Ready for Tomorrow:
Helping All Students Achieve Secondary and Postsecondary Success
A Guide for Governors
Acknowledgements

This guide was written by Richard Kazis, senior vice president, Jobs for the Future (JFF); Hilary Pennington, JFF chief executive officer and vice chairman; and Kristin D. Conklin, senior policy analyst, Education Division, National Governors Association Center for Best Practices (NGA). The NGA Center for Best Practices helps governors and their key policy advisors develop and implement innovative solutions to challenges facing states. JFF is a nonprofit research, consulting, and advocacy organization that works to strengthen educational and economic opportunities for those who need them most.

Dane Linn and Ilene Berman, director and deputy director, respectively, of NGA’s Education Division; and John Thomasian, director of the NGA Center for Best Practices, offered valuable insights and guidance and helped shepherd the project through editing, design, and production. Bridget K. Curran, Christopher Mazzeo, Scott Spicer, and Justin Wellner with NGA’s Education Division provided important research and assistance. From JFF, Cheryl Almeida, Nancy Hoffman, Adria Steinberg, and Michael Webb provided feedback on early drafts.

This policy guide is the product of a partnership among the National Governors Association Center for Best Practices, Jobs for the Future, the Aspen Institute, and the National Conference of State Legislatures. The authors also want to thank Michael Cohen of the Aspen Institute/Achieve, Inc., Julie Davis Bell and Stephen Smith of the National Conference of State Legislatures, and Stefanie Sanford of the Bill & Melinda Gates Foundation for their contributions to this publication.

During 2002–03, the partnership hosted several meetings of national and state experts on high school redesign, postsecondary access, K–16 governance and accountability, and secondary and postsecondary finance. The thoughtful discussions of these experts informed the development of the state policy framework presented in this guide. Participant lists for the partnership’s meetings can be found in the appendix.

The authors want to thank the following individuals who provided useful information and/or reviewed the draft manuscript: J.B. Buxton of the Office of North Carolina Governor Michael F. Easley, Lucille Davy of the Office of New Jersey Governor James E. McGreevey, Ray McNulty of the Bill & Melinda Gates Foundation, Dolores Mize of the Oklahoma State Regents for Higher Education, Robert Scott of the Texas Education Agency, Robert Stodden and Susan Hazasi representing the Policymaker Partnership of the National Association of State Directors of Special Education, and Jane Wellman of the Institute for Higher Education Policy.

The Bill & Melinda Gates Foundation generously supported the preparation of this guide and the partnership activities that contributed to it.

© 2003 by the National Governors Association
## Contents

Summary ................................................................. 2

Causes and Consequences of the Leaky Education Pipeline ................. 3

A Vision for a More Efficient and Equitable Pipeline ............................ 5

How States Can Build a Stronger Pipeline ........................................ 8

1 Set a Statewide Benchmark for Postsecondary Attainment ............. 8

2 Create and Support an Integrated K–16 Data System ..................... 9

3 Better Align K–12 and Higher Education Expectations and Incentives 13

4 Promote More Learning Options ............................................ 20

5 Focus on Low-Performing High Schools ...................................... 26

Conclusion ....................................................................... 34

Notes .............................................................................. 35

Appendix: Participant Lists for Partnership Meetings ......................... 37
Summary

The current system of high schools, second-chance institutions, and public colleges and universities leave too many young people unprepared for success as adults, at an unacceptable cost to states’ civic, social, and economic well-being. As many as 30 percent of entering freshmen leave school without a regular high school diploma, and gaps in college completion for Hispanics, blacks, low-income adults, and students with disabilities have not narrowed in 30 years.

States have a powerful incentive to plug the leaks in the education pipeline. To be competitive and create the conditions for strong economic growth, states need to help all their residents increase their skills and be prepared to pursue postsecondary learning opportunities. Much is at stake. Economist Anthony Carnevale of the Educational Testing Service estimates that if current economic and demographic trends continue, by 2020 the nation will need as many as 14 million more workers with some college education than its education systems will have produced.¹ At the same time, the benefits to states could be significant. Carnevale estimates that if states expand college access among African Americans, Hispanics, and non-Hispanic whites, “the resultant earnings improvements would certainly narrow income differences and could add as much as $230 billion in national wealth and $80 billion in new tax revenues every year.”²

States must act decisively to improve the performance of their education pipeline—from kindergarten through college. An important tool is the No Child Left Behind Act (NCLB), with its emphasis on academic achievement for all youth, particularly those from groups traditionally underrepresented in postsecondary education. However, NCLB is not enough. More attention must be paid to the complexities of high schools and the needs of older adolescents. Nor is a K–12 improvement agenda adequate. State policies must promote dramatic gains in high school completion and in postsecondary success for all population subgroups, including those who traditionally lag in academic achievement.

Extensive local experimentation to improve high schools and strengthen postsecondary pathways is occurring in almost every state. This experimentation is a response to an education pipeline in which accelerated exposure to college-level courses is perhaps the fastest-growing high school trend, but remedial coursework is required of more than one-third of all high school graduates in their first year of college. What is needed to correct this problem is a state policy framework that is based on research and the most promising experimentation. This framework needs to increase both the number of postsecondary graduates and the rate of postsecondary success for students served least well by the current education pipeline. Specifically, governors and other policymakers are encouraged to:

• set a statewide benchmark for postsecondary attainment;
• create and support an integrated K–16 data system;
• better align K–12 and higher education expectations and incentives;
• promote more learning options; and
• focus on low-performing high schools.

“By creating new or transforming existing high schools, we can increase our graduation rate, produce a better trained workforce, and prepare more students to move on to college.”

North Carolina Governor
Michael F. Easley
“A few weeks ago when I held a press conference on adult literacy at Dorcas Place, a student recounted how she was a recent high school graduate but could not read. That further highlights the fact that we need to do more to ensure that our students graduate with the knowledge they need to succeed in the workplace.”

Governor Don Carcieri, Rhode Island

At the high school and postsecondary segments of the education pipeline, outcomes are inefficient and inequitable. Three factors help explain these “leaks” in the pipeline. First, national and state goals to “leave no child behind” do not yet extend to postsecondary attainment, despite the economy’s demand for higher skills. Although some states have identified performance targets for postsecondary participation, all states need high expectations for the postsecondary success of those served least well by the current education pipeline—low-income students, ethnic minorities, and students with disabilities.

Second, the K–12 and higher education systems are largely divorced from each other. Performance goals and performance policies are developed in isolation, student information is not shared and used regularly to improve instruction, and too few incentives exist to draw the systems together. Consequently, too many students are lost in the transitions to and through high schools, the second-chance system for out-of-school youth, and postsecondary institutions. For every 100 young people who enter ninth grade, only 67 graduate from high school, 38 enter college, 26 are still enrolled in college after their freshman year, and 18 graduate with an associate’s or a bachelor’s degree within 150 percent of the required degree time (three years for an associate’s degree and six years for a bachelor’s degree). The scenario for black, Hispanic, and low-income Americans is even more sobering. Only 18 percent of African Americans and 9 percent of Hispanics have earned a bachelor’s degree. Only 20 percent of students from families with incomes below $25,000 ever complete an associate’s degree or higher, compared with 76 percent of those whose family income is

**Leaks in the Education Pipeline, 2000**

for every 100 students entering ninth grade:

| Complete High School Within Four Years | 67 |
| Enroll in College | 38 |
| Return to College the Fall After Freshman Year | 26 |
| Complete a Bachelor’s Degree Within Six Years or an Associate’s Degree Within Three Years | 18 |

Source: Peter T. Ewell, Dennis M. Jones and Patrick J. Kelly, Conceptualizing and Researching the Education Pipeline (Boulder, Colo.: National Center for Higher Education Management Systems, summer 2003).
above $75,000 and 45 percent of those whose family income is between $25,000 and $75,000.\textsuperscript{5} Further, one of every three entering college freshmen takes at least one remedial course in math, reading, or writing; in urban community colleges, that figure can rise to about three of every four new students.\textsuperscript{6}

Third, high schools remain unchanged, despite dramatic transformation in the economy and in the educational expectations for well-paying jobs that can support families. Large, one-size-fits-all high schools are too impersonal, inflexible, and alienating for many young people, particularly those who need extra academic and social supports to catch up and succeed. As many as 30 percent of entering freshmen leave school without a regular high school diploma. In a study of 46 large urban districts, 11 had dropout rates of 40 percent or higher.\textsuperscript{7} Further, high schools still tend to sort students into those likely to succeed in postsecondary learning and those destined to fail, rather than require that all students have access to rigorous curricula. Low-income students are less likely to be enrolled in the college-preparatory program than their middle- or high-income peers (28 percent, compared with 48 percent and 65 percent, respectively). African American and Hispanic youth are similarly disadvantaged (25 percent and 22 percent, respectively, compared with 34 percent for white students and 42 percent for Asian students).\textsuperscript{8}

In today’s knowledge-based economy, states will compete internationally and with one another based on the education and skills of their workforce, including entry-level, professional, managerial, and technical employees. States with a weak K–16 education pipeline will lose out in the competition for jobs and economic growth, at great cost to business vitality and family incomes.

The economic returns from higher educational achievement levels are already significant for both individuals and states. College graduates earn on average 70 percent more than high school graduates—a gap that has widened in the past two decades even as the supply of college-educated workers has risen.\textsuperscript{9} Higher levels of educational attainment lead to higher per-capita income levels. Efficiency, fairness, and the economy demand that states act decisively to improve the performance of their education pipelines.
The High Cost of Poor Preparation for Postsecondary Success

The current system of high schools, second-chance institutions, and public colleges and universities leave too many young people unprepared for success as adults, at an unacceptable cost to states’ civic, social, and economic well-being.

An astounding number of students fail to complete high school. As many as 30 percent of entering freshmen leave school without a regular high school diploma. In some of the largest urban districts, as many as 60 percent of ninth-graders drop out before earning a diploma. Moreover, progress in expanding educational attainment has hit a plateau. The high school graduation rate has actually dropped since its 1970 high of 77 percent and has not improved through most of the past two decades. This is due primarily to the rapid growth among high school students of groups the education system serves least well—immigrants, Latinos, African Americans, the disabled, and young people from low-income families. The drop in the percentage of youth below age 19 receiving regular diplomas has been compensated for by a significant increase in the percentage of youth below age 19 earning General Educational Development (GED) certificates. This trend does not speak well for the productivity of the nation’s high schools.

Large numbers of high school graduates are unprepared for college work. About one of every three entering college freshmen takes at least one remedial course in math, reading, or writing; in urban community colleges, that figure can rise to about three of every four new students. Minorities are prepared less well in high school than their white peers. Only 47 percent of African American and 53 percent of Latino high school graduates were academically qualified for college, compared with 68 percent of white students, according to a U.S. Department of Education study of 1992 graduates.

Although the percentage of high school graduates who begin college has increased dramatically in the past two decades, the percentage who complete college has yet to rise significantly. More than one-fourth of students who enter four-year colleges and nearly one-half of all who enter two-year institutions do not return for their second year. The percentage of 25- to 34-year-olds who have successfully earned a college credential has not changed significantly in three decades. Nor has the 30-percentage point gap in college entry between high-income and low-income students narrowed.

Because of demographic trends, a bad situation is only likely to get worse without changes in state policy. The fastest-growing segments of most states’ high school- and college-age population are groups that have the greatest academic disadvantages: immigrants, minorities, and youth from low-income families. From 1972 to 1999, the percentage of young people of color in the public school population rose from 22 percent to 38 percent. This trend will continue and accelerate as the share of Hispanic and other non-white groups in the U.S. population grows steadily and that of native-born whites shrinks. In the past 20 years, the native-born workforce grew by 44 percent, primarily because of the entry of women into the workforce. However, Texas state demographer Steve Murdock estimates that Hispanics, blacks, and other non-white groups will account for 97 percent of the net change in the U.S. labor force between now and 2050. Because of the lower average educational attainment of these rapidly growing groups, the share of workers with post-high school education will increase only 4 percent during the next 20 years, compared with a 19-percent rise since 1980.

The ramifications of the nation’s leaky education pipeline are many. The inability of U.S. education institutions to prepare all students for postsecondary credentials and success has costs—to the nation’s economy, democracy, and civic life. College graduates earn on average 70 percent more than high school graduates. High school dropouts are four times more likely than college graduates to be unemployed. Significantly narrowing the gap in the postsecondary attendance rates of the highest- and lowest-income Americans would loosen the nation’s fiscal straitjacket. According to one estimate, nearly $230 billion would be added to the gross domestic product; $80 billion would be added to tax coffers, giving states the ability to choose between tax increases for valued services or marginal tax rate reductions for state residents.

Variations in educational attainment contribute to growing income disparity in adulthood. Even one year of postsecondary education increases lifetime earnings by 5 percent to 15 percent per year. Moreover, a low level of educational attainment reinforces a persistent pattern of underinvestment from which it is difficult for individuals to recover. Employers are much more likely to provide additional training to workers who already have postsecondary education. Similarly, little financial aid is available for low-income individuals who work full time and can attend college only part time.

The quality of a state’s education system and the skills of its workforce are increasingly key factors in business decisions to expand in a state or locate a new facility there. Skills and learning opportunities also figure prominently in the ability of a high-productivity cluster of firms and industries to grow.

Given changing demographics in most states, improvement in the postsecondary attainment of low-income, minority, disabled, and immigrant youth will be needed to promote and sustain strong economic growth and to avoid potentially costly social conflict. The fastest-growing segments of the U.S. population and workforce are composed of individuals from low-income and minority families who have been served least well by the nation’s fragmented education programs, policies, and institutions. Although 76 percent of white youth and 79 percent of Asian youth graduate high school after four years, the graduation rate for African American youth is only 55 percent and for Hispanic youth just 53 percent. Only 18 percent of African Americans and 9 percent of Hispanics complete a bachelor’s degree by age 29, compared with 34 percent of whites. Upper-income students are seven times more likely than low-income students to earn a bachelor’s degree five years after starting postsecondary education. As the baby-boom generation reaches retirement age, the economy will increasingly depend on this new workforce—and its skills and abilities—to sustain growth and raise productivity sufficiently to support such a large group of retirees.
A Vision for a More Efficient and Equitable Pipeline

The prevailing inefficiencies and inequities in the education pipeline have prompted educators and policymakers to propose a dramatic restructuring of the K-16 education pipeline aimed at improving outcomes and options while reducing costs. This and similar visions for the future of state education systems share several principles that would move states toward closer alignment of secondary and postsecondary learning and greater attention to helping all students achieve in both high school and postsecondary settings. More efficient and equitable state education systems would be marked by these characteristics.

High, common standards across different learning environments, clearly aligned so transitions from one institution to another are smooth. At the secondary level, curriculum, guidance, and instruction prepare every student for work, college, and citizenship. Second-chance system programs receive resources comparable to those of mainstream education institutions and are held to the same standards, so their graduates are also prepared well for adult life. Secondary exit standards are calibrated to entrance to credit-bearing postsecondary courses of study, and it is assumed that young people meeting these standards will be equipped well for a college or career. Adequate academic preparation in high school eventually eliminates the need for postsecondary remedial courses. Standards set expectations for academic achievement, but they also incorporate the “new basic skills”—such as applied problem solving and communications skills—that are often best developed in nonschool learning environments.

Variation in design, pedagogy, institutional arrangements, and assumptions about how much time it takes to meet the common high standards for exiting high school. Although standards are high and consistent across different learning

---

**Median Earnings for Year-Round, Full-Time Workers Ages 25 and Older, 2000**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Median Earnings ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Degree</td>
<td>$80,200</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>$70,500</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>$55,300</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>$46,300</td>
</tr>
<tr>
<td>Associate's Degree</td>
<td>$35,400</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>$32,400</td>
</tr>
<tr>
<td>High School Diploma*</td>
<td>$28,800</td>
</tr>
<tr>
<td>Some High School, No Diploma</td>
<td>$21,400</td>
</tr>
</tbody>
</table>

Note: *The category “High School Diploma” includes General Educational Development certificates.
environments, wide variations are permitted—even encouraged—in the structure, pedagogy, and institutional characteristics of learning environments that help students meet the standards. A “portfolio” of learning options proliferates to meet the needs and interests of different segments of the youth population. They include traditional and nontraditional large and small schools; partnerships with nonschool institutions in the economy and society, such as museums, community-based organizations, and businesses; work-related education and employment initiatives; programs that accelerate advancement into postsecondary education; and virtual and/or technology-based schools. These multiple routes prepare graduates who are college-ready or can succeed in employment outside the sphere of youth jobs.

A well-aligned system of publicly funded educational institutions that share a common goal of postsecondary credential options for all youth. States organize their education pipeline so the progression to postsecondary learning is more effective (i.e., fewer youth fall through the cracks and more enter and complete postsecondary education) and more efficient (i.e., most young people have completed a first postsecondary credential by age 26). Policy focuses on ways to minimize the difficulty in making transitions among segments of the pipeline and to maximize success in earning postsecondary credentials.

Particularly important to a flexible, fair system is easy transferability and portability of postsecondary credits from one institution to another as students move from high school to college and from one postsecondary setting to another.

Goals and Strategies for a More Efficient and Equitable Education Pipeline

**Increased postsecondary participation and reduced gaps in postsecondary completion**
- Create a performance benchmark for improved postsecondary access and attainment, disaggregated by population subgroups.

**Improved tracking of students through the education pipeline**
- Collect and report attainment and achievement outcome data across K–12 and higher education for all youth over time.
- Make state-mandated K–12 and higher education performance data more easily available and user-friendly.

**Seamless, transparent transitions to and through postsecondary education**
- Align high school curriculum, graduation standards, and assessments with the expectations of colleges and employers.
- Promote rigorous curriculum alignment by sharing college performance data with sending high schools and giving college entrance exams to high school students for diagnostic purposes.
- Align need-based financial aid incentives for middle and high school students with college expectations and requirements for success.
- Create governance mechanisms that improve secondary and postsecondary alignment of goals, planning, and budgets.

**Broad availability of varied options for older adolescents that combine secondary and postsecondary learning**
- Create new high school models that smooth the transition from secondary to postsecondary learning programs.
- Develop financing strategies to support new high school models.

**Achievement gains for students in chronically low-performing high schools**
- Develop a specific statewide plan for improving low-performing high schools that distinguishes among schools and provides for swift remedial action.
- Target statewide incentives and investments to attract and retain high-quality teachers in low-performing high schools.
- Intervene swiftly and aggressively in schools that lack the capacity to improve.
- Ensure that schools with a high proportion of at-risk youth receive sufficient resources to address their academic needs.
How States Can Build a Stronger Pipeline

Today, state education systems lack anything approximating this kind of coherence, transparency, and alignment. State policy to improve high school and postsecondary outcomes for all young people is still largely underdeveloped and unsystematic. How can states get from here to there? How can education policies be retooled to support and reward higher standards and better outcomes for all students, more and more varied learning options, greater transparency and rationality, and significant cost efficiencies? Specifically, governors and other policymakers are urged to take five actions to help increase secondary and postsecondary attainment and achievement, particularly for students served least well by the current education pipeline:

1. set a statewide performance benchmark for postsecondary attainment, disaggregated by population subgroups;
2. create and support an integrated K–16 data system that tracks all youth over time;
3. make the transition to postsecondary learning more seamless and routine by better aligning K–12 and higher education expectations and incentives;
4. promote more learning options, particularly those that combine high school and postsecondary experiences; and
5. focus on improving achievement for students in low-performing high schools so these students leave high school with the skills and knowledge needed for postsecondary success.

Set a Statewide Benchmark for Postsecondary Attainment

Until all segments of the education system—and the public—have high expectations and shared accountability for all students’ postsecondary success, it is unlikely that sufficient will can be summoned to strengthen the education pipeline. Governors are uniquely well situated to define a performance benchmark for their state’s education system and to lead efforts to achieve the benchmark. A good starting point is a clear, quantifiable goal for raising secondary and postsecondary attainment—a numerical target for expanding the number of young people in the state successfully completing both high school and postsecondary credential programs.

This numerical target should be a statewide target, but it should be disaggregated for subgroups currently underrepresented among postsecondary enrollees and completers. For example, governors can call for a doubling of the number of young people who complete a recognized postsecondary credential—

“A high school dropout is four times more likely to be unemployed as a Texan with a bachelor’s degree. We must do more to keep students from dropping out of school and dropping out of their future.”

Texas Governor Rick Perry
including apprenticeships and industry certification—by age 26 and a reduction in educational attainment disparities over 10 years. To promote shared accountability, annual progress reports from the state’s secondary and postsecondary institutions should be submitted to the governor and legislature by state K–12 and higher education governing boards. State leadership could go further by linking a percentage of any education budget increases to the implementation of strategies to achieve the state policy goals.

**EXAMPLE:** The Texas legislature passed a bill in 2001 setting a goal to bring into higher education by 2015 an additional 300,000 students who are prepared to succeed in college but who would not be expected, “based on current enrollment trends, to enroll in a Texas college or university.” The law created a $6-million statewide public awareness campaign to promote the value and availability of higher education. This campaign is part of a broader effort, led by the Texas Higher Education Coordinating Board and Texas Business Education Coalition, to focus the state’s education policy priorities on achieving a significant expansion of opportunity, particularly for students traditionally underrepresented in higher education.

Setting a numerical target must be part of a broad strategy to build commitment to improved outcomes among education’s many stakeholders. Governors committed to this agenda have found it beneficial to establish an ongoing roundtable or commission composed of influential state leaders across the sectors—K–12, higher education, economic development, and the private sector. This group can be charged with developing a vision for the state’s education system, assessing the strengths and weaknesses of the current system relative to that vision, setting goals for improvement, identifying policy priorities to meet the state’s goals, and monitoring performance data over time.

**EXAMPLE:** Indiana’s Education Roundtable, appointed and co-chaired by the governor and superintendent of public instruction, builds political consensus for an aligned, statewide K–16 agenda. Formalized through legislation in 1999, the roundtable has equal representation from business, education, and the community, with additional representation from the legislature. The roundtable is now drafting a report titled “P–16 to Prepare Students for Success in College,” which articulates a comprehensive vision for Indiana’s education pipeline. The focus of the plan’s high school component is the implementation of the college-preparatory “Core 40” curriculum as the default curriculum for Indiana students and the use of Core 40 end-of-course tests for admission, placement, and financial aid decisions at the postsecondary level.

2 **Create and Support an Integrated K–16 Data System**

States interested in improving secondary and postsecondary attainment and achievement must strengthen their capacity to collect data on educational outcomes for individuals and for the institutions they attend. Governors and the public need to know how well schools, districts, and the state’s colleges and universities are doing at improving graduation and completion rates and
Counting dropouts accurately has both economic and educational benefits. Reducing inequalities in attainment and achievement. Are postsecondary credential completion rates rising? Are at-risk groups (e.g., minorities, low-income residents, students with disabilities, English-language learners, and first-generation college attendees) catching up to more-advantaged groups or do significant achievement gaps persist?

Answering these questions requires data systems at both the secondary and postsecondary levels that track the progress of every youth, including those who drop out of the system, over time and across levels of the education system. It will also require data systems that are user-friendly for policymakers, the public, and the teachers who might benefit from feedback on their own performance. K–12 systems have made more progress than most higher education systems or institutions in providing the public with usable data on student attainment and achievement, but both systems are at the early stages of designing user-friendly data reporting systems.

Collect and report attainment and achievement outcome data across K–12 and higher education for all youth over time.

In most states, education data systems are fragmented, incompatible, and difficult to use across levels of the system. However, some innovative states have taken steps to build a foundation for good longitudinal data collection, tracking, and use.

The key to implementing an effective integrated data system is assigning a unique identifier to each youth that can be used for K–12 and postsecondary institution recordkeeping. (Although student privacy issues are an important concern, states are developing ways to assign identifiers that protect privacy.) Data from different systems should be warehoused and maintained together, not separately. The integrated data system should be housed in an entity beholden to neither the K–12 chief state school officer nor the state higher education executive officer. The system must also be committed to a careful presentation of evidence of state progress toward improvement goals. Regular disaggregated reporting of performance should be organized and presented in a form that is publicly accessible and easy to understand.

Most state accountability and data systems do not now accurately track high school dropouts. Beginning to do so can be politically and technically complicated. Pass rates on high-stakes graduation exams look worse if calculated as a percentage of ninth-graders who started high school in a given cohort rather than as a percentage of those who took the exam in twelfth grade. Yet counting dropouts accurately has both economic and educational benefits. Lower dropout rates are associated with an improved local economy. A recent study in Texas estimated the cost of school dropouts between 1987–88 and 2001–02 at $488 billion in lost wages, decreased revenues, and increased public expenditures for welfare, unemployment, incarceration, and job training. 22 Texas officials used this data to justify and build support for recent legislation that addresses the state’s dropout problem.
Ready for Tomorrow

Finding ways to link databases across states, so mobile students can be tracked over time, is an important challenge that states will need to confront together.

Data systems should track individuals’ progress over time in school and in the labor market so both educational and economic success can be gauged. By linking education and employment data systems that are now separate, states could know the attainment and achievement of students in all public education institutions that serve them—whether a public high school, a charter school, an alternative program in the second-chance or employment training system, or a college or university. States could also know the relationship between these students’ education and career outcomes.

Many states have the technical ability to collect longitudinal data on students through student records and unemployment insurance records, but only a few states (e.g., Florida, Illinois, Tennessee, and Texas) have begun to do so. Thirty-nine states have student unit record systems that monitor course progress in higher education, according to the National Center for Higher Education Management Systems. These record systems cover as many as 70 percent of higher education enrollments nationwide. At least half of these systems are linked to other state databases, such as high school records and wage data. Integrating these records more fully with K–12 data systems and with employment data systems is an achievable next step. Finding ways to link databases across states, so mobile students can be tracked over time, is an important challenge that states will need to confront together.

EXAMPLE: Florida is one of the first states to have made a serious investment in sophisticated integration of statewide data systems to help inform state policymakers and anchor accountability systems. Launched in the early 1980s, the Florida Education and Training Placement Information Program (FETPIP) is an ambitious effort to integrate state education and training data systems. FETPIP obtains followup data on former students and others who have participated in K–12 and welfare, job training, higher education, and other programs. The system collects data annually on students’ and program participants’ subsequent employment, continuing post-secondary education, military enlistment, incarceration, or use of public assistance. The most recent round of data collection gathered 3.4 million participant records. Policymakers view the data system’s reports as factual and credible. The reports’ breadth and completeness give the policy recommendations significant weight with state policymakers, who use FETPIP to inform program and resource decisions, including termination of ineffective programs. Data are also available to students and clients at schools, one-stop centers, and workforce development offices. FETPIP reports on high school attainment (diploma, dropout, or GED), but the information program does not yet link the state’s elaborate K–12 accountability data system to its postsecondary database.

Make student performance data more user-friendly and valuable.

If state data systems are to be the foundation for accountability systems that drive district and school- or campus-level improvement, states must think about more than how they collect and manage data. States must also focus on how performance and outcome data are presented and disseminated and how their use of this data is supported. The easier the access and more usable the
information, the more likely that policymakers, educators, and the public will use available data to press for improvement and to target strategies for improved instructional practice.

Because of the past decade’s state accountability initiatives, K–12 systems have a head start in this regard relative to higher education systems and institutions, which have not yet been pressed hard to report on student outcomes. However, both components of a state’s public education system can improve the accessibility and usefulness of student and institutional performance data systems. User-friendly data can give parents and the public access to powerful comparisons with past years’ performance at the same school, same-year outcomes for different population subgroups, and attainment and achievement outcomes from schools or districts with similar demographic and economic profiles. For K–12 teachers, quick turnaround in disseminating student outcome data, combined with training and support in the use of data, could pinpoint areas to focus improvement efforts.

Some states are partnering with various nonprofit and for-profit organizations (e.g., Just for the Kids, GreatSchools.net, and Standard and Poor’s) to create online, easy-to-use analyses of school- and district-level K–12 data from state accountability systems. Some of these data tools also link performance data with descriptions of practices that characterize successful schools. Progress is being made; each generation of data tools is more flexible, transparent, and useful than is its predecessor. A new $100-million partnership between the U.S. Department of Education and Broad Foundation may accelerate the development of next-generation information systems that enable districts, teachers, and the public to use state outcome data more effectively to improve instruction and learning.

**Idaho** offers districts access to computer-based assessments of student performance that can inform classroom instruction, including a standards-based, grade-level exam that meets NCLB requirements and an exam that has “adaptive” questions that become easier or harder depending on how well the student is performing. State officials believe the adaptive questions and the 24-hour turnaround time for reports on the results of the computer-based assessments will yield diagnostic information useful to teachers and principals. More than 90 percent of Idaho students in grades two through 10 took computer-based tests in 2002–03. All students will be required to take computer-based assessments in the fall and spring, starting in 2003–04.

**Massachusetts** is one of several states where a collaborative nonprofit partnership provides the public with web-based presentations of state school achievement data. Sponsored by the Massachusetts Business Alliance for Education and Just for the Kids, the web site presents state accountability system data on school performance over time, in various subjects, in numerous grades, and for new and continuously enrolled students. Presented in an easy-to-understand and easy-to-use format, the web site identifies each school’s “opportunity gap”—the difference between that school’s current level of performance on the state assessment...
State K–12 improvement efforts of the past decade have looked down from high school graduation to earlier grades in setting standards and defining exit requirements; they have not looked up to higher education and its expectations for success.

**Better Align K–12 and Higher Education Expectations and Incentives**

In the past decade, most states have expended significant energy and political capital on building new systems of K–12 standards, assessments, data collection, and accountability strong enough to drive improved student achievement. Much work remains, however, if state accountability systems are to promote long-term improvement in student achievement and success in both secondary and postsecondary education. One formidable challenge is clear. State K–12 improvement efforts of the past decade have looked down from high school graduation to earlier grades in setting standards and defining exit requirements; they have not looked up to higher education and its expectations for success. This disconnect—a dramatic illustration of the lack of communication and integration between K–12 and higher education planning—must be remedied.

In the coming years, K–16 (or P–16) education will have to become a more coherent, closely aligned, and easy-to-navigate system with clear standards and requirements for moving from one sector to the next.

To start, closer alignment is clearly needed between K–12 and higher education achievement standards and assessments, and this alignment should be promoted and reinforced in state finance, governance, and other policy initiatives. It is less clear how best to achieve that alignment, because complex technical challenges, political dilemmas, and system reform choices must be addressed. However, based on the experience of leading states, several policy priorities have emerged.

- Align high school curriculum, assessments, and graduation standards with the expectations of colleges and employers, so standards are consistent across the public system and state-mandated assessments can help improve the transition to postsecondary programs.

- Promote rigorous curriculum alignment by sharing college performance data with sending high schools and giving college entrance exams to high school students for diagnostic purposes.

- Align need-based financial aid incentives for middle and high school students with college expectations and requirements for success.

- Create governance mechanisms that improve secondary and postsecondary alignment of goals, planning, and budgets.

**Align high school curricula, assessments, and graduation standards with the expectations of colleges and employers.**

The standards-based reform movement has made great progress in identifying what young people should know and be able to do at different points in their
Minimum passing scores for state high school assessments are often set so low that a passing grade does not guarantee that graduates are academically prepared for high-skilled and well-paid jobs and careers in today’s economy.

K–12 education. Unfortunately, in most states, the stark separation between K–12 and postsecondary systems has led to setting standards for high school graduation—and calibrating tests that assess student learning—without consideration of, or alignment with, the entry or placement standards of public colleges and universities. Many states have set high school competency-based exit exams at the eighth- or ninth-grade level, often too low to meet the standards for entry and success of their own public colleges and universities.

Similarly, minimum passing scores for state high school assessments are often set so low that a passing grade does not guarantee that graduates are academically prepared for high-skilled and well-paid jobs and careers in today’s economy.

Low standards in high school isolate students from one of the best sources of information on what it means to be college-ready—the learning expectations built in to rigorous high school curricula.

This disconnect between the K–12 and postsecondary systems is a major reason why more than 33 percent of all college students and 63 percent of all community college students must take remedial courses in basic math or language arts skills upon admission. It is also why employers do not view the high school diploma as certifying the knowledge and skills they want in any but their most unskilled employees.

The single most powerful change that states could make in their graduation requirements and in their system of standards and assessment of student outcomes would be to align secondary exit requirements with postsecondary requirements for placement into credit-granting degree programs. Some states, such as Oregon, have been working toward this goal for about a decade. Others, through the American Diploma Project and other efforts, are also pursuing this agenda. States will have to move in this direction, but they should do so carefully to avoid several potential pitfalls.

If, for example, high school exit requirements were raised immediately to align exactly with college placement requirements, the failure rate on those assessments would be politically unacceptable. Yet requiring a sequence of tests in high school—for example, an exit test calibrated at the tenth-grade level and a later test calibrated at college placement requirements—runs the risk of sending mixed signals to students and undercutting the value of the test that has lower stakes attached to it. Some have argued for a common core curriculum in high school, coupled with end-of-course exams, as a way of raising standards and aligning them with college requirements. This is the approach taken by New York, which has a standardized curriculum and Regents exams to guarantee quality and rigor for all students.

States could consider these ways to progress toward an alignment of K–12 exit and higher education entrance and placement standards and assessments.

- States could examine the content of both high school exit exams and state postsecondary placement exams to determine where there are gaps, inconsistencies, and a need for improving one, the other, or both.
• States with exit exams that are already sufficiently rigorous could set a test score that colleges and high schools agree reflects the ability to do college-level work and provide students who achieve this score automatic entrance to credit-bearing postsecondary courses.

• States could take incremental steps toward alignment by encouraging or providing incentives for the state higher education system to administer its placement test to local high school students. This would enable students to determine how and how much they need to improve to be ready for college without remediation. States could also use other tools that improve the signals that colleges send high school students.

• Another incremental approach is to require districts to place all high school students in a college-preparatory curriculum, unless students and their parents petition to opt out.

• States could minimize the number of exams required of high school students, focusing on math, reading, and writing skills while affording more local discretion and flexibility in administering end-of-course exams in other subjects.

EXAMPLES: The American Diploma Project (ADP) involves five states—Indiana, Kentucky, Massachusetts, Nevada, and Texas—in an initiative to ensure that high school exit requirements are high enough to satisfy the demands of both colleges and quality employers. Led by Achieve, Inc., the Education Trust, and the Thomas B. Fordham Foundation, ADP helps states analyze whether they have set the bar at the “right place” for reading, writing, and mathematics graduation requirements. The “right place,” according to the collaborative, is high enough to enable all graduates to attend a state college or university without the need for remediation, qualify for a job that allows for promotion along a career path, or be ready for professional placement in the armed forces. To this end, the ADP states are working to identify skills and performance levels that both colleges and employers say they need from high school graduates.

In New York, state and local policies have combined in a systemic effort to improve postsecondary attainment. The state has made passing the rigorous Regents exams a prerequisite for earning a high school diploma. At the same time, City University of New York (CUNY) phased out remediation courses at all of its four-year colleges. These simultaneous policy changes led CUNY leaders to look carefully at how the Regents exams might align with a no-remediation college placement standard. Based on an independent assessment of the Regents exam, the CUNY system decided that any high school student who scores 75 or higher on the math or English exam will not need remedial courses upon entering CUNY. New York City is the first major public education system in the nation to align its high school exit and college placement exams.

Oregon has been working to align high school and postsecondary standards since 1993. When fully implemented, the Proficiency-based Admission Standards System (PASS) will align Oregon’s high school standards—the existing proficiency-based tenth-grade certificate of initial mastery along with the twelfth-grade assessment
One way states can make closer alignment take root locally is to encourage or mandate regular information-sharing between state colleges and universities and the high schools that send their graduates to these postsecondary institutions.

Still under development—with college admission and placement. Students will have to demonstrate proficiency in six areas: math, science, English, social science, the arts, and a second language. PASS will ensure that high school exit and college entrance assessments test for the same knowledge base. The state believes the system will greatly improve college placement decisions. To make the system work, Oregon is revamping its student record data system, training faculty in implementing PASS, and planning to provide feedback to high schools that compares their students’ college performance with their students’ PASS assessment results.

Texas has made the college-preparatory curriculum the standard curriculum for all students in the state. Students are automatically enrolled in the rigorous Recommended High School Program (RHSP) unless their parents explicitly choose a different curriculum for their child. Financial incentives through the Texas Scholars program make in-state college financial aid available to students who accumulate the RHSP credit hours. The Center for State Scholars is helping build momentum in other states, including Arkansas, for a similar policy change.

**Promote rigorous curriculum alignment by sharing college performance data with sending high schools and giving college entrance exams to high school students for diagnostic purposes.**

Formal alignment of high school exit and postsecondary entrance assessments is critical. At the same time, however, that alignment must be structured so appropriate signals and feedback are provided to high schools, their faculty, and their students. One way states can make closer alignment take root locally is to encourage or mandate regular information-sharing between state colleges and universities and the high schools that send their graduates to these postsecondary institutions. Some states’ postsecondary data systems contain information on students’ high school grade point average (GPA), college credits, and other admissions data. Extracting this information has enabled states to develop feedback systems that allow high schools to receive information about their graduates’ postsecondary performance. Moreover, administering college placement exams in the sophomore and junior years of high school help convey information about the standards that students must meet to do college work without remediation.

Minnesota’s experience in providing this feedback illustrates the potential of such policies to help high schools better understand the academic strengths and weaknesses of their graduates from the perspective of the state’s postsecondary institutions that admit those graduates. It also demonstrates the difficulties of implementing this kind of reform without the foundation of a sophisticated, longitudinal, integrated K–16 data system and sufficient resources and incentives for colleges to help sending high schools make use of valuable feedback.

Minnesota is not alone. Data from postsecondary institutions are shared with high schools in Illinois, Maryland, Oregon, and Texas. However, a survey of K–12 educators in those states found that among those who knew about the data, none reported using the information for any purpose.26
In the early 1990s, the Minnesota legislature passed legislation designed to provide better information to high schools on the college-readiness of their students. The law requires all public colleges and universities in the state to report to school districts on the developmental course-taking of their students within two years of graduation and on their performance on college placement tests and other performance measures used to determine college-readiness. The legislature simultaneously amended the state’s Government Data Practices Act. Colleges and universities can now report individually identifiable student data so school districts can make better use of the reported data for school improvement. There have been data incompatibility challenges to overcome, and only two reports have been completed to date. Yet the team preparing the reports meets regularly with school district personnel to ensure the data is in a format and of a quality that can be used advantageously at the local level. A team of national researchers has found that institutionalizing this kind of feedback has two positive effects: it provides the high school with powerful information; and it increases the interaction between college and high school leadership, bridging the gap between the two levels of the education system.27

The Oklahoma State Regents for Higher Education pay for every public school student to participate in ACT’s Educational Planning and Assessment System (EPAS). The State Regents also fund EPAS for nearly 40 private schools and two Bureau of Indian Affairs schools in Oklahoma. EPAS is a comprehensive student information system with a decade-long track record of improving course preparation and college participation among Oklahoma students. As a result, more Oklahoma students are planning for college, completing a college “core” curriculum, and moving out of the lower ACT score range, which reduces the need for remedial education.28 The Southern Regional Education Board recently noted that Oklahoma is one of three states in which gains in state students’ ACT scores during the past decade have exceeded national score gains. West Virginia, one of the other two, has also instituted a statewide EPAS program.29 Louisiana has just begun its third year of full EPAS implementation for all eighth- and tenth-grade public school students. This year Louisiana will also generate linkage reports that enable the state to track how individuals who took the test as eighth-graders perform as tenth-graders. The state expects the reports to play a critical role in middle and high school curriculum development.

**Align financial aid incentives for middle and high school students with college expectations and requirements for success.**

States frequently use financial aid and scholarship policies to promote college attendance among low-income, first-generation, and other students who might otherwise not see themselves as college-bound. These policies become increasingly important as college tuition increases at public and private institutions outpace the growth in family income, discouraging low-income students who are more likely than other students to decide against attending college when prices increase.
In recent years, states have expanded their investments in merit-based aid. Although these programs promote higher academic aspirations, low-income students are less likely to be eligible for them. Some states, such as Indiana and Oklahoma, have found a way to reverse this pattern. These statewide programs identify talented, low-income middle school students, share with them the academic requirements for college success, support them through high school, and reward them with full tuition at a public college when students show they have taken rigorous courses and received good grades. Aligning these signals for students, in turn, has provided a powerful incentive for the K–12 and post-secondary systems to align middle and high school curriculum with postsecondary standards for success.

**EXAMPLES:**

**Indiana**’s Twenty-first Century Scholars Program aims to ensure that students from low- and moderate-income families can access higher education. Students whose families are income-eligible enroll in the program during the seventh or eighth grade. Those who graduate high school with a minimum 2.0 GPA and meet good citizen standards receive a four-year tuition scholarship. The scholarship is honored at most Indiana institutions and covers the full costs of public tuition and partial costs of private tuition. Through this incentive, Indiana has been successful in helping students pursue and complete postsecondary education goals. Evaluations have found that participating ninth-graders are four times more likely than nonparticipating ninth-graders to enroll in college. Scholarship recipients are also more likely to persist as freshmen and sophomores.

**Oklahoma**, too, has created a scholarship incentive designed to help low- and moderate-income students plan and prepare more effectively for college success. Its Higher Learning Access Program promises the equivalent of public college tuition for five years or through baccalaureate completion for income-eligible middle school students who complete a 17-unit college-preparatory curriculum, maintain a 2.5 GPA, and refrain from substance abuse. Coupled with a planning and assessment system that helps students make informed choices about their postsecondary goals, Oklahoma has seen strong improvement from its early intervention initiative. Participants have higher ACT scores, GPA averages, and college attendance rates (80 percent) than the state average. They also have significantly lower college remediation rates (27 percent in contrast to 34 percent) and higher five-year degree completion rates than all first-time freshmen in the state (47 percent in contrast to 33 percent).

**Create governance mechanisms that improve secondary and postsecondary alignment of goals, planning, and budgets.**

Within each state—and at the federal level as well—a division exists that is based on the historical and pervasive assumption that K–12 schools and colleges and universities should be guided by policies exclusive to each sector. As a result, the public policy “tools” that influence one sector—funding, accountability, and governance systems, for example—have little in common with the policy tools that influence the other sector. Moreover, many states have separate governing boards and legislative committees for each sector. These structural barriers impede joint
policymaking and communication on issues such as funding, accountability, data sharing, matriculation and transfer, student learning (curriculum, standards, and assessment), and teacher training and professional development. To better coordinate goals, planning, and budgets across K–12 and higher education, states can create an overarching governance structure. This structure may be voluntary or permanent, but it should have the authority to work across sectors in four ways.

Manage an ongoing stakeholders’ forum that calls for improved educational outcomes. Governors are encouraged to identify policy goals that secondary and postsecondary education can only accomplish by mutual action. These policy goals could include reducing remediation, increasing postsecondary completion, and reducing enrollment and persistence gaps among white, minority, and low-income students.

Promote and fund cross-institutional initiatives. Governors are encouraged to fund initiatives that bring together institutions from all sectors. For example, states can increase their support for dual and concurrent enrollment. Broader student participation in these accelerated opportunities would compel secondary and postsecondary institutions to align curriculum, standards, assessments, and the transfer of academic credit.

Align performance goals and data and create K–16 accountability systems. Systems that share common goals and accountability systems will force K–12 and higher education governance bodies to look outward to linkages between the systems and the transitions students must make.

Create more opportunities for integrated legislative policymaking. These recommendations will be easier to accomplish, and more effective in their implementation, if there is an organizational base for K–16 policymaking and oversight.

EXAMPLES: Some states have emphasized cabinet-level coordination. Florida moved aggressively toward combining education governance bodies into a single K–20 state education board, with increased gubernatorial control. The state board of education, all of whose members are appointed by the governor, has primary responsibility for the system of state education from kindergarten through graduate education. State roles include system policy and goals, budgets, long- and short-term planning, accountability standards, performance monitoring, technical assistance, and enforcement of accountability. A statewide initiative in 2002 reestablished an independent university governing board responsible for operating, regulating, controlling, and managing the state university system.

Maryland took a different route, creating a voluntary K–16 Partnership for Teaching and Learning in the mid-1990s, an alliance among the Maryland Department of Education, the Maryland Higher Education Commission, and the University System of Maryland. The partnership is charged with developing strategies for strengthening K–16 connections, standards, competencies, assessments, educator professional development, and community engagement in educational activities. The partnership’s authority rests with the heads of the
There is a serious shortage of high-quality school environments that can motivate low-achieving high school-age students to take responsibility for their learning and succeed academically.

### Promote More Learning Options

Effective state education reform strategies start with clear goals for better performance and also include standards, assessments, and accountability systems that help schools and districts move toward those goals. However, these policy strategies are not sufficient. Most communities and states need more, and more varied, learning options for older adolescents. There is a serious shortage of high-quality school environments that can motivate low-achieving high school-age students to take responsibility for their learning and succeed academically.

The nation’s large, one-size-fits-all high schools are themselves an obstacle to success for many young people, particularly low-income and low-achieving youth. They are too impersonal, inflexible, and alienating for many young people, especially those who need extra academic and social supports to catch up and succeed. Today’s high schools still tend to sort students into those likely to succeed in postsecondary learning and those destined to fail, rather than require that all students have access to rigorous curricula. Low-income students are less likely to be enrolled in the college-preparatory program than their middle- or high-income peers (28 percent, compared with 48 percent and 65 percent, respectively). African American and Hispanic youth are similarly disadvantaged (25 percent and 22 percent, respectively, compared with 34 percent for white students and 42 percent for Asian students).

At the same time, the alternatives to the comprehensive high school are inadequate. Underfinanced alternative schools and second-chance system programs that try to fill the gap are typically too weak, have slots for too few students, and struggle to meet the standards for academic rigor that young people need. This sector also has trouble attracting skilled, trained instructors and is frequently unable to address the academic deficiencies of dropouts or at-risk adolescents with the limited and unstable resources available to it. A different way of thinking about high school options is needed if states are to significantly improve secondary and postsecondary outcomes for their lowest achievers.

States are experimenting with different approaches to increasing the supply of quality schools and programs for their high school-age youth. Frequently, they are partnering with foundations in these efforts. One strategy is to encourage the expansion of efforts to connect low-achieving and low-income students with higher-quality, college-level learning programs. Another is to create incentives for new schools—typically small schools serving not more than 400 students—that offer the academic rigor, focus, and personalization that are typically missing in large high schools and that appear to be effective in motivating higher achievement for their students.
Many distinct small high school models are emerging, varying greatly in their structure, curriculum, financing, and target population. They include schools that are open throughout the year; blur and minimize the transition between high school and college; are based on community connections and resources; individualize learning plans and curricula for each student; emphasize technical preparation for good jobs in the adult labor market; and deliver instruction and assessment on the Internet. In this period of experimentation, a broader range of alternatives has only begun to emerge.

Most new small high schools share a commitment to high expectations and a meaningful course of study and aim to support and advise students as they move through high school and toward postsecondary learning. Many more of such schools are needed to address the great variation in young people’s needs and interests and to expand the options available to them.

States have several ways to encourage more high-quality learning options for older adolescents. They can encourage replication of school and program models that demonstrate improved graduation, achievement, and college success outcomes. They can intervene in failing large high schools and support their reconstitution into smaller ones. They can finance the startup and expansion of new school models through competitive grants and more ambitious policies that expand student choice.

Create new high school models that improve the transition from secondary to postsecondary learning programs.

States are using different strategies to promote new high school models that can improve secondary and postsecondary outcomes. Particularly promising are models that minimize the difficulty of the transition to postsecondary learning programs by enabling students to experience college-level work and earn college credit while in high school.

Expanding Advanced Placement or other high-quality college-level programs. Several states have created incentives and supports for local districts to expand their Advanced Placement (AP) offerings, particularly to lower-performing students. This new investment is based on local program findings that show average- and low-achieving high school students, with support, can prepare for college and succeed in postsecondary programs. One ethnically and racially diverse high school in Minneapolis concluded that, with support, students who test as low as the 65th percentile in reading can succeed in an AP class environment, learning what it takes to do college work and earn college credits. Today, about 30 percent of its total school population is enrolled in AP or pre-AP courses.

**EXAMPLES:** Minnesota, where AP class enrollment is comparatively low, is exploring ways to expand AP enrollments across the state. Along with other midwestern states, Minnesota is part of a project to identify barriers to AP enrollment, align AP courses with state graduation requirements, and strengthen supportive instructional materials and professional development for AP teachers.
After Texas found that about half of its middle and high schools did not offer any Advanced Placement or International Baccalaureate courses, the state launched an initiative to expand access to AP courses for underserved students. The state now provides stipends for teachers to attend summer institutes on AP teaching if they offer a new course the next year; payments to schools for each student who successfully completes one or more AP courses ($100 in 2002); and financial incentives to students through subsidies for exam fees. The percentage of minority students taking AP courses in Texas has risen 74 percent since 1999, particularly in border regions where Hispanics comprise a majority of the student population.

Promoting dual-enrollment programs that enable high school students to take college courses for credit. All but three states have a dual-enrollment program that enables high school students to enroll in one or more college courses prior to graduation. Dual enrollment exposes students to college-level study and enables them to earn high school and college credits simultaneously. Participation is growing rapidly as families respond to rising college costs and rising expectations of high school course offerings and quality. Most dual-enrollment programs are limited to students with a B or better average, but states could revise their program eligibility to expand underrepresented populations’ access to college courses and institutions. The more well-subscribed programs open participation to any student in the state who can meet entry requirements, regardless of whether their district wants to participate in the program.

Developing Early College High School models that integrate grades nine to 14 in a single school. A small but growing number of high school models integrate secondary and postsecondary education into a single, seamless, coherent program. Some of these models serve students who have dropped out of high school, while others reconfigure the learning experience for students still in high school. One new school model—the Early College High School—minimizes the transition from secondary to postsecondary learning by integrating the two in a single school.

**EXAMPLES:** Ohio, Utah, Virginia, and several other states are committed to introducing an innovative small school model that integrates secondary and postsecondary learning programs in the same school, providing graduates with both a high school diploma and two years of college credits. The Early College High School model is an adaptation of schools launched by Bard College in New York City and of “middle colleges” that locate high schools on college campuses. These schools hold the promise of more efficient transitions to postsecondary credentials, particularly for at-risk students, because they help ensure students leave high school prepared to succeed in college. These schools also dramatize the need for greater coordination and alignment between K–12 and higher education systems and policies.

Utah uses a financial incentive to increase the number of students taking advantage of dual enrollment for a significant proportion of their coursework in the last few years of high school. The New Century Scholarship pays 75 percent of a student’s college tuition (i.e., the last two years of college) at any Utah state-
operated higher education institution so long as the student earns an associate’s degree by September 1 of the same year he or she qualifies to graduate from high school. Since 2000, 270 students have taken advantage of this initiative and earned state-financed scholarships.

**Washington**’s Running Start program began in the early 1990s. Qualified eleventh- and twelfth-graders can take college courses for free at the state’s 34 community and technical colleges and three public universities. The school district pays the college tuition according to a state-set formula. In 2000–01, more than 13,000 students took advantage of the program. Parents saved $14 million in tuition and taxpayers saved $28.8 million in public education expenditures. Students performed well in the program and after transferring to the colleges (average GPA of 3.09 at the University of Washington, compared with a 3.18 GPA for community college transfers to the university). Like all dual-enrollment programs, Running Start has to balance the sometimes competing goals of rigor and access. However, at 16 percent, participation by African American, Native American, and Hispanic students is below their proportion in the total high school population.37

**Design financing strategies that promote new school models.**

States can play an important role in expanding the supply of good public school options. New schools typically have extra startup and development costs, and securing facilities is a particular challenge. Small schools tend to have higher per-student costs than larger comprehensive high schools, though some argue that the per-graduate cost to the taxpayer is lower because of small schools’ higher retention and graduation rates. States can help finance new quality learning models for older adolescents by broadening state charter legislation and authority, creating a competitive grants process, and enabling school funds to follow at-risk low-income students to alternative learning settings.38

**Strengthen and broaden charter laws to encourage more choice.** Charter laws are one of the most important ways for states to promote and finance an expansion of publicly funded learning options for high school-age youth. Forty states and the District of Columbia have enacted charter legislation, creating a mechanism for the birth of new schools that gain autonomy in staffing, budgeting, certification, and programming in exchange for accountability for results. State laws vary greatly in terms of chartering authority, funding levels and mechanisms, the degree of autonomy, accountability expectations, and other characteristics.

A well-designed charter law can be a relatively low-cost way to stimulate the supply of quality new high schools. A poorly designed law can be at once too restrictive and limiting or too lax about accountability and responsibility for outcomes. Experiences to date provide some important lessons and guidance for states. More effective state charter laws tend to include the following provisions:39

- multiple authorizing entities in addition to school districts, including universities, community-based organizations, and the state;
One way to increase the supply of quality learning alternatives for young people who are not succeeding in high school is to make more funding available to alternative providers.

- autonomy in budgeting, staffing, and day-to-day operations in exchange for being held to the same accountability standards and expectations as all other schools; and

- access to startup capital and financing for facilities to help overcome the initial challenges of launching a new school.

States can shape their charter legislation to promote explicitly the goals of more options for low-income youth and closer links to postsecondary institutions and programs. Texas initially exempted from the cap on charters any school with 75 percent or more at-risk students as defined by the state, though that exemption has been eliminated in response to the poor performance of a large number of Texas charter schools. In several states, colleges and universities have a special status in applying for charters for new schools. These provisions, if used to create new high schools, can strengthen the linkages between secondary and postsecondary institutions through geographic proximity, curricular support, and faculty interaction or sharing.

**EXAMPLE:** Minnesota’s charter school legislation, the first in the nation, effectively balances incentives and opportunities for new school development with an emphasis on accountability for improved outcomes. The law allows for authorizing entities in addition to school districts, including higher education institutions and nonprofit organizations. An appeals process exists for applicants who do not get approval from their school district. State per-pupil funding is at the same level that school districts receive. The state also makes funds available for leasing school facilities as well as for startup costs in the first two years.

**Create an innovations fund to promote new high school models.** The Bill & Melinda Gates Foundation and other private entities are funding initiatives to create clusters of small schools in districts and states around the nation. North Carolina has recently created its own high school innovations fund, and other states are considering legislation to create this financing mechanism.

**EXAMPLE:** North Carolina has created a high school “innovations fund” as part of legislation designed to increase high school and college completion rates. The Governor’s Education Task Force identified “reforming the high school experience” as one of the state’s six strategies for building a superior public education system. Concluding that the state needed to encourage more options and customization for students in smaller schools with more supports for college and workforce success, the task force recommended that a High Schools Innovations Fund be created with public, foundation, and corporate money to provide seed capital for establishing theme or workforce-focused high schools. The initiative aims to link education and economic development by supporting collaborative efforts among high schools, community colleges, four-year institutions, and local businesses. The innovations fund will provide startup grants for three to four years for new or existing schools. The new law permits high schools, community colleges, and public and private colleges and universities to establish high schools together. It also includes provisions for creating a “virtual” high school and for customized learning programs for accelerated students or those who can benefit from early graduation.
Explore ways for education funds to follow the student. One way to increase the supply of quality learning alternatives for young people who are not succeeding in high school is to make more funding available to alternative providers. In an environment where funding flows primarily to districts, charter school financing has been one popular option. Another approach is to “let the dollars follow the student,” which stimulates the supply of quality high schools by making it economically attractive to serve students in low-performing schools or not performing adequately in existing settings. In urban communities, where there are simply not enough effective high schools, this approach can stimulate new providers or the expansion of effective schools interested in tapping a stable revenue source. It is important that such an innovation be targeted to those who are served least well by existing institutions and that accountability systems for new providers be consistent with those under which existing schools operate.

The principle of letting the dollars follow the student can be translated into practice in ways that make low-achieving, low-income youth more attractive to education providers and that bring more money to schools with a high proportion of vulnerable youth. One approach, used in Minnesota and Wisconsin, is to limit this option to students who are clearly at risk of dropping out. This can stimulate alternative education providers to serve more students. Another approach is to estimate the real costs of educating youth with learning disabilities and to assign a higher “cost” to students who have risk factors that are likely to require more intensive services to overcome. This approach can make lower-achieving students more attractive and bring more equitable funding to schools with greater needs.

Most states’ school finance systems penalize those who drop out before the end of high school, because public per-student expenditures are not portable. Leading high school reformers have proposed individual learning accounts that enable public education resources to follow students. These accounts would receive deposits from various forms of federal, state, and local aid and would be self-directed by students and parents to maximize students’ learning experiences and choice of learning options.40

**EXAMPLE:** Wisconsin and Minnesota allow state money to follow vulnerable youth through “children-at-risk” statutes that enable public schools districts to contract with private, nonprofit, nonsectarian agencies to educate children who meet prescribed criteria for “at risk.” Enacted in the mid-1980s, these statutes create a more stable funding stream for nonprofit agencies or community-based alternative schools. Districts with large numbers of dropouts and youth who meet the at-risk criteria are required to let those students choose alternative education environments. In Milwaukee, contracted providers are considered Milwaukee Public School system “partnership schools” and receive per-pupil funding at 80 percent of the average per-pupil expenditure. This funding mechanism has increased the stability and capacity of local alternative education providers. Similarly, about 30 community-based alternative schools operate within the Minneapolis Public Schools system under similar legislation and account for 20 percent of the state’s high school graduates.41 In a time of scarce resources, this
targeted financing mechanism can be fiscally and politically prudent while also helping districts address the lack of engaging education alternatives for hard-to-serve, low-achieving youth.

Focus on Low-Performing High Schools

A major obstacle to achieving the dual goals of increasing the number of state residents with postsecondary credentials and reducing the disparities among subgroups in postsecondary attainment and achievement is the quality of the high schools that young people attend. Low-performing schools—with disproportionately higher numbers of low-income and minority students—are concentrated in cities and, to a lesser extent, in rural areas. These schools stand as barriers to states increasing the efficiency and equity of their education pipeline. Significant progress toward improving student postsecondary outcomes and narrowing the achievement gap requires effective strategies to address a state’s lowest-performing high schools.

The No Child Left Behind Act acknowledges this challenge. The law requires states to take steps to identify and improve performance in schools that are not making adequate yearly progress in raising math and reading and language arts achievement for their students, as a whole and disaggregated by subgroups. The National Governors Association Center for Best Practices recently wrote a guide for governors on how to respond to NCLB low-performing school requirements and on strategies that states can use to turn around their most dysfunctional schools.42

Because high schools serve older adolescents and because they are structured around distinct academic content areas, high school improvement strategies must differ markedly from those for elementary and even middle schools. For high schools, student motivation and engagement are more difficult to secure; school schedules are more rigid; state requirements are more constraining; and methods and opportunities to address reading and math deficiencies are developed less well. However, the phenomenon of truly dysfunctional high schools is highly concentrated. Johns Hopkins University researchers Robert Balfanz and Nettie Legters have demonstrated that the lowest-performing high schools serving large numbers of young people are in the largest cities. They have identified 400 urban high schools where freshmen cohorts had shrunk by 50 percent or more by their senior year. Urban high schools also tend to have disproportionate numbers of adjudicated and unemployed youth.43

What can states do to help raise achievement in low-performing high schools? To a large extent, the answer to this question lies in uncharted territory. There is little research on what it takes to improve student achievement in low-performing high schools. Districts and states are only beginning to test the effectiveness of different interventions. However, there is growing consensus on the kinds of policies that can help students in low-performing schools have a better chance of getting a quality education and succeeding in postsecondary studies.
• Develop a specific statewide plan for improving low-performing high schools that identifies and differentiates schools based on the extent of their poor performance. The plan should specify actions the state will take to provide assistance to schools that can benefit from it and to intervene more aggressively in schools that cannot.

• Target statewide incentives and investments to attract and retain high-quality teachers in low-performing high schools.

• Intervene swiftly and aggressively in schools that lack the capacity to improve.

• Give schools with a high proportion of at-risk youth sufficient resources to address their academic needs.  

**Develop a specific statewide plan for improving low-performing high schools.**

States have two major functions in trying to help turn around low-performing schools, including high schools. First, states must identify the schools that are most in need of improvement by differentiating schools that are more or less capable of “righting” themselves with time, resources, and outside help. Second, states must determine the steps they will take to assist a failing school or intervene to change leadership, staff, culture, and/or instructional practice.

**Identify low-performing high schools.** States typically use standardized test results to identify their lowest-performing schools, but they should not rely solely on these tests. State high school assessment tests are only taken by students who are still enrolled, making dropouts from a given school invisible casualties. For this reason, states may also want to use the “promoting power” measure created by Balfanz and Legters. This longitudinal measure is calculated by dividing the number of twelfth-graders by the number of ninth-graders at the school four years earlier.

**Differentiate high schools that can or cannot improve.** The No Child Left Behind Act creates a challenge for states because they cannot effectively address all of the schools that are not making adequate yearly progress targets. For this reason, states will have to designate certain low-performing high schools as priorities for assistance. To determine these priority schools, states can distinguish between schools that have the internal capacity (e.g., leadership, 

### Requirements for High Schools in the No Child Left Behind Act

Although high schools are subject to fewer mandates than elementary and middle schools, the No Child Left Behind Act includes specific requirements that high schools must meet. Specifically, high schools must:

- end the practice of counting GED and other alternative graduation certificates as comparable to high school diplomas;
- employ only “highly qualified” teachers in core academic subjects by the end of the 2005–06 school year;
- define graduation rates in a rigorous and standardized way;
- test students in one grade (grades 10 to 12) annually in math, reading, and eventually science (2005); and
- steadily increase test scores and graduation rates so 100 percent of students meet the “proficient” level of achievement by spring 2014.
qualified staff, facilities, culture of improvement, and access to performance data) to improve if they were to be given adequate support and guidance and schools that are too dysfunctional to make good use of state assistance without major changes in staff, programs, and leadership.

Recent research emphasizes the importance of “internal” capacity and accountability—the ability and willingness of school personnel to work together to make the changes needed to meet higher standards. A study of schools put on probation in Chicago found that the schools quickest to come out of probation were those that had sufficient leadership, peer collaboration, and commitment to student learning to develop and implement effective improvement plans.

Specify state strategies for helping the poorest performers improve. States have to decide when to provide opportunities to improve—through time, resources, and technical assistance—and when to move quickly to intervene decisively in a school and end existing routines and patterns of behavior. It is preferable for states to favor technical and financial assistance over sanctions and penalties for low-performing schools. Some poor-performing schools will respond effectively to structured improvement plans that include state technical and financial assistance. Moreover, the threat of sanctions may be irrelevant—or counterproductive—for the most dysfunctional schools, particularly in urban areas. For these institutions, the added pressure of financial or other sanctions that penalize schools or staff can undermine morale and erode what little commitment exists to improve student learning. Sanctions also may make it even harder to attract good teachers and administrators.

State policy will have to combine technical assistance and strong interventions. Although strong interventions are both costly and risky, they hold promise for dramatically improving the learning environment for young people who have been relegated to the worst schools in the nation. Equally important, strong interventions signal schools and districts that the state will no longer turn a blind eye to failure.

**EXAMPLES:** New York is dividing its low-performing schools into three groups that will receive different levels of support and assistance from the state: “schools in need of improvement,” “corrective action schools,” and “schools under registration review.” The first two groups will receive technical assistance from the district and from state regional school support centers. Schools under registration review will receive more intensive assistance from the state.

Based on student test scores, South Carolina schools and districts are rated in one of five categories, from “excellent” to “unsatisfactory.” Most state assistance for school improvement is targeted to schools rated “unsatisfactory.” These schools must undergo a comprehensive review by an external audit team of K–12 and university educators and other local stakeholders. Assistance is provided to schools to draft an improvement plan. Principals in the most needy schools are provided a coach or mentor. Grant funds are made available for professional development, after-school programming, and new instructional materials.
Some states have found that strengthening state requirements—and support—for new teacher induction and mentoring programs can both attract and retain teachers in schools that are struggling to raise performance.

Twenty-six of the first 73 schools rated “unsatisfactory” in 2001–02 demonstrated sufficient improvement to move out of that category.50

**Target statewide incentives and investments to attract and retain quality teachers in low-performing high schools.**

The poorest-performing schools tend to have the highest percentage of uncertified, inexperienced, and least well-educated teachers. Classes at high-poverty high schools are 77 percent more likely to be taught by out-of-field teachers than are classes at low-poverty schools.51 High-poverty schools also suffer from higher teacher mobility and absenteeism.52 Teachers in schools with minority enrollments of 50 percent or more leave their positions at twice the rate of teachers in schools with relatively few minority students.53 Without the hope of attracting high-quality teachers, poorly performing schools are unlikely to have the capacity to improve student achievement.

Many experts in urban education believe that only some form of financial incentive for working in lower-performing schools will attract high-quality teachers to the schools that need them most. Targeting incentives to low-performing high schools and their teachers may be necessary, given the difficulty urban high schools have finding teachers qualified to teach in their field.

The No Child Left Behind Act allows states to use federal funds to experiment with differential pay for teachers, as an incentive to attract better teachers to weaker schools or districts. Although several states and districts are experimenting with differential pay, few are specifically targeting low-performing schools or high schools. Other incentives being tested or explored to attract and retain quality teachers are stipends for teachers who are certified by the National Board for Professional Teaching Standards, scholarships to high-achieving college graduates to teach in urban schools, incentive pay for those with a master’s degree in the licensed subject area, and incentives tied to participation in professional development activities that are linked to the state’s improvement plan.

**EXAMPLE:** In 2002 Kentucky passed House Bill 402, which established provisions for retaining and training good teachers across K–12 institutions. The law authorizes school districts to experiment with new financial incentives aimed at attracting teachers to hard-to-staff positions, providing career advancement opportunities for classroom teachers, and encouraging people to consider teaching as a profession. In March 2003, through a competitive process, the state education department awarded two-year grants to 10 districts to create incentive plans that augment but do not replace existing salary schedules. Proposals ranged from relatively simple ideas such as tuition reimbursement plans for teachers in critical shortage areas to more complex evaluation plans that reward proficient and distinguished teacher performance. This strategy could be used to promote teaching in low-performing high schools or schools with a high percentage of low-income students.
In addition to financial incentives to attract and retain quality teachers in low-performing schools, states have turned to professional incentives. Some states, for example, have found that strengthening state requirements—and support—for new teacher induction and mentoring programs can both attract and retain teachers in schools that are struggling to raise performance. Most teaching skills are developed through professional practice and on-the-job training. State-supported induction programs targeted to new urban teachers can improve instruction and increase retention of good teachers.

A growing number of urban districts are working with state and private-sector leaders to develop teacher training and credentialing programs that can attract motivated individuals to the profession via alternative routes. Almost every state now has alternative routes for preparing or certifying teachers. Some of these routes focus on recruiting and preparing teachers for work in inner-city and low-performing schools. For example, some districts are creating partnerships with teacher training institutions so candidates receive instruction on strategies required for success in districts with a high concentration of vulnerable youth. The districts help design the training program around the needs of high schools and their students. The city of Boston in Massachusetts has created a stand-alone professional development and certification program to attract new teachers to its schools. Boston Teacher Residency is a one-year urban teacher preparation program. Teacher residents co-teach with a master teacher in one of Boston’s high-performing public schools, take coursework facilitated by experienced teachers and university faculty, and receive $10,000 during their year-long residency. Teacher residents earn a Massachusetts Initial Teacher License, with the option of earning a master’s degree in education. The American Board for the Certification of Teacher Excellence, Teach for America, Troops to Teachers, and the Western Governors University offer other alternative approaches for recruiting, preparing, and licensing teachers.

Several districts, and a few states, have developed “grow-your-own” teacher recruitment and training programs that offer financial and academic support to paraprofessionals already working in hard-to-staff schools who want to earn teaching credentials. These recruits are more likely to be rooted in the community, invested in local schools, and willing to stay in their local schools after completing their credentials. They also are more likely to be minorities.

States can encourage these innovations in several ways. They can ensure laws and regulations do not unduly limit potential teachers to traditional programs in existing higher education institutions. They can also disseminate models and support experimentation by interested districts. In addition, states can leverage NCLB Title II resources for innovative teacher preparation and certification programs that attract well-prepared new teachers to districts with a high concentration of low-achieving students.

States could also consider requiring districts to be more explicit in tying professional development investments to state improvement plans for low-performing schools. Arkansas responded to low performance in its K–12 system.
by establishing a statewide professional development program in math, science, and reading that reached 85 percent of teachers. In six years after initial implementation, the state saw an 11-percent drop in the number of entering college freshmen needing remediation. For example, states could require districts to analyze how they currently use professional development dollars to achieve the goals of the state’s improvement plan and to identify the ways these investments will be tied to student attainment and achievement results.

**EXAMPLE:** Connecticut boosted student achievement during the 1990s—and reduced the achievement gap in its schools at a time when student poverty and linguistic diversity increased—with the help of a systemic strategy for improving teacher quality. This strategy includes:

- teacher salaries linked with higher teaching standards;
- performance-based teacher licensing;
- incentives for K–16 partnerships;
- more teacher education for reading and special education instructors;
- support for, and assessment of, beginning teachers; and
- detailed student performance information used to improve instructional practices.

The state also offers low-interest mortgages and downpayment assistance for teachers who work in high-poverty neighborhoods or teach subjects where supply is inadequate.

**Intervene swiftly and aggressively in high schools that lack the capacity to improve.**

Perhaps the most sweeping provisions of the No Child Left Behind Act are those that require states and districts to act more aggressively to improve or overhaul low-performing schools. For institutions in which internal capacity is so weak that leadership and faculty lack the skills or experience needed to turn around low achievement within several years, the act mandates a progressively more intensive set of interventions, moving from the provision of technical assistance and reliance on outside experts to the use of corrective actions. Corrective actions could include reopening the troubled school as a charter school, replacing its staff, contracting out the school’s operation to a private firm, or, after five years, closing the school. These NCLB provisions build off state practice; as of 2002, more than 10 states’ accountability systems already included provisions for school reconstitution, student transfers, and school closure. It is within this framework that states will consider options for aggressively intervening in low-performing high schools.

A promising new strategy is emerging in several cities. In Boston, New York, and elsewhere, without waiting for NCLB to take effect, districts are closing large comprehensive high schools and reopening them as new schools, typically as a set of small schools that are collocated in the same facility but have separate leadership and staff. In Boston, where South Boston High was closed several...
years ago and replaced with three colocated but independent schools, the district is now replicating the approach with the chronically low-performing Dorchester High School.

States can support and accelerate this kind of transformation. More than 20 states have the power to take over poorly performing schools and/or districts. Some states are exploring the possibility of creating “recovery” or “reconstitution” districts run by the state and composed of schools that need to be shut down and reopened with a different structure, staff, and leadership. Although the decision to take over a school is not one to be made lightly, states should not shy away from takeover strategies. If a state has the vision and capacity to undertake an effective takeover and reconstitution, it can make a real difference for students trapped in dysfunctional schools. If reconstitution is coupled with a small schools strategy, it can also be a way for states to increase the supply of learning alternatives for older adolescents.

**EXAMPLES:** Maryland’s education department played an important role in helping school and civic leaders in Baltimore design and implement a plan to reconstitute Southern High School into a cluster of small high schools colocated in the same building. In 1997 the state transferred control of the Baltimore Public Schools to a new board of school commissioners appointed jointly by the governor and mayor. Low-performing schools were put into a separate chief executive officer (CEO) district under the direct control of the new schools’ CEO. As part of this effort, a decision was made not to try to keep poorly performing large high schools intact. Southern became the first test case when it was closed and reopened as four colocated small high schools. Early data indicate that Southern has improved students’ educational environment, which is a precursor to longer-term improvements in student achievement.

Texas recently passed legislation designed to lower the high school dropout rate and improve high school performance by requiring swift state action to intervene in low-performing districts. The new legislation requires districts to analyze information related to dropout prevention. If a district has been rated as “academically unacceptable” for two or more years because of its dropout rates, the law imposes sanctions designed to improve high school completion rates, including:

- requiring the development of a dropout prevention plan for approval by the commissioner;
- restructuring the district or appropriate school campuses to improve identification of, and service to, students who are at risk of dropping out of school;
- requiring lower student-to-counselor ratios on school campuses with high dropout rates; and
- requiring the use of other intervention strategies that have proven effective in reducing dropout rates, such as mentor programs and flexible class scheduling.

The legislation also establishes and administers a middle college education pilot for students who are at risk of dropping out of school or who want to accelerate high school completion.
Give schools with a high proportion of at-risk youth sufficient resources to address their academic needs.

High school students who are achieving significantly below grade level and who are in danger of dropping out tend to need more academic and support services if they are to stay in high school and catch up to their peers who plan to attend college. Low-performing high schools often have an overrepresentation of students who are at risk academically of dropping out and not continuing their studies. Some states allocate additional resources to low-performing schools. States may have to revise funding formulas and target resources to schools and districts with high proportions of low-achieving students, however, if achievement gaps are to be narrowed. Additional resources can make serving students with greater academic and counseling needs a more attractive proposition, providing an incentive to serve these young people rather than let them drop out.
Conclusion

Improving secondary and postsecondary success requires significant reforms within and across the two education sectors. In the current fiscal environment, governors cannot afford high schools that lose a large number of students before graduation, extensive remediation for college students failed by the K–12 system, and institutional subsidies for students who never complete their postsecondary programs. Nor can state leaders who have staked so much on education reform risk undercutting progress in raising achievement gains in the early grades by tolerating inadequate secondary and postsecondary performance.

Governors and other state policymakers can improve the efficiency and equity of their education pipeline using a state policy framework that incorporates this guide’s five core recommendations:

1. set a statewide benchmark for postsecondary attainment;
2. create and support an integrated K–16 data system;
3. better align K–12 and higher education expectations and incentives;
4. promote more learning options; and
5. focus on low-performing high schools.

Taking these actions will help states ready their young people for the challenges of tomorrow. Yet these policy goals are only part of the solution. The next frontier for change is inside public higher education. States must rethink and reform how they guide, finance, and oversee postsecondary institutions so these institutions become more committed to and accountable for high and continuously improving attainment and learning outcomes.
Notes

10 Sum et al., The Hidden Crisis.
12 Choitz and Widom.
17 Carnevale and Fry, 15.
18 Carnevale and Desrochers.


26 Andrea Venezia, Michael W. Kirst, and Anthony L. Antonio, Betraying the College Dream: How Disconnected K–12 and Postsecondary Education Systems Undermine Student Aspirations (Palo Alto, Calif.: Stanford University, 2003).

27 Ibid.


31 National Governors Association, “Clearinghouse on Educational Policy Issues,” at http://www.nga.org/center/topics/1,1188,D_5444,00.html.


33 Bill & Melinda Gates Foundation.

34 Mary Anne Raywid, Current Literature on Small Schools (Charleston, W.Va.: ERIC Clearinghouse on Rural Education and Small Schools, 1999).

35 Bill & Melinda Gates Foundation.


39 Tom Vander Ark, executive director, Education, Bill & Melinda Gates Foundation, e-mail communication with authors, 1 June 2003.


44 Mazzeo and Berman.


49 Mazzeo and Berman.

50 Ibid.


53 Jofitus and Maddox-Dolan.

54 Mazzeo and Berman.
## The Role of State Policy in Improving Low-Performing High Schools

**Participant List • February 27, 2003**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Institution/Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ilene Berman</td>
<td>Deputy Director, Education Division</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Kristin Conklin</td>
<td>Senior Policy Analyst</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Karen Daniels</td>
<td>Headmaster</td>
<td>Excel High School</td>
</tr>
<tr>
<td>Richard Kazis</td>
<td>Senior Vice President</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Nettie Legters</td>
<td>Associate Research Scientist</td>
<td>Center for Social Organization of Schools Johns Hopkins University</td>
</tr>
<tr>
<td>Christopher Mazzeo</td>
<td>Senior Policy Analyst</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Peter McWalters</td>
<td>Commissioner</td>
<td>Rhode Island Department of Elementary and Secondary Education</td>
</tr>
<tr>
<td>Hans Meeder</td>
<td>Deputy Assistant Secretary, Policy and Planning</td>
<td>Office of Vocational and Adult Education U.S. Department of Education</td>
</tr>
<tr>
<td>Hilary Pennington</td>
<td>Chief Executive Officer and Vice Chairman</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Judith Rizzo</td>
<td>Executive Director</td>
<td>James B. Hunt Jr. Institute University of North Carolina</td>
</tr>
<tr>
<td>Carmen Russo</td>
<td>Chief Executive Officer</td>
<td>Baltimore City Public School System</td>
</tr>
<tr>
<td>Cindy Sadler</td>
<td>Development Director</td>
<td>Alliance for Excellent Education</td>
</tr>
<tr>
<td>Pia Saengswang</td>
<td>Associate Director</td>
<td>The Broad Foundation</td>
</tr>
<tr>
<td>Stefanie Sanford</td>
<td>Senior Policy Officer</td>
<td>Bill &amp; Melinda Gates Foundation</td>
</tr>
<tr>
<td>Steve Smith</td>
<td>Education Policy Associate</td>
<td>National Conference of State Legislatures</td>
</tr>
<tr>
<td>Scott Spicer</td>
<td>Policy Analyst, Education Division</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Adria Steinberg</td>
<td>Program Director</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Christine Walton</td>
<td>Education Policy Associate</td>
<td>National Conference of State Legislatures</td>
</tr>
</tbody>
</table>
Redesigning High Schools: 
The Unfinished Agenda in State Education Reform

Participant List • November 13–14, 2002

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Augenblick</td>
<td>President</td>
<td>Augenblick &amp; Myers</td>
</tr>
<tr>
<td>Julie Bell</td>
<td>Program Director, Education Program</td>
<td>National Conference of State Legislatures</td>
</tr>
<tr>
<td>Ilene Berman</td>
<td>Deputy Director, Education Division</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Gene Bottoms</td>
<td>Senior Vice President</td>
<td>Southern Regional Education Board</td>
</tr>
<tr>
<td>Betsy Brand</td>
<td>Co-Director</td>
<td>American Youth Policy Forum</td>
</tr>
<tr>
<td>J.B. Buxton</td>
<td>Education Policy Advisor</td>
<td>Office of North Carolina Governor Michael F. Easley</td>
</tr>
<tr>
<td>Mike Cohen</td>
<td>Senior Fellow</td>
<td>The Aspen Institute</td>
</tr>
<tr>
<td>Nancy Hoffman</td>
<td>Vice President</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Richard Kazis</td>
<td>Senior Vice President</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Dane Linn</td>
<td>Director, Education Division</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Christopher Mazzeo</td>
<td>Senior Policy Analyst, Education Division</td>
<td>National Governors Association Center for Best Practices</td>
</tr>
<tr>
<td>Patricia McNeil</td>
<td>President</td>
<td>High School Solutions</td>
</tr>
<tr>
<td>Hilary Pennington</td>
<td>Chief Executive Officer and Vice Chairman</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Carmen Russo</td>
<td>Chief Executive Officer</td>
<td>Baltimore City Public School System</td>
</tr>
<tr>
<td>Stefánie Sanford</td>
<td>Senior Policy Officer</td>
<td>Bill &amp; Melinda Gates Foundation</td>
</tr>
<tr>
<td>Robert Schwartz</td>
<td>President</td>
<td>Achieve, Inc.</td>
</tr>
<tr>
<td>Don Shalvey</td>
<td>Chief Executive Officer</td>
<td>Aspire Public Schools</td>
</tr>
<tr>
<td>Robert Shireman</td>
<td>Program Director</td>
<td>The Irvine Foundation</td>
</tr>
<tr>
<td>Janis Somerville</td>
<td>Senior Associate, The Education Trust and Staff Officer, National Association of System Heads</td>
<td></td>
</tr>
<tr>
<td>Adria Steinberg</td>
<td>Program Director</td>
<td>Jobs for the Future</td>
</tr>
<tr>
<td>Ted Stilwill</td>
<td>Director</td>
<td>Iowa Department of Education</td>
</tr>
<tr>
<td>Michael Usdan</td>
<td>Senior Fellow</td>
<td>Institute for Education Leadership</td>
</tr>
</tbody>
</table>
Redesigning High Schools:  
Finance and Capacity Planning Meeting

Participant List • October 16–17, 2002

Julie Davis Bell  
Director, Education Program  
National Conference of State Legislatures

Rex Brown  
Founder  
P.S. 1 Charter School

Mike Cohen  
Senior Fellow  
The Aspen Institute

Richard Kazis  
Senior Vice President  
Jobs for the Future

Dane Linn  
Director, Education Division  
National Governors Association  
Center for Best Practices

David Longanecker  
Executive Director  
Western Interstate Commission for Higher Education

Patricia McNeil  
President  
High School Solutions

Keely Merrigan  
Research Associate, Education  
Bill & Melinda Gates Foundation

Demi Michelau  
Policy Specialist  
National Conference of State Legislatures

Hilary Pennington  
Chief Executive Officer and Vice Chairman  
Jobs for the Future

Delia Pompa  
Executive Director  
National Association for Bilingual Education

Travis Reindl  
Assistant to the President  
American Association of State Colleges and Universities

Robert Shireman  
Program Director  
Irvine Foundation

Scott Spicer  
Policy Analyst, Education Division  
National Governors Association  
Center for Best Practices

Marc Tucker  
President  
National Center on Education and the Economy

Bonnie Turner  
Program Advisor  
Education Commission of the States

Rona Wilensky  
Founder  
New Vista High School
# Redesigning High Schools: Accountability and Governance Planning Meeting

**Participant List • October 8–9, 2002**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betsy Brand</td>
<td>Co-Director, American Youth Policy Forum</td>
</tr>
<tr>
<td>Mike Cohen</td>
<td>Senior Fellow, The Aspen Institute</td>
</tr>
<tr>
<td>Joni Finney</td>
<td>Vice President, National Center for Public Policy and Higher Education</td>
</tr>
<tr>
<td>Richard Kazis</td>
<td>Senior Vice President, Jobs for the Future</td>
</tr>
<tr>
<td>Valerie Lewis</td>
<td>Commissioner, Connecticut Department of Higher Education</td>
</tr>
<tr>
<td>Dane Linn</td>
<td>Director, Education Division, National Governors Association, Center for Best Practices</td>
</tr>
<tr>
<td>Peter McWalters</td>
<td>Commissioner, Rhode Island Department of Elementary and Secondary Education</td>
</tr>
<tr>
<td>Demi Michelau</td>
<td>Policy Specialist, National Conference of State Legislatures</td>
</tr>
<tr>
<td>Nancy Pelz-Paget</td>
<td>Director, Education and Society Program, The Aspen Institute</td>
</tr>
<tr>
<td>Hilary Pennington</td>
<td>Chief Executive Officer and Vice Chairman, Jobs for the Future</td>
</tr>
<tr>
<td>Delia Pompa</td>
<td>Executive Director, National Association for Bilingual Education</td>
</tr>
<tr>
<td>Stefanie Sanford</td>
<td>Senior Policy Officer, Bill &amp; Melinda Gates Foundation</td>
</tr>
<tr>
<td>Janis Somerville</td>
<td>Senior Associate, The Education Trust and Staff Officer, National Association of System Heads</td>
</tr>
<tr>
<td>Scott Spicer</td>
<td>Policy Analyst, Education Division, National Governors Association, Center for Best Practices</td>
</tr>
<tr>
<td>Ted Stilwill</td>
<td>Director, Iowa Department of Education</td>
</tr>
<tr>
<td>Bonnie Turner</td>
<td>Program Advisor, Education Commission of the States</td>
</tr>
<tr>
<td>Elliot Washor</td>
<td>Co-Director, The Big Picture Company</td>
</tr>
</tbody>
</table>