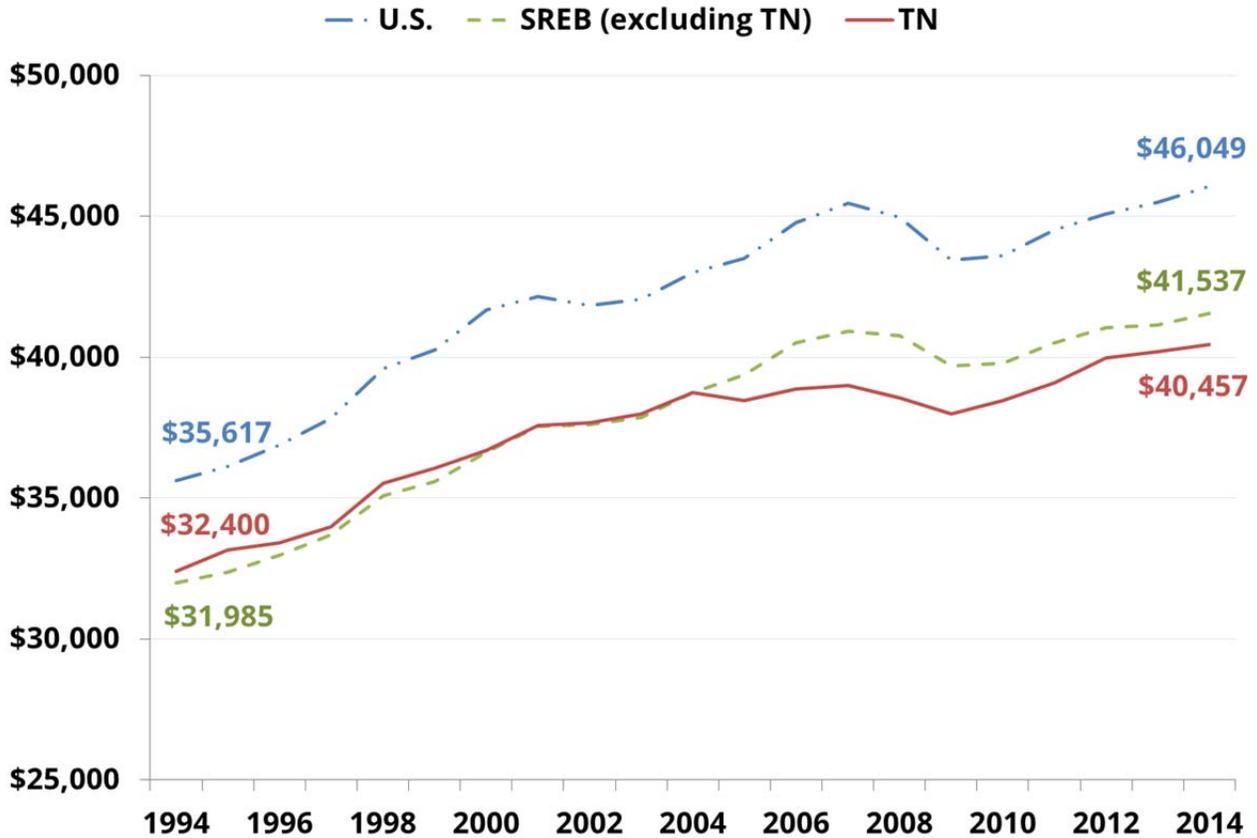


Migration data, presented by degree level, underscore the relationship between the supply of educated citizens and interstate mobility. These numbers are essential for understanding dynamics of educational attainment and assessing the potential for statewide economic development. Figure 1.3 shows Tennessee’s success in attracting people from out of state with various levels of educational attainment.

At all educational levels, the net migration of the adult population (represented by green numbers above the bars) is positive. In 2014, Tennessee imported 10,642 more adults with an associate degree or higher than the same population that left the state. At the same time, many arriving workers do not have postsecondary credentials: 64,062 in-migrants (55.8 percent of all newcomers) arrived in Tennessee with no college degree.



### 1.4. Per Capita Personal Income in Constant 2014 dollars: United States, SREB states (excluding Tennessee), and Tennessee



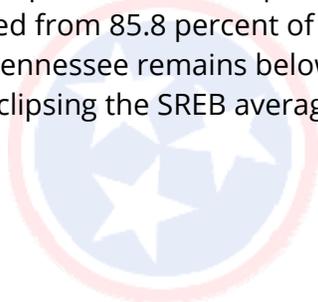
CPI-U Inflation Adjusted

Source: U.S. Bureau of Economic Analysis

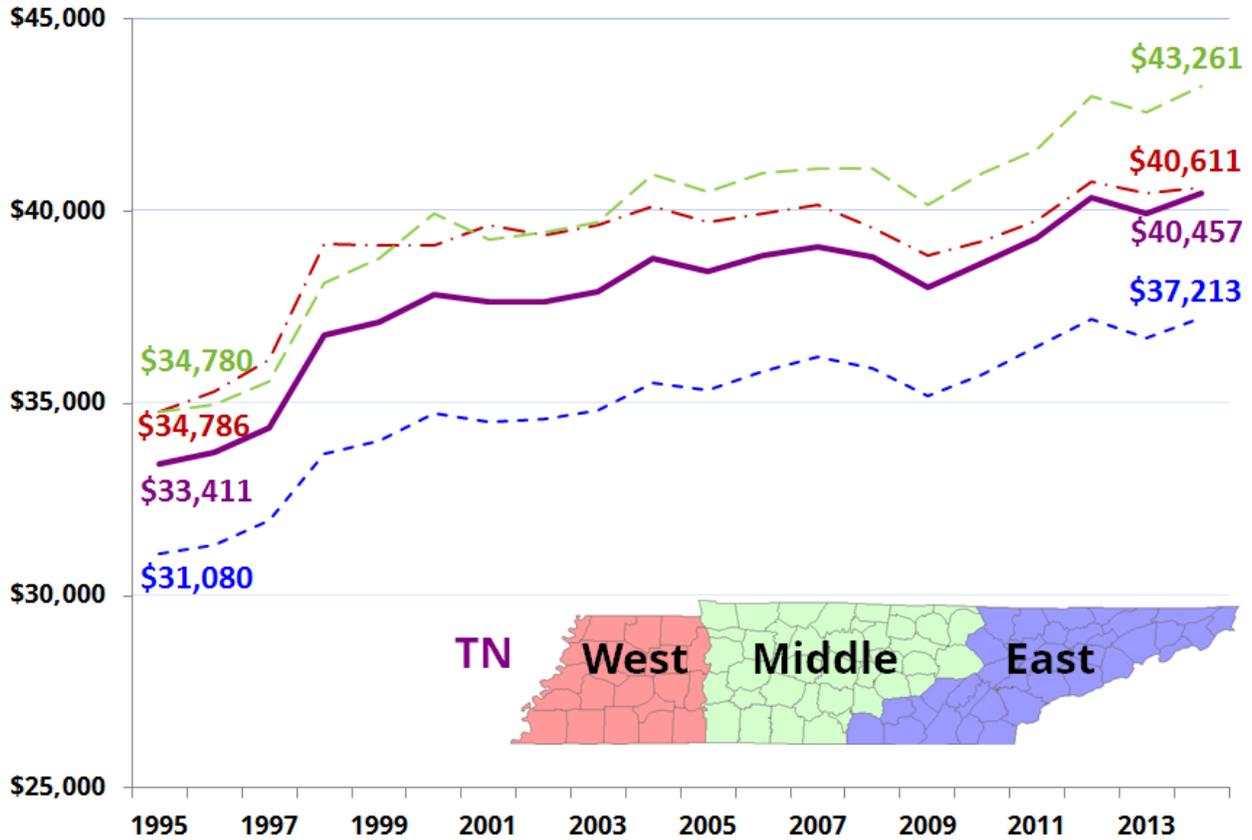
Three commonly used indicators of a state's economic climate are per capita income, unemployment rate, and poverty rate. Figure 1.4 and the next three figures examine how Tennessee performs on these metrics.

Income per capita measures the amount of money earned per person in a given region. This measure is positively correlated with economic health and educational attainment of the population. Per capita personal income trends measure improvements in individuals' quality of life and reflect a state's ability to raise revenue.

Adjusted for inflation, Tennessee's personal income per capita has increased over the past 20 years. Recently, it has increased from 85.8 percent of the national average in 2008 to 87.9 percent in 2014. However, Tennessee remains below the national mean and has fallen behind the SREB average since eclipsing the SREB average in the 1990s.



### 1.5. Per Capita Personal Income for Each of Tennessee’s Grand Divisions in Constant 2014 dollars



\* CPI-U Inflation Adjusted

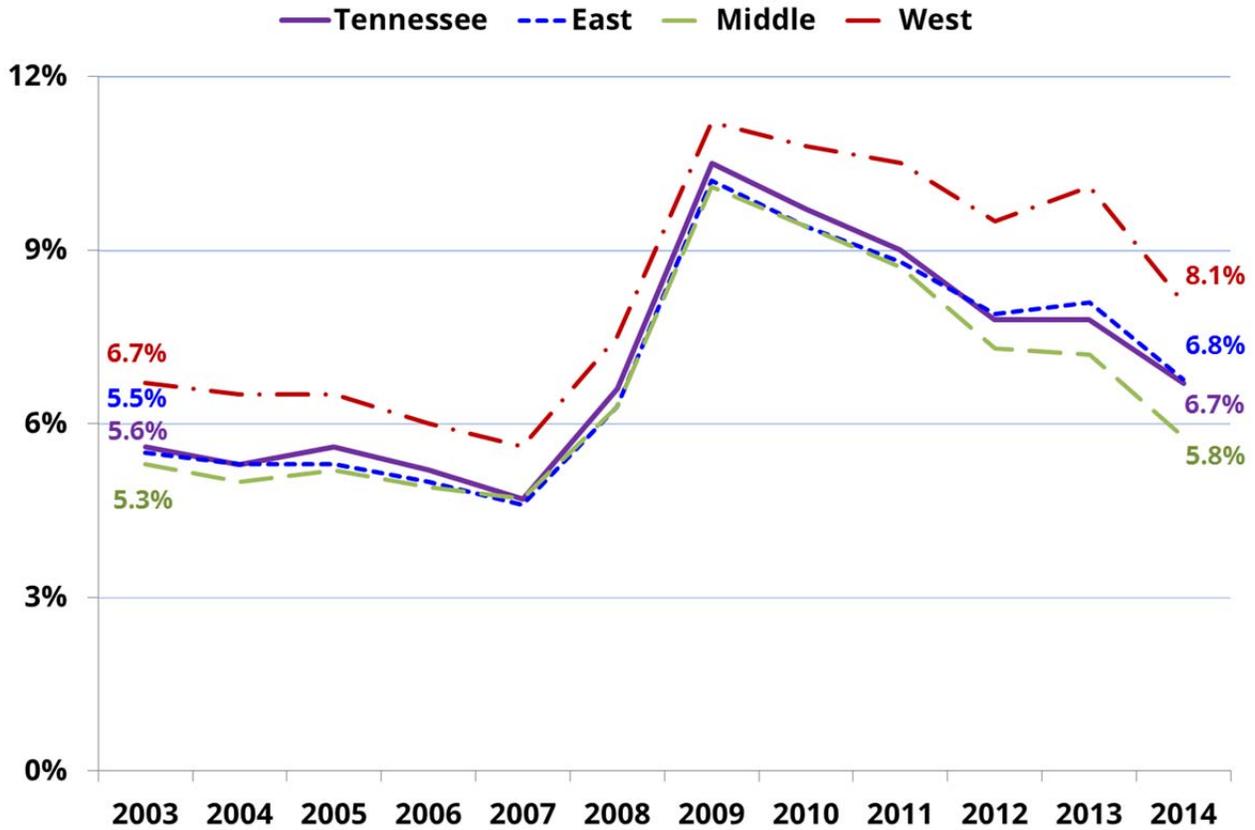
Source: U.S. Bureau of Economic Analysis

In line with national, SREB, and Tennessee trends over the past 20 years, per capita personal income has been on the rise for all three of the state’s Grand Divisions (Figure 1.5).

The relative positions of Tennessee’s Grand Divisions have been consistent over time. The average income for the Eastern counties of the state, at \$37,213 in 2014, has been appreciably lower than the other regions, and the average for the state. West Tennessee is slightly above the state average, while Middle Tennessee demonstrates the highest per capita personal income of all three regions, at \$43,261 in 2014.



## 1.6. Unemployment Rate for Each of Tennessee's Grand Divisions



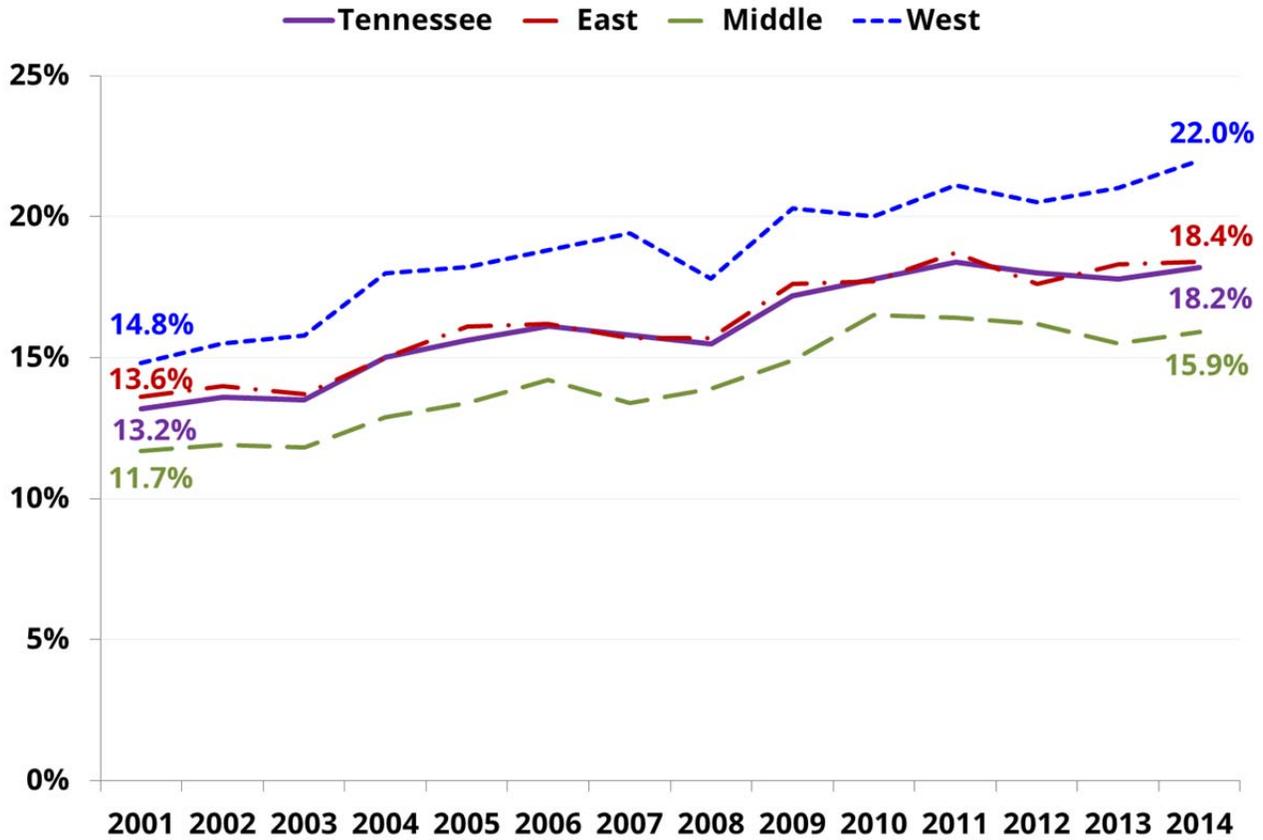
Source: U.S. Bureau of Labor Statistics

Unemployment rate, the ratio of the number of active job seekers to the labor force, is another critical indicator of states' economic health. Figure 1.6 presents unemployment rate changes in Tennessee by Grand Division.

Recessions in the early and late 2000s led to accelerated growth in this indicator. The state's unemployment rate reached a peak of 10.5 percent in 2009 and declined gradually to 6.7 percent in 2014. West Tennessee has consistently had a higher unemployment rate than the other Divisions. The Eastern counties have an unemployment rate that is very close to the state's average. Middle Tennessee demonstrates the lowest percent of unemployed populace; its rate of unemployment has decreased from 10.1 in 2009 to 5.8 percent in 2014. Figures 1.5 and 1.6 attest to economic vitality of Middle Tennessee.



### 1.7. Poverty Rate for Each of Tennessee's Grand Divisions

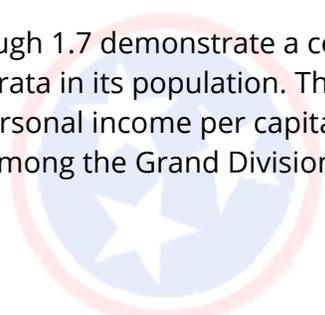


Source: U.S. Census Bureau

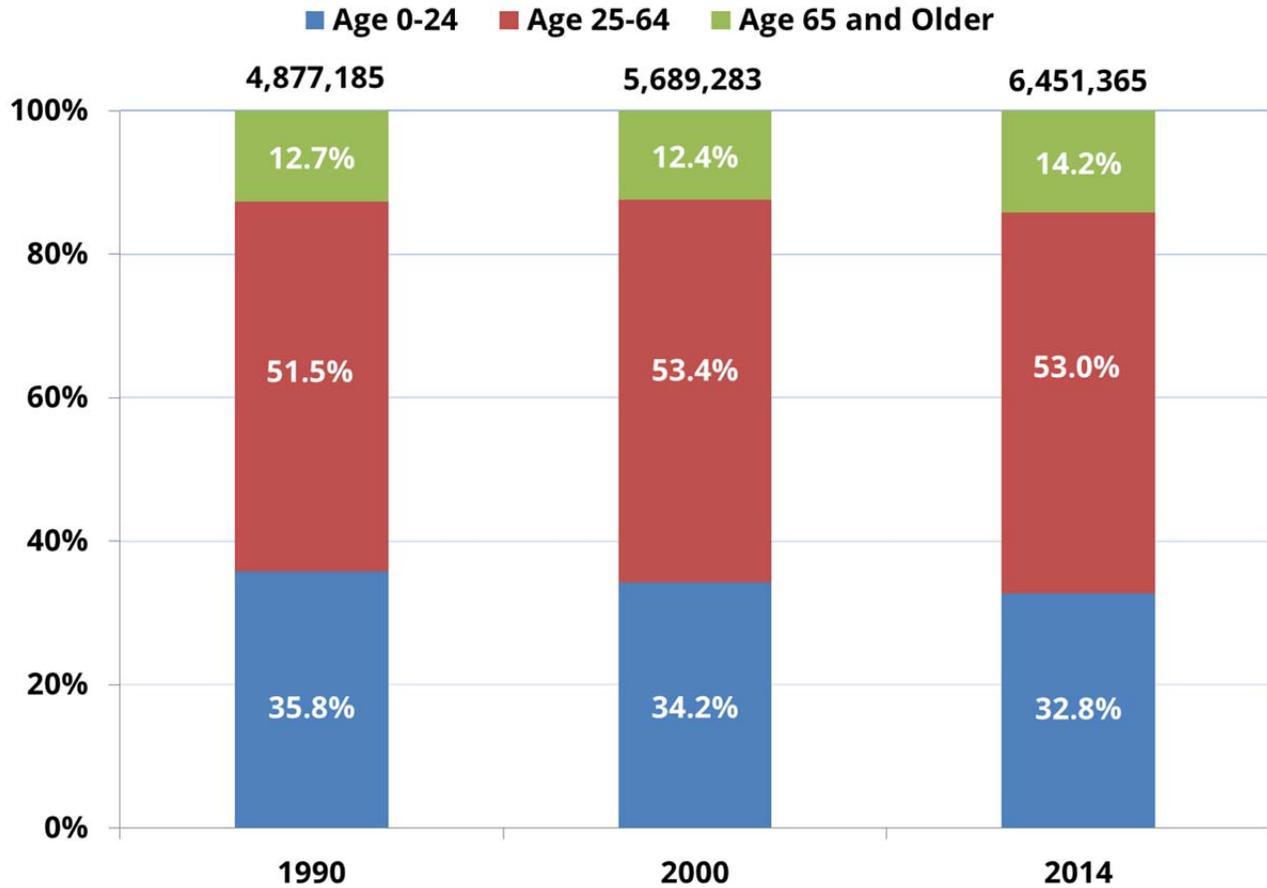
The poverty rate is a key economic and social indicator that denotes the inadequacy of family incomes for the consumption of food and other goods and services. The U.S. Census calculates this metric by measuring the number of individuals in a household below the poverty threshold against the total population. Poverty thresholds are based on age, the number of household members older than 18, and dependents younger than 18 years of age.

Figure 1.7 shows that Middle Tennessee has had the lowest poverty rate over time, while the West has been consistently higher on this indicator than the other Grand Divisions.

Taken together, Figures 1.5 through 1.7 demonstrate a consistent and large disparity in West Tennessee among social strata in its population. That is, West Tennessee consistently outpaces the state average in personal income per capita; yet it also has the highest rates of poverty and unemployment among the Grand Divisions of the state.



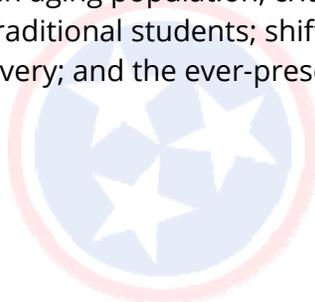
### 1.8. Changes in Tennessee's Age Composition



Source: U.S. Census Bureau

Demographic changes in the state have a direct impact on student enrollment patterns and student body composition. Research shows that these factors affect various educational outcomes. The most critical demographic changes include shifts in the age and racial/ethnic composition of the state's population. Figure 1.8 and Figure 1.9 focus on these dynamics.

Figure 1.8 shows that over the last 14 years, Tennessee's population has increased by 32.3 percent. It has also grown perceptibly older: the share of young people has decreased, while the proportions of working-age and older individuals have risen. Aside from economic and social impacts of an aging population, critical implications for education include: a growing share of nontraditional students; shifts in demand for training, program offerings, and new modes of delivery; and the ever-present need for continued education.



### 1.9. Changes in Racial / Ethnic Composition among Tennessee’s Youth \*

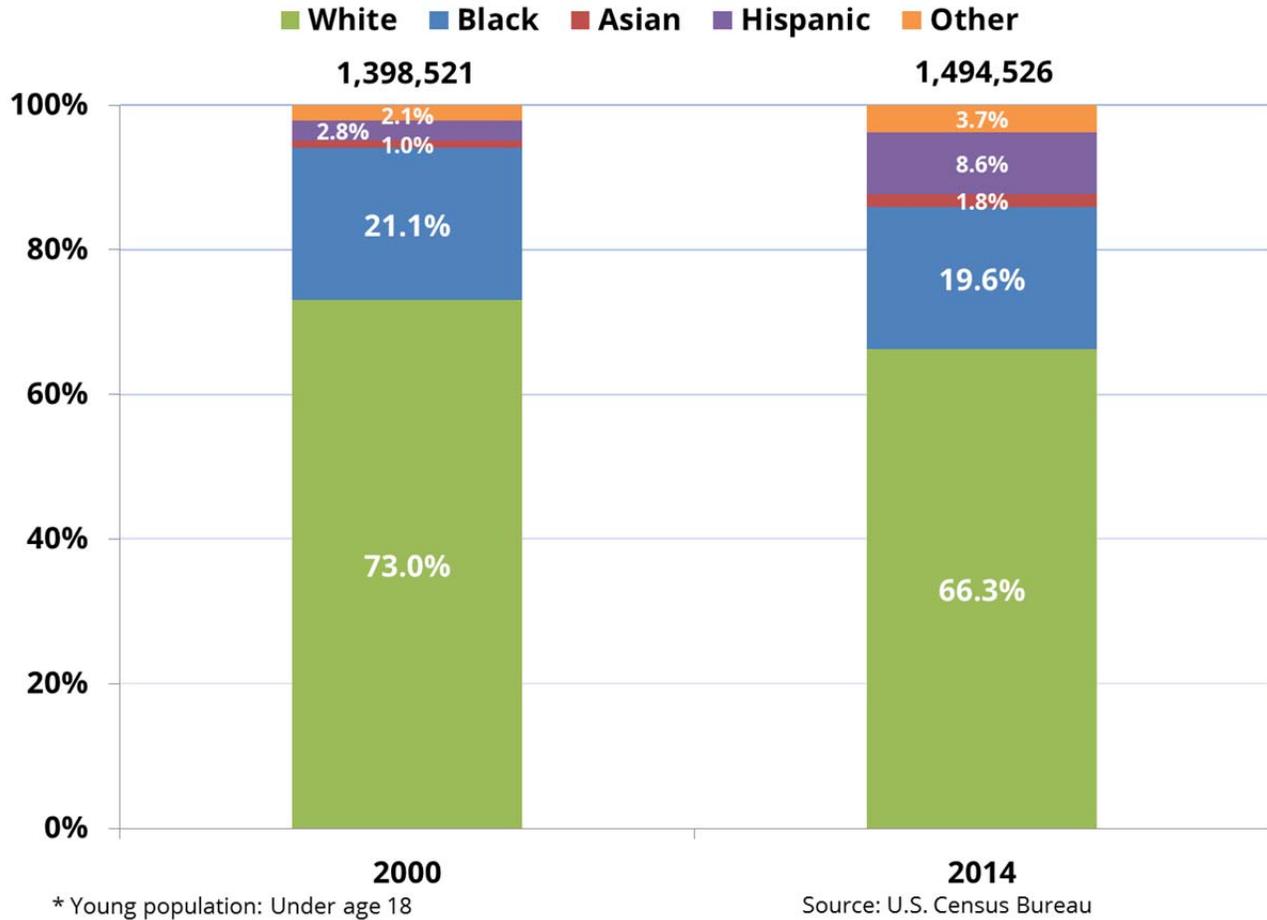


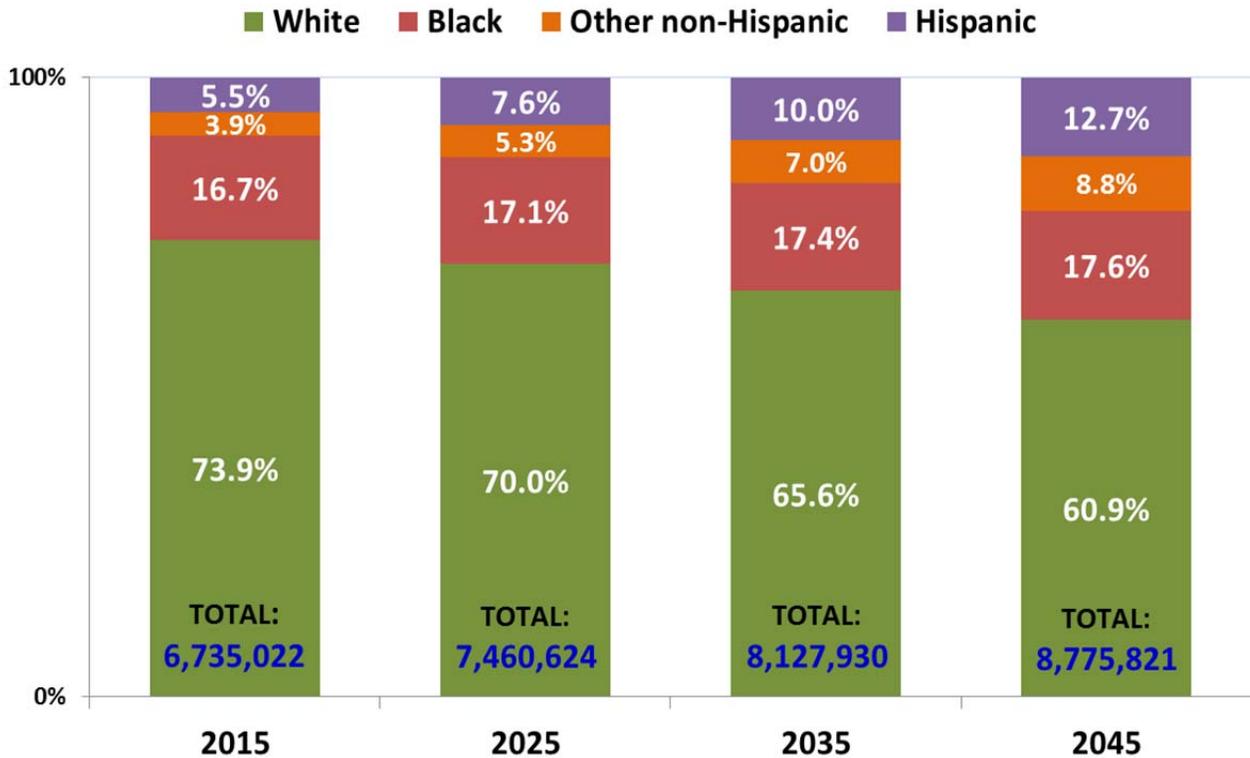
Figure 1.9 shows changes in the ethnic composition of the population under 18 years of age—potential higher education students—from 2000 to 2014.

Over the past 14 years, the share of nonwhite youth has risen dramatically: the Hispanic population grew by almost 230 percent, from 38,899 in 2000 (2.8 percent of the young population) to 128,310 in 2014 (8.6 percent of the state’s youth). Over the same period, the Asian population grew from 14,129 to 26,539, an 87.8 percent increase, now representing 1.8 percent of the state’s young population. In contrast, the proportion of whites has decreased by 6.7 percentage points and, at present, constitutes 66.3 percent of the state’s young population.

These demographic changes will have implications for a number of college outcomes—from enrollment to graduation.



### 1.10. Tennessee Population Projections by Racial / Ethnic Group: 2015-2045



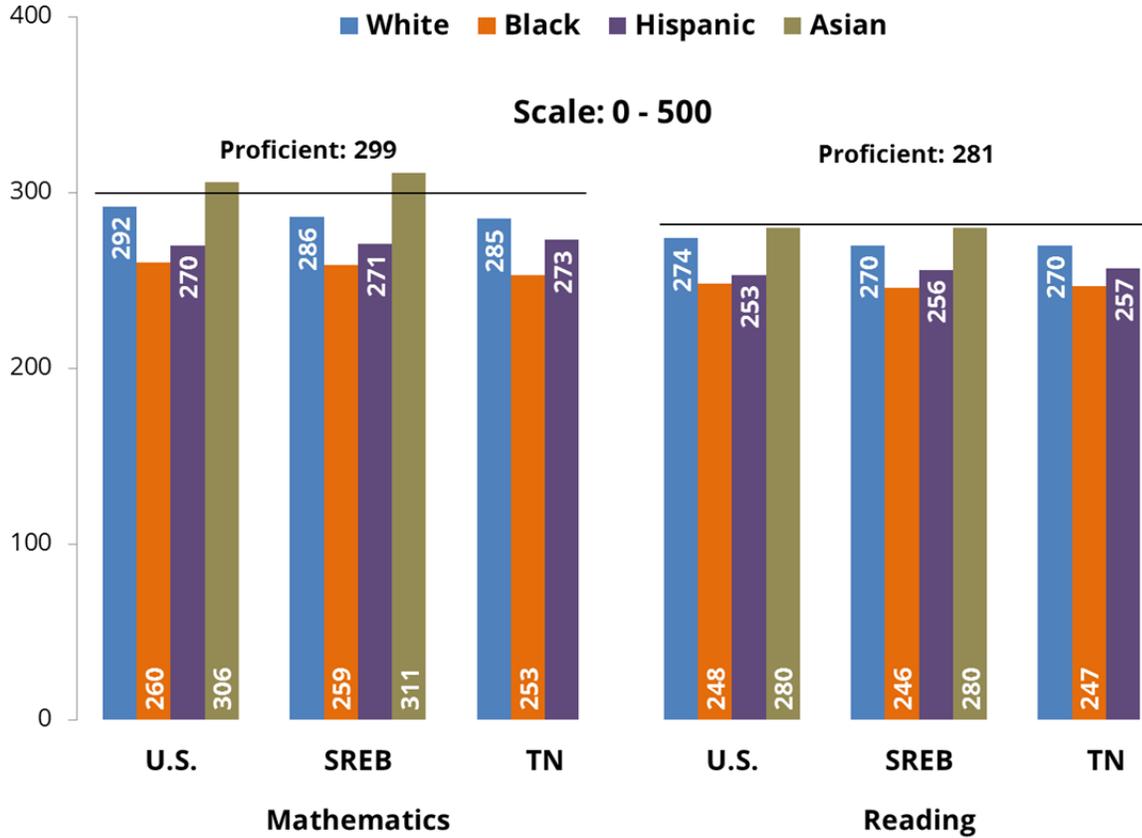
The U.S. Census Bureau projects that, over time, the United States will become a plurality nation, in which the white population will remain the largest group, but no single racial/ethnic group will make up a majority. The U.S. is projected to become a plurality (majority-minority) nation in 2043. Already the USA’s largest minority group, Hispanics will continue to experience the biggest increase in the share of the overall population.

Figure 1.10 shows that Tennessee will follow these national trends. From 2015 to 2045, the white population’s share is projected to decrease from almost 74 percent to approximately 61 percent of the overall state population. During the same period, the share of Hispanics will increase by 7.2 percentage points to 12.7 percent. This projected growth of the Hispanic population will outpace the increase in the Black population (0.9 percentage points) and all other non-Hispanic populations (4.9 percentage points).



**SECTION II. STUDENT PREPARATION**

**2.1. Educational Progress of 8<sup>th</sup>-graders: 2015 NAEP Math and Reading Average Scores: U.S., SREB states (excluding Tennessee), and Tennessee**

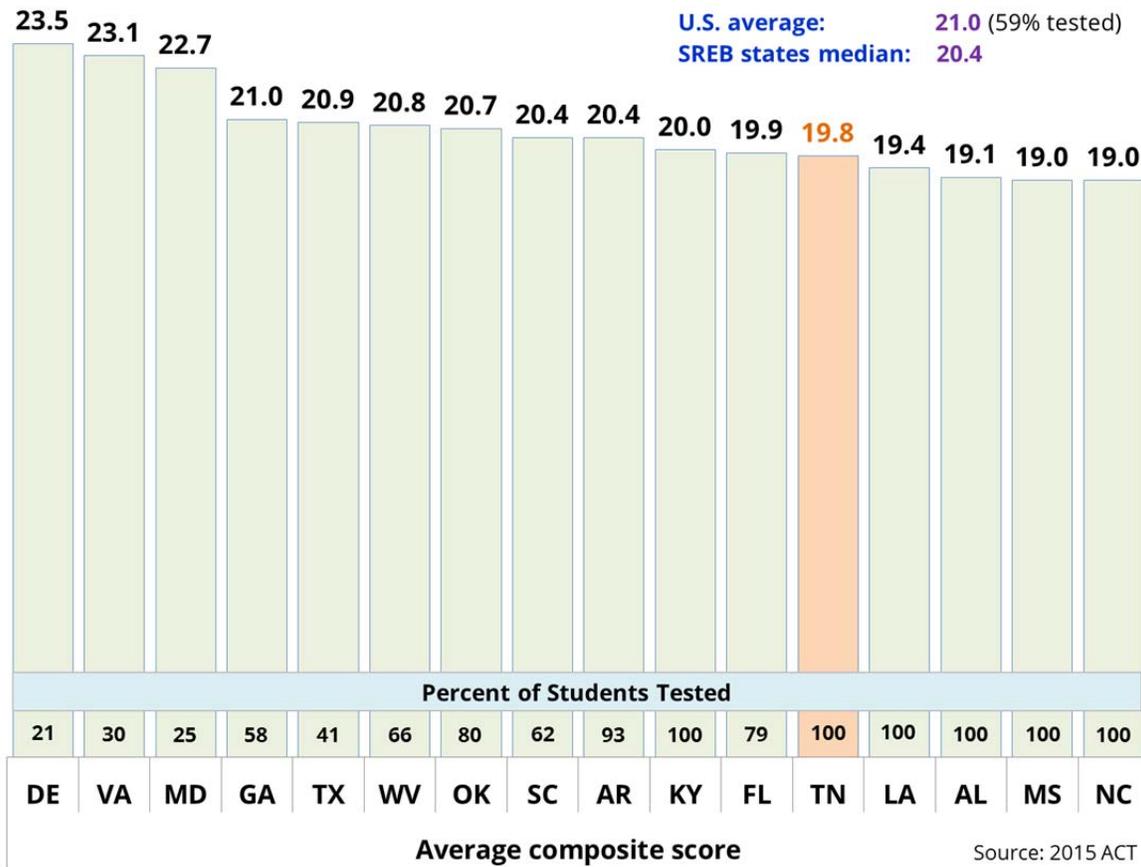


Note: Tennessee data for Asian students did not meet reporting standards.  
Source: National Assessment of Educational Progress: 2015.

Academic performance of secondary school students is a valid indicator of readiness for college and a reliable predictor of future college success.

Figure 2.1 depicts the educational progress of eighth-grade students in the nation, SREB states (excluding Tennessee), and Tennessee, as measured by students' performance on mathematics and reading tests. These tests were conducted in 2015 as part of the National Assessment of Educational Progress. Black students underperform in comparison to other ethnic groups, both in mathematics and reading, and are thus less academically prepared for college-level work. Asian students are the best-performing group; however, their data are not available for Tennessee. Black students in Tennessee score below the U.S. and SREB averages in mathematics; however, they perform on par in reading. Hispanic students in Tennessee score at the national or regional levels, or better, in both subjects.

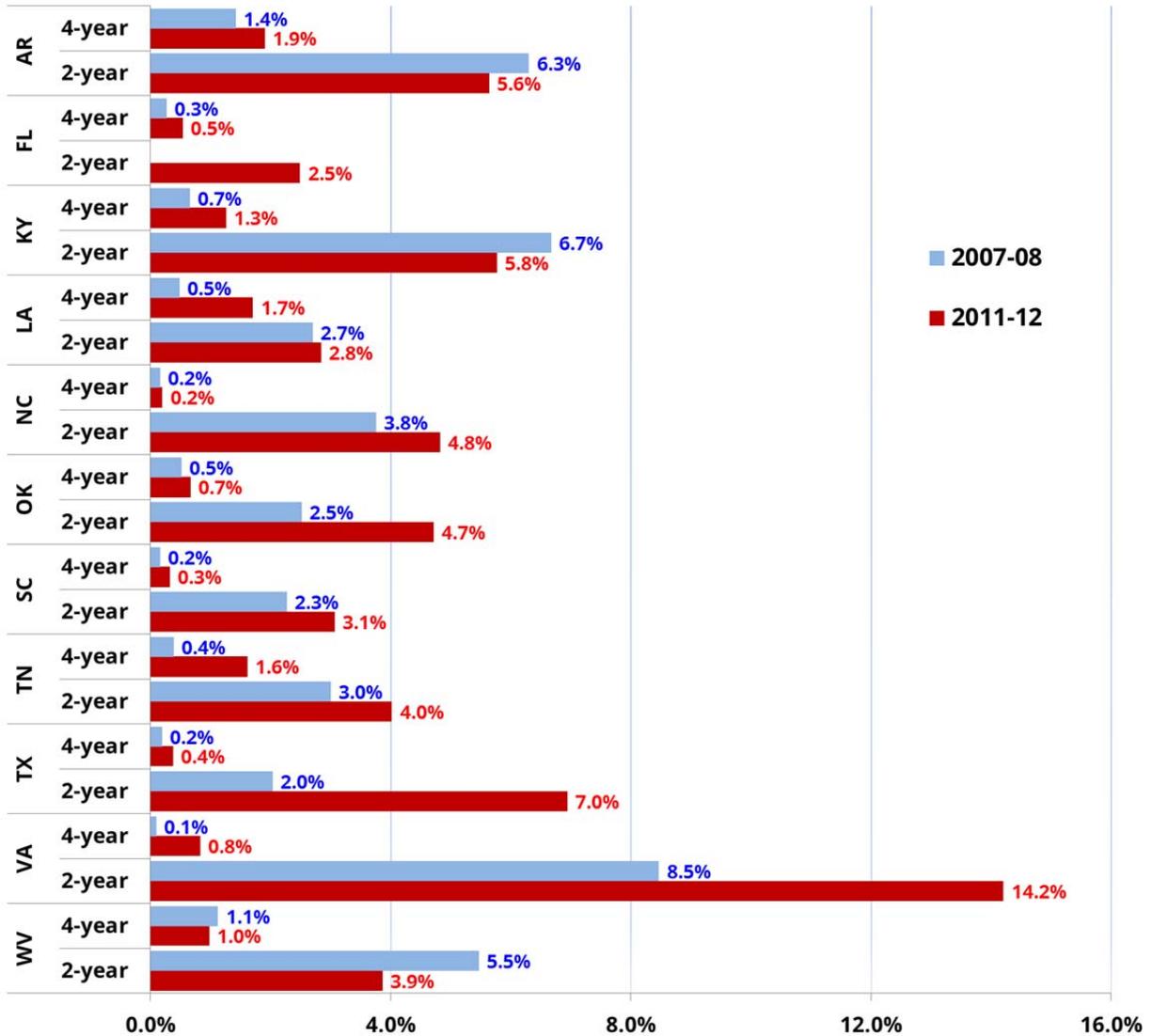
## 2.2. Average Composite ACT Scores by State: SREB States (2015)



At the individual level, ACT scores are another measure of readiness for college-level work, and a useful predictor of future academic performance. At the state level, states with higher average scores on this test produce larger numbers of high school graduates who are prepared for college. Figure 2.2 shows the average composite ACT score for each SREB state in 2015. When comparing state performance, one should be aware that the proportion of high school graduates tested in each state is different. These percentages range from 21 percent in Delaware (where SAT is mandatory) to 100 percent in states with a mandatory ACT testing—Kentucky, Louisiana, North Carolina, and Tennessee.

In 2015, Delaware had the highest average score (23.5), while North Carolina and Mississippi, both at 19, had the lowest performance among SREB states. Tennessee, with an average score of 19.8, ranked 12<sup>th</sup> among SREB states. In 2014, Tennessee also ranked 12<sup>th</sup> in the SREB region with the average score of 19.8 (not shown on the graph). However, these results are greatly affected by the percent of test takers and the voluntary / mandatory nature of college entrance exams. Tennessee is at the top of SREB states with 100 percent participation: it trails only Kentucky but is ahead of Louisiana, Alabama, Mississippi, and North Carolina.

### 2.3. High School Students' Share of Undergraduate Credit Hours Attempted: 2007-08 and 2011-12

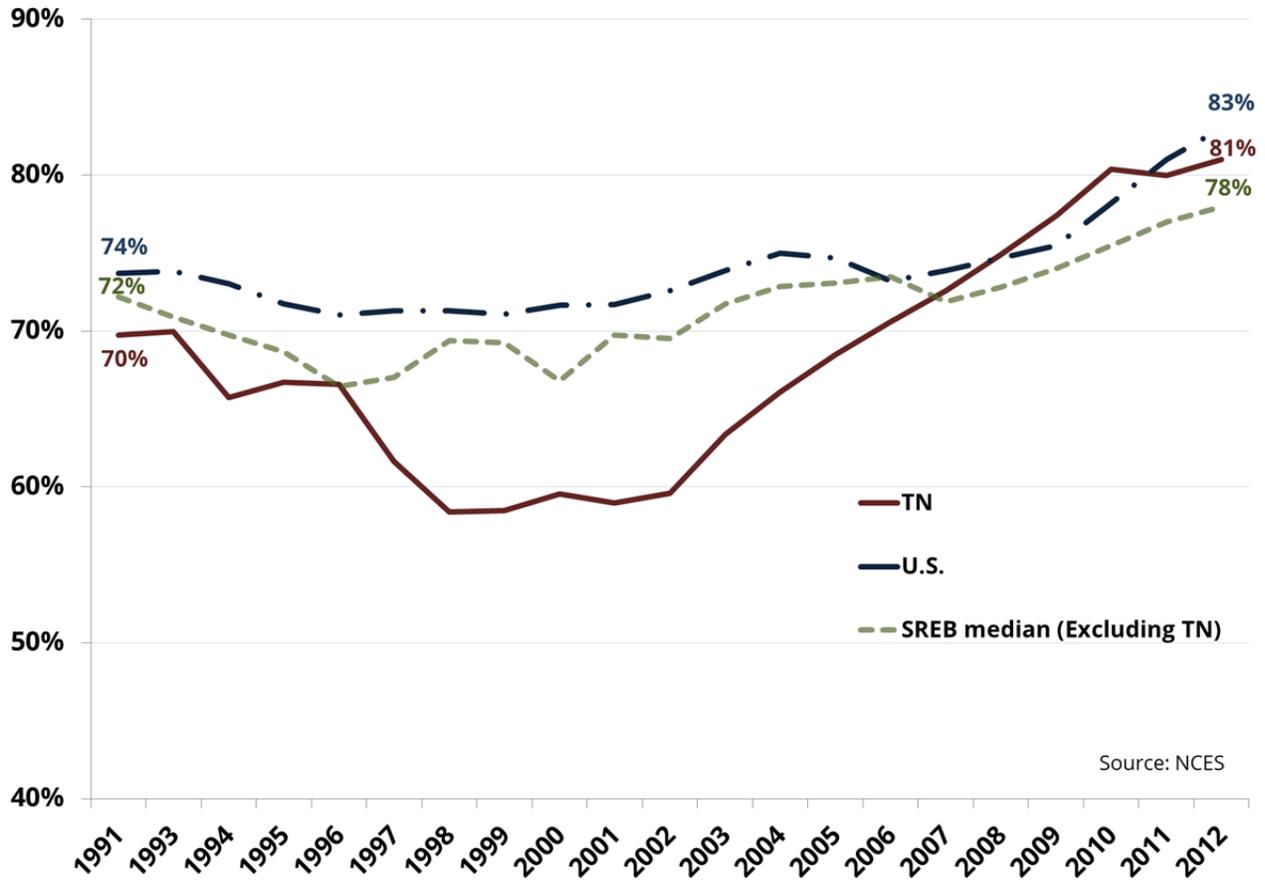


Source: SREB. Data are not available or only partially available for MD, MS, DE, AL, and GA.

Students taking higher education courses while in high school are more likely to enroll and succeed in college. Positive trends in high school student involvement in higher education may attest to greater college accessibility and the effectiveness of relevant state policies.

Figure 2.3 displays changes in the percent of undergraduate credit hours taken by high school students at 2- and 4-year institutions from 2007-08 to 2011-12 for select SREB states. This metric measures high schoolers' involvement in higher education. Tennessee shows solid, if not accelerated, progress on this metric at both community colleges and universities. To some extent, this can be attributed to the lottery-sponsored Dual Enrollment Grant program.

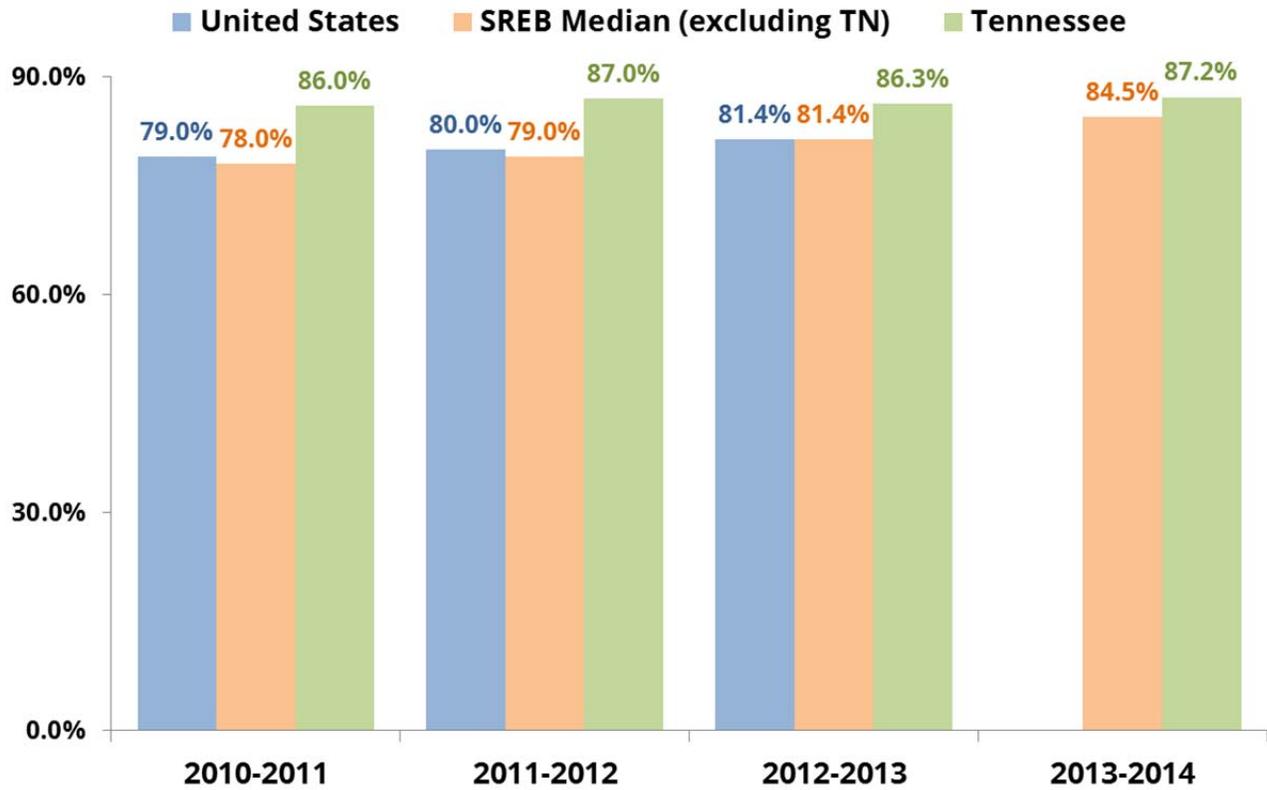
## 2.4. Averaged Freshman Graduation Rates from Public High Schools: U.S., SREB states (excluding Tennessee), and Tennessee (1991-2012)



High school graduates are the primary source of postsecondary education enrollees. Changes in high school graduation rates affect the pool of potential college students; increasing rates may offset the effects of the reduced size of college-age population caused by demographic shifts. The Averaged Freshman Graduation Rate (AFGR) is an estimate of the percentage of an entering high school freshman class graduating from high school in four years. It is estimated as the total number of diploma recipients in a year divided by the average membership of the 8th-grade class four years prior, the 9th-grade class three years prior, and the 10th-grade class two years prior. The AFGR differs from the graduation rates in Figure 2.5; thus, Figures 2.4 and 2.5 are not directly comparable.

Figure 2.4 shows public high school graduation rates for the nation, SREB, and Tennessee. From 1991 to 2012, these rates have grown for the majority of the states and the nation as a whole. Since 1998 (the lowest point in the period), Tennessee's graduation rate has risen by 23 percentage points, surpassing the SREB median by a large margin. In 2012, the high school graduation rate in the state reached 81 percent, trailing the national average of 83 percent.

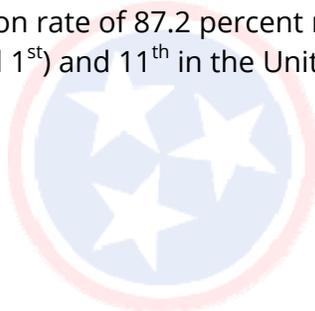
## 2.5. Public High School Graduation Rate: U.S., SREB states (excluding Tennessee), and Tennessee (2011-2014)



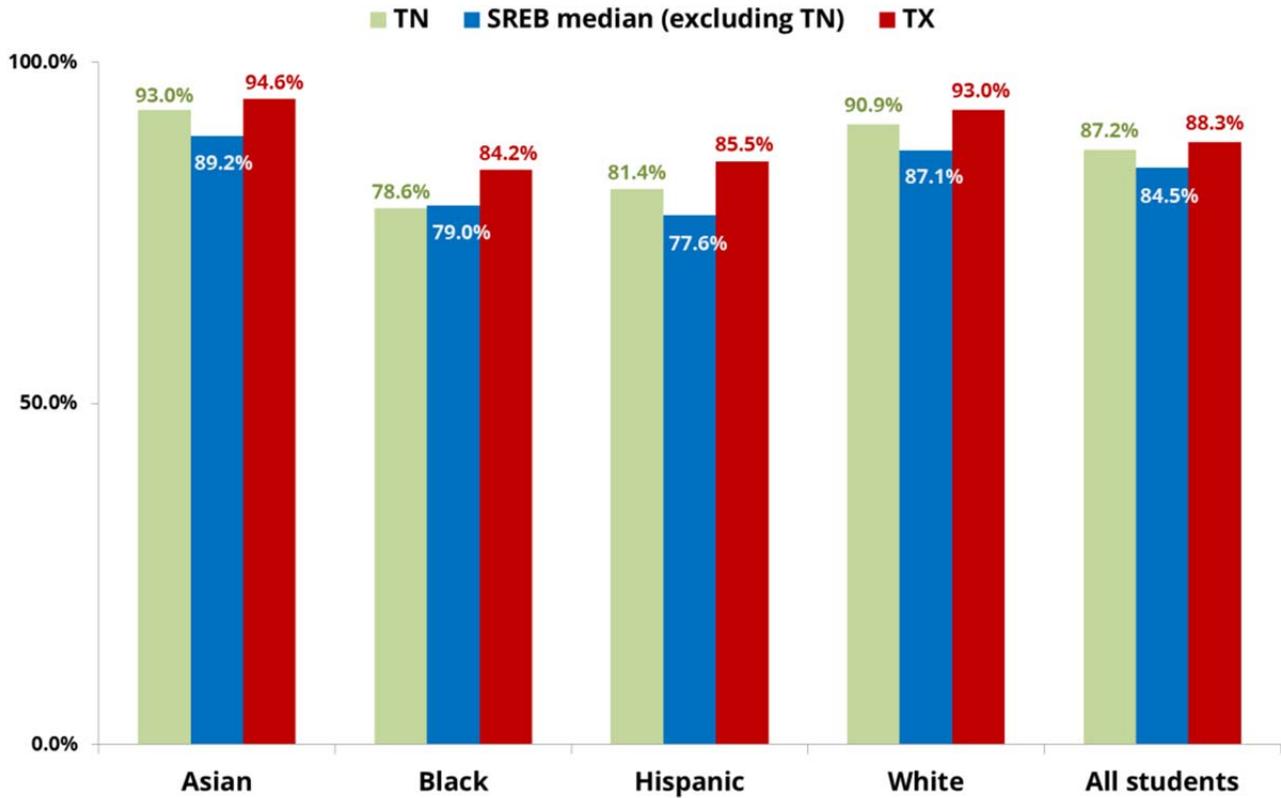
In 2011, the U.S. Department of Education introduced a new, common metric for four-year high school graduation rates across states. This new measure—*Adjusted Cohort Graduation Rate (ACGR)*—is more accurate than the one used previously (reported in Figure 2.4); however, it is not directly comparable to the data reported in the prior years.

Figure 2.5 compares the current high school graduation rates for the nation, SREB states (The median for the 15 states, excluding Tennessee), and Tennessee from 2010-11 to 2013-14. The national estimate for 2013-14 is not yet available.

The new data show that Tennessee continues to demonstrate consistently high graduation rates, which surpasses that of the nation and the median for the other SREB states. In 2014, Tennessee with a graduation rate of 87.2 percent ranked 2<sup>nd</sup> among the SREB states (Texas, with 88.3 percent, ranked 1<sup>st</sup>) and 11<sup>th</sup> in the United States.



## 2.6. Public High School Graduation Rate by Race / Ethnicity: Tennessee, SREB (excluding Tennessee), and Texas (2013-14)



Source: US Department of Education

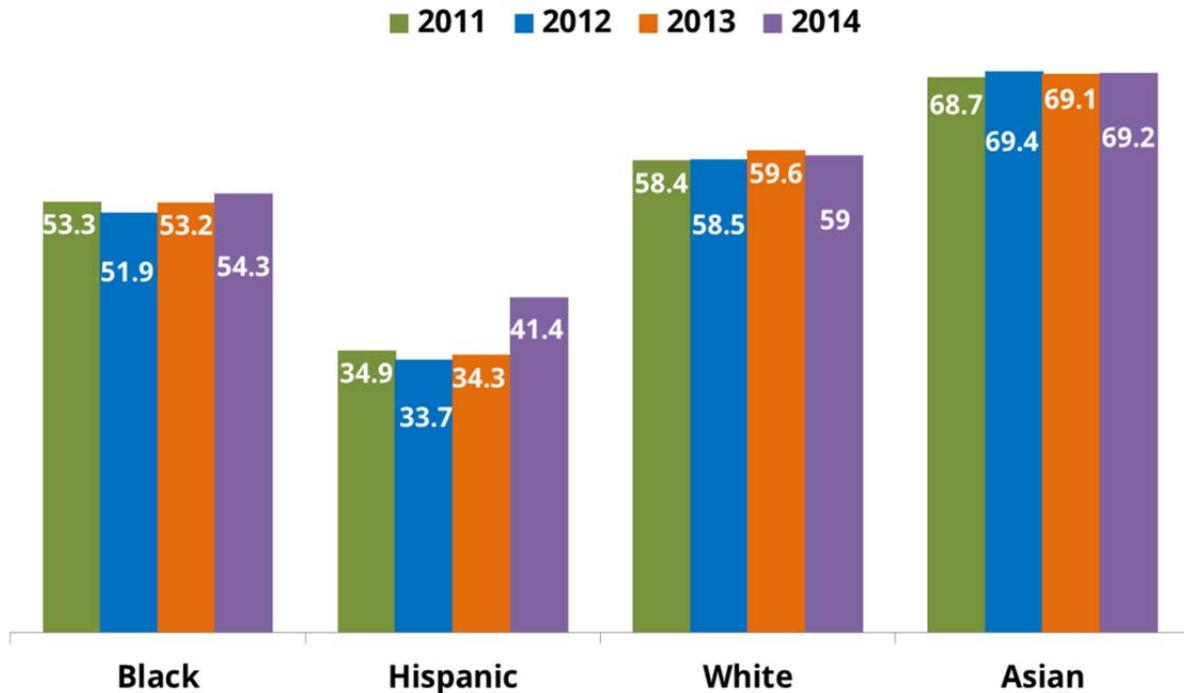
Figure 2.6 presents public high school graduation rates by race/ethnicity for Tennessee, Texas, and SREB states (excluding Tennessee) in 2013-14. The national data were not available for this year at the time of this report. Texas was selected for comparison because it is the SREB state with the highest high school graduation rate.

The position of Tennessee relative to Texas and the SREB median remains constant for all students and across different racial/ethnic groups. Tennessee generally does better than a typical SREB state and trails Texas's performance. Only Black students in Tennessee have a graduation rate that is on par with the SREB median.

Regarding racial groups, Asian students demonstrate the highest graduation rate, followed by white students. Black and Hispanic students show lower graduation rates from public high schools. In 2013-14, the graduation rate gap between white and Black students was 12.3 percentage points in Tennessee, 8.1 percentage points in SREB, and 8.8 percentage points in Texas.

### SECTION III. STUDENT PARTICIPATION

#### 3.1. Tennessee College-going Rates by Race / Ethnicity: 2011-2014

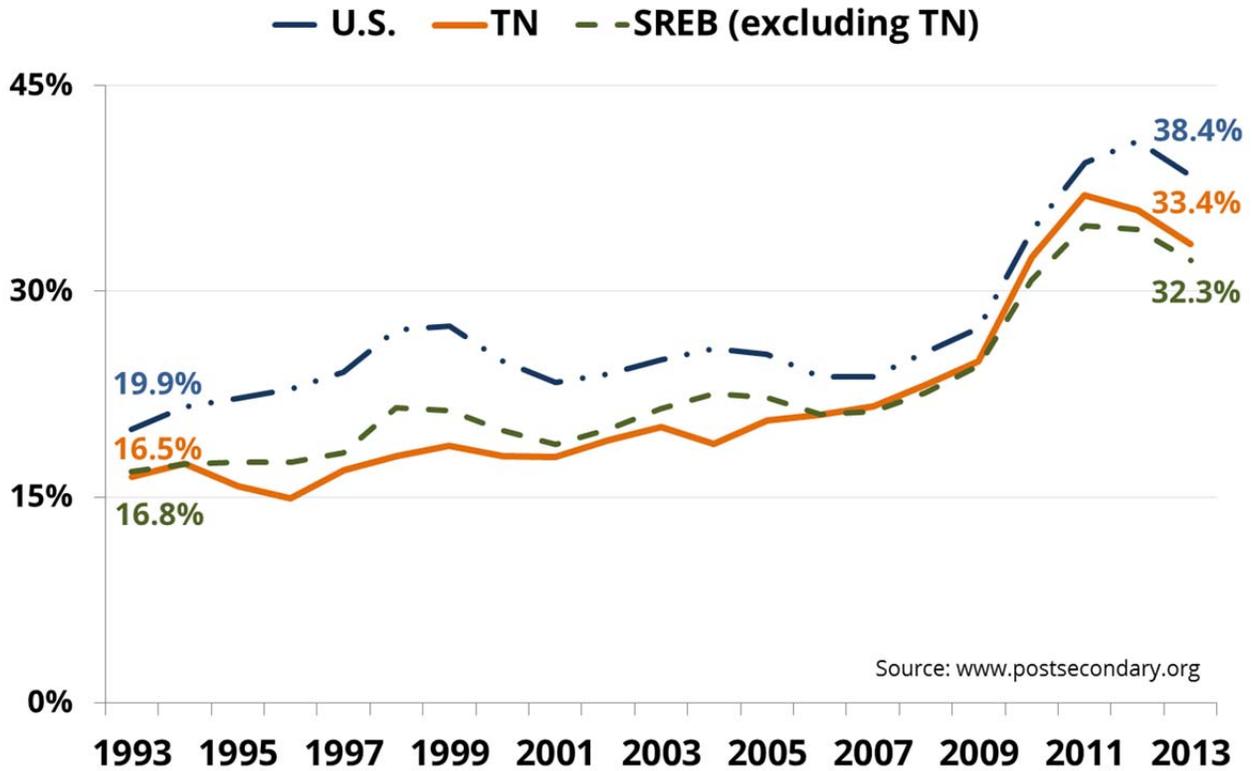


Sources: THEC, National Student Clearinghouse, TN Dept. of Education

The college-going rate is defined as a percentage of high school graduates who enrolled in college anywhere in the U.S. in the fall semester following high school graduation. This measure is critical for identifying issues with higher education access and participation. It is also important to realize that this metric captures only traditional college-going patterns (immediate enrollment) and does not account for delayed enrollment or non-traditional students.

Disparity among racial/ethnic groups is one of the most severe issues in college participation. Figure 3.1 shows college-going rates for major racial/ethnic groups in Tennessee over time. From 2011 to 2014, the college-going rates for most groups have been stable. While having the lowest college-going rate among all ethnic groups in Tennessee, Hispanics have shown the greatest increase from 34.3 percent in 2013 to 41.4 percent in 2014. Hamblen and Warren counties had the greatest increase in Hispanics' college-going rate, 27.9 and 14.7 percentage points, respectively (not shown on the graph). The postsecondary participation rates for Black high school graduates have been above 50 percent. White graduates show a higher rate, approaching 60 percent. Asian graduates, at 69.2 percent in 2014, have had the highest college-going rate of all racial/ethnic groups during this period.

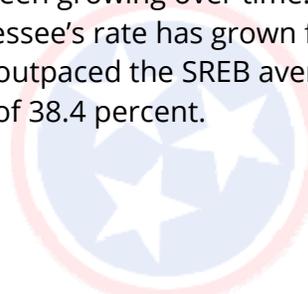
### 3.2. College Participation Rates for Students from Low-income Families: U.S., SREB states (excluding Tennessee), and Tennessee (1993-2013)



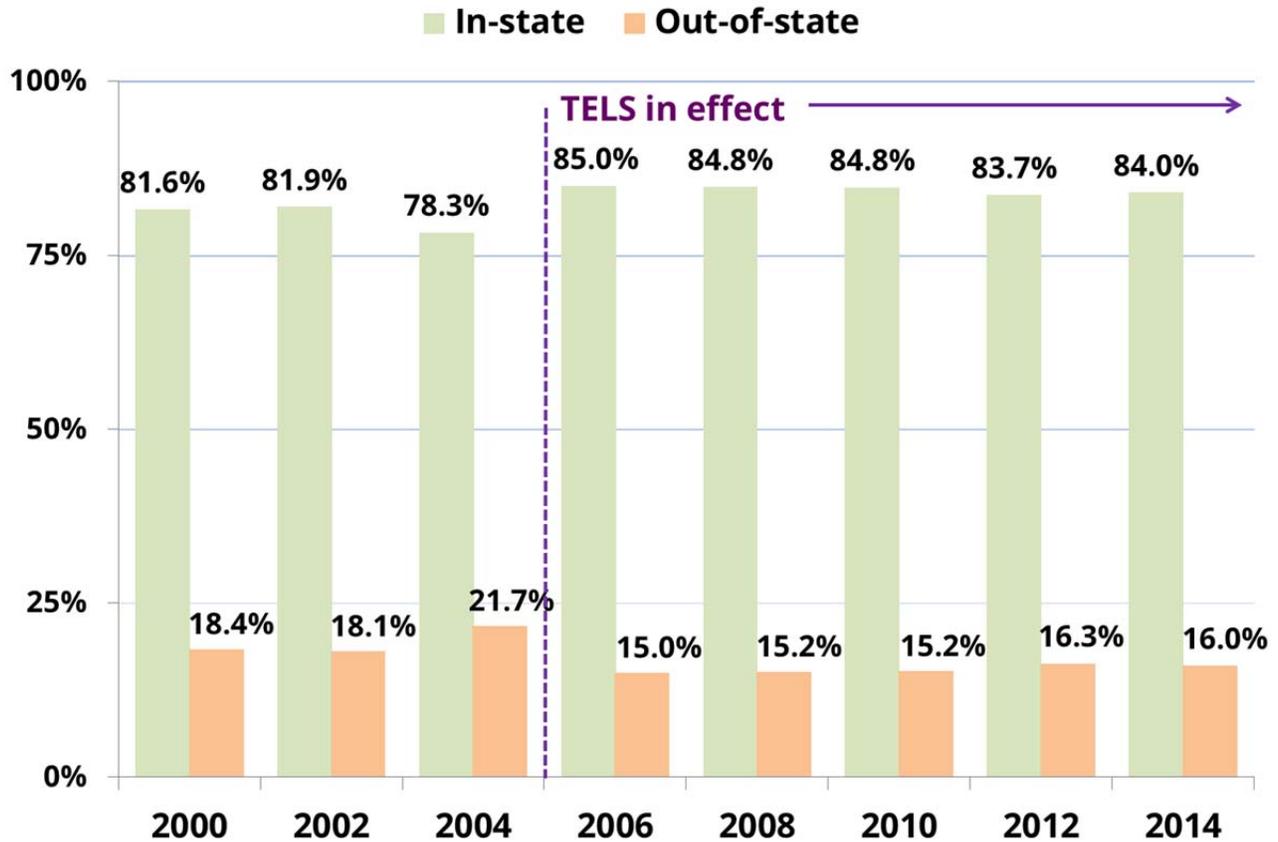
Children from low-income families—defined as those who are approved for free or reduced-price school lunches (FRL)—have the greatest financial obstacles to obtaining a higher education. Positive changes in the proportion of these students in the college-going population attest to the success of states’ efforts to ensure greater access to, and affordability of, postsecondary education.

College participation rates for students from low-income families are defined as the ratio of the number of undergraduate dependents receiving Pell Grants to the number of children in low-income families (FRL 4-9<sup>th</sup> graders, nine years earlier).

Figure 3.2 shows that the share of the K-12 student population from low income families pursuing higher education has been growing over time. This is true nationwide, for SREB states, and for Tennessee. Tennessee’s rate has grown from 16.5 percent in 1993 to 33.4 percent in 2013. Tennessee has outpaced the SREB average since 2007. However, in 2013 it still trailed the national average of 38.4 percent.



### 3.3. Destination of College-going Recent Tennessee High School Graduates (Fall 2000 – Fall 2014)

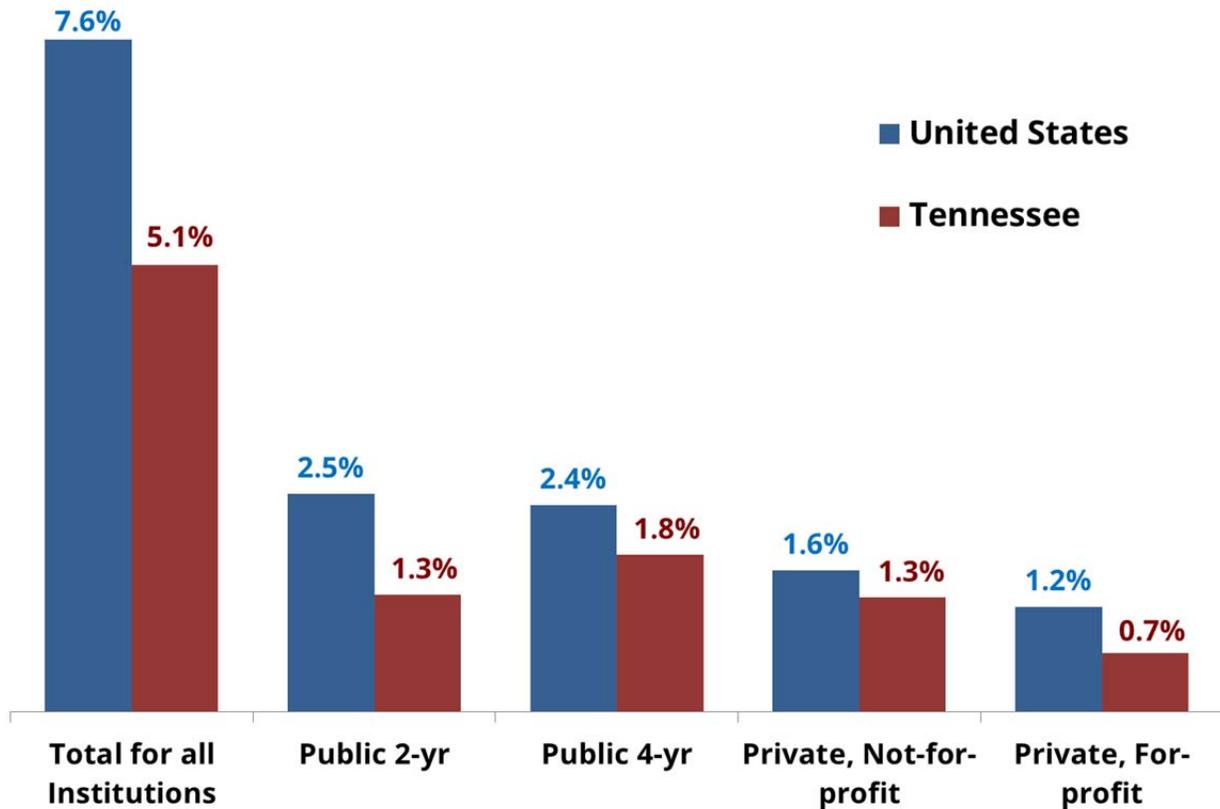


Source: THEC analysis of IPEDS residence and migration data

Decisions of college-bound high school graduates about where to attend higher education have critical implications for state economies. While in college, students will contribute to the state's economy through tuition and cost of living. However, more importantly, many of these students will remain in the state after graduation, strengthening its labor force.

One of the key goals of the Tennessee Education Lottery Scholarship (TELS) program is to retain the best and brightest students in the state. Figure 3.3 shows that since 2004, the year TELS was implemented, a greater percentage of recent Tennessee high school graduates are enrolling in state institutions. After an initial increase in the proportion of Tennessee high school graduates opting for in-state institutions, this ratio has remained stable over time at approximately 85 percent. In the fall of 2014, the percent of recent Tennessee high school graduates enrolling in the state's institutions was exactly 84 percent, slightly higher than 83.7 percent in 2012.

### 3.4. Adult Participation Rate: U.S. and Tennessee (2013) \*

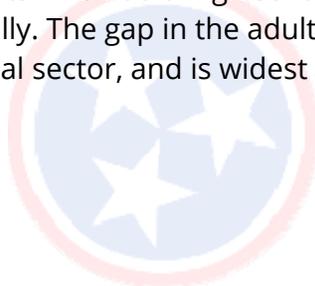


\* Adult enrollment as a percentage of adults 25+ with a high school diploma.  
Unlike prior reports, the estimates also include HS graduates with some college but no college degree

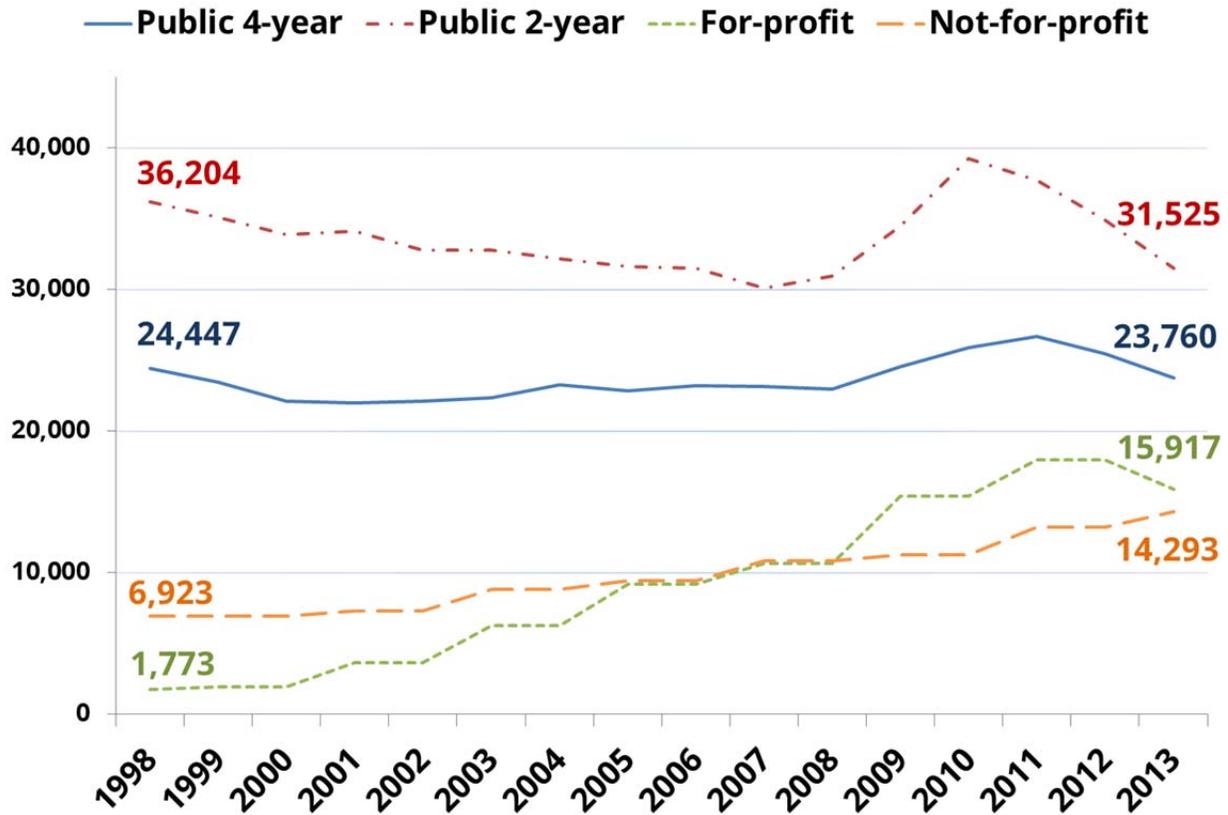
Sources:  
IPEDS, ACS

Participation of non-traditional students in higher education is crucial for a number of reasons. First, enrolling (and graduating) more adults enables states to move toward a more educated citizenry, economic prosperity and competitiveness, and enhanced social mobility. Second, this metric shows the extent of states' commitment to life-long learning and providing educational opportunities to all citizens. Finally, adult participation reflects demographic shifts in student populations and college access.

Figure 3.4 presents adult participation rates across various institutional types in the U.S. and Tennessee in 2013. Participation rates of non-traditional aged students in Tennessee are far below the national average. Public and private higher education institutions in the state enrolled 5.1 percent of adults who had a high school diploma but no college degree, compared to 7.6 percent nationally. The gap in the adult participation rate in Tennessee and the U.S. differs by institutional sector, and is widest at public two-year institutions.



### 3.5. Tennessee Undergraduate Enrollment: 25 Years Old and Above

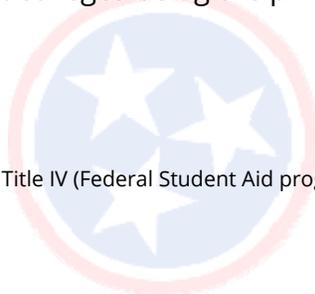


Sources: THEC, IPEDS

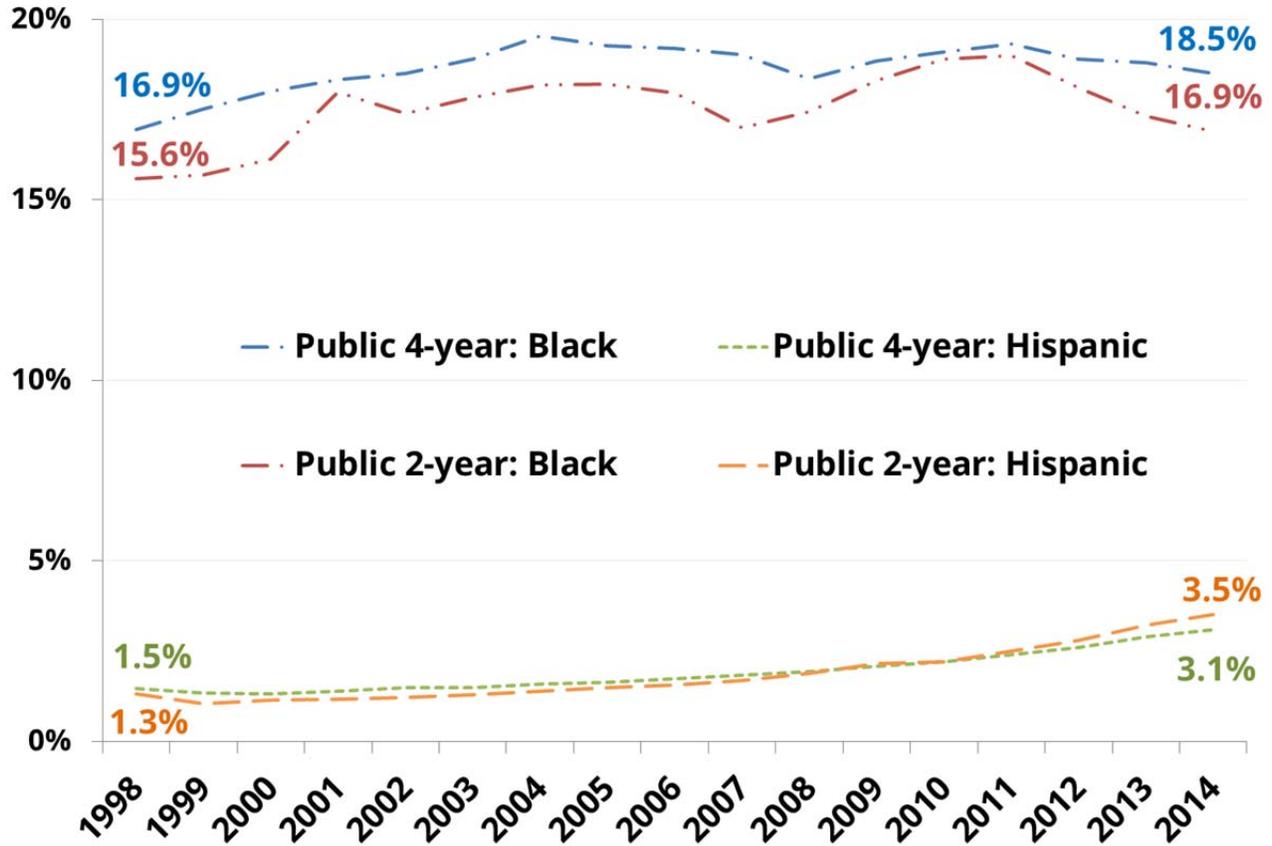
The share of nontraditional students attending postsecondary institutions has been steadily increasing. According to the National Student Clearinghouse Research Center (2012), nationwide, 38 percent of all undergraduate and graduate students are adult learners.

Figure 3.5 shows the enrollment trends of Tennessee adult students. Until 2008, adult enrollment declined steadily at Tennessee’s public 2-year institutions, and then started to increase. However, adult enrollment in community colleges has declined since 2011. Public universities have also experienced a decline in adult enrollment. Private institutions have enrolled increasing numbers of adult students over the last 15 years. Despite a recent dip in for-profit institutions, adult enrollment at private institutions increased by 247 percent from 1998 to 2013, with for-profit colleges being the primary contributor to the growth of this sector.<sup>2</sup>

<sup>2</sup> For-profit institutions’ data are available for Title IV (Federal Student Aid program) participating institutions only, and do not reflect the total for-profit enrollment.



### 3.6. Black and Hispanic Student Enrollment Share: Tennessee Public Institutions (1998-2014) \*

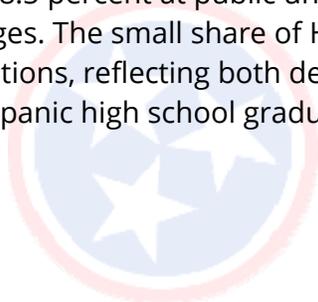


\* Total enrollment

Source: THEC

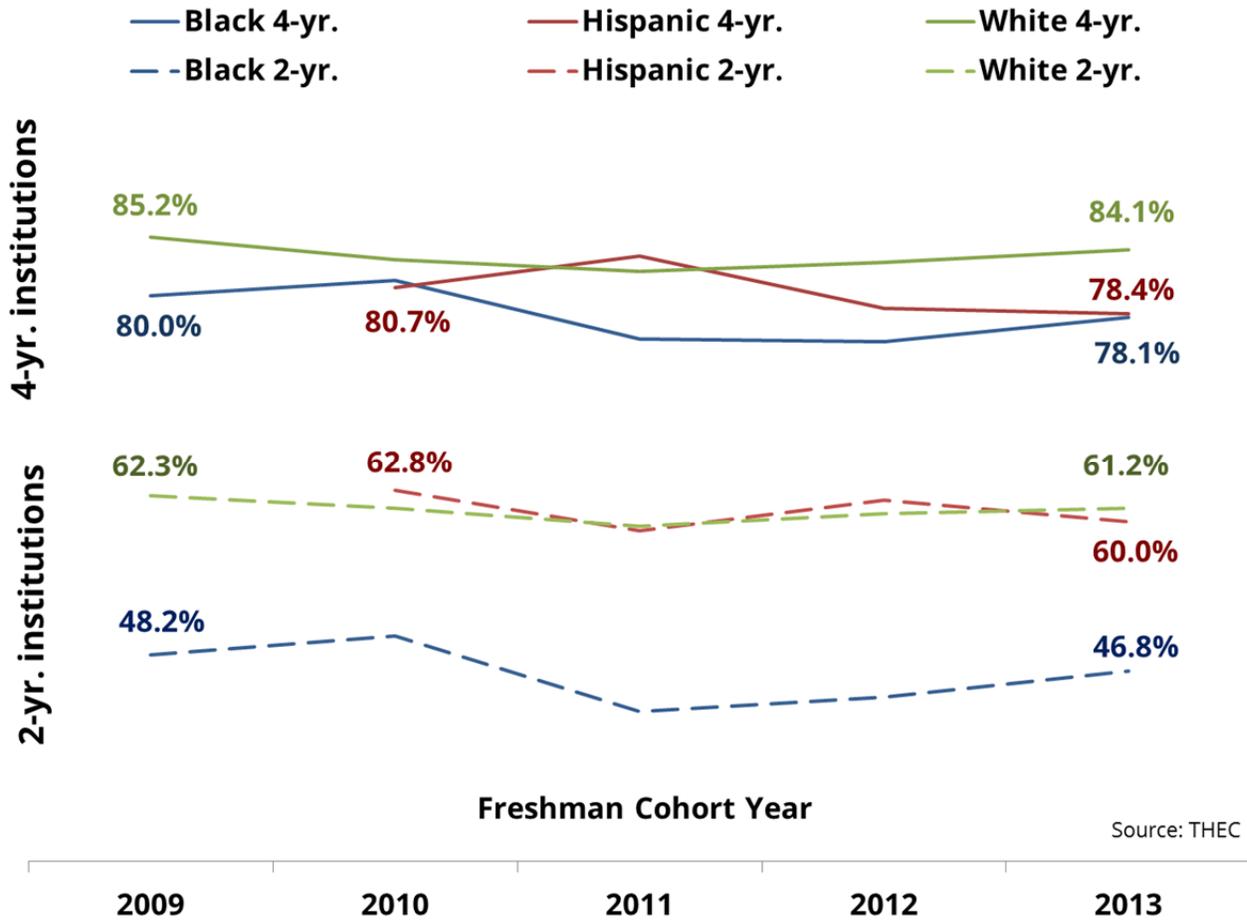
Ethnic diversity in the student body is related to a number of educational outcomes, and is reflective of a commitment to equal access to education for all demographic groups. Reflecting the changes in the Tennessee’s population and the subpopulation of young people (Figure 1.9), the race and ethnicity profile of higher education students in the state has changed over time.

Figure 3.6 shows a steady, if small, increase in nonwhite student participation in public higher education. Between 1998 and 2014, the enrollment share of Black students increased from 16.9 percent to 18.5 percent at public universities, and from 15.6 percent to 16.9 percent at community colleges. The small share of Hispanic students has also steadily increased at both types of institutions, reflecting both demographic shifts and changes in the college-going behavior of Hispanic high school graduates.



**SECTION IV. STUDENT PROGRESSION AND SUCCESS**

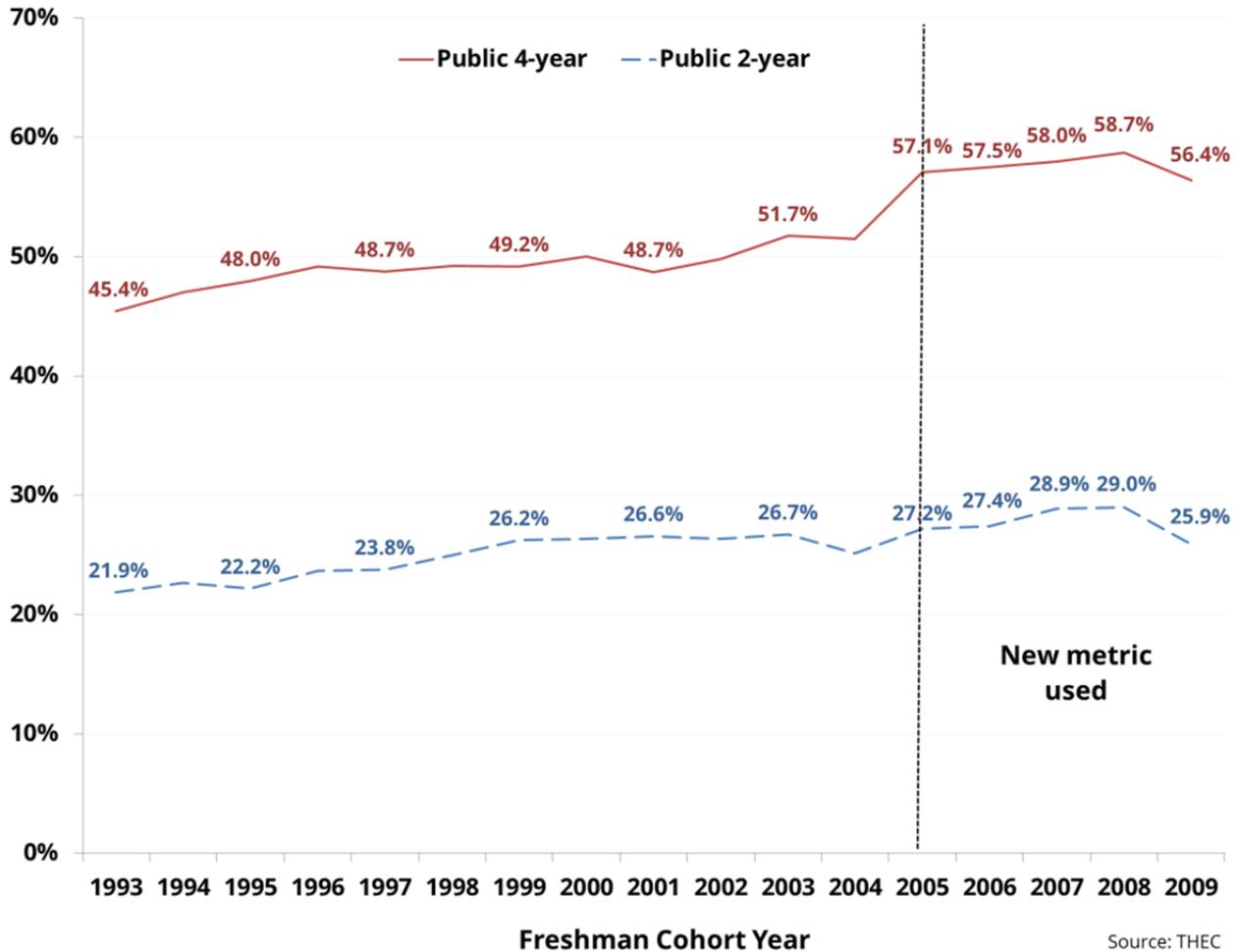
**4.1. One-year Retention Rate for Tennessee Public Institutions:  
 Freshman Cohorts Fall 1993 – Fall 2013**



This section uses three indicators of student progression and success: one-year retention rate, six-year graduation rate, and awards earned by demographic group (Figures 4.1-4.5). The one-year retention rate (the proportion of freshmen who continue their studies into the fall of their sophomore year) is important because it is linked to the probability of graduation, and has implications for outcomes-based funding.

Figure 4.1 shows that the one-year retention rate is much higher in public universities than in community colleges across major racial/ethnic groups. Although white students generally have a higher retention rate than other groups in public universities, Hispanic students’ retention in two-year institutions is almost identical, eclipsing white students’ performance in two out of the four last years. Black students trail the other groups on this indicator, almost catching up with Hispanics in public universities in fall of 2014. Retention of Black students at community colleges has been consistently low, below 50 percent.

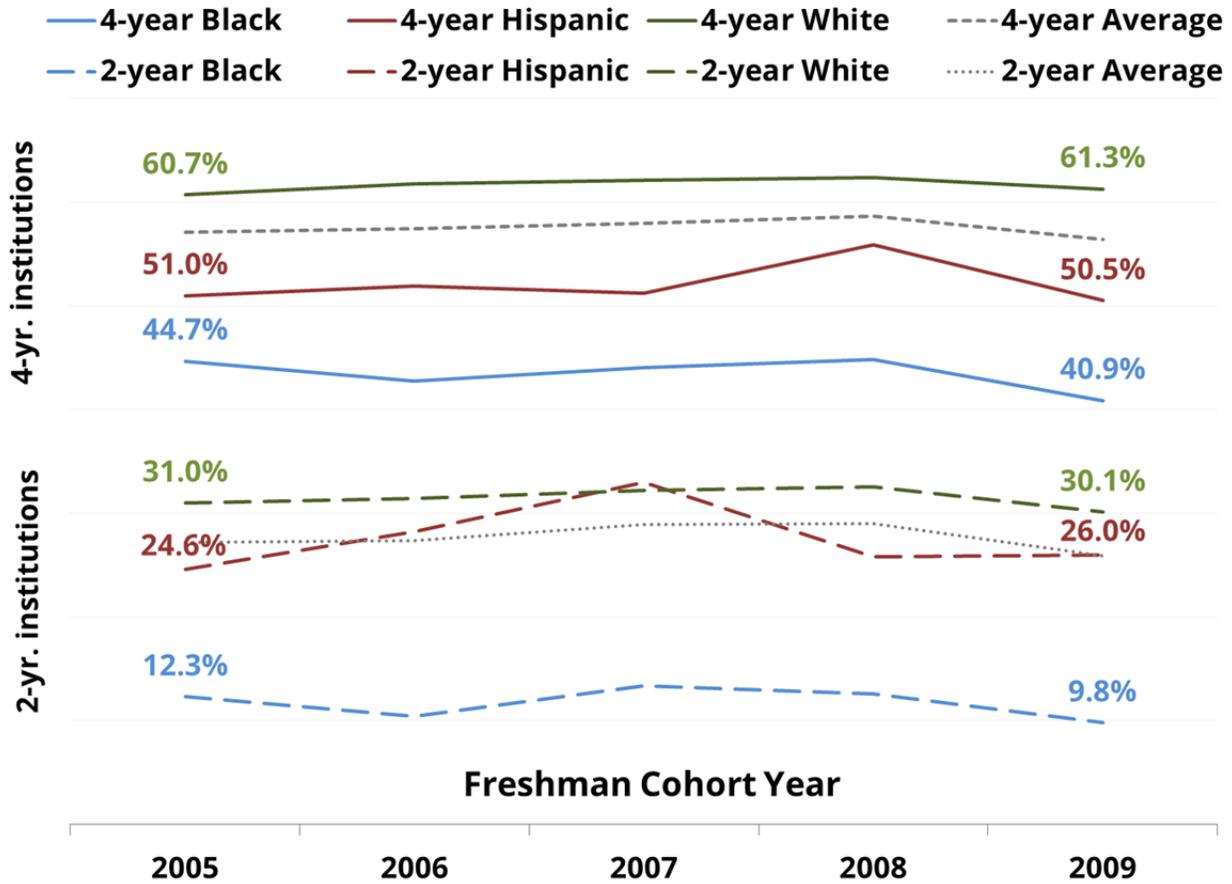
#### 4.2. Six-year Graduation Rate for Tennessee Public Institutions: Freshman Cohorts 1993–2009



The six-year graduation rate is a common measure of student success and institutional productivity. In Tennessee, this metric is essential for meeting educational attainment goals set by the Drive to 55 and for public colleges’ outcomes-based funding. Traditionally, two-year institutions have lower graduation rates than their four-year counterparts. This is due to student demographics, lower retention rates, higher transfer-out rates, and the enrollment of many students who do not intend to pursue an associate degree.

Figure 4.2 shows the six-year graduation rate for each full-time freshman cohort from 1993 (graduation through 1998-99) through 2009 (graduation through 2014-15). The new metric, which uses additional data from the National Student Clearinghouse, has been applied since the 2005 cohort. Thus, the more recent graduation rates are not directly comparable to those prior to 2005. There has been a slight drop in the six-year graduation rate for 2014-15 graduates in both institutional sectors.

### 4.3. Six-year Graduation Rate for Tennessee Public Institutions by Race / Ethnicity: Freshman Cohorts 2005–2009



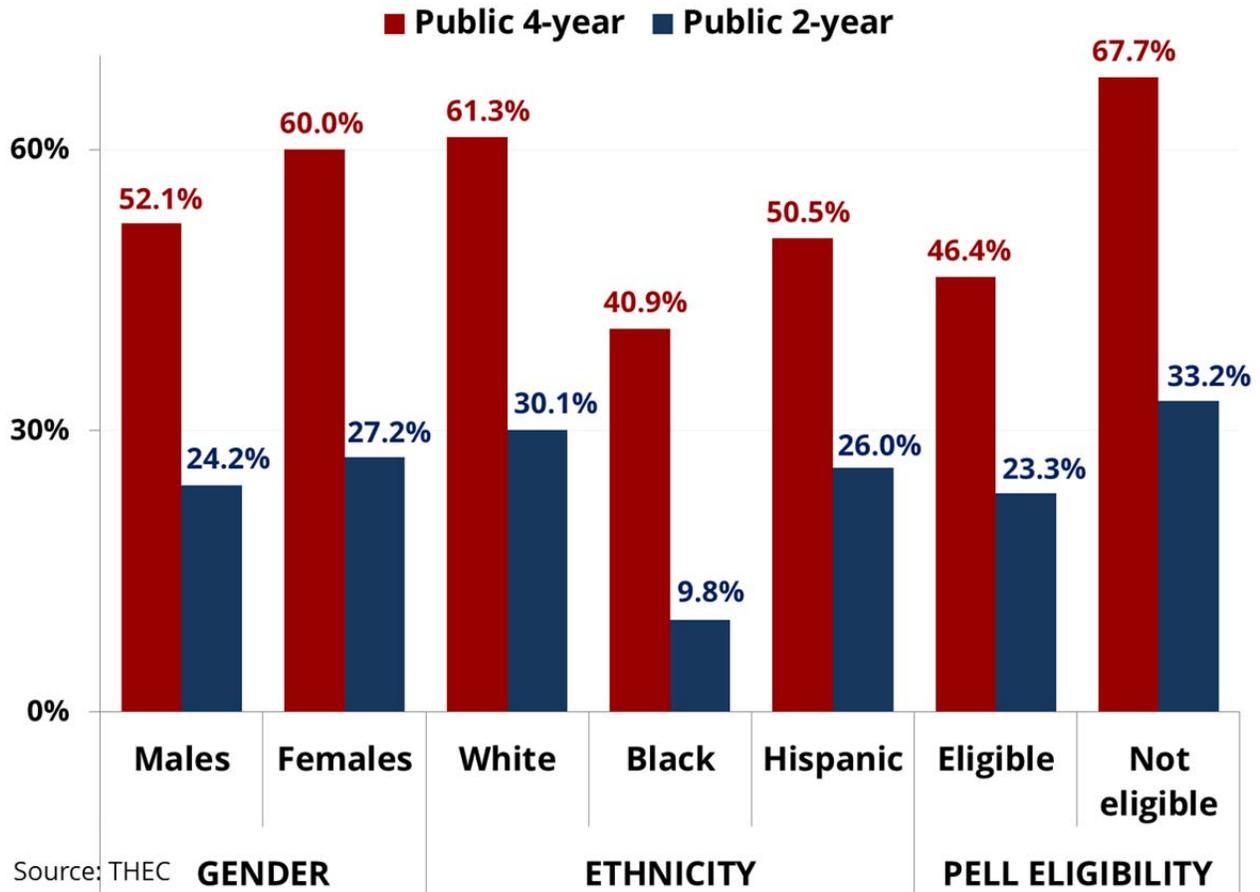
Source: THEC

The overall six-year graduation rate (Figure 4.2) masks differences among demographic groups. Sorting this indicator into various categories—racial/ethnic, gender, and income groups—allows for a closer look at how institutional sectors are serving students in terms of their measurable college success.

Figure 4.3 presents six-year graduation rates for freshman cohorts of Black, Hispanic, and white students from 2005 through 2009. The dotted lines for the average sectoral rates correspond to the ones in Figure 4.2.

At public universities and community colleges, white students perform better than average, while graduation rates for Black students are below average. Hispanic students are below average in universities, but are generally on par with the average rate at community colleges. These trends have been consistent over time. Since 2005, white students' performance has stayed the same. In 2009, Black students experienced a drop in both sectors, and Hispanic students showed a decline in universities.

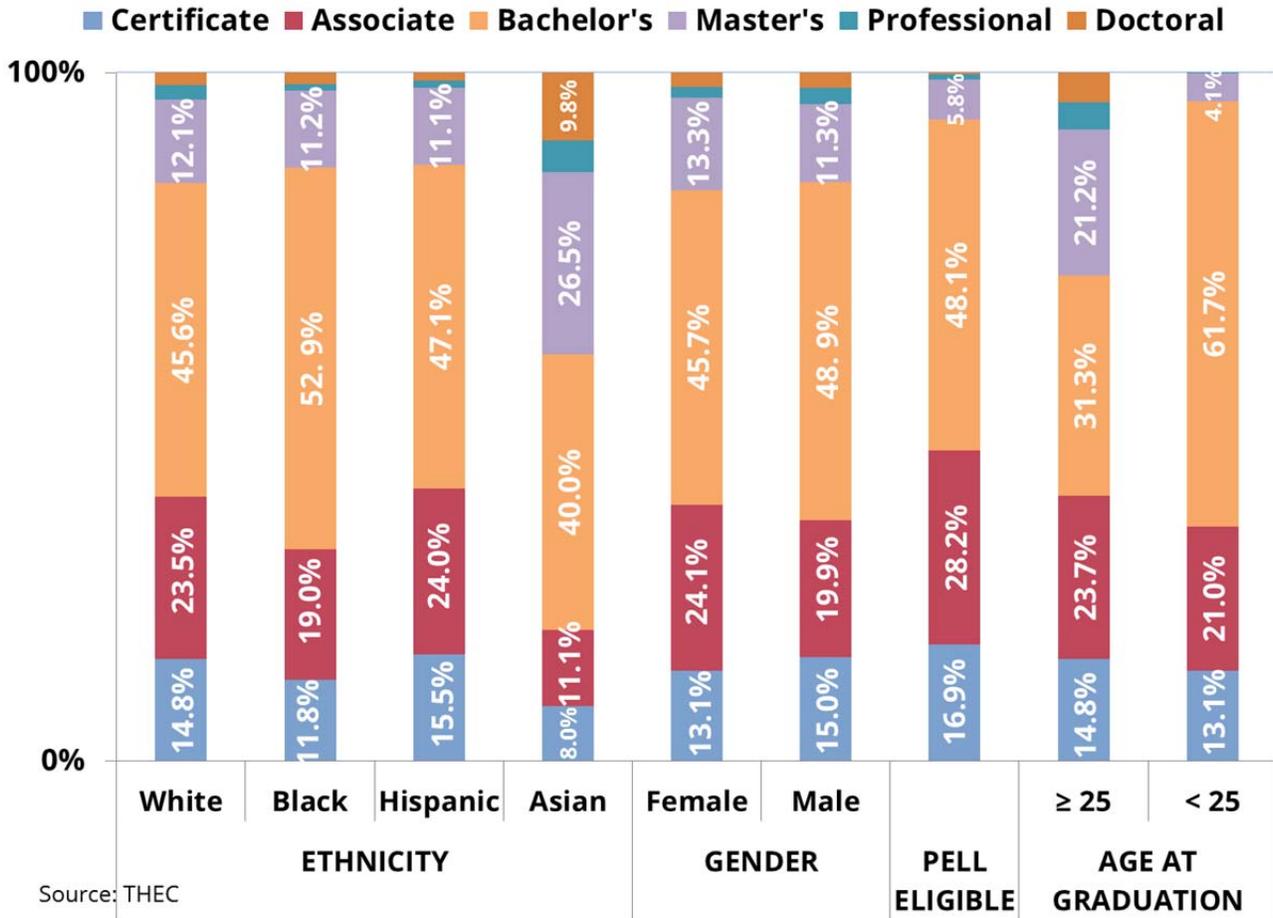
#### 4.4. Six-year Graduation Rate for Tennessee Public Institutions by Gender, Race / Ethnicity, and Pell Eligibility: 2009 Cohort



Characteristics such as gender, race, and socioeconomic status greatly affect students' likelihood of graduation. Figures showing graduation rates for these subpopulations allow legislators and other decision makers to see how likely different types of students are to graduate, and determine where improvements need to be made.

Figure 4.4 shows the six-year graduation rate for the 2009 freshman cohort by gender, race/ethnicity, and Pell eligibility. For every group, graduation rate at public universities is much higher than at two-year institutions. Females graduate at a higher rate than males in both institutional sectors. White students have the highest graduation rate, followed by Hispanic and Black students. As expected, students who qualify for federal Pell grants do not graduate as often as those students who do not qualify for Pell. The graduation rate of Pell-eligible enrollees averages 34.2 percent for all public institutions, and is much lower than the statewide average of 42.9 percent (not shown on the graph).

### 4.5. Total Awards by Award Type, Gender, Race / Ethnicity, and Pell Eligibility (2014-2015)

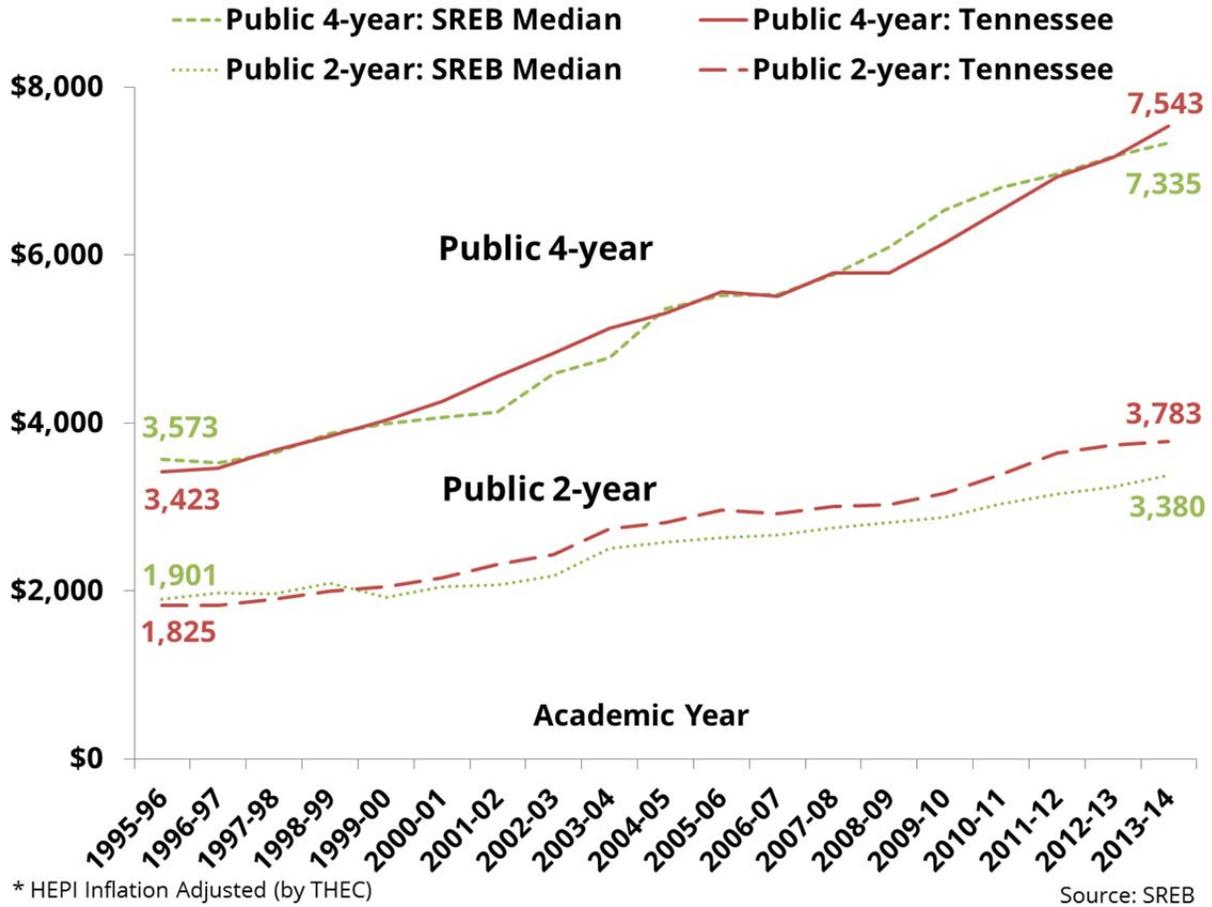


The relationship between educational attainment and economic vitality (Figure 1.1) provides for the need to increase the number of postsecondary degrees. Understanding what types of degrees are awarded is an important part of examining progress toward the Drive to 55.

Figure 4.5 shows the distribution of degrees awarded at public Tennessee institutions in 2014-15, by select student demographics. The most common award across all demographic groups is the bachelor's degree; the associate degree generally holds the second position. Although, in absolute numbers, white students earn more awards than nonwhite students, and females earn more degrees than males, the distribution of awards within each group differs only slightly. For adult students, the share of bachelor's degrees is smaller than the combined share of certificates and associate degrees. Of note, adults earn lower-level certificates at nearly the same rate as traditional age students. Pell-eligible students earn associate degrees in a greater proportion than any other demographic.

**SECTION V. STATE HIGHER EDUCATION FINANCE**

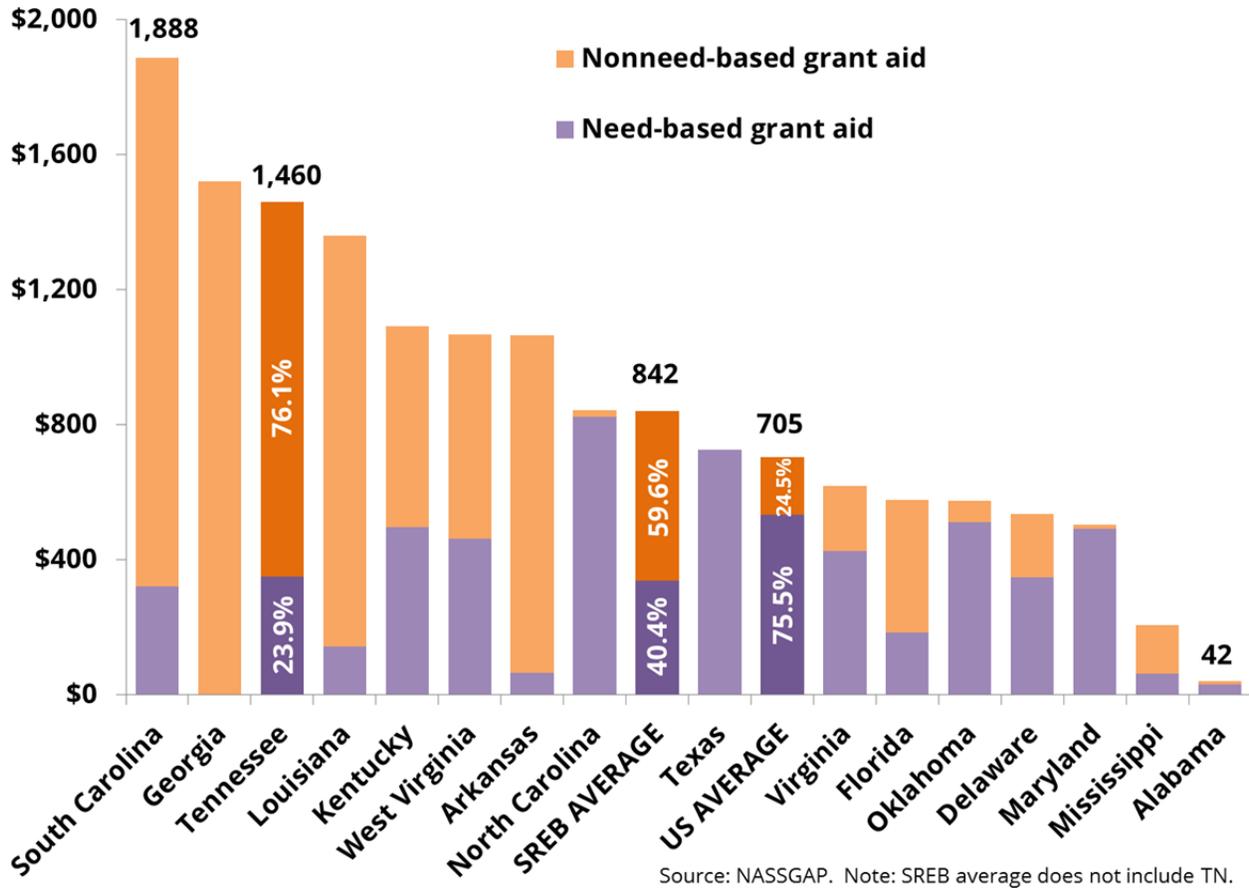
**5.1. Median Annual Tuition in Constant 2013 Dollars:  
 SREB states (excluding Tennessee) and Tennessee**



Comparison of tuition in Tennessee to the tuition in neighboring states allows for gauging how well Tennessee encourages its residents to attend higher education in-state. Nationally, the cost of higher education is climbing at a rate that forces many families to seriously consider cost when deciding where their child will enroll. With federal and state aid making up a smaller portion of the overall cost of college, legislators should be mindful of the influence that price has on a student entering college or entering the workforce.

Figure 5.1 demonstrates that, on average, changes in the median university tuition in Tennessee have been in step with the rise of average tuition across the other 15 SREB states. Tennessee universities remain as affordable as four-year institutions in other SREB states. However, annual tuition charges at public two-year institutions in Tennessee have outpaced the growth in the median tuition in other SREB states. Even with these greater than average increases, community colleges remain an affordable option in Tennessee.

### 5.2. Total State Grant Aid (Need and Non-need) per Public and Private Undergraduate FTE (2013-2014)

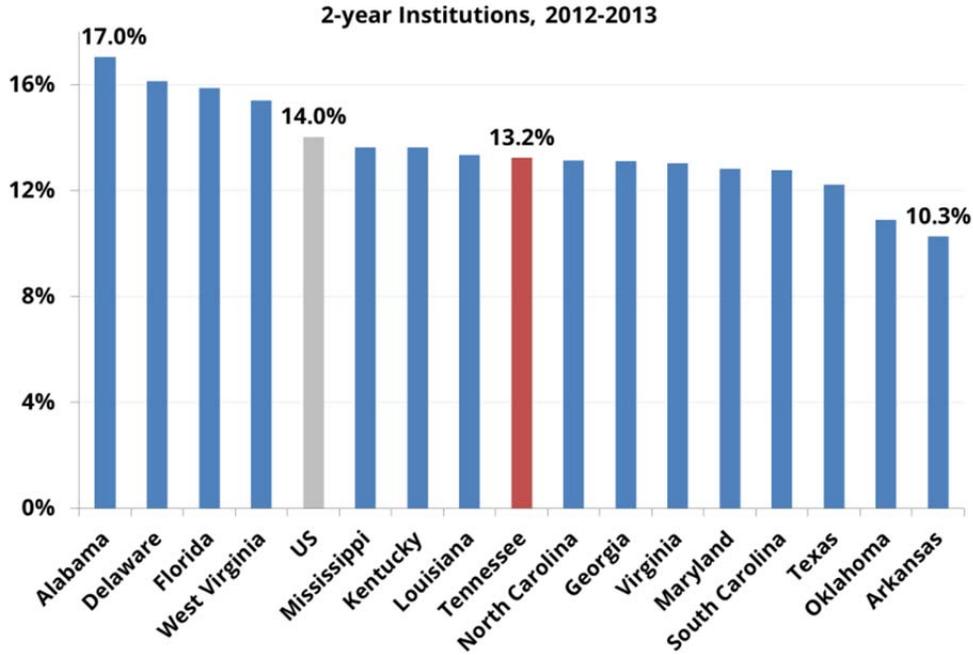


Source: NASSGAP. Note: SREB average does not include TN.

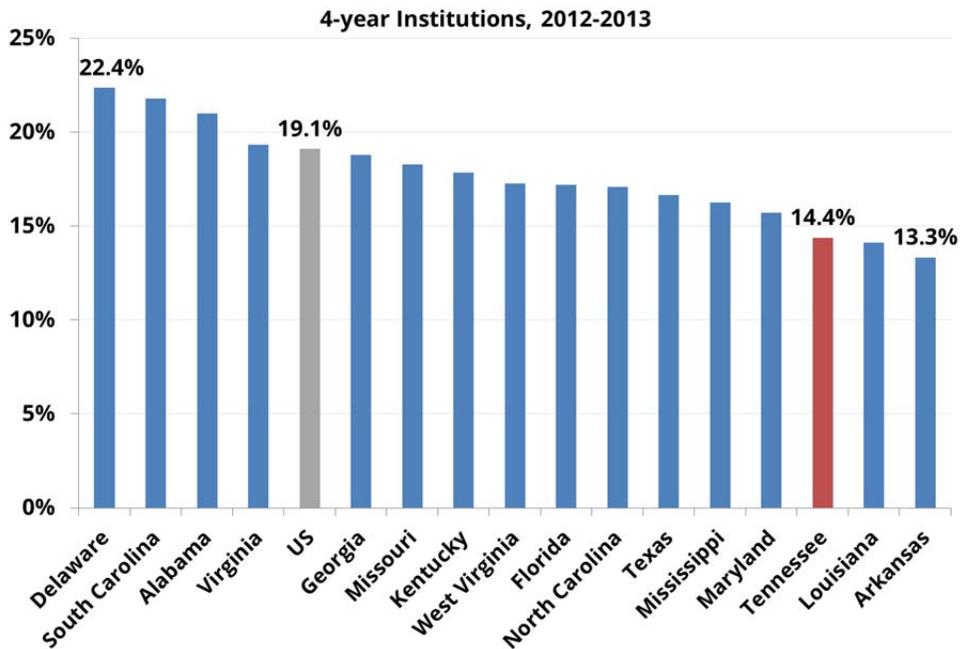
Figure 5.2 shows the total amount of state grant aid (both need and non-need based) for SREB states, and presents the average award per full-time equivalent (FTE) undergraduate student for SREB and the nation. In 2013-14, Tennessee ranked 3<sup>rd</sup> nationally and among the SREB states in the amount of grant aid per FTE. This remarkable progress from Tennessee's 32<sup>nd</sup> position in 2003 is largely attributable to the creation of the Tennessee Education Lottery Scholarships (TELS) program in 2004. However, Tennessee (24 percent) continues to trail the nation (75 percent) and SREB region (40 percent) in the proportion of grant aid awarded based on need.



### 5.3. Net Cost of Attendance as a Percent of Median Family Income (2012-2013)



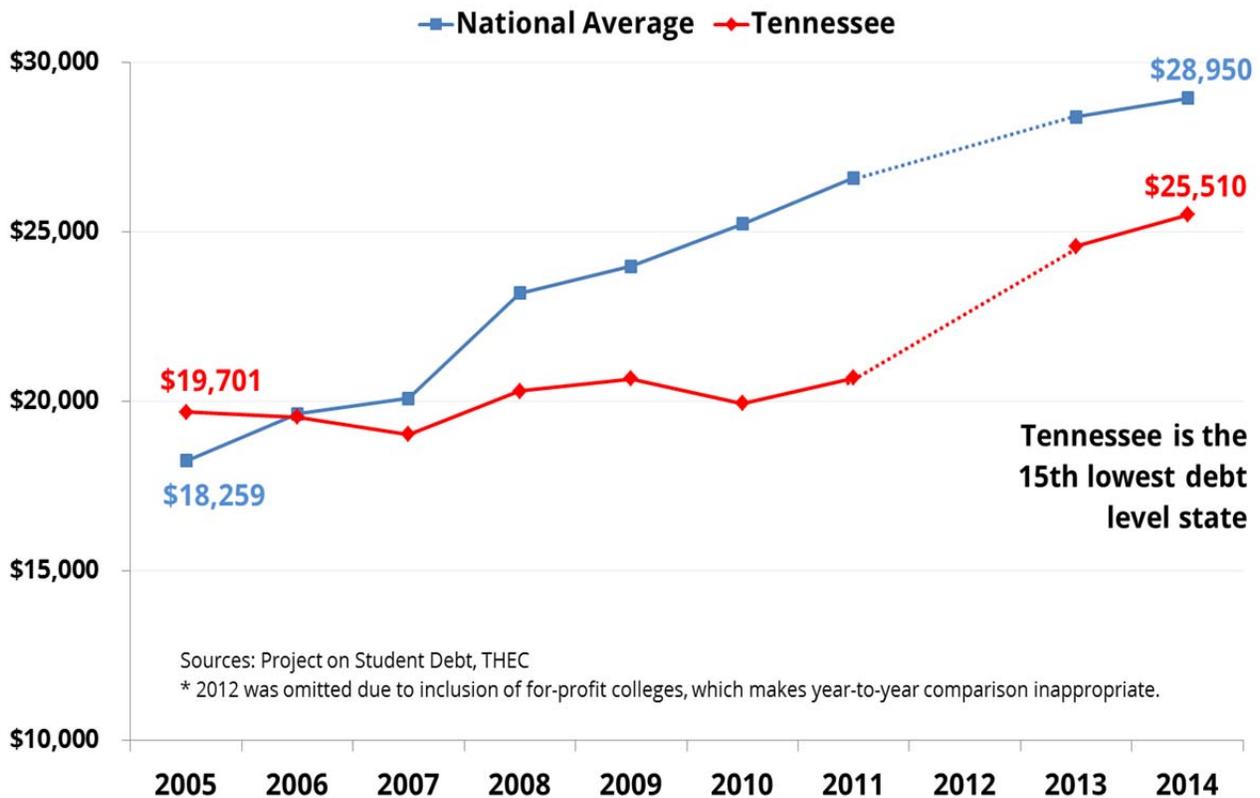
Source: NCHEMS. Note: Net Cost is average total cost less average total grant aid per student



Source: NCHEMS. Note: Net Cost is average total cost less average total grant aid per student.

The net cost of college as a percent of median family income is a telling indicator of higher education affordability. Figure 5.3 shows that public higher education in Tennessee remains comparatively affordable. In addition, the availability of TELS awards and other financial aid brings higher education within reach of more Tennesseans.

### 5.4. Average Student Loan Debt (2005-2014)

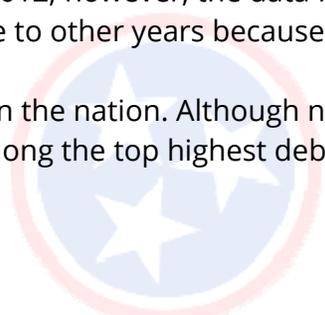


Student debt is a looming issue for the newest generation of college graduates. Nationally, total former and current students have accumulated an estimated \$1.2 trillion in student debt. The influence of student loan debt on the myriad life choices that college graduates face could have lasting impacts on the state’s and country’s future.

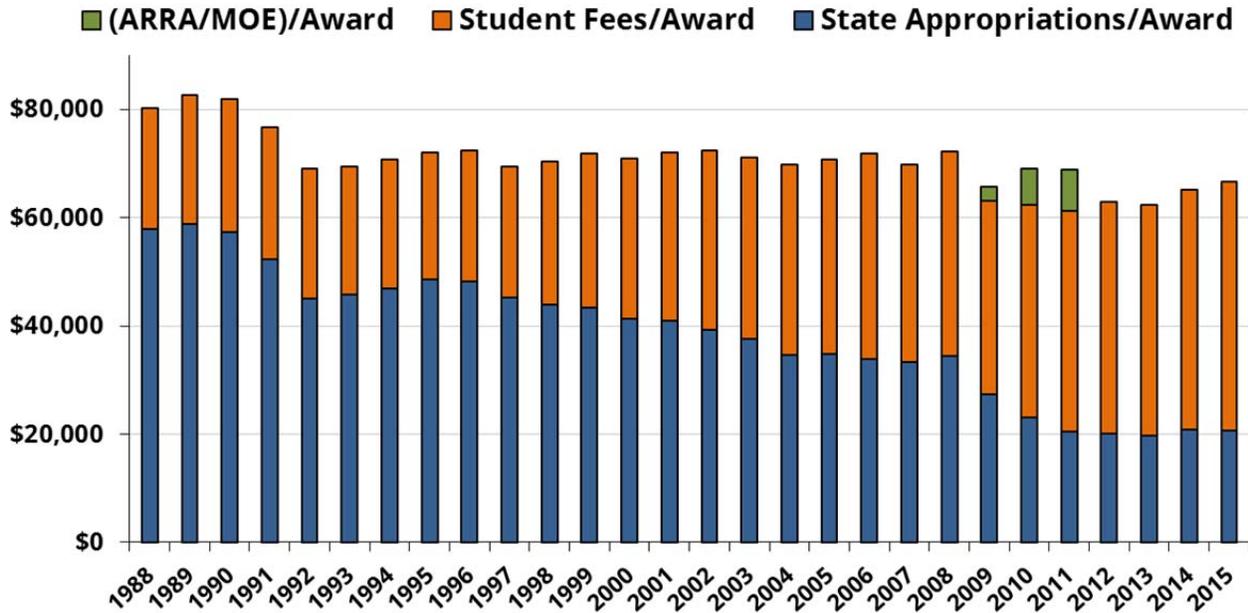
Figure 5.4 shows the marked improvement in the average debt of a Tennessee graduate (public and private institutions) compared to the nation. Though the average debt for a Tennessee graduate has increased by almost \$6,000 since 2005, this increase is much lower than that of the nation.

Until recently, Tennessee was among the lowest debt level states, ranking 9<sup>th</sup> in 2010 and 6<sup>th</sup> in 2011. It also ranked 7<sup>th</sup> in 2012; however, the data for that year (not reported on the graph) is not directly comparable to other years because it includes for-profit colleges.

In 2014, Tennessee ranked 15<sup>th</sup> in the nation. Although no longer among the lowest debt level states, Tennessee is not among the top highest debt level states.



### 5.5. University Revenue per University Award (1988-2015)



Source: THEC

Note 1: Values reported in 2014-15 for state appropriations and tuition and fees are preliminary.  
 Note 2: The data are in constant 2014 dollars (HEPI inflation-adjusted).

Figure 5.5 presents the efficiency in degree production at Tennessee universities over the last 27 years. Total revenue (including state appropriations and tuition and fees) per award (as measured by total bachelor’s, master’s, and doctoral degrees) has declined recently from a high of \$72,300 in 2007-08 to \$66,000 in 2014-15 (in constant 2014 dollars). It now costs less to produce an award at Tennessee universities than it did nearly three decades ago. Additionally, the total amount of state appropriations per award has also declined, from \$57,900 to \$20,500. This corresponds to a greater reliance by campuses on tuition and fees revenue for each award, which accounted for \$45,500 in 2015, as compared to \$22,400 in 1988. The shifting of university revenue sources has implications for students’ ability to enroll and their cumulative debt upon graduation.



## CONCLUSION

From any perspective – longitudinal, regional, or national – Tennessee has made strides in the performance of its postsecondary institutions with regard to degree efficiency and credential attainment. While this is to be applauded, there remains room for improvement. Persistence and graduation rates can and must increase, and the variation in performance between institutions and student subgroups must decrease. Tuition and financial aid policies that put postsecondary attainment within reach for Tennesseans must become a priority for policy makers and institutional leaders.

The unique challenges faced by low-income, first-generation, and adult students must be addressed in ways that close performance gaps for these underserved populations. Growth in the population of Hispanic youth will move the academic performance of this population to center stage in the coming decade. College affordability and the ability of postsecondary institutions to sustain recent productivity gains in the face of dwindling state appropriations will demand that funding partnerships involving state, local, and private entities continue to develop. Tennessee’s success in addressing these challenges will in large part determine its future economic competitiveness and the quality of life for its citizens.

