



# **Measure What Matters: State Higher Education Accountability Systems**

**A Report and Recommendations to  
Workforce Connections of  
Southwest Pennsylvania**

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## Executive Summary

Institutions of higher education are not immune from the growing pressures to hold public institutions more accountable to the public for their funding and services provided. The upcoming re-authorization of the federal Higher Education Act promises to bring even greater attention to accountability measurement in the postsecondary system. But even without this attention from federal authorities, state governments are beginning to pay much more attention to accountability and outcomes measurement as an important strategy to impose more academic and financial rigor on their institutions of higher education. This growing attention to defining and measuring outcomes is likely to be even more important in states such as Pennsylvania, where fragmented systems of postsecondary governance have long frustrated education policy makers and where careful development of a goals and accountability system could overcome the limits of fragmented governance.

This report was prepared for Workforce Connections of Southwest Pennsylvania so that it might become an even more informed participant in this issue as it plays out in Pennsylvania. The purpose of this study is to inventory and analyze state higher education accountability systems and make specific recommendations to Workforce Connections for working with state officials and others to establish a more comprehensive and thorough accountability system in the Commonwealth.

This report focuses chiefly on *student-centered* performance indicators. By no means does it suggest that these indicators serve as replacements for other areas of accountability in which institutions may be held, *i.e.*, fiscal accountability. However, our concern here is about how well the institutions are doing in serving students – their direct customers. The report focuses primarily on measurement systems and indicators grouped around three specific areas of accountability: student access, student progress, and student occupational outcomes.

Student learning outcomes – the test of knowledge and skills that postsecondary students should master as they complete courses and programs – also are important potential components of any comprehensive accountability system. They are not, however, included within the direct focus of this report. Because of the virtual absence of program uniformity or cross-institutional standards in the postsecondary environment, few states have even attempted to develop system-wide indicators for this complex area of student learning, and we do not recommend that Pennsylvania start here. On the other hand, because this category of measurement may receive some attention in reauthorization of the federal Higher Education Act, we have provided, in Appendix A, an overview of methods and issues for assessing student learning outcomes.

The audience for this report includes a wide range of individuals (*e.g.*, state and regional policy-makers, higher education officials, legislators, foundation officers, workforce development practitioners, etc.) with widely varying experience in postsecondary education accountability systems. Therefore, the first few sections of this report are devoted to providing basic background information on the potential structure and options for developing a state higher education accountability system. Section I reviews the objectives and methodology of this report. Section II provides essential background information, including a brief discussion of the uses of performance reporting, performance budgeting, and performance funding.

Section III on the student-centered performance indicators reviews the types of measures states use (including those measures used currently in Pennsylvania) and the issues that arise in employing these indicators to hold educational institutions accountable. It offers some thoughts on the overall appropriateness of these indicators. This section uses examples from several institutions and states to

illustrate how indicators may be used for different purposes. More detailed profiles of a few key institutions and thirteen states interviewed to gain an understanding of state accountability systems are included in Appendices B and C, respectively.

Section IV profiles accountability indicators and systems in use in the Commonwealth at present. This section, combined with the mapping of indicators used in Pennsylvania in the indicators tables in Section III will provide readers with an understanding of how Pennsylvania's higher education accountability indicators compare in a national scan.

Finally, in Section V, we provide recommendations for developing a postsecondary education accountability system in Pennsylvania, and we suggest next steps for Workforce Connections in beginning to implement this approach.

Our recommendations for Pennsylvania in Section V are divided into three main categories. First, we urge close attention to "**setting the stage**" by developing a common understanding and vision of postsecondary accountability in Pennsylvania. We think it is very important for all policy makers to get much better informed about who is now being served (and who should be served) by the Pennsylvania higher education system. There needs to be careful discussion of the scope and depth of the accountability system and there should be careful focus on a highly inclusive process for evolving that system. There should be a mission and capacity audit of all the institutions to uncover hidden barriers to implementing the system. Finally we urge an aggressive effort to align postsecondary objectives and policies with those in the elementary and secondary education realm. Pennsylvania ought not lose an important opportunity for the higher education system to "pull" improved performance from the elementary and secondary system.

Second, we offer a **set of guiding principles** for policy makers faced with making choices about specific objectives and performance indicators. We urge they should be driven by the strategic priorities of the institution, region, and/or state. We suggest the indicators have a research component and not be limited by currently available information on institutions and students. On the other hand, new institutional assessment activities should be explicitly funded, and the institutions should get help in overcoming technological challenges to establishing and implementing new accountability mechanisms. There should be "time for tweaking" for learning, experimenting, and adapting. The reporting requirements should acknowledge other reporting requirements and issues faced by the institutions. Most importantly, there needs to be a balance of state and institutional accountability measures. Progressive student tracking states report on indicators both by institution and statewide, accounting for student mobility. "Cutting edge" education policy states are moving away from focusing on specific educational sectors and holding them accountable separately to looking at the education levels, opportunities, and attainment of all citizens across the board.

Third, we suggest what we see as **nine essential ingredients in any accountability system**. While there might be several other measures with other indicators, we believe from our review of other states that the core indicators should include the following:

1. Access through affordability;
2. Access to under-served populations – especially including working adults –
3. Geographic access;
4. Program completion/student graduation;
5. Student goal attainment;
6. Graduate or leavers occupational goal achievement;
7. The progress of transfer students;
8. Occupational outcomes; and,
9. Employer satisfaction.

As **Next Steps for Workforce Connections**, we offer six specific implementation suggestions that may be summarized as follows:

1. Begin “setting the stage” for a policy environment that supports postsecondary educational accountability;
2. Launch a careful study, ideally with higher education partners, of precisely who is being served by the Commonwealth's institutions of higher education;
3. Form a statewide alliance with organizations similar to Workforce Connections or with similar objectives in this domain;
4. Reach out to higher education institutions;
5. Establish a statewide *Postsecondary Education Accountability Working Group* to examine the issues, needs, opportunities, challenges, and options in this region; and
6. Get on the Governor's agenda.

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## I. Overview and Methodology of This Report

### Introduction

Institutions of higher education have faced increased accountability expectations over the last decade. Whereas these institutions might previously have been asked to report on number of enrollments, number of courses taught, and other *inputs*; today, they are being asked to report on student learning and employment *outcomes*. The focus on increased accountability stems from several major trends and stakeholders of higher education, including government, the private sector, and citizens.

First, across the board, taxpayers have pressured government agencies to demonstrate effective and efficient use of public dollars. Increased accountability for primary and secondary educational institutions has crept up the education ladder to higher education. Additionally, limited state dollars for public services in general force institutions of higher education to justify their state funding. These institutions must demonstrate that they are more important and more necessary through their accountability systems in order to continue receiving state funds.

Second, employers expect more from all educational institutions, especially postsecondary. Technological innovations and new business practices require increased job skills. Employers expect new workers to come to the job with these skills. Many rely on institutions of higher education to train current workers in them

Finally, citizens who are customers of higher education demand more. Higher education customers expanded from mostly traditional young adult, four-year students to a myriad of types of students with varying demands. Adults are returning to school in record numbers. The percentage of part-time students on campuses has increased significantly. Students want shorter courses and programs that can be combined with full-time work. A growing supply of non-traditional higher education institutions and programs has risen to meet the new needs of students. In order to meet the needs and to compete with these non-traditional institutions, public higher education institutions must show results. In order to show results, their success must be measured.

State higher education organizations have responded at varying degrees to increased pressure for accountability. *Measuring Up 2000*, the first comprehensive report on state accountability systems by the National Center for Public Policy and Higher Education indicated that only a handful of states had comprehensive student accountability systems in place as of the 1997-1998 data collection period. However, the majority of states had partial accountability systems in place, and, since the publication of that report in December 2000, FutureWorks has found that many more states have designed and implemented such systems.

### Objectives

This report was prepared for Workforce Connections of Southwest Pennsylvania. It seeks to provide an inventory and analysis of the practices and policies of states and selected institutions that seek to assess postsecondary student outcomes and hold accountable institutions of higher education. The objective of this project is to position Workforce Connections to work with officials of the state and institutions in the region to establish new policies to assess student outcomes, track the learning pathways of students, and compile information about students after they leave the institutions of higher education.

## **Methodology**

Our initial understanding of specific state accountability systems was informed through a review of the National Center for Public Policy and Higher Education's *Measuring Up 2000* report. This information was supplemented and updated with reviews of the most recent state accountability reports as posted on the website of the State Higher Education Executive Officers. In most cases, brief interviews were conducted with state officials to answer specific questions about a state's system.

We then interviewed a variety of officials working with Pennsylvania's postsecondary institutions to learn more about that state's efforts to create accountability systems or performance measurement systems.

The background section below summarizes choices states can make in developing a performance measurement system. The following section "maps" indicators used in "best practice" states and those currently used by some governing or coordinating bodies in Pennsylvania. Within this section is a comprehensive discussion of the issues and appropriateness of various indicators.

Following this section is a more contextual profile of Pennsylvania's current use of accountability indicators. The final section provides recommendations for developing an accountability policy environment and framework, as well as next steps for Workforce Connections regarding how to approach state and institution officials to begin discussing a higher education accountability system in Pennsylvania.

## II. Background

### ***Approaches to performance measurement – What are the basic models for measuring performance?***

According to the Education Commission of the States (ECS), there are three basic models states use to measure postsecondary institutional performance:

- ◆ Performance reporting
- ◆ Performance budgeting
- ◆ Performance funding

The vast majority of states use at least one of these models to measure higher education performance. As of 2001, only five states had none of these systems and ten states had all three.

According to Burke and Minassians, performance *reporting* requires periodic reports on the “performance of colleges and universities on priority indicators...usually sent to governors, legislators, and campus leaders, and often the media...reports use publicity rather than funding or budgeting to stimulate colleges and universities to improve their performance.”<sup>1</sup> The authors’ survey indicated that, in 2001, 39 states had a performance-reporting mandate, which represents the most used of the three systems. Pennsylvania is among these states, but only with respect to its four-year state public colleges and universities.

The 2000 release of the *Measuring Up 2000* state higher education report card by the National Center for Public Policy and Higher Education may have spurred interest in performance reporting systems. In general, states with performance budgeting and/or funding also have performance reporting.

Performance *budgeting* “allows governors, legislators, and coordinating or system boards to consider campus achievement on performance indicators as one factor in determining campus allocations...concentrates on budget preparation and presentation, and often neglects, or even ignores, the distribution phase of budgeting.”<sup>2</sup>

Although the last five years have witnessed an increase in state use of performance budgeting, the number of states using this model decreased slightly from 2000 to 2001. (Pennsylvania has not used performance budgeting systems.) Burke and Minassians suggest that states may have abandoned performance budgeting for performance funding due to tight budgets. “A possible hypothesis is that the loose linking of resources to results in performance budgeting is the preferred approach in good times when there is money for all, and that the tight tie of resources to results in performance funding becomes more acceptable in bad times when budgets are constrained.”<sup>3</sup>

Performance *funding* “ties specified state funding directly and tightly to the performance of public campuses on individual indicators...focuses on the distribution phase of the budget process.” Over the

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<sup>1</sup> Burke, Joseph C. and Henrik Minassians. 2001. “Linking State Resources to Campus Results: From Fad to Trend – The Fifth Annual Survey.” Higher Education Program, The Nelson A. Rockefeller Institute of Government.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.



last five years, the number of states using this model has doubled from 10 to 19 programs. Pennsylvania has not moved to performance funding.

A warning and a caveat about performance funding programs are in order. If states provide fiscal rewards for positive student outcomes, institutions may be discouraged from serving higher-risk students in favor of serving more able students. This is a special cause of concern for community colleges, given their “open door” admissions policy and the broader range of students they serve. Policy makers must be careful not to impose a narrowly focused accountability system onto postsecondary institutions during a time when employers increasingly require all workers to be better educated and more skilled.

That said, most performance funding programs for higher education systems include only a tiny portion of institutional funding in this allocation. Often, less than five percent of a school’s funding relies on performance on a set of indicators. This allows the accountability system to “have some teeth,” while maintaining overall stability and predictability in institutional financing.

### ***Performance indicators – What to measure?***

Performance *indicators* provide an indication of the success of institutions of higher education. Performance *measures*, in turn, are the specific data elements used to gauge the performance on particular indicators. Performance indicators point to areas where additional analysis may need to be conducted and do not tell “the whole story” of institutional success.

Performance indicators come in a broad variety of types. Those included in this report focus on institutional performance directly related to students. Other areas of performance in which institutions can be held accountable can include fiscal performance, community responsiveness, and effective use of resources.

In general, institutions of higher education can be held accountable for student-centered activities and outcomes in three separate periods of education delivery: before, during, and after. The main indicator of accountability *before* educational delivery is *access* to higher education. Accountability measures in this period include if institutions charge affordable tuition and fees for state residents; if they provide adequate student financial assistance to aid low-income students in accessing higher education; if institutional course offerings, scheduling, and locations facilitate learning for non-traditional, as well as traditional students; and if students of various races, genders, and ages are able to access higher education.

Accountability measures that assess higher education institutions *during* educational delivery include a variety of *process* indicators. These often include indicators assessing quality of education, *i.e.* types and rigor of courses, faculty-to-student ratios, etc. They also include indicators focused on students, *i.e.* student satisfaction with programs, persistence through programs, and graduation.

Finally, accountability measures focused on *outcomes* that occur after educational delivery has been completed look at the *effects* of a student’s educational experience on the student and the public at large. States and higher education institutions can be held to several types of outcomes accountability measures, which are fueled by the demands of several types of stakeholders. Parents of traditional students and students themselves expect to receive a quality education, which can be measured by student learning outcomes (see Appendix A). Students expect to be employable and employed after graduation. Similarly, the public expects institutions to offer courses and programs that meet local, regional, or state occupational needs and produce graduates with corresponding credentials.

## Methods of measuring performance – Compared to what or whom?

The methods by which to measure institutional performance vary according to the needs of institutions or state higher education systems. States with more advanced performance measurement or accountability systems often track institutional performance over time in order to present *trend* data. This is especially useful to assess the stability of the data being collected and to gauge performance over time in order to set realistic and achievable performance goals or benchmarks.

Many state systems also provide *comparative* data on key indicators in order to assess performance. States can compare institutions within a state to each other and/or to national norms. Likewise, state systems can be compared to each other on a national basis in order to understand the performance of the state system as a whole. This is the methodology behind the *Measuring Up 2000* state report card. When providing comparative data, it is extremely important to understand the differences between institutions and states that might impact their performance on certain indicators.

## How is data collected?

Institutions and states can learn about student-focused institutional performance in three basic ways:

- ◆ Cross-sectional studies
- ◆ Longitudinal studies
- ◆ Longitudinal student tracking systems

Cross-sectional studies provide information about an institution's or state's performance at a particular point in time. In any given year, the number of student enrollments can be compared to the number of graduates for a basic understanding of how many students complete a program in relation to how many matriculated into the program. However, this type of data collection does not reveal how many students who matriculated actually graduated. For that type of information, institutions or states must turn to longitudinal efforts.

These efforts can be one-time studies of a particular cohort of students or they can be comprehensive student tracking systems. A longitudinal study of one cohort of students can be a cost-effective way to learn about how students progress through their academic careers and what outcomes they achieve. However, the most robust and useful way to understand the student-centered performance of postsecondary institutions is through a comprehensive student tracking database system that collects long-term information on students annually. Ideally, such a system would be statewide and include all postsecondary institutions within it.

## Scope and structure of a statewide performance measurement system – Which institutions are involved and how?

In designing a statewide performance measurement or accountability system, a state must choose which institutions to include. Although most states will be able to include only *public* institutions in their accountability systems, some states – including New Jersey, Ohio, and Oklahoma – have gained or are working to gain voluntary participation and reporting by *private* and/or *proprietary* institutions. This will be a significant issue for Pennsylvania, with over 100 private postsecondary institutions.

Additionally, states must grapple with how to design a system that includes two- and four-year institutions. A handful of states – including most of those profiled in Appendix C – use the same indicators and reporting systems for both types of institutions. The advantages to this method include that

reporting is easier when there is only one set of indicators on which to report. Also, this system puts community colleges on par with universities and “levels the postsecondary playing field” in a sense. The profile on Ohio’s Cuyahoga Community College in Appendix B provides an example of this type of accountability system.

The main disadvantage is that community colleges often have very different and more complex missions than do four-year colleges and universities. Although not always the case, in general, the mission of a university is to grant four-year and higher degrees. Community colleges, on the other hand, have missions that include basic skills instruction and developmental education; transfer student preparation; continuing education; contract training, all in addition to granting certificates and associate degrees.

A variation on this structure that a few states have adopted includes identifying both a core set of variables against which both two- and four-year institutions can be measured and a set of institutional-specific measures that are tailored to the particular institution. This allows for important comparison data, but also allows institutions to be assessed against their own stated missions and goals. Of course, this is a more complex performance reporting system. See, for example, the profile on Connecticut in Appendix C.

Moving more toward decentralization, states can institute completely separate reporting structures for community colleges and four-year universities. This was the case for many state systems as reported in the *Measuring Up 2000* report. The state of Florida has separate accountability systems for public four-year institutions and for community colleges. Information on this system can be found in the profile of Florida Community College at Jacksonville in Appendix B. In 2000, Maryland enacted significant changes to its higher education performance system, moving *from* standard indicators for both two- and four-year institutions *to* a system of separate indicators for each type of institution (see profile in Appendix C).

Finally, in the most decentralized reporting structure possible, states can allow higher education institutions to create their own performance systems. The major advantage to this structure is that it avoids the difficult process of attempting to get all institutions “on board” with a shared set of indicators. Institutions likely will find their own systems easiest to use and most useful. However, a significant disadvantage is that this structure produces no comparative data that can be used for statewide educational coordination and planning. Many states are now attempting to move from such decentralized structures to more informative and useful systems.

### III. Indicators of Student Access, Progress, and Occupational Outcomes

Once a state has understood and determined the overarching structure and institutional participants for an accountability system, it must establish clear, measurable, and manageable indicators of performance. This section presents potential indicators for the three major time periods in which an institution can be held accountable as described above. Performance indicators in the tables below focus on:

- ◆ Access – how well can students access institutions and their offerings?
- ◆ Progress – how well do students progress through an educational program?
- ◆ Outcomes – what positive occupational results do students receive as a result of successfully leaving the institution?<sup>4</sup>

The indicators in the tables below were gathered through a review of several state performance and accountability systems; therefore, they represent what indicators states are actually using, not what theoretical models might suggest. Each table below also indicates how Pennsylvania’s higher education systems are using these indicators to measure their performance. These tables are meant to provide a comparison of potential state indicators to those found in Pennsylvania. Only two higher education organizations in that state have performance measurement systems. The Pennsylvania Commission for Community Colleges (PCCC) is a voluntary membership association that collects data on its members but does not purport to monitor this data as an accountability system: it is for informational purposes only. The State System for Higher Education (SSHE) is a governing body for the state’s 14 state universities. Some of the indicators in these tables are used in a newly-developed performance funding program (those introduced with “SSHE performance funding indicator:”); whereas others are monitored and reported, but do not impact performance funding (those introduced with “SSHE indicator:”). The listing is for comparative purposes. More detailed information on these systems can be found in the Pennsylvania Profile section below. Below each table is a discussion on the indicators and their appropriateness.

#### Access

Access by residents to institutions of higher education can be difficult to measure because many variables affect why and how students might not make it to higher education. In an assessment of Tennessee’s higher education performance measurement system, officials from that state identified several indicators to measure institutional access.<sup>5</sup> By reviewing 16 state-based performance measurement systems, the authors created the list that appears in Table 1 below.

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<sup>4</sup> The table for this indicator includes only occupational and student satisfaction indicators. Student learning indicators are important, but appear to be underdeveloped at this time. In fact, the *Measuring Up 2000* report card gave every state an “incomplete” on this indicator. A brief overview of innovative student learning outcome indicators is presented in Appendix A.

<sup>5</sup> “Measuring Performance in Higher Education.” Tennessee Treasury Office Research, Tennessee General Assembly Office of Legislative Budget Analysis, and Department of Finance and Administration Division of Budget. February 2001.

**Table 1: Access Indicators**

Indicators	Potential Measures	Pennsylvania
<b>Access</b>		
<b>Access through affordability</b>	Tuition and fees compared within the state and compared to national peers.	PCCC <sup>6</sup> statewide database report indicator: tuition and fee amounts; SSHE <sup>7</sup> indicator: estimated student costs for on-campus undergraduates.
	Amount of financial aid per undergraduate and graduate student. Percentage of students receiving financial aid.	PCCC statewide database report indicator: summary of financial aid recipients by category.
	Percent of tuition income from financial aid.	
	Tuition and fees at campuses as a proportion of median household income and compares to regional states.	
	State support for institutions, including the total state appropriations for higher education, including fringe benefits, state-supported student financial aid and capital equipment funds for the public system.	
<b>Access of underserved populations</b>		SSHE performance funding indicator: minority student enrollment (minority students include African American, Latino, Asian/Pacific Islander, and Native American. Includes all students, full- and part-time, and both undergraduate and graduate students.).
		PCCC statewide database report indicator: Minority enrollment trends: Community college minority headcount and service area minority population over 18 years of age for fall 1996 through 2000 and fall minority headcount relative to the minority population in the service area and statewide 1996 to 2000 (for 2001 statewide database report).

<sup>6</sup> The Pennsylvania Commission for Community Colleges; for more information, see the Pennsylvania Profile section.

<sup>7</sup> The State System for Higher Education; for more information, see the Pennsylvania Profile section.

	Racial/Ethnic breakdown of first-time freshmen in the community college, university system, and private college system.	SSHE indicator: number and percent of African American and Latino students in fall entering class (first-time freshmen, both full- and part-time).
	Rates of application, acceptance, and attendance by race/ethnicity, by gender, and by geographic origin in the higher education system at the undergraduate and graduate level.	
	Number and proportion of student population from minority groups at the undergraduate and graduate level.	PCCC statewide database report indicator: Summary of fall headcount by ethnicity and gender.
	Percent of baccalaureate graduates who were first generation college students.	
	Percent of enrollment of disabled students.	
	Number of credit and non-credit students enrolled.	
	Adult population enrolled in higher education.	
	College-going rate of GED completers.	
	Percentage of the population (by race) enrolled in public and private higher education.	
	Age distribution of enrollees.	PCCC statewide database report indicator: Summary of fall headcount by age and gender.
<b>Access through technology</b>	Percent of library users accessing library on-line.	
	Distance education enrollment.	SSHE indicator: number and percent of credit hours taken in distance education courses.
	Number of courses with coursework on-line or other non-traditional delivery method.	
<b>Geographic Access</b>		PCCC statewide database report indicator: Market penetration: Service area high school graduates and service area residents enrolled for the fiscal year 1996-1997.
	Credits earned at remote locations/not on main campus.	
	Percent of students in county enrolled in higher education, by type of institution.	
	Various indicators measured by geographic location or target area.	

<b>Overall Access</b>	PCCC statewide database report indicator: various changes in credit and non-credit enrollments; change in credit headcount in career and transfer programs.
	Amount of increase in number of students served.
	Several measures on ease and frequency transfers.
	Access of transfer students to various institutions, including four-year universities and independent colleges.
	State public and private high school graduates enrolling as first-time freshman at state public and private colleges and universities for the latest graduating class, by racial/ethnic group.
	Graduate and professional program enrollment.
	Number of freshman applicants, acceptances, and enrollments by race and ethnicity (trend data over 5 years).
The percentage of college-bound public high school graduating seniors who indicate they plan to attend a state college or university. This measure speaks to the <i>perceived</i> quality and accessibility of the state's higher education institutions.	

Access is an important issue for Pennsylvania. In the *Measuring Up 2000* state report card, authors used five measures to assess states' performance in higher education: (1) preparation; (2) participation; (3) affordability; (4) completion; and (5) benefits. Pennsylvania received "C"s for both the participation and affordability indicators – two common access indicators. In the *Measuring Up 2000* report card, *participation* indicators included:

- *Participation rate of young adults*: The percentage of high school freshman enrolling in college within four years in any state (Pennsylvania rated 43% versus the top state with 54%) and the percentage of 18- to 24-year-olds enrolling in college (36% versus top state with 42%).
- *Participation rate of working-age adults*: The percentage of 25 to 44-year-olds enrolled part-time in some type of postsecondary education (Pennsylvania rated 2.8% versus top state with 4.7%).

*Affordability* indicators in the *Measuring Up 2000* report included:

- *Family ability to pay*: the percent of income needed to pay for college expenses minus financial aid at community colleges (Pennsylvania rated 24% versus the top state with 17%), at public 4-year colleges/universities (30% versus 19%), and at private 4-year colleges/universities (64% versus 30%).
- *Strategies for affordability*: the state grant aid targeted to low-income families as a percent of federal Pell Grant aid to low-income families (Pennsylvania rated 98% versus top state with 106%) and the share of income that poorest families need to pay for tuition at lowest priced colleges (19% versus top state with 9%).

- *Reliance on loans*: the average loan amount that students borrow each year (\$3,909 versus top state with \$3,094).

Additionally, a very recent Lumina Foundation report on the disparities in college access among the 50 states and the District of Columbia found that “45 percent of Pennsylvania’s generally admissible public and private institutions are unaffordable for dependent low-income students.”<sup>8</sup> This study classified more than 2,800 public, private, four-year, and two-year colleges and universities in the US and the District of Columbia. Accessibility was defined according to two components: (1) admissibility – whether a college admits typical college-bound students in that state; and (2) affordability – whether students can afford to attend.

Pennsylvania ranks in the bottom quarter of the US in the percentage of public and private institutions that are generally accessible for both dependent and independent full-time undergraduates with low and median incomes. Unfortunately, this state is not alone – the study found that unequal opportunity for low- and median-income students existed among all states and within each state.

Finally, in its report on the Pennsylvania community college system, the National Center for Higher Education Management System found geographic access barriers. There are “serious gaps in the availability of community college services...in the non-sponsor counties served to a limited extent by existing college, and most importantly, in the large parts of the state where no community college currently delivers services.”<sup>9</sup>

Access must be a key issue for this state’s higher education community. The indicators listed in table 1 above provide a broad array of potential areas of measurement to assess an institution’s and the state’s success in providing access to higher education for its residents.

### ***Common Issues across Access Indicators***

Access to higher education in a state is important to understand. If access is limited, outcome indicators render less meaning. However, there are some general concerns in measuring access indicators.

- As is clear from the previous three pages, there are numerous indicators that can be used to signal student access to higher education. It can be difficult to pin point a select few that provide meaningful and accurate information on residents’ ability to enter postsecondary education. Policymakers must be very clear about their objectives for this area of any accountability system in order to appropriately select indicators.
- Many of the indicators in this section require significant usage of data collected outside the higher education system, *e.g.*, the number of high school graduates, regional economic data on family income. Coordinating the data and the data collection systems could be a daunting task. Again, this is an important reason for ensuring that the objectives with the accountability system for measuring access are clear.

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<sup>8</sup> Kipp, III, S. M., D. V. Price, and J. K. Wohlford. 2002. “Unequal Opportunity: Disparities in College Access among the 50 States.” A report for the Lumina Foundation’s New Agenda Series, vol. 4, no. 3.

<sup>9</sup> National Center for Higher Education Management Systems. “Community Colleges and the Future of Pennsylvania: An Agenda for Public Policy,” a report for the Pennsylvania Commission on Community Colleges. 2001.



**Progress**

As described above, progress indicators point to the institutional success in advancing students through educational programs and to graduation.

**Table 2: Progress Indicators**

Indicators	Potential Measures	Pennsylvania
<b>Progress</b>		
<b>Student retention</b>	The number or percentage of first-year students who return for their second year.	SSHE performance funding indicator: second-year persistence rate; SSHE indicator: difference in the persistence rates of African American and white students and Latino and white students from the same entering cohort.
		PCCC statewide database report indicator: Fall first-time students retained for the following spring and fall semesters trend data for fall first time students from 1996 through 1999).
	Some institutions or states track student retention rates for subsequent years.	
<b>Program completion/ Student graduation</b>	The percentage of first-time, full-time students, degree-seeking freshmen who complete their educational programs within 4 and 6 years and graduate.	SSHE performance funding indicator: six-year graduation rate overall and for minority students.
	The number of degrees and certificates awarded.	PCCC statewide database report indicator: Number and percent of the fall 1993 through 1995 student-right-to-know cohorts earning a certificate or degree within 3 and 5 years of enrolling. SSHE indicator: number of degrees awarded by level by year.
<b>Time-to-degree</b>	Average amount of time students in a cohort take to complete their programs.	
	Percentage of students attaining a degree in pre-set time segments, i.e. 120 credit hours for a four-year degree.	

<b>Transfer students</b>	Transfer rate of students between institutions of higher education (often from two-year institutions to four-years).	PCCC statewide database report indicator: percent of graduates who have enrolled in another school since leaving the community college (transferred); SSHE indicator: number of new undergraduate students transferring from PA community college to a system university.
	The success rate of students who have transferred, as measured by graduation rates and grade point averages.	

### Common Issues across Progress Indicators

In measuring each of the five process indicators that will be described below, states often face the following issues or challenges:

- States are typically limited to tracking progress and outcomes measures for *public* higher education institutions because they can compel these institutions to comply with reporting requirements. A few are able to capture data on independent institutions. These states track such information less for accountability purposes and more for state- or region-wide higher education planning.
- Many states report on indicators by type of institution and compare like institutions to each other. The simplest division is between two-year community or technical colleges and four-year colleges and universities. However, New Jersey divides educational institutions into six cohorts (see profile in Appendix C). A few states include national comparisons in their accountability reports.
- Especially for measures of persistence and completion, it is critical for states and institutions to include in the population to be measured only those students who *intend* to meet the measure. For this reason, most states only measure a cohort of students who are pursuing education for the first time, who are enrolled full-time (although some states include part-time students in the measure), and who are degree-seekers, or have officially enrolled in a program at that institution. These three characteristics indicate that the student probably intends to persist in and complete his/her education. Students most affected by this caveat are those at community colleges, who do not intend to follow a traditional full-time or part-time educational program schedule, *i.e.* they take a few courses when they have the time. The profile on North Dakota in Appendix C includes an interesting challenge to defining this measure.
- Student mobility has increased and is likely to continue. Indicators that narrowly measure student persistence and completion at the institution in which the student was initially enrolled (the “home” or matriculation institution) fail to capture students who enroll in or transfer to another institution in order to continue or complete their education. This situation not only negatively impacts an institution’s reported success rates; it provides no insight into growing trends in higher education. Failing to understand such trends lead to poor and possibly counter-productive state- and institution-level planning.

A few states have countered this challenge by tracking two measures of both student persistence and completion: an “institutional” rate and a “statewide” rate. The institutional rates track students who persist or complete at the same institution; whereas, the statewide rates track students who persist or

complete at *any* public educational institution (some states may include independent institutions in this calculation; however, unlike publicly-financed institutions, it can be difficult to require these instructions to track and report on such indicators).

### **Student persistence<sup>10</sup>**

This indicator typically measures the number or percentage of first-year students who return for their second year, although a few institutions may track this rate for subsequent years. Research indicates that students who drop out or stop out (only temporarily left school, but plan to return) usually do so within or immediately after the first year. Tracking the progress of institutions in retaining students after this “danger zone” period is important to understanding if institutions are losing a significant number of students at this point and to measure the success of any initiatives implemented to retain these students. The main issues to consider when using this measure include those described above.

Indicators of student retention are not absolute measures of institutional quality. These indicators help to understand the student experience over time; however, they do not provide a strong indication of institutional success or failure. Non-traditional students, especially older, part-time students, often do not intend to be retained from semester to semester. The institution may still be successful in educating this type of student, albeit, not at a traditional enrollment intensity or pace.

### **Program Completion/Student Graduation**

This is the most frequently tracked and reported indicator. Federal Student Right-to-Know legislation mandates that students considering enrolling in institutions of higher education have a right to know certain performance and campus safety information about publicly-funded institutions. The US Department of Education’s Integrated Postsecondary Education Data System (IPEDS) requires all Title IV-eligible institutions to report on this indicator; therefore, most states outside of those profiled in this report included this very basic measure in their state accountability systems. Following the federal definition of this measure, most states track the percentage of first-time, full-time, degree-seeking freshmen who complete their educational programs within 150 percent of the program’s published length. For most baccalaureate programs, the rate includes students who complete within 6 years (150 percent of the standard 4-year degree). For most associate degree program, the rate is based on 3 years.

Some states track the number of students graduating at 4, 5, and 6 years in order to gain a more specific understanding of graduation trends in the state. A couple of states measure the same 6-year graduation rate for both community college and four-year institution students. These states want to take into consideration the slower pace many community college students may undertake to complete their education. There are many reasons for the slower pace, including: 1) many community college students are employed at least part-time; the competing time demand of work often affects the pace at which they can complete their education; 2) many community college students attend part-time, extending their rate of completion; and 3) due to these institutions’ mission to serve all students, a significant number of community college students may need remediation before they begin a program, which lengthens their completion timeline.

### **Other Issues:**

Some states track this measure by student race/ethnicity, gender, age, and need for remediation in order to more specifically understand the graduation rate of students with varying characteristics.

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<sup>10</sup> Some institutions refer to this indicator as “student retention.”

A few states track a complementary measure called “degree production.” These states track and report the overall number of certificates and degrees awarded in the state often by institution and type of degree (usually annually). States that are concerned with meeting the occupational needs of a certain industry with their graduates have special indicators for these types of degrees, i.e. New Jersey tracks degrees awarded in seven high technology fields.

### ***Time-to-Degree***

This indicator is meant to measure the *efficiency* by which institutions educate students. It typically includes the average amount of time students take to complete a program and graduate. This is a useful indicator to track in conjunction with graduation rates. Only a few states profiled in Appendix C track this indicator. One state tracks time-to-degree as well as credits-to-degree. Two states track similar indicators involving the number of credits required for a degree or the percentage of credits completed by students at a particular point in their programs.

### **Other Issues:**

Measurement of this indicator can require more extensive data collection and analysis than states or institutions may choose to undertake. The cost of collecting that data may outweigh the benefits of tracking the indicator.

### ***Transfer Students***

There are two main indicators associated with transfer students: 1) the transfer rate of students between institutions of higher education; 2) the success rate of transfer students, as measured by grade point average and/or graduation rates.

Most of the states profiled track the transfer rate of community college students to four-year institutions. Recognizing that increased student mobility includes many different directions of transfer, some states track transfers between community colleges, between four-year institutions, both ways between community colleges and four-year institutions, and between public and private institutions. Many of the profiled states also track the graduation rate specifically for community college transfer students to four-year institutions for 4, 5, or 6-year completion rates. However, in other states, transfer students are merged into the general graduation indicator of “completed within 6 years.”

### **Other Issues:**

Student transfer rates and success indicators must be measured carefully. Students often transfer between different types of institutions (it is not always a community college to four-year transfer) and for many different reasons. For this reason, a comprehensive, statewide data tracking system is required.

In the transfer graduation rate, it is important to capture only those transfer students who intend to graduate. One state does this by including in the indicator only students who are enrolled in a “university parallel program” at a community college and, therefore, intend to complete a four-year degree at a four-year institution.

The measurement of students who transfer between public and private institutions warrants particular concern because most state accountability systems can only include public institutions. Tracking students who transfer out of public institutions into private ones may be difficult or impossible.

A handful of states track the academic success rate of transfer students by reporting on the transfer students' grade point averages.

## Other Indicators

A few states track the overall education level of state residents to gain a sense of the statewide progress toward an educated citizenry. One tracks progress indicators for contract training programs in a similar manner to tracking for certificate and degree programs.

## Overall Appropriateness of Progress Measures in Table 2

The population for which these particular progress measures were designed is typically first-time, full-time, degree-seeking students. This is clear from the cohort definitions that most states use. However, these are not the only students served by institutions of higher education. Adults are returning to school in record numbers to update their skills or “retool” for new careers. Employers and governments are increasingly contracting with postsecondary institutions to train or retrain employees or public training participants. Students turn to institutions to gain skills or training for industry-based credentials, not necessarily academic degrees.

In order to measure the full scope of institutional effectiveness and accountability to stakeholders, an expanded list of student progress indicators is required. Potential indicators might include:

### Student goal attainment

This indicator points to the percentage of students who indicate upon graduation or exit that they have met their educational goals. The American Association of Community Colleges has recommended this indicator for community college performance measurement systems.<sup>11</sup> It is most appropriate to measure both whether graduating students were satisfied with the program in terms of meeting their goals and whether students not graduating (because they intended to or because they dropped- or stopped-out) met their goals through the program.

This indicator must be measured by surveying students both before they begin a program to understand the students’ goals and during and/or after a program to assess whether the students met their goals through the program. Surveys can be costly and time-consuming. Additionally, if samples are limited or non-representative, survey data will be invalid. It is perhaps for these reasons that almost none of the states include this indicator in their accountability systems.

However, in a recent initiative, the AACC has partnered with ACT to develop and conduct a survey to learn more about the characteristics of community college students. The AACC-ACT *Faces of the Future Survey* is in its third year.<sup>12</sup> Survey questions are organized around the following topic areas:

- General student background information, *i.e.*, gender, racial/ethnic background, native language, income and personal education finances, parental education level, broad based "life goals"
- Student employment background, *i.e.*, current employment status, such as hours, number of jobs, etc.; occupational field, if currently working; employer compensation for education
- Student educational experiences and background, *i.e.*, highest academic degree earned to date; current academic effort, including number of credits/courses; courses to date from this college; other current

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<sup>11</sup> Alfred, Richard, Peter Ewell, James Hudgind, and Kay McClenney. 1999. *Core Indicators of Effectiveness for Community Colleges*. American Association of Community Colleges. Community College Press: Washington, D.C.

<sup>12</sup>[http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/Projects\\_Partnerships/Current/FacesoftheFuture/FacesoftheFuture.htm](http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/Projects_Partnerships/Current/FacesoftheFuture/FacesoftheFuture.htm)

academic institutions attended; academic goals; relationship between college attendance/course taking and employment

- Current college experiences, *i.e.*, reasons for attending this college, satisfaction with the college, impression of the campus climate, areas of growth while at the college.

Institutions may be able to use information from this survey or a similar one to assess student characteristics outside those of traditional students, as well as student goals and goal attainment.

### Student attainment of educational objective

Closely related to the student goal attainment, this indicator assesses all incoming students' educational objectives and tracks their progress toward meeting these objectives. For example, students may be asked to indicate which of five objectives they have for entering a (two-year) institution at this time: (1) attainment of a certificate or degree; (2) preparation for transfer; (3) preparation for a new job; (4) skills upgrade for a new job; or (5) personal interest.<sup>13</sup>

Graduates or program leavers then can be surveyed to assess whether they met their objectives. Technological advances allow for manageable electronic surveys that may make this data collection less burdensome than it may have been even a decade ago. It is important to realize that students may change their educational objectives, and surveys should reflect this possibility.

### Expanded definition of student success

Morris and Losak have argued that students do not necessarily have to attain a degree in order to be successful. They suggest that a student can be considered "successful" if s/he (1) has graduated; (2) is still enrolled in good academic standing; or (3) has left college in good academic standing.<sup>14</sup> This definition of success takes into consideration those students who may not be enrolled to attain a degree. A student may take a class or two to update her skills, and, under this indicator, if she passed the course(s) in good academic standing, she was successful.

### Student attainment of clearly-defined skills

In addition to measuring student attainment of academic credentials, postsecondary institutions might find it useful to measure student attainment of other certifications and skills offered by the institution. Industry-recognized credentials and skills standards promulgated by the National Skills Standards Board would be good candidates.<sup>15</sup> It is likely that these credentials will be earned under the "non-credit side" of postsecondary institutions; however, progressive schools are beginning to offer academic credit for these programs.

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<sup>13</sup> Adapted from indicators suggested by panel members at the AACJC Conference on Community College Research, October, 1987. See Palmer, J. *Accountability through Student Tracking: A Review of the Literature*. American Association of Community and Junior Colleges. 1990.

<sup>14</sup> Morris, C. and J. Losak. *Student Success at Miami-Dade Community College: Issues and Data*, Research Report No. 86-22. Miami, FL.: Miami-Dade Community College, 1986.

<sup>15</sup> See the American Association of Community Colleges' proposed "Perkins/WIA Accountability Options" for the 2001 federal legislative reauthorization of these programs. Contact Jim Hermes, Legislative Associate for more information: 202-728-0200 x 216.

## Occupational Outcomes

Outcomes are the “bottom line” indicators of institutional success: at the end of the day, what did students gain from attending an educational institution?

These indicators can be the most difficult to track because they rely on student and employer surveys that may be unreliable or on complex statewide administrative database linkages.

The indicators in table 3 below focus on student occupational outcomes only, such as employment and earnings after graduation. However, student learning outcomes are significant, as well. Indicators to measure student learning are presented in Appendix A.

**Table 3: Occupational Outcomes Indicators**

Indicators	Potential Measures	Pennsylvania
<b>Occupational outcomes</b>		
<b>Employment</b>	Percentage of graduates employed upon graduation and/or a specified number of years after graduation.	PCCC statewide database report indicator: the percent of graduates who are employed (in jobs related and unrelated to their studies).
	Percentage of graduates employed in-state upon graduation and/or a specified number of years after graduation.	
	Amount of time graduates took to find employment after graduation.	
	Sector/industry of employment.	
<b>Earnings</b>	Average earnings of graduates.	
<b>Continuing education</b>	Number of students continuing their education and in what field.	
<b>Graduate satisfaction</b>	Satisfaction with academic program/training, instruction, curriculum, preparation for work, campus experience, faculty interaction, and other data of interest to institutions.	PCCC statewide database report indicator: three objectives: percent of graduates who accomplished the objectives set for themselves at college; percent of students who enrolled at college due to actual job loss or concerns about future job opportunities in their field of employment; percent of students indicating various reasons why they would not have been able to attend college if it were not the community college.

<b>Training applicability</b>	If graduates are employed in an area directly related to their education/training.
<b>Employer satisfaction</b>	Employer satisfaction with institutions' graduates generally – often collected in broad-based employer community surveys.
	Employer satisfaction with specific graduates' skills and education – measured through interviews with employers provided by graduates.

### Common Issues across Indicators

In measuring graduate outcomes indicators, states often face the following common issues or challenges.

- There are two primary methods of data collection for graduate occupational outcomes measures: surveys and/or the linking of administrative databases. The advantages of graduate surveys include the ability to collect qualitative data on graduates, *i.e.* graduate satisfaction rates, civic engagement, etc. Additionally, the instrument allows institutions to include common survey questions for statewide comparison while also allowing individual institutions to collect institution-specific data.

One of the main disadvantages to graduate surveys is that the responding sample must be representative of the graduate population; otherwise, the results may be invalid. Surveys with poor rates of return or non-representative samples provide less meaningful data. Another potential disadvantage to graduate surveys is that they must be well designed in order to collect the data the institution seeks. Design and rigorous testing of surveys is time-consuming and may be expensive.

States can also link various state-level administrative databases in order to collect data on graduates. The most common data exchange is between student tracking systems and state employment records, although some states involve departments of drivers' licenses and taxes. One of the main advantages to database linking is that once the system is in place, it is relatively quick and easy to obtain accurate and reliable information. Another advantage is that states usually can collect information on many more graduates than can be done through a survey.

One disadvantage to a database linkage system is that states can collect information only around employment and quarterly earnings. More extensive outcomes measures or qualitative measures cannot be tracked using this method. Another disadvantage is that employment databases provide information only on in-state employees. Graduates who work out-of-state cannot be tracked. It may be possible to negotiate sharing of state employment files across state borders, which would be especially important for higher education institutions and workforce regions along state borders. Finally, state employment databases often do not include information on self-employed graduates.

- Many states, especially those not profiled in this report, leave measurement of graduate outcomes to individual institutions. The advantage of this system is that institutions can customize data collection. However, the significant disadvantage is that this system provides no common data for statewide



comparison of institutional progress or for higher education planning. A few states attempt to work around this disadvantage by compiling institution-specific data into one statewide report; however, this does not solve the problem of lack of comparable data.

- Some states have differing graduate outcomes reporting requirements for two- and four-year institutions. While this is understandable given the diversity of missions of these institutions, it does not provide a common dataset by which to compare all public higher education institutions.
- The timing of data collection varies. Some states collect data on recent graduates, *i.e.* one-year post-graduation, while others may wait to collect data 5 or even 10 years post-graduation. Although collecting data on graduates a few years after graduation can produce a rich set of information, there are two drawbacks. First, the longer a student has been away from the institution, the less likely s/he is to return surveys from that institution. More importantly, the longer the time span between the student's contract with the institution and the survey date, the less likely the reported outcomes can be attributed to the institution.
- Many of the states profiled in this report are concerned about retaining graduates in the state after graduation. For this reason, their graduate outcomes reports present data on graduates' rates of in-state residency and employment.

### **Employment**

This indicator and the following one on graduate earnings are the most common graduate outcomes measured. Quite simply, the indicator typically measures if graduates are employed. States may also collect data on the industry in which the graduate is employed and, if a survey, if the student is employed out-of-state. Programs funded with federal Perkins Vocational or Workforce Investment Act funds are required to report employment placement information on program graduates or leavers soon after program completion (or leaving); therefore, many community colleges are familiar with reporting on this indicator.

### **Earnings**

Graduate earnings are typically measured in annual salary. Surveys include self-reported data, which may be questionable. Administrative database linkages are often used to calculate annualized earnings based on graduates' quarterly earnings (from employment or tax files).

### **Continuing Education**

States are often interested in knowing if students are continuing their education, especially if they are unemployed. This information can be gathered through graduate surveys. States with comprehensive statewide student tracking systems can often track this information through the system. However, the system must provide long-term tracking and must be based on individual student records.

### **Graduate Satisfaction**

This information can be obtained only through graduate surveys. States include a variety of indicators, including satisfaction with curriculum, preparation for work, skill building, student services, faculty interaction, etc. The profiles in Appendix C include a variety of models.

### **Training Applicability**

This indicator attempts to measure the “match” between graduates’ training and their current primary employment. It is not always measured, but when it is, it is through graduate surveys.

### **Employer Satisfaction**

The primary question involved in this measure is, “Are employers satisfied with an institution’s/a state’s graduates?” Again, this information can only be collected through surveys, which must be well designed and representative of the employer population. Most states profiled for this report attempt to measure employer satisfaction. At least a few states rely on surveys of employers who recruit on campus. Because these employers are demonstrating a positive disposition toward the institution at which they are recruiting, this may not be an appropriate sample of employers to survey.

### **Overall Appropriateness of Outcomes Indicators in Table 3**

To assess student occupational outcomes, these indicators are a fairly comprehensive set. However, states and institutions must consider the following challenges.

#### **Graduates vs. Program Leavers**

Institutions typically use these indicators to measure the success of *graduates*. Program *leavers* (dropouts or stop-outs) usually are not included, despite the fact that not all students intend to be graduates. Most states and institutions survey only those students who have graduated. However, this method fails to consider important groups of students. Non-traditional students who take only courses they need for their individual career development and then leave the institution are generally not included in this survey population. However, this may be a significant student population whose outcomes should be measured. To understand the broader impact of postsecondary institutions, all the outcomes of all students must be assessed.

#### **Narrow Measure of Economic Impact**

Likewise, simply measuring whether program graduates got jobs does not capture the broader economic or social impact on a region or community. Indicators that guide understanding of these impacts might include institution responsiveness to community needs (as measured through community surveys); economic impact studies on the regional or state (to measure the economic value-added of faculty, student, and visitor spending); and return on investment to the community or state of the institution.

Defining useful indicators of postsecondary institutional success and accountability beyond student-centered issues is beyond the scope of this paper; however, the following resources are likely to be useful for organizations or institutions interested in a broader accountability agenda:

Alfred, R., P. Ewell, J. Hudgins, and K. McClenney. *Core Indicators of Effectiveness for Community Colleges*. 2<sup>nd</sup> edition. American Association of Community Colleges. Community College Press: Washington, DC. 1999

Palmer, J. *Accountability Through Student Tracking: A Review of the Literature*. American Association of Community and Junior Colleges: Washington, DC. 1990.

League for Innovation in the Community College. "Assessing Institutional Effectiveness in Community Colleges." D. Doucette and B. Hughes, eds. 1990.

"Building Accountability That Works: Developing Model Accountability Criteria for Community Colleges." Office of Public Policy, Association of Community College Trustees: Washington, DC. 2001.

### **Institutions Face Overlapping Occupational Outcomes Measures**

Educational institutions that participate in the Workforce Investment Act and Perkins Vocational programs must report on the employment outcomes of participants as part of their performance measurement. An administrative burden may be lifted from these institutions by using these employment measures for any state higher education accountability system.

## **IV. Profile of Higher Education Accountability in Pennsylvania**

### ***Background***

According to the Pennsylvania Department of Education, this state has 151 institutions of higher education, spanning a broad variety of types of colleges and universities, from public to private and from two- to four-year. Postsecondary institutions in Pennsylvania include:

- 14 State Universities (public 4-year universities)
- 4 State-related Universities (public 4-year universities separate from the State University system and each other, due to historical agreements)
- 8 Private State-Aided Institutions (through a unique history, private institutions receiving state funding allocations; most are in the medical field)
- 14 Community Colleges
- 88 Private Colleges and Universities
- 16 Theological Seminaries
- 6 Private Two-year Colleges
- 1 College of Technology

This broad variety of institutions provides a generous array of postsecondary education options for students. Unfortunately, there is very little centralized governing or coordination of these institutions.

### ***Higher Education Governing and Membership Structures***

The Pennsylvania Department of Education's Deputy Secretary for Postsecondary and Higher Education is charged with enforcing basic minimal requirements for all colleges and universities to operate in the state. This agency also is responsible for approving new programs and any degree changes by these

institutions and with incorporating new schools. However, beyond enforcing these minimal requirements, this agency has no governance over any postsecondary institutions.

The governance function for postsecondary institutions varies by the type of institution. The fourteen state universities are governed by the State System for Higher Education, which is a separate unit from the Department of Education. In the early 1980's, these state colleges determined that they should have their own governing body and successfully lobbied the General Assembly to remove them from the Department of Education and to form the State System for Higher Education. Last year, the System adopted a performance funding system for the state universities, in addition to reporting on a variety of performance indicators.

The four state-related universities – Penn State, University of Pittsburg, Temple, and Lincoln University – govern themselves individually and report to no governing or coordinating body. This is generally true of the private and all other institutions in the state. The community colleges govern themselves individually, as well. Highlighting the decentralized nature of these institutions, the National Center for Higher Education Management Systems noted in a recent report that “Pennsylvania has evolved – not through deliberate state policy but through the expansion of separate systems – a network of separate and largely uncoordinated public institutions at less-than-baccalaureate level” (“Community College and the Future of Pennsylvania: An Agenda for Public Policy”).

Although there are few central governing bodies for postsecondary institutions in Pennsylvania, there are a handful of voluntary membership associations that coordinate activities of and services for their members.

Briefly, these include:

- *The Pennsylvania Association of Colleges and Universities* - a voluntary membership organization that includes 109 higher education institutions from all sectors of the higher education community. This body has no authority to administer accountability measures for its members.
- *Pennsylvania Commission for Community Colleges* – a non-profit coordinating organization representing the fourteen community colleges in Pennsylvania. This organization has no power or capacity to institute accountability measures for the state's community colleges.
- *The Association of Independent Colleges and Universities of Pennsylvania* – a voluntary membership organization that coordinates resources and services for 81 private institutions in the state. Again, this organization lacks authority and capacity to institute an accountability system.

This situation of uncoordinated governing bodies of higher education has resulted in a fragmented and underdeveloped statewide higher education accountability system. However, two organizations have begun to look at performance and accountability indicators to better understand or hold accountable the institutions they represent. These include the State System of Higher Education and the Pennsylvania Commission for Community Colleges. The systems these organizations have adopted are described below. The indicators used in these systems are mapped in tables 1, 2, and 3 in the previous section.

## **Two Performance Measurement Systems in Pennsylvania Higher Education**

### **State System of Higher Education**

In 2001, the Board of Governors for the State System of Higher Education adopted performance-funding indicators for Pennsylvania's fourteen state universities. These eight indicators will be in effect for fiscal year 2001/2002. They include:

#### Access Indicators

- Percent minority student enrollment (1/2 an indicator)

#### Progress Indicators

- Second-year persistence rates
- Six-year graduation rates
- Six-year minority graduation rates (1/2 an indicator)

#### Outcomes Indicators

- None specified for performance funding; however, institutions can select outcomes indicators under the "institution/mission-specific indicator" below.

#### Learning Outcomes Indicators

- Academic quality – this indicator can include a range of measures including the areas of student outcomes, student engagement, and faculty scholarship. Each university was charged with developing their indicator and benchmarks by early 2002 for Board review and approval.

#### Other Indicators

- Budget flexibility ratio
- Fund raising from private sources
- Percent minority faculty and professional employees
- Institution/mission-specific indicator – these indicators will be developed by each university to address university goals, other System goals, or areas specific to the unique mission of a particular university. Universities were to submit proposals for this indicator and its measurement in early 2002 for Board review and approval.

These eight performance-funding indicators are part of a set of 33 indicators adopted by the Board to measure the efficiency and effectiveness of the state universities.

A performance funding pool has been set aside for 2001/2002 in the amount equal to one percent of the Educational and General appropriation (about \$6 million). The pool will increase to two percent for 2002/2003 and three percent for 2003/2004. Each performance-funding indicator listed above is equal to 1/8<sup>th</sup> of the funding pool, with two indicators noted worth 1/16<sup>th</sup> each.

Each university has established institution-specific benchmarks for each indicator, as well as clearly defined levels of performance. Performance funding will be allocated based on each institution's progress toward these benchmark goals. Institutions have established benchmarks for performance that is classified as *exemplary* (met or exceeded goal); *acceptable* (made significant progress toward goal); or *unacceptable* (did not make reasonable progress toward goal).

Institutions performing at the exemplary and acceptable levels will earn their full share of the funding pool (based on each institution's budget). Those institutions performing at the unacceptable level will earn nothing. Funds left over in the pool due to these unacceptable performers will be distributed to institutions with exemplary performance in proportionate shares.

A review of the 33 indicators shows a fairly comprehensive performance measurement system. However, when the State System of Higher Education indicators are mapped against best practices states' indicators – as in tables 1 through 3 above – one gap becomes obvious. At present, there are no indicators measuring the state universities' performance on occupational outcomes for students (table 3). However, the Board has taken a close look at occupational outcomes indicators for both graduates and employers and plans to incorporate these measures into the accountability framework in the future. As discussed and as demonstrated by best practice states, these indicators are important measures of the "bottom line" success of postsecondary education.

#### BOX A

##### 14 State System of Higher Education Universities:

- Bloomsburg University of Pennsylvania
- California University of Pennsylvania
- Cheyney University of Pennsylvania
- Clarion University of Pennsylvania
- East Stroudsburg University of Pennsylvania
- Edinboro University of Pennsylvania
- Indiana University of Pennsylvania
- Kutztown University of Pennsylvania
- Lock Haven University of Pennsylvania
- Mansfield University of Pennsylvania
- Millersville University of Pennsylvania
- Shippensburg University of Pennsylvania
- Slippery Rock University of Pennsylvania
- West Chester University of Pennsylvania

### The Pennsylvania Commission for Community Colleges

This voluntary coordinating membership organization collects and reports on some data around institutional effectiveness of its member community colleges. As this is a voluntary membership organization, these indicators reflect the members' desire to make public their performance information. Reporting of these indicators may not be interpreted as an "accountability system," per se. Briefly, indicators include:

#### Access Indicators

- Enrollment statistics, including headcount by county of residence and financial aid summaries by ethnicity, gender, and age.
- Enrollment trends, including changes in credit and non-credit enrollments.
- Minority enrollment trends, including changes in community college minority headcount compared to the service area minority population.
- Market penetration in the service area.

#### Progress Indicators

- First-time student persistence rates.
- Student certificate and degree completion within three and five years.
- Graduate transfer rate to another institution

Outcomes Indicators

- Graduate employment status and training applicability.
- If graduates feel they have met their goals for attending community college (graduate satisfaction rate).

These indicators are mapped to the indicators that other states use in tables 1, 2 and 3 in the previous section.

PCCC has no governing capacity over the community colleges. These institutions are not required to report on these indicators. Additionally, there is no centralized or standardized data collection system or method to ensure the completeness or accuracy of the data. It appears to be collected for informational purposes only.

Nonetheless, this set of indicators presents a good representation of measures across all three educational time periods – before, during, and after educational delivery. Although it could be expanded to include other important indicators, PCCC collects data in their database that mirrors much of what best practice states are collecting and reporting on.

**BOX B**

**14 Community Colleges represented by the PCCC:**

- Community College of Allegheny County
- Community College of Beaver County
- Bucks County Community College
- Butler County Community College
- Cambria County Area Community College
- Delaware County Community College
- Harrisburg Area Community College
- Lehigh Carbon Community College
- Luzerne County Community College
- Montgomery County Community College
- Northampton Community College
- Community College of Philadelphia
- Reading Area Community College
- Westmoreland County Community College

***A significant challenge facing Pennsylvania lies in the lack of a comprehensive system governance structure with clear authority to develop and implement a statewide accountability system.***

Based upon the experience of other states, an important pre-requisite for any accountability system is a comprehensive structure within which to develop and implement accountability standards. In Pennsylvania, the State System of Higher Education serves as the governing body only for the 14 four-year universities. Although there are a handful of statewide membership organizations, the governance and accountability functions of all other post-secondary educational institutions fall primarily to the institutions themselves.

Movement toward a more systemic higher education structure is evidenced in a recent attempt to create a community college coordinating board for the Commonwealth. According to a report by the National Center for Higher Education Management Systems (NCHEMS), legislation to establish such a board passed the Pennsylvania House of Representatives in November 1999; however a similar bill failed to pass in the Senate.<sup>16</sup> This legislation was quite controversial among the community colleges in the Commonwealth, resulting in two leaving the Pennsylvania Commission for Community Colleges.

Nonetheless, NCHEMS recommended in its 2001 report that the Commonwealth of Pennsylvania undertake “fundamental” policy reform, including formalizing and strengthening the state-level structure

<sup>16</sup> “Community Colleges and the Future of Pennsylvania: An Agenda for Public Policy.” A report prepared by the National Center for Higher Education Management Systems for the Pennsylvania Commission for Community Colleges. October 2001. Boulder, CO.

for leadership and coordination of community colleges. Specifically, NCHEMS called for the creation of a new statewide community college services entity that supports the capacity of community colleges to serve their regions, links the community college services network to major priorities facing the state, advances the development of community colleges in each region, and ***holds the system and its components accountable to the state and the public.***<sup>17</sup> The report provides a detailed and informative look at Pennsylvania's community college services, unmet needs of the Commonwealth for these services, barriers to meeting the needs, and recommendations for removing some of these barriers.

Creating a statewide coordinating body for Pennsylvania's 14 community colleges appears to be an uphill battle. If this struggle is indicative of future attempts to centralize coordination, governance, or accountability of all public institutions, it may behoove stakeholders to pursue some sort of decentralized, voluntary accountability system.

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<sup>17</sup> *ibid*



## **V. Recommendations for Pennsylvania for Developing a Higher Education Accountability System**

With 151 institutions of higher education spread across several different types of structures and governing systems and no single organizing body for even all *public* institutions, developing and implementing a central higher education accountability system for Pennsylvania will be challenging. Also, it is unlikely to come quickly. It will require aggressive leadership and commitment from the highest levels of the government, both executive and legislative.

On the other hand, there is a unique window of opportunity for the Commonwealth to establish a higher education accountability system that reflects the future of higher education in the state. Pennsylvania represents virtually a clean slate and can learn from the experiences of several other states. Carefully developed and rigorously applied accountability systems can help overcome the problems of fragmented governance in the Commonwealth's postsecondary institutions.

Additionally, a new Governor will be inaugurated in 2003, and there likely will be a willingness to consider new strategies for the higher education system of Pennsylvania. Moreover, pressure for accountability is building at the federal level. There is already widespread interest in the Congress in developing accountability measures for inclusion in the 2004 reauthorization of the Higher Education Act. All of these circumstances lead us to believe that this is the time for Pennsylvania to carefully considering measuring what matters in higher education.

Our recommendations are divided into three parts below. First, we offer a series of recommendations for “setting the stage” by developing widely understood accountability policies that can establish performance and a solid platform for the development of accountability measures. Building a strong foundation of consensus among all the key actors — higher education institutions, K-12 educators, state policy-makers, employers, and other publicly supported workforce development efforts — can help avoid problems on the implementation end and foster and reinforce complementary statewide systems.

After establishing that foundation, these same actors must move to agree on outcome measures and a formal accountability system. In this section, we suggest a series of underlying principles to shape the selection of specific accountability measures and we recommend what we see as the essential ingredients in a statewide accountability system. These provide the basic accountability measures that we believe should be included in any state or institutional student-focused performance measurement system.

Finally, we make specific short-term recommendations for Workforce Connections — next steps it might take in encouraging a statewide system and/or in developing a voluntary regional compact for higher education accountability.

### **“Setting the Stage” for an Effective Accountability System**

**First, get clear about who is served and who should be served by the Pennsylvania higher education system.**

It makes no sense to build an accountability system that focuses on a "mythical" group of traditional students. The colleges and universities in Pennsylvania are certainly aware of the huge changes in the composition and characteristics of their student body over the past few decades. The average age of students has increased and the number of students who work has dramatically accelerated. The number of new students requiring development and remedial education has increased. The number of students who

use higher education (often in tandem with employment) to try out and experiment with different careers has increased. More students have transportation capabilities. More students have dependents and therefore childcare needs. These are some of the important changes in student characteristics that now affect the mission and programs of the higher education institutions.

However apparent these changes may be to college presidents, admission officers, and faculty, many state policy makers may not know much about these changes. They may, therefore, be inclined to hold colleges and universities accountable to a set of standards and performance measures at significant odds with the reality of the college campus today. Moreover, many of these trends are accelerating (perhaps some have lagged in Pennsylvania but will accelerate), and changes may be even more pronounced in five to ten years — the time it will almost certainly take to put a comprehensive accountability system fully in place.

This underscores the need for a careful analysis of the current and future postsecondary students in the Commonwealth.

**Second, using this report as background, higher education authorities and policy makers in Pennsylvania must make some fundamental decisions within the range of options and choices for developing accountability systems. They must educate other stakeholders on these options.**

Regarding the models for measuring performance discussed in the first section of this report, what is the desired and realistic structure for a higher education accountability system in Pennsylvania? Is performance reporting, budgeting, or funding desirable or realistic? Likewise, the scope and structure of any potential accountability system must be contemplated. Pennsylvania includes many private institutions in its repertoire of higher education. It may be difficult to engage these institutions in anything other than a voluntary performance measurement program. However, the Commonwealth also has some state-subsidized private institutions, which may be more likely to participate in accountability policies. Stakeholders should look to New Jersey, Ohio, and Oklahoma for models on involving private educational institutions.

**Third, it is important to create a careful process or policy environment for change that lays a strong and widely accepted foundation for a statewide accountability system.**

As a follow-up to the *Measuring Up 2000* study, the National Center for Public Policy and Higher Education commissioned a report to provide “next steps” for states in addressing the gap in state performance found in the report and effective state policies on each of the indicators.<sup>18</sup> Although the recommended steps in the National Center’s report are tailored to states reflecting on and responding to the “grades” in the report card, they can also be effective for states attempting to develop a higher education accountability system more broadly.

The recommended steps below are slightly adapted from the National Center’s report, with the focus zoomed out a bit from improving specific accountability and performance measures to developing an overall accountability system. According to the National Center’s report, to create a policy environment for change and move the public agenda on higher education accountability forward, state policymakers must:<sup>19</sup>

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<sup>18</sup> Jones, D. P. and K. Paulson. 2001. “Some Next Steps for States: A Follow-up to Measuring Up 2000.” A report by the National Center for Public Policy and Higher Education, National Center Report #01-2.

<sup>19</sup> The National Center for Public Policy and Higher Education recommends that if readers want a more detailed discussion on the use of information to create a demand for educational improvement and policy action, they see

- *Identify needs and articulate a vision* – Using state and national reports on measures of higher education accountability in Pennsylvania, policy advocates must begin to identify the most important indicators of postsecondary success, the areas that need improvement, and a vision for an accountability system that will systemically measure progress on these key indicators.
- *Build consensus around the vision* – Interested stakeholders must be informed of higher education issues, accountability indicators, and the need for an accountability system. Stakeholders include anyone who wants results from postsecondary institutions – students, parents, legislators, the governor, taxpayers, employers, and the institutions themselves.
- *Stay “on message”* – Policy advocates must take every opportunity to “reiterate the message in a deliberate and consistent manner,” as well as monitor and publicly report how well the message of postsecondary accountability is being disseminated to stakeholders.
- *Align the implementation tools* – To be most effective and efficient, policy tools, including planning, structure and governance, regulation, budget, and accountability measures, must be aligned in mutually reinforcing ways to promote the statewide accountability vision and strengthen performance improvement from all sides. In its report, the National Center provides instructive examples of how an integrated set of policy tools can be strategically aligned to improve higher education performance on select indicators.

**Fourth, Pennsylvania higher education authorities should conduct “capacity and policy audits” of the current higher education systems. This will help to clarify the barriers and opportunities posed by existing policies to developing a system.**

The National Center for Public Policy and Higher Education suggests what they term a *capacity audit*. This audit

“assesses the capacity of the state higher education system to meet the state priorities and needs that have been articulated. The immediate aim is to determine the size and nature of the mismatch – if any – between the state’s priorities and the capacity of the higher education enterprise to reach them (“Some Next Steps for States”).”

Questions in this audit range from *can the system accommodate the need to serve more students* (access issue) to *do the missions of the postsecondary education institutions align with the needs of the state* (important for all indicators) to *is the postsecondary fiscal capacity of the state sufficient to meet the need* (an important operational concern).

In addition to conducting a capacity audit, policymakers should undertake a *policy audit*. This is a systemic review of the state’s existing postsecondary policies. A review of current policies should uncover any that pose barriers to meeting accountability needs in the state, as well as present gaps in the policy landscape that need to be filled in order to develop an accountability system. Existing policies to review include:

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*Transforming Postsecondary Education for the 21<sup>st</sup> Century: The Nuts and Bolts of Policy Leadership*, from the Education Commission on the States.

- Access indicators:
  - Admissions policies
  - Institution and program approval policies (see the Pennsylvania Department of Education's Deputy Secretary for Postsecondary and Higher Education for these policies)
  - Geographic accessibility (campus locations and branches)
  - Funding policies (equality between two- and four-year institutional financing, credit and non-credit courses, etc.)
  - Tuition and student financial aid policies
  
- Progress indicators:
  - Articulation and transfer policies
  - Institutional funding and student aid policies promoting student retention
  - Institutional funding and student aid policies around student completion/graduation rates
  - Institutional policies for assessing student goal attainment
  
- Occupational outcomes indicators:
  - Institutional policies for tracking students, whether they are graduates, transfers, and leavers
  - Institutional policies for assessing employer satisfaction
  - Institutional policies for assessing extend to which institution meets community needs

Such a policy review will occur through interviews with key state and regional education officials, as well as representatives from colleges and universities.

**Fifth, to the extent possible, align postsecondary objectives and policies with those in the elementary and secondary education realm.**

By focusing not on individual postsecondary institutions, but on the education of the Commonwealth's population, Pennsylvania can establish an accountability system that measures performance for lifetime learning across all students and all educational institutions. A handful of states have recently adopted integrated preschool/kindergarten through college (P/K-16) frameworks for education policy. For example, in January 2003, Florida is expected to implement a new state board of education with this focus. Georgia's P-16 initiative integrates policy and planning for all education levels from pre-school through four years of college. The new Education Coordinating Council and the Office of Educational Accountability are part of this effort.

Illinois' P-16 Partnership for Educational Excellence was established in February 1999 and is based on the strategic planning document, "Illinois Commitment." In 1998, Kentucky established a P-16 council based on the framework education reform document, "2020 Vision: Action Agenda for Kentucky's System of Postsecondary Education." Missouri's K-16 Coalition and the Knight Higher Education Collaborative/College and University Presidents' Roundtables provide coordinated policy-making. North Carolina's Education Cabinet includes members from primary, secondary, and post-secondary education, as well as representation of independent colleges and universities. The North Carolina Education Research Council provides research support for this cabinet.

Texas has established a K-16 council, and Utah set up a Public Education/Higher Education Joint Liaison Committee to coordinate secondary and postsecondary education policy. West Virginia's new Higher Education Policy Commission includes secondary education officials as *ex officio* voting members on the commission in order to develop K-16 approaches to policy formation.

States with P/K-16 initiatives share certain characteristics, according to a report commissioned for the National Center for Public Policy and Higher Education as a supplement to the *Measuring Up 2000* report.<sup>20</sup> These include:

- A *coordinating mechanism* has been established at the state level to engage both political and education leaders from all sectors in a coordinated, long-term strategy to improve education in the state. These “mechanisms” tend not to be new governance or administrative structures but are means to ensure coordination among highly diverse, separately governed entities.
- Efforts are being made to align key elements of reform across K–12 and higher education (e.g., standards, assessment, school accountability, teacher quality, financing, targeting of resources and support on high-need schools and populations). As emphasized by Michael Kirst, however, a serious gap remains in content and assessment standards between secondary education and higher education, and only a few states' K–16 initiatives are seriously narrowing this gap.<sup>21</sup>
- New initiatives combining the federal GEAR UP program, modified versions of the Georgia HOPE Scholarship program with more emphasis on targeting low-income students, and targeted efforts to strengthen preparation for college, especially in mathematics, reading and core subjects.
- A noticeable shift away from an exclusive focus on institutions (providers) toward an emphasis on raising the general education attainment of the population. Oklahoma's new “Brain Gain” initiative is an example of this change.
- As in Florida, Georgia and North Carolina, these states tend to have put in place multiple initiatives across all education categories. There is a trend toward linking separate initiatives in an overall strategy, but this is more evident in some states than in others.

In 1999, the National Center for Public Policy and Higher Education and the Institute for Educational Leadership launched the initiative, *Perspectives in Public Policy: Connecting Higher Education and the Public Schools*. This publication series seeks to promote public and educational policies designed to strengthen linkages between higher education and the schools. Reports in the series are addressed to policymakers, business and civic leaders, and educators. More information can be found at [http://www.highereducation.org/reports/reports\\_iel.shtml](http://www.highereducation.org/reports/reports_iel.shtml).

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<sup>20</sup> McGuinness, Jr., A. 2000. “Recent State Policy Initiatives in Education: A Supplement to *Measuring Up 2000*.” A report commissioned by the National Center for Public Policy and Higher Education. National Center Report #00-6. <http://measuringup2000.highereducation.org/main.htm>

<sup>21</sup> Kirst, M. W. 2000. “Overcoming the Higher School Senior Slump: New Education Policies.” Paper prepared for the National Commission on the Senior Year in High School, Stanford University.

## One View of Effective Accountability Systems

The following is taken from "Educational Accountability" by Paul E. Lingenfelter, State Higher Education Executive Officers (SHEEO) Network News, Volume 20, No. 3, November 2001.

### The characteristics of an effective accountability system

**Work to improve performance, not to punish failure.** The traditional compliance auditing mechanisms are designed to prevent, and if prevention fails, to find and punish fraud, abuse, and non-compliance with regulations. Demoralized people and institutions do not improve. To improve performance requires a tone and mechanisms that focus on positive results.

**Establish a few, clear, significant, measurable goals.** As a general rule, the more the goals, the less the progress. Focus and motivation lead to progress; complex goals degrade both. Given the multiplicity of missions in postsecondary education, the pressure to include many goals in statewide accountability systems can be almost irresistible. To avoid the dilution of vision and motivation, however, it is important to resist this pressure at the state level. At the institutional level and within institutions it is appropriate and necessary to focus on many particular goals that cannot be meaningfully addressed at the state level. At every level, however, complex, multi-faceted goals are the enemy of focus and successful action.

**Monitor progress publicly.** Progress or lack of progress on important, clear goals needs to be clearly and publicly assessed over a long period of time. Progress should be celebrated and encouraged; lack of progress needs to generate pressure to improve through greater and more creative efforts to get results. While it is important to have measurable goals, all-important goals cannot be quantified. Qualitative indicators of performance should be employed.

**Employ both intrinsic and extrinsic incentives.** People generally want to do well. Sharpening focus on meaningful goals and defining and measuring progress in ways that are intrinsically rewarding can generate substantial improvement. At the same time, education (and government) cannot continue to be a profession where, if you do a good job, nothing else good happens to you. We need extrinsic as well as intrinsic rewards for individuals that enable education and government service to compete for and to retain talented people.

**Utilize every tool available; involve everybody who can help.** It hurts to have too many goals, but it helps to have many tools and colleagues. Any one tool, whether capacity building, program reviews, performance reporting, or performance funding is unlikely to be successful working alone. When all of the many actors who contribute to educational performance work together for improvement good things will happen. These especially include civic leaders and elected officials, higher education boards, institutional leaders, and faculty and staff. When they don't work together a lot of energy will be wasted.

**Build capacity.** Better results in large systems don't necessarily occur just because a reward is available for performance or a penalty for non-performance. Good performance requires good training and adequate support. For some difficult jobs (teaching disadvantaged children, for example), we don't know everything we need to know, and we haven't figured out how to help large numbers of people use what we do know.

**Invest in results.** Cost-effectiveness is just as essential as effectiveness, but quality doesn't come cheap. Regardless of the mechanism for targeting resources, accountability and investment must be combined to generate high performance.

## Selecting Accountability Indicators

### Guiding Principles

At the point when the state, regions, or institutions are ready to develop accountability indicators, the following principles should guide the selection of specific accountability:

- Indicators should be driven by the strategic priorities of the institution, region, and/or state. Strategic plans, mission statements, and core institutional purposes should be central in establishing accountability indicators. It is important to tie indicators specifically to institutional mission.
- Know your policy objectives – what is the purpose of the accountability system? Is it to increase access, improve retention rates, improve student goal attainment rates, increase graduate in-state employment rates, or other? Is it for quality assurance? Regulatory? Reformatory? Other? And to whom is the accountability addressed? The Governor? State Legislature? Public/taxpayers? Students? Parents? Employers?

The National Center for Postsecondary Improvement found nine potential policy objectives for student learning assessment systems, many of which can also apply to accountability systems in general: (1) increasing accountability to the public; (2) increasing fiscal accountability; (3) improving teaching; (4) improving student learning; (5) promoting planning on campus; (6) improving academic program efficiency; (7) facilitating intrastate comparisons; (8) facilitating interstate comparisons; and (9) reducing academic program duplication.<sup>22</sup> Based on a solid understanding of the reasons for the accountability system, clear, specific, and appropriate outcome measurements can be set.

- Begin with the research questions. Do not look at what data is easily available and develop an accountability system from there. Look primarily at the most important issues and indicators and secondarily consider the data sources.
- Balance the cost effectiveness of collecting the data with completeness of the data coverage and necessity of the data desired. Data collection can be costly, as shared by the district director of institutional planning and evaluation at Cuyahoga Community College in Ohio.
- Balance the need for state/region/institution-wide data collection with institutional flexibility.
- Clusters of criteria can be useful.
- Fund any assessment activities. Although no state profiled for this report could provide information on the cost of administering a statewide higher education accountability system, most indicated that they are often “unfunded mandates” that put financial pressure on institutions’ offices of research and planning. In the state of Colorado, the state accountability system requires 0.25 full-time equivalent (FTE) staff to administer the system. In Maryland, three staff members are involved with the system. At Cuyahoga Community College in Ohio, it takes at least 1.5 full-time-equivalents (FTE) staff to comply with the state reporting requirements. Some states allow institutions to charge

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<sup>22</sup> Nettle, M. T. and J. J. K. Cole. 1999. “State Higher Education Assessment Policy: Research Findings from Second and Third Years.” A report by the National Center for Postsecondary Improvement for the Educational Research and Development Center program under the Office of Educational Research and Improvement, US Department of Education. NCPI Technical Report Number 5-05.

student fees to assessment activities. In a few, the state reimburses the institutions for the costs. Funding assessment activities or allowing institutions to create additional funding sources for them will help with institutional buy-in and burden avoidance.

- Must allow development and “tweaking” time to adjust and fine-tune the system. Allow time for learning, experimentation, and system improvement.
- Understand the technological challenges that lay ahead. Schools have different management information systems (MIS) that might not be compatible. Staff at the schools will need training on any new reporting processes or systems. If a new system needs to be designed, it will take time to work out the bugs. The system takes resources to maintain – budget for it. Schools may have multiple reporting structures for the multiple reporting entities. Be aware of these and try to work with them.
- Determine the level of accountability that should be measured: institution-based or statewide indicators. *Measuring Up 2000* holds the state accountable. Progressive student tracking states report on indicators both by institution and statewide, accounting for student mobility. “Cutting edge” education policy states are moving away from focusing on specific educational sectors and holding them accountable separately to looking at the education levels, opportunities, and attainment of all citizens across the board.
- Know which measures should apply to which institutions. Should there be a common statewide public system? Should two- and four-year institutions be held to separate measures? How should proprietary institutions be handled?
- Understand and work with other reporting requirements postsecondary institutions might face. Other reporting requirements might stem from Perkins Vocational program, WIA, Adult Education funds, the US Department of Education, the National Science Foundation, the US Department of Agriculture, US Defense Department and the Census Bureau. Know what other performance measurement and accountability systems institutions in Pennsylvania report to and strive to avoid overlapping or conflicting reporting systems.

### **Essential Ingredients – Key Indicators**

A much more thorough review of the Commonwealth’s institution’s current accountability indicators and educational priorities is in order before a specific framework should be proposed. However, based on our review of state indicators, there are a few that are fundamental to any proper accountability system. They are presented below by the three main areas consistently used throughout this report. The reader may want to refer to tables 1, 2, and 3 mapping these indicators.

#### **Access Indicators:**

**Access through affordability.** Blocked access to postsecondary education due to rising costs and falling student financial aid is a national problem, and Pennsylvania fares no better. This is a significant issue that deserves to be monitored closely. Both the Pennsylvania Commission for Community Colleges and the State System for Higher Education include measures for this indicator.

**Some combination of access to underserved populations and geographic access.** Postsecondary education is becoming more important for a wider student population than ever before, *i.e.*, part-time



students, returning adult students, first-time adult students. Providing access to these populations is important for their career development; for employers' profitability; and for the regional, state, and national economic health.

**Progress Indicators:**

**Program completion/student graduation.** This is a common indicator because it measures an important part of institutional success: did students who intend to graduate actually graduate? However, this measure does not capture the entire mission success rate of many institutions.

**Student goal attainment.** Institutional success should not depend only on the institution's goals for traditional students. Ultimately, it is the students' individual goals that are the most meaningful. Therefore, accountability systems should measure institutional success based on whether students met their goals – graduation or not – at the institution. This is a challenging indicator to measure, but its importance may outweigh the difficulty.

**Transfer students.** It is important to include transfer student rates and success rates for two reasons: (1) to understand the mobility rate of pattern of students; and (2) given this mobility, to measure the statewide success of educational institutions in sum, not just that of individual institutions.

**Occupational Outcomes Indicators:**

**Graduate or leavers occupational goal attainment.** Two points are important in this category. First, students who drop out or stop out of school may have important stories to tell regarding their educational success or failure. These may be students who take the one or two courses they feel they need for career advancement. If this is the case and the students are happy with their experience, that institutional success should be captured. If students left the institution prior to graduation for other reasons, those reasons should be discovered and addressed. In either case, it is important to learn the outcomes for *leavers*, as well as for *graduates*.

Second, the main student-focused occupational outcomes that are measured include employment and earnings. These are clearly important indicators, but there may be others that should be included, such as career advancement, change of careers, etc. If a state or institution feels that these outcomes are important measures of institutional success, they should be included in the accountability system.

**Employer satisfaction.** As employers provide the “demand” for educated workers, their satisfaction with the programs and the graduates (and leavers) is critical. Most states profiled in Appendix C do attempt to measure this satisfaction rate.

Most importantly, Pennsylvania must be able to understand the characteristics, needs, and success of students as these relate to the workforce development and economic development needs of the state. This requires each institution to develop a “super student survey,” of sorts. Under this scenario, each institution (public and private, two- and four-year, etc.) would survey all students – not just first-time, full-time degree seekers – who take any sort of postsecondary educational courses and ask them what their goals are for taking the course(s) and if they are meeting these goals. The initial survey would include demographic questions to see whom these institutions are serving, as well as a variety of goal-related questions. For example, students may be asked if they are there for personal development, career exploration, career advancement, to earn a credential (less-than-one-year, a one-year, a two-year, a four-year, or an advanced degree), or to transfer to another institution.

All students would then be surveyed 12 months later to inquire if they met their goal. Of course, this student goal-attainment tracking would be easier if there were a statewide database in place; however this type of work can be done on a smaller scale. For example, cohorts of properly selected students might be in order. Or, efforts by regional educational and workforce development consortiums could help to answer these questions. The most important point, however, is that successful institutions know their students – both traditional and non-traditional – know what they want from the education institution, and know if they are getting it.

### **The Special Case of "Career Explorers"**

Over the past several years, the postsecondary system, most especially the two-year colleges, has become important for "career explorers," not just "career seekers." Many people, both young adults and older workers, now use the postsecondary system to "test out" career areas. They take a course or two in a particular field not necessarily because they have decided to prepare for a career in that field, but rather because taking that course gives them a chance to experiment with the discipline and the vocation. Through taking the course, they can determine if what they would have to know and be able to do in that field seems consistent with their interests and abilities. They frequently take a course or two and find this is not for them and do not continue on with the program. This behavior is especially prevalent at community colleges with their emphasis on relatively new vocational and technical programs that may not be very transparent to individuals without a background in that field.

Two-year colleges (and some four-years) have been sensitive to how this enrollment pattern would be assessed in a formal accountability system that attaches importance to persistence and degree/certificate completion as a measure of success and quality. If not acknowledged, this issue could de-rail support for comprehensive accountability system. Still, it is appropriate for higher education to be held accountable for how well they do in helping these career explorers find the "right" program for them.

We suggest therefore that education policy makers in Pennsylvania consider as an important accountability component a procedure that asks all first time enrollees (by institution and by program) to state their objectives in making their course selection, distinguishing between career advancement and career exploration. Each student might then be asked at an interval of, say, one year how that expectation was satisfied. To the extent that education policy makers in Pennsylvania believe that the colleges and universities have a responsibility to help postsecondary enrollees navigate career choices and find what works for them, the institutions might be asked to report on how many career explorers in fact become career seekers. Then they might be asked to report on how well these individuals persist in gaining the certifications appropriate to that career.

### **Next Steps for Workforce Connections**

Overall, the most pressing need for developing an accountability system in the state is to understand who is served by institutions of higher education now. Part of this can be accomplished by using existing national higher education databases from the US Department of Education. Unfortunately, these databases typically only include students who are officially enrolled in higher education programs and miss those who attend postsecondary education in a less-traditional way. To capture these non-traditional students, institutions must survey or somehow track all students who enroll in any course. Workforce Connections should work with and leverage institutional systems to find a way to gather this information.

Either subsequent to or concurrent with this knowledge gathering, Workforce Connections should build a policy environment and stakeholder group that will support the development and management of an accountability system going forward. We see six key action steps.

1. **Begin “setting the stage” for a policy environment that supports postsecondary educational accountability.** Test the waters for accountability policy in the Commonwealth by discussing issues in this report with various higher education officials at the local, regional, and state levels. Use this information as a base to learn more about accountability efforts in the Commonwealth. Engage important additional stakeholders and audiences in this process, including employers, community representatives, and political leaders.
2. **Launch a careful study, ideally with higher education partners, of precisely who is being served by the Commonwealth's institutions of higher education.** We suspect that Pennsylvania higher education institutions are serving a more diverse and non-traditional group of students that many policy makers might assume. A detailed survey would examine the relative balance of traditional and non-traditional students; full time versus part-time (including less-than-half time); those enrolled in credit programs versus those who might be exploring careers by taking one or two courses; and other such variations of student social-economic characteristics and education and career expectations.
3. **Form a statewide alliance with organizations similar to Workforce Connections or with similar objectives in this domain.** Pull in economic and workforce development allies. Share information about accountability issues and systems with them to begin building a statewide policy environment for change.
4. **Reach out to the higher education institutions.** Institutional buy-in is critical to developing an accountability system that produces reliable results and encourages institutions to *use* the indicators for quality improvement. Conversations with institutional directors of research to assess (1) what institutions are already doing individually in terms of accountability and (2) what is possible for an accountability system should happen soon. Investigate external resources that might help facilitate a better understanding of accountability systems and their development. The State Higher Education Executive Officers (SHEEO) hosts site visits for higher education officials from states that are interested in learning about other states' performance systems. Higher education officials from Pennsylvania have already visited Ohio once to learn about this state's system. Visits to other states may be in order, including Connecticut, Illinois, Kentucky, Maryland, North Carolina, New Jersey, Oklahoma, Tennessee, and West Virginia.<sup>23</sup>

Additionally, the National Center for Higher Education Management supports and advises states on performance systems. (See their resources and web page.) The Center for Adult and Experiential Learning (CAEL) has established a framework of benchmarks for adult-focused learning institutions in its Adult Learner Focused Institutions (ALFI) project. (Details are available on their website at [www.cael.org](http://www.cael.org).) These benchmarks might be an important component of the Commonwealth's accountability system.

5. **Establish a statewide Postsecondary Education Accountability Working Group to examine the issues, needs, opportunities, challenges, and options in this region.** This working group could serve as a model for an eventual statewide Governor's working group. With higher education accountability issues looming larger on the state and federal radar screens, it may only be a matter of time before state leaders take more of an interest in the Commonwealth's accountability system. The working group may consider forming a voluntary accountability compact among the regional educational institutions to measure identical indicators. Build on the current indicators used by the State System of Higher Education and the Pennsylvania Commission for Community Colleges

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<sup>23</sup> A careful look at how New Jersey, Ohio, and Oklahoma are attempting to include private schools in accountability systems is especially important.

presented in this report and research into other institution-specific indicators in the region. As there is no centralized governing or coordinating body for all of the educational institutions in the state, a voluntary accountability system may be the best way to begin building a statewide accountability framework.

6. **Get on the Governor's agenda.** While the new Governor may not have come to the statehouse with a campaign promise to make higher education more accountable, the launch of a new Administration presents a rare opportunity to demonstrate how a thoughtful accountability system can help move a relatively fragmented higher education system toward common goals.

## **VI. Conclusion**

The structure of the educational systems in the Commonwealth of Pennsylvania presents a challenging environment in which to frame a statewide, comprehensive accountability system. However, two bodies representing higher education institutions currently use indicators to measure performance and all institutions face a growing pressure to “account” for their funding, whether from students or government. Ultimately, state and institutional higher education officials will have the responsibility for shaping any accountability system that may emerge in the Commonwealth. However, Workforce Connections can raise awareness of accountability issues, opportunities, challenges, and systems, as well as rally stakeholders interested in a more systemic accountability system for Pennsylvania’s institutions of higher education.

## APPENDIX A - Measuring Learning Outcomes

### Background

Student learning outcomes are perhaps the most salient measures of the “trickle up” movement of educational accountability expectations from elementary and secondary education to postsecondary education. The sources of pressure for colleges and universities to “prove themselves” are the same for learning outcomes as for the outcomes discussed in the body of this report – parents and students want to know that their money is “buying” value; taxpayers demand more bang for their buck; employers need more skilled workers.

However, the evolving student market from traditional students looking for a college experience to non-traditional students looking for practical skills especially pressures colleges and universities to prove that students will gain from their college experience specific and measurable skills and knowledge.

Despite the increasing pressure to measure student learning outcomes, the National Center for Public Policy and Higher Education’s *Measuring Up 2000: The State-by-State Report Card for Higher Education* gave all states a grade of “incomplete” on these measures. The rationale was legitimate: there was no national comparable data by which to assess the intellectual progress of college students. In the old days, student learning was often assumed. Institutions coasted on their academic reputations, with large endowments and the ability to attract excellent faculty as “evidence” that student learning would and was occurring.

Just as with other outcomes discussed in the body of this report, *inputs* were more important than *outcomes*. At another level, the *output* of college completion rates and degree production might serve as a proxy for student learning. The thinking was: *If a student completed all of the required courses to receive a degree, s/he must have learned something.* However, in today’s accountability-laden environment, *inputs* and *outputs* are no substitutes for hard *outcomes*.

### Leading States

A handful of states do measuring student learning outcomes in more meaningful ways than “seat time.” These states are using standardized tests to measure whether students actually learned the competencies advertised by the institutions. These include communication skills, critical thinking, and problem solving.

In a supplemental study to the *Measuring Up 2000* report, state surveys showed that six states – Arkansas, Florida, Georgia, South Dakota, Tennessee, and Texas – assessed student learning outcomes in a comparative form that enables comparisons to be made across institutions.<sup>24, 25</sup> All six states use a common statewide standardized test. Florida, Georgia, and Texas use state-developed instruments; whereas, the other three use nationally normed tests (all ACT-developed tests).

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<sup>24</sup> Ewell, P. and P. Ries. 2000. “Assessing Student Learning Outcomes: A Supplement to *Measuring Up 2000*.” A report by the National Center for Higher Education Management Systems for the National Center for Public Policy and Higher Education. National Center Report #00-5.

<http://measuringup2000.highereducation.org/assessA.htm#Tracking>

<sup>25</sup> See profiles of selected state assessment efforts in the January 2002 issue of SHEEO *Network News*: [www.sheeo.org/network/netnews/nn-v21-n1.pdf](http://www.sheeo.org/network/netnews/nn-v21-n1.pdf).

Ten states – Hawaii, Iowa, Kansas, Louisiana, Maryland, Missouri, Nevada, New York, North Carolina, and Oklahoma – mandate assessment programs, but institutions are responsible for choosing or developing their own instruments.<sup>26</sup>

Beyond state-level assessment policy, the University of Phoenix – the nation’s largest private university – has established core competencies that students in every major must master. Students take standardized tests at the end of their programs to evaluate if they have learned the competencies. The University compares the results to nationally normed tests and takes pains to ensure that the student learning assessment instruments are reliable. The president of the university attributes much of the incentive for assessing student learning outcomes to the older students for which the University is designed.<sup>27</sup>

The advantage of competency-based tests is that, if designed properly, they directly measure student learning. However, a significant disadvantage may be that important student learning outcomes are not always best measured with a test. Student portfolios, presentations, and demonstration of learning may be better methods to measure important aspects of student learning. Additionally, not all students are good test-takers, which is likely to skew the results.

An alternative to using standardized tests to measure student learning outcomes to measure achievement scores on licensure examinations, certification, or other professional tests taken by baccalaureate students. For example, this is one of Colorado’s ten performance funding indicators. Also, Connecticut includes this indicator in its higher education accountability system. Specifically, exams included in this measure range from the Nursing Licensure Exam to the Teacher Education Praxis II Exam to the Audiology National Clinical Certification.

Advantages to this method of measuring student learning are that they are “established, available, cost-effective, and credible instruments that have highly-motivated test-takers.”<sup>28</sup> Disadvantages are that the test-takers are self-selected (the downside of “highly-motivated” test-takers), there are small numbers of test takers in each state, and not all disciplines are covered by these tests.

Finally, Peter Ewell of the National Center for Higher Education Management provides three other alternatives to measure student learning:

- *Authentic assessments that result in individual baccalaureate-level "certificates of achievement."* This might be built on the logic of existing lower level programs such as the Advanced Placement (AP) program or the New York State Regents Examination Program which use authentic problems and recognize the individual merits of those who perform at exemplary levels. This resembles certification in a growing range of occupations, and might involve the employment community in generating resources and locating expertise.
- *Aligning local achievement standards into a credible statewide or national framework.* In contrast to the above approach, this alternative continues to rely on local assessment, but attempts to "forge a greater degree of congruity among local standards through a publicly established framework."
- *Auditing institutional grading practices.* Based on the academic audit approach to quality assurance currently in use in the United Kingdom, New Zealand, and Hong Kong, this approach is the least

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<sup>26</sup> In Missouri, institutions can choose their own assessment instrument, as long as it is nationally normed.

<sup>27</sup> Zernike, K. “Tests Are Not Just for Kids.” *The New York Times*. August 4, 2002.

<sup>28</sup> Miller, P. 2002. “Measuring Up on College-Level Learning: Comments.” *Network News*. State Higher Education Executive Officers. Vol. 21, No. 1, January.  
[www.sheeo.org/network/netnews/nn-v21-n1.pdf](http://www.sheeo.org/network/netnews/nn-v21-n1.pdf).

centralized. It involves using specially trained teams of reviewers who examine sample student work and local quality assurance processes against explicit criteria, in order to arrive at an overall judgment of adequacy.

“Ewell concludes: ‘The problem for American higher education is not how we can build more sophisticated ways to determine from the outside what students are achieving. It is instead how we can establish (and assess against) high and explicit *internal* standards that are aligned across institutions and that are, at the same time, credible to the outside world.’”<sup>29</sup>

### **The Policy Process for Developing Student Learning Assessment Policy**

A recent project by the National Center for Postsecondary Improvement (NCPI) aimed to explore the dynamics of the policy process by which student learning assessment becomes a state-level issue of concern. A 1999 report presented the results of a State Higher Education Assessment Questionnaire that was designed as part of the project to query state academic officers about assessment policies in their states.

In 1997, the questionnaire was mailed to all 50 state academic officers. Repeated follow-ups were carried out throughout 1998, and the findings in the report reflect responses from 38 state academic officers.

Significant findings from the report include:

- States sought to accomplish a wide variety of policy objectives with their student learning assessment policies and practices. The 1997 questionnaire included nine categories of objectives for state assessment policies: (1) increasing accountability to the public; (2) increasing fiscal accountability; (3) improving teaching; (4) improving student learning; (5) promoting planning on campus; (6) improving academic program efficiency; (7) facilitating intrastate comparisons; (8) facilitating interstate comparisons; and (9) reducing academic program duplication.<sup>30</sup> Almost all states chose multiple objectives for their assessment programs; however, overall, increasing public accountability, improving learning, and improving teaching ranked the highest.
- The project aimed to provide analysis of state assessment policy formation and implementation within a public policy process framework. The stages of the framework used were based on five standard stages of the policy development process: (1) problem formation; (2) policy formulation; (3) policy adoption (4) policy implementation; and (5) policy evaluation. One of NCPI’s objectives for the project was to identify the most significant higher education entities at each stage of the assessment policy process. Results indicated that:
  - System boards and state legislatures were the most important entities during *problem formation*, although campus executive officers, governor/executive staff, faculty, executive agencies, existing campus practices, and regional accreditation associations were not far behind.
  - Campus executive officers and system boards were clearly the most significant entities during the *policy formulation* stage.
  - Campus executive officers and system boards also were the most significant entities during the *policy adoption* stage.

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<sup>29</sup> “Statewide Efforts to Assess Student Learning Outcomes: Observations by Peter Ewell.” *Network News*. State Higher Education Executive Officers. Vol. 21, No. 1, January.

<sup>30</sup> Nettles, M. T. and J. J. K. Cole. 1999. “State Higher Education Assessment Policy: Research Findings from Second and Third Years.” A report by the National Center for Postsecondary Improvement for the Educational Research and Development Center program under the Office of Educational Research and Improvement, US Department of Education. NCPI Technical Report Number 5-05.

- Campus executive officers and faculty were the most significant entities during the *policy implementation* stage.
- Again, campus executive officers and system boards were the most significant entities during the *policy evaluation interpretation* stage.

Clearly, campus executive officers and system boards are central to the assessment policy process. These stakeholders should be part of any student learning assessment policy development process.



## APPENDIX B – Institutional Profiles

### INSTITUTIONAL PROFILE: FLORIDA COMMUNITY COLLEGE AT JACKSONVILLE

*At present, Florida does not have a statewide, comprehensive accountability system for all public postsecondary educational institutions. This state operates separate accountability programs for four-year universities and community colleges. Additionally, the Florida Community College at Jacksonville (FCCJ) has established its own performance measurement system.*

#### What are the student-centered performance indicators for FCCJ?

The state of Florida currently operates two separate sets of higher education performance accountability measures: one for four-year state universities and one for state community colleges. The Florida Board of Education reports on performance of the **State University System's** four-year colleges and universities. Select indicators of interest for this report from the 2000-2001 reporting period include:

- ◆ **Progress Indicators:**
  - Retention rates of first-time-in-college (FTIC) students and of AA transfer students
  - Graduation rates of FTIC students and AA transfer students
  - Percentage of students graduating within 115% of degree requirements
- ◆ **Outcomes indicators:**
  - Of those graduates remaining in Florida, the percentage employed at \$22,000 or more 1 and 5 years after graduation
  - Percentage of baccalaureate graduates enrolling in graduate school
  - Number/percent of baccalaureate degree recipients who are found placed in an occupation identified as higher wage/high skill on the Workforce Estimating Conference list

The **Division of Community Colleges** in the Florida Department of Education tracks performance indicators on all of Florida's community colleges and uses a performance budgeting program. These indicators include:

- ◆ **Access Indicators:**
  - Percent of prior year Florida **high school graduates** enrolled in community colleges
  - Percentage of students exiting the **college-preparatory program** who enter college-level course work associated with various community college program offerings
  - All of the **transfer student indicators** below might be considered access indicators in terms of community college students' access to four-year institutions
- ◆ **Progress Indicators:**
  - Retention rates of first-time-in-college (FTIC) students and of AA transfer students
  - Graduation rates of FTIC students and AA transfer students
  - Number of AA degrees granted
  - Percentage of students who complete 18 credit hours who graduate in 4 years, by economically disadvantaged status, by disability status, by gender plus race, by English language skills
  - Percent of students graduating with total cumulated credit hours less than or equal to 120 percent of the degree requirement

- Number/percent/FTEs of AA students who do not complete 18 credit hours within 4 years
- Transfer students: percent who transfer to a state university within 2 years; percent who earn 2.5 or above GPA at the state university within 1 year; number/percent of AA partial completers transferring to the state university system with at least 40 credit hours
- ◆ **Outcomes indicators:**
  - Of the AA graduates who have not transferred to the state university system or an independent college or university, the number/percent who are found placed in an occupation identified as higher wage/high skill on the Workforce Estimating Conference list.

The **Florida Community College of Jacksonville** has established its own set of performance indicators, based on the institution's own strategic plan and goals. These include:

- ◆ **Access Indicators:**
  - Market penetration – percentage of eligible people enrolled (in the service area)
  - Unduplicated headcount enrollment and unduplicated full-time-equivalent enrollment
  - Completion of preparation programs
- ◆ **Progress Indicators:**
  - Retention – percentage of first-time-in-college students who are still active after one year
  - Transfer students – student graduates' (in AA programs) performance in senior institutions
  - Percentage of program completions
- ◆ **Outcomes indicators:**
  - Percentage of employed program graduates/completers
  - Student satisfaction with level of program and support services (currently enrolled and graduates/completers)
  - Percentage of active FCCJ members<sup>31</sup>
  - Employer satisfaction with program graduates/completers
  - Employer satisfaction with college programs and services

Additionally, FCCJ includes a learning outcome: professional examination pass rates. FCCJ presented the first informal report on these indicators to its board in March 2002, for the board's review and feedback. Based on this information, FCCJ plans to release the first official report of these indicators as an institution "report card" in 2003.

### **How Did FCCJ Develop Its Performance Measures?**

The Director of Institutional Accountability at FCCJ developed these institution-specific indicators by researching what other community colleges around the country were using for their performance measurement systems. This involved internet research and working with the National Center for Higher Education Management Systems to identify similar institutions for comparison. Additionally, she found the American Association of Community College's *Core Indicators of Effectiveness for Community Colleges* helpful. The Director felt that southern institutions of higher education might develop more

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<sup>31</sup> FCCJ has a unique system in which all students who enroll for any courses become "members" of the community college. Their membership lasts throughout their educational career.

comprehensive management and accountability systems because their accrediting body, the Southern Association of Colleges and Schools (SACS) has strong accountability requirements for accreditation.

### **Why Does FCCJ Have Two Sets of Performance Measures?**

The Director specifically designed an institution-based performance measurement system that was separate from but complementary to the state community college performance measures. This was important to her for three main reasons:

- ◆ The state accountability indicators and measures are driven by the state legislature and are subject to change. Over the last few years, the number of indicators on which community colleges are required to report has changed often. Although Florida has used performance measures for community college assessment since 1994, this is only the fourth year in which the indicators outlined above have been used. Additionally, Florida is currently undergoing a massive reorganization of its education structure from a system of separate governing boards for K-12, community colleges, and state universities to a K-20 system with a unified governing board. This reorganization – set to go into effect in January 2003 – will create even more changes in the accountability system for all levels of education, as it will include nine “core” measures and specific institutional indicators.
- ◆ The FCCJ indicators are tailored to the community college’s strategic plan and specific institutional characteristics. They are designed to measure data of importance to this particular community college.
- ◆ The statewide community college indicators tracked by the Department of Education are reported to the state through the instructional and workforce development divisions of the community college. The FCCJ Office of Institutional Accountability has no jurisdiction over these measures. The structure of the institution causes separate, yet overlapping reporting jurisdictions.

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### **INSTITUTIONAL PROFILE: CUYAHOGA COMMUNITY COLLEGE, OHIO**

*Ohio has a statewide, comprehensive performance reporting system in which all public institutions of higher education participate. Although the Ohio Board of Regents is only in its second year of both performance reporting and funding, it’s accountability and reporting systems are extremely comprehensive and well developed. The Higher Education Information (HEI) system contains data supplied by Ohio’s colleges and universities and is a comprehensive relational database that includes data on students, courses, faculty, facilities, and finances. The performance reports generated from this system contain excellent discussions of issues around a variety of student indicators. Importantly, reporting on student outcomes is both on an institution-specific basis and on a statewide basis. With an increased understanding of student mobility, this reporting feature helps the state gain a truer picture of student success on various indicators.*

*The Ohio performance funding formula is limited to four specific areas of performance metrics in order to preserve stability in institutional funding while providing incentives to improve in targeted areas. Currently, only public institutions are required to submit data into the statewide database; however, as Ohio has numerous independent institutions, the Ohio Board of Regents is working diligently to involve independent institutions to voluntarily submit data on their students.*

**What are the student-centered performance indicators in Ohio?**

- ◆ **Access Indicators**
  - Ohio is developing an extensive student tracking system designed to track high school students through high school graduation and on through their college experiences.
  - Access through affordability indicators look at the price of tuition and fees at Ohio's campuses, as well as student financial aid amounts.
  - Access through preparation indicators include the experiences of under-prepared students and the incidence and success of students taking remedial/developmental coursework.
  
- ◆ **Progress Indicators**
  - Persistence of first-time, full-time degree-seeking students
  - Graduation rates of community college, university, and transfer students
  - Average time-to-degree and credit-to-degree rates
  - Graduation and academic success rates of transfer students
  
- ◆ **Outcomes Indicators**
  - Employment rate of graduates (through a database link with the Ohio Department of Jobs and Family Services)
  - Average annualized incomes (through a database link with state earnings records)
  - Continued education of graduates (through information in the student tracking system)

**How does Cuyahoga report data on student indicators?**

Public institutions of higher education in Ohio report student data into a web-based Higher Education Information system every term. Institutions report on individual students to create "unit records." These records enable the system to track individual students throughout their experience in public educational institutions in Ohio. The Office of Institutional Planning and Evaluation manages the institutional reporting.

**How does Cuyahoga use data on student indicators?**

As Ohio's system is web-based, institutions can conduct queries of their data and state-wide data in order to learn more about student trends and needs. The Board of Regents also provides a cohort-tracking file for each institution's students, which institutions can use to track employment outcomes. Additionally, Cuyahoga uses the information from the annual report to highlight specific comparative measures for its Board of Trustees. From this process, the institution can create an action plan for its own institutional improvement over the next year. For example, from last year's report Cuyahoga decided that it needed to focus on improving its student graduation rate and reducing its time-to-degree rate.

**What has made the system work?**

The Ohio Board of Regents deserves much credit for creating an open, participatory, and service-oriented accountability system. Often times there can be an environment of hesitancy and mistrust between higher education institutions and state-level governing organizations. Accountability systems can be interpreted as "gotcha reports," used to highlight institutional failures instead of assisting in campus improvement. However, the Ohio Board of Regents created a very inclusive process in which institutional representatives are involved in the design and decisions around reporting on an on-going basis. Additionally, the board has maintained a service-oriented focus in which it provides institutions with helpful tools and resources that aid them in understanding and using data to improve their educational

offerings, i.e. web-based database querying and institutional cohort tracking. This is key not only for institutional improvement, but for institutional “buy-in” to the accountability system.

**What is the institutional cost?**

One of the biggest challenges to this frequent and comprehensive data reporting system is the technology and resources required to continually report and analyze the data. Most institutions need at least one full-time person (usually in the institutional research department) to fulfill the state reporting requirements. Additional analysts are necessary to complete federal reporting requirements, conduct policy analysis for the institution, and provide assistance with analyzing other college-wide issues. At Cuyahoga, 1.5 FTE staff is required to enter and manage the institutional data for the state reporting system. Half of this position is devoted to enrollment reporting, additional support across other offices for financial reporting, facilities reporting, staffing, and curriculum. Additionally, some amount of a liaison’s time is required to administer campus access to the state reporting system, coordinate and track changes to the reporting system, and assure overall compliance. Because Ohio has not provided funding to campuses to support the additional costs of reporting, institutions may struggle to find the resources to adequately report and analyze outcomes data.

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## APPENDIX C – Best Practice State Accountability System Profiles

The thirteen states profiled in this appendix represent what can be considered best practices in measuring student progress and outcomes measures. Most of the state systems include measures for both student progress and student outcome measures. A handful of the profiled state systems provide measures for only one of these areas; however, they were included in this report because their partial system provides instructive information for a state interested in designing that part of an accountability system. The state systems profiled include:

- Colorado (progress only)
- Connecticut (progress only)
- Hawaii
- Illinois
- Kentucky
- Maryland
- New Jersey (progress only)
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Tennessee
- West Virginia

These states were chosen because they provide examples of the most comprehensive accountability systems among the 50 states. They include several important common features:

- They track cohorts of students to measure various indicators.
- They track at least student persistence and completion process measures, although student goal attainment or time-to-degree may not be tracked.
- They track at least some progress indicators for transfer students.
- They include at least all *public* two- and four-year institutions in the system, and a few include *independent* institutions.
- They all include some sort of follow-up on graduates, whether it is through student surveys or through linking administrative databases to gather information on graduates.<sup>32</sup>

## PROFILES

### COLORADO

**OVERVIEW:** In 2001, this state had performance reporting and funding requirements for its public higher education institutions. The Colorado Commission on Higher Education (CCHE) administers the system and produces an annual report on state and institutional progress on several indicators. At CCHE, about 0.25 FTE staff time is devoted to administering the performance system (0.10 FTE of a data analyst and 0.15 FTE of the Senior Policy and Academic Officer to manage the system). In the fall of 1999, CCHE submitted the first budget request using performance funding, and the General Assembly adopted performance funding as a portion of the higher education allocation formula beginning with the FY 2001 budget. In both 2000-01 and 2001-02, performance funding accounted for 2.0 percent of total general

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<sup>32</sup> A few of the states profiled do not include graduate follow-up data collection; however, they were included in order to highlight the useful features of their student process tracking system.

funds allocated to the governing boards (these institutions then allocate funds to their institutions of higher education). In 2001-02, Colorado used ten performance indicators to allocate funding to higher education governing boards. The indicators include many of those described below as well as other student, faculty, and institutional measures.

Colorado's performance funding process assigns each of the ten overall indicators 180 base points. Each institution earns points on each indicator through measuring its performance relative to the benchmark set. Bonus points can be earned for some indicators. Each institution's total points are calculated and adjusted for role and mission weighting factors, and the resultant weighted percent is used to determine the institution's governing board's performance funding percent.

## **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Cohorts used vary by measure, but include first-time, full-time freshmen from various fall enrollment years. The Colorado system includes only public two- and four-year institutions; independent institutions are not included.

**Persistence:** Indicator includes freshmen retention rate in same institution (institution of student's matriculation). The specific measure includes the percent of fall entering first-time, full-time degree-seeking freshmen that enroll in the following fall in the same institution.

**Completion/Graduation:** Indicators includes baccalaureate graduation rates after 4, 5, and 6 years, and the percentage of first-time, full-time, degree-seeking freshmen who graduate community college in 3 years.

**Student Goal Attainment:** n/a

**Time-to-Degree:** Although not directly a measure of time-to-degree, Colorado tracks the number of credits required for degree programs; the standard is 120 for baccalaureate and 60 for associate degrees.

**Transfer Students:** Transfers are tracked between public institutions.

**Other:** Career and technical graduates' rates of employment or continuing their education are tracked, and institutions can specify up to two institution-specific indicators.

## **GRADUATE OUTCOME MEASURES: n/a**

**NOTE:** Colorado used to track system wide graduate occupational -related outcomes; however, the poor quality of self-reported data called into question its usefulness. This state no longer tracks this data system wide, but institutions can track as they see fit.

## **CONNECTICUT**

**OVERVIEW:** In 2001, this state had performance reporting, budgeting, and funding. The Connecticut Department of Higher Education's 2<sup>nd</sup> annual accountability report, "Higher Education Counts: Accountability Measures for the New Millennium, 2002," presents data on system-wide indicators and indicators for specific types of institutions. It also provides national and peer-institution comparisons on indicators. In 2002, this state revamped its higher education performance system and indicators. Each constituent unit of higher education is required to submit an accountability report to the Commissioner of Higher Education, who then creates and submits a consolidated report to the legislature. The next

accountability report, slated for February 2003, will incorporate and report on an entirely new set of indicators.

The redesigned performance system is based on 6 statewide goals for higher education:

- Goal 1: To enhance student learning and promote academic excellence;
- Goal 2: To join with elementary and secondary schools to improve teaching and learning at all levels;
- Goal 3: To ensure access to and affordability of higher education;
- Goal 4: To promote the economic development of the state to help business and industry sustain strong economic growth;
- Goal 5: To respond to the needs and problems of society; and
- Goal 6: To ensure efficient use of resources.

Using this goal framework, the state has created state-level indicators; a common core set of institutional indicators; and institution-specific indicators. The 13 state-level indicators measure progress toward the goals on a statewide basis and include the measures listed in middle column of the table below. The 10 common core set of institutional indicators is listed in the right hand column of the table below.

<b>State Level Goals</b>	<b>State-level Indicators</b>	<b>Common Core of Institutional Performance Indicators</b>
<i>Goal 1: To enhance student learning and promote academic excellence;</i>	<ul style="list-style-type: none"> <li>• Percent of CT public high school graduates enrolled in CT higher education</li> <li>• (Possible measure to be developed to assess adults use of the system)</li> <li>• Deferred maintenance liability in CT public higher education</li> </ul>	<ul style="list-style-type: none"> <li>• Licensure and certification exam performance</li> </ul>
<i>Goal 2: To join with elementary and secondary schools to improve teaching and learning at all levels;</i>	<ul style="list-style-type: none"> <li>• CONNCAP college enrollment rate</li> <li>• ARC employment rate</li> <li>• Annual number of CT education graduates by (a) subject area; and (b) race/ethnicity</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborative activities with public schools</li> </ul>
<i>Goal 3: To ensure access to and affordability of higher education;</i>	<ul style="list-style-type: none"> <li>• State ranking of tuition and fees</li> <li>• Unmet financial need</li> <li>• Minority enrollment</li> </ul>	<ul style="list-style-type: none"> <li>• Minority enrollment by ethnic group compared to state population</li> <li>• Operating expenditures from state support</li> <li>• Real price to students</li> </ul>
<i>Goal 4: To promote the economic development of the state to help business and industry sustain strong economic growth;</i>	<ul style="list-style-type: none"> <li>• Degrees conferred by cluster</li> </ul>	<ul style="list-style-type: none"> <li>• Degrees conferred by credit program</li> </ul>
<i>Goal 5: To respond to the needs and problems of society; and</i>	<ul style="list-style-type: none"> <li>• Education and general budget devoted to public service</li> </ul>	<ul style="list-style-type: none"> <li>• Non-credit registrations</li> </ul>
<i>Goal 6: To ensure efficient use of resources.</i>	<ul style="list-style-type: none"> <li>• Education cost per FTE student</li> <li>• Average faculty salaries</li> </ul>	<ul style="list-style-type: none"> <li>• Real cost per student</li> <li>• Graduation rate (4- and 6-year for four-year institutions; 3-year for two-year institutions)</li> <li>• Retention rate</li> </ul>



Finally, several institution-specific reporting requirements relate to each institution's unique role and mission within the state. These 37 indicators are divided into 5 categories of institutions: University of Connecticut (UConn); Connecticut State University (CSU); Community and Technical Colleges (CTC); Charter Oak State College (COSC); and the Connecticut Distance Learning Consortium (CTDLC).

The objective of revamping the performance measurement system was to streamline the previous state higher education accountability report and make it sharper and more manageable for constituencies to use.

## **STUDENT PROGRESS INDICATORS**

**Persistence:** Student retention is one of the 10 common core sets of institutional indicators (goal 6).

**Completion/Graduation:** Student graduation rates are measured in the common core set of institutional indicators under goal 6. Additionally "degrees conferred by credit program" is a common core indicator and "degrees conferred by cluster" is a state-level indicator under goal 4.

**Student Goal Attainment:** This indicator is included in the CTC set of institution-specific indicators under goal 1.

**Time-to-Degree:** This is an institution-specific indicator under goal 6 for COSC.

**Transfer Students:** Student transfer rates are included in the CTC institution-specific set of indicators under goal 1.

**Other:**

## **GRADUATE OUTCOME MEASURES**

The new performance measurement system for higher education institutions in the state includes a variety of graduate outcome measures.

**Employment:** Although not part of the common core of institutional indicators, several institution-specific indicators under goal 4 measure rates of and retention in employment. The Report Card – employment and Retention in Employment will capture these measures.

**Earnings:** This indicator may be captured in the Report Card noted above.

**Continued Education:** n/a

**Graduate Satisfaction:** Both graduate preparedness (for continued education and employment) and graduate satisfaction are measured by institution-specific indicators for most institutions under goals 1 and 6.

**Training Applicability:** This indicator is measured by institution-specific indicators for most institutions under goal 1.

**Employer Satisfaction:** Although state-level goal 4 focuses on promoting economic development and helping business and industry, there is no specific measure of employer satisfaction in the state-level indicators, common core indicators, or institution-specific indicators.

## HAWAII

**OVERVIEW:** In 2001, this state had performance reporting and budgeting. The University of Hawaii is a public higher education system of ten campuses - a baccalaureate, graduate, and research campus at Manoa; two baccalaureate institutions; and seven community colleges. The State Legislature cast University accountability in the context of benchmarks linked to the goals of the University. The Board of Regents was required to adopt benchmarks, use them in the development of budget and tuition schedules and the review of programs and services, and submit a biennium report to the Legislature. The University's *Benchmarks/Performance Indicators Report* to the legislature (which is being re-titled the *UH Institutional Effectiveness Report*) states the University's strategic goals, identifies relevant performance indicators and benchmarks, and details progress relative to these goals over time, at intervals, and where available, against standards/practices elsewhere. Although all campuses have implemented a student tracking system, they are not linked. The primary accountability tracking system in use is at the Manoa campus. The University is in the process of installing a comprehensive, integrated system-wide student information system. The community colleges are scheduled to go online by fall 2002, and the three remaining campuses by fall 2003.

### STUDENT PROGRESS INDICATORS

**Description of Cohort:** Currently only for the Manoa campus, Hawaii tracks classified, degree-seeking, first-time freshmen and new transfers (both full- and part-time).

**Persistence:** For the UH system, reports the average persistence rates one year after entry.

**Completion/Graduation:** This state reports the University of Hawaii (UH) system's success rates (percentage of those who graduated or at still enrolled), as measured by the average graduation and persistence rates three years and six years after entry and UH Manoa's 6-year success rate and 1-year retention rate for first-time students (Manoa's success rates are reported by ethnicity).

**Student Goal Attainment:** For the Manoa campus, this indicator is the percent of alumni indicating they were adequately to well prepared for their current primary job. For the Community Colleges, it is the percent of graduates and leavers reporting satisfaction with their preparation for employment.

**Time-to-Degree:** n/a

**Transfer Students:** This measure tracks the number of transfers from the community colleges to 4-year campuses, the number of transfers from the 4-year campuses to the community colleges, and the average graduation rates of full-time UH Community College transfers to Manoa

**Other:** n/a

### GRADUATE OUTCOME MEASURES

Every three years, the University of Hawaii at Manoa conducts a graduating senior and alumni outcomes survey; both are organized around the system's strategic plan and the legislative accountability reporting mandate. Other campuses in the UH system conduct their own surveys, but are not required to do so. Annually, the UH Community College system conducts a graduate and leaver survey.

**Employment:** Community colleges must track the employment rate of vocational education graduates. The Manoa and Hilo campuses survey graduating seniors regarding their intended location of

employment and alumni regarding the time they took to find jobs after graduation, as well as the location/sector of their current primary jobs.

**Earnings:** This indicator includes annual earnings in current primary job and is measured by both the Graduating Senior and Alumni Outcomes surveys.

**Continued Education:** The Graduating Senior Survey inquires about graduates' post-graduation plans, including if planning to attend graduate school, where and what field of study. The Alumni Outcomes Survey includes questions about where alumni completed and/or are pursuing further higher education.

**Graduate Satisfaction:** Addressed by numerous surveys including Graduating Senior, Alumni Outcomes, College Student Experiences Questionnaire, Community College Survey of Former Students, and most recently, the National/Community College Survey of Student Engagement (NSSE/CCSSE).

**Training Applicability:** This indicator is addressed by Alumni Outcomes survey and includes questions about the relationship of current primary job to alumni major field of undergraduate study.

**Employer Satisfaction:** Employers are surveyed at the University and state level to measure employers' perception and satisfaction with University of Hawaii graduates. Currently, Hawaii relies on surveys of employers recruiting on campus, a *Report to the Governor on Hawaii Workforce Development*, and a survey of employer perceptions of graduates from Hawaii Business Education and Office Skills programs to measure this indicator.

**Other:** n/a

## ILLINOIS

**OVERVIEW:** The *Shared Enrollment and Graduation Information System* is a statewide student tracking database system housed at Southern Illinois University. This system tracks all students at all public institutions in Illinois. Institutions submit data to Southern Illinois University which can be used to track students across institutions. In 2001, this state had performance reporting and budgeting for all institutions and performance funding for two-year institutions. The *Shared Enrollment* system is used to inform higher education budgets and the state is currently developing a strategic plan with accountability measures around 6 goals and associated reporting mechanisms.

### STUDENT PROGRESS INDICATORS

**Description of Cohort:** All students entering the public higher education system in Illinois can be tracked with the *Shared Enrollment* system.

**Persistence:** The *Shared Enrollment* system can track persistence; performance reports that are likely to include this indicator are under development.

**Completion/Graduation:** The *Shared Enrollment* system can track student completion and graduation rates; performance reports that are likely to include these indicators are under development. As students remain in the system indefinitely, student completion and graduation rates can be tracked over the long-term (10 years or more).

**Student Goal Attainment:** n/a

**Time-to-Degree:** The *Shared Enrollment system* can track time-to-degree; performance reports that are likely to include this indicator are under development.

**Transfer Students:** Within the public system, students are tracked across all directions of transfers, i.e. from and between two- and four-year institutions. As the tracking system only includes students in the public higher education institutions, students transferring out of the public system are dropped from the system. This is a significant shortcoming of the system, especially considering the large sector of independent institutions in the Chicago area. Many public community college students transferring to private institutions are lost from the system. The Illinois Board of Higher Education is working with the Federation of Independent Colleges of Illinois to involve these institutions in the *Shared Enrollment system*.

**Other:** n/a

## GRADUATE OUTCOME MEASURES

Every 3 years a cohort of baccalaureate graduates from public institutions is surveyed 1, 5, and 10 years after graduation with the *Occupational Follow-Up Survey*. This is a statewide survey, but it only includes graduates from four-year institutions. Graduates in 20 percent of the universities program areas are surveyed each year in such a way that every five years the state has information on all programs. Surveys are timed in such a way as to allow program data from the survey to be available in the year before institutional program review. Illinois has found that this is a good system for monitoring program quality. Community college graduates are surveyed separately by the Illinois Community College Board. There does not seem to be any consolidation of graduate information from these separate sources.

**Employment:** The survey includes questions about graduates' current employment. Illinois also links the *Shared Enrollment system* with state employment databases annually to gather information on graduates' employment and retention.

**Earnings:** The survey includes questions about graduates' current earnings. Illinois also links the *Shared Enrollment system* with state employment databases annually to gather information on graduates' earnings.

**Continued Education:** The survey inquires if students are pursuing or have pursued additional degrees. Additionally, because the *Shared Enrollment system* tracks students for their entire educational career, continued education is tracked with this system.

**Graduate Satisfaction:** The survey includes if students are satisfied with their academic preparation and university services.

**Training Applicability:** The survey inquires how closely current employment is to students' baccalaureate majors.

**Employer Satisfaction:** This is a local option; universities can include a section on the survey asking graduates to provide their employers' information. The employers can then be contacted.

**Other:** n/a

## **KENTUCKY**

**OVERVIEW:** In 2001 this state had performance reporting. Data is collected in a comprehensive database as reported by all public two- and four-year institutions. The Kentucky Council on Postsecondary Education presents the Legislature with an annual status/accountability report. This state has established five key indicators of public postsecondary success, including college readiness, enrollment, advancement, preparedness for work and life, and economic benefits. The system includes limited data on independent institution students. The Council's website ([www.cpe.state.ky.us](http://www.cpe.state.ky.us)) presents the latest findings for most of the indicators and includes reports on the state-level education initiative "2020 Vision: Action Agenda" and the "2001 Status Report."

### **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Cohorts of students include first-time freshmen. Baccalaureate students are tracked for 6 years and community college students for three years.

**Persistence:** Persistence rates reflect the percentage of first-time, full- or part-time degree-seeking freshmen at all institutions returning for the following semester. A separate rate for "under-prepared" students is tracked. The rate is calculated using a 3-year average. The system does collect this information from both public and private institutions.

**Completion/Graduation:** Indicators include the percentage of full-time baccalaureate degree-seeking students graduating within 6 years from public universities. Also tracked is the five-year graduation rate for transfer students from two-year institutions to four-year institutions. Community college graduation rates are not tracked.

**Student Goal Attainment:** n/a

**Time-to-Degree:** n/a

**Transfer Students:** Indicators tracked include the number of community college students transferring to 4-year institutions (both public and independent) and the average number of credit hours transferred.

**Other:** Percentage of adults in the state with bachelor's degree or higher.

### **GRADUATE OUTCOME MEASURES**

The Kentucky Council on Postsecondary Education conducts several biennial surveys of graduates, including a national and a state survey of student experiences, an alumni survey, and a graduation migration survey. In 2001, the Council contracted with a research firm to conduct an alumni telephone survey for all public institution graduates who graduated two to five years ago. The purpose of the survey was to collect information on alumni satisfaction with their postsecondary education and the extent of their civic engagement. However, the survey included inquiries about graduate occupational outcomes, as well. The Council is developing a survey for on going graduate follow-up data collection.

**Employment:** The alumni survey included information on graduate employment. The migration survey tracks graduates' in-state employment rate and residence status. Some database matching occurs with the state departments of Employment Services and Driver's License.

**Earnings:** n/a

**Continued Education:** The alumni survey included graduate enrollment status in post-secondary education.

**Graduate Satisfaction:** The alumni survey included student satisfaction with instruction, curriculum, preparation for work, etc.

**Training Applicability:** The alumni survey included the degree to which graduates' employment is related to college major.

**Employer Satisfaction:** A new "Employer and Community Survey" is under development that will provide data to measure employer satisfaction with Kentucky graduates.

**Other:** The alumni survey inquired if graduates had volunteered, donated money, voted, or participated in professional organizations.

## **MARYLAND**

**OVERVIEW:** In 1988, the Higher Education Reorganization Act established an accountability process for Maryland public colleges and universities. The law required the governing boards of these institutions to submit annual accountability reports to the Maryland Higher Education Commission. In 2000, the Commission approved significant changes to this accountability process, including separating the reporting measures for community colleges and four-year institutions. Community colleges are assessed on a new set of 39 "mission/mandate" driven performance measures, 29 of which are common core indicators. Annually, all community colleges submit to the Commission a report indicating progress on each of the indicators. Four-year institutions establish their own sets of goals, objectives, and performance measures, but must include objectives on graduation and retention, post graduation outcomes, and minority enrollment and achievement. These institutions annually submit to the Commission a report on progress toward their objectives. The Commission analyzes the reports and presents them to the Governor and General Assembly with its assessment and recommendations. Three staff persons are involved in this process at the Commission-level.

### **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Generally includes first time, full-time degree-seeking freshmen, but some indicators include part-time students or present the data based on race/ethnicity.

**Persistence:** Community colleges: Second-year retention rate (percentage of first-time, full-time degree-seeking freshmen who re-enrolled in any Maryland community college, earned a degree of certificate, or transferred to a public four-year institution one year after matriculation). Four-year institutions: second year retention rate of first-time, full-time degree seeking students.

**Completion/Graduation:** Community colleges: Four-year transfer/graduation rate of first-time, full-time degree-seeking students and six-year rate of full- and part-time degree-seeking students (percentage of first-time, full-time degree-seeking freshmen who graduated and/or transferred to a Maryland public four-year campus within four years of matriculation; percentage of full- and part-time degree-seeking students within six years of matriculation); also by minority status. Four-year institutions: Six-year graduation rate of first-time, full-time degree-seeking students and of African Americans.

**Student Goal Attainment:** Community colleges: Graduate satisfaction with educational goal achievement (percentage of graduates indicating that their educational goal was completely or partly achieved at the time of graduation); data source is the Maryland Higher Education Commission (MHEC)

graduate follow-up survey. Also measured is the non-returning student satisfaction rate of educational goal achievement (campus data).

**Time-to-Degree:** n/a

**Transfer Students:** Four-year transfer rate of full-time students (percentage of first-time, full-time transfer program students who enroll at a Maryland public four-year institutions within four years of matriculation).

**Other:** n/a

## GRADUATE OUTCOME MEASURES

**Employment:** Community colleges: n/a. Four-year institutions: employment rate of graduates.

**Earnings:** n/a

**Continued Education:** n/a

**Graduate Satisfaction:** Community colleges: student satisfaction with quality of transfer preparation and student satisfaction with job preparation; data source is the MHEC graduate follow-up survey. Four-year institutions: student satisfaction with job or graduate/professional school preparation.

**Training Applicability:** Community colleges: percent of career program graduates employed full-time in related area; data source is the MHEC graduate follow-up survey.

**Employer Satisfaction:** Community colleges: Employer satisfaction with community college career program graduates; data source is the MHEC employer follow-up survey.

**Other:** Employer satisfaction with community college *contract* training.

## NEW JERSEY

**OVERVIEW:** In 2001, this state had performance reporting and funding. Performance funding is based on improved graduation rates using various measures. The Commission on Higher Education's March 2001 report, "Higher Education Outcomes and High-Tech Workforce Demands: The Fifth Annual System-wide Accountability Report," presents accountability measures. The report divides New Jersey institutions into 6 cohorts: public research universities; state colleges/universities; community colleges; public-mission independent institutions; proprietary institutions; and theological institutions in order to compare progress on goals to similar institutions and to national data where possible. All public institutions must report and 6 out of 20 independent institutions have voluntarily reported data on students as of the most recent report.

## STUDENT PROGRESS INDICATORS

**Description of Cohort:** First-time, full-time degree seeking students in post-secondary institutions.

**Persistence:** Indicator includes the first-year persistence rate for two- and four-year institution students. This indicator can be tracked, but is not reported.

**Completion/Graduation:** University students are tracked for a six-year graduation rate (use national data from IPEDS) and community college students are tracked for a three-year rate. This state also tracks the total number of certificates and degrees conferred.

**Student Goal Attainment:** n/a

**Time-to-Degree:** This state calculates the median time-to-completion for universities and community colleges separately. This indicator provides a “reverse measure” to the graduation rate. The graduation rate tracks only students who graduate 6 or 3 years after matriculation. The time-to-completion indicator tracks all graduates and calculates the median time it takes for them to graduate.

**Transfer Students:** Indicator includes the transfer rate for community college students transferring to four-year institutions.

**Other:** Because the state is concerned with high-tech economy, it includes a special section on New Jersey higher education institutions’ success in awarding various levels of degrees in 7 high tech fields and makes comparisons to the overall US. They also monitor 10-year trends in this degree production. As well as by gender, race, and citizenship status. Also track the “degree of urbanization” of campus locations.

**GRADUATE OUTCOME MEASURES:** n/a

## **NORTH CAROLINA**

**OVERVIEW:** In 2001, this state had performance reporting and budgeting. Performance data for two- and four-year public institutions is tracked on a state-level basis using individual student unit database records for up to 10 years. This state has established indicators in five performance areas. Performance information is reported statewide and by institution and includes trend data. The 1999-2000 and 2000-2001 reports entitled, “Report on Retention, Graduation, and Time to Degree” include information on performance measures. The University of North Carolina’s “Accountability Overview,” 2001 report also includes performance information.

### **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Cohorts vary by data tracked, but generally include first-time, full-time freshmen entering in a fall semester. Transfer students are tracked separately.

**Persistence**<sup>33</sup>: Indicator is the retention rate of first-time, full-time freshmen at University of North Carolina (UNC) institutions. This state calculates the freshmen to sophomore year retention rate (the 1-year rate) and a 3-year rate. Also tracked is the retention rate of community college transfer students after 1, 2, and 3 years.

**Completion/Graduation:** A cohort of students is tracked to obtain the percentage of first-time, full-time freshmen with 4-, 5-, and 6-year graduation rates. Also tracked are community college transfer students graduation rates after 2, 3, 4, and 5 years.

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<sup>33</sup> North Carolina has established clear definitions of indicators in this area. The retention rate calculates students still enrolled. The graduation rate counts students who have completed programs and graduated. The persistence rate includes students who are still enrolled or who have graduated.



**Student Goal Attainment:** Surveys of sophomores, graduating seniors, and one-year alumni on skill improvement are conducted biennially.

**Time-to-Degree:** Accountability system measures include time-to-degree.

**Transfer Students:** Indicators include the transfer rate of students from community colleges to four-year institutions and several related measures, i.e. GPA, number of credits attempted and completed, etc.

**Other:** Other interesting indicators measured include average number of hours students work and the average number of credit hours taken, attempted, and earned by baccalaureate seekers and graduates.

## **GRADUATE OUTCOME MEASURES**

**Employment:** First-year alumni are surveyed about their current employment and if any of their employment since graduation has been in- or out-of-state. This is a biennial statewide survey. Individual institutions are expected to supplement this survey with their own.

**Earnings:** Survey questions include questions about annual earnings.

**Continued Education:** Survey includes questions about this indicator.

**Graduate Satisfaction:** Graduating seniors and first-year alumni are extensively surveyed about their satisfaction with instruction and post-secondary student services.

**Training Applicability:** Survey asks detailed questions about the applicability of students' training to their current employment.

**Employer Satisfaction:** Telephone surveys of employers are conducted to inquire about their perception of students' skill areas.

**Other:** North Carolina tracks enrollments in non-degree programs to measure continued learning.

**NOTES:** This state has posted their alumni survey instrument on-line; it is a good example of such a survey.

## **NORTH DAKOTA**

**OVERVIEW:** In 2001, this state had performance reporting requirements for the North Dakota University system resulting from The North Dakota Roundtable initiative. Performance reporting is heavily focused on workforce and economic development; therefore, most of the indicators are for graduates. Prior to the legislative mandate resulting from the Roundtable initiative, North Dakota released annual student outcomes reports generated from the Follow-up Information on North Dakota Education and Training system (FINDET). Under the reporting mandate, FINDET reports are required. The North Dakota University System's first accountability report, "Creating a University System for the 21<sup>st</sup> Century: An Accountability Measures Report," was released in late 2001.

Indicators in the accountability report are organized according to five of the six cornerstones established from the Roundtable initiative:

1. Economic development connection
2. Education excellence
3. Flexible and responsive system

4. Accessible system
5. Funding and rewards
6. (Sustaining the vision)

**STUDENT PROGRESS INDICATORS:** The state is in the process of developing these measures for the University accountability system.

**Description of Cohort:** To be determined

**Persistence:** To be determined

**Completion/Graduation:** To be determined. North Dakota recognizes that students may enroll in postsecondary programs with the intention of only completing courses of interest to them. These students may choose not to graduate, but have gained the valuable skills they were seeking. Such activity puts downward pressure on graduation rates. In order to account for this, the state will adjust the typical graduate rates by a student goal factor. Typically, federal and state measures include first-time, full-time, degree-seeking students in tracked cohorts and assume that these characteristics indicate that students intend to complete two- or four-year programs. North Dakota plans to move beyond this assumption by asking students directly about their educational goals and adjusting graduation rates to include only those students who have affirmed that they intend to graduate. Additionally, graduation rates will be adjusted to reflect student transfer rates.

**Student Goal Attainment:** To be determined. See discussion above.

**Time-to-Degree:** n/a

**Transfer Students:** Because there are several state policies that actually encourage student transfers, this state will closely track transfer students.

**Other:** n/a

## **GRADUATE OUTCOME MEASURES**

**Employment:** To be determined

**Earnings:** To be determined

**Continued Education:** To be determined

**Graduate Satisfaction:** The new state accountability effort mandates that the university system assess graduate and employer satisfaction. Indicators include:

1. Workforce training information, including levels of satisfaction with training as reflected in information systemically gathered from employers and employees receiving training;
2. Client satisfaction – levels of satisfaction with [system] responsiveness as reflected through responses to evaluations and surveys of clients [including graduates, training completers, employers, companies, and employees];
3. Alumni-reported and student-reported satisfaction with preparation in selected major, acquisition of specific skills, and technology knowledge and abilities; and

4. Non-completers satisfaction – levels of satisfaction and reasons for non-completion as reflected in a survey of individuals who have not completed their program or degree.

**Training Applicability:** Percentage of university system graduates obtaining employment appropriate to their education in the state.

**Employer Satisfaction:** The new state accountability effort mandates assessment of employer satisfaction, including employer-reported satisfaction with preparation of recently hired graduates.

**Other:** n/a

**NOTE:** North Dakota’s higher education accountability system was adopted in 1999. It is profiled here to provide information on a system that is clearly focused on workforce development outcomes and on a system that focuses on student goals and goal attainment.

## **OHIO**

**OVERVIEW:** Although the Ohio Board of Regents is only in its second year of both performance reporting and funding, it’s accountability and reporting systems are extremely comprehensive and well-developed. The Higher Education Information (HEI) system contains data supplied by Ohio’s colleges and universities and is a comprehensive relational database that includes data on students, courses, faculty, facilities, and finances. The performance reports generated from this system contain excellent discussions of issues around a variety of student indicators. The Ohio performance funding formula is limited to four specific areas of performance metrics in order to preserve stability in institutional funding while providing incentives to improve in targeted areas. Currently, only public institutions are required to submit data into the statewide database; however, as Ohio has numerous independent institutions, the Ohio Board of Regents is working diligently to involve independent institutions to voluntarily submit data on their students.

### **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Cohort includes first time, degree-seeking freshmen at public institutions.

**Persistence:** Ohio tracks the persistence rate of first-time, full-year degree-seeking students by type of institution (two- and four-year); data is presented statewide and is disaggregated by specific institution. Recognizing the prevalence of student mobility, Ohio tracks both the “institution persistence” rate (student persistence at the same institution) and at the “statewide persistence” rate (student persistence at any in-state institution). A centralized statewide database with common measures across all institutions is key to tracking these measures. The Board of Regents is developing the capacity to calculate freshmen to sophomore retention rates of students at independent institutions.

**Completion/Graduation:** Ohio tracks the percentage of first-time full-time associate degree students who, within three years, graduate from the community college (“institution graduation rate”) or transfer to a four-year institution and graduate (“statewide graduation rate”). Also tracked is the percentage of first-time full-time baccalaureate degree seekers who graduate within 6 years from their initial university branch campus (“institution rate”) or from the main campus (“statewide rate”). This data is disaggregated by type of campus and reported for specific campuses. Complementary information tracked includes the number and types of degrees and certificates awarded annually. Information for these indicators is obtained from the Ohio Board of Regents data for public state-supported schools and federal IPEDS data for proprietary schools.

**Student Goal Attainment:** n/a

**Time-to-Degree:** Ohio tracks the average time-to-degree and credits-to-degree for associate and baccalaureate students, by type of institution and by specific state-supported institution (including by specific branch of a college or university). This indicator is measured separately for transferring and non-transferring students.

**Transfer Students:** Transfer students and their academic success rates are tracked. Ohio tracks student transfers between multiple types of campuses, i.e. from community colleges to four-year institutions, between community colleges/branches, between four-year institutions/branches, between public and private, and concurrent enrollment in two institutions.

**Other:** Ohio tracks and reports on many other indicators. See the Ohio Board of Regents Higher Education Performance report at [www.regents.state.oh.us/perfrpt](http://www.regents.state.oh.us/perfrpt) for more information.

## **GRADUATE OUTCOME MEASURES**

This state relies on the linking of administrative databases to collect graduate occupational outcomes data. A useful source of information is the Ohio Board of Regents' "Ohio's Colleges and Universities 2001: Profile of Student Outcomes, Experiences and Campus Measures."

**Employment:** By linking the student tracking database with state employment databases maintained by the Ohio Department of Jobs and Family Services, this state can determine if spring graduates are employed in the fall after graduation by degree level and discipline (in-state).

**Earnings:** From the linked databases, Ohio calculates the annualized incomes (based upon quarterly salaries) of spring graduates from public colleges and universities 1, 2, and 3 years post-graduation by initial degree level and other key variables. As more graduates enter the system over time, this state will be able to track longer-term employment rates. Ohio also calculates salary by students' disciplines.

**Continued Education:** Because the database is designed on individual student records, the tracking system provides information on students who are enrolled in continued education after graduation by key variables.

**Graduate Satisfaction:** n/a

**Training Applicability:** n/a

**Employer Satisfaction:** n/a

**Other:**

**NOTE:** This state includes extensive tracking of high school graduates through their college experiences. By connecting with the College Board for SAT information and ACT, this state can gain valuable information on high school students' core courses, college preparation, and postsecondary aspirations in order to provide a context for measuring college-level student success. Additionally, this state tracks non-credit training and employer satisfaction with it in order to measure if postsecondary institutions are meeting the workforce development needs of state.

## OKLAHOMA

**OVERVIEW:** Since the late 1970s, this state has tracked students in a statewide database; today it includes students at both public and private two- and four-year institutions. Over the past decade, the Oklahoma State Regents have issued a number of reports providing accountability information. However the information had not been consolidated into a single report, nor had it been presented in a consumer-based manner. Accountability information has been contained in the following reports, most of which are accessible at [www.okhighered.org](http://www.okhighered.org): *Annual Student Assessment Report*, *Annual Student Remediation Report*, *High School Indicators Project* (ACT, college-going rate, remediation rates, freshman GPA and semester hours), *Annual Employment Outcomes Report*, *Student Data Report*, and *Degrees Conferred Report*.

The first comprehensive accountability report on Oklahoma higher education was distributed in May 2000 and compared institutions. The second higher education report card, which was modeled after the *Measuring Up 2000* report, was issued in 2001 and contained state-level data and goals. Since 1991, Oklahoma has had program budgeting. In 2001, Oklahoma began performance funding tied to a 1999 initiative called “Brain Gain 2010.” This initiative was designed to increase the percentage of the state population with college degrees.

### STUDENT PROGRESS INDICATORS

**Description of Cohort:** The state report cards use a cohort that includes first-time, full-time, degree-seeking freshmen at the public higher education institutions. Some reports include remedial students, part-time freshmen, race, and science/math/engineering/technology majors.

**Persistence:** This state tracks the persistence rate of students at two- and four-year institutions on an institutional level (students persisting at the same institution) and at the statewide level (students participating at any institution).

**Completion/Graduation:** At 2-year institutions, graduation rates for both associate and baccalaureate degree seekers are calculated for 2 through 10 years. At 4-year and comprehensive institutions, graduation rates for baccalaureate degree seekers are calculated for 4 through 10 years.

**Student Goal Attainment:** Student and alumni satisfaction data are collected at the institutional level. Efforts are reported in the *Annual Assessment Report*.

**Time-to-Degree:** n/a

**Transfer Students:** Oklahoma tracks transfer rates of students from public two-year institutions to public four-year institutions; students from public and private institutions to public institutions; and public two-year students who transfer and graduate with baccalaureate degrees. Certain key variables are included in reports on these indicators, including race and gender.

**Other:** Oklahoma sets state-level goals for and tracks the educational attainment of state residents. Other indicators include ACT scores, concurrent enrollment, adult students, part-time students, and high school to college going rates. Non-credit course taking is also reported.

### GRADUATE OUTCOME MEASURES

This state conducts an annual employment outcomes review by linking the student database with state employment records. Since 1994, there has been a partnership to link employment data between the

Oklahoma State Occupational Information Coordinating Committee, the Oklahoma Employment Security Commission, and the Oklahoma State Regents for Higher Education. In 1997, the Oklahoma Tax Commission joined the data exchange. The second *Annual Employment Outcomes Report* was released in June 2000, and provided detailed information on graduates by residency status, academic discipline, degree level, employment, and earnings. This report includes a clear explanation of the methodology and limitations of the data exchange system and is focused on the state retaining its graduates.

**Employment:** Annual administrative database linking provides data on graduates' employment, including if employed and in what industries. Graduate data is reported one and five years after graduation. Information is reported by resident and non-resident status, as well as by type of educational institution, degree level, academic disciplines, and type of industry. Comparable institutional-level data are provided to the institutions for outcomes assessment and accountability reporting.

**Earnings:** The linking of administrative databases (primarily with the Employment Security Commission) provides data for calculating graduates' earnings. As above, these outcomes are reported by a variety of key variables.

**Continued Education:** The student tracking system tracks graduate enrollment rates, and the state reports on graduates who are enrolled one- and five-years after graduation.

**Graduate Satisfaction:** The state requires all institutions to review program outcomes and graduate satisfaction rates. The Regents conduct an annual assessment of these institutional activities.

**Training Applicability:** This indicator is measured in a similar manner to the graduate satisfaction rate.

**Employer Satisfaction:** Oklahoma relies on institutional surveys to measure this indicator; there is no statewide survey.

**Other:** n/a

**NOTE:** The Oklahoma unitary data collection system includes independent institutions, which is rare among higher education accountability systems.

## TENNESSEE

**OVERVIEW:** In 2001, this state had performance reporting and performance funding. The Board of Regents has published an annual report card since 1997, entitled, "Status of Higher Education in Tennessee" ([www.tbr.state.tn.us](http://www.tbr.state.tn.us)). This annual report presents student outcomes data and provides a good discussion of challenges associated with measuring these indicators. The Tennessee Higher Education Commission also produces an annual report on student outcomes.

### STUDENT PROGRESS INDICATORS

**Description of Cohort:** The cohort tracked includes first-time, full-time degree-seeking freshmen in a particular year at public institutions (does NOT include part-time students or those not at public institutions).

**Persistence:** Tennessee tracks the freshmen to sophomore retention rate on both an institutional basis (retention at the same institution) and statewide basis (retention at any public institution).

**Completion/Graduation:** This indicator includes the 6-year graduation rate at public institutions for both 2- and 4-year institution graduates. Tennessee also tracks the 3-year graduation rates for students at 2-year institutions, but added the 6-year rate to better consider the following common community college student characteristics: 1) most students are employed; 2) most students are part-time; and 3) many students need remediation services, which slows down their educational pace.

Graduation rates are tracked at both the “institution rate” (student completing at the same institution where they matriculated) and statewide level (student completed at any public institution). This state also tracks graduation rates at state technology centers. A key variable included in reporting the data is race. Also reported is the total number and types of degrees awarded by institution.

**Student Goal Attainment:** n/a

**Time-to-Degree:** n/a

**Transfer Students:** Tennessee tracks the rate of community college transfers to four-year institutions. To present the data more accurately, it tracks this rate for students enrolled in “university parallel programs,” who *intend* to transfer to and graduate from a four-year program. To capture all directions of student mobility, Tennessee tracks the transfer rates between two- and four-year institutions (both ways) and between public and private institutions. This state also reports the 6-year graduation rate of transfer students.

**Other:** Most student tracking is annual and involves only public institutions. However, in order to account for the impact of independent institutional education in the state, Tennessee produces a triennial report on independent institutions (with data gathered from the federal and state sources and from the institutions through surveys). This reporting is less about institutional accountability and more about educational planning for the state.

## **GRADUATE OUTCOME MEASURES**

Tennessee links the student tracking database with state unemployment insurance files to gather occupational outcomes data for graduates from two- and four-year public institutions. Community colleges have some performance funding indicators and conduct a separate community college graduate survey.

**Employment:** Database linking provides data to measure this indicator.

**Earnings:** Database linking provides data to measure this indicator.

**Continued Education:** n/a

**Graduate Satisfaction:** There is no statewide survey to measure this indicator.

**Training Applicability:** n/a

**Employer Satisfaction:** A sample of employers at both two- and four-year institutions is surveyed annually.

**Other:** n/a

## **WEST VIRGINIA**

**OVERVIEW:** In 2001, this state had performance reporting; however, it has tracked students in a statewide database system for 40 years. This database tracks students at public two- and four-year institutions (private institutions are not included). The West Virginia Higher Education Policy Commission's "West Virginia Higher Education Report Card" of 2001 reports on student educational progress and occupational outcomes according to five areas: preparation, participation, affordability, and workforce development and higher education outcomes. One main focus of West Virginia's accountability system is on retaining graduates in the state.

### **STUDENT PROGRESS INDICATORS**

**Description of Cohort:** Cohort includes first-time, full-time degree seeking freshmen at all public institutions. Reports on the indicators below include disaggregated data by race, gender, and other variables.

**Persistence:** West Virginia tracks the first-time, full-time freshmen to sophomore retention rate at public two- and four-year institutions at both an institutional level (persistence at same institution) and a statewide level (persistence at any public institution). The most recent report card includes trend data since the fall of 1995 and by state and by institution. The Higher Education Policy Commission publishes an annual report on retention and transfer rates.

**Completion/Graduation:** This state tracks the 6-year graduation rate for baccalaureate earners and 3-year rates for associate earners at an institution and a statewide level. Data is reported by educational level and by field of study. West Virginia also tracks the number of certificates and degrees awarded (reports 10-year trend data). The Higher Education Policy Commission publishes an annual report on student graduation rates at public and private institutions. Public institution information is gathered through the state tracking system and private institution information is gathered by surveys processed by the Higher Education Policy Commission.

**Student Goal Attainment:** n/a

**Time-to-Degree:** n/a

**Transfer Students:** West Virginia tracks transfer rates between 2- and 4-year institutions (both ways).

**Other:** This state tracks the percentage of high school students matriculating to higher education and adults statewide with high school diplomas and with bachelor's degrees. It also tracks job training and customized employer training outcomes.

### **GRADUATE OUTCOME MEASURES**

Annually, West Virginia links the student tracking database with the state Bureau of Employment database to produce a report on graduate employment outcomes.

**Employment:** The database linking provides data on graduates who are working in-state two years after graduation by institution and by degree.

**Earnings:** Through the database linking, the state can calculate graduates' average and median salaries one year after graduation by institution and by degree.



**Continued Education:** The state student tracking system tracks if graduates are pursuing further education by institution and by degree.

**Graduate Satisfaction:** Individual institutions conduct undergraduate satisfaction surveys; however, there is no statewide survey.

**Training Applicability:** n/a

**Employer Satisfaction:** Employer satisfaction is measured by individual institutions. In general, public institutions use the same or similar survey instruments. At one time the state compiled employer satisfaction information in the state report card; however, it was discontinued because the state felt that the survey data was weak and unreliable.

**Other:** n/a

**NOTE:** West Virginia includes data on independent institutions where possible in its various reports; however, these institutions are not part of the state database system.