



# Driven to Perform: Tennessee's Higher Education Policies & Outcomes

## A Case Study

Joni E. Finney and Elaine W. Leigh  
Roman Ruiz, Wendy Castillo, Edward Smith, and Daniel C. Kent

Institute for Research on Higher Education  
at the University of Pennsylvania's Graduate School of Education

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## Introduction

Tennessee has long been recognized for its innovative K–12 and higher education policies. The state led the nation in examining the effects of small class sizes on short- and long-term academic achievement (Mosteller, 1995). It was the first state to implement a performance-based funding model for public higher education (Dougherty, Natow, Hare, Jones, & Vega, 2011) and one of the first states to revise that funding model in an effort to improve educational attainment. With its latest initiative, the multipronged Drive to 55 campaign to raise postsecondary degree attainment in the state to 55 percent by 2025, Tennessee has spurred further policy innovation, most visibly with the Tennessee Promise.<sup>1</sup>

Federal policymakers and national philanthropic organizations have recognized the state's ongoing efforts to improve educational attainment. The Obama Administration cited the Tennessee Promise program as a model for America's College Promise proposal for free community college (The White House, Office of the Press Secretary, 2015). And the Bill and Melinda Gates Foundation has funded programs to leverage student data and improve remedial coursework initiatives at many public institutions and other statewide college success programs (Tamburin, 2015). Given heightened national interest and the history of innovative education policy interventions in Tennessee, the state provides a unique setting to understand how state policies influence educational attainment.

This report presents a picture of how multiple converging state policies affect higher education performance in Tennessee as the state pursues an aggressive plan to improve the educational attainment of its residents. Policy is a powerful lever for advancing—or hindering—a state's higher education attainment agenda. By taking into account Tennessee's particular state context, we can better understand the factors influencing the content, formation, implementation, and ultimate success of higher education policy intended to improve performance and meet state attainment goals (Perna & Finney, 2014).

This in-depth examination of Tennessee considers the following policy questions:

1. What state policies have been implemented in Tennessee to improve the state's performance in higher education?
2. How have Tennessee's education policies influenced state higher education performance over time?

State higher education performance in this study is defined by how well the state prepares high school students and noncredentialed adults for postsecondary education, the extent to which students enroll and complete their certificate and degree programs, the extent to which the state

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<sup>1</sup> The Tennessee Promise is both a scholarship and a mentoring program administered by the Tennessee Student Assistance Corporation, providing last-dollar scholarships to students from Tennessee, which makes the cost of enrollment at a state community college free when taken together with other forms of financial aid such as the federal Pell Grant, the Tennessee HOPE scholarship, and/or other state student assistance funds.

provides affordable postsecondary education options, and the research competitiveness of higher education in the state.<sup>2</sup>

### Tennessee’s State Context

The impact of state policy on higher education performance is influenced by the state-specific context—including demographic, economic and workforce, political, and education system characteristics—within which policies are implemented.

#### Population Demographics

Tennessee is relatively racially homogeneous, with a mostly White population (Figure 1), but it is experiencing demographic changes.

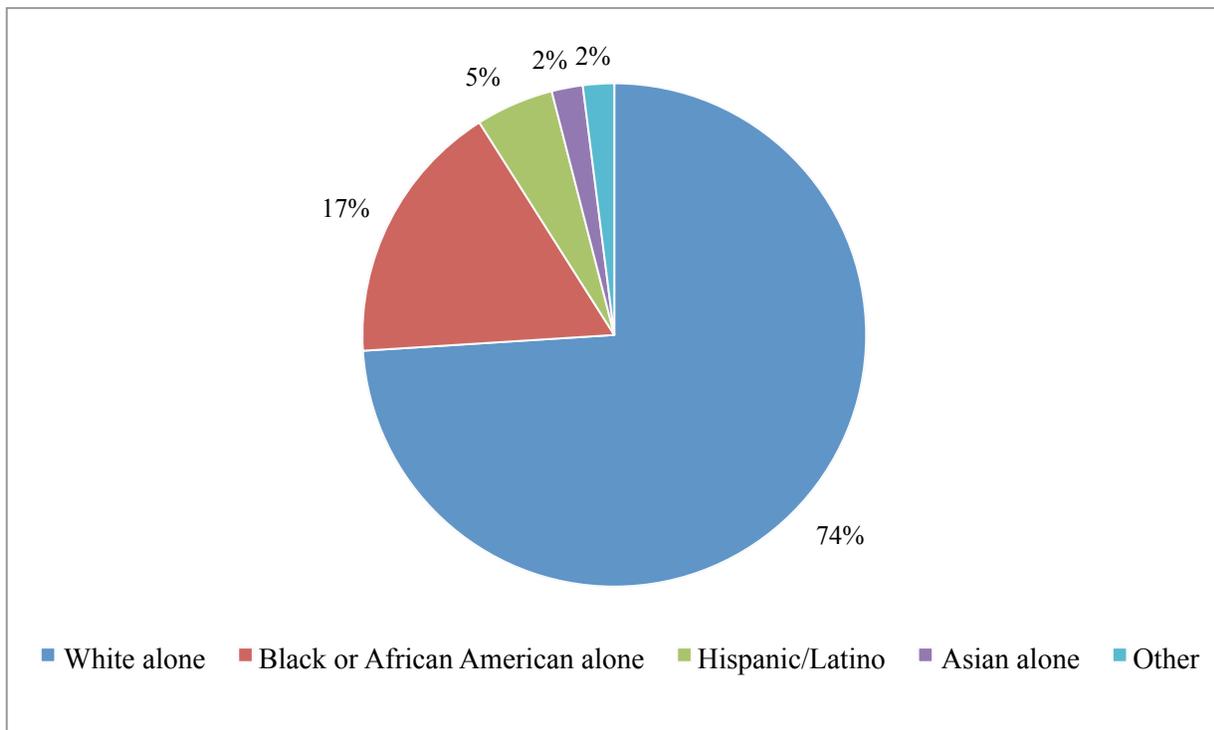


Figure 1. Racial/Ethnic Composition of Tennessee (2015)

Source: U.S. Census Bureau (2016)

Long-range projections forecast a relatively stable Black population across all age groups in Tennessee, save for growth among those ages 65 and over (Appendix D). Tennessee’s White population is expected to remain flat for children and adults through age 45 but will actually decline for those ages 46 through 65. Hispanics and other racial/ethnic minority groups are expected to grow in number and population share across all age brackets, particularly among the oldest age cohorts and traditional high school-age and college-age students. For example, between 2016 and 2036, Hispanics age 15 to 19 will increase by 106 percent, and other

<sup>2</sup> For a description of the conceptual lens guiding the study as well as a description of our methodology, please see Appendix A.

racial/ethnic minorities will increase by 105 percent during the same time frame (Center for Business and Economic Research, University of Tennessee at Knoxville, 2011).

These statewide demographic shifts are mirrored in the number of projected Tennessee public high school graduates, which has ramifications for the state’s college-going pipeline. The White high school graduate population is expected to decline marginally by 2024, and the number of Hispanic high school graduates will more than double (Figure 2). Nevertheless, Whites will continue to represent about two thirds of high school graduates in the state.

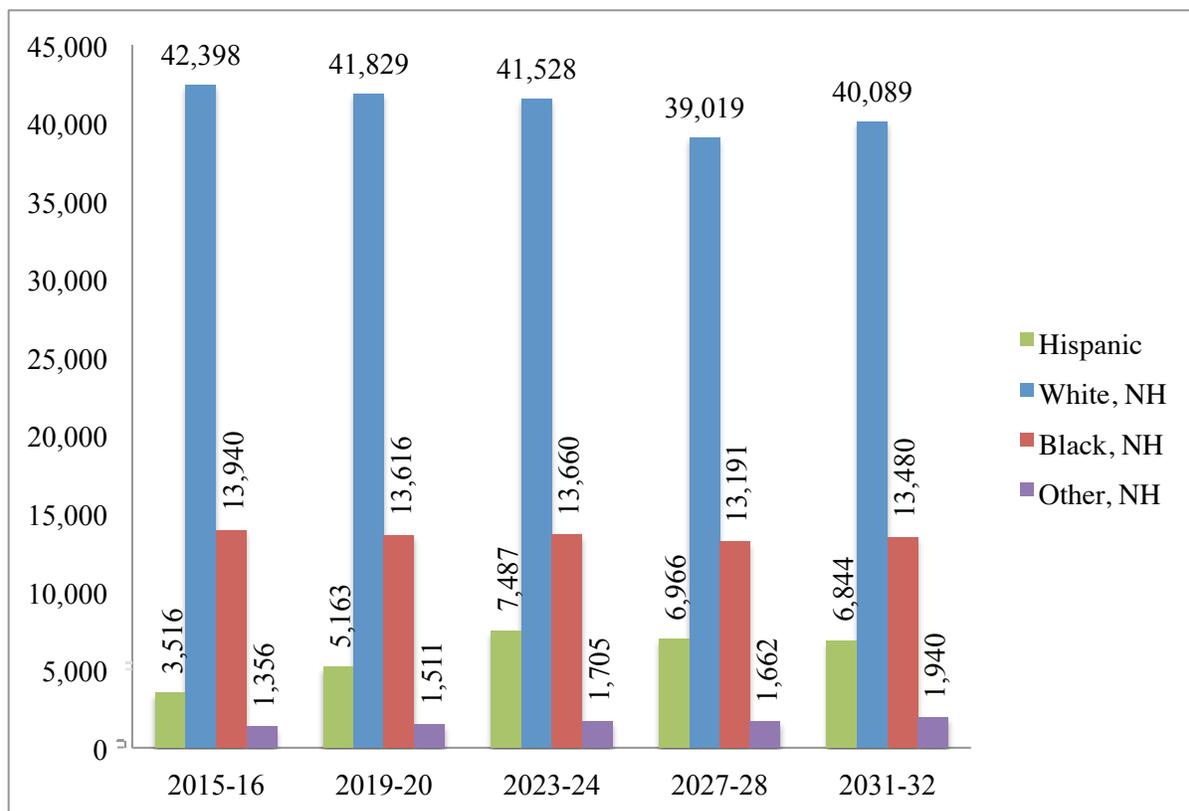


Figure 2. Projected Public High School Graduates in Tennessee (AY 2015/16 – AY 2031/32)  
 Source: WICHE (2016)

In addition to the changing racial/ethnic demographics of Tennessee, the population’s income level is relatively low. In 2014, nearly 18 percent of Tennesseans lived below the federal poverty level (\$23,834 for a family of four), which places the state 45th in the nation on this metric (between Georgia at 44th and Arkansas at 46th) (Center for American Progress, 2015). Of Tennessee children age 18 and younger, 26 percent live in poverty, which is above the national average of 22 percent (U.S. Census Bureau, 2015a).

### The Economy and the Workforce

According to the New Economy Index, a national index tracking 25 indicators across five dimensions, Tennessee ranks 40th in the nation, which suggests that the state is not well prepared for the knowledge-based, technology-driven, global economy (Information Technology &

Innovation Foundation, 2014). Tennessee faces a skills gap that will make it difficult for the state to keep up with the demands of its projected labor market (Carnevale, Smith, & Strohl, 2013). By 2020, the majority (58 percent) of jobs in Tennessee will require a postsecondary credential, and yet 2015 estimates show that only one quarter of Tennesseans age 25 and older have attained at least a bachelor's degree, falling short of the national average of 29 percent (Carnevale et. al., 2013; U.S. Census Bureau, 2015a). Among the younger cohort of Tennesseans age 25 to 34, 36 percent have attained an associate's degree or higher compared to 42 percent nationally in 2014, placing Tennessee 41st in the nation on this metric (Center for American Progress, 2015; IRHE, 2016).

Home to several Fortune 500 companies, including FedEx, HCA Holdings, Dollar General, and AutoZone (Fortune, 2016), Tennessee is ripe for accommodating newly trained workers in management, healthcare, education, technical services, and waste management—all industries that are projected to grow (Carnevale et al., 2013).

### **Higher Education Structure & Governance**

Tennessee has four major sectors of public higher education: four four-year universities within the University of Tennessee (UT) system, six four-year regional state universities (called locally governed institutions, or LGIs, in Tennessee),<sup>3</sup> 13 two-year community colleges, and 27 colleges of applied technology (TCATs). The Tennessee Board of Regents governs the community college and TCAT sectors. The six public LGIs (e.g., Austin Peay University, East Tennessee State University), formerly under control of the Board of Regents, now have independent governing boards with more autonomy over curriculum, program offerings, and tenure policies that reflect each institution's unique mission. The LGIs are also granted greater oversight over capital projects and procurement arrangements (THEC, 2016c). The University of Tennessee Board of Trustees governs the four institutions that comprise the UT system: UT-Knoxville (the flagship campus); UT-Chattanooga; UT-Martin; and the Health Science Center (with multiple campuses). Tennessee counts ten minority serving institutions among its public and private sectors of higher education.<sup>4</sup>

In 2016, 27 percent of all students enrolled in a Tennessee higher education institution attended a public locally governed four-year university, 22 percent attended a community college, and 17 percent attended a university in the UT System (THEC, 2016a). The remaining students attended either a private, not-for-profit independent college (29 percent) or a Regents' governed TCAT (5 percent) (THEC, 2016a). The six public locally governed universities and UT system campuses are located both inside and outside urban areas (e.g., UT-Chattanooga, University of Memphis, Austin Peay University, and Middle Tennessee State University). Community colleges and TCATs are more uniformly dispersed across the state, which allows for greater geographic postsecondary access.

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<sup>3</sup> In April 2016, the governing structure for Tennessee's higher education system changed under the Focus on College and University Success (FOCUS) Act (Tennessee General Assembly, 2016). LGIs were previously governed under by The Tennessee Board of Regents (TBR), but now each of the six state universities has its own local governing board.

<sup>4</sup> See the Center for Minority-Serving Institutions' map and location listings here: [http://www.gse.upenn.edu/pdf/cmsi/MSIs\\_Location\\_Map.pdf](http://www.gse.upenn.edu/pdf/cmsi/MSIs_Location_Map.pdf)

The Tennessee Higher Education Commission (THEC), the state's higher education coordinating body, is influential in Tennessee higher education. Created in 1967 with the purpose of fostering organization and unity within the state's higher education system (THEC, 2015a), THEC consists of nine members appointed by the state governor for six-year terms (THEC, [n.d.]a). The Commission exercises authority over governing boards by developing "binding tuition ranges" for resident, undergraduate students, which narrows the rate and absolute increase in tuition and fees that public institutions may charge (THEC, 2016c, p. 8). Governing boards do, however, retain authority over tuition-setting for out-of-state and graduate students. With institutional input, THEC also develops and implements the outcomes-based funding (OBF) formula used by the state legislature in determining budget allocations, and develops the Tennessee higher education master plan. In addition, THEC provides oversight of the for-profit sector by requiring institutions to report "dropout, job placement, and loan default rates, financial stability and academic faculty hiring" (McClane, 2010, para. 10).

Beyond THEC and the institutional and system governing boards, the governor and the state legislature play critical roles in developing Tennessee's higher education policy. The governor's office establishes budgetary priorities for the state, and also works in close partnership with THEC to craft institutional accountability efforts, initiate capital development projects, and propose programs that support the broader postsecondary agenda. Gubernatorial authority over higher education policy varies by state. Whereas the legislative branch of government yields influence in some states, in Tennessee the power resides squarely in the governor's office. In addition to appointing many state department heads, the governor also serves as chair of the Tennessee Board of Regents and is an ex officio member of the UT Board of Trustees (National Governors Association, n.d.).

By contrast, Tennessee legislators are part-time, with a legislative session of only 90 days per two-year term, and are paid \$19,000 annually (National Conference of State Legislators, 2014). Since 2011, the Republican Party has controlled both the House and the Senate of the General Assembly, along with the governorship. The current governor, Bill Haslam, is highly involved in pushing forth a higher education agenda that prioritizes increasing postsecondary education attainment as a state imperative. Governor Haslam's focus on postsecondary education extends that of his predecessor, former Governor Phil Bredesen, even though they represent different political parties.

Within the broader demographic, economic, political, and higher education system contexts, Tennessee has made increasing undergraduate degree attainment through improved performance a high priority. Various policy levers have been employed in pursuit of this priority: reforms in K-12 education, state financial aid programs, state allocations for public higher education, reforms to the governance structure, and requirements for accountability reporting, among others. This bundle of policies, rooted within Tennessee's unique state context, is designed to harness the state's higher education system as an engine of workforce development and ultimately economic prosperity.

## Tennessee's Higher Education Performance

To assess higher education performance in Tennessee, we examined trends and policies in five key areas: K–12 preparation, postsecondary participation, affordability, completion, and research competitiveness. See Appendix E for a timeline of major policy initiatives.

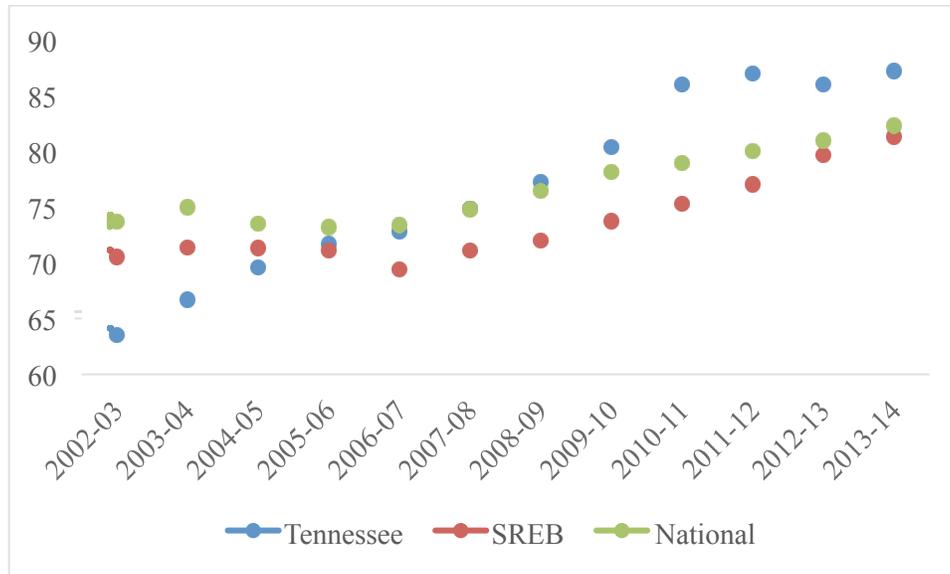
### K–12 Academic Preparation and College Readiness

Rigorous academic preparation in elementary and secondary schools and improved high school completion rates are critical components in the longitudinal process of postsecondary degree enrollment, persistence, and certificate and degree completion. Tennessee allocates its resources to myriad programs that advance college readiness. Advanced Placement (AP) courses are offered at approximately half of Tennessee school districts (College Board, 2016). The state has also invested in dual enrollment courses; in academic year 2013-2014, more than 20,000 Tennessee high school students enrolled in at least one dual enrollment course (Tennessee Department of Education, [n.d.]b). Over \$11 million in Dual Enrollment Grants sponsored by the Tennessee Lottery were allocated to the program in 2014, an increase of almost \$10 million since 2006 (Tennessee Department of Education, [n.d.]b). Additionally, the state budgeted \$2.5 million in recurring funding for a pilot program called Seamless Alignment and Integrated Learning Support (SAILS), which provides remedial math in high school for credit to exempt students from taking remedial math in college. Serving approximately 17,000 students at 239 high schools in 2015-2016, this program is expected to grow and support Tennessee's general academic preparation strategy (Chattanooga State Community College, n.d.).

There is some evidence that K–12 academic performance has improved in Tennessee. Since 2011, Tennessee has been the fastest-improving state on fourth- and eighth-grade math and reading scores on the National Assessment of Educational Progress (NAEP) compared to gains in all other states during the same time period. Tennessee's eighth-grade reading proficiency rates are now above the national average (33 percent and 32 percent, respectively) and eighth-grade math proficiency rates are only 3 percentage points below the national average (29 and 32 percent, respectively) (Tennessee Department of Education, [n.d.]c). The high school graduation rate in Tennessee has also shifted upward. The adjusted cohort graduation rate (ACGR), a new rigorous measure instituted by National Center for Education Statistics, shows that the state's high school graduation rate has increased from 64 percent in 2003 to 87 percent in 2014 (see Figure 3).<sup>5</sup>

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<sup>5</sup> At the time of completing this case study, a recent report from the Tennessee Department of Education discovered that about one third of high school graduates in 2015 did not meet the state high school course graduation requirements but were still awarded a diploma. The state is still assessing the reasons for these findings. The full report can be found here: [https://tn.gov/assets/entities/education/attachments/rpt\\_high\\_school-seamless\\_pathways.pdf](https://tn.gov/assets/entities/education/attachments/rpt_high_school-seamless_pathways.pdf).



**Figure 3. Tennessee Public High School Graduation Rates.**

Source: National Center for Education Statistics, 2015

Notes: SREB averages were calculated by averaging all SREB graduation rates excluding Tennessee. High School graduation rates are calculated using the new Averaged Freshman Graduation Rate (AFGR) metric, which is an estimate of the percentage of an entering freshman class graduating in four 4 years. If states had not yet calculated the AFGR they were omitted from the SREB average. The SREB average never includes less than 12 states' average.

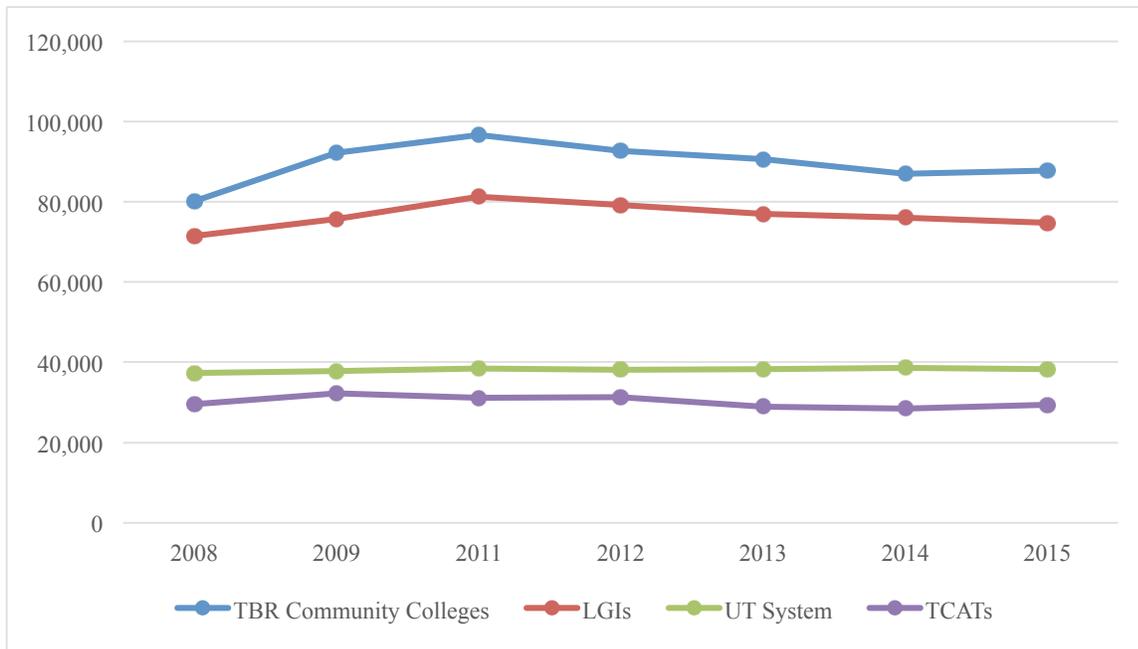
Despite this substantially improved high school graduation rate, Tennessee high school graduates continue to underperform on the ACT college entrance exam; 100 percent of all Tennessee high school graduates take the ACT because it is a graduation requirement (Tennessee Department of Education, [n.d.].a). In 2015, Tennessee had a slightly below average ACT composite score compared to the nation (19.8 compared to 21) and performed lower in every subject area (English, Math, Reading, and Science Reasoning) than other Southern Regional Education Board (SREB) states (e.g., Texas, Oklahoma, Georgia) (ACT, 2015).

### College Participation

The current population enrolled in school (age 3 and older) in Tennessee increased by 5.4 percent between 2009 and 2015, but the share of the high school-age population (9th–12th grade) stayed about the same, at 21 percent, over this time period (U.S. Census Bureau, 2015b). While the overall population of 18- to 24-year-olds slightly increased from 9.3 percent in 2009 to 9.6 percent in 2015, the population of 18- to 24-year-olds enrolled in college or graduate school increased by almost 3 percentage points (36 percent to 38.5 percent) over the same time period (U.S. Census Bureau, 2015c). The proportion of students age 25 and older enrolled in college or graduate school marginally increased from 3.1 percent to 3.3 percent, while the proportion of those age 25 years and older *not* enrolled in college stayed the same, at 80 percent, over the same time period (U.S. Census Bureau, 2015d).

By sector, the fall undergraduate headcount enrollment from 2008 to 2015 increased by 9.6 percent in public community colleges, 4.5 percent in four-year public locally governed universities, and 2.8 percent in UT four-year universities, and decreased by .5 percent at TCATs (Figure 4). While the Tennessee higher education system has experienced net increases overall in

this time period, enrollment gains peaked in 2011; between 2011 and 2015, enrollment dropped by 9 percent at the state’s community colleges, by 8 percent at four-year public locally governed universities, and stayed the same at UT four-year universities (THEC, 2011b; THEC, 2016a).



*Figure 4. Fall Undergraduate Headcount Enrollment by Sector (2008-2015).*

*Sources:* THEC (2009); THEC (2010); THEC (2012); THEC (2013); THEC (2014); THEC (2015a)

The implementation of the Tennessee Promise in fall 2015 saw a concomitant increase in first-time freshmen at public institutions, an aggregate 10 percent increase compared to fall 2014 (Fox, Kessler, Haar, & Scott, 2016, p. 3). Enrollment trends varied by sector, however, with a 25 percent enrollment increase at community colleges, a 20 percent enrollment increase within the TCAT system (THEC, 2016h), and an average decline of 6 percent at public four-year institutions (House, 2016), suggesting a partial displacement effect of students from four-year to less-than-four-year institutions. Tennessee’s TCATs achieved a 95 percent retention rate from fall 2015 to spring 2016, whereas community colleges had a 79 percent retention rate (WTVC, 2016). The first cohort of Tennessee Promise students demonstrated an 80 percent fall-to-spring retention rate during the program’s first year, about 10 percentage points higher than the retention rate of community college students in years prior to the implementation of the Tennessee Promise (House, 2016).

Notwithstanding shifting population demographics, college enrollment gaps by race and ethnicity remain. The share of unduplicated 12-month headcount enrollments has decreased for Whites from 76 percent in 2002 to 70 percent in 2015, consistent with the overall decline in the number of White high school students in the state (U.S. Department of Education, 2015). The share of Black unduplicated 12-month headcount enrollment has been steady from 2002 to 2015 (approximately 19 percent), proportional to their share in the overall state population (U.S. Department of Education, 2015). Conversely, Hispanics are underrepresented in Tennessee postsecondary enrollment, accounting for 5 percent of the state’s population but only 3 percent

of unduplicated 12-month headcount enrollments in 2015, which has steadily risen from about 1 percent in 2002 (U.S. Department of Education, 2015). With the Hispanic high school student population projected to almost double by 2032, addressing disparities in college enrollment for this population is critical for improving Tennessee's higher education system performance (THEC, 2016g; WICHE, 2016).

Adult participation rates in Tennessee fall well below the national average. For adults who had a high school diploma but no college degree in 2013, Tennessee enrolled 5.1 percent in public and private institutions compared to 7.6 percent nationally (THEC, 2016g, p. 23). Adult headcount enrollment declined from 55,500 in 2004 to 50,163 in 2014 (THEC, 2015e, p. 4). The gap in adult enrollment also exists by sector and is the widest for public two-year institutions, where 2.5 percent of adults were enrolled nationally compared with 1.3 percent in Tennessee (THEC, 2016g, p. 23). Over the last 15 years, adult participation in the public two-year and four-year sector has declined every year except during the Great Recession. Adults who do enroll also tend to be from lower income backgrounds, as indicated by the fact that there are more adult students than traditional-age students who are eligible for Pell Grants at all of Tennessee's community colleges and public four-year institutions (THEC, 2015e, p. 18).

### **Affordability**

In response to the 2008 fiscal crisis, Tennessee's elected officials cut the 2008–2009 budget for public higher education by 33 percent (compared to the 2007–2008 budget) (Bredesen, 2007, 2008). As a result, Tennessee higher education institutions raised tuition, in part, to offset this shortfall. From 2008 to 2015, tuition and fees increased by 51 percent at public universities and by 45 percent at community colleges (THEC, 2015a). After adjusting for inflation, Tennessee higher education appropriations per full-time equivalent (FTE) is 22.5 percent less than it was in 2008 (pre-recession). Institutions began to rely increasingly on tuition revenues to fill the gap created by state budget cuts (SHEEO, 2016).

Between 2008 and 2013 (the most recent data available), the share of family income needed to attend college full-time, after subtracting all federal, state, and institutional financial aid, has increased in every sector except for community colleges (Table 1). Despite these increases, Tennessee still ranks in the top half in the nation for affordability across all institution types as measured by share of family income required to pay for college after all financial aid. And importantly, these data pre-date implementation of the Tennessee Promise and Tennessee Reconnect programs.

Table 1. Percent of Family Income Needed to Attend College Full-Time

	Percent of Income (2008)	Percent of Income (2013)
Public 2-year (33 percent of enrollment)	18	17
Public 4-year nondoctoral (14 percent of enrollment)	20	23
Public research (30 percent of enrollment)	21	28
Private 4-year nondoctoral (21 percent of enrollment)	35	41
Private research (3 percent of enrollment)	17	21

Source: Institute for Research on Higher Education, 2016

In Tennessee, more than a quarter of families make \$30,000 or less a year, and would thus have to pay an estimated 45 percent of their household income for one person to attend college full-time after all federal, state, and institutional financial aid. A family in the highest-income quintile would need to spend only 8 percent (IRHE, 2016).

To address college affordability in Tennessee, the state established the Tennessee Education Lottery Scholarships (TELS) in 2003. Financed from earmarked lottery proceeds, the scholarship programs include the merit-based Tennessee HOPE Scholarship, need and merit-based Tennessee HOPE Access Grant (Access), General Assembly Merit Scholarship (GAMS), and the Aspire Award (Aspire) (Complete College America, 2010). Despite these aid programs' stated intention to address college affordability, most state scholarships do not consistently target groups most sensitive to changes in cost of attendance. The HOPE Access Grant does provide up to \$1,250 at four-year institutions and \$875 at two-year institutions for families with adjusted gross incomes of \$36,000 or less. In addition, although Tennessee ranks third in the nation in undergraduate grant dollars per FTE student, it ranks 19th in need-based undergraduate grant dollars per FTE (NASSGAP, 2014). The overwhelming majority, approximately 88 percent, of Tennessee's student aid is awarded solely on non-need-based criteria (IRHE, 2016).

To pay for college costs, the majority (60 percent) of graduates from Tennessee four-year public institutions borrowed money to fund their educations. For those who borrowed and graduated, the average cumulative amount borrowed was over \$25,000 (TICAS, 2015). The average annual

amount borrowed by enrolled students varies greatly by institutional type, with students attending private four-year nondoctoral institutions borrowing the most per year (see Table 2).

*Table 2. Annual borrowing by institutional type in Tennessee*

<b>Institution Type</b>	<b>Annual Borrowing</b>
Public research	\$4,410
Private research	\$814
Public 4-year, nondoctoral	\$3,972
Private 4-year, nondoctoral	\$4,846
Public 2-year	\$1,275

*Source:* Institute for Research on Higher Education, 2016

Initial data indicate that student borrowing has decreased during the Tennessee Promise’s first year (House, 2016). In fall 2015, 17 percent fewer students in Tennessee began the process of applying for federal loans. At some two-year institutions, the percent of students taking out federal loans decreased almost 25 percent (House, 2016).

### **Progression & Completion**

Two-year institutions play a significant role in four-year completion and success in Tennessee. Guided by provisions in the Complete College Tennessee Act of 2010, the Tennessee Transfer Pathways include 58 designated pathways between the state's community colleges and four-year public institutions (THEC, 2015b). Most transfer activity occurs within the state, and approximately half of transfers occur from community colleges to public four-year institutions (THEC, 2015b). Data available from 2008 to 2015 show that student transfer rates are relatively stable over this time period (THEC, 2016).<sup>6</sup>

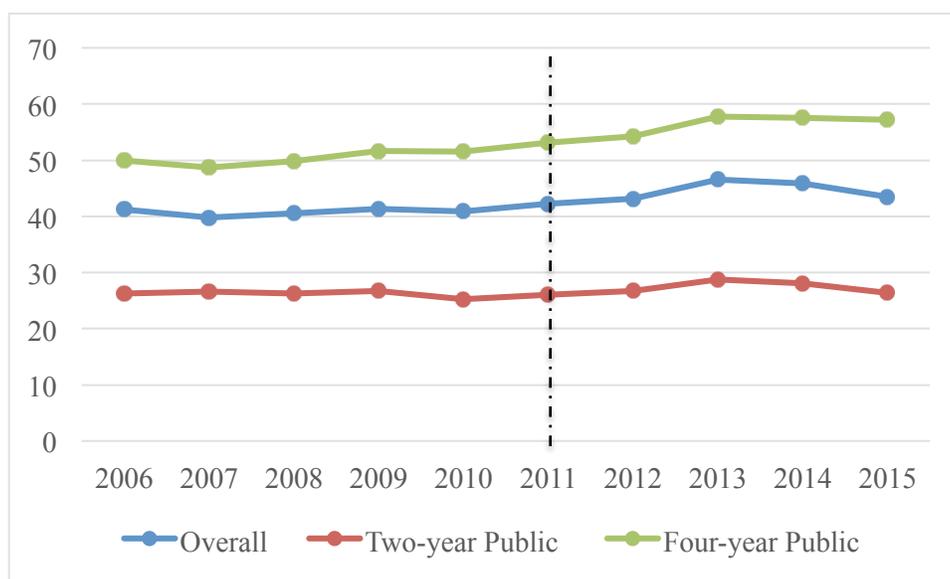
Additionally, the Reverse Transfer Policy that began in 2012 allows students who have already transferred to a participating four-year institution to receive their associate's degree, should they complete the originating institution’s requirements (THEC, 2015b). Through the Reverse Transfer Policy program occurring at all public two-year and four-year institutions as well as

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<sup>6</sup> Transfer is measured by the share of total undergraduate headcount transfer enrollment compared to total undergraduate headcount enrollment at public universities has remained relatively stable, dipping to 6.7 percent in fall 2015 compared to 7 percent in 2014, but decreasing less than 1 percentage point over this time period (THEC, 2016).

eight private universities, 828 associate’s degrees were awarded in 2015–2016, a 9 percent increase from the previous year (THEC, 2016b).

Based on six-year rates for full-time freshman cohorts, completion among Tennessee students has increased modestly from 41 percent in 2006 to 44 percent in 2015 (Figure 4). Four-year public universities have shown an increase of 7 percentage points over this period. Two-year public community colleges (including their certificate and degree programs) have seen virtually no gains in completion rates. Tennessee’s colleges of applied technology have increased their program completion rates from 75 to 82 percent between 2008 and 2015, building on their historically high rates of success (THEC, 2009; THEC, 2015a).



**Figure 4. Six-year College Graduation Rate by Sector**

Source: THEC (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015a, 2016a)

Note. Dashed line indicates new measurement: The graduation rate is a distinct count of students and includes all in-and out-of-state graduates.

Disparities in graduation rates exist by race/ethnicity within both public two-year and public four-year institutions in Tennessee. At two-year institutions from 2011 to 2015, three-year graduation rates held flat from 31 to 30.1 percent for White students, declined from 12.3 to 9.8 percent for Black students, and increased slightly from 24.6 to 26 percent for Hispanic students (THEC, 2016g). At four-year institutions during the same period, six-year graduation rate declined from 45 to 41 percent Blacks and from 51 to 50.5 percent for Hispanics, while graduation rates for White students at four-year institutions increased from 60.7 to 61.3 percent (THEC, 2016g).

In terms of the young adult population in the state (ages 25–34), 36 percent had an associate’s degree or higher compared to 42 percent nationally in 2014 (IRHE, 2016). Of working-age adults (ages 35–64) in Tennessee, 33 percent had an associate’s degree or higher compared to 40 percent nationally in 2014 (IRHE, 2016). The percentage of Tennessee’s entire adult population (ages 25–64) holding a college credential (associate, bachelor, and/or graduate/professional) is below both the national average and the Southern Regional Education Board average for this age

group (THEC [n.d.]b). In 2014, Tennessee ranked 42nd nationally with only 34.3 percent of its adult citizens (ages 25–64) holding a college degree.

### **Research Competitiveness**

Tennessee has improved its research competitiveness. Overall research and development expenditures by universities have increased by approximately 50 percent from 2005 to 2014 (National Science Foundation, 2014a). Tennessee ranked fairly high, at 18th in the nation, for overall research and development expenditures in the country in 2014 (NSF, 2014b).

Tennessee provides some incentives to increase research competitiveness in the state. The Outcomes-Based Funding (OBF) model considers the research and service missions for its four-year public universities. For 2016–2017, all universities received a 10 percent weight in the formula for research and service except for UT-Martin (5 percent), Tennessee State (15 percent), and UT-Knoxville (12.5 percent) (THEC, 2016a).

### **What Can Explain Tennessee’s Higher Education Performance?**

Tennessee policymakers have established higher education enrollment and completion as state priorities. But despite Tennessee's progress in K–12 preparation and college enrollment, the state has experienced very modest gains in college completion and affordability. What explains the state’s lack of progress in higher education performance? And why do educational disparities across race and class persist? This section discusses four themes drawn from our investigation of the relationship between state policies and state performance in Tennessee: 1) the centrality of state policy leadership over time; 2) a set of reinforcing state policies designed to improve performance; 3) a link between education and workforce development policies; and 4) disparities in college preparation and college attainment by race and ethnicity.

### **The Centrality of State Policy Leadership Over Time**

Increasing the education attainment level of Tennessee residents is at the forefront of state policy goals. In numerous interviews, higher education leaders reiterated the importance of the Drive to 55 campaign among state policymakers, the influence of out-of-state policy organizations and foundations, and the role of the business community.

#### *Gubernatorial leadership & policy entrepreneurship*

Higher education attainment has been supported across partisan lines and different terms of gubernatorial leadership. Upon becoming the governor in 2003, Phil Bredesen, a Democrat, made education one of his top priorities. One of his first higher education achievements included the establishment of the Tennessee Education Lottery Scholarships (TELS) program, an instrument used to promote college affordability. To implement programmatic changes in college readiness initiatives, Bredesen secured U.S. Department of Education “Race to the Top” funds (Complete College America, 2010 NCHEMS, 2009). At the end of his term in office, Governor Bredesen signed the Complete College Tennessee Act of 2010, codifying the master plan to increase postsecondary education attainment rates in the coming decade and laying the groundwork for implementation.

Bill Haslam, a Republican, succeeded Bredesen as governor in 2011. The Drive to 55 campaign is Governor Haslam's landmark initiative among his portfolio of higher education policies, which includes the Tennessee Promise, Tennessee Reconnect, and Tennessee Labor Education Alignment Program (LEAP). To reach the Drive to 55's goal of raising postsecondary degree attainment in the state to 55 percent by 2025, Tennessee will need to increase the number of adults with a college credential by more than 17 percent over the next 10 years, which translates to 79,210 credentials annually (THEC, 2015a). Haslam's deep involvement and attention to higher education policy has included the different parties involved in both policymaking and policy execution.

A senior university leader confirmed the importance placed on higher education attainment by Governor Haslam:

I think you would be hard pressed to find another state in the union that is as singularly focused on attainment outcomes as you'd find here in the state of Tennessee . . . in conversations I've had with members of the governor's cabinet, from his head of economic and community development, to the head of health and welfare, all the way down to his attorney general, Drive to 55 is a phrase at the front of every conversation.

In addition to playing a key role in setting overall higher education policy in Tennessee, the governor also serves as chair of the Tennessee Board of Regents and serves on the University of Tennessee Board of Trustees. These roles ensure that the state's top executive is incorporated firmly in the governance of the state's largest higher education systems. Moreover, the governor's participation on the boards offers the opportunity to glean insight on the challenges faced by institutional leaders—insight that is important to understand when crafting accountability measures. Additionally, members of the state's coordinating board, THEC, are appointed by the governor (THEC, 2015c). With such direct influence over the creation and implementation of policy, Governor Haslam has been in a prime position to focus efforts singularly on college attainment. Haslam's political appointees share the common goal to increase college completion rates using tools in the K–12 sector as well. For example, under his leadership, the Tennessee Commissioner of Education released a set of new education standards, called TN Ready, designed to be more practical, rigorous, and college-preparatory.

Supplementing the governor in the state's leadership apparatus is the legislature, which is likely to have a more direct relationship with higher education after the passage of the FOCUS Act in 2016. A key provision in the new law charges LGIs, formerly governed by Tennessee Board of Regents, to appoint state and district representatives to their institutional governing boards (Tennessee General Assembly, 2016). Finally, THEC remains a critical piece of the state leadership apparatus, as the agency provides stability across gubernatorial terms and partisan changes.

### *Policy organizations and foundations*

Policy organizations and foundations outside of the state (Kingdon, 2011; Roberts & King, 1991) have played a prominent role in influencing policy development in Tennessee. Lumina Foundation and the Bill and Melinda Gates Foundation are two key organizations that have supported policy initiatives undertaken by the state. These organizations encouraged the initial direction of state policy that leaders were already undertaking and also provided financial support for their work. The Lumina Foundation selected Tennessee as one of 11 states to participate in the *Making Opportunity Affordable* project, a year-long effort designed to foster strategic thinking on programs that would increase the certificate and degree productivity of state higher education systems in light of decreasing state support (McClane, 2010). Lumina then supported Tennessee's Reverse Transfer Program in 2013 through a \$400,000 grant to the state to support personnel, marketing, training, website development, and project research and analysis. Two years later, with additional support from the governor's budget, 14 institutions joined the Reverse Transfer Program. Later that year, the program was available to all institutions statewide (THEC, 2015b).

Additionally, near the end of Governor Bredesen's second term, the Gates Foundation connected the governor's office to other national organizations such as Complete College America. Describing the influence of the Gates Foundation in elevating the prominence of Tennessee's TCATs, a higher education leader noted:

Since then, we've gotten a lot of nice attention. Bill Gates . . . said, 'I cannot promote what you do until I actually see it,' . . . and I think one of the greatest compliments. A year and a half later he spoke at a conference . . . he made the statement that there were two systems in the country doing it the right way, and we were one of them.

Other individuals interviewed for this study suggested that these initiatives (and the related financial support) spurred the momentum initiated by Tennessee policymakers and gave further legitimacy and visibility to new policies that the state has enacted. In addition, individual consultants, funded with foundation dollars or at the request of Tennessee officials, also influenced policy development.

### **A Set of Reinforcing State Policies to Improve Performance**

Anchored by the Complete College Tennessee Act of 2010 and the Drive to 55 campaign, Tennessee policymakers have achieved an impressive level of policy and programmatic alignment to support educational attainment (see Appendix E).

#### *The importance of education policy alignment*

Tennessee prides itself on being a national model in education policy alignment. As an official from the Commissioner of Education's office noted:

Everybody works together, in higher education, K–12, labor, economic development; we are all on the same page. Our favorite word is alignment . . . we actually think we are going to get better outcomes by just aligning, and right now we are just making sure we implement [the policies] well.

Participants noted the contribution of the 2007 report *Leaders and Laggards*, authored by the U.S. Chamber of Commerce, in focusing its attention on policy alignment. The organization issuing the report gave Tennessee an “F” in the categories of “Truth in Advertising About Student Proficiency,”<sup>7</sup> “Academic Achievement of Low-income and Minority Students,”<sup>8</sup> and “Postsecondary and Workforce Readiness”<sup>9</sup> (U.S. Chamber of Commerce, 2007). The confluence of emerging demographic trends, forecasted labor-market needs, and public embarrassment spawned a wave of educational innovation by Bredesen, who was governor at the time. The state established college- and career-readiness standards, defined as “the knowledge and skills needed for entry-level work and college freshmen coursework [and] success whether pursuing a career or a college education” (Tennessee Department of Education, [n.d.]).

The realization that more people will need to attain some level of postsecondary education inspired state leadership to strengthen the policy alignment between the state’s postsecondary education sectors. For example, the Reverse Transfer Program and the promotion of credit transfer and articulation provisions help facilitate student mobility between sectors. Programmatic efforts such as the SAILS remedial math initiative, Advanced Placement courses, and the Dual Enrollment Grant program help promote college preparation, while the Tennessee Promise helps coordinate postsecondary enrollment by bridging academic and financial gaps that would otherwise serve as barriers to completion for many of the state’s high school graduates. Governor Haslam recognized that to reach his ambitious college attainment goal, policies would need to reach adult learners as well (Tennessee Reconnect, n.d.). Drive to 55 includes Tennessee Reconnect, which is a last-dollar scholarship for adult students to attend community college tuition-free. In addition, online services are offered to help guide students through the college application and/or transfer process. For students who need personal assistance, there are Tennessee Reconnect Community Advisors across Tennessee who meet with and speak to students (Tennessee Reconnect, n.d.). One higher education leader offered:

So I think Promise, coupled with curricular alignments, coupled with the work of Tennessee Ready, all the way back to the Race to the Top grant the state received . . . I do think you’re seeing the improvement in college and career readiness as a result of the policy work that’s been done by the state.

Individuals we interviewed universally concluded that the linchpin for this alignment has been the Complete College Tennessee Act of 2010, which created mission clarity for Tennessee Board of Regents institutions and strengthened the curricular pipeline not only between high school and postsecondary institutions, but also between two-year and four-year institutions. Given mixed performance outcomes for Tennessee’s traditional-age and adult students, the policy alignment

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<sup>7</sup> Only 14 percent of low-income fourth graders scored at or above the proficient level on the NAEP math exam in 2007. The national average for low-income fourth graders in 2007 was 19 percent. Because NAEP sampling requirements for Hispanic students were not met, Tennessee’s grade is based solely on low-income and Black student achievement.

<sup>8</sup> While the state identified large percentages of its students as proficient on 2006 state math and reading exams, smaller percentages posted proficient scores on the NAEP in 2007.

<sup>9</sup> Only 62 percent of its 9th graders received a diploma within four years compared with the national average of 70 percent. Moreover, only 30 percent of 9th graders who finished high school in four years went onto college.

efforts as well as new state programs and policies are promising but may need more time to realize stronger improvements for college outcomes.

The evolution of performance-based funding, now referred to as outcomes-based funding, (OBF) has been another state policy that Tennessee used to align policy incentives with outcomes. In 1979, THEC implemented a performance-based funding model for the state's public two- and four-year institutions. This new policy took five years to create and was developed by two planning committees—a state committee that included a political board and campus representation, and an external committee of policy scholars in higher education (Dougherty & Natow, 2015). A variety of stakeholders were included in the planning of the model, including university governing board members, staff from colleges and universities, academic and financial specialists, and members of the education and finance committee of the state legislation (Dougherty & Natow, 2015).

Through performance-based funding, postsecondary institutions could receive a 2 percent bonus, in addition to their annual state appropriations, for achieving predetermined goals based on five performance indicators: program accreditation, student major field performance, student general education performance, evaluation of instructional programs, and evaluation of academic programs (Dougherty & Natow, 2015). Every five years, members of THEC and the postsecondary community met to re-evaluate the program and make any necessary revisions. Tennessee policymakers decided to listen to the “voice of the campus” in order to create an effective program (Dougherty & Natow, 2015, p. 109). Since implementation, Tennessee has added eight performance indicators and dropped four indicators through these revisions.

Supporters of performance-based funding in Tennessee believed that the model could be used as a way to support institutions without severe repercussions for those that were struggling. Financial consequences for underperforming schools had previously been experienced in the K–12 system and were detrimental to their success (Dougherty & Natow, 2015). Under the model, THEC invited institutions to set the weight attributed to performance indicators, allowing for school-specific mission and institutional priorities.

The Complete College Tennessee Act of 2010 greatly redefined the performance-based higher education funding formula into the Outcomes Based Funding (OBF) model. The Tennessee Business Roundtable was particularly vocal about the state's low high school and college graduation rates, supporting the development of OBF. A failing grade in “postsecondary and workforce readiness” delivered by the U.S. Chamber of Commerce only bolstered business support for intervention (U.S. Chamber of Commerce, 2007). To create the new model, THEC created a committee of high-level administrators from both two- and four-year institutions, representatives from the state's higher education boards, local government officials, representatives from Complete College America, consultants, and members of THEC (Dougherty & Natow, 2015). Additionally, the program was phased in over a period of three years to reduce potential negative consequences and allow time for adjustment.

Under this redefined OBF model, universities and community colleges had different criteria for receiving funds. Universities were judged on the number of students reaching 24, 48, and 72 credit hours; research and service expenditures; number of degrees awarded; number of degrees per full-time equivalent (FTE) student; number of transfers out with at least 12 credit hours; and

six-year graduation rates (THEC, 2011a). Community colleges were judged based on the number of students reaching 12, 24, and 36 hours of credit; workforce-training contact hours; number of dual-enrollment students; number of associate degrees and certificates granted; number of awards per FTE enrollment; job placements; number of transfer out with 12 credit hours; and remedial and developmental success (THEC, 2011a).

The change from the performance-based funding model to OBF focused state and institutional leaders on increasing certificate and degree attainment. Those interviewed for this study underscored the new formula's importance in addressing the state's economic development, workforce development, and research needs while promoting increased degree production within the state's current capacity to support students. Moreover, the formula attempts to maintain institutional mission differentiation to realize statewide efficiencies through increased institutional collaborations, while minimizing programmatic duplication. As a national policy expert and consultant to Tennessee noted:

The [Complete College Tennessee] Act also strengthened the commitment to performance based funding; policymakers developed faith in the new model, as the prior model was something that existed, but yielded no measurable impact on institutional performance with respect to graduation. As a result, there is more shared responsibility between the political leadership of the state and institutional leadership through the funding mechanism.

Similarly, the restructuring of credit transfer and articulation was noted as a prominent feature of the legislation. The Act attempts to create a “transferrable core of lower-division courses, common course numbering, transfer of the associate degree, and credit by assessment (or prior learning assessment)” (THEC, 2016f, p. 17).

While the adoption of the Complete College Tennessee Act and implementation of the OBF formula provided a strong message to institutions and state leaders to create incentives for institutions to focus on student success, institutions serving underrepresented populations were faring less well in the allocation of resources under the initial OBF model. This was concerning as the allocation of nearly all state appropriations to institutions was based on outcomes produced, and no other component of the funding model could compensate for this disadvantage.

As a result of these concerns, THEC and the advisory body charged with reviewing the design of the OBF model recommended two important changes that have become known “OBF 2.0” and were introduced in 2016–2017. The first change increased the premium (points in the formula) provided for the success of “focus populations” (i.e., student populations with multiple characteristics, such as low-income, adult, and academically at-risk) in reaching student success and milestones toward college completion. Where the original OBF model provided a 40 percent premium (points) for success in serving focus populations, OBF 2.0 gave institutions successfully serving focus populations an increased premium varying from 80 percent to 120 percent.

Secondly, a procedural change in monetizing (or converting points to dollars) was made. In the initial OBF model, weights were applied to the points earned to recognize different salary levels in different types of institutions. The net result was that a point given to a research university was

given greater value than the same point given to a four-year comprehensive university. This practice systematically disadvantaged institutions with the most disadvantaged student bodies, as their faculty were paid less than the faculty at the research universities (THEC, 2016d). The revision removed the weighting. Because of these two changes, state leaders have created a more level playing field for institutions serving different types of students (THEC, 2016d).

Institutions must still perform well to benefit from the changes to the OBF 2.0 model. There is no safety net in the model (THEC, 2016e). Moreover, if the state's share of investment in higher education further decreases relative to tuition revenues, the leverage in the model that would encourage greater investment in the institutions that serve the greatest number of underserved students may diminish, as research universities are able to increase tuition more than other types of institutions without negatively impacting enrollment. It is too soon to know if the adjustment to the original OBF model can ameliorate a wide gap between funding even if institutions are improving their outcomes.

#### *Potentially counterproductive financial aid programs*

The increasingly imbalanced ratio of merit-based financial aid to need-based financial aid is counterproductive to the overall goals of increasing college access and completion. Several of those interviewed suggested that state financial aid policy would continue to present a barrier to college access for students from low-income communities, especially those seeking a four-year degree. Research shows the important role of need-based financial aid in increasing *access* to postsecondary education, which is the first step to earning postsecondary certificates and degrees. Figure 5 shows the dramatic shift in the share of non-need-based aid (i.e., merit-based) compared to need-based aid since 2004. Despite policies enacted after the Complete College Tennessee Act in 2010, the state continues to be primarily focused on sustaining its merit aid program for students attending public institutions.

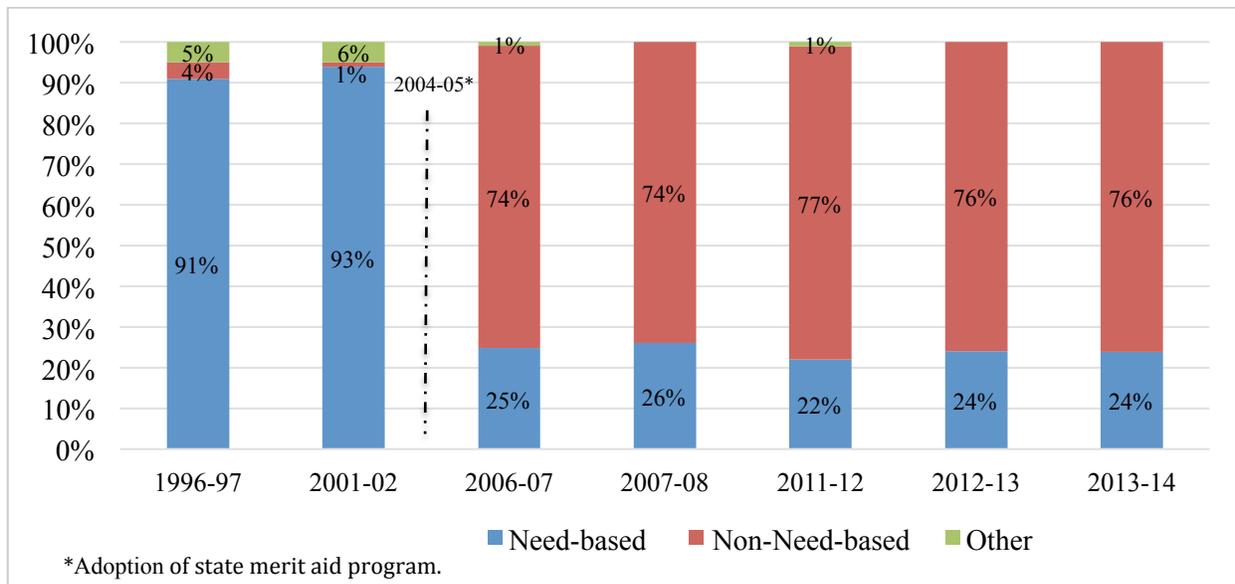


Figure 5. Total State Grant Aid (Need, Non-Need, and Other) per Public and Private Undergraduate FTE (1996-97 to 2013-14)

Sources: SREB (2016); THEC (2016g)

A four-year university leader commented on how the state targets financial aid through the Tennessee HOPE scholarship, the state’s largest financial award to students:

I think the HOPE Scholarship has made it possible for middle-class and upper-middle-class students to obtain a very fine education at a very low price. I don’t know that the HOPE has brought into the higher education system . . . students of lower socioeconomic status at the level that the state probably would have hoped to. I mean, I think the program has several goals, one was to keep good students from going out of state, and I think it has succeeded quite well in that goal . . . suddenly mom and dad are looking at the cost to go to a public, flagship university, and it’s unbeatable pretty much.

Another higher education analyst outside of the state emphasized that the current state financial aid system may hold Tennessee back from its attainment goal:

I would change their student financial aid model to be much more need-based . . . it’s a thing that Tennessee hasn’t quite faced up to. . . it’s the problem that you see in Georgia, Louisiana, and elsewhere . . . is that Tennessee can’t get to Drive to 55 without bringing a lot more students into the system and the students that have to come into the system are almost uniformly first-generation, low-income students that are not, you know, that are not going to be successful . . . are . . . not going to even have access to college, but are not going to sustain that access to graduation in the absence of economic help.

Several participants feared the current financial aid structure would eventually exhaust funding available to support the Drive to 55 campaign. As one analyst observes, THEC will have to play a major role in aligning funding streams toward the goals of increasing educational attainment:

They will have a mandate to create a strategic finance plan that says how do we pay for Drive to 55 . . . and part of that is going to have to be—a real serious look about student financial aid and how they support . . . access to students. And part of that is money for adults, part of that is money coming out of their lottery scholarship to go to community colleges. The colleges . . . they're going to have to rethink their money flow on a broad level—and the big sticking point is going to be student financial aid.

Despite these concerns, some participants acknowledged the many public benefits of merit aid programs. Increased support from legislators led to the establishment of the Tennessee HOPE Access Grant, a need-based offshoot of the Tennessee HOPE Scholarship available to eligible high school graduates for all Tennessee public and private institutions. Participants also speculated that state merit aid has made college cheaper for middle-class families and reduced student loan debt for a generation of college graduates. Our findings support this general conclusion. Compared to other states, Tennessee is somewhat more affordable overall, but disparities in college affordability based on family income persist (IRHE, 2016). But merit-aid comprises the largest share of the state's financial aid portfolio and remains the largest financial award (by dollar amount) given to college students in Tennessee. Moreover, as research has shown (e.g., Heller & Marin, 2002, 2004), state-based merit aid is typically awarded to students from middle- and upper-income backgrounds, essentially incentivizing college *choice* for more advantaged students rather than college *access* for low-income students.

The highly publicized Tennessee Promise, announced in 2014, is a last-dollar scholarship (and mentoring) program designed to pay for tuition and fees at community colleges or colleges of applied technology that are not covered by the HOPE Scholarship, Pell Grant, or other government aid (Tennessee Promise, n.d.). In 2015, the average award per student was \$1,020 (THEC, 2015f). During the 2015–2016 academic year, 53 percent of students who enrolled in Tennessee Promise were Pell-eligible (THEC, 2015f), implying that 47 percent of students receiving Tennessee Promise have family incomes greater than \$50,000 (per Pell eligibility), an indication that many do not qualify under federal guidelines for need-based financial aid (IFAP, 2016). Another concern is that students who would otherwise enroll at a four-year institution will now opt to enroll at a two-year institution. But two-year institutions have lower retention and completion rates than four-year institutions (THEC, 2016a), potentially undermining the goals of Drive to 55.

Four-year institutions may begin to change due to shifts in college enrollment. One leader of a Tennessee four-year institution expressed concerns about enrollment declines, which he attributed to the Promise program. In response, he is experiencing financial pressures to recruit and enroll more out-of-state students to offset the loss in tuition revenue, as well as to establish two-year programs to attract future Promise program participants (personal communication, March 26, 2016). The concerns among some four-year institutional leaders may be warranted: 2015–2016 enrollment data indicate that first-time full-time student enrollment increased by 10 percent statewide over the past year, yet enrollment at four-year public locally governed universities and UT institutions decreased by 8 percent and approximately 5 percent, respectively (THEC, 2016h).

### **State Policies Focused on Workforce Development Reinforce Degree Attainment**

Workforce development is a crucial dimension of Tennessee’s higher education attainment agenda. Participants in this study agreed that concerns about the state’s economy, as well as emerging demographic trends, piqued policymakers’ interest in utilizing higher education to address labor market needs.

*Strong influence from the business community*

Tennessee’s business community has been especially active in advocating for policies that align the skills college students develop with labor market needs. Nearly all the state’s business associations, including the Tennessee Business Roundtable, the Tennessee Chamber of Commerce, and the Nashville Chamber of Commerce, cite education as one of their top priorities. Several participants described the business community’s education advocacy as “aggressive”; many spoke of instances when members of the business community lobbied for general assembly support for key pieces of education legislation.

In particular, the state’s Commissioner of Economic Development, Randy Boyd, has catalyzed efforts to develop higher education policies to improve the economy.<sup>10</sup> Boyd, a well-known businessman and longtime supporter of education initiatives, first became involved in higher education issues when he co-founded Knox Achieves, a place-based scholarship program, along with then Mayor of Knoxville and future governor, Bill Haslam. Knox Achieves later expanded to Tennessee Achieves, which eventually served as a model for the first statewide promise scholarship in the country, the Tennessee Promise. In 2013, Governor Haslam appointed Boyd to his executive office as special advisor on higher education. In 2014, Boyd briefly served as Chairman of THEC before joining Haslam’s cabinet in 2015. Several participants identified Boyd as the architect of the Drive to 55 campaign and noted his influence on the state’s higher education agenda. Boyd offered the following remarks about his many roles in Tennessee higher education policy:

[My job as Commissioner of Economic Development] is really just a continuation of [my job as Chairman of the Tennessee Higher Education Commission]. In the old job we used to talk about being K–J. From kindergarten to a job and making sure each strategy is aligned. And we want to make sure that not only are they getting a certificate and a degree, and getting into college and graduating and issues around completion, but also making sure they’re getting the jobs that businesses need. My new job is making sure the J’s are there, the jobs are there. The most important part of economic development and recruiting and helping existing businesses is having a talent pipeline, a workforce that has skills that employers are needing.

Indeed, Boyd’s leadership is perceived as vital to the state’s goal of increasing education attainment.

*Heightened focus on community colleges and colleges of applied technology*

Tennessee’s TCATs and community college systems are essential to the state’s goals of increasing degree production, meeting workforce demands, and closing the middle-skills level

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<sup>10</sup> Effective February 1, 2017, Randy Boyd stepped down from his role as Commissioner of Economic and Community Development and returned to his previous role as chairman of Radio Systems Corporation.

job gaps (National Skills Coalition, 2014). Yet, while increasing degree and certificate productivity is important to both sectors, the sectors face unique challenges. Tennessee community colleges have the lowest degree and certificate completion rates among all sectors of postsecondary institutions in the state, a longstanding problem within the sector. On the other hand, the TCATs are perceived as relatively high performing in certificate completion rates and job placements; yet, they lack the capacity to increase current degree completion numbers. As one policymaker observed:

The TCATs have strong completion rates of 82 percent, along with 85 percent placement rates in the field of study . . . but their biggest criticism is the [low enrollment numbers]—we’re not producing enough.

The community college sector has relatively high enrollment numbers and low completion rates, whereas TCATs enroll a small fraction of Tennessee’s college students and have exceedingly high completion rates. This stark contrast illustrates the underutilization and inefficiency of both systems.<sup>11</sup> One policy response to these underperforming sectors is the Tennessee Labor Education Alignment Program (LEAP), which aims to eliminate skills gaps by incentivizing “local alignment groups” with grants that can be used by TCATs and local partners from the business community (Drive to 55 Alliance, n.d.). These local alignment groups create skills gap forecasts, identify curricular priorities, and collectively develop and refine training programs at TCATs. This effort, led by the new State Director of Workforce Alignment and co-sponsored by the state’s Department of Labor and Workforce Development and the Department of Education, unifies stakeholders around the goals of enrolling more students in Tennessee’s colleges of applied technology (TCATS) and ensuring they are able to fill local labor market needs. Tennessee LEAP has blossomed, serving 2,065 students from 67 counties statewide as of 2016 (THEC, 2017). In its first two years, the program has yielded 938 students who completed certifications in their program of study; 608 were hired in the industry in which they studied (THEC, 2017).

There are approximately 900,000 adult Tennesseans adult (ages 25–64) with some college but no degree (THEC, 2016f), which suggests the need to develop policies that help create a pathway from the workforce back into higher education. Tennessee LEAP established incentives for the private sector to engage with skills-based education in local labor markets, and the Tennessee Reconnect provides these adult students with the financial resources to support their transition back into higher education.

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<sup>11</sup> To help Tennessee’s public institutions increase enrollment capacity, THEC established the “Drive to 55 Capacity Fund Grant Competition” awarding \$24.25 million during the fall of 2016 in a competitive process underwritten by the state’s Department of Finance and Administration. Approved by the Governor and General Assembly, the capital outlay fund supports institutions’ efforts to create new or expand existing programs and infrastructure, acquire equipment, expand facilities, address technology needs, and initiate new capital construction and major renovation projects. Grant proposals must address how the project will support the state’s Drive to 55 campaign, meaning that it must demonstrate a viable plan to increase the production of postsecondary credentials that align with regional and statewide development needs. For more information, please visit:

[https://www.tn.gov/assets/entities/thec/attachments/Drive\\_to\\_55\\_Project\\_Capacity\\_Fund\\_Request\\_for\\_Proposals.pdf](https://www.tn.gov/assets/entities/thec/attachments/Drive_to_55_Project_Capacity_Fund_Request_for_Proposals.pdf)

Another policy initiative includes the passage of the FOCUS Act, which changed the oversight of Tennessee's state universities in ways that policymakers hope will elevate the prominence of community colleges and state's colleges of applied technology (TCATS). The primary governance changes include the untethering of the six public locally governed institutions (LGIs) from oversight by the Tennessee Board of Regents (allowing each college to establish its own governing board) and focusing the Regents oversight exclusively on the community college and TCAT systems (Tennessee General Assembly, 2016). As one college president observed:

The long spread of mission . . . has been a concern of not only this governor, but others and Governor Haslam has been investing so heavily in community colleges, and facilities, and technology, and equipment, and then in Promise. His concern was, there's not really one group whose concern was focused on maximizing the return on that investment in the community colleges and the TCATs. In fact, I think the genesis of FOCUS . . . the public press on FOCUS is all talking about boards for institutions such as ours, but the real purpose behind FOCUS is mission congruence for community colleges and TCATs.

Notwithstanding the heightened attention on community colleges and TCATs, the bill allows for increased autonomy among the public four-year locally governed universities. Thus, some higher education policymakers have discussed the bill's potential to undermine the progress the state has achieved in accomplishing its attainment agenda. As one national expert with experience in Tennessee worried:

The proposal would allow institutions to advance their own interests, leaving the interests of the state and the public behind [and] drive competition. Currently THEC serves as a mediator, of sorts, between the Board of Regents and the University of Tennessee System. Now there will be six other parties at the table.

One current policymaker described similar apprehension regarding the increased costs and inefficiencies the bill might cause:

Well, I felt that it was the first time where maybe political considerations were . . . leading the thinking instead of, sort of, statewide, you know, what's best for the state in terms of policy. I think, you know, at the end it will be a mixed bag . . . I still think it will be a negative, but a mixed bag . . . there will be some things that might actually improve as a result it, it'll in produce a lot of the inefficiencies in the system, no doubt, it is not true what has been stated in press. It will cost millions of dollars; it just won't be directly traceable to that decision.

Some higher education stakeholders in Tennessee publicly opposed the FOCUS Act. In January 2016, former Board of Regents Chancellor John Morgan resigned in protest over Governor Haslam's effort to pass the bill. Morgan stated that the plan was "unworkable" and would "seriously impair" the colleges' abilities to work toward state goals (Morgan, 2016). Despite Morgan's protest, as well as trepidation from policymakers, researchers, and national policy experts interviewed for this study, the bill won support from key lawmakers in the legislature. The Tennessee General Assembly passed the FOCUS Act in April 2016.

## Disparities in College Preparation and College Attainment by Race and Ethnicity<sup>12</sup>

With a 78 percent high school graduation rate for Black students, Tennessee's ranks among the top five states nationally in this category (U.S. Chamber of Commerce Foundation, 2015). Despite this comparatively high graduation rate, Black high school graduates in Tennessee are largely underprepared for college-level work. Only 4 percent of Black Tennessee graduates in the class of 2015 who took the ACT met college-readiness benchmarks on all four ACT subject tests, placing Tennessee in the bottom five states on this metric (U.S. Chamber of Commerce Foundation, 2015). Similar inequities exist at the postsecondary level. Between 2011 and 2015, six-year graduation rates at public four-year institutions fell four percentage points for Black students (from 45 percent to 41 percent) (THEC, 2016g). While 36 percent of White Tennesseans hold at least an associate's degree, Black Tennesseans trail behind with an attainment rate of 26 percent (IRHE, 2016).

Hispanics represent the fastest-growing segment of Tennessee's population but have college attainment rates that are half that of their White counterparts (18 percent compared to 36 percent, respectively) (IRHE, 2016). Though not a challenge unique to Tennessee, state leaders will be charged with educating an increasingly diverse, and particularly Hispanic, student population.

Such enduring disparities in educational outcomes across racial/ethnic groups in Tennessee warrant attention if the state is to improve its higher education performance. The overall gains in completion rates obscure the fact that racial/ethnic minorities are losing ground in college attainment. More than simple inefficiency, the Tennessee higher education system demonstrates an inequity in outcomes for historically underserved the populations, who stand to gain the most from a postsecondary education.

### *The focus on underserved students in addressing educational inequalities*

Our data highlight that education policymakers and institutional leaders have focused on a number of policy areas where different groups of students were not well served (i.e., academically underprepared students, adult learners, and Pell-eligible students) through the initial OBF model. As a result of the changes implemented in the 2016–2017 appropriations process, which included changes to create the OBF 2.0 model, institutions that were penalized due to their large number of underserved populations, such as Tennessee State (an HBCU) and Southwest Tennessee Community College, now have a gain in net state revenue rather than a

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<sup>12</sup> Tennessee has a documented legacy of racial inequality, particularly as it pertains to economic, social, and educational opportunity for Blacks (Bergeron, Ash, & Keith, 1999; Tennessee Advisory Committee, 2008). Even after the landmark *Brown v. Board of Education* case that outlawed the racial segregation of school children in public education in 1954, Tennessee operated a de facto “dual system of public higher education,” which limited the quality and availability of public higher education options for racial/ethnic minorities in Tennessee (Epstein, 1980, p. 702). In an attempt to dismantle the “vestiges of state-imposed segregation” in 1979 a federal circuit court initiated the merger of two Nashville public universities: Tennessee State University (a Historically Black College or University with over a 99 percent Black student body in 1968) and the University of Tennessee (a Predominantly White Institution with a 1 percent Black student body in 1968; Epstein, 1980, p. 702). This case, *Geier v. University of Tennessee*, was the first federal appellate decision to affirm a court order to desegregate a public HBCU.

loss. The corrections to the formula begin to address the penalties for institutions serving large numbers of minority students.<sup>13</sup>

The rationale for the change in the initial OBF model, according to a policy researcher familiar with the state, was that certain institutions perceived inequity in Tennessee's funding model:

Campuses often feel like the formula is set up in a way that is designed so that all campuses have equal opportunities to succeed under the formula, and from many campuses' point of view, that's just not so. . . given their student population, their geographic location, other characteristics of the institution, and the students, [certain campuses] feel like there are implicit and sometimes explicit challenges to meeting those outcome metrics at the same level as other institutions.

The OBF model does not take race into account, but it does account for the disadvantages of various groups of students (i.e., academically underprepared, Pell-eligible) that would overlap to some degree with race. When asked about addressing institutions that serve specific racial populations, one interviewee characterized the discussion of race in the context of a funding model as a “non-starter in Tennessee,” and observed that the consideration of race was not likely to be a politically viable metric by which to determine state appropriations to publicly funded institutions.

This perspective echoes earlier critiques by Ness and colleagues (2015), highlighting the concern among campus leaders (particularly those who lead minority-serving institutions such as HBCUs) regarding the initial OBF model. For example, 46 percent of all students of color who attend a public two-year or four-year institution in Tennessee attend one of the minority-serving institutions (Jones, 2014). Moreover, this relative concentration of students of color also takes on a geographic dimension; the largest proportion of racial/ethnic minority residents in the state are found in West Tennessee and urban Nashville—precisely the areas where the minority-serving institutions are located. A policy analyst echoed concerns about geographical differences when discussing the challenges faced by Southwest Tennessee Community College:

Specifically, the Southwest Tennessee Community College, the community college right in the heart of Memphis, looks a lot different from some of the community colleges in other parts of the state and has among the lowest standardized test scores, family income, the public school system there has challenges to be sure. And so the idea that the institution is able to compete on an equal playing field with other institutions, folks there question that.

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<sup>13</sup> A recent revision to the state's funding formula (known as Quality Assurance Funding, effective in 2016), allocates financial premiums to institutions that are successful in retaining and graduating certain “focus populations.” Within the community college sector, a student is defined as academically underprepared if he or she is determined to require remedial education, score below an 18 on the ACT, whether as a composite score or on Reading or Math (THEC, 2016d). Institutions that serve a student who belongs to one focus population will garner an 80 percent premium; a 100 percent premium for students who belong to two focus populations; and for community colleges only, a 120 percent premium for students who belong to all three (THEC, 2016d). Ultimately, these populations are “valued” more by the state, indicating their importance to the higher education agenda, as well as the perceived difficulty in graduating large numbers of them.

It is yet to be seen if the revised OBF 2.0 model, which places financial premiums on target student populations, will be a successful policy intervention for minimizing the gaps in college degree attainment across racial/ethnic groups. More research is required to know if academic preparation, age, and low-income status are suitable proxies for race/ethnicity. As one of the leaders in OBF 2.0 policy, Tennessee must still determine if the funds available to colleges and universities serving large percentages of underserved students provide them with the resources necessary to succeed. Typically, institutions serving large numbers of minority and low-income students have less capacity to increase tuition without sacrificing access, so state funding through the OBF 2.0 formula is critical to their success. While it is clear that the OBF model in Tennessee has encouraged conversation and focus on student achievement, it is less clear if the model can deliver results for Tennessee over time. More time and program adjustments may answer these questions.

### **Conclusion**

Tennessee's higher education performance can be assessed with cautious optimism, summed up by a prominent business leader who stated, "We are making a lot of progress at a very fast rate, but we've still got a long way to go." Our approach in this report was to understand the contributions of a family of policies that have undergirded Tennessee's higher education agenda for the past 16 years. With steady improvement in NAEP scores and climbing high school graduation rates, Tennessee has seen progress where many states have not. Elements of Tennessee's college completion strategy are garnering national attention and yielding some positive results, making them a model for other states.

The Drive to 55 campaign has succeeded in unifying goals among higher education stakeholders, and the Tennessee Promise has influenced various policy innovations. But given the educational disparities for low-income and racial/ethnic minority students, Tennessee should continually assess how multiple policies interact and possibly undermine their attainment agenda for underserved populations.

More research is needed to determine if alignment will lead to increased educational attainment. The passage of time will determine whether gubernatorial changes and business leadership can withstand political cycles and continue to push Tennessee's ambitious higher education agenda forward in a coordinated manner. The lessons of policy reform in Tennessee illustrate that intractable problems can yield to policies that are properly designed, improved upon, and sustained over time. While the Drive to 55 campaign has unleashed the momentum to organize for further policy improvements, Tennessee will need to be relentless in maintaining state policy leadership for higher education and adjusting and developing policies to meet the needs of its population.

## References

- American College Testing (ACT). (2015). 2015 ACT national and state scores – Average scores by state. Retrieved from <https://www.act.org/newsroom/data/2015/states.html>.
- Bergeron, P. H., Ash, S. V., & Keith, J. (1999). *Tennesseans and their history*. Knoxville, TN: University of Tennessee Press.
- Bredesen, P. (2007). *State of Tennessee Budget: Fiscal Year 2007-08*. Nashville, TN: Author. Retrieved from <https://www.tn.gov/assets/entities/finance/budget/attachments/0708Document.pdf>
- Bredesen, P. (2008). *State of Tennessee Budget: Fiscal Year 2008-09*. Nashville, TN: Author. Retrieved from <https://www.tn.gov/assets/entities/finance/budget/attachments/0809Document.pdf>
- Carnevale, A. P., Smith, N., & Strohl, J. (2013). *Recovery: Job growth and education requirements through 2020*. Washington, DC: Georgetown Center on Education and the Workforce. Retrieved from [https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.FR\\_Web\\_.pdf](https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.FR_Web_.pdf)
- Center for American Progress. (2015). *Talk poverty: Tennessee*. Retrieved from <http://talkpoverty.org/state-year-report/tennessee-2015-report/>
- Center for Business and Economic Research, University of Tennessee at Knoxville. (2011). *Annual population projections for Tennessee by age, sex, and race/ethnicity: 2011 to 2064* [Data file]. Retrieved from <http://cber.haslam.utk.edu/popproj.htm>
- Center for Minority Serving Institutions. (2016). *MSI directory* [Data file]. Retrieved from <http://www2.gse.upenn.edu/cmsi/content/msi-directory>
- Chattanooga State Community College (n. d.). *SAILS*. Retrieved from <https://www.chattanoogaastate.edu/sails>
- College Board. (2016). *Tennessee 2014 results: AP*. Retrieved from <https://www.collegeboard.org/program-results/2014/tennessee>
- Complete College America (CCA). (2010). *Complete college Tennessee: Challenges and opportunities*. Indianapolis, IN: Author. Retrieved from [http://media.timesfreepress.com/docs/2010/01/TN\\_College\\_Completion\\_Recommendations.pdf](http://media.timesfreepress.com/docs/2010/01/TN_College_Completion_Recommendations.pdf)
- Crandall, J. R., & Soares, L. (2015). *The architecture of innovation: System-level course redesign in Tennessee*. Retrieved from American Council on Education website: <https://www.acenet.edu/news-room/Documents/The-Architecture-of-Innovation-System-Level-Course-Redesign-in-Tennessee.pdf>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Dougherty, K. J., Natow, R. S., Hare, R. J., Jones, S. M., Vega, B. E. (2011, February). *The politics of performance funding in eight states: Origins, demise, and change*. Final report to Lumina Foundation. Retrieved from <http://files.eric.ed.gov/fulltext/ED517751.pdf>
- Dougherty, K., & Natow, R. (2015). *The politics of performance funding for higher education, origins, discontinuations, and transformations*. Baltimore, MD: John Hopkins University Press.
- Drive to 55 Alliance. (n.d.). *Tennessee LEAP*. Retrieved from <http://driveto55.org/initiatives/tennessee-leap>
- Epstein, G. (1980). Desegregation of public institutions of higher education: Merger as a remedy. *Chicago-Kent Law Review*, 56. Retrieved from <http://tinyurl.com/jucpvfp>

- Fortune. (2016). *Fortune 500*. Retrieved from <http://fortune.com/fortune500/>
- Fox, W., Kessler, L., Haar, S., & Scott, K. (2016). *Economic benefits of postsecondary credentials: Incremental earnings and revenues upon Drive to 55 achievement*. Retrieved from [http://www.tnecd.com/lib/file/manager/higher\\_education\\_research\\_publication.pdf](http://www.tnecd.com/lib/file/manager/higher_education_research_publication.pdf)
- Heller, D. E., & Marin, P. (Eds.) (2002). *Who should we help? The negative social consequences of merit scholarships*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E., & Marin, P. (Eds.) (2004). *State merit scholarship programs and racial inequality*. Cambridge, MA: The Civil Rights Project at Harvard University.
- House, E. (2016, November). *The Tennessee Promise: Policy diffusion, college-going and the power of "free."* Paper presented at The Association for the Study of Higher Education, Columbus, OH.
- Information for Financial Aid Professionals (IFAP). (2016). *Federal Pell grant program*. Retrieved from <https://ifap.ed.gov/dpcletters/attachments/GEN1601Attach.pdf>
- The Information Technology & Innovation Foundation. (2014). *The 2014 state new economy index: Benchmarking economic transformation in the states*. Retrieved from <http://www.itif.org/files/2014-state-new-economy-index.pdf>.
- The Institute for College Access & Success (TICAS). (2015). *College-level student debt and undergraduate financial aid data*. Retrieved from <http://college-insight.org>
- Institute for Research on Higher Education (IRHE). (2016). *College affordability diagnosis: Tennessee*. Retrieved from <http://www2.gse.upenn.edu/irhe/affordability-diagnosis>
- Johnson, N., & Yanagiura, T. (2016). *Early results of outcomes-based funding in Tennessee*. Indianapolis, IN: Lumina Foundation. Retrieved from <https://www.luminafoundation.org/resources/early-results-of-outcomes-based-funding-intennessee>
- Jones, T. (2014). *Performance funding at MSIs: Considerations and possible measures for public minority-serving institutions*. Atlanta, GA: Southern Education Foundation.
- Karp, M. M., Hughes, K. L., & Cormier, M. (2012). *Dual enrollment for college completion: Findings from Tennessee and peer states*. Submitted to the Nashville Chamber of Commerce, on behalf of the Community College Research Center. Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-collegecompletionTN-peer-states.pdf>
- Kingdon, J. (2011). *Agendas, alternatives and public policy*. Boston, MA: Longman.
- McClane, J. G. (2009). State wins grant to improve college graduation rates. *Times Free Press*. Retrieved from <http://www.timesfreepress.com/news/news/story/2009/nov/24/state-wins-grant-improve-college-graduation-rates/244039/>
- McClane, J. G. (2010, April 19). For-profit colleges lure adults. *Times Free Press*. Retrieved from <http://tinyurl.com/zghpua9>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). *Qualitative data analysis: A methods sourcebook*. (3rd ed.). Thousand Oaks, CA: Sage.
- Morgan, J. G. (2016). Letter to Governor Haslam. Retrieved from [https://www.insidehighered.com/sites/default/server\\_files/files/JohnMorganLetterToGovHaslam.pdf](https://www.insidehighered.com/sites/default/server_files/files/JohnMorganLetterToGovHaslam.pdf)
- Mosteller, F. (1995). The Tennessee study of class size in the early school grades. *The Future of Children*, 5(2), 113–127. Retrieved from [http://www.princeton.edu/futureofchildren/publications/docs/05\\_02\\_08.pdf](http://www.princeton.edu/futureofchildren/publications/docs/05_02_08.pdf)

- National Association of State Student Grant and Aid Programs (NASSGAP). (2014). *45<sup>th</sup> annual survey report on state-sponsored student financial aid: 2013-2014 Academic Year*. Retrieved from <http://www.nassgap.org/viewrepository.aspx?categoryID=3#>
- National Center for Educational Statistics (NCES). (2015). *The digest of education statistics*. Data file. Washington, DC: U.S. Department of Education Retrieved from <http://nces.ed.gov/pubsearch/getpubcats.asp?sid=091#06>
- National Center for Higher Education Management Systems (NCHEMS). (2009). *Making opportunity affordable – Tennessee policy audit*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/CMSpring2009\\_II.pdf](https://www.tn.gov/assets/entities/thec/attachments/CMSpring2009_II.pdf)
- National Center for Higher Education Management Systems (NCHEMS). (2010). *College-going rates of high school graduates – directly from high school, 1992-2010*. Retrieved from <http://www.higheredinfo.org/dbrowser/index.php?measure=32>
- National Conference of State Legislators. (2014). State legislator compensation. Retrieved from <http://www.ncsl.org/research/about-state-legislatures/2014-ncsl-legislator-salary-and-per-diem-table.aspx>
- National Governors Association. (n.d.). *Governors power and authority*. Retrieved from <https://www.nga.org/cms/home/management-resources/governors-powers-and-authority.html>
- National Science Foundation (NSF). (2014a). *Higher education R&D expenditures, by state: FYs 2005-14*. Retrieved from [http://ncesdata.nsf.gov/herd/2014/html/HERD2014\\_DST\\_63.html](http://ncesdata.nsf.gov/herd/2014/html/HERD2014_DST_63.html)
- National Science Foundation (NSF). (2014b). *Higher education R&D expenditures, by state and source of funds: FY 2014*. Retrieved from [http://ncesdata.nsf.gov/herd/2014/html/HERD2014\\_DST\\_65.html](http://ncesdata.nsf.gov/herd/2014/html/HERD2014_DST_65.html)
- National Skills Coalition. (2014). *United states middle skills fact sheet*. Retrieved from <http://www.nationalskillscoalition.org/resources/publications/file/middle-skill-fact-sheets-2014/NSC-Tennessee-MiddleSkillFS-2104.pdf>
- National Student Clearinghouse. (2016). *Table 7: Estimated Enrollment by State of Institution (Title IV, Degree-Granting Institutions)*. Retrieved from <https://nscresearchcenter.org/currenttermenrollmentestimate-fall2015/>
- Ness, E. C., Deupree, M. M., & Gándara, D. (2015, November). Campus responses to outcomes-based funding in Tennessee: Robust, aligned, and contested. Final report to Tennessee Higher Education Commission and Ford Foundation.
- Office of the Governor. (2016). *State of Tennessee: The budget, fiscal year 2016–2017*. Volume 1. Retrieved from <https://www.tn.gov/assets/entities/governor/attachments/2017BudgetDocumentVol1.pdf>
- Perna, L. W., & Finney, J. (2014). *The attainment agenda: State policy leadership in higher education*. Baltimore, MD: Johns Hopkins University Press.
- Roberts, N. C., & King, P. T. (1991). Policy entrepreneurs: Their Activity structure and function in the policy process. *Journal of Public Administration Research and Theory*, 1(2), 147–175.
- Southern Regional Education Board (SREB). (2016). *Higher education fact book 2016: Appropriations and tuition for higher education-related operations and funding per FTE, by state, type, and institution*. Retrieved from <http://www.sreb.org/general-information/appropriationsand-tuition>

- St. John, E. P., Daun-Barnett, N., & Moronski-Chapman, K. M. (Eds.). (2013). *Public policy and higher education: Reframing strategies for preparation, access, and college success*. New York, NY: Routledge.
- State Higher Education Executive Officers Association (SHEEO). (2016). *State higher education finance fiscal year 2015*. Retrieved at [http://sheeo.org/sites/default/files/project-files/SHEEO\\_FY15\\_Report\\_051816.pdf](http://sheeo.org/sites/default/files/project-files/SHEEO_FY15_Report_051816.pdf)
- Tamburin, A. (2015, November 23). Gates Foundation gives \$2 million to Tennessee colleges. *The Tennessean*. Retrieved from <http://www.tennessean.com/story/news/education/2015/11/23/gates-foundation-gives-2-million-tennessee-colleges/76273168/>
- Tennessee Advisory Committee. (2008, April). *School desegregation in Tennessee: 12 districts released from desegregation orders, 17 districts remain under court jurisdiction*. Retrieved from <http://www.usccr.gov/pubs/TNDESEGFULL.pdf>
- Tennessee Board of Regents. (n.d.) *Budget/funding Q&A*. Retrieved from <https://www.tbr.edu/focus/budgetfunding-qa>
- Tennessee Department of Education. ([n.d.]a). *ACT/SAT Taking*. Retrieved from <https://www.tn.gov/education/topic/act-sat>
- Tennessee Department of Education. ([n.d.]b). *Dual enrollment*. Retrieved from <https://www.tn.gov/education/topic/dual-enrollment>
- Tennessee Department of Education. ([n.d.]c). *National Assessment of Educational Progress*. Retrieved from <https://www.tn.gov/education/topic/naep>
- Tennessee Department of Education. ([n.d.]d). *TNReady: Math and ELA*. Retrieved from <https://www.tn.gov/education/topic/tntready>
- Tennessee General Assembly. (2016). *HB2578*. Retrieved from <http://wapp.capitol.tn.gov/apps/BillInfo/Default.aspx?BillNumber=HB2578&GA=109>
- Tennessee Higher Education Commission (THEC). ([n.d.]a). *About THEC*. Retrieved from <https://www.tn.gov/thec/topic/about-thec>
- Tennessee Higher Education Commission (THEC). ([n.d.]b). *Section IV. Student progression and success*. Retrieved from <https://www.tn.gov/thec/article/profiles-and-trends-section-iv>
- Tennessee Higher Education Commission (THEC). (2007). *Statutory data report, 2007*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2007\\_StatutoryDataReport2007.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2007_StatutoryDataReport2007.pdf)
- Tennessee Higher Education Commission (THEC). (2008). *Statutory data report, 2008*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2008\\_StatutoryDataReport2007-08.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2008_StatutoryDataReport2007-08.pdf)
- Tennessee Higher Education Commission (THEC). (2009). *Tennessee higher education factbook, 2008-09*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2009\\_FactBook2008-09.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2009_FactBook2008-09.pdf)
- Tennessee Higher Education Commission (THEC). (2010). *Tennessee higher education factbook, 2009-10*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2010\\_09\\_10\\_FBReports.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2010_09_10_FBReports.pdf)
- Tennessee Higher Education Commission. (2011a). *Outcomes based formulas explanation*. Retrieved from [http://www.state.tn.us/thec/complete\\_college\\_tn/ccta\\_files/outcomes](http://www.state.tn.us/thec/complete_college_tn/ccta_files/outcomes)
- Tennessee Higher Education Commission (THEC). (2011b). *Tennessee higher education factbook, 2010-11*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2011\\_2010-11%20Fact%20Book.PDF](https://www.tn.gov/assets/entities/thec/attachments/LM2011_2010-11%20Fact%20Book.PDF)

- Tennessee Higher Education Commission (THEC). (2012). *Tennessee higher education factbook, 2011-12*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2012\\_2011-%202012%20Fact%20Book%20for%20Web%20\(13.1.9\).pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2012_2011-%202012%20Fact%20Book%20for%20Web%20(13.1.9).pdf)
- Tennessee Higher Education Commission (THEC). (2013). *Tennessee higher education factbook, 2012-13*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2013\\_2012-2013%20Factbook.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2013_2012-2013%20Factbook.pdf)
- Tennessee Higher Education Commission (THEC). (2014). *Tennessee higher education factbook, 2013-14*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/LM2014\\_2013-2014\\_FACTBOOK.pdf](https://www.tn.gov/assets/entities/thec/attachments/LM2014_2013-2014_FACTBOOK.pdf)
- Tennessee Higher Education Commission (THEC). (2015a). *2014-2015 Tennessee higher education factbook*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/2014-15\\_Factbook.pdf](https://www.tn.gov/assets/entities/thec/attachments/2014-15_Factbook.pdf)
- Tennessee Higher Education Commission (THEC). (2015b). *Articulation and transfer in Tennessee high education: Annual report, 2014-15 academic year*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/Articulation\\_Transfer\\_Report\\_2015.pdf](https://www.tn.gov/assets/entities/thec/attachments/Articulation_Transfer_Report_2015.pdf)
- Tennessee Higher Education Commission (THEC). (2015c). *Policy manual*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/Policy\\_Manual\\_as\\_revised\\_01-29-15.pdf](https://www.tn.gov/assets/entities/thec/attachments/Policy_Manual_as_revised_01-29-15.pdf)
- Tennessee Higher Education Commission (THEC). (2015d). *Tennessee Education Lottery Scholarship Program annual report: Recipient outcomes through fall 2014*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/2015\\_TELS\\_Fact\\_Book.pdf](https://www.tn.gov/assets/entities/thec/attachments/2015_TELS_Fact_Book.pdf)
- Tennessee Higher Education Commission (THEC). (2015e). *Tennessee higher education adult student factbook, 2014-15*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/2014-2015\\_Adult\\_Student\\_Fact\\_Book.pdf](https://www.tn.gov/assets/entities/thec/attachments/2014-2015_Adult_Student_Fact_Book.pdf)
- Tennessee Higher Education Commission. (2015f). *TN Promise Year 1*. Retrieved from <https://www.tn.gov/thec/article/tn-promise-year-1-infographic>
- Tennessee Higher Education Commission (THEC). (2016a). *2015-2016 Tennessee higher education factbook*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/2015-2016\\_Fact\\_Book.pdf](https://www.tn.gov/assets/entities/thec/attachments/2015-2016_Fact_Book.pdf)
- Tennessee Higher Education Commission (THEC). (2016b). *Articulation and transfer in Tennessee high education: Annual report, 2015-16 academic year*. Retrieved from [https://www.tn.gov/assets/entities/thec/attachments/Articulation\\_Transfer\\_Report\\_2016.pdf](https://www.tn.gov/assets/entities/thec/attachments/Articulation_Transfer_Report_2016.pdf)
- Tennessee Higher Education Commission (THEC). (2016c). *Commission guidance regarding implementation of the FOCUS Act*. Retrieved from [http://www.tn.gov/assets/entities/thec/attachments/FOCUS\\_Memo\\_Final.pdf](http://www.tn.gov/assets/entities/thec/attachments/FOCUS_Memo_Final.pdf)
- Tennessee Higher Education Commission (THEC). (2016d). *Outcomes formula model* [Excel Document]. Retrieved from <https://www.tn.gov/thec/article/2015-20-funding-formula>
- Tennessee Higher Education Commission (THEC). (2016e). *Outcomes-based funding formula overview* [Word Document]. Retrieved from [https://tn.gov/assets/entities/thec/attachments/2015-2020\\_Formula...](https://tn.gov/assets/entities/thec/attachments/2015-2020_Formula...)
- Tennessee Higher Education Commission (THEC). (2016f). *Postsecondary attainment in the Decade of Decision: The Master Plan for Tennessee postsecondary education 2015–*

2025. Retrieved from <https://www.tn.gov/assets/entities/thec/attachments/MasterPlan2025.pdf>
- Tennessee Higher Education Commission (THEC). (2016g). *Profiles and trends in Tennessee Higher Education: 2016 annual report*. Retrieved from <https://www.tn.gov/assets/entities/thec/attachments/Profiles-Trends-2016.pdf>
- Tennessee Higher Education Commission. (THEC). (2016h). *TN Promise Year 1*. Retrieved from <http://www.tn.gov/thec/article/tn-promise-year-1-infographic>
- Tennessee Higher Education Commission (THEC). (2017). *Tennessee Labor Education Alignment Program (LEAP): Annual report*. Retrieved from <http://www.tn.gov/assets/entities/thec/attachments/LEAPReport2017.pdf>
- Tennessee Promise. (n.d.) *Overview*. Retrieved from <http://tnpromise.gov/about.shtml>
- Tennessee Reconnect (n.d.). *One pager: Tennessee Reconnect*. Retrieved from <https://www.tn.gov/nexttennessee/topic/nt-one-pagertennessee-reconnect>
- U.S. Census Bureau. (2015a). American Community Survey (ACS). Retrieved from <https://www.census.gov/programs-surveys/acs/>
- U.S. Census Bureau. (2015b). *Selected characteristics of the native and foreign-born populations, 2009-2015 American Community Survey, 5-year estimates*. Retrieved from [https://factfinder.census.gov/bkmk/table/1.0/en/ACS/15\\_5YR/S0501/0400000US47](https://factfinder.census.gov/bkmk/table/1.0/en/ACS/15_5YR/S0501/0400000US47)
- U.S. Census Bureau. (2015c). School enrollment, 2009-2015 American Community Survey, 5-year estimates. Retrieved from [https://factfinder.census.gov/bkmk/table/1.0/en/ACS/15\\_5YR/S1401/0400000US47](https://factfinder.census.gov/bkmk/table/1.0/en/ACS/15_5YR/S1401/0400000US47)
- U.S. Census Bureau. (2015d). Sex by college or graduate school enrollment by type of school by age for the population 15 Years and Over, 2009-15 American Community Survey, 5-year estimates. Retrieved from [https://factfinder.census.gov/bkmk/table/1.0/en/ACS/09\\_5YR/B14004/0400000US47](https://factfinder.census.gov/bkmk/table/1.0/en/ACS/09_5YR/B14004/0400000US47)
- U.S. Census Bureau. (2016). *Quick facts: Tennessee*. Retrieved from <http://www.census.gov/quickfacts/table/PST045215/47,00>
- U.S. Chamber of Commerce. (2007). *Leaders and laggards: A state-by-state report card on educational effectiveness*. Retrieved from <http://www.uschamber.com/reportcard/2007>
- U.S. Chamber of Commerce Foundation. (2015). *The path forward: Improving opportunities for African-American students*. Retrieved from <http://tinyurl.com/zpakvun>
- U.S. Department of Education (2015). Institute of Education Sciences, National Center for Education Statistics. *The Integrated Postsecondary Education Data System* [Data files 2001-2015]. Retrieved from <https://nces.ed.gov/ipeds/datacenter/>
- Western Interstate Commission for Higher Education (WICHE). (2016). *Knocking at the college door: Projections of High School Graduates* [Data file]. Retrieved from <http://knocking.wiche.edu/data>
- The White House, Office of the Press Secretary. (2015). Remarks by the President on America's College Promise [Press release]. Retrieved from <https://www.whitehouse.gov/the-press-office/2015/01/09/remarks-president-americas-college-promise>
- WTVC News Channel 9. (2016, April 7). Haslam announces 80.6% retention rate for Tennessee Promise students. *WTVC News Channel 9*. Retrieved from <http://newschannel9.com/news/local/haslam-announces-806-retention-rate-for-tennessee-promise-students>.
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

## **Appendix A: Conceptual Framework and Methods**

This study is guided primarily by Perna and Finney's (2014) conceptual model for understanding how public policy influences state higher education performance, the result of the researchers' case studies in five diverse states (Georgia, Illinois, Maryland, Texas, and Washington). Central to their conceptual model (Appendix B) is the critical role state policy leadership plays in advancing a public agenda that impacts K–12 academic preparation, higher education system performance, and equitable education outcomes for underserved populations. Perna and Finney (2014) also assert that consideration of the unique state context (e.g., historical, demographic, economic, political) is necessary for understanding the relationship between a state's policies and its higher education performance. This report extends the work of Perna and Finney (2014) to examine the same relationships between political leadership, policy, and higher education attainment, but within the unique context of Tennessee.

Our conceptual understanding and analytic approach were also reinforced by St. John, Daun-Barnett, and Moronski-Chapman's (2013) framework for assessing the impact of federal and state policies on higher education attainment (Appendix C). St. John and colleagues' (2013) framework identifies the key factors that should be considered when measuring and assessing the relationship between state policy and higher education performance: population demographics, state political and historical context, K–12 academic preparation, and higher education system design and affordability.

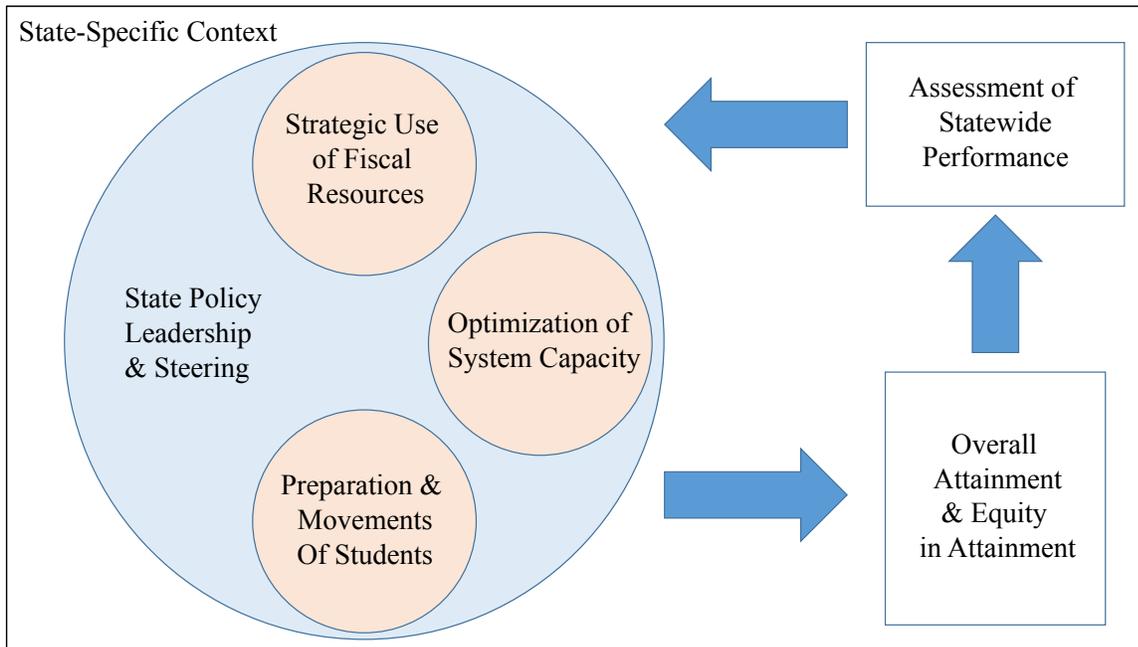
This study utilized a case study design (Yin, 2014) to understand the effect of state policy on state performance within the Tennessee context. To answer these research questions, we analyzed national and state data, publicly available documents, and academic publications. Additionally, we conducted 18 interviews in spring 2016 with key informants knowledgeable about Tennessee higher education policy (Table A1): three background interviews during the initial stages of our project and 15 formal semi-structured qualitative interviews via telephone, each lasting an average of 60 minutes (Creswell, 2013).

<b>Participant Profile</b>	<b>Number of Participants</b>
Office of the Governor and cabinet staff	5
State higher education agency officials	3
Institutional leaders/administrators	2
TN Board of Regents leadership and staff	3
Researchers and observers	5
<b>Total</b>	<b>18</b>

*Table A1.* Study Participant Profiles

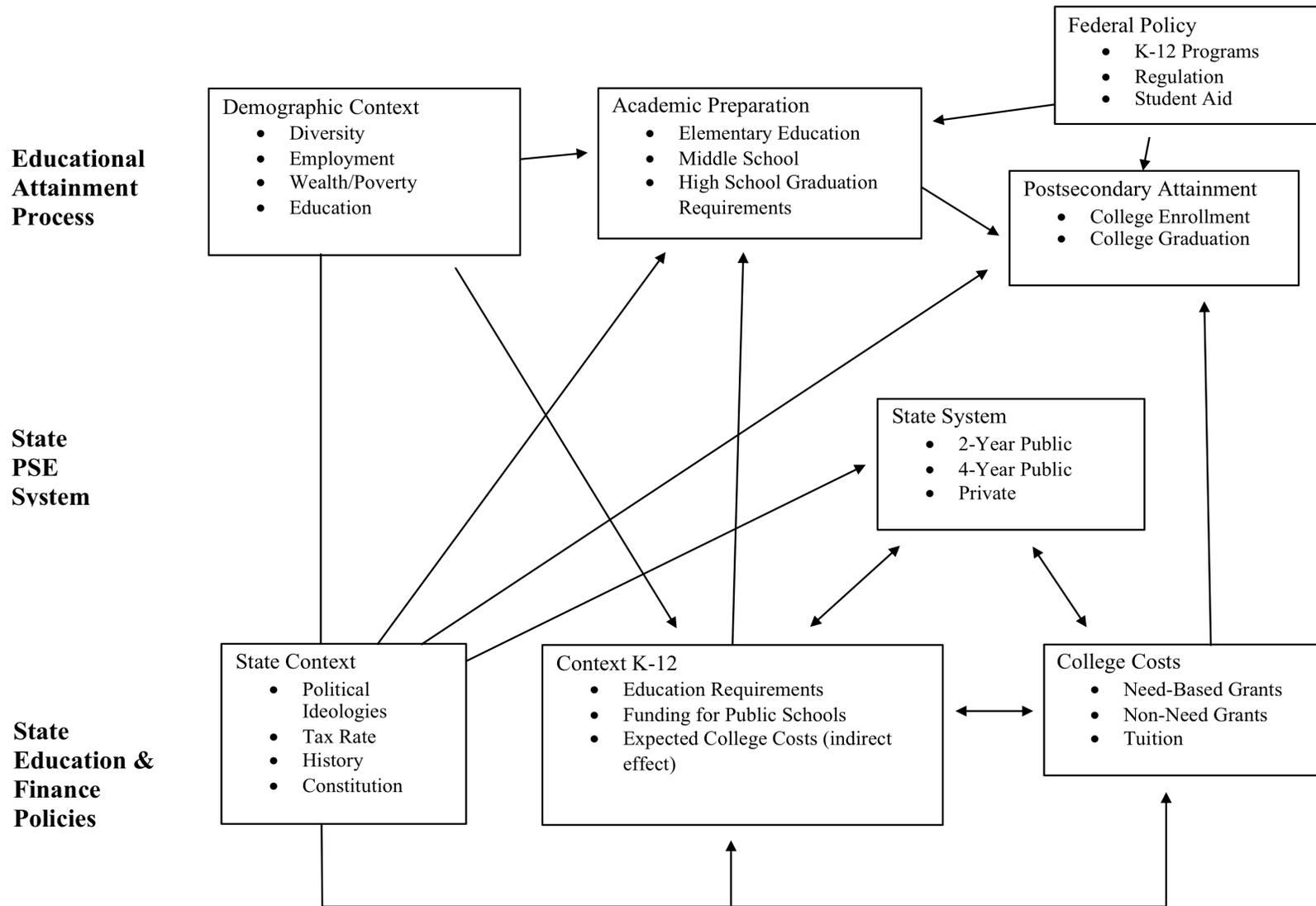
We audio-recorded all interviews and at least two team members took extensive notes during each interview. Team members transcribed and systematically reviewed the interviews to draw out potential themes and salient participant quotes based on inductive and deductive processes (Miles, Huberman, & Saldaña, 2013). We employed several strategies to ensure quality and trustworthiness of our findings, including consulting with national higher education policy experts during the project’s design phase, digitally storing and making readily accessible all forms of collected data, and conducting limited member-checks and follow-up interviews with key informants.

## Appendix B: Conceptual Model for Understanding How State Public Policy Influences Higher Education Performance



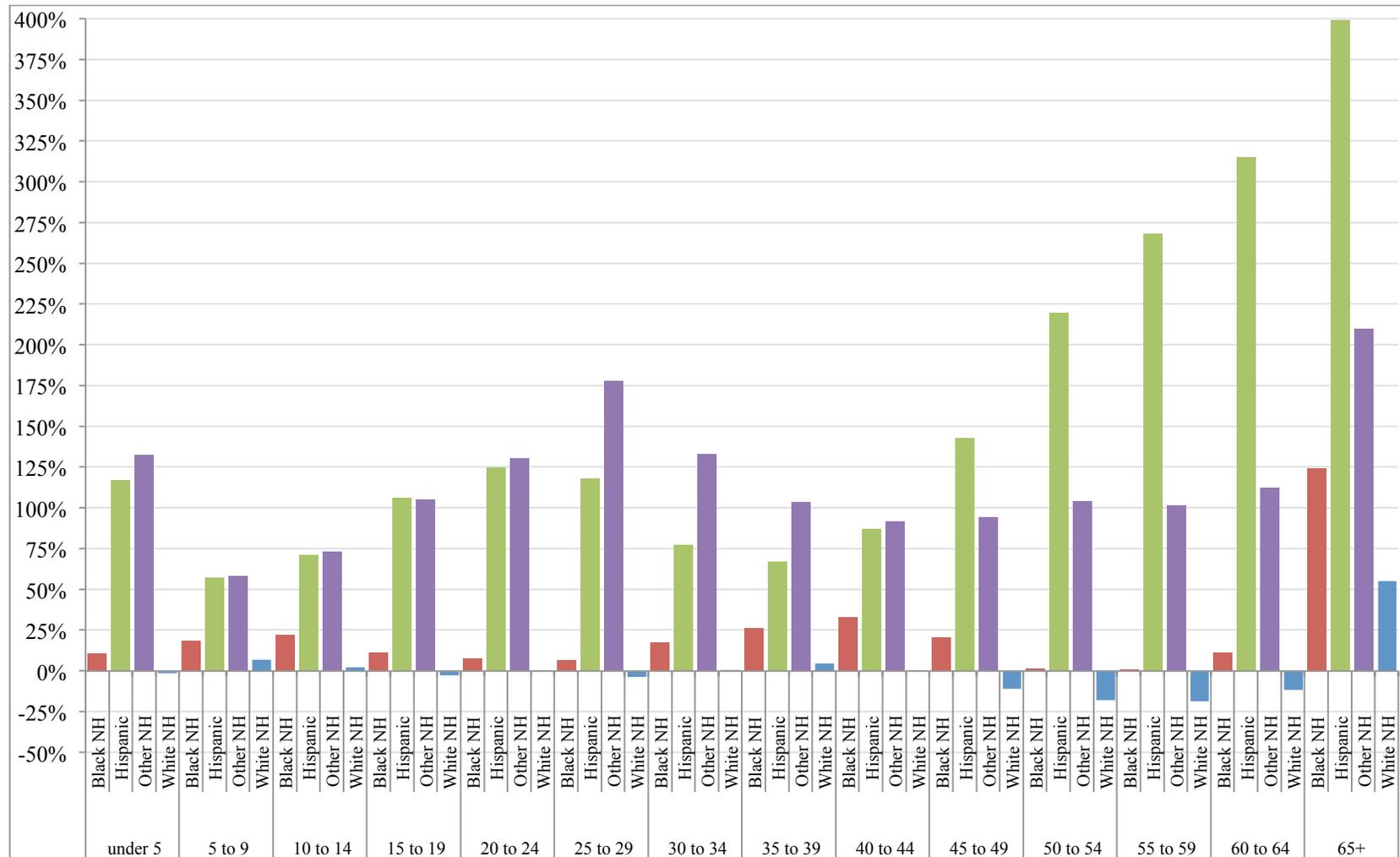
Source:  
Adapted from Perna & Finney (2014)

## Appendix C: Framework for Assessing the Impact of Federal and State Policy on Postsecondary Attainment



Source: Adapted from St. John, Daun-Barnett, & Moronski-Chapman (2013)

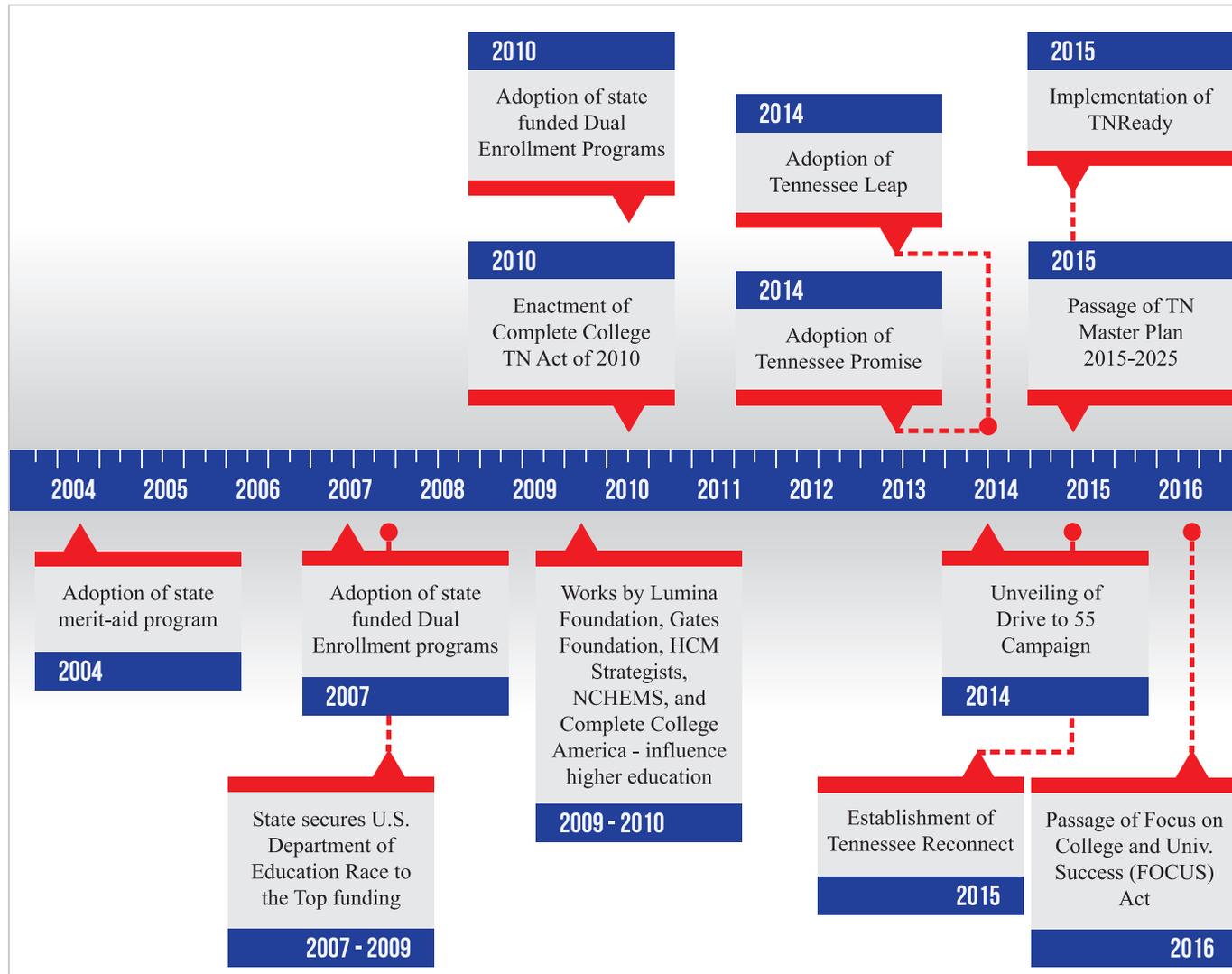
### Appendix D: Percent Change of Tennessee Population by Age and Race/Ethnicity (2016 to 2036)



Source: Center for Business and Economic Research, University of Tennessee at Knoxville (2011).

Note: Calculations by authors.

## Appendix E: Timeline of Selected Higher Education Policy Initiatives in Tennessee (2004–2016)



Sources: Complete College

America (2010); Crandall & Soares, 2015; Drive to 55 Alliance, (n.d.); Johnson & Yanagiura, 2016; Karp, Hughes, & Cormier, 2012; Office of the Governor, 2016; NCHEMS, 2009; THEC, 2015d, 2016f; U.S. Chamber of Commerce, 2007.