



ECS Issue Paper

Accountability

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A Student-Centered P-16 Accountability Model: Encouraging High Standards, Equitable Educational Opportunities and Outcomes, and Flexibility Within A Seamless System of Education

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... policymakers should design their accountability systems for both K-12 and higher education to include outcomes that each system cannot possibly deliver alone. K-12, for example, might be held accountable not only for improving student achievement and closing gaps between groups, but also for assuring that all of its secondary teachers have deep and substantial knowledge in the subject areas they are teaching. Similarly, higher education can be held accountable for decreasing the number of minority freshmen requiring remediation...an approach that combines changes in accountability systems with some new resources to get work underway probably has the most power both in garnering the attention of institutional leaders and in setting changes into motion.

(Haycock, 2001)

Introduction

This paper describes a “next-generation” framework for an accountability model that spans states’ education systems from pre-kindergarten through the end of undergraduate education (P-16).¹ A major premise of this paper is that traditional K-12-focused accountability systems are outdated because the majority of high school graduates (over 70 percent) complete some form of postsecondary education² (U.S. Department of Education, 2001a). Accountability systems should take this into account and support systems that provide opportunities for all students to prepare well for, and succeed in, college. In addition, there are currently few ways to determine if public postsecondary institutions are providing high-quality educational opportunities for their students. A P-16 accountability system brings a new level of scrutiny to public postsecondary institutions; this is a relatively controversial issue in the world of higher education.

An accountability system is, in some ways, a bit of a contradiction – a necessary evil to some, to others a tool that can be used positively to help both students and educators. Such a system can support improved teaching and learning for students and increase capacity and resources for educators. Accountability systems are a reflection of a lack of the public’s trust in its own schools. They are also a reflection of the commitment to ensure that all students receive high-quality educations, despite continued inequalities in our nation’s schools. While it might be ideal if K-12 schools and higher education institutions could meet all expectations and needs without carrots and sticks, the reality is that some form of an accountability system is useful. But it must be developed and implemented responsibly – in a way that respects the professionalism of educators and earns the public’s trust.

There are several issues that are important to address in any accountability system. All accountability models need to be specific enough to include indicators that measure the important aspects of teaching and learning, while being flexible enough to accommodate different state-level needs and priorities. Every state is different and there is no one-size-fits-all model. It is also crucial that states develop an appropriate mix of incentives and capacity building. It is unfair and unrealistic to develop a system of unfunded

mandates within an accountability system and expect that educational entities can meet a state's goals simply because they are monitored in new ways. K-12 schools and postsecondary institutions must receive the resources they need to meet new demands placed on them by accountability systems. It follows that many of the changes must be rolled out in an incremental fashion to ensure that capacity-building and new mandates can follow similar timelines and that people and institutions are not held accountable for drastic changes immediately.

These issues are particularly relevant today, with the passage of 2001's No Child Left Behind Act reauthorizing the Elementary and Secondary Schools Act. The legislation requires more student assessment and accountability mechanisms than ever before; all states must now develop an educational accountability system.

How can an accountability system connect K-12 and postsecondary education, work to ensure opportunities for all students to learn to high standards, create the capacity individuals and institutions need to do their job well and make sure that educators and institutions have the autonomy they need? What other factors must change to support a P-16 accountability system? This paper explores these and other related issues.

How do states currently view educational accountability?

Traditional educational accountability systems do not tie together states' public K-12 and postsecondary education systems. They focus on K-12 education; postsecondary education is usually left untouched. Simply stated, traditional models usually hold educators, schools and districts accountable for student learning as measured by assessments administered at certain grade levels. Many states also are beginning to hold students accountable by implementing high-stakes exit-level exams from high school. Such models usually focus on seat-time and grade completion. Carrots (the addition of resources) and sticks (often the deprivation of resources or of professional autonomy) are used to "motivate" stakeholders to improve teaching and learning. There is usually little assessment of needs across education sectors, and data often cannot be connected between levels (such as tracking students from high school to college, or teachers from teacher education programs to the classroom). Consequently, it is not possible to examine the relationship between, for example, earning a proficient score on a K-12 exit-level exam and placing into remedial-level work in college.

Many people have written about traditional K-12 accountability models. Gong (January 2002), for example, writes that states should first answer the following questions when designing an accountability model:

- What are the purposes of the accountability system?
- What are the main contexts, political or otherwise?
- What are the main legal and policy constraints or specifications?
- What are the main units of performance, accountability and reporting?
- What are schools and students (or others) to be held accountable for?
- What accountability decisions will be made, and with what consequences?
- How will results be reported?
- What data are available and will be used in the accountability system?
- How will data be combined to make an accountability judgment?
- How will the accountability system be monitored and evaluated?ⁱⁱⁱ

Gong also sets forth crucial questions that states must consider regarding related contextual issues, such as legal, political and capacity concerns. This paper asserts that Gong's and others' questions need to be addressed to all sectors of a state's public education system – from pre-kindergarten through grade 16.

Why do states need accountability systems that span across K-12 and postsecondary education?

Since the publication of *A Nation At Risk* in 1983, K-12 education reform has remained at the top of most state agendas. Forty-nine states have created K-12 content standards in most academic subjects, and most of these states have developed statewide K-12 student assessments (Standards for Success Web site, www.s4s.org). K-12 accountability systems have been developed and tied to incentives pushing

educators and schools to improve teaching and learning, and many states are focusing on improving their data systems in order to monitor changes resulting from these reforms. Most of the public policy changes have focused on K-12 – not on postsecondary education, or on joining the two systems together. This has created a situation in which it is difficult, if not impossible, to determine whether public education systems are serving students' needs across the P-16 continuum.

The aforementioned changes are taking place as the student population and students' aspirations change. The student population across the country – in K-12 and postsecondary education – is growing larger and more diverse. Public elementary and secondary school enrollment reached 47.2 million students in 2001, a number that is projected to increase through 2005. In 1999, 38 percent of public school students were students of color, an increase of 16 percentage points from 1972 (U.S. Department of Education, 2001a).

There are approximately 2.5 million public high school graduates in the United States each year, a number that continues to grow. Over 70 percent of these graduates go on to postsecondary education within two years of graduating from high school, and over half of those students aspire to obtain a bachelor's degree. However, over 50 percent of students entering postsecondary education are taking remedial courses, many in several subject areas. Large percentages of students are not continuing on for a second year of college, and degree completion rates at many institutions are at an all-time low (U.S. Department of Education 2001a, b, and c). A contributing factor to these problems could be the historical split between levels of states' educational systems and the subsequent lack of communication, connection and accountability among them.

A high school diploma used to be the highest degree necessary for an individual to obtain a job that could guarantee entrance into the middle class, but today at least two years of postsecondary training, if not a college degree, are required to achieve the same economic status. The U.S. Department of Labor predicts that 70 percent of the 30 fastest growing jobs will require education beyond high school, and 40 percent of all new jobs will require at least an associate's degree from a community college (Education Trust, 1999). College-going rates reflect those numbers. Data from the U.S. Census illustrate the significant economic returns of enhanced education: in the year 2000, median annual earnings for workers aged 25 and over with a high school diploma was \$24,267, compared with \$26,693 for workers with an associate's degree and \$40,314 for those with a bachelor's degree (U.S. Bureau of the Census, 2001).

Traditionally, postsecondary education has remained relatively untouched by education reforms as compared to K-12 education. There have been some significant policy changes in the past two decades, however, that have had a noteworthy impact on higher education. Beginning in the 1980s, many states began to adopt statewide admissions policies, particularly through the establishment of required high school coursework units for college admission (Rodriguez, 1998). State legislatures and courts have more recently become active in higher education admissions policies, something that was virtually unheard of twenty years ago. A decision by the 5th Circuit Court of Appeals in Texas and a statewide ballot proposition in California (Proposition 209) changed the way many of the more selective institutions in those states could conduct their admissions policies by eliminating the use of affirmative action. Similar changes are under way in other states. As a result, new policies have been put in place to find new ways to reach the traditionally underrepresented populations.^{iv}

State legislatures and state higher education agencies have also become more involved in addressing remediation issues at the state level, an issue traditionally handled at the institutional level (Rodriguez, 1998). Concerns about the number of students who need to take remedial- or developmental-level courses in colleges and universities across the country (and about the costs associated with those courses) led many higher education institutions and systems to adopt new policies to try to eliminate or reduce significantly the provision of remedial courses on their four-year campuses.

There are currently, however, few adequate P-16 policymaking mechanisms at the state level to address issues related to student transitions from secondary to postsecondary education. There is usually no governance structure charged with P-16 reform and held accountable for change. While there are local partnerships focused on outreach issues in different sites around the country, there are few levers in place to encourage systemic collaboration between higher education and K-12. In California, for example, P-16 policymaking is divided among at least seven groups, creating a rather fragmented approach (Kirst,

2001). Tafel and Eberhart (1998) note that many state and local politicians have in recent years provided resources for school-college collaborative efforts, but argue that this is only a first step; sufficiently ensuring the successful student transition requires a reconception of current structures and practices and the development of new systemic approaches to link the two education sectors. While a few states have embarked on wide scale P-16 reform efforts, they have run into political hurdles, such as a lack of perceived incentives on behalf of postsecondary education entities.

P-16 reform has become a term used by many policymakers and researchers to refer to a wide variety of efforts to increase student access to, and preparation for, postsecondary education. Many of these efforts are surface-level and are often in the form of programs that sit at the outside of schools' and colleges' missions. These cannot change the deep problems discussed above. Work needs to be done to understand new incentives for higher education, in particular, to come to the table with K-12 to develop student-centered reforms. States need to consider large-scale changes in their curricula, standards, assessments, data collection, governance and accountability efforts in order to tie systems together.

Thus, while the reality for most students is that their education will likely continue past the secondary years, state and institutional policies continue to reflect a significant separation between K-12 and higher education. The current organization of secondary schools and universities is such that communication and information dissemination between levels is often difficult. For instance, students – especially those who are economically disadvantaged – often do not know what colleges expect of them in terms of admission, course placement and graduation requirements. Policies across the segments – particularly those concerning the transition from high school graduation to college admission – are fragmented and confusing. Curricula, standards and assessments are often not aligned across systems. In order to increase opportunities for all students to prepare for, attend and graduate from postsecondary education institutions, reform initiatives at various levels within the entire P-16 education system, such as the development of accountability system, should be integrated systemically.

What is a P-16 accountability system and why should states adopt that model? What are the advantages of a P-16 accountability system over a traditional system of accountability?

A P-16 accountability system has the same general purposes as a traditional K-12 accountability system (as stated by Gong, January 2002):

- _ Identify and support improved teaching and learning
- _ Inform stakeholders of the condition of education in the state
- _ Identify areas that need improvement
- _ Identify successes
- _ Generate support for needed changes
- _ Support high levels of educational attainment for all students
- _ Inform policy decisions
- _ Reward exemplary educational entities.

The design of the system needs to be linked to the stated purpose of the system, and all units of measurement, accountability and reporting must be consistent (Gong, January 2002).

Looking back at some of Gong's questions is instructive. Two major purposes of a P-16 accountability model are to ensure that all segments of a state's education system are serving students well and that they are working together to meet students' and educators' needs. A P-16 accountability system can focus on:

- _ Closing the achievement gaps between different student groups across the state's public education continuum
- _ Connecting K-12 and postsecondary education standards and assessments
- _ "Streamlining" policy signals to create a less confusing environment for students, their parents, and K-12 educators (who often grapple with trying to stay abreast of constantly changing postsecondary admissions and placement policies).

It can stimulate the development of a seamless system of education for all students, rather than fragmented sets of institutions that are often seemingly at cross-purposes, particularly with regard to such issues as academic standards and funding.

By developing a seamless system of public education, states can take a radical departure from the status quo. They could encourage flexibility so that students can move forward at their own pace, while ensuring that all students must be exposed to the same high levels of educational opportunities (such as college preparation courses, qualified teachers, and so forth). A P-16 model could help states eliminate hurdles that many high school students face when they want to take courses at their local community colleges or public universities, or that high school and college faculty must jump when they wish to develop and teach courses collaboratively. In a traditional system, states often decide on the cut score(s) that determine proficiency or passing. In a P-16 system, states can also determine performance levels on K-12 exit assessments that relate to admission and placement decisions in the state's public colleges and universities. Assessment data should not be the sole, or most important, criteria, but they can provide additional information and reduce testing burdens for students.

A major political and policy issue affecting P-16 reform is postsecondary education's historical autonomy and lack of accountability to state government. This can be a barrier to change if postsecondary institutions or systems lobby against a P-16 model. From a legal perspective, states need to make sure their accountability systems treat all students fairly. Most legal challenges arise when states implement high-stakes assessments, when tests are used for purposes other than those that were intended when the tests were developed, when students do not have the opportunities they need to learn the knowledge and skills included on the assessments and when tests produce negative consequences for historically disadvantaged groups (McRobbie, Spring 1998).

Within the accountability system there are several major units of performance, accountability and reporting.

States can:

- Monitor progress
- Identify relative performance of one group as compared to another
- Provide instructional targets and incentives
- Allocate resources
- Assess progress and provide information.

K-12 districts can:

- Monitor progress
- Hold schools and educators accountable
- Improve student learning
- Provide targets and resources
- Evaluate progress and report results.

K-12 schools can:

- Monitor progress
- Evaluate programs
- Diagnose and place students appropriately
- Improve student learning
- Develop school improvement plans
- Monitor educator effectiveness.

Postsecondary education systems and institutions can:

- Monitor progress and educator effectiveness
- Evaluate programs
- Redesign placement tests to relate to K-12 standards
- Diagnose and place students appropriately
- Work with K-12 to reduce remediation needs
- Increase persistence and graduation

- _ Reduce time to degree
- _ Improve student learning.

K-12 and postsecondary education classrooms can:

- _ Diagnose, place, and promote students
- _ Use flexible grouping patterns
- _ Improve student learning
- _ Provide information to K-12 parents about students learning
- _ Create individual education plans
- _ Identify faculty professional development needs.
- _ K-12 aspects from Education Commission of the States, August 2001.

Students can be held accountable, too, by using high stakes tests. Benefits of such tests include the ability to clarify and establish challenging performance standards for K-12 stakeholders, highlight achievement gaps between student groups and boost student performance. Drawbacks include increases in student failure rates and retention, a narrowing of instruction and assessment foci, inappropriate inferences about student performance and increased burdens for school site educators and students (WestEd, 2000).

Rewards and sanctions are components of accountability systems in many states. School site educators can be rewarded based on attainment of goals, including increases in student performance. Students can receive financial incentives, including grants for college, to score highly on statewide K-12 assessments. Ananda and Rabinowitz (2001) write that, "There is disagreement as to the efficacy of rewards and sanctions in public education. Although such consequences may produce changes in practice...there is the issue of fairness: Are the rewards and sanctions based on valid and reliable indicators? At this point, it appears that states are paying insufficient attention to ensuring validity and reliability in their accountability systems." Thus, states must ensure that they are measuring what they are intending to measure reliably and accurately before instituting punitive sanctions. The list of indicators below, and related text, outlines some possible data points in more detail.

As with any sound accountability model, states must first identify their desired outcomes, develop a set of indicators to measure those outcomes, evaluate the reliability and validity of the measures, create incentives for individuals and institutions to take part (honestly) in the system and develop a system of continuous improvement (not just annual assessments). The P-16 model proposed here would be linked to state standards and would provide data for stakeholders to understand if students (and student groups) are meeting the standards and improving over time – and if the state's achievement gaps are narrowing. As discussed earlier, an incremental approach that includes positive incentives and capacity building is preferable. Also, states should align components within its systems (for example, assessment data used in the accountability system should be aligned with the state's standards); otherwise, the state risks losing public and educator support for the system. This seems relatively straightforward, however, not all states have taken this approach.

Accountability System Indicators

What, then, could a P-16 accountability system look like? The list below sets forth some possible indicators to include in a P-16 accountability system.^v ***Every indicator should be disaggregated (when relevant) by race, ethnicity, income, type of high school (urban, rural, suburban), Title I status, whether the student completed a preschool program, special education status, LEP status and other factors of interest.*** Only by disaggregating data can states move toward closing their achievement gaps.

Possible Indicators (all should be reported at the student, educator, district and state levels, when relevant)

- _ Number and percent of students in preschool (including Head Start, state-subsidized and other funded programs)
- _ Number and percent of students in full-time versus half-day kindergarten
- _ Number and percent of students who matriculate from 8th to 9th grade
- _ Number and percent of students who matriculate from 9th to 10th grade

- Number and percent of students who matriculate from 10th to 11th grade
- Number and percent of students who matriculate from 11th to 12th grade
- Students' core course-taking patterns, grades 8-12
- Students' PSAT/PLAN scores
- Students' SAT/ACT scores
- Students' scores on the state's K-12 assessment(s)
- High school grade point average
- High school class rank
- High school course-taking patterns (honors, nonhonors, college preparation)
- Number and percent of high school students who scored a 4 or above on AP testing
- Number and percent of students who graduated from high school (collect data every year for each cohort, starting in 8th grade)
- Number and percent of students required to repeat a grade, K-12
- Number and percent of students in special education course(s), K-12
- Number and percent of student mobility, K-12
- Number and percent incarcerated and/or arrested, K-12
- Number and percent of teen pregnancies/parents, K-12
- Availability of dual/concurrent enrollment programs
- Availability of state-sponsored financial aid (grants and loans)
- Affordability of public postsecondary institutions
- Number and percent of students who applied to a two-year college
- Number and percent of students who enrolled in a two-year college
- Number and percent of students who graduated from a two-year college
- Number and percent of two-year college students who transfer to a four-year institution
- Number and percent of transfer students (from two-year colleges) who graduated from a four-year college or university
- Number and percent of students who applied to a four-year college or university
- Number and percent of students who enrolled in a four-year college or university
- Number and percent of students who graduated from a four-year college or university
- Scores on placement exams used by instate postsecondary education institutions
- Performance in the first year of two-year college (credit hours attempted, credit hours earned, grade point average, grades in specific core courses)
- Performance in the first year of four-year college (credit hours attempted, credit hours earned, grade point average, grades in specific core courses)
- Number and percent enrolled in remedial-level courses in two-year institutions
- Number and percent enrolled in remedial-level courses in four-year institutions
- College persistence rates (who returned for a second semester, who returned for a second year, disaggregated by major and by students who took remedial-level coursework, in addition to previously-listed factors).

Collecting these data will not only help states close their achievement gaps, but it will also allow them to explore relationships among many factors and assess needs. For example, involvement in high-quality preschool programs contributes to school readiness, which is related to later educational success. If states collect the above data, they will be able to address the following question: what is the relationship between completing a preschool program and entering college (holding constant nonschool factors)? And, what is the relationship between being eligible for Title I funds and graduating from high school or college (holding constant nonschool factors)? It is impossible to know what the problems are within and between systems if data are not collected and analyzed properly. A data system such as the one outlined above would be a necessary first step toward assessing needs.

What needs to change to create a P-16 accountability system? What are some challenges to developing and implementing a P-16 accountability system?

A P-16 accountability system will put new pressures on public institutions of higher education. While many states have been developing provisions to include all K-12 students in their assessment and accountability systems, creating multiple measures for K-12 student achievement and using standards-based measures to assess K-12 student performance (Gong, 2002), higher education institutions are usually not included in those efforts. It will require a change in culture regarding the relationships between

public policy and postsecondary education, and may lead to more autonomy to develop and implement successful P-16 accountability systems.

From a logistical perspective, states will need to develop data systems that include common student identifier numbers across segments and they will need to collect new types of data. Also, states will have to ensure timely feedback to K-12 schools, postsecondary institutions and educators to ensure that the results are used to improve curricula and instruction.

States will also have to develop postsecondary indicators and related data systems. In “Measuring Up 2000,” the National Center for Public Policy and Higher Education (NCPPE) set forth the first state-by-state report card for higher education. It included indicators in the following categories:

- _ Preparation for college
- _ Participation in college-level programs
- _ The affordability of each state’s public higher education institutions
- _ Student completion in higher education
- _ Economic and civic benefits from higher education
- _ Student learning in higher education.

All states lacked information on the last category. The report stated that, “their incomplete grade highlights a gap in our ability as a nation to say something meaningful about what students learn in college” (<http://measuringup2000.highereducation.org/>).

Some of the indicators will be very difficult to develop. For example, since some students do not intend to graduate from or persist in postsecondary education, many of the postsecondary indicators (e.g., the number and percent of students who graduated from two-year and four-year colleges and universities) need to include a measure of student intent to ensure that institutions are not penalized for such student attrition. Some students want to take a course or two and plan to leave without graduating, while others change their intent over the course of their schooling. Surveys regarding intent are notoriously unreliable. Student mobility also must be taken into account throughout the system as well – in K-12 as well as in postsecondary education. In K-12, students change schools and districts for a variety of reasons, such as when their families move. In postsecondary education, a large percentage of students attend more than one institution. The NCPPE documented the lack of information regarding student learning in postsecondary education institutions.

Not only will data need to be collected differently, but it will have to be used in new ways as well. While some institutions of higher education currently collect data on first-year student success, few K-12 schools receive or use the data; such data could be used to improve the quality of courses and instruction offered in high schools. Also, there is often a degree of territoriality surrounding data sharing. Why, for example, should a university that competes with another for funding share unflattering data about itself?. States need to strike a balance between creating positive incentive structures that encourage data sharing and holding educational entities accountable for certain outcomes. This includes making changes in states’ finance structures. Finally, governance structures must evolve to ensure that there is an institutionalized state-level entity charged with a mandate for P-16 reform and the authority it needs to make the required changes. While getting all the necessary groups to “the table” to discuss change is an important first step, there must be a body with clout that oversees P-16 reform.

Thus, in addition to changing their state’s education culture to reflect new priorities, policymakers and researchers will need to develop and use new sources of data, and they must change their finance and governance structures to reflect a P-16 focus. To say that these are large changes is an understatement. But they must occur in order to better understand the needs of students, educators and schools, and to provide opportunities for all students to make educated decisions about their futures.

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ⁱ This paper focuses on student-related issues. To create a complete model P-16 accountability system, teacher-related measures would need to be incorporated.

ⁱⁱ This ranges from taking one or two postsecondary-level courses to completing a Bachelor's degree program.

ⁱⁱⁱ Gong also writes that, "The design process should be checked with empirical analyses and reviewed with policymakers to ensure that the evolving design can be implemented acceptably. For example, states should perform reliability [and validity] analyses to ascertain that the level of error or uncertainty associated with accountability decisions is acceptable to the DOE and to key policymakers." These steps are crucial, but are not explored further, because they are outside the scope of this paper.

^{iv} In several states, new admissions policies have been put in place to grant admission to students ranked at the top of their high school graduating class. Public universities in Texas admit the top 10 percent, Florida's universities admit the top 20 percent, and The University of California System admits the top four percent of each high school graduating class (Kirst, 2000).

^v To develop a complete P-16 accountability system, teacher-related indicators would need to be incorporated. This paper focuses on student-centered indicators.

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