Tennessee Passes and Builds on Landmark Legislation to “Drive to 55”

National Evaluation of Lumina Foundation’s Productivity Initiative

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Tennessee Passes and Builds on Landmark Legislation to “Drive to 55”:

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Executive Summary

Tennessee was one of seven states selected by Lumina Foundation in 2009 to launch a statewide initiative to increase productivity in higher education. This report summarizes Tennessee’s achievements and its challenges in advancing productivity and increasing completions during the grant period.

SPEC Associates has been funded by Lumina Foundation to be the third-party evaluator of this productivity work since 2008. The seven states participating in Lumina’s productivity initiative were Arizona, Indiana, Maryland, Montana, Ohio, Tennessee, and Texas.

The current positive and productive higher education policy environment in Tennessee owes much to the passage of the Complete College Tennessee Act of 2010. That landmark legislation has been described nationally as a roadmap for higher education reform directed toward increasing student completion. The state also worked on several fronts to improve transitions for students, both adult and traditional.

Central to the Complete College Tennessee Act was a new funding strategy that rewards public colleges and universities for student persistence and completion, not just enrollment. The new model reinforced Tennessee’s long-standing commitment to outcomes-based funding by increasing performance-based state allocations from 5.5 percent of total higher education operating allocations to 100 percent. New models were developed for community colleges as well as four-year institutions, with performance metrics indicative of institutional efficiency and productivity, weighted to reflect each institution’s unique mission. Across-the-board funding premiums were applied to performances by adult and low-income students, to reflect statewide concern for critical shortage student subpopulations. Higher education leaders reported changes in institutional behaviors as a result of performance funding, but the extent of these changes and their impacts on student outcomes are not yet fully known.

The new law also required public two-year and four-year institutions to develop improved transfer policies. These policies were implemented as the Tennessee Transfer Pathways, which have already been negotiated through articulation agreements in most academic disciplines. The law also mandated partnership agreements for all community colleges and universities to allow for dual admissions of students. These processes were negotiated in the geographic regions in which community colleges and universities are most likely to share students.

Two governors from two different political parties supported the completion agenda in Tennessee. Governor Phil Bredesen (D) supported and signed the Complete College Tennessee Act into law. The current Governor, Bill Haslam (R), is continuing along a similar path with his “Drive to 55”, a statewide goal he has publicized to increase the percentage of Tennesseans with college degrees or certificates to 55 percent by 2025.

The Complete College Tennessee Act of 2010 was a landmark policy for the state, sending a clear message of the importance of completion.
To achieve this ambitious goal, the state will need to graduate many more students, especially adults and students from low-income families—a task that will be expensive and challenging. How the Governor frames the cost challenges, how the Legislature shapes its investments in higher education, and how higher education leaders respond will be important signals as to who will pay the increased price of educating enough Tennesseans to achieve the state’s “Drive to 55” goals.

Some Promise in Policies to Increase Completion for Adults

The productivity grant funded two consortia to test models for improving adult student transitions across institutions; these consortia saw limited success, according to in-state evaluations. The grant also funded a study of statewide labor force supply and demand, a case study of business-higher education collaboration, and other efforts.

As explained below, Tennessee also took several other actions that show promise in serving adult students.

- The Legislature passed the Labor-Education Alignment Program (LEAP) Act, requiring higher education and workforce agencies to expand programs that respond to the needs of employers. This law is expected to balance short-term and immediate employer needs with statewide shifts in the workforce training, but it is currently unfunded.
- Western Governors University Tennessee was created to provide expanded opportunities for residents to earn competency-based degrees. Some higher education leaders in Tennessee reported that regional accreditation standards limit public institutions’ ability to offer competency-based degrees.
- Public institutions, through a statewide prior learning assessment (PLA) task force, reached consensus with institutions for statewide PLA criteria, and the Board of Regents adopted these criteria as systemwide policy and guidelines. Through PLA, adults can receive college credit for skills and experiences they have already attained, including through military service.
- The Tennessee Promise legislation, passed in 2014, introduced free Community College tuition, to take effect in the fall of 2015.

According to the U.S. Census Bureau, Tennessee has 754,843 adults between the ages of 25 and 64 who have some college but no degree.

Western Governors University provides online coursework and student support services, offers pathways to credit students for their previous knowledge and experience, and encourages students to progress at their own pace while requiring continuous full-time attendance.

The Governor’s “Drive to 55” initiative, in its focus on increasing completion, emphasizes Tennessee’s labor market and employer needs, especially to serve small employers that collectively employ a substantial share of the state’s workers.
Other Factors May Impact State Completion Goals

Further progress in meeting Tennessee’s attainment goals includes new support models now being tested at Tennessee’s institutions, such as providing students with academic roadmaps, offering cohort models and block scheduling more broadly, intensifying advising, and offering developmental education assessments and remediation at the high school level.

Higher education leaders noted, however, that the state’s student financial aid programs are not ideally structured to maximize retention and completion. Tennessee is among the top states in investing in student financial aid, but paradoxically its emphasis on merit-based aid over need-based aid limits college access for low-income students, which in turn poses barriers to the state’s efforts to increase completion rates.

Tennessee did pay attention to low-income students when it made some changes to its merit-based Lottery Scholarship program in order to incentivize student progress, such as requiring students to maintain a 2.75 grade point average rather than 3.00 to retain the scholarship. These changes were made after the Tennessee Higher Education Commission conducted a quasi-experimental analysis on the impact of raising the grade point average on low-income students. Another change to incentivize progress was capping eligibility for the award at 120 hours and making it available for summer attendance. Low-income students might still be at risk of dropping out if their grade point average dips and they lose financial aid—which can impede efforts to increase overall educational attainment. Incentives designed to promote completion within a two- and four-year time frame may work against the recruitment and retention of part-time adult students.

In addition, Tennessee has some regions that do not strongly support the need for higher education. Depending on how pervasive this is, this non-college-going culture can pose challenges for the state’s completion goals. At the same time, there are local, private initiatives to encourage college completion that show promise for statewide implementation.

Importance of Ongoing State Leadership

Tennessee’s productivity achievements encompass a range of moving parts, most of which are interrelated and can only be fully measured over the long term. Champions played an important role in developing the new state policies; bipartisan support in the Legislature as well as the endorsement of two Governors bodes well for the sustainability of Tennessee’s efforts. However, the state will need even broader, more sustained leadership if it is to meet its goal to increase to 55 percent the share of adults with college degrees or postsecondary certificates of labor market value. This will require state policymakers, higher education administrators and faculty, and business leaders to work across silos to assure that the state invests in its completion agenda, and that current efforts do not get sidetracked as new Governors take office and new challenges focus legislative attention on other priorities.
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Introduction

Since 2008, Lumina Foundation has invested in Tennessee’s efforts to increase productivity in higher education. Lumina’s investment was part of a multistate initiative that focused on improving productivity in higher education by supporting statewide and systemwide efforts to enroll and graduate more students without increasing the cost per degree.

Tennessee was one of 11 states to receive a learning year grant from Lumina in 2008. Tennessee was also one of seven states selected for a four-year implementation grant in 2009. During the grant period, Lumina developed and refined its productivity agenda called “Four Steps to Finishing First in Higher Education” and asked the states to develop strategies aligned with these four areas:

1) **PERFORMANCE FUNDING**
   - Targeted incentives for colleges and universities to graduate more students with quality degrees and credentials.

2) **STUDENT INCENTIVES**
   - Strategic use of tuition and financial aid to incentivize course and program completion.

3) **NEW MODELS**
   - Lower-cost, high-quality approaches substituted for traditional academic delivery whenever possible to increase capacity for serving students.

4) **BUSINESS EFFICIENCIES**
   - Business practices that produce savings to graduate more students.

Tennessee’s work was overseen by a state policy team comprised of leaders from the Tennessee Higher Education Commission, the Governor’s Office, the State Board of Education, the Tennessee Independent Colleges and Universities Association, the Board of Regents, the Business Roundtable, and the University of Tennessee. A coordinator, funded by the Lumina grant, was responsible for day-to-day management, planning, and implementation of programs. Lumina grant funds also supported a state evaluator.

"Respondents" and "interviewees" referred to in this report include state policymakers and their staff, higher education administrators and faculty, business representatives, national experts, and others.
As well as receiving grant funding, Tennessee also received access to resources associated with the initiative, including participation in a Strategy Labs Network. The Strategy Labs Network is Lumina's method for delivering contextualized, just-in-time technical assistance, engagement opportunities, and support to state policymakers and higher education system leaders, so as to catalyze policy action in the Four Steps to Finishing First. Tennessee’s leaders participated in telephone, online, and face-to-face meetings in the state and nationally coordinated through the Strategy Labs. Examples of Tennessee’s Strategy Labs Network engagement include: participating in site visits to learn about Maryland’s course redesign efforts, hosting a discussion with other states about Tennessee’s performance funding model, receiving nonpartisan advice from the HCM Strategists advisor about options for restructuring the Lottery Scholarship, and support for attending a national convening at Lumina about prior learning assessment.

In 2008, Lumina asked SPEC Associates (SPEC) to evaluate its investments in Tennessee and the other six states participating in the productivity initiative. This report presents SPEC’s findings and analysis of the state’s achievements. Data collection for this evaluation ended in December 2013.

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**Strategy Labs Network Resources Available to States**

Strategy Labs activities included telephone, online, and in-person meetings with individuals and groups; convenings within states, across states, and nationally; and nonpartisan research and information, such as policy briefs, reports, and state-specific analyses. HCM Strategists served as the primary conduit of technical assistance in the states, and other national organizations provided resources through the Strategy Labs. Many organizations contributed to the states’ work. Overall, organizations supporting the Strategy Labs included:

- **HCM Strategists:** National intermediary for the productivity policy work; managed the advisors in the seven states; provided policy experts, technical assistance, report writing; and organized cross-state convenings.

- **Public Agenda:** National intermediary for engaging college and university leaders, faculty, and staff in efforts to increase productivity. Provided research, stakeholder engagement and capacity-building assistance to elevate the voices of students, faculty, employers and institutional practitioners to support states’ progress.

- **SPEC Associates:** National evaluation firm, providing real-time insights used to develop and manage the work across states.

- **National Governors Association Center for Best Practices:** Advised the intermediaries and developed a set of high-level metrics for policymakers to evaluate the return on public investments in higher education.

- **Institute for the Study of Knowledge Management in Education:** Provided workshops for change and hosted the online Knowledge Collaborative to facilitate information sharing and peer learning.

- **Catalytica:** Facilitated the use of video-based stories for individual, organizational, and community transformation.
Beyond describing Tennessee’s specific accomplishments, SPEC also examined factors that appeared to contribute to and/or challenge the state’s productivity work. The first section of this report focuses on the state’s activities and outcomes within the initiative’s agenda for change: the Four Steps to Finishing First. The second section presents specific insights about the state’s experiences across the Four Steps, including identifying some challenges and opportunities facing Tennessee that extend beyond the scope of Lumina’s investments.

Many individuals and organizations contributed to this evaluation and they are listed in Appendix I. Appendix II describes the evaluation methodology. SPEC’s evaluation reports from the other six states as well as cross-state evaluation reports can be found at www.specassociates.org.

Any conclusions in this report are those of SPEC Associates and are not meant to represent the opinions of any other individual or organization affiliated with this evaluation.
Four Steps to Finishing First

I. Tennessee’s Achievements

This section examines Tennessee’s activities and achievements in the Four Steps to Finishing First, particularly in the area of state and system-level program and policy change. Where appropriate, we also discuss the state’s work in engaging stakeholders and supporting champions—both of which were strategies used by the Strategy Labs Network.

Tables 1, 2, and 3 summarize Lumina’s support to Tennessee and Tennessee’s accomplishments under the Four Steps. Lumina’s investments were only one among many factors contributing to Tennessee’s achievements in higher education productivity. At the same time, participants interviewed by SPEC generally described Lumina’s contributions as significant in helping the state achieve its productivity goals. A more detailed analysis can be found in SPEC’s 2012 report, *National Evaluation of Lumina Foundation’s Productivity Work: Interim Report for Tennessee.*

**Table 1: Lumina’s Support for Tennessee’s Productivity Work**

A planning grant in 2008 to conduct a policy audit and create an implementation plan for improving higher education productivity.

A four-year implementation grant starting in 2009 that supported the following:

- Adult-serving consortia of two-year, four-year, and technology institutions in middle and west Tennessee and an evaluation of these efforts
- Revisions to the state’s performance-funding formula
- A workforce supply-and-demand study conducted by the University of Tennessee, Knoxville
### Table 1: Lumina’s Support for Tennessee’s Productivity Work (continued)

- Creation and promotion of an employer toolkit to support adult postsecondary education
- A coordinator for the implementation grant
- Story-telling consultation
- Public Agenda’s research and engagement support around:
  - barriers and contributors to college-going and completion for low- and middle-income non-credentialed adults,
  - employer-higher education partnerships,
  - enlightened leadership as a contributor to a climate for innovation in higher education,
  - developing the employer toolkit, and
  - Leadership for the Middle Tennessee Workforce Alliance Skills Panel pilot partnership between community colleges, technology centers, workforce investment boards and employers.

Support for an HCM Advisor as liaison between the Lumina Foundation and Tennessee Higher Education Commission as lead agency for the grant.

A web-based online community to facilitate knowledge sharing and collaboration.

Participation of state higher education leaders and policymakers in national higher education productivity convenings and Strategy Labs Network site visits.

A separate grant to the Tennessee Board of Regents system to create better articulation agreements between technical and community colleges, and to put cohort-based programs into community colleges.

### Table 2: Lumina’s Value-Add

*Lumina was a thought leader.*

“I think Lumina deserves all the credit for getting us to think bigger thoughts.”

*Lumina added an external voice to the state’s productivity discussions.*

“[Lumina’s president] is a fantastic communicator…to really crystallize what the goals for the foundation are…but really doing it in a Tennessee context…it’s been a very powerful resource for policy makers.”
“What’s extraordinary about this group is that it brings, you know, siloed persons who all have a lot to contribute to the discussion and puts them together in an informal basis where there’s not trappings of office.”

Lumina offered a unique national gathering where states could work on policy issues.

“What Lumina does that other groups don’t necessarily do enough of is give us roundtable time … where we can work on state issues.”

Lumina contributed to discussions of quality.

“[Through the Lumina grant, faculty can talk] about ‘hey, there’s something I tried in my Accounting 1 course that worked really well’ or ‘my students are having a terrible time with the concept.’ ”

Note: Lumina’s value-add is based on interviews with state and higher education leaders.

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**Table 3: Tennessee’s Achievements under Four Steps for Finishing First**

**Step 1:** The Tennessee Legislature passed a funding strategy requiring higher education appropriations to be based on outcomes. The subsequent Funding Formula Review introduced a heavy weighting for degree and certificate completions. This funding strategy was phased in over a three-year period and accounts for 100% of discretionary funds for higher education.

**Step 2:** Tennessee revised its Lottery Scholarship program to incentivize timely student progress, but has a mixed record on tuition setting policy. The University of Tennessee, Knoxville charges a flat fee of 15 credit hours for full-time students to encourage timely completion. In contrast, the Board of Regents institutions impose an additional albeit discounted tuition increase on students taking more than 12 credits per term.

**Step 3:** The state passed policy aimed at statewide scaling of two-year and four-year articulation agreements; created Western Governors University Tennessee; developed cohort programs and common course numbering at community colleges; reached an agreement with institutions about the criteria for prior learning assessment; and is working toward a reverse transfer system and a co-requisite model of developmental education. In addition, Austin Peay State University developed Degree Compass, an online student advisory tool. One of the two consortia of institutions in Tennessee designed to assist adult students has been modestly successful.

**Step 4:** Tennessee has not taken major direct action at the state level to improve business efficiencies at publicly funded institutions. The funding formula is expected to exert some pressure, however.

Note: Other funders and initiatives also contributed to the accomplishments Tennessee made in higher education productivity.
The Tennessee Legislature passed a funding strategy requiring higher education appropriations to be based on outcomes. The subsequent Funding Formula Review introduced a heavy weighting for degree and certificate completions. This funding strategy was phased in over a three-year period and accounts for 100 percent of discretionary funds for higher education.

**History: Performance funding began in the 1980s**

Since the early 1980s, Tennessee’s version of performance funding allocated 5.45 percent of state funds to institutions based on student learning outcomes. Each institution is required to set goals for student outcomes by academic program and then demonstrate adequate student achievement in reaching those goals. Institutions meeting their goals are awarded full funding; those that don’t fail to receive their full allotments of performance funding dollars but are not otherwise penalized. Adjustments are made for the types of students admitted and the types of programs offered, but there is no provision for educating under-represented students. The types of goals set and the means of evaluating achievement have shifted somewhat over the years. More selective institutions are more likely to focus on national standards while less selective institutions place more emphasis on measuring student growth and applied knowledge and skills. These provisions remained in place as an add-on even after the newer funding formula was adopted in 2010.

Tennessee’s grant sought to change the state’s funding formula to more heavily reward student persistence and to increase institutional productivity. The state’s grant goals were developed under the prior Democratic Governor and were carried forward, with minor adjustments, by the current Republican Governor.

**Findings: Major legislation passed that impacts performance-funding formula**

A Lumina-funded policy audit conducted in 2008 helped set the stage for the passage of the Complete College Tennessee Act of 2010. During the grant period, HCM Strategists provided nonpartisan advice on performance funding options.

The Complete College Tennessee Act created a new funding strategy for higher education and introduced several other initiatives to increase student completion. The Act was a milestone in the state’s legislative history, sending a clear message about the importance of completion. The Act was a result of agreements among higher education constituencies. This consensus led to legislative and gubernatorial agreements to produce a law changing
the direction of higher education in Tennessee. The Complete College Tennessee Act also required:

- The Tennessee Higher Education Commission to develop a statewide master plan to meet the goal of increasing educational attainment;
- The Higher Education Commission, in consultation with faculty senates, to develop a core set of classes (general education and pre-major) that would be fully transferable among all state colleges and universities by fall 2012; and
- The Tennessee Board of Regents to create a unified system of community colleges.

Strategy Labs Network activities highlighted Tennessee’s work in performance funding; representatives from 11 different states attended the Strategy Labs site visit that Tennessee hosted about performance funding. Notice taken by other states increased Tennessee’s credibility in this area on the national level.

The performance metrics for universities allocate funding to each institution based on:

- Numbers of undergraduate students progressing at 24, 48, and 72 total credit hours;
- Numbers of associate, bachelor’s, master’s, educational specialist, and doctoral degrees awarded;
- Amount of research and service funding;
- Numbers of transfer students with 12 credit hours or more;
- Numbers of degrees awarded per 100 full-time equivalent students; and
- Six-year graduation rate.

All metrics are weighed differentially depending on each university’s mission.

The funding formula for community colleges also rewards performance and allows for variable weightings based on institutional priorities. For community colleges, the metrics are:

- The number of students progressing at 12, 24, and 36 student credit hours;
- Numbers of dual enrollments;
- Numbers of associate degrees conferred;
- Numbers of certificates awarded;
- Numbers of job placements;
- Proportion of remedial and developmental successes;
- Numbers of transfers out with 12 credit hours or more;
- Workforce training (contact hours); and
- Numbers of awards per 100 full-time equivalent students.
There is a 40 percent premium given for low-income and adult student credentials earned and for various progression points at both community colleges and universities.

Each institution's performance allocation is not entirely determined by these measures, however. The state continues to devote 5.45% of the public higher education operational budget to student learning outcomes identified by the institutions themselves through Tennessee's long-standing performance-funding program.

In addition to performance funding, there was some discussion in Tennessee about changing the process for approving new instructional programs, potentially focusing them more on labor market needs. Historically, degree programs have been approved based in part on student demand. If an institution could show adequate student demand for a program, then that program was more likely to be approved and ultimately supported by state funding. Lumina sponsored a supply-and-demand study that showed a mismatch between the skills that are needed by employers and the skills that are available among Tennesseans.7 At this juncture, however, no action has been taken at the state level to require new programs to meet workforce demands.

Analysis: The impact of formula changes on institutional behavior is not yet known

There is currently limited evidence of progress toward improved completion as a result of the Complete College Tennessee Act. Interviewees from the campuses talked about changes in faculty and staff behavior, including implementation of new programs or policies aimed at supporting student success. A study funded by the Ford Foundation is now examining behavior changes at the campus level as a result of the Act. Early evidence suggests that these findings will be generally positive although there also may be some negative findings.

Few concerns were raised publicly about the new performance-funding policies, perhaps because the statewide development process was transparent and institutions were involved in that process. At the same time, several higher education leaders said that the engagement process was managed from the top in a way that did not encourage collaboration. There also were concerns expressed that the new funding strategy may, in practice, increase competition among institutions. Interviewees said that faculty are concerned about degree quality and advised of the danger that fiscal incentives could result in behaviors at the campus or program level that lower academic standards in order to produce more graduates.

The Complete College Tennessee Act of 2010 included a transition period that introduced the funding formula gradually, spreading its impact over three years. Legacy “hold-harmless” provisions ended in the 2013-14 fiscal year. Whether some of the concerns about the funding formula expressed privately will begin to be articulated publicly will be of interest. Institutions that believe they fare less well under the existing formula may lobby for changes.
Interviewees indicated that the state’s ability to execute policy was enhanced by Lumina’s grant and Strategy Labs Network activities. In particular, they said that these activities provide additional context and information that state leaders needed to identify policy priorities that, in turn were drafted in legislation. Interviewees also indicated, however, that Lumina could have provided—and might still provide—more technical assistance. Such assistance was envisioned as implementation strategies at the institutional level, including understanding potential impacts on institutions and students of policy alternatives. Such assistance likely would require a commitment beyond the grant period to work directly with institutions.

Tennessee’s annual appropriation to institutions represents a relatively low proportion of their total operating costs. Given a traditionally low investment in higher education and the unknowns inherent in the new performance-funding model, institutions over the next years may rely increasingly on tuition as their most malleable funding source rather than on the state’s new formula. If this is the case, the effects of performance funding on institutional behavior may be less than some anticipate.
Student Incentives

Tennessee revised its Lottery Scholarship program to incentivize timely student progress, but has a mixed record on tuition setting policy. The University of Tennessee, Knoxville charges a flat fee of 15 credit hours for full-time students to encourage timely completion. In contrast, the Board of Regents institutions impose an additional albeit discounted tuition increase on students taking more than 12 credits per term.

STATE AND SYSTEM-LEVEL STUDENT FINANCIAL AID POLICIES

History: Lottery Scholarship is the state’s major student financial aid vehicle

By national standards Tennessee has a large statewide student aid program. At $367 million in 2011 it is exceeded only by California, Florida, Georgia, Illinois, New York, Pennsylvania and Texas.8

Tennessee did not include the potential development of new financial aid policies as part of its grant proposal. Even so, the state did make some pertinent revisions to its Lottery Scholarship program, its primary student financial aid vehicle. Lottery Scholarships offer students grants based primarily on student merit rather than on financial need – indeed it is the only Lumina productivity grant state where need-based aid is lower than non-need based aid (see sidebar figure).9 Historically, students receiving these grants were not limited to taking a maximum number of total credit hours.

Findings: Lottery Scholarship policy changes limit credit hours and offer more flexibility

During the first years of Lumina’s initiative, there were concerns in Tennessee that insufficient income from the State Lottery would require the state to substantially reduce its grants. A Lottery Scholarship Stabilization Task Force was charged with proposing a range of fundamental changes to student grants. A result of that work was state policy in 2012 that limited Lottery Scholarship students to a maximum of 120 credit hours of aid in most cases, a policy change thought to encourage timely student progress.
toward a degree. These new rules also allow students to use the scholarship for summer terms, to provide them with more flexibility in progressing toward their degree.

The work of the Stabilization Task Force was not funded by the Lumina grant, but some of its recommendations (such as requiring recipients to maintain 15 credits per semester) were discussed at meetings sponsored by Lumina. Also, the state’s HCM advisor served as a consultant on these issues. The Higher Education Commission received a Lumina grant to conduct a student-level financial aid analysis and identify innovative approaches to student financial aid policy. A report from this study was published in April 2014.

Analysis: Lottery Scholarship still favors merit over need

State financial aid is a substantial investment in higher education in Tennessee, accounting for about $366.8 million in annual spending in 2011. On one hand, Tennessee has one of the most generous merit-based statewide student financial aid programs in the country. On the other hand, research has shown that need-based scholarship programs are more effective than merit-based programs in increasing degree completions. The state increased its investment in need-based aid somewhat, but these changes were small. For example, there are some need-based elements in the Lottery Scholarships program; students who qualify for merit grants can receive higher amounts of aid based on need.

However, in discussions with higher education leaders, interviewees noted that Tennessee’s student financial aid is not ideally structured to maximize retention and completion. Whereas many states face a revenue problem in supporting student financial aid, the challenge for Tennessee is how aid is distributed; its state financial aid focuses more on merit rather than need. This policy has the following impacts and opportunities:

- **Access and educational attainment.** Need-based financial aid grants expand access for populations of students who would otherwise not be able to attend college, particularly students from low-income families. In Tennessee, interviewees said that the primary beneficiaries of the Lottery Scholarships are those from higher income families. Shifting toward more need-based aid could help expand college enrollments and help the state reach its goal of increasing the share of the population with a degree or certificate.

- **Persistence and completion.** Interviewees said that far fewer than half of Lottery Scholarship recipients remain eligible for the scholarship through to graduation. The scholarship is forfeited if a student falls below a 2.75 grade point average, breaks continuous enrollment or takes fewer than 12 credit hours. Once lost, it is difficult for
students to get it back. Many students who lose financial aid for a term drop out. Modifying the eligibility requirements during college could help increase retention rates.

For example, offering a free course or partial scholarship to scholarship holders who fall just below the cut-off so that they have an opportunity to regain their status, as Austin Peay State University has done, might serve as a lifeline for marginal students while improving overall institutional retention rates. State legislators and other policymakers said that there is interest in requiring Lottery Scholarship recipients to enroll in at least 15 credit hours per semester. While well intended, such policies could have undesirable consequences for the very students Tennessee is seeking to recruit. For instance, requiring aid recipients to take 15 credit hours could force less affluent students out of college due to losing their scholarships if they have to drop a class.

- **Equity.** The state’s lottery funds its financial aid scholarships. In general, low-income individuals spend a higher proportion of their incomes on lottery tickets than higher income individuals. Reportedly, Lottery Scholarships tend to be received by students from higher income families. A more need-based approach in distributing these lottery aid dollars would seem to spread the benefits more equitably among low-income families.

Interviewees in Tennessee said that it is difficult to gain public support and legislative commitment to shift more funding from merit-based to need-based student aid. The challenges are political, economic, and cultural.

- **Political.** Compared with lower-income residents, more middle-income and higher-income residents vote, a fact well understood by legislators.
- **Economic.** As tuition jumped and incomes remained relatively flat over the past decade, middle-income families as well as lower-income families are finding it increasingly difficult to pay for postsecondary education.
- **Cultural.** Public Agenda’s research found that there are regions in Tennessee that lack a college-going culture. Many state residents—and their representatives in the Legislature—therefore may see higher education as more of a private choice rather than a public good, and are more likely to support student aid when it is based on individual merit rather than on income.
political, economic, and cultural barriers impede Tennessee’s ability to shift financial aid toward being more need-based.

It appears that moving toward more need-based strategies in Tennessee cannot be wholesale given these realities. Some form of merit-only aid will survive as will the inclination to use some component of merit to award need-based aid. A persistent risk is that requiring students to maintain a certain level of success or number of credits while in college can undermine efforts to retain at-risk students. As noted above, interviewees said that institutions already experience the unintended consequences of the minimum grade point average required during college for Lottery Scholarship recipients. This suggests that the appropriate mix of merit- and need-based elements in scholarship awards could be a focus for future study.

Lumina supported the development of a non-partisan state policy paper on the connections between student financial aid and affordability, aimed at policymakers, higher education leaders, and other civic leaders. Meanwhile, the Higher Education Commission is considering a recommendation that would increase the state’s emphasis on performance in its need-based aid programs by requiring that Lottery Scholarship recipients enroll for 15 credit hours, up from the current 12 hour threshold. The effect would be to require heavier course loads that might lessen the time students take to complete a degree but could also negatively impact persistence for students whose circumstances require them to work while attending college. It is also possible that students losing their scholarships when they are forced to drop a course for academic reasons and therefore drop below the 15 hour threshold. There are no data specific to Tennessee that assesses whether requiring aid recipients to enroll for 15 credit hours increases or decreases student completion over time. However, research in neighboring West Virginia found strong positive effects on academic achievement and degree completion when recipients were required to complete 30 credit hours per year to retain eligibility.13

The Commission is also working with federal officials to improve alignment between state and federal financial aid policies. There are many moving parts expressed as policies for tuition, fees and financial aid. Aligning them to collectively promote student completion is a substantial challenge. Institutional and state policies are sensitive to a range of factors other than completion. What truly incentivizes individual students and how the choice patterns of many students combine across multiple institutions is difficult to determine, particularly in a state where not all families are motivated by college attendance. How all students react to complex and perhaps conflicting incentives is difficult to track, partly because of the challenge of modeling these behaviors and partly because how the factors interrelate are not fully understood. This is to say that developing state financial aid policy that is well aligned with federal policy and institutional practice to increase student completion will likely remain a challenge in Tennessee and elsewhere.
STATE AND SYSTEM-LEVEL TUITION POLICIES

History: Two higher education systems set tuition policies

Tuition in Tennessee is determined on a credit hour basis by the state’s two higher education systems: the University of Tennessee system (consisting of three primary campuses, a health sciences campus, a research institute, and multiple extension offices throughout the state) and the Tennessee Board of Regents system (consisting of comprehensive universities, community colleges, and colleges of applied technology). The Board of Regents system enrolls many more part-time students than the University of Tennessee system.

There were no Lumina implementation grant goals related to tuition policy.

While it was beyond the timeline of data collection for this evaluation, we note that in 2014 Tennessee passed legislation making community college tuition free to state residents. The impact of this policy change on enrollment and completion of high-risk students is worth future study.

Findings: Institutions are experimenting with tuition policies to encourage faster completion

Tennessee had a mixed record on tuition policy during the grant period. Some institutions within the University of Tennessee system created flat or maximum tuition rates to encourage higher course loads. For instance, the University of Tennessee, Knoxville now charges a fixed fee based on 15 credit hours for all full-time students, regardless of the number of hours actually taken. The purpose is to encourage students to enroll for at least 15 credit hours and provide an incentive for a heavier credit hour load, since those additional hours are essentially free.

Formerly, the Board of Regents system capped tuition charges at 12 credit hours, no matter how many courses a student took beyond that amount. Currently, full-time students must pay for credit hours beyond 12, but at a greatly reduced rate per hour.

One topic discussed by interviewees was whether to hold tuition constant for students who maintain continuous full-time enrollment for four years. Interviewees said that Tennessee learned that similar policies have been linked to increased student retention in other states. The boards have authority to do this at the campus level, although there are economic consequences that the boards must weigh in considering such decisions, especially if there is inflation of costs involved at the same time.
Analysis: New tuition policies change the distribution of who pays for higher education

In relation to credit-load issues and tuition caps, some higher education leaders said that they were concerned about fairness in aid distribution between part-time and full-time students. For example, one reason given for the change in policy at the Board of Regents system is that part-time students were paying a disproportionate share of the cost of education compared with full-time students, who tended to take more courses per semester for the same cost. The Knoxville campus was the only campus in the University of Tennessee system to adopt a fixed 15 credit hour charge, but compared with other University of Tennessee campuses (who were less supportive of the fixed charge), University of Tennessee, Knoxville has fewer part-time students.

Another reason for some of the changes in tuition policy is a need for increased institutional revenue. The changes at both the University of Tennessee, Knoxville and the Board of Regents system were implemented after declining state appropriations shifted more of the cost of higher education onto students and their families. This interferes with the state’s interest in increasing Tennessee’s completion rate while holding tuition hikes down.
New Models

The state passed policy aimed at statewide scaling of two-year and four-year articulation agreements; created Western Governors University Tennessee; developed cohort programs and common course numbering at community colleges; reached an agreement with institutions about the criteria for prior learning assessment; and is working toward a reverse transfer system and a co-requisite model of developmental education. In addition, Austin Peay State University developed Degree Compass, an online student advisory tool. One of the two consortia of institutions in Tennessee designed to assist adult students has been modestly successful.

SYSTEM-LEVEL AND INSTITUTIONAL POLICIES FOR ACCELERATION OR COMPLETION

Nationally, many colleges offer incoming students substantial choice in course-taking but insufficient guidance in academic planning. This can lead many students to take courses that are unnecessary or redundant. In contrast, the “cohort programs” offered by Tennessee’s colleges of applied technology provide students with a narrower range of curricular options within tightly organized programs. The students tend to be retained and to graduate at higher rates than at Tennessee’s community colleges.

Developing institutional policies for acceleration and completion was not an explicit goal of the initial Lumina grant. However, Lumina funding supported Public Agenda to complete a study on the barriers and enablers to college-going and completion from the perspective of would-be students.

Findings: Substantive efforts to guide students toward faster completion

COHORT PROGRAMS

Several Tennessee colleges independently developed and implemented more structured pathways for students. In addition, a program funded separately by Lumina supported a half-time administrator in the Board of Regents system to develop block scheduling and cohort programs in the community colleges similar in structure to the successful programs in place at the state’s colleges of applied technology.
INSTITUTIONAL EFFORTS TO INCREASE PERSISTENCE AND COMPLETION

Austin Peay State University developed Degree Compass, an online advising tool that recommends courses and eventually majors for students based on predictive analytics. Students who followed the recommendations reportedly had positive results. It is now being expanded to Volunteer State Community College, Nashville State Community College, Northeast State Community College, East Tennessee State University and the University of Memphis. Degree Compass was recently sold to Desire2Learn, a for-profit company that intends to market the product beyond Tennessee.

During the grant period, several public institutions developed new advising and other practices to assist students seeking a certificate or degree. During orientation at the University of Tennessee, Knoxville, for example, freshmen receive a tassel with their year of graduation, sending a clear message that they are expected to graduate in four years. At Austin Peay, students with a Lottery Scholarship are informed each semester about the maximum credit hours of support they have remaining so that their state aid does not end unexpectedly. In addition, those who lose their scholarships for a semester by falling just below the minimum grade point average are offered partial scholarships from the institution to encourage continued attendance.

DEVELOPMENTAL EDUCATION

Several Tennessee high schools and community colleges collaborated to implement a program to reduce the need for developmental education. The program, referred to as SAILS (Seamless Alignment and Integrated Learning Support), began as a pilot with 800 students and four community colleges in 2012, expanded to 8,370 students in 12 locations this year, and plans to expand statewide next year. Through SAILS, college-bound students are tested in mathematics during their senior year in high school. Based on their scores, students are enrolled in a self-paced, computer-lab course at the high school, where they receive assistance from a community college faculty member. The pass rate in the first year (2012-13) was 82% for a course that has a much lower pass rate at the community college level—25% nationally according to Complete College America. About 25% of the high school students went on to earn college math credits while still in high school. A developmental English course is being developed as well.
Analysis: New models hold promise for improving persistence and completion

COHORT PROGRAMS

Block scheduling and cohort programs in Tennessee’s community college system appear to increase retention and graduation for those who participated, but the programs do not appear to interest many community college students. Cohorts are easier to implement in programs requiring structure and sequence. Institutional leadership reported that cohort programs may not work as well in community colleges as in the colleges of applied technology, because:

- Defining a cohort and finding students to enroll in it can be challenging. Many students at comprehensive community colleges seek flexible scheduling and opportunities to enroll in a range of courses before deciding on a credential path;
- Cohort programs are expensive to offer and may be more difficult to implement for non-technical degrees that do not require specific sequencing of coursework; and
- Community college faculty need evidence that the cohorts can work in a community college setting before they will agree to work with this model.

The Board of Regents system and the community colleges will likely continue to develop such programs based on their successful record, but because of these factors it is unlikely to force the model on large numbers of students.

INSTITUTIONAL EFFORTS TO INCREASE PERSISTENCE AND COMPLETION

During the grant period, it appears that advising and special assistance for financial aid and student success was intensified on many campuses—perhaps partly because of fiscal incentives for the institutions to do so. Incentives are embedded in performance funding to increase student persistence and completion, and in the merit components of the Lottery Scholarships, to ensure that students continue to receive their financial aid.

STATEWIDE DEVELOPMENTAL EDUCATION EFFORTS

If successfully scaled statewide, the SAILS program could have a substantial impact on retention and graduation, especially at the community colleges, where developmental education presents a substantial barrier to academic progress for many students. Those who enter a community college without needing developmental education are much more likely to complete a college credential.
STATE AND SYSTEM-LEVEL POLICIES FOR IMPROVED ARTICULATION AND TRANSFER

History: No history of statewide efforts for articulation and transfer

Historically, Tennessee had no statewide agreements or mandates that governed the transfer of credits from the state’s public community colleges to its four-year institutions. Improving articulation and transfer was not an explicit goal of the Lumina implementation grant. Some institutions had articulation agreements in place, but there was no statewide requirement to do so. Whether students lost credit in transferring depended on where they transferred and the academic programs they chose. During the grant period, the state took substantial actions in this area.

Findings: New policies promote statewide articulation and transfer

The Complete College Tennessee Act of 2010 requires public two-year and four-year institutions to develop improved transfer policies. These polices were implemented as the Tennessee Transfer Pathways. The Act also mandated agreement on curricula by discipline so that a course taken at a community college would transfer automatically in the same discipline to a university, without loss of credit. Partnership agreements were also mandated for all community colleges and universities providing for dual admissions of students. A deadline of fall 2011 was set for full implementation for both provisions.

Articulation agreements under the Tennessee Transfer Pathways were negotiated in most academic disciplines with the exception of such fields as theater and music where assessment of in-person performance is deemed necessary. Dual admission processes were negotiated in the geographic regions in which community colleges and universities are likely to share students.

In April 2012, Governor Bill Haslam signed House Bill 2827, which “authorized and encouraged” the state’s community colleges and four-year institutions to enter into reverse transfer agreements. In July 2012, a taskforce was convened to advance the state’s reverse transfer policies. The University of Maryland’s reverse transfer model was explored as a possible model. The taskforce’s recommendations of new policies and procedures were approved by the Articulation and Transfer Committee in May 2013.

What is reverse transfer?
Awarding associate degrees to students who transfer from community colleges to universities before receiving their associate degree when students complete coursework necessary and/or demonstrate learning required for the degree.

Tennessee’s public colleges and universities also agreed that a common core of 41 credit hours would meet general education requirements for a bachelor’s degree statewide. This curriculum consists of six clusters: communications (nine semester hours); humanities and/or fine arts (nine hours); natural sciences (eight hours); social and behavioral sciences (six hours); history (six hours); and mathematics (three hours).
Analysis: New efforts at improving articulation and transfer are generally working smoothly

Tennessee Transfer Pathways appears to have been successful in reducing time to degree and improving the transfer of credits for community college transfer students, according to those interviewed both at community colleges and four-year institutions. For most academic programs in the state, a student can start at a community college and know exactly which courses are guaranteed for transfer to a senior institution in the same field of study without loss of credit. The information is available on the state’s website, and private institutions also link to this site. Interviewees said that the system was working well and also said that legislators received some complaints that there was not full compliance, but the number of complaints appears to be small.

Interviewees also said that the partnership arrangements for dual admission at community colleges and universities seem to be working relatively smoothly. There are, however, situations in which the community colleges and universities are so geographically apart that they are unlikely to share students. These institutions reportedly resisted undertaking the time-consuming process of negotiating agreements with each other, as mandated in the Complete College Tennessee Act of 2010. Indeed, it may not be practical for every community college and university to have partnership arrangements in such a geographically dispersed state. So far, these institutions have not been required to comply with the exact wording of the law.

The state’s reverse transfer policies appear to be sound, but the logistics of implementation can be complicated. For example, reverse transfer requires having good data widely available across institutions, creating the need for a central recordkeeping entity. Staff members at the state level are aware of these challenges and are seeking funding to address these issues through grants and legislative resources. Without significant additional funds, progress is likely to be hampered.

Although it is too early to assess results, the new general education core also appears to be headed for success. A recent study of transfer students in Tennessee reported that “pre-transfer completion of the entire general education core, or its individual components, increases the probability of graduation, reduces the time to degree, and is associated with a higher grade point average at the transfer institution.”

*Partnership agreements appear to be successful locally and may not be necessary statewide.*

*Success with reverse transfer will depend on a sound cross-institutional database.*

*The implementation of a general education core for bachelor’s degrees supports increasing completions.*
NEW OR REFORMED MODELS FOR ACCELERATED LEARNING OR LOW-COST DELIVERY

History: Tennessee recently placed priority on encouraging adult students to complete

A priority for Tennessee’s recent productivity work, supported in part with grant funds, was to encourage more adults to complete a college credential, including:

- Providing more opportunities for adults to earn recognition for prior learning and to encourage them to earn degrees; and
- Making it easier for adults to transition from work to a college of applied technology, a community college, or a university.

Findings: New programs and policies instituted to support both adult and traditional students

ADULT SERVING CONSORTIA

The Lumina grant funded two multi-institutional consortia—one in Middle Tennessee and one in West Tennessee—to test models for improving adult student transitions across institutions, including “exploring various practices regarding adult student success, access, and transferability within their respective service areas.”

The West Tennessee Consortium was led by Dyersburg State Community College and included the Tennessee College of Applied Technology - Jackson, Tennessee College of Applied Technology - Newbern, and the University of Tennessee at Martin. Its proposed activities and outputs were as follows.

- Development of adult student organizations
- Provision of adult-specific student services and orientation
- Provision of adult-specific faculty advising
- Provision of adult-specific financial aid information
- Peer mentoring of adult students
- Peer tutoring of adult students
- Outreach and marketing
- Informational web presence

The Middle Tennessee Consortium was led by Middle Tennessee State University and included the Tennessee College of Applied Technology - Murfreesboro and Motlow State Community College. Its proposed activities and outputs were:
- Accelerated/alternative course delivery
- Faculty/staff training in working with adult learners
- Provision of adult-specific student services and orientation
- Provision of adult-specific financial aid information
- Outreach and marketing
- Informational web presence

**PRIOR LEARNING ASSESSMENT**

Tennessee also saw progress in developing statewide agreements for prior learning assessment. A taskforce on prior learning assessment provided recommendations for standard statewide policy in 2012, including acceptance of prior learning assessment credit for transfer.\(^{25}\) The Board of Regents system later adopted these recommendations as Board policy, while establishing statewide common passing scores, credit awards, and course equivalencies for Advanced Placement and College-Level Examination Program exams, forms of prior learning assessment.\(^{26}\)

**DUAL CREDIT COURSES FOR HIGH SCHOOL STUDENTS**

In 2012 state legislation was passed to make it easier for high school students to earn college credits while in high school, through dual credit programs. Public Chapter 967 of 2012 requires the development and pilot implementation of dual credit assessments that will be accepted for credit at all public postsecondary institutions statewide.\(^{27}\) Such courses provide students with an inexpensive way to begin earning college credits and accelerate their progress toward a degree. Historically in Tennessee, opportunities for high school students to earn college credits through dual credit courses have depended on the high school. Many inner city and rural high schools do not have the resources to offer these programs, particularly because they lack sufficient numbers of qualified teachers to teach dual credit courses. Until recently, non-traditional educational opportunities, such as online instruction, have been limited.

**What is Prior Learning Assessment?**

Prior Learning Assessment is a process through which students and prospective students can have their existing knowledge and experience assessed for college credit, thereby accelerating their progress toward a credential.

**What is Dual Credit and Dual Enrollment?**

In Tennessee, dual credit courses are those taught by a high school teacher at the high school, followed by a test taken for college credit. Dual enrollment refers to high school students taking college courses that also count for high school credits.
Western Governors University provides online coursework and student support services, offers pathways to credit to students for their previous knowledge and experience, and encourages students to progress at their own pace.

**Tennessee’s Potential for Adult Students to Contribute to “Drive to 55”**

- According to the U.S. Census Bureau, Tennessee has 754,843 adults between the ages of 25 and 64 who have some college but no degree.
- At its current rate of increase in degree production, by 2025 approximately 39% of adults in Tennessee will have attained a postsecondary degree.
- A 2009 policy audit for Tennessee revealed “an overall lack of regard for adult learners as a unique demographic in undergraduate classrooms on Tennessee college campuses.”

**Online Opportunities: Western Governors University Tennessee**

In 2013, Governor Bill Haslam announced the establishment of Western Governors University Tennessee (WGU Tennessee). Western Governors University is a private non-profit university providing online, competency-based certificates and degrees in high-demand, high-paying fields. Western Governors University is national in scope and already had about 700 to 800 students enrolled from Tennessee. The competency-based approach provides students with credit for pertinent knowledge and skills, which can be effective in encouraging adults with work experience to return to college to complete a credential.

**Analysis: Serving adult and high achieving students continues to be a challenge**

In September 2013, Governor Bill Haslam announced a statewide goal to bring the percentage of Tennesseans with college degrees or certificates to 55% by the year 2025 – up from 32% at that time. To achieve this “Drive to 55” goal, the state will need to graduate more students and especially adult students (see sidebar).

The state’s “Drive to 55” goal may be unachievable given the historically low share of the population with a college degree or certificate today (32%). We heard, however, that even though the goal may be overly ambitious, the stretch to reach it may be valuable, particularly if it helps the state devote more resources toward that aim.

State and higher education leaders agreed that the state needs to increase degree-earning among its adult residents if it is to make substantial progress toward its “Drive to 55” goal. Their comments also suggested that they are well aware of the need to recruit, educate, and retain adult students to graduation.

**Recruitment** poses difficulties and opportunities in parts of the state where higher education is not a valued part of the culture. Employers are not always willing or able to contribute financially to their workers’ training, especially in a state like Tennessee where small businesses dominate the labor market.

Although there are adult scholarships available at some universities, the maximum state Lottery Scholarship grant for full-time study cannot replace an adult’s annual wage, leaving part-time attendance as a more attractive economic option.

The technical colleges have had success with cohorts and block scheduling. In addition, the opportunities afforded by WGU Tennessee may appeal to many adults. Likewise, the Higher Education Commission’s development of the employer toolkit, designed to help businesses support adult education, also shows promise, if it can be disseminated and used effectively to encourage more employers to support the education of their workers. A national website called CollegeMeasures.org now provides convenient access to information on the average salaries of recent graduates for each major and for each institution – information that may be useful both in recruitment and in matching adult students to programs whose credentials have high labor market value.30

**Educating adult students** poses particular challenges. A recent study concluded that faculty in Tennessee are reticent to adjust their teaching styles to meet the needs of adults students.31 While not everyone interviewed agreed with this conclusion, many did acknowledge that more could be done to improve the instruction of adult students, particularly in classes with a mix of student ages. The needs discussed included pedagogical issues and the availability of courses and other services at times that are convenient for working adults.

Several interviewees said that faculty are not typically trained in pedagogy. The role of state policy in supporting faculty development is limited, but there are indirect ways to influence institutional action. For example, the state’s performance-funding formula provides a 40% premium to institutions for undergraduate credentials awarded to adult students, as well as the progress made by these students toward their credential. Tennessee is now exploring the use of innovation grants to reward faculty for outstanding teaching. As another example, state policy might promote as the gold standard those practices that are identified by the Adult Learning Focused Institution Initiative of the Council for Adult and Experiential Learning.32

At the institutional level, interviewees said that preferred strategies for improving instruction focus on student success and offer professional development opportunities for faculty. Areas of emphasis for professional development include providing information about, and practice in, use of pedagogical approaches that can help meet the diverse learning styles of adults. Austin Peay State University, for example, reportedly has had success in helping faculty to focus on pedagogy by including peer acknowledgement and program completion in tenure applications.
Retaining adult students can be facilitated not only by better instructional practices, but also by a range of structural strategies, including:

- New ways of structuring course delivery outside of traditional classroom settings, including weekend classes, online courses, satellite sites, credit for prior learning, block scheduling, and providing all courses within a degree program within a guaranteed time of day so that working students can schedule their work hours more easily.
- Wider use of open source textbooks to substantially reduce the costs of textbooks for students.
- Student supports available outside the classroom, such as mentoring, advising, and learning communities. The West Tennessee and Middle Tennessee consortia highlighted some of the opportunities for improvement that need to be addressed so that these supports work well.

Making progress in graduating adult students can be facilitated by ensuring that state and institutional policies for tuition, financial aid, course delivery, and student support are aligned in ways that are friendly to adult students throughout their education. The state’s performance-funding formula provides incentives for institutions to graduate adult students. The use of prior learning assessments can speed graduation by providing credit for previous knowledge and skills. Western Governors University’s competency-based approach to earning credits for graduation offers an alternative to the traditional credit-hour approach, and may help working adults complete their degrees.

Dual credit courses for high school students may be difficult to scale

Interviewees expressed concerns about the qualifications of faculty teaching the courses in dual credit programs. Even if there were more courses available in the high schools, it is not clear that there are sufficient numbers of qualified faculty available to teach them.

Analysis: Institutional collaboration to better serve adults had limited success

Tennessee knows the importance of serving adult students, but this can be challenging.

An evaluation of the two consortia, funded by the Lumina implementation grant to improve adult student transitions across two-year and four-year institutions, was highly critical of their performance in terms of achieving their stated objectives. The Middle Tennessee Consortium achieved better cooperation among partnering institutions than the West Tennessee Consortium, and is more likely to continue this work after the grant ends. Evaluation reports of the consortia’s progress and challenges found:

When asked to explain how the Consortia’s efforts had served to inform adult student action strategies and how they would define and demonstrate
success in this initiative, none of the institutional representatives could provide substantive or definitive answers to either of these two questions.  

Multiple participating institutions with sometimes conflicting goals of various levels of clarity contributed to a less-than-ideal environment for many of those involved. Even so, some progress was made in serving adult students and helping them transition from one institution to another. Consequently neither the Middle Tennessee Consortium nor the West Tennessee Consortium can serve as a model to be replicated statewide, but there were lessons learned for future endeavors of this kind. In particular:

- It would benefit all consortia if leadership cultivated knowledge of the institutions and contacts inside participating institutions; and
- The individual leading the consortium should be physically located at the most senior of the institutions.

Analysis: WGU Tennessee raises issues about online opportunities, prior learning assessment and competency-based degrees

WGU only recently began operating as a Tennessee university, so it is too early to comment on its effectiveness. WGU Tennessee was established without the support of the higher education community and is the only higher education institution not regulated by the state. So far, reactions within the state have been mixed. The state policymakers interviewed suggested that adults with some college credits but without a college credential are the greatest untapped resource for higher education in the state. For them, programs that reach these adults are of great interest and value to the state. The higher education representatives interviewed were less enthusiastic and expressed concerns about Western Governors University’s funding, the lack of state oversight, its methods of providing academic credit, and its perceived track record with students. Interviewees said that the state support given to WGU Tennessee could have gone to existing institutions through a competitive process to grow programs for adults. Interviewees also commented that public and private institutions in Tennessee are limited by the Southern Association of Colleges and Schools in the extent to which they can restructure their programs, including prior learning assessment and competency-based degrees. WGU is accredited by the Northwest Commission on Colleges and Universities, a different regional accrediting body.
Tennessee has not taken major direct action at the state level to improve business efficiencies at publicly funded institutions. The funding formula is expected to exert some pressure however.

Business efficiency initiatives were not part of Tennessee’s Lumina grant. During the grant initiative, there were no specific statewide policy initiatives to increase business efficiencies, although the Complete College Tennessee Act of 2010 expressly promotes more efficient as well as more effective and potentially productive delivery of higher education. For instance, the new funding formula provides incentives to improve student outcomes and implicitly discourages practices that do not do so. The creation of a single community college system under the Board of Regents system, as required by the Complete College Tennessee Act, may result in greater efficiencies by increasing opportunities for streamlining and standardizing practices across the 13 community colleges.

There have been explicit efforts at the system level to improve business efficiencies. For instance, the Board of Regents system now hosts information systems among eight of its institutions, with plans to expand to 13 institutions within the next few years. Joint purchasing also has increased. In the University of Tennessee system, an effectiveness and efficiency committee recommended business practices whose implementation was said to have reduced spending per student.36
II. Insights across the Four Steps

**Overall Insights and Takeaways**

Since its Lumina grant was funded, Tennessee passed landmark legislation that offers a roadmap for higher education reform toward increasing postsecondary completion. Two governors from two different political parties have supported the completion agenda. The Complete College Tennessee Act of 2010 provided the initial framework under Governor Phil Bredesen and current Governor Bill Haslam is continuing down a similar path with his “Drive to 55.” “Drive to 55” is just beginning to emerge as a statewide higher education effort. So far it appears aligned with the Complete College Tennessee Act of 2010 with a twist in its focus to be more workforce specific. It will be years before the impact of this initiative on higher education attainment is known. While making significant strides, Tennessee has a long road ahead in achieving the 55% attainment goal.

Tennessee does not have a single higher education structure. Even so, the Legislature, Governor and higher education institutions appear committed to increased higher education attainment. The Complete College Tennessee Act was necessary to connect the higher education enterprise and appears to have had that effect. The Act was skillfully conceived and introduced; it was a balance between being overly prescriptive, on one hand, and too general on the other. The boundaries were set so that Tennessee could engage in needed actions without generating unnecessary resistance that could stifle innovation. It is still early to assess the Complete College Tennessee Act’s ultimate contributions to Tennessee but its focus on improving student achievement as well as setting forth actions with linked deadlines coupled with room for college and regional adaptation appears to be the right recipe at the right time.

Given this foundation, it would seem that the Complete College Tennessee Act might synergize with other policies such as student financial aid (which at the moment emphasizes merit over need) or initiatives funded by foundations (upon which Tennessee relies heavily for many of its achievement-oriented innovations). The Act is silent on key issues before higher education including degree quality and the national emergence of competency and

More investments in higher education will be needed if Tennessee hopes to achieve “Drive to 55.”

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prior learning assessments. The Act is also not clear on how to pay for new initiatives that emerge through “Drive to 55” or the Labor-Education Alignment Program Act.

Despite the Complete College Tennessee Act’s intentions, it is unlikely that the current reforms will enhance the efficiency of higher education in Tennessee so that more students going through the systems can do so at no additional cost. Investing in increased productivity can be expensive and efficiencies often take time to emerge. The planned influx of new students is likely to increase overall costs no matter how many efficiencies are implemented. In a low-income state, where many communities show little interest in higher education, the lack of an over-arching financial strategy to pay for needed investments to support productivity is apparent. Future foundation grants alone cannot cover these investments.

The Complete College Tennessee Act captured the identified needs and priorities at the time it was enacted. Given the central position of the Act in Tennessee higher education strategy and practice, it will be important to have mechanisms that monitor and evaluate the continued appropriateness of its provisions. Policy proposed in 2013 to fund compliance monitoring of the Act was a potential, if partial, first step. Hopefully its failure to pass does not signal general reluctance to keep the Act under continued development and review.

**Lumina’s roles and contributions**

Untangling Lumina’s particular contribution from those of institution and state level initiatives is compounded by the range of other foundations that also contribute to similar goals such as the Complete College America. Nevertheless we identified four clear contributions that interviewees said Lumina played in these efforts.

**Lumina as thought leader, catalyst and external reviewer**

Many education leaders who were interviewed said that the benefits of Lumina’s involvement in Tennessee extended well beyond the foundation’s monetary support. The state invests more than $700 million annually in institutional operations for higher education; Lumina’s implementation grant of $1.2 million investment over four years was small in comparison. Leaders described the foundation’s major contributions in the following ways.

- **Being a thought leader in higher education productivity.** This included being a trusted source of timely information from the latest research and practice.
- **Serving as a catalyst and adding an external voice to Tennessee’s efforts.** Having “outsiders” looking at Tennessee’s efforts provided a sense of urgency and need for follow-through. At the same time, there was a concern about whether an external
body should have a major role in state policy development, even as a nonpartisan advisor as the Strategy Labs and Lumina have been.

- Bringing people together toward common goals. The business community might not have come to the table without Lumina. Lumina was credited for formalizing the relationship between the Higher Education Commission and the Tennessee Business Roundtable, so that the two organizations could work together to “connect the dots” with adult learners, prior learning assessment, and outreach to employers. Although the Tennessee Business Roundtable is no longer part of the Lumina grant, the principles that underpinned this initiative are continuing through other relationships.

Interviewees said that Lumina’s grant was important in supporting activities that are difficult to fund through the state, including travel to out-of-state meetings for legislators and staff, where they learned more about productivity efforts in other states.

The value of the grant coordinator

Lumina’s support paid for a grant coordinator who was described as critical to Tennessee’s success. This individual served previously as policy advisor to Governor Phil Bredesen and worked with the chancellor of the Board of Regents in his previous roles as state comptroller and deputy to the Governor. Interviewees said that the grant coordinator served as a knowledgeable insider, enthusiastic community developer, and public entrepreneur. For example, the coordinator helped guide statewide policy development for prior learning assessment, which grew out of the prior recommendations from the Adult Strategies Group based on the state policy audit completed as part of Lumina’s learning year grant. The coordinator also helped prepare the agenda for a conference chaired by Governor Bill Haslam, the Southern Growth Policy Board Conference. She was responsible for planning Completion Academies—in partnership with the Tennessee Board of Regents system, the University of Tennessee system, the Governor’s Office, and the Tennessee Business Roundtable—to bring together businesses and higher education in sharing best practices for increasing student persistence and completion.

Contributions of the Strategy Labs Network

Interviewees said that the Strategy Labs Network activities—particularly providing nonpartisan information and ideas as well as networking opportunities through the cross-state meetings—were important in contributing to the passage of the Complete College Tennessee Act of 2010 and to its implementation. State and higher education leaders also said that the state advisor from HCM Strategists added value to the state’s productivity efforts. Similarly, Public Agenda’s focus groups with low- and middle-income non-credentialed adults about their attitudes and opinions about postsecondary education in the state was viewed positively.
The Strategy Labs (and the various convenings) also provided other states the opportunity to learn from Tennessee experiences. Within Tennessee these opportunities enhanced and further legitimized the state’s own efforts.

Issues of quality

Questions about the quality of higher education lie just beneath the surface of many productivity conversations in Tennessee. Discussions with interviewees about the new performance-funding formula, for example, surfaced wide differences of opinion about threats to academic quality. On the one hand, some said that the heads of the two systems of higher education were vigilant about maintaining high standards of academic rigor, that there were no signs of relaxed rigor at the campuses, and that “it would take a lot of people to try to reduce quality.” On the other hand, some warned that there is a need for vigilance. One person expressed concerns about the potential for grade tampering to increase student completion. Another suggested that quality would be compromised if the need to reduce costs was met by increasing the use of adjunct faculty or decreasing financial support for student advising. A third said that a faculty senate wanted to track grade inflation after the implementation of the Complete College Tennessee Act as a way to monitor quality, but that the institution’s administration refused to do so.

While there are differences of opinion in Tennessee about quality (and how it is defined), changes in quality as measured by outcomes could be monitored through metrics in the new funding formula. Metrics such as students passing accreditation exams, student satisfaction, percentage of students employed in a field related to their studies, licensure passage rates, and exit testing scores are still collected as with the old performance-funding formula. These data could be assembled and tracked over time. This could be one route for assessing whether quality is maintained.

One policy suggestion was that legislative oversight could serve a role in maintaining quality. A new policy was introduced but not passed in the 2012 General Assembly to create a Higher Education Ombudsman’s Office within the comptroller’s office. This position would have been responsible for monitoring compliance with the Complete College Tennessee Act and assumedly serve as a non-political body that faculty could use to report unethical activities related to implementing the law’s provisions.

Policy change and the Tennessee Promise

The development of state policy is rarely a linear process. During the grant period, it was clear that a sense of urgency was a significant driver of legislative action. The economic downturn just before the start of the Lumina grant appears to have provided some urgency for action in higher education in Tennessee. We heard that at that time, Lumina’s agenda for greater productivity in higher education was a compelling narrative for the state. Within this context, the Complete College Tennessee Act was passed in January 2010. Its timetable
was ambitious, requiring the development of a funding formula within the year and the development of core curriculum and degree pathways within two years.

During the recession, the financial state of the Lottery Fund appeared to be problematic and legislation to reduce costs was passed promptly in the 2012 legislative session. By 2013, however, those fiscal problems were no longer present and attempts at further changes to promote student completion failed to gain support in the House of Representatives. In the 2014 session the legislature agreed to Gov. Haslam’s Tennessee Promise for students to attend community college at no cost. The $350 million annual cost was to be achieved by transferring approximately $300 million in excess lottery reserve funds and joining it with the $47 million endowment created by the General Assembly in 2013. In addition, the two-year degree HOPE award will increase from $2,000 to $3,000 to reduce the amount of the “last dollar” requests. Students will now receive $3,000 for the freshman and sophomore years—whether at a two-year or four-year institution—and $5,000 for the junior year and beyond at a four-year institution.

**Workforce development**

A disconnect between higher education and business interests exists in most states. All states require more dialogue about the match between what higher education produces with what businesses need. In common with other states, Tennessee produces more graduates in some fields than employers can hire, yet shortages exist in other fields. Projecting the types of education and skills needed over time is an ongoing challenge for higher education, the state, and employers, particularly in a shifting economy.

Through its Lumina grant, Tennessee brought together higher education and business interests, focusing mostly on workforce development but also contributing to other state priorities for increasing completion and educational attainment.

With Lumina funds, Tennessee set out to establish a formal working relationship between the Tennessee Business Roundtable and higher education, but initial attempts to bring together these interests through meetings met with only limited success. Eventually, the Higher Education Commission revised its strategy by deciding to develop an employer toolkit (a “how to” guide for workplace supports to encourage employee education) and an employee toolkit (a “how to” guide as to why and how to return to school). The strategy was inspired by the Louisville 55,000 Degrees program, which is seeking to increase educational attainment by 55,000 degrees in that region by 2020. Among other strategies, the employer toolkit encourages employers to invest in their employees’ pursuit of a credential rather than in one-time training. The Commission has since decided to focus only on developing an employer toolkit.
During the grant period, Lumina served as a catalyst engaging higher education and business interests to raise awareness about workforce issues. For example, Lumina’s President, Jamie Merisotis, contributed to a podcast emphasizing career mobility for adults with skills and degrees. Through the Higher Education Commission, Lumina helped facilitate skills panels in the Nashville region with three employer sectors: information technology, health care, and advanced manufacturing. These panels included four community colleges and six colleges of applied technology and were designed to gather a regional perspective on employer needs, as well as to inform the Board of Regents. Since these meetings, employers in information technology have been considering the development of a portal where employers could post internship opportunities for students.

The Tennessee Business Roundtable, the state’s Workforce Investment Boards, and the Business Education Coalition of the state Chamber of Commerce have met with higher education leaders and policymakers. The purpose of meeting was to inform higher education about business needs, encourage legislators to stay the course in higher education reform, and help businesses become more involved with higher education institutions and advocate for their financial support. In addition, the Higher Education Commission sponsored Completion Academies, in which business representatives participated in helping colleges and universities develop strategies to achieve their targets for student completion.

Workforce needs were reportedly a driving force behind the passage of the Complete College Tennessee Act of 2010. In 2012, the Legislature passed the Labor-Education Alignment Program Act requiring the state’s higher education and workforce agencies to expand programs that respond to the needs of employers, yet no funding has been allocated for this purpose.

In September of 2013, Governor Bill Haslam announced his higher education attainment goal, called “Drive to 55” – for 55% of working age Tennesseans to have a postsecondary degree or credential by 2025. The underlying emphasis of this work is one of workforce and community development. The Governor engaged the voluntary services of a successful entrepreneur to identify the kinds of higher education initiatives there could be consensus on among higher education and business leaders. “Drive to 55” is broad and inclusive; the plans include increasing remedial courses, dual enrollment and dual credit, improving mentoring, reducing financial barriers (e.g., the Tennessee Promise mentioned earlier in this report), enhancing programs to improve graduation, identifying skills needed to meet future workforce needs, and better serving adults with some college but no degree. Subsumed under “Drive to 55” are many existing efforts such as WGU Tennessee, the state’s work with Coursera and edX, and SAILS.
Engagement of higher education and workforce will need continued support

While Tennessee is focused on meeting workforce demands, much work remains. The Higher Education Commission showed flexibility in shifting efforts away from the Business Roundtable when it became clear that the organization was not able to take full responsibility for the higher education/workforce initiatives combined with the shift towards regional partnerships promoted by the 2013 Labor Education Alignment Program legislation. Public Agenda used parts of its Lumina grant to work on partnerships with employers to advance completion among adults. For instance, they conducted a series of interviews with workforce leaders throughout the state to explore the attitudes of the business community toward the value of higher education in the nation and Tennessee; the workforce development needs in Tennessee; the role the business community in supporting and advancing a culture of postsecondary attainment; and obstacles to and opportunities for creating durable channels of communication and collaboration between the business community and higher education. A series of interviews with human resource professionals helped develop an employer toolkit based on a successful model and has showed promise in the Louisville 55,000 Degrees program, which was to be introduced by or after the summer of 2014. Adoption by major employers has been slow. Substantial efforts will be needed to ensure that employers throughout the state, especially smaller employers, are aware of the toolkit. Regionalism in Tennessee makes this even more challenging.

The skills panels have been developed but will need on-going support to achieve broader and longer-term success. They have been limited to three high growth employment sectors (information technology, health care, and advanced manufacturing) in one region of the state. For the model to spread, its scope will need to be expanded to more regions while encompassing more business sectors, both of which would require additional resources.

Though unfunded, the Labor-Education Alignment Program Act carries the promise of changing the way most state governments typically operate by requiring the higher education and workforce areas to work together. Bureaucracies tend to operate in silos; employees communicate primarily within their own divisions. If the Act improves how state employees communicate on workforce planning, it could send a message and set a tone for cross-agency collaboration that could have lasting effects.

The “Drive to 55” initiative is relatively new and encompasses many efforts to improve completion that are already underway. It is too soon to study whether Governor Haslam’s emphasis on higher education in relation to the workforce will accelerate completions beyond the efforts launched as a result of Complete College Tennessee Act.

The relationship between workforce development and performance funding

State leaders who were interviewed said that the state may need to reconsider the performance-funding formula to provide fiscal incentives for institutions that graduate more students in science and related area programs. However, concerns were expressed
that opening up the formula to another legislative process risks legislators wanting to make a host of other changes that may have little to do with the formula’s central focus on completion. Changing the formula this soon after implementation also risks alienating some early supporters. There are also some risks in packing too many measures too quickly into one formula. The state’s priorities, as reflected in the incentives, may become dissipated and therefore unclear to institutions. Trying to make performance funding propel each need of the state may result in it losing the relative simplicity and strength of the current performance-funding formula. Other ways to incentivize increases in science and related area certificates and degrees may be found. In this context, three issues deserve attention:

1. **The supply of science and related area programs.** It is not yet known whether or how performance funding will impact institutional behaviors consistent with increasing the supply of science and related area degrees. To allow for different institutional missions, there are no STEM provisions in the funding formula. Performance funding does not reward the creation of new programs or necessarily the growth of programs that already exist.

2. **National studies indicate** that the supply problem may be more prevalent in secondary schools, where many states have shortages of well-qualified science and mathematics teachers. Performance funding does not address higher education’s role in educating more teachers for science and mathematics careers.

3. **Student demand for science and related area programs.** Performance funding is focused on shaping institutional behaviors to increase completion rates; it has few, if any, direct ways of encouraging student demand. Yet, a key challenge in increasing the number of science and related area graduates involves encouraging more students to pursue such careers, as well as helping more of those students persist and complete. Some demand-side efforts to get students interested in science and related fields include: (1) statewide availability of software such as Austin Peay’s Degree Compass that helps students decide among majors and degree options partially by providing information on occupational projections; (2) lower tuition, special scholarships, and/or loan forgiveness programs for science and related area majors; (3) academic tutoring and counseling dedicated to those fields; and (4) expanded participation in career awareness and other efforts in K-12 schools.

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High schools play a major role in increasing science and related area postsecondary degrees.
THoughts Looking Forward

Tennessee’s passage of the Complete College Tennessee Act of 2010 was a significant event for higher education in the state. Much work remains in implementation and in the monitoring of the law’s effects on institutional and student behaviors. There is also much to learn as Tennessee stabilizes and scales its current initiatives. Below are some important aspects of Tennessee’s work that bear watching over the next years.

Sustainability and the risks associated with relying on external support

The state relies heavily on foundations such as the Lumina Foundation, the Bill and Melinda Gates Foundation, the Ford Foundation and others, rather than on direct state funding, to support innovation and change in higher education. For Tennessee, this carries two notable risks. First, foundations follow their own, and by some standards, rather short-term policy agendas. States that depend on outside sources for innovation funding risk developing strategies that may not be well aligned with the state’s own purposes and needs for the longer term. State and higher education leaders we spoke with assured us that they only pursue outside funding that is consistent with their state strategies and priorities. Even if well managed, however, this risk is always present. In the current context, concerns were expressed by some faculty about the state’s priorities and interests taking second place to the orientation of foundations’ priorities.

Second, heavy reliance on outside grant support can pose challenges for the long-term spread and sustainability of successful initiatives, since the loss of support at the end of a grant cycle can spell the end of an initiative. The state’s activities in the Four Steps encompass a large number of moving parts, many of them interrelated and most of them effective only in the long term. The ideas underpinning these initiatives need to be sustained even if individual projects and programs are not sustained.

The sustainability of programs or ideas is best understood by understanding the extent to which they:

- Satisfy political, policy, institution, service delivery, and consumer needs;
- Are supported by multiple funding sources;
- Include regular monitoring and evaluation;
- Are aligned with key institutional policies and values;
- Involve project champions and effective leadership;
- Generate community support and ownership; and
- Are aligned with the political and economic climate.
Overall, Tennessee currently displays most of these factors in its major productivity initiatives. By almost all accounts interviewees described the focus on higher education by the last two Governors as game changing. Concerns remain, however, including questions about on-going financial support for the productivity work after the Lumina grant is completed. There appear to be distinct pockets of the state that do not strongly support the need for higher education. There are also some concerns that while Tennessee has some sound policies in place, the commitment to them at the institutional level may be more about legislative compliance than deep commitment and ownership.

**Framing of workforce needs**

In its higher education policies, Tennessee is moving strongly toward being more responsive to the labor market and the needs of employers. The Lumina grant coordinator’s work, as part of the Higher Education Commission, has been pivotal bringing together employers and higher education in meaningful ways. The value and use of the employer toolkits will be interesting to track. In addition, the Workforce Investment Boards could be positioned to serve as systemic intermediaries to help businesses and educational institutions. One example is the cooperative arrangement between Nissan and Middle Tennessee State University that was put together by the local Workforce Investment Board.

There are risks associated with efforts to closely link postsecondary program offerings with employer needs. For example, there is a tension between the short-term needs of labor markets and the longer time periods that it takes to produce an associate or bachelor’s degree graduate. In addition, the influential employers or employer organizations that higher education tends to work with may not reflect the full range of employment opportunities in the state. Small businesses are the major employers in Tennessee but do not have the capacity to engage in many collaborative efforts with higher education, such as supporting interns or sharing their equipment for training purposes. This is to say that higher education in Tennessee needs to balance short-term, immediate needs of employers with longer-term shifts in the workforce as a whole and to more fully assess the workforce needs of small employers.

**The effects of the funding formula**

Performance-funding provisions cover most of the state’s allocations to higher education, but in the first years of the model’s use, there were legacy “hold-harmless” provisions to reduce the negative impact on some institutions. In this environment, the performance provisions were not particularly controversial. Now that hold-harmless provisions have expired, the situation is quite different. During the next few budget cycles, the formula may produce some highly visible differences in funding across higher education institutions. How the colleges and universities respond and adapt may provide opportunities for improved understanding of the effects of performance funding on institutional behavior.
The changes are also likely to be met with inevitable criticism among institutions that feel they have been disadvantaged by the formula, sparking reevaluation of the formula as well as raising serious questions statewide. During this time of change, there is risk that expedient political considerations may outweigh the state’s focus on completion. If some institutions are able to convince their legislators to adjust the formula for their benefit, it could open the floodgates to tampering with the entire formula.

Assuring quality

There are risks, however small, that some individuals, programs, or institutions may find ways to “game” the funding model, through grade inflation or other means of reducing the quality of a credential. Discussions in the state about what “quality” means and how to avoid or respond to gaming are in their early stages. How the state responds if unethical behaviors occur is worth watching as it could become a model process for other states, particularly since Tennessee already has a system of surrogate statewide assessments of quality using measures such as the number of students attaining professional certifications.

The role of the Tennessee Higher Education Commission

The Higher Education Commission played a crucial role in developing and implementing the state productivity initiatives recently. In the past, the Commission has been relatively independent of the state’s political structure. In 2012, however, legislative changes authorized the Governor to appoint the Commission’s executive director, bringing the Commission much closer to the Governor’s Office. This has the benefit of aligning the Commission with the Governor’s priorities and interests, but it also undermines the independence of the Commission. Experience from other states (such as Ohio) suggests that this may be a mixed blessing, and thus is worth watching in Tennessee. So far, the Commission’s role does not appear compromised under the current Governor, who has prioritized student completion in higher education without micromanaging the Commission’s tasks. This could become a problem in the future if a more interventionist Governor chose to become more directly involved in the Commission’s day-to-day operations. The Governor appointed a special advisor on higher education, a businessman committed to the value of higher education but not an education policy specialist, who has been developing higher education strategies somewhat independently of the Higher Education Commission. How this will affect the overall coherence and future of higher education strategies is another area to watch.

Opportunities to spread local efforts

There are several local initiatives in higher education that are only loosely connected to statewide initiatives, but have the potential for replication. For example, the Latino Student Success initiative in Memphis (a Lumina-funded initiative to increase the participation and success of Latino students in higher education), the economic development work in
Kingsport (a partnership between municipal leaders, business leaders and institutions of higher education), and the private tnAchieves (which focuses on student mentoring) all have the potential to grow beyond their communities. The potential for expanding the Kingsport approach formed the focus of some Public Agenda work.

**Expansion and success of cohort programs at the colleges of applied technology and community colleges**

The state’s efforts to adapt successful cohort programs from the colleges of applied technology to the community colleges have been partially successful. There are some fundamental issues needing to be considered and addressed. For example, are the more limited choices inherent in the cohort programs appealing for community college students? While national research suggests that community college students in general appear to do better when their programs of study are structured and supported, will the cohort programs yield better completion rates for community college students in Tennessee? How many community college degree programs are amenable to the cohort model?

**Competencies and the credit hour**

The introduction of Western Governors University’s competency-based degree approach offers opportunities and challenges for Tennessee. The opportunities include expanding educational offerings for working adults by making degree programs more flexible and directed to their experience and needs. The challenges include finding ways to accommodate the competency-based approach within state systems that are driven by the credit hour. For example, the credit hour is the unit of measurement for transfer and student aid. If Western Governors University produces a large volume of students wishing to interact with other institutions in the state, there will be pressure on the credit hour both as a policy concept and as an institutional practice. How will prior learning assessment work in a competency and credit hour environment? How will employers regard the two approaches to qualification measurement? How will it affect the ability of students to transfer across states as well as within states?

**The costs of increased productivity**

In closing, it is important to note that substantially increasing the number of degrees in Tennessee will be expensive. Short of a revolution in the way higher education is conceptualized and delivered, creating a more educated population is likely to increase the overall cost of higher education in any state. The Governor is a champion of increasing the number of degrees in Tennessee, yet one of his priorities is cost containment and reduction. It is not clear how he intends to frame the concept of cost reduction in higher education. A narrow focus on reducing state appropriations to higher education can restrict the ability of institutions and systems to invest in efforts to increase student completions. Reducing state
appropriations to higher education also can result in increased tuition charges to students and their families, thereby making college degrees less affordable in the state. How the Governor frames cost issues and how higher education leadership responds will be critical to watch, as it will signal how the increased cost of educating enough Tennesseans to achieve the goals of “Drive for 55” will be shared by the state, by the institutions, and by students and their families.
Appendix I: Acknowledgments

SPEC Associates (SPEC) is grateful to many individuals and organizations who contributed their insights, guidance, and other resources to the development of this report. Responsibility for the findings and analysis, however, rests entirely with SPEC.

At the Tennessee Higher Education Commission, David Wright, Associate Executive Director for Strategic Planning & Policy Research and Jessica Gibson, Assistant Executive Director of Policy, Planning, & Research provided SPEC with access to information and staff at their organizations, as well as facilitated access to other higher education leaders in the state. They participated in dozens of conference calls, provided information and important documents, and reviewed many SPEC reports. Tennessee’s in-state evaluator for this work, Brian Donavant, participated in the conference calls and shared the results from his own grant-related evaluations.

Also within Tennessee, many legislators, higher education administrators, institutional presidents and provosts, faculty members, business leaders, students, and others contributed their time and perspectives during interviews and site visits. This report would not have been possible without their participation, and we hope they hear their voices within it.

The national partners that participated in the productivity work were also instrumental. Kristin Conklin, Partner at HCM Strategists, Inc., provided information and insights about how the productivity work rolled out, how the Strategy Labs Network operates, and what both could mean for the future of higher education in Tennessee. She also facilitated access to the state advisors and mentors who were part of the Strategy Labs Network. Among the Strategy Labs team members in particular, Jimmy Clarke, Strategy Labs Network Director and Nate Johnson, HCM Advisor to Tennessee contributed to SPEC’s conference call preparation and reviewed many reports and interview questionnaires. At HCM Strategists, Anne Dudro provided behind-the-scenes support and connections to people, internal documents, and databases.

At Public Agenda, Alison Kadlec, Senior Vice President and Director of Public Engagement Programs, provided information about engagement of higher education administrators, faculty, and students. Michelle Currie, former Senior Public Engagement Associate, reviewed SPEC reports and contributed to conference calls. At the Institute for the Study of Knowledge Management in Education, President Lisa Petrides, as well as Cynthia Jimes, Clare Middleton-Denzer and Luna Malbroux, helped SPEC gain access to information and facilitated our sharing of findings on CollegeProductivity.org.

Many individuals reviewed prior drafts of this report. David Wright, Jessica Gibson, Kirstin Conklin, Nate Johnson, Jimmy Clarke and Michelle Currie.
Over the past five years, SPEC gathered and relied on an international team of evaluation and higher education experts to contribute to this and other reports on Lumina’s productivity work. For this report, John Muffo and Bob Williams served primary roles in visiting the state, interviewing state leaders, gathering and analyzing data, drafting the report, and developing its findings and analysis. Thad Nodine facilitated our writing and analysis, and helped to clarify and draw out our key findings. At SPEC, Victoria Straub provided quality control on evaluation procedures and reports. Natalie De Sole managed telephone interview and on-site data collection, and assured consistency in report formatting. Other contributors on SPEC’s team also provided invaluable feedback: Stephen Maack, Rick Voorhees, John Wittstruck, Ruth Mohr, Wendy Limbert, Melanie Hwalek and Anne Clark.

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It is our hope that lessons from the evaluation portrayed in this report contribute to Tennessee’s productivity efforts and our nation’s achievement of Lumina’s Goal 2025.
Appendix II: Methodology

In 2008, Lumina asked SPEC Associates (SPEC) to evaluate its investments in the seven states participating in an initiative known as Making Opportunity Affordable, which later became known more broadly as Lumina’s higher education productivity initiative. The central evaluation question involved the relationship between the initiative’s work and changes in state and systemwide policies that affect productivity. It is important to note that SPEC’s evaluative efforts focused on the effectiveness of Lumina’s investments in each state, rather than the effectiveness of each state’s efforts in accomplishing its grant goals. Each of the states had access to an in-state evaluator to evaluate its own work.

Some of the challenges in this evaluative work included:

- The initiative’s overall purposes, objectives, and strategies emerged over the course of the work and changed several times during the grant period;
- The initiative did not adopt a theory of change or articulate critical assumptions undergirding its Four Steps agenda; and
- The initiative did not adopt an overall cross-state definition of productivity or strategy to measure progress or effectiveness in achieving the initiative’s objectives.

SPEC gathered data from a wide range of sources and looked deeply at each state’s efforts. SPEC analyzed its data using multiple methods, as summarized below. The period of examination is from the beginning of Lumina’s work with the states in 2008 through the fall of 2013. SPEC’s evaluation team consisted of nine seasoned professionals in the areas of program evaluation, higher education systems and governance, state higher education policy, systems thinking, evaluation of inter-organization collaboratives and networks, strategic planning, institutional research, and assessment of student learning outcomes.

Each of the seven states was assigned two members of the evaluation team who were responsible for identifying relevant documentation, participating in monthly conference calls with state teams, interviewing higher education leaders, analyzing state-specific data, and drafting state-specific reports.
Data analyses and interpretation

Data analyses and interpretation included the following:

- Examination of each state’s goals and achievements through their policy contexts, including higher education governance, leadership, finance, and accountability
- Monthly synthesis of newly acquired information and insights
- Coding and tagging of concepts and themes in documents, transcripts, and data reports
- Comparison of states’ progress in productivity-related activities
- Analysis of patterns and trends across states on factors external to higher education
- Sense-making via:
  - Focused discussions with state grant team members;
  - Final site visit discussion with key higher education leaders;
  - Feedback on reports from state team members and from Lumina’s national support organizations;
  - Reflection with Lumina staff and its national productivity partners; and
  - Ongoing interpretive discussions among evaluation team members.

Data sources

Qualitative data were collected from the following sources, and included approximately 235 documents related to Tennessee:

- State and national reports and legislation
- Focused observations at national and state meetings
- Monthly conference calls with state teams over a three-year period
- In-depth telephone interviews with higher education leaders, business representatives, faculty, students, and state legislative policymakers
- Three site visits to each implementation state for in-person interviews with stakeholders
- Focused interviews with national organizations and individuals connected to Lumina’s investments in productivity
- Media reports

Quantitative data were collected from the following sources:

- Reports and secondary data from these sources:
  - Higher education boards
  - Legislative research organizations
  - U.S. Census Bureau
  - State demographers
  - K-12 agencies
  - Statewide nonprofit organizations
  - Higher education and education policy organizations
• Databases available from these sources:
  • National Information Center for Higher Education Policymaking and Analysis
  • National Association of State Student Grant and Aid Programs
  • Integrated Postsecondary Education Data System (IPEDS)
  • Comparative state financial data (Grapevine)
Endnotes


6 Note: The Carnegie Classification does not apply to community colleges.


9 Ibid.

10 For scholarship rules, see http://www.tn.gov/CollegePays/mon_college/lottery_scholars.htm.


12 National Association of State Student Grant and Aid Programs, *op. cit.*


22 Ibid., pp. 37-41.


30 See, for example, the Economic Success Measures – Tennessee webpage on CollegeMeasures.org at http://esm.collegemeasures.org/esm/tennessee/.


34 Donavant, op. cit., p. 24.


40 Ibid.