



Education Commission
of the States

What Is P-16 Education?

A Primer for Legislators – A Practical Introduction to the Concept, Language and Policy Issues of an Integrated System of Public Education

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Of course, as primary authors, we accept the responsibility for any mistakes that may have crept into our work.

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Table of Contents

Executive Summary	Policy Leadership for P-16 Discussions Step 1: Bring Key Education Leaders Together, Define the Problem and Create a Vision Step 2: Outline Possible Policy Options Step 3: Build a Consensus for a P-16 System Step 4: Suggest Solutions Step 5: Continue Consensus Building
Foreword	Top 10 Policy Questions Every Legislator Should Ask About P-16 Education
Introduction	Conclusion
Understanding P-16 Why is a P-16 System Needed? Frequently Asked Questions About P-16 Strengths of a P-16 System Challenges of a P-16 System	Appendix A: P-16 Resources Appendix B: Current and Future P-16 Activities at ECS Appendix C: Glossary of Terms
Creating a Vision: What Does It Mean to “Do P-16”? What Does a P-16 System Look Like? Assumptions Underlying a P-16 System Building a P-16 System Creating a P-16 Agenda from Areas of Mutual Interest	End Notes
Alternative Approaches Georgia Maryland Missouri Oregon	

Executive Summary

A growing number of states are taking steps to infuse three largely disconnected levels of public education – preschool, K-12 and postsecondary – with greater coherence and a stronger sense of connectedness. Driving these efforts are a host of new challenges and pressures: demographic shifts, changes in the economy and in the workplace, and continuing advances in technology and telecommunications.

Creating a more integrated, seamless education system involves grappling with a host of complex issues, including standards, testing, teacher education, college admissions policies, governance, funding streams and institutional turf issues, to name just a few. Over the past decade, states have begun to move away from dealing with such issues on a piecemeal basis in favor of a more comprehensive approach. The shorthand term for such initiatives, P-16, reflects the central vision of a coherent, flexible continuum of public education that stretches from preschool to grade 16, culminating in a baccalaureate degree.

Among the major goals of a P-16 system are:

- Expanding access to early learning for children ages 3 to 5, and improving their readiness for kindergarten
- Smoothing student transitions from one level of learning to the next
- Closing the achievement gap between white and minority students
- Upgrading teacher education and professional development
- Strengthening relationships between families and schools
- Creating a wider range of learning experiences and opportunities for students in the final two years of high school

- Improving college readiness and college success.

Legislators are uniquely positioned to provide vision, support and leadership for P-16 initiatives in their states. They can play a crucial role in identifying and calling attention to the shortcomings of the current system; exploring strategies for closing gaps and overcoming institutional resistance; and building and sustaining consensus for change.

What is P-16 Education? A Primer for Legislators is designed to serve as a practical guide to an integrated public education system. It offers a “basic orientation” to P-16 education, beginning with an overview of the varying definitions of P-16 and concluding with specific policy questions for legislators to consider. It also includes a glossary of terms, a list of selected readings and links to a variety of resources and materials on P-16.

Foreword

In 1998, the National Conference of State Legislatures (NCSL) began intensive work with state legislators to find ways to better connect K-12 and higher education policy in a legislative environment that by nature discourages such collaboration.

Our work was made possible through the generous support of the Office of Educational Research and Improvement (OERI) at the U.S. Department of Education. Our primary partners in this effort have been the Education Commission of the States (ECS), the Consortium for Policy Research in Education (CPRE) and the Institute for Educational Leadership (IEL).

Our joint efforts began with an Institute at Stanford University in 1999 in which we convened K-12 and higher education legislative leaders from 15 states to work with leading national experts on P-16 (sometimes called K-16) reform. Participants heard about new and important research and discussed practical policy solutions. Because reform will play itself out in a different way in each state, we have continued to work with each Stanford team to identify and implement potential state action. And because the P-16 movement has developed momentum, our organizations have continued to follow innovative state activity, disseminate information about activity and policy and work with other states interested in a seamless education system.

To assist states in implementing P-16 policy in differing environments, ECS has developed this practical guide to an integrated public education system. The primer, one of a series of publications of this project, offers a “basic education” in P-16 reform. Beginning with an overview of the varying definitions of P-16 and concluding with policy questions for legislators to consider, Spud Van de Water and Terese Rainwater provide a very useful guide that is sure to become the handbook for legislators considering P-16 education systems in their states.

If you would like more information about this project or the role and responsibility of state legislatures in P-16 education systems, feel free to contact us or any of our partner organizations.

Julie Davis Bell
Education Program Director
National Conference of State Legislatures

Introduction

Imagine a system of education where every child enters school ready to learn, where all third graders read at or above grade level, where all students have taken algebra by the end of the 8th grade, where high school exit exams test students at the 12th-grade level and are aligned with college admissions requirements, where all young people graduate from high school prepared for college or work, and where every student who enters college finishes college.

Is such a system possible? Not in its purest form, perhaps, but approaching such an ideal is certainly worth pursuing, and several states are making the attempt. What these states are learning is that even the most concerted and well-thought-out efforts are hindered by an education system with three distinct and disconnected levels – early learning, K-12 and postsecondary.

This primer offers an introduction to a rapidly spreading concept – P-16 education. P-16 is the shorthand term for an integrated system of education stretching from early childhood (the “P” stands for pre-kindergarten or preschool) through a four-year college degree (“grade 16”). The ultimate goal of a P-16 system is to improve student achievement by getting kids off to a good start, raising academic standards, conducting appropriate assessments, improving teacher quality and generally smoothing student transitions from one level of learning to the next. Some proponents label this a “seamless” system to underscore the need to recognize the interdependency and common goals among preschool, elementary, secondary and postsecondary education.

Alternative Definitions

K-16: an education system that integrates a student’s education from kindergarten through a four-year college degree

P-20: an education system that integrates a student’s education beginning in preschool (as early as 3 years old) and ends with graduate school degree

Understanding P-16

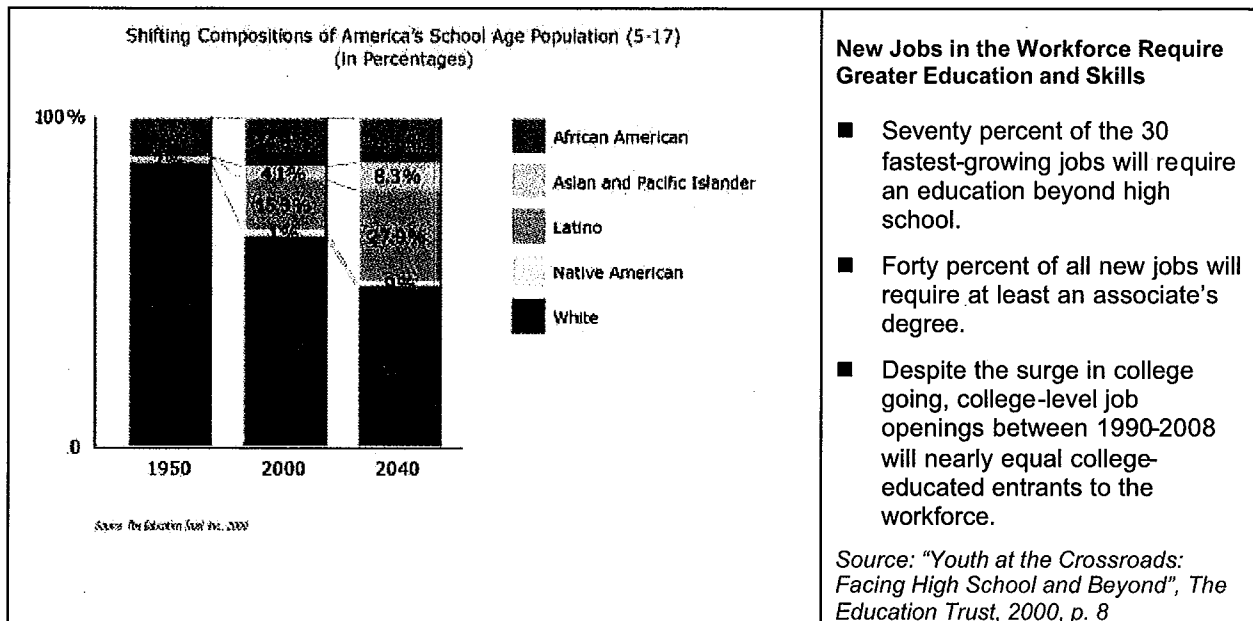
Why is a P-16 System Needed?

The past 100 years has seen a huge expansion of educational opportunity for American citizens. Through the latter part of the 19th century, the nation’s education system consisted primarily of basic instruction in the three R’s, limited to white children, coupled with a handful of private, church-sponsored colleges that trained male clergy and statesmen. Since then, the nation has responded to succeeding waves of social and economic movements by continuously expanding education opportunities until the gaps were filled with junior high schools, comprehensive senior high schools, low-cost community colleges, teachers colleges turned comprehensive state colleges and research universities. Now, ongoing advances in technology and telecommunications are spurring a new wave of learning options that can be delivered directly to anyone, any time.

Our nation is no longer well served by an education system that prepares a few to attend college to develop their minds for learned pursuits while the rest are expected only to build their muscles for useful labor. In the 21st century, all students must meet higher achievement standards in elementary, secondary, and postsecondary schools and thus be better prepared to meet the challenges of work and citizenship.

Source: National Association of System Heads State K-16 Statement

It is the underlying shift to the Information Age, combined with major demographic shifts, that drives the need to reexamine how we deliver education services to citizens. These shifts are reflected in the increasing diversity of America’s school-age population, which, as the accompanying chart shows, is projected to grow from 35% nonwhite to 51% nonwhite by 2040. The complexity of life in an increasingly diverse democracy puts a premium on citizens’ ability to think critically about public issues and perform responsibly in public affairs at the community, state and national levels. At the same time, workplace changes demand higher-level skills and knowledge of an increasingly large proportion of workers. The result is that today more than 72% of high school graduates go on to some form of postsecondary education, and that number is expected to grow to 80% within the next decade.



But the education system that has developed over the past century is showing signs of being unable to cope with these new demands and new challenges. As John Goodlad said in accepting the James Bryant Conant award at the ECS National Forum in July 2000, "We have a 19th-century concept of schooling encased in a 21st-century box of concrete." Goodlad was talking specifically about K-12 education. But when you look across the whole system, the characterization still holds. What you see is:

- A hodgepodge of providers offering uneven services for young children and having no connection to the public education system that children enter at age 5 or 6.
- A 100-year-old elementary and secondary education structure designed to serve a simpler era, having difficulty responding to changing social and economic conditions, and isolated from other parts of the system, both above and below.
- A multi-layered "nonsystem" of post-high school education – public and private; nonprofit and for-profit; general and special-purpose, open access and selective, traditional campus-based and virtual, two-year and four-year – having difficulty working together and largely disconnected from the K-12 system whose success is so vital to its own efforts.

Clearly, today's education system lacks coherence and a sense of connectedness among its component parts. Here are a few of the reasons that it is crucial to work toward a fully aligned system:

- Preschool is important. Children who participate in high-quality early childhood and preschool programs outperform students who do not attend such programs in the following ways: (1) higher rates of high school graduation; (2) higher rates of enrollment in postsecondary institutions; (3) lower rates of grade retention; (4) fewer special education placements; (5) fewer numbers of dropouts, arrests, teenage pregnancies and welfare recipients; and (6) higher employment rates as teens and young adults (*ABCs of Investing in Student Performance*, ECS, 1996).
- The need for preschool is great. There are approximately 23 million children in the United States under the age of 6, and 65% of their mothers are in the labor force (*Current Population Survey*, Bureau of Labor Statistics, 1998).
- The 8th grade is a critical point in math education. Math achievement in the 8th grade clears the way for students to take advanced classes in high school. But in 1996, only 25% of U.S. 8th graders were enrolled in algebra classes (*Mathematics Equals Opportunity*, U.S. Department of Education, 1997).
- College admissions need to be streamlined. As just one example, in the southeast United States in 1995, there were 125 combinations of 75 different placement exams created by universities – with no regard to high school standards ("A Babel of Standards," *National Crosstalk*, Fall 1999).

- College enrollments are increasing. College enrollments are expected to rise by 19% between 1995 and 2015. Of this increase, 80% will be minorities and 31% will be people age 35 or older (*Crossing the Great Divide*, Educational Testing Service [ETS], 2000).
- Remedial coursework in college is high. In 1995, 29% of first-time freshmen were enrolled in at least one remedial reading, writing or mathematics course ("Trends in Postsecondary Remedial Education Policy," *NCSL State Legislative Report*, July 2000).
- Workforce needs are shifting. Jobs today require more education. In 1959, 20% of workers needed some postsecondary education and/or training; in 2000, that number had risen to 56% (*Crossing the Great Divide*, ETS, 2000).

More and more, states are becoming aware of the need to reexamine the structure and design of the current system, and they are beginning to respond, mostly through voluntary interagency efforts. The earliest efforts at cross-system collaboration tended to be piecemeal; that is, they focused on a portion of the P-16 continuum, such as teacher education or high school exit standards and college admission requirements, and did not attempt to create a full-fledged seamless education system. Over the last decade, however, piecemeal efforts have given way to a more comprehensive approach. As of mid-2000, 24 states reported multi-faceted P-16 initiatives.¹ State leaders are finding that P-16 is a logical next step to build on standards-based reform, new approaches to assessment and the continuing strong interest in accountability. It is a part of education leaders' continuing struggle to propel the education system into a new era.

Forty-two states invested in prekindergarten initiatives in 1998-99, spending a total of approximately \$1.7 billion and serving nearly 725,000 children.

Three-quarters of state spending on prekindergarten is concentrated in just 10 states (California, Florida, Georgia, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio and Texas).

Source: Blank, Helen, Schulman, Karen, and Ewen, Danielle (1999). *Key Facts: Essential Information about Child Care, Early Education, and School-Age Care*. Washington, DC: Children's Defense Fund.

Frequently Asked Questions About P-16

Have a Question about P-16?

Check out the P-16 issue page on the ECS Web site at www.ecs.org. Or call the ECS Clearinghouse at (303) 299-3640.

The question-and-answer section below provides a quick look at the variety of P-16 ideas currently being tried in specific areas. More comprehensive approaches are addressed in later sections.

1. **How does P-16 improve student achievement?** The lack of communication among education levels means that students have not had clear expectations of what they should know and be able to do in preparation for the next higher level of learning. Recent implementation of standards, coupled with new assessment and accountability policies, help to clarify what is expected *within* a given level. Across levels, however, there is neither a clear understanding of what is expected nor an alignment of curriculum and assessments. A P-16 system pushes these issues to the forefront, forcing resolution of confusing messages, misaligned curricula and conflicting assessments. The result is clearer expectations among students, parents and educators, aligned approaches to academics and unimpeded pathways to the next level of learning.
2. **How does a P-16 system increase access to college?** In 1988, there were about 3.1 million 8th graders in the United States. Four years later, in 1992, about 84% of these students had graduated from high school. Two-thirds of them aspired to earn a bachelor's degree, but only 30% had done so by 2000.² One major benefit of a P-16 system is that the pathway to college is clearly marked, thus allowing all travelers to navigate the full educational journey. An important means to this end is the alignment of curricula and the alignment of high school exit examinations with college entrance requirements.

3. **How does a P-16 system influence teacher preparation?** Colleges rely on K-12 schools to provide practice teaching sites, and schools rely on colleges to provide teacher candidates who are prepared to help all students meet state standards. P-16 approaches emphasize this mutual dependence and seek to create effective collaborative relationships based on common goals, consistent leadership support, a shared focus on student learning, voluntary partnerships and dedication to measuring progress.
4. **How can a P-16 system improve student movement from high school to college?** One of the key goals of a P-16 system is to streamline and rationalize the confusing array of high school exit examinations and college entrance and placement procedures into a logical, understandable process. Oregon's Proficiency-based Admission Standards System (PASS) is one of the most advanced attempts to link K-12 standards with university admissions. The PASS system provides a "tangible roadmap for college admission" and, according to David McDonald, director of enrollment and high school relations for the Oregon University System, is able to "tell a 16-year-old or, more importantly, a 12-year-old what they need to be doing to prepare for college."³

Another goal is to make it easier for high school students to enroll in college courses prior to completing all of their requirements for high school graduation. Utah, for example, encourages this through its New Century Scholarship program, which mandates that the State Board of Regents and the State Board of Education "shall jointly award New Century scholarships to students in Utah schools who complete the requirements for an associate degree by September 1 of the year they qualify to graduate from high school."

5. **How does early learning fit into a P-16 system?** Recent findings in brain research confirm the vital importance of neurological growth in a child's early years. Early-learning offerings can take advantage of this natural growth period. The High/Scope Perry Preschool longitudinal studies provide solid evidence of the long-term benefits of high-quality early learning experiences, including improved academic performance, decreased need for special school services, higher levels of education completed, higher incomes, greater civic involvement (including voting and volunteer work) and a 50% reduction in crime.⁴
6. **Beyond single issues, has anybody tried to change the whole system?** Yes. During the 1990s, 24 states initiated efforts to coordinate service delivery and head down the road toward an integrated system of education. In doing so, most began their work in one of three specific areas: (1) student achievement through grade "16," (2) teacher quality (3) or high school/college transitions. Most efforts began as voluntary dialogues between education agencies serving different education levels. Only two started under executive orders from a governor, and none originated in a legislature.
7. **Do other countries have a P-16 system?** Yes. In England, for example, the universities have traditionally controlled the secondary school curriculum and designed it to sort out students for university admissions. England, which now sends roughly the same percentage of students to postsecondary institutions as the United States does, uses two secondary school graduation exams that are aligned with K-16 standards.⁵

The High/Scope Perry Preschool studies show a return on investment of \$7.16 per \$1 invested (longitudinal follow up over a two-and-one-half decade shows a return of \$88,433 on a preschool investment of \$12,356).

Source: *Lives in the Balance: Age-27 Benefit-Cost Analysis of the High/Scope Perry Preschool Program*

Strengths of a P-16 System

Beginning with the *A Nation at Risk* report in 1983, political, business and education leaders have become increasingly convinced that the United States must educate a higher proportion of its students to a higher level of skills and knowledge. The nation has moved strongly in this direction – first through experimenting with the length of the school day and year, moving on to setting clear academic standards for what students should know and be able to do, then addressing difficult issues surrounding the nature and frequency of testing. More recently, leaders have come to understand the vital importance of a strong

teacher corps and a demanding curriculum in making any of these efforts successful. And now, policymakers are becoming aware of the role that the underlying education structure plays in slowing the nation's progress toward raising student achievement across the board.

The chasm between schools and colleges is an indication of dysfunction, a phenomenon that is increasingly recognized as a major impediment to the successful education of all students. High standards and improved schools and colleges will, we strongly suggest, ultimately depend on the extent to which this gap can be narrowed.

Source: *The Learning Connection: New Partnerships Between Schools and Colleges*. New York: Teachers College Press, 2001

The strengths of a P-16 system are that it:

- **Is inclusive.** Since a P-16 system has as its goal that all learners will master challenging material and achieve at high levels, it creates an environment that expects success from everyone – the gifted and the ordinary, the rich and the poor, the white and the black and the brown, the young and the not-so-young, urban and rural, the native and the immigrant. A system that allows no throwaways is a system in tune with U.S. needs.
- **Aligns efforts at all levels.** As the Center for Policy Research in Education (CPRE) noted in a recent policy brief, “Currently, K-12 and postsecondary institutions move in different orbits, upholding different sets of standards regarding what students should know and be able to do. Aligning these different standards and then providing all students hoping to attend postsecondary institutions with the information and academic skills they need to succeed would represent enormous leaps forward, especially during this time of declining affirmative action admissions.”⁶
- **Supports standards and assessments.** The introduction of standards and standards-based assessments sets the stage for student movement through progressively more complex material at the student's natural pace rather than according to age or seat time. In other words, the learning standard remains fixed while the time to reach it is allowed to vary. A P-16 system that is aligned at every critical transition point builds on the standards currently in place and provides additional support by allowing for this type of movement.
- **Establishes a logical progression.** Leaders crafting a single system geared to getting more students to meet higher standards at each level soon realize the necessity of aligning standards and curriculum across key transition points. One of the most challenging transitions is the move from high school to college. Maryland, a leader in P-16 efforts, has sought to align learning outcomes across levels by engaging teams of K-12 teachers and two- and four-year college faculty in reaching a consensus on what students should know and be able to do as they leave high school and begin postsecondary studies. At the same time, community college and four-year college faculty are working to create common expectations for student learning throughout the early college years so that student movement is smooth and efficient among postsecondary institutions.
- **Reduces the need for remediation.** Clear expectations, aligned curricula and strong support services lead to better academic performance and reduced needs for remediation at all levels. Nowhere has this been more strikingly demonstrated than in the El Paso Collaborative for Academic Achievement, a cooperative effort of the schools, university and community in El Paso, Texas. One example: Sageland Elementary, a school with 90% of its students eligible for subsidized lunches, raised its students' scores on the Texas Assessment of Academic Skills from 54% passing reading, writing and math tests in 1994 to 87% passing in 1998. Stronger skills at this level translate into reduced remediation at the college level.
- **Removes artificial barriers.** High school students face a confusing mix of high school exit examinations and requirements, college entrance examinations and requirements, and college-placement assessments. This situation is particularly difficult for disadvantaged students who do not enjoy the school or family support so necessary in sorting out requirements and guiding long-range academic and career planning. A P-16 approach puts a spotlight on these barriers and draws leaders together to address them.
- **Is efficient and effective.** A fully functioning P-16 system can be expected to lead to: (1) greater collaboration between education professionals at all levels; (2) alignment of standards and curriculum across levels; (3) widespread parent, community and student understanding of goals and expectations; (4) significant reductions in the amount of postsecondary remedial work required; and

(5) lower dropout rates in both secondary schools and colleges. These improvements, in turn, should lead to higher education levels across all income and ethnic groups, which is associated with greater employment stability and civic engagement, as well as decreases in public assistance and crime rates.

- **Opens the door to new ways of doing business.** Continual adaptation will be needed to respond to a rapidly changing world. A P-16 approach, while a natural next step, is not a one-shot cure and cannot be expected to automatically meet future needs. Yet by demonstrating an ability to craft a flexible P-16 system, the nation also demonstrates its ability to adjust as conditions change.

Challenges of a P-16 System

There are no magic bullets when it comes to improving student achievement. The closest thing, according to Goodlad, is putting a competent, caring teacher in every classroom. But there are other pieces to the puzzle – challenging content; strong leadership; focused goals; high expectations; clear accountability; community support; and adequate, equitable and stable funding. Adopting a P-16 system is just one piece of a much larger picture. And it does present challenges, including:

- **Reliance on individual leaders.** Early P-16 efforts have relied heavily on dedicated leaders willing to work toward their visions of a different system. If such leaders leave before new ways of doing business become part of the culture, however, the new approaches are at high risk of being overwhelmed by tradition and inertia.
- **Time.** Awash in a sea of stresses and strains – an increasingly diverse student population, growing enrollments, restrictive regulations, tight budgets, safety issues and teacher shortages, to name a few – it is hard for education administrators and board members to find time to devote to “big picture” ideas and cross-level collaboration, especially when there are no rewards for such activity
- **Fragmented structures** Current legislative structures mirror the distinct gulfs among early learning, K-12 and postsecondary education that have grown up over many years. Legislatures frequently assign early learning, K-12 and postsecondary decisions to separate committees or consider these issues in separate bills. One challenge of a P-16 approach is to align legislative structures and processes to accommodate a cross-system perspective.
- **Turf issues** Serious P-16 efforts offer a direct challenge to established ways of making decisions and distributing funds. At present, decisions about K-12 funding typically are made in isolation from decisions about either early learning or postsecondary education. The success of P-16 efforts hinge on legislative funding decision processes being adapted to allow funding decisions affecting all education levels to be made in a coordinated way. Another problem is the relationship, or the lack thereof, among state boards. State K-12 education boards and state higher education boards have poor track records when it comes to collaboration. A P-16 approach is built on close collaboration across levels and requires the development of new working relationships.
- **Early learning challenges.** Adding early learning to the policy dialogue will engage a new set of stakeholders and surface a variety of issues, including: (1) the family’s role in relation to the education institution’s role; (2) the respective roles of public and private early learning providers; (3) the state’s role in establishing licensing requirements for early learning staff; (4) the issue of whether or not early learning programs should be mandatory; and (5) the costs and benefits of such programs and the sources of revenue needed to support them.
- **Lack of evidence.** P-16 advocates point out that barriers in the current system are routinely scaled by students from families where both parents have graduated from college. Unfortunately, many students from families with low-income and low-education levels do not enjoy this built-in support. Proponents argue that if the education system is more fully aligned, we can expect similar success for all students. P-16 efforts currently under way in the states provide laboratories to test this conclusion and examine what works and what doesn’t.
- **Lack of a common language.** New efforts require a new vocabulary. So far, there are few commonly accepted terms in the P-16 arena. Among the choices currently in use, ECS prefers the terms P-16, early learning, K-12 and postsecondary. Other designations are shown in the glossary at the end of this primer.

Creating a Vision: What Does It Mean To “Do P-16”?

“Doing P-16” means making legislative decisions on specific issues within a P-16 vision and strategy. It means building a single system in which each of the pieces reinforces the others. It means not treating issues in isolation. It means asking difficult policy questions about interrelationships, decisionmaking authority and funding flows.

One way to envision a P-16 system is to focus on its potential to increase student achievement and close historic gaps between groups of students. A P-16 system:

* Provides access to high-quality education opportunities for all students regardless of race, ethnicity, income or gender. . .	<i>thereby</i>	. . . preparing all learners to be successful as citizens and workers.
* Aligns curricular requirements and expectations across levels of education . . .	<i>thereby</i>	. . . allowing clear communication of what students should know and be able to do at all education levels.
* Makes the system easier to understand for parents, students, educators and legislators . . .	<i>thereby</i>	. . . making expectations easier to communicate, outcomes easier to assess and student movement through the system smoother.
* Encourages cooperation and collaboration across boundaries in order to enhance communication, set appropriate expectations, develop mutually reinforcing standards and assessments, and share data . . .	<i>thereby</i>	. . . drawing levels together, reducing the need for postsecondary remediation, simplifying student progress and increasing the chances of successful completion of postsecondary programs.
* Eliminates overlapping or conflicting requirements at critical transition points such as high school to college . . .	<i>thereby</i>	. . . encouraging more students to complete higher learning levels.
* Improves the professional educators’ ability to collaborate in areas such as teacher preparation and professional development, setting standards and designing assessments. . . .	<i>thereby</i>	. . . enhancing both efficiency and quality.

Want to Share Your Ideas on a Model P-16 System?

If your state is developing a model or if you have a model you would like to share, please forward it, along with any explanatory notes, to Spud Van de Water, Division of Policy Studies and Programs, Education Commission of the States, 707 17th Street, Suite 2700, Denver, CO 80202 or e-mail spud@ecs.org

What Does a P-16 System Look Like?

There is no single or simple answer to the question of what a P-16 system looks like. For one thing, experience with implementing P-16 systems is limited. For another, there aren’t many studies available from which to construct a model system. Moreover, each state has its own history, traditions and aspirations as a starting point. It helps, however, to see a sample approach to focus questions about specific proposals and consider a variety of implications. The model below is a “work in progress,” developed from a variety of readings and discussions. Its purpose is to provide an overview of the major levels of a P-16 system and stimulate dialogue on how a P-16 system might look given a particular state’s history, conditions, current policy environment and future policy aspirations.

The model seeks to portray the relationships among the major levels of a P-16 system and identify changes that might occur within and between the three major areas – early learning, K-12 and postsecondary. The accompanying text suggests some of the implications of such changes for governance structures and funding flows, as well as areas such as leadership, accountability and teacher quality. Finally, we offer some suggestions about possible first steps toward implementation for those

interested in beginning this journey. Sometimes it is easy to get lost in the details (the means), and lose sight of the big picture (the ends). As policymakers examine the model and think about its application in a given setting, they should keep in mind that the reason for heading down this path is to create an aligned system that supports greater student achievement.

Assumptions Underlying a P-16 System

Building this system starts with a number of assumptions about a P-16 system. While it is not necessary to accept these specific assumptions, it is important to articulate the assumptions that underlie any chosen approach. The assumptions on which this model was built are listed below.

1. Every child can learn – regardless of income, gender, race, ethnicity, geographic location or disability – and deserves an equal opportunity to develop his or her abilities in a high-quality public education system. A P-16 system should facilitate achievement of this goal.
2. Recent brain research teaches the importance of giving early learners high levels of age-appropriate stimulation. A system that makes learning opportunities available for all early learners will pay dividends to both individuals and society.
3. An education system should be responsive to the context of its times. At this moment in history, such a system needs to prepare learners to function successfully in a diverse democracy and a global economy that relies on information and technology.
4. Participants in the education system – students, parents, educators, legislators – should be encouraged to work together for the benefit of learners and expect to be held accountable for results, and these results should be made public on a regular basis.
5. At each level, educators should interact with their colleagues working with learners at the next lower and higher levels, and ensure that each learner is prepared for the challenges ahead and moves smoothly from level to level.
6. The education system should be flexible enough to respond to the changing and increasingly diverse environment in which it exists and the increasingly diverse students it educates.

Building a P-16 System

In thinking about moving toward a P-16 system, ECS has built on the work of Bruce Haslam and Michael Rubenstein of Policy Studies Associates and extended their thinking to include early learning.⁷ The approach starts with the current system and leads to a “next-generation” model responsive to the assumptions laid out above. At this stage, it is presented in simple form to provide a framework for understanding P-16 issues to assist legislators new to this arena. As such, it is merely suggestive of the many tasks that must be successfully completed to create a seamless system. It does not do justice to the efforts of various pioneering states to draw together the levels and ease student transitions from one level to the next.

“Thinking P-16” can seem difficult until a legislator has the big picture in view. Because of the varied issues at multiple levels, it might make sense to choose an initial “point-of-entry” issue to maintain focus and demonstrate progress. For example, several states have begun by working on teacher preparation and professional development issues that involve both postsecondary institutions and K-12 districts and schools.⁸ Others have focused on the transition from high school to college as a critical point involving two levels.⁹ Still others have attempted to define transfer and articulation between community colleges and universities.¹⁰

At the other end of the spectrum, a legislator could choose to pursue a comprehensive approach to P-16 issues by working on an omnibus bill designed to achieve multiple goals across all three levels at the same time.¹¹ Either way, it will be important to have a strong grasp of the overall goals and direction and be able to articulate this vision to multiple audiences. One way to launch a P-16 dialogue within a state is

to have legislative leaders and/or the governor co-host a P-16 policy seminar with ECS and invite education, political, business and community leaders to participate.¹²

The graphic entitled Moving Toward a P-16 System provides the big picture. The current system is depicted as three separate levels (early learning, K-12, postsecondary) with no interconnections, representing the worst-case scenario. Next, notice that within each level there are important improvement efforts under way that seek to enhance student learning within that level. Legislators should make sure to learn about such efforts prior to focusing on issues that cut across levels. Since this introduction to P-16 issues can do no more than mention the many important activities under way within each level, legislators are invited to visit the P-16 issue page on the ECS Web site (www.ecs.org) for additional information on state efforts, promising practices and research findings.

Third, “areas of mutual interest” overlap each level. These areas, central to a P-16 agenda, represent topics or issues that education providers on multiple levels should be – and increasingly are – addressing together. Successfully addressing these issues will serve to clarify expectations, raise common understandings and draw the levels closer together for the benefit of all learners.

Finally, the “next-generation” system is depicted as a single system in which the three levels are drawn tightly together into a seamless system. This means that each level is aligned with the next and learners flow through the system smoothly without encountering artificial barriers or disconnected learning experiences. Given the historical development of separate levels, such a system will not emerge quickly. It is a vision that policy leaders can articulate, test ideas against and use to gauge progress. An important lever in moving toward this vision is the structure of political decisionmaking. For example: Are legislative committees organized around single levels of the education system? Do funding committees consider K-12 support separately from postsecondary support? Are early learning issues considered at all? What would happen if legislative leaders began to “think P-16”?

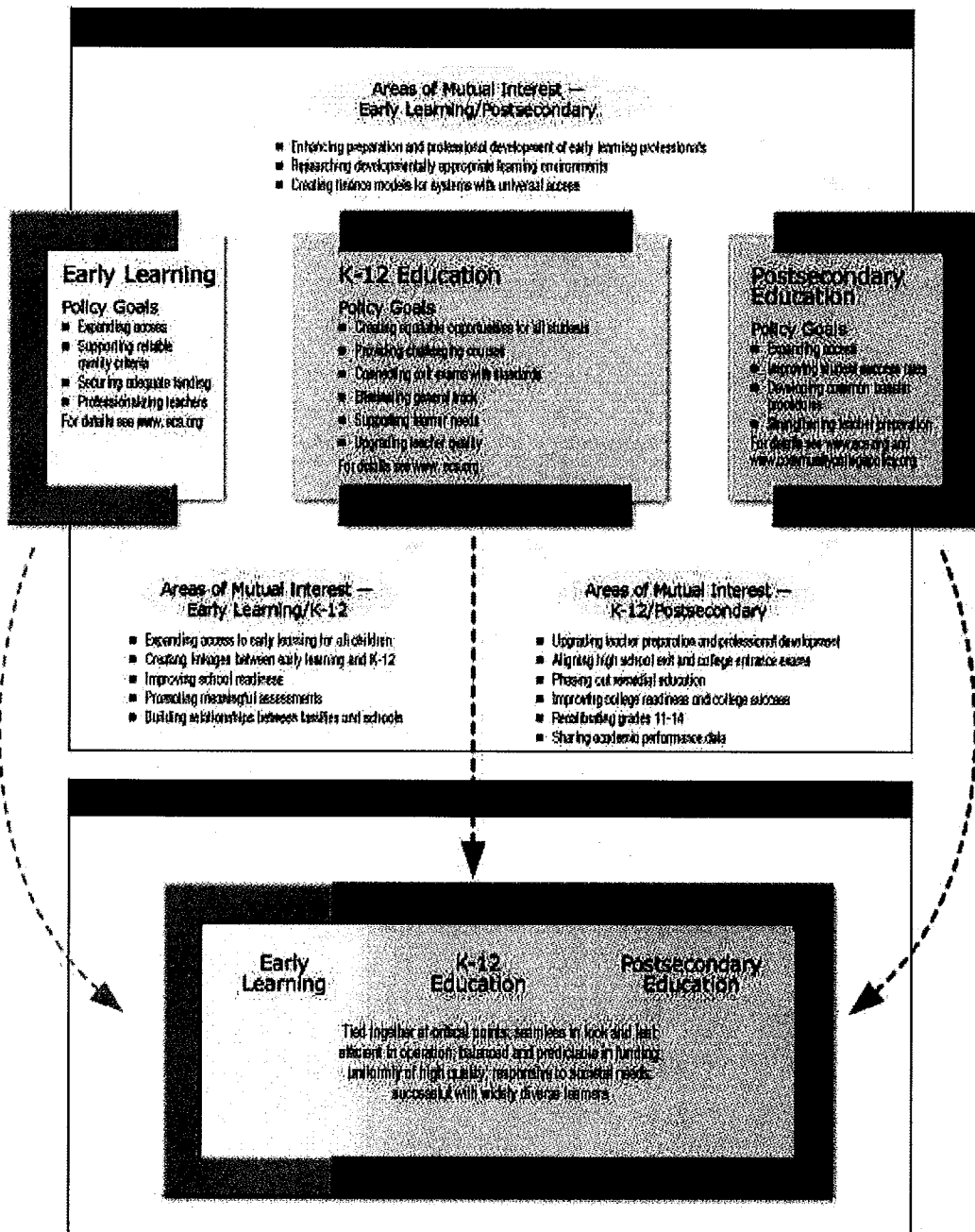
Creating a P-16 Agenda from Areas of Mutual Interest

The graphic on the next page highlights several areas of mutual interest that may be used to form an initial P-16 agenda for a state. The section below provides additional ideas about these areas.

There has been a movement to raise educational standards across the board and ensure that young people who graduate from high school and college have substantial knowledge and strong skills. Efforts to increase equity and efforts to promote excellence are sometimes at odds with one another, but both movements have paid more attention in recent years to what happens to children before they enter school and in the early years of their formal schooling. There has been a growing realization among educators, policymakers, parents and researchers that what happens to children prior to elementary school...may have a profound influence on their later achievement and attainment.

Source: Child and Family Study Area, Westat

Moving Toward a P-16 System



ECS | WHAT IS P-16 EDUCATION? | A PRIMER FOR LEGISLATORS

Early Learning/K-12 Areas of Mutual Interest

1. **Expanding access to early learning for all children.** In response to brain development research and longitudinal studies that highlight the long-term benefits of high-quality early learning experiences, 42 states have created and at least partially funded public prekindergarten programs. Yet most states serve only a small percentage of children at risk and many support only part-day/part-year programs that fail to meet the needs of working parents.
2. **Creating linkages between early learning and K-12.** Historically, schools have played little or no role in the early years between birth and age 5 or 6. These years have predominantly been defined by parental care, child care programs, Head Start and preschool. Over the past 20 years, however, schools increasingly have discovered and taken on roles in early childhood education – provision of space, custodial services, transportation and coordination of curriculum and professional development.
3. **Improving school readiness.** Since the National Education Goals Panel adopted as its first goal that “by the year 2000, all children in America will start school ready to learn,” there has been much debate about what it means to be “ready” for school. Research continues to confirm that “ready to learn” has two important components: readiness in children (includes physical, social and emotional well-being, as well as cognitive readiness) and readiness of schools (schools’ ability to support the learning and development of young children). Early learning and K-12 systems must work closely together to ensure that both components are improved.
4. **Promoting meaningful assessments.** As parents, early learning providers and schools strive to improve children’s readiness to learn, there must be a focused effort to design and conduct assessments of various early learning contexts and the opportunities they offer for child development.
5. **Building relationships between families and schools.** The empirical research base for family involvement in education – across early learning and K-12 – is strong and broad. Children learn values, attitudes, behaviors and skills at home that prepare them to be lifelong learners. One of the National Education Goals – Goal 8 – explicitly links families and schools by promoting partnerships that increase parent participation in facilitating the social, emotional and academic growth of children. Unfortunately, few schools have meaningful contact with parents before children enter kindergarten, a pattern that exists at other transition points for children and youth in grades 3-12.

Early Learning/Postsecondary Areas of Mutual Interest

1. **Enhancing preparation and professional development of early learning professionals.** A systematic approach to inservice training, preferably one organized to lead toward formal credentials, offers the best hope for improving the level of preparation of preschool teachers. Postsecondary institutions – particularly community and technical colleges – play an increasingly vital role in providing training and education opportunities for practicing professionals in the field of early learning. Stronger links between early learning and postsecondary education systems will allow preschool teachers to complete traditional preservice programs while also climbing a career development ladder.
2. **Researching and disseminating strategies for developmentally appropriate learning.** For young children, effective teaching and effective learning are based on developmentally appropriate practices – activities geared to overall patterns of children’s development and learning, as well as each child’s individual strengths. All early learning teachers need to learn how to apply this practice to promote children’s learning.
3. **Creating finance models for systems with universal access.** Both early learning and postsecondary leaders are striving to define, build and maintain finance models to provide universal access to all students. They are exploring models that incorporate diverse funding streams – some funding from families and students, some from government, some from philanthropic sources. In

addition, both “ends” of the education system should include a state financial commitment to infrastructure; financial assistance for all students that need it; a wide variety of settings (public/private, small/large, rural/urban, daytime/nighttime); and freedom for local institutions to meet local needs while still operating within the larger system.

K-12/Postsecondary Areas of Mutual Interest

1. **Upgrading teacher preparation and professional development.** State policy is essential to achieving systemwide change, especially in overcoming resistance to change at the institutional level. This is particularly crucial if states are to continue using K-12 standards as a benchmark against which they measure the success of efforts to improve public education, and as the linchpin of an aligned system that assures quality teacher preparation. Such alignment requires greater cooperation between the K-12 and postsecondary levels, and a growing number of states actively are encouraging such partnerships.¹³
2. **Aligning high school exit, college entrance and course placement exams.** State leaders increasingly are aware of the winding, ill-marked path between high school and postsecondary education. Several states – Illinois, New York, Oregon and Tennessee, for example – have taken steps to align high school exit standards with college admissions standards. The goal is to increase the chances that high school graduates will be well-prepared for college-level work and can move smoothly to the next level without requiring remediation.
3. **Phasing out remedial education for recent high school graduates.** Given the fact that about 40% of recent high school graduates take one or more remedial courses upon entering college, a reduction in remediation rates clearly must be viewed as a key goal. While community colleges always may need to provide some remedial classes, this should not be a primary focus of their instruction. Remedial education at four-year institutions should not be offered at all. Legislators should insist on regular reports about remediation and the actions being taken to reduce the need over time. Clarifying expectations, rationalizing transitions and improving teacher preparation – all central tenets of a P-16 approach – greatly will assist student preparation and success.
4. **Improving college readiness and college success.** Over its history, the nation has gone from education being the exclusive preserve of a wealthy elite to universal education through grade 12. We are now moving into the next era – universal postsecondary education. Accomplishing this will require dropping the general track from secondary schools and providing all high school students with the skills required to succeed in college.
5. **Recalibrating grades 11-14.** The need for a different perspective on education for students late in their high school careers is being recognized. Why not provide a variety of learning options, such as internships or apprenticeship programs or early enrollment in college, technical training and certificate programs?
6. **Sharing academic performance data.** Why is it that students' academic performance in college is not routinely shared with the high schools that prepared them? Why isn't it known whether the college-prep curriculum in high schools is in fact effectively preparing all students for success in college? Why isn't more known about the success or failure of transfer students moving from community colleges to four-year institutions? Data such as these will enable education and policy leaders to pinpoint which students are being left behind. Whether or not something is done with the data is a matter of political will.

A high school diploma earned by taking noncollege-preparatory classes will leave too many graduates trapped in low-paying jobs with unpromising futures.

Source: *National Commission on the High School Senior Year, January 2001*

The high school's senior year too often represents a lost opportunity to link students with either postsecondary studies or work.

Source: *National Commission on the High School Senior Year, January 2001*

Alternative Approaches

Several states across the country have begun to create P-16 systems. One of the exciting things about building a P-16 system is that there are so many ways to begin. What all of these states have in common are the goals of improving student achievement and expanding students' learning opportunities beyond high school. This section outlines four different state approaches to P-16 systems, including Georgia, Maryland, Missouri and Oregon.

Georgia

Former Governor Zell Miller started the Georgia P-16 Initiative in 1995. He created the Georgia P-16 Council and appointed members from a broad range of businesses, community groups and education agencies, including the Board of Regents and the State Board of Education. The challenge to the council was to work together to "raise the bar" of academic achievement for all students at all levels.¹⁴

The council's work includes three major strands: (1) the alignment of standards, curriculum and assessment, (2) teacher quality and (3) outreach programs for students in grades 7-12 who are at risk of failure. This work is guided by a list of long-term goals, which are to:

- Improve the achievement of Georgia students at all levels of education, preschool through postsecondary programs
- Help students move more smoothly from one educational level to the next
- Ensure that all students who enter postsecondary institutions are prepared to succeed, and to increase the success rate of those who enter
- Close the gaps in access to postsecondary education between students from majority and minority groups and between students from high- and low-income groups
- Focus the simultaneous reform of schools and teacher education on practices bringing P-12 students from diverse groups to high levels of achievement
- Help students become more responsible in their citizenship.¹⁵

Successes to date include increased enrollment in preschools, changes in students' course-taking patterns, a rising number of college-ready high school graduates, and revised teacher preparation policies aimed at getting students from diverse backgrounds to meet high standards.

Maryland

In 1995, Maryland launched the K-16 Partnership for Teaching and Learning, a voluntary alliance of the Maryland State Department of Education, the Maryland Commission on Higher Education and the University System of Maryland. Collectively, these agencies share a belief that increasing student achievement is urgent and that "bold educational leadership is required."¹⁶

The partnership has undertaken several initiatives to improve student achievement and meet the needs of a changing workforce. The initiatives include:

- Creating and requiring high-stakes graduation examinations
- Redesigning teacher-preparation programs
- Bringing educators from all education levels together to create agreed-upon core learning goals in English, mathematics, social sciences and science
- Defining the standards for a C paper in the first-year college composition course
- Identifying learning outcomes for higher education

- Addressing intervention and remediation strategies for K-12 students in reading and mathematics.¹⁷

In response to a statewide report that revealed high levels of math and reading remediation in the community colleges, the Montgomery County Council in Maryland urged the superintendent of schools and the community college president to collaborate.

Guided by a desire to meet student needs and improve student achievement, common strategies were identified and a plan was developed. Still in its infancy, both leaders are committed to its success. According to Montgomery County superintendent Jerry Weast, "The bar has been raised. The rest is up to all of us."

Source: How Community Colleges Can Create Productive Collaborations with Local Schools. Edited by James C. Palmer, ERIC

Missouri

The Missouri K-16 Coalition, formed in 1996, comprises three agencies: the Coordinating Board for Higher Education, the State Board of Education and the University of Missouri Board of Curators. The goal of the coalition is to "raise expectations and performance levels of all students."¹⁸ To achieve this goal, Missouri initially concentrated its efforts on increasing student performance in mathematics in grades 11-14. The coalition is charged with:

- Promoting quality performance standards
- Encouraging faculty agreements on content and expectations in the major disciplines, beginning with mathematics
- Increasing public awareness of the importance of improved student performance
- Supporting full articulation within and across education sectors
- Identifying strategies for enhanced performance based upon preparation and ability
- Developing policy recommendations to be shared with the Coordinating Board for Higher Education, the State Board of Education and the University of Missouri Board of Curators.¹⁹

Oregon

Oregon's K-16 system was inspired by a 1992 Governor's Executive Order calling for meetings between representatives of the K-12 and higher education systems. Since then, Oregon has embraced two primary initiatives: aligning teacher preparation programs with K-12 performance standards, and developing the Proficiency-based Admissions Standards System (PASS).

The Oregon University System developed PASS for two reasons. First, PASS aligns university admission standards with the statewide K-12 school improvement plan based on demonstrated competencies and grades. As a result, high schools across the state have begun redesigning their curriculum. Second, grades alone were not effectively measuring the skills, knowledge and competencies students need. PASS reinforced the K-12 school improvement plan by moving away from a grades-only system to one that places the emphasis on what students know and are able to do. In the PASS system, students must demonstrate proficiency in English, math, science, visual and performing arts, second languages and social sciences.²⁰

Policy Leadership for P-16 Discussions

Legislators are uniquely positioned to be leaders in P-16 collaboration by virtue of their ability to create a vision for P-16 in their state and then bring multiple groups together to discuss common interests, objectives and goals around this vision.²¹ The most effective strategies for P-16 are those designed with a particular state in mind – and who knows a state better than its legislators? Outlined below are several first steps for legislators interested in starting or furthering a P-16 system in their state.

Step 1: Bring key education leaders together, define the problem and create a vision.

One of the most challenging parts of a P-16 system is getting legislators and education leaders from different systems to think about early learning, elementary, secondary and postsecondary education as one system instead of several. Interested legislators might begin by joining forces with like-minded colleagues, especially members of K-12, higher education and funding committees, to discuss ideas and next steps. If this is a new topic in your state, legislators can jump-start interest in P-16 by opening lines of communication with key education leaders across the spectrum through invitations to informal meetings. They might invite, for example, the state superintendent, the university system head and the governor's education advisor to discuss how the parts of the system they represent might collaborate to improve student achievement. What works? What doesn't? What is the ideal system for their state? Is there evidence to tell whether something is working? What are shared goals? What would success look like? This simple technique provides an opportunity for education leaders to begin to define the problem, discuss goals, marshal evidence and create a vision for P-16 in their state.

Analysis of student performance data across the three levels is central to defining an issue. Sources that may be particularly useful are the Educational Testing Service's *Crossing the Great Divide and the Education Trust's Achievement 2000*.

Step 2: Outline possible policy options

Once legislators have defined the problem, identified the policy areas most critical in their state's education system and armed themselves with supporting evidence, the next step is to outline possible policy options. Understanding which policies and programs are in place and how they work with or against one another is among the most significant elements of P-16. To achieve this, one strategy available to legislators is a policy audit.

The purpose of a policy audit is to thoroughly examine existing policies, identify strengths and weaknesses, and ultimately provide recommendations for next steps. Conducting a policy audit will help legislators establish the need for a P-16 system in their state. As legislators conduct the policy audit, the following are key questions to consider:

- What policies are consistent with the goal of the state's P-16 agenda?
- Could changes be made to these policies that would further enhance their contribution to the state's P-16 agenda?
- Which policies are barriers to the state's P-16 agenda?
- Can these policies be changed to meet the goals of the state's P-16 agenda?
- Should any policies be eliminated altogether?

If the goal is, say, to align high school exit exams with college admission and course-placement requirements, legislators need to put in place policies that require secondary and postsecondary systems to align their curricula. For example, New York developed its own high school exit/college admissions exam, the New York Regents Exam. Another approach is to choose a standardized test commonly accepted for college admissions as the state exit exam, as Illinois did when it chose the ACT as part of its Prairie State Achievement Exam.

Step 3: Build consensus for a P-16 system

As mentioned earlier, legislators play a unique role in framing the question and facilitating solutions to policy problems. But before solutions can be addressed, consensus needs to be built. Once key education leaders are communicating about the problem at hand, it is time to extend the conversation more broadly and build support throughout the state. This requires a strategy carefully designed to deliver the message to businesses, unions, other legislators, parents, students and educators in every system, early learning through postsecondary.

The key here is not to go too far, not to promise too much. Legislators will see the best P-16 results when they:

- Build on voluntary collaborative activities already under way
- Stay focused on the policy problems or issues defined in Step 1 and avoid offering solutions before broad public consensus has been built
- Are flexible and accept better definitions of the problems, as they emerge
- Continue to support P-16 even if consensus is slow to build. In short, give it time to catch on and time to work.

Step 4: Suggest solutions

After meeting with key education leaders, identifying critical policy areas, marshaling evidence and building consensus, it is time to take recommendations from the policy audit and suggest possible solutions. It already has been noted that P-16 is complex, embracing policy opportunities and problems at every education level. Therefore, it is unlikely that one idea or proposal will solve every problem. Progress will come with persistent steps that steadily move the state in the right direction. This can be achieved by continually asking the question, "How do our actions move the state's P-16 agenda forward?"

Some early solutions might include:

- Allow for joint budgeting across education levels and agencies.
- Design incentives for the early learning, K-12 and higher education systems to work together. 22
- Create an overarching governance structure that extends across all education levels — preschool through postsecondary.

P-16 efforts are nothing short of transformative and will require, over the next several years, a serious commitment from all our stakeholders: parents, students, two- and four-year faculty and instructors, K-12 teachers and administration, business industry partners and public policymakers.

Source: Maryland K-16 Partnership for Teaching and Learning

Step 5: Continue consensus building

Consensus building is an activity that will continue throughout P-16 efforts. Once policymakers get to the solution stage, there is another, broader round of consensus building necessary to bring in more supporters, including the public. One way to achieve this is to create local P-16 councils, as Georgia did, involving parents, students, business leaders, community leaders and educators.

Top 10 Policy Questions Every Legislator Should Ask About P-16 Education

As the P-16 movement gathers momentum, legislators can expect to see an increasing number of proposals in the form of blue-ribbon task force reports, gubernatorial proposals, business leaders' recommendations or bills introduced by their colleagues. As these ideas make their way into the legislative arena, they will need to be tested against current policy, weighed for their effectiveness and probed for their short- and long-term costs and benefits. Some of these ideas will be sound and some will not. To help distinguish the difference, ECS has provided a "Top 10" list of policy questions that every legislator should ask when considering issues related to a P-16 system.

Will this recommendation, report or bill:

1. Contribute to achieving our vision of a P-16 system?
2. Improve student achievement for all learners?
3. Improve access and equity in the public schools?
4. Contribute to reductions in remedial education rates?

5. Improve transfer and articulation policies and procedures?
6. Enhance teacher quality?
7. Increase alignment of curricula and assessments across levels?
8. Enhance the provision of early learning for all children?
9. Have a positive effect on education finance?
10. Require new governance structures?

Focusing on the answers to these questions will ensure that each P-16 proposal is carefully examined before it is added to the state's education code. The answers likely will alter the original proposal and result in legislation that is more effective.

Conclusion

Over the past two decades, legislators and educators have worked hard to update tried-and-true approaches to education in response to new demands – the increasing diversity of the population, technological advances, workforce changes, global competition and the need for active engagement in democratic processes. Bringing the three separate public education levels together into a seamless system is the next logical step in the ongoing work of reshaping the education systems to fit the times.

Half of the states already have begun this challenging and complex process. Changing century-old traditions will not occur overnight. But as the Chinese proverb notes, a journey of 1,000 miles begins with a single step. Legislators are in the right place to map out the journey, provision the expeditionary teams and use the reports from the field to shape and support future efforts.

ECS Support Available to Legislators

ECS offers a variety of support services to legislators:

- The nation's leading clearinghouse on education policy issues
- A user-friendly Web site (www.ecs.org) loaded with useful information
- National, regional and in-state meetings on many topics, including P-16
- Technical assistance on specific issues.

We're here to serve you!

Appendix A: P-16 Resources

P-16 efforts are relatively new, and therefore the knowledge base is still modest. What follows is a list of the best available sources of information on P-16 policy issues.

Web Sites

American Youth Policy Forum (AYPF)

This Web site features *High Schools of the Millenium*, the report of a national work group organized by AYPF. The report describes a vision of a high school aligned with both elementary and postsecondary education, and offers practical steps on how to create such schools.

<http://www.aypf.org>

Phone: (202) 775-9731

The Bridge Project: Strengthening K-16 Transition Policies

Hosted by the Stanford Institute on Higher Education Research, this site provides research reports on the alignment between higher education admissions-related requirements and K-12 curriculum frameworks, standards and assessments.

<http://www.stanford.edu/group/bridgeproject>

Phone: (650) 725-4372

Business-Higher Education Forum

The Business-Higher Education Forum, a partnership of the American Council on Education and the National Alliance of Business, is an organization of chief executives from American businesses, colleges and universities, and museums. This site offers information on the forum's K-16 Education Reform Initiative.

<http://www.acenet.edu/programs/bhef/>

Phone: (202) 939-9345

Education Commission of the States (ECS)

The ECS Web site's P-16 issue page features an overview of the issue, an up-to-date list of selected research and readings, a review of state P-16 activity and links to other resources.

<http://www.ecs.org>

Phone: (303) 299-3600

The Education Trust

The Education Trust is a nonprofit organization that works for the high academic achievement of all students at all levels, kindergarten through college. This site offers a variety of publications and reports on P-16 reform. It also has an extensive list of Web links, including local and state P-16 initiatives.

<http://www.edtrust.org>

Phone: (202) 293-1217

GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs)

Established in 1998, GEAR UP is sponsored by the U.S. Department of Education and funds partnerships of high-poverty middle schools, colleges and universities, community organizations and businesses to work with entire grade levels of students. This Web site provides general information and progress reports about GEAR UP programs.

<http://www.ed.gov/gearup>

Phone: (202) 502-7950

National Commission on the High School Senior Year

This commission is examining how to improve the senior year as a transition to postsecondary education and the workforce. The 28 commission members, who range from experienced educators to political officials, expect to issue its report in June 2001.

<http://www.commissiononthesenioryear.org>

Phone: (202) 260-7405

State Higher Education Executive Officers (SHEEO)

SHEEO is a nonprofit, nationwide association of the chief executive officers of statewide coordinating boards and governing boards of postsecondary education. This site features a number of publications on key issues involved in P-16 reform.

<http://www.sheeo.org>

Phone: (303) 299-3686

ECS Publications

The following ECS publications on P-16 issues are available online at www.ecs.org or by calling (303) 299-3692.

Building Bridges Not Barriers: Public Policies that Support Seamless K-16 Education. This paper, written by Katherine Boswell of ECS' Center for Community College Policy, offers 10 state policy options to support P-16 collaboration and promote seamless systems.

<http://www.ecs.org/clearinghouse/18/40/1840.htm>

Promising Practice for K-16 – Project Connect: School-University Collaboration for Service-Learning. This report by ECS' Compact for Learning and Citizenship, takes an in-depth look at Project Connect, an ongoing collaborative service-learning project. The report outlines how the project actually worked, reports outcomes for each set of students and provides recommendations for helping others create similar collaborations.

<http://www.ecs.org/clearinghouse/14/60/1460.htm>

The School-College Connection. Part of ECS' 1999 report, *Transforming Postsecondary Education for the 21st Century*, this briefing paper by Arthur Levine offers an analysis of the historically weak connection between high schools and college.

<http://www.ecs.org/clearinghouse/21/33/2133.htm>

Other Publications

All One System: A Second Look – This report by Harold Hodgkinson clarifies recent trends, current impasses and areas of immediate priority regarding the long-neglected relationships among preschool, public schools and higher education. The full report is not available online, but can be ordered by calling the Institute for Educational Leadership at (202) 822-8405. Highlights of the report are available on the ECS Web site.

<http://www.ecs.org/clearinghouse/17/59/1759.htm>

State Strategies That Support Successful Student Transitions from Secondary to Postsecondary Education – SHEEO, in collaboration with ACT, produced a series of five strategy briefs on P-16 issues including: teacher quality; school-college partnerships; admissions; postsecondary education and schools; and remedial education. The papers are available on the SHEEO Web site

(<http://www.sheeo.org>) or by calling (303) 299-3686.

Thinking K-16 – Published periodically by the Education Trust, this series of reports examines critical educational issues in depth and presents them in language that is clear and accessible for general readers, as well as for educators. The reports are available online at <http://www.edtrust.org> or by calling (202) 293-1217.

Youth at the Crossroads: Facing High School and Beyond – Prepared for the National Commission on the Senior Year by the Education Trust, this report offers solid data on student achievement and high school completion rates. The report is available online at <http://www.edtrust.org> or by calling (202) 293-1217.

Other publications funded by this grant

Boswell, Katherine (2000). *Building Bridges Not Barriers: Public Policies that Support Seamless K-16 Education*. Denver, CO: Education Commission of the States. This report is available online at www.ecs.org or call (303) 299-3692.

Consortium for Policy Research in Education (2000, June). *Bridging the K-12/Postsecondary Divide with a Coherent K-16 System*. Philadelphia, PA: Consortium for Policy Research in Education. This report is available online at www.upenn.edu/gse/cpre or call (215) 573-0700.

Pound, William T. (March 2000). *Education Reform Into the Millennium: The State Legislature's Role in Building a Consensus for Change*. Denver, CO: National Conference of State Legislatures. This report is available online at www.ncsl.org or call (303) 830-2200.

Usdan, Michael and Podmostko, Mary (2001). *The Legislative Status of K-12 and Higher Education Relationships*. Washington, D.C.: The Institute for Educational Leadership. This report is available online at www.iel.org or call (202) 822-8405.

Appendix B: Current and Future P-16 Activities at ECS

ECS is currently engaged in a number of P-16-related initiatives, including:

- A series of papers focused on innovative ideas for redesigning the fundamentals of how we organize and deliver education, from preschool through the baccalaureate degree
- A Request for Proposal (RFP) to state leaders interested in trying out new ideas in their states (slated for April 2001)

- A series of case studies of states engaged in P-16 activity with special focus on P-16's impact on access to college
- An evaluation of a university/school district partnership effort in one state.

In addition, several sessions devoted to P-16 issues will be featured at the ECS National Forum on Education Policy, which will be held July 18-21, 2001, in Philadelphia. And in October 2001, ECS will host a meeting focused on future directions for the state role in P-16 education and on ECS' long-term strategy regarding P-16.

For up-to-date information on these and other P-16-related activities at ECS, visit the Education Issues section of the ECS Web site (<http://www.ecs.org>) and click on "P-16." Or contact:

Spud Van de Water (303) 299-3647 spud@ecs.org	Terese Rainwater (303) 299-3640 trainwater@ecs.org	Carl Krueger (303) 299-3670 ckrueger@ecs.org
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Appendix C: Glossary of Terms²³

Access: Availability of high-quality education opportunities for all students regardless of race, ethnicity, income or gender

Accountability: Measurable proof that teachers, schools, districts, university systems and states are teaching students efficiently and well

Alignment: Building of processes and curriculum that move smoothly from one education level to the next

Articulation: Agreements among institutions to accept the transfer of credits

Assessment: Measuring or judging the performance of students or teachers

At-risk: Students who have a higher-than-average likelihood of failing or dropping out of school

Carnegie unit: A credit representing the completion of a core of high school and college courses; developed in the early 1900s to set norms for curriculum and course time in public schools across the country²⁴

Collaboration: Agreement between or among individuals or organizations that enables the participants to accomplish goals more successfully together than they could have separately

Community college: A postsecondary institution beginning at grade "13" and offering instruction adapted in content, level and schedule to the needs of the local community and its workforce

Competency-based learning: Learning that measures achievement by demonstrated mastery of content skills

Early learning: Education of young children typically focusing on ages 3 to 7

Equity: Equal access to and successful participation in high-quality education regardless of race, ethnicity, income, or gender

K-16: Education system that integrates a student's education from kindergarten through a four-year college degree

K-20: Education system that integrates a student's education from kindergarten through graduate school

Lifelong learning: Process by which an adult continues to acquire formal or informal education throughout his or her life

P-16: Education system that integrates a student's education beginning in preschool (as early as 3 years old) and ends with a four-year college degree; also referred to as PreK-16

P-20: Education system that integrates a student's education beginning in preschool (as early as 3 years old) and ends with a graduate school degree

PreK-16: Education system that integrates a student's education beginning in preschool (as early as 3 years old) and ends with a four-year college degree; also referred to as P-16

Partnerships: One or more combinations of school, university, community, political and business alliances designed to strengthen student achievement

Remedial education: Course or program designed to enable students to catch up with their peers

Seamless system: Term used to describe a system in which expectations for student knowledge and skills are aligned at the preschool, elementary, secondary and postsecondary levels

School readiness: Basic background, skills and knowledge that young children need to enter kindergarten, including: recognition of colors and shapes; gross motor coordination (e.g., being able to catch a ball); fine motor coordination (holding a crayon); ability to sort objects (beans or coins); and knowing their first and last names and their home address

Standards: Statements of what students should know and be able to do at each level of the education system.

Student achievement: Refers to a student's past academic performance

Student ability: Refers to the skills a student has at present

Student transition: Refers to the changes that students make as they move from one level of the education system to the next

Teacher preparation: Coursework and curriculum designed to prepare college students to become classroom teachers

Teacher quality: Refers to the sum of factors that support and promote the preparation, professional development and practice of teachers, as well as necessary conditions for effective teaching, leading to the recruitment and retention of a competent teaching force to advance student learning

Transfer: Procedure by which student credit hours earned at one institution are applied toward a degree at another institution

Workforce development: Activities designed to meet the labor needs of communities or states.

End Notes

1. Education Commission of the States (2000, August). "P-16 Collaboration in the States," *ECS StateNotes*. Available at www.ecs.org.
2. Carnevale, Anthony (2000, July 26). "Relationship Between Educational Attainment, Achievement and Careers," presentation and handout at the NASH State Systems Summer 2000 meeting, p. 3.
3. Oregon University System (2000, Spring). "PASS Reports: Issues in the Proficiency-based Admission Standards System." no. 4, p. 5.
4. Barnett, W. Steven (1997). "Lives in the Balance: Age-27 Benefit-Cost Analysis of the High/Scope Perry Preschool Program," monographs of the High/Scope Educational Research Foundation, no. 11,

- p. xi. The High/Scope Press. And Schweinhart, Lawrence J., Barnes, Helen V. and Weikart, David P. (1993). "Significant Benefits: The High/Scope Perry Preschool Study Through Age 27," monographs of the High/Scope Educational Research Foundation, no. 10, p. xv. The High/Scope Press.
5. CPRE *Policy Briefs* (2000, June). "Bridging the K-12/Postsecondary Divide With a Coherent K-16 System." Graduate School of Education, University of Pennsylvania, RB-31, p.2.
 6. CPRE.
 7. Haslam, M. Bruce and Rubenstein, Michael C. (2000). "K-16 Alignment as a Strategy to Improve the Connection Between High School and Postsecondary Education." Washington, DC: Policy Studies Associates. This paper is available on the ECS Web site (www.ecs.org).
 8. Hawaii is among the states that have elected to take advantage of the potential pool of teacher candidates who attend two-year institutions by establishing teacher preparation programs at the community college level. For more information, see the state of Hawaii's Web site (www.state.hi.us) and *Teaching Quality: Preparation and Induction* on the ECS Web site (www.ecs.org).
 9. Oregon University System admission requirements (PASS) will be proficiency-based and aligned with 10th and 12th grade benchmarks, effective in 2007. For more information see the PASS Web site (www.ous.edu/pass/) and *P-16 Collaboration in the States* on the ECS Web site (www.ecs.org).
 10. Education Commission of the States (2001, February). "Transfer and Articulation," *ECS StateNotes*. And ECS (August 2000). "P-16 Collaboration," *ECS StateNotes*.
 11. ECS has commissioned a series of policy papers focused on major issues in redesigning the education system. Papers will be added to this series throughout 2001 and made available through the ECS Web site (www.ecs.org).
 12. ECS' mission is to help policymakers make better decisions. Co-hosting in-state seminars around cutting-edge issues is a common method of building knowledge and launching action. For details, contact Spud Van de Water (303) 299-3647 (spud@ecs.org) or Terese Rainwater (303) 299-3640 (trainwater@ecs.org).
 13. From the ECS Web site's issue page on teaching quality, a good source for additional information.
 14. Georgia P-16 Initiative, www.usg.edu/p16.
 15. Georgia.
 16. Maryland K-16 Partnership for Teaching and Learning, www.mdk16.usmd.edu/
 17. Maryland.
 18. Missouri K-16 Coalition, Web site, www.cbhe.state.mo.us.
 19. Missouri.
 20. Oregon University System (2000, April). "An Introduction to the Proficiency-based Admissions Standards System (PASS)," pg 2.
 21. For the elements of a P-16 vision, see the previous section, "What Does It Mean to 'Do P-16'?"
 22. CPRE (2000, June). "Bridging the K-12/Postsecondary Divide with a Coherent K-16 System.
 23. Definitions have been drawn from McBrien, J. Lynn and Brandt, Ronald S. (1997). "The Language of Learning: A Guide to Education Terms" (Association for Supervision and Curriculum Development: Alexandria, VA); and Shafritz, Jay M., Koeppe, Richard P., and Soper, Elizabeth (1988). "The Facts on File Dictionary of Education," (Facts on File: New York, NY) 1988.
 24. *Education Week* on the Web, <http://www.edweek.org/context/glossary>.

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