College-educated citizens are essential to a thriving state economy in today’s high-tech, globalized workforce. According to economists at Georgetown University, 61 percent of jobs in California will require some postsecondary education by 2018. But as demand for higher education continues to grow, funding for high education continues to be a challenge in these difficult fiscal times. As a result, states are looking at ways to increase the efficiency and productivity of their postsecondary institutions while maintaining academic rigor and quality. States are setting goals for higher education, creating metrics to measure performance, and holding colleges and universities accountable for meeting state goals. Some states are taking their accountability system a step further and are awarding state higher education funding based on institutional performance.

This brief will provide information on different accountability systems being developed in several states. First, the Common College Completion Metrics, which are being promoted by Complete College America and the National Governors Association will be highlighted. Next, the brief will provide examples of higher education metrics and goals from Oregon, Virginia, Illinois, and Tennessee. Lastly, the brief will review potential sources of higher education data for California and will describe the role of state-level higher education entities.

STATE METRICS & GOALS FOR HIGHER ED

1. Common College Completion Metrics
As California considers developing accountability goals and metrics, one prominent model is the Common College Completion Metrics put forth by the National Governors Association (NGA) and Complete College America (CCA). NGA and CCA have identified criteria that are important to understanding the various elements that factor into college success. CCA is currently collecting state data for its 33 member states using the metrics.

The Common College Completion Metrics are grouped into two categories: progress and outcome. Progress metrics identify steps in a student’s college career that, if completed, increase the chances the student will graduate. These metrics include retention from year to year; course completion; enrollment and success in remedial and subsequent courses; student success in first-year, introductory college courses; and credit hours accumulated each year. Progress metrics can help states understand how students move through postsecondary institutions and identify areas for improvement. Figure 1 depicts which progress metrics currently are captured by the Integrated Postsecondary Data System (IPEDS) and which need to be collected at the state level.
Outcome metrics (Figure 2) identify the success rates of postsecondary institutions over time and measure if they are improving from year to year. These metrics include graduation rates, the number of degrees and certificates awarded annually, transfer rates, and the average time and credits students are taking to graduate. Using the information gathered from outcome metrics, states can monitor success and identify how much improvement is necessary each year to reach state and national completion goals.

To place progress and outcome metrics in context, NGA and CCA recommend collecting data on enrollment numbers and completion ratios (number of degrees and certificates awarded per 100 full-time equivalent (FTE) undergraduate students). Further, it is essential to disaggregate the data to analyze how specific populations are performing. NGA and CCA encourage states to disaggregate both progress and outcome metrics, at a minimum, by the following categories: race/ethnicity, gender, age, income, and part-time/full-time enrollment status. Figure 3 illustrates how data is currently disaggregated at the federal level.
Figure 3.

For a detailed description of the concepts, data elements and definitions supporting the Common College Completion Metrics, see CCA’s Technical Guide. Lastly, the guiding principles from the Common College Completion Metrics working group are provided here as an example of how to approach the development of a performance measurement system.¹

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Common Metrics Guiding Principles:

1. The data on which the metrics are based must be collected uniformly, allowing for comparisons across states and, whenever possible, across institutions of higher education.

2. The metrics should be capable of being disaggregated by subpopulations (by age, race, gender, income) and by the value or type of degree or credential, in order to continuously assess the equity of postsecondary opportunity.

3. The initial set of metrics should be capable of being constructed from readily available data. While data systems should improve over time, the urgent need to improve college completion necessitates utilizing currently available data to measure progress.

4. The quantity of metrics implemented should be carefully balanced to reflect a focus on data that connect most clearly to completion rates.

5. The metrics should help to identify barriers to student achievement and provide guidance as to actions that might be taken to improve student success. This means that progression (intermediate) as well as outcome (completion) metrics should be included. It also means that metrics should be disaggregated by and allow for comparison among institutions of higher education.

6. Priority should be placed on measuring improvement over time.

7. The metrics should be transparent and publicly reported.

8. The metrics should be constructed in a manner that minimizes the potential for unintended negative consequences.

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2. **Oregon**

SB 253 (2011) sets a lofty goal that by 2025, 40 percent of Oregonians will have a bachelor’s degree, 40 percent will have an associate degree or certificate, and 20 percent will have a high school diploma. Achieving that goal would mean an 11 percent increase in bachelor’s degrees, a 13 percent increase in associate degrees, and an 11 percent increase in high school diplomas over current attainment rates. Senator Mark Hass, chair of the Education Committee, commented that “the 40-40-20 goal is not just aspirational, but specific” and noted that it will serve as a “compass for policy direction.”

Oregon colleges are working to meet the state goal by reaching out to adults with some college to re-enroll, by focusing on keeping current students enrolled, and by improving college affordability and transfer pathways.

3. **Virginia**

The Virginia Higher Education Opportunity Act of 2011 (SB 1459/HB 2510), which passed the legislature unanimously, aims to increase the number of college graduates who are prepared for the top job opportunities while also reforming and innovating how higher education is provided. The Act set the following goals for the state’s higher education institutions:

- Increased enrollment of Virginia students, including underrepresented populations
- Increased degree completion for Virginia residents who have partial credit
- Increased degree completion in a timely or expedited manner
- Improved retention and graduation rates
- Increased degree production in high-demand areas such as Science, Technology, Engineering, Math, and Healthcare (STEM-H)
- Increased research, including regional and public-private collaboration
- Year-round utilization of resources and facilities (beyond the traditional semesters and class times)
- Technology-enhanced instruction, including course redesign, online instruction, and resource sharing among institutions
- Enhanced community college transfer programs

The State Council of Higher Education for Virginia, the state’s postsecondary coordinating agency, is involved in implementing policies to achieve these goals and has highlighted ways colleges are already addressing state goals on its website.

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4 [http://www.schev.edu/Innovation.asp](http://www.schev.edu/Innovation.asp)
4. **Illinois**

In 2007, the Illinois General Assembly adopted House Joint Resolution 69, which created the Public Agenda Task Force and directed it to study higher education challenges and opportunities. The task force consisted of policymakers, state education leaders, and college administrators and faculty. Input from a wide range of stakeholders was considered as the task force developed state goals for higher education. The final report, the *Public Agenda for College and Career Success*, lays out the state plan and serves as a guide for policymakers and higher education institutions as they consider policies, priorities and funding. It defines four main goals for Illinois:

- Increase access to postsecondary education
- Make affordability a priority
- Increase the number of degree holders in the state
- Use education, research and innovation to meet economic needs.

Legislators played an integral part in developing the public agenda, and also have a key role in implementing it and monitoring progress. To facilitate institutional accountability to the legislature, the public agenda report advocates more robust state data systems that can accurately track retention and graduation rates.\(^5\)

5. **Tennessee**

The Complete College Tennessee Act of 2010 (CCTA) set broad goals and required the Tennessee Higher Education Commission (THEC) to develop a statewide master plan for public higher education. The master plan addresses how to improve economic and workforce development, how to increase degree production, how to target underserved populations, and how to promote institutional collaboration and efficiency through mission differentiation. The involvement of a diverse set of stakeholders in developing the legislation and the master plan led to widespread buy-in among college leaders, policymakers, and the higher education coordinating board.

The Master Plan Goals are as follows:\(^6\)

- 26,000 Additional Undergraduate Degrees by 2015
- Support Workforce and Economic Development by:
  - Developing a public higher education funding formula that rewards increases in the supply of trained program completers and educated graduates;
  - Including in the funding formula recognition of research activity that has regional (and sometimes national) application and relevance;
  - Providing incentives to community colleges for training-related job placements through the Performance Funding program; and

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Commissioning a Labor Market Supply-Demand study to increase awareness of the directions in which the economy is growing and needs to grow, and to provide a focus for the productivity agenda within the context of demand for graduates from certain degree programs and certain levels.

- Quality Underpinning Increased Productivity
  - Maintain academic rigor and quality while increasing institutional efficiency and degree productivity
- Enhanced Competitive Research
  - The CCTA encourages Tennessee public higher education to become increasingly competitive on a national and international scene through leveraging resources, both from within and outside the state.

The Complete College Tennessee Act also mandated that as part of developing the master plan, the Tennessee Higher Education Commission must create an outcomes-based funding formula that rewards institutions for meeting the state’s goals. THEC came up with the following metrics to measure institutional performance and allocate outcomes-based funding, which now accounts for 100 percent of the state’s higher education funding.

**University Metrics**
- Students accumulating: 24, 48, and 72 hours
- Bachelor’s, Master’s, Doctoral, and law degrees awarded
- Research/grant funding
- Transfers out with 12 hours
- Degrees per 100 full-time equivalent (FTE) students
- Six-year graduation rate

**Community College Metrics**
- Student accumulating: 12, 24, and 36 hours
- Dual enrollment students
- Associated degrees and certificates awarded
- Graduates placed in jobs
- Remedial and development success
- Transfers out with 12 credit hours
- Workforce training (contact hours)
- Awards per 100 FTEs
According to the Tennessee Higher Education Commission:7
“The outcomes based model is designed to utilize actual outcome data, mostly from currently available sources. The outcome data is then weighted to reflect both the priority of that outcome at a particular institution and the institution’s Carnegie Classification. Institutions are also rewarded with a premium of 40 percent for progression and undergraduate degree production data attributable to low-income and adult students.”

Individual institutions decide which outcome metrics will receive priority weighting in the funding formula. This “allow[s] the state to be clear in its expectations, while not being prescriptive to institutions in how to achieve higher levels of productivity.” For more information on Tennessee’s metrics and outcomes-based funding formula, visit www.state.tn.us/thec.

**SOURCES OF DATA FOR CALIFORNIA**

As California considers developing state goals and metrics, an important consideration is what data is already being collected and could be used in a performance measurement system.

The community college system already collects data on a variety of performance measures. Assembly Bill 1417 (2004) created a performance measurement system for California’s community colleges, referred to as Accountability Reporting for the Community Colleges (ARCC). Included in the ARCC framework are seven system-wide metrics and six college-level metrics.

**System-wide Indicators:**
1. The annual number and percentage of baccalaureate students graduating from UC and CSU who attended a California Community College
2. The annual number of Community College transfers to four-year institutions
3. The transfer rate to four-year institutions from the California Community College System
4. The annual number of degrees/certificates conferred by vocational programs
5. The increase in wages following completion of a vocational degree/certificate
6. The annual number of basic skills improvements
7. System-wide participation rates per 1,000 population (by selected demographics).

**College Level Indicators:**
1. Student Progress and Achievement Rate
2. Percent of Students Who Earned at Least 30 Units
3. Persistence Rate
4. Annual Successful Course Completion Rate for Credit Vocational Courses

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8 List of indicators taken from the 2012 AARC report: http://extranet.cccco.edu/Portals/1/TRIS/Research/Accountability/ARCC/ARCC%202012%20March%20Final.pdf. For definitions of each indicator, see the metrics framework: http://extranet.cccco.edu/Portals/1/TRIS/Research/Accountability/ARCC/app_d.pdf
5. Annual Successful Course Completion Rate for Credit Basic Skills Courses
6. Improvement Rates for Credit ESL Courses
7. Improvement Rates for Credit Basic Skills Courses
8. Career Development and College Preparation Progress and Achievement Rate
9. College profile summaries, (e.g., headcounts, percentages of student enrollments by various demographics) obtained from the CCCCO Data Mart for the 2012 report; prior ARCC report demographics came from the Chancellor’s Office MIS
10. Summary of the college’s peer groups for each indicator

CPEC collected data for the four-year systems, including information on enrollment levels, degrees awarded, and transfer rates. Data sources for the university sector include the Integrated Postsecondary Education Data System, the National Student Clearinghouse, and the system offices of the University of California and the California State University. The press release announcing the closure of CPEC states “CPEC’s extensive database has been transferred on an interim basis to the Chancellor’s Office of the California Community Colleges, but its long-term maintenance is undetermined.” If California was to move forward with a performance measurement system for four-year colleges and universities, an organization—whether existing or new—would need to be identified to collect and house the data in CPEC’s place.

GOVERNANCE

Without a CPEC or CPEC-like entity, not only is a data-collection agency missing, but California also does not have the ability to link the collective higher education system to the state’s needs. State higher education entities can serve many functions. They can find ways, for example, to use existing system capacity as efficiently as possible to meet the needs of the state’s citizens. State entities can also be charged with making strategic, long-term choices rather than applying short-term fixes to complex problems, and they can address issues that span the P-12, higher education, and workforce sectors.

A state higher education entity could take various forms; it could be a coordinating board with a similar structure to CPEC, or it could be an entity housed in the Governor’s office or in the California Legislature. As California pursues its options, an important step is to consider what should be the roles and responsibilities of the state-level entity.

Gordon K. Davies, formerly the head of the State Council of Higher Education for Virginia and the Kentucky Council on Postsecondary Education, recommends that state higher education entities should have responsibility for the following actions:

“1. Set an agenda focused on access and success by changing existing budget formulae to reward the behavior we want and need, such as improved graduation rates coupled with a rigorous assessment of learning.”
2. Measure what matters, such as progress from elementary school through college and the retention of graduates in the state.

3. Establish a formal relationship with the state’s apparatus for economic development.

4. Establish genuine working relationships with K-12, both at the state level and regionally across the state, on such issues as the Common Core Standards.

5. Take responsibility for all of adult education, including basic literacy and numeracy.

6. Monitor the multiple sources of funds coming into each institution and where they are spent.

7. Report what is being done, the resources used in doing it, and the results achieved. Of course some innovations will fail. It is important to recognize quickly which ones they are, abandon them, and move on. In this way, even failures contain elements of success. Protect the autonomy of the institutions.”

A way to think about the roles of state-level entities as compared to higher education systems and institutions is presented in Figure 4, taken from NGA’s report, From Information to Action: Revamping Higher Education Accountability Systems (on the next page). The image represents a broad framework of how to think about responsibility for accountability at different levels of governance, with campuses focusing on narrow aspects of college performance, systems taking a more expansive view, and states looking at the macro-level features of accountability.

SUMMARY
To ensure economic vitality, states will need to dramatically increase the number of people who receive a college degree. States across the country are pursuing new strategies to increase higher education efficiency and productivity. As California takes on this issue, it is important to begin with statewide goals and metrics to set a framework for measuring accountability. During this process, the state will need to assess what are the current data system capabilities in order to report on the desired completion metrics. A statewide entity is needed to lead and house this work. Such an entity could be focused on how to effectively bring together the separate postsecondary systems to meet collective state goals and could play a central role in coordinating the accountability framework and performance measurement system.

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Figure 4.