Transforming the American High School

New Directions for State and Local Policy

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JOBS FOR THE FUTURE
FROM THE MARGINS TO THE MAINSTREAM INITIATIVE

THE ASPEN INSTITUTE
PROGRAM ON EDUCATION IN A CHANGING SOCIETY

Acknowledgements

This paper was prepared for Jobs for the Future's *From the Margins to the Mainstream* initiative and the High School Transformation project at the Aspen Institute's Program on Education in a Changing Society. It was supported by grants to The Aspen Institute from the Carnegie Corporation of New York and the William and Flora Hewlett Foundation, and to Jobs for the Future from the Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, the W.F. Kellogg Foundation, the Charles Stewart Mott Foundation, and the Bill and Melinda Gates Foundation.

The idea for this paper originated a year ago in conversations with Hilary Pennington and Adria Steinberg of Jobs for the Future. They had recently launched *From the Margins to the Mainstream*, a multi-year initiative aimed at expanding the learning options and pathways available to 16-24 year olds, especially those in danger of not obtaining the educational opportunities, supports, and credentials essential to a successful transition to adulthood. They asked me to think through an action agenda for state and urban leaders committed to making effective learning environments available to all their young people, drawing on my experiences as the Assistant Secretary for Elementary and Secondary Education at the U.S. Department of Education. Work on the paper received initial impetus when I joined the staff at The Aspen Institute and became involved with its ongoing work on high school transformation.

This paper benefited from extensive discussion at:

- JFF's National Advisory Committee meeting in March 2001;
- A joint Aspen/JFF meeting in Boston with state and local leaders of high school reform efforts in April 2001;
- The Aspen Urban Superintendents Network meeting in June 2001; and
- The Aspen Workshop on High School Transformation in July 2001.

I want to thank Adria Steinberg and Hilary Pennington at Jobs for the Future and Mike Timpane at The Aspen Institute for their helpful advice and continuing feedback as this paper was being written. Adria Steinberg also made important contributions as the developmental editor.

Despite all of this help, any weaknesses in this paper are my own responsibility.

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Washington, DC
December 2001

ISBN 1-887410-98-8

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Executive Summary

At a time when high schools must be pathways to college for *all* students, they are pathways to nowhere for many. Most high schools—in the face of dramatic changes in their external environments, their student bodies, and in societal expectations for the results they must produce—continue to use instructional approaches and organizational arrangements better suited for their old mission of sorting students for college *or* work, thinking *or* doing.

That's a crisis—for the students and their families, for their communities, and most certainly for the high schools. And this crisis can't be solved simply by trying to push a larger number of students through the same pipeline that now works for only a portion of them.

The solution requires creating deliberate variability within the system, in order to create much higher levels and greater consistency in the results. It requires designing and building a system that *presumes* students will learn to a set of commonly agreed-upon standards but through different pedagogies, institutional arrangements, and amounts of time. This will necessitate recognizing the diverse needs of today's students, the varying strengths and weaknesses of today's high schools, and the resources that partners outside the K-12 system can provide.

Transforming the American High School identifies key systemic policy issues, large-scale change strategies, and overall state and local policy directions necessary to respond to this emerging crisis in high schools—on a large scale and in the fastest possible time frame. While it is important to transform high schools in virtually all communities, the focus here is on the large cities, with the largest concentrations of poverty, the most ethnically and linguistically diverse students, and many large, impersonal high schools with high dropout rates and low achievement.

Building on a firm foundation of standards-based reform, this paper proposes a combination of incremental and more radical change strategies.

The first group of recommended strategies highlights actions that state and local policymakers can take to accelerate and adequately finance several processes that have already begun: redesigning large urban high schools into small schools, investing in building the capacity of teachers and principals to engage in continuous renewal at the school site, and creating new

Accelerating Current Reform Processes

- **Provide immediate, intensive help to the lowest performing high schools.**
  - Concentrate first on the students and schools with the greatest need.
  - Determine each school's capacity and readiness for improvement and match the intervention to the school's situation.
  - Break large, low-performing high schools into small schools or smaller learning communities.
  - Provide design-based assistance.
  - Finance implementation adequately.
  - Mobilize community resources to support at-risk youth.
  - Align pressure and support.
- **Invest in capacity building for teachers, principals and schools.**
  - Provide high-quality professional development for teachers and school leaders.
  - Develop new tools to support data-driven school improvement.
  - Ensure adequate financing and support for capacity building.
- **Provide incentives for creating small high schools and small learning communities.**
  - Provide incentive grants to create small schools and learning communities.
  - Review the incentives and disincentives built into state subsidies for school construction.
- **Stimulate the creation of new models of schools and youth pathways.**
  - Create additional pathways that permit young people to learn at their own pace.
  - Determine the potential of Virtual High Schools for expanding opportunity and choice.

models of schools and youth pathways that will expand opportunity and choice, especially for the most underserved young people. Such efforts must be significantly strengthened and then implemented in a sustained and coherent fashion.

While taking all of those steps within the framework of standards-based reform, policymakers also need to make sure that they've got the standards right. The second category of action steps calls for an immediate mid-course review of high school graduation requirements, standards, and assessments. The purpose of such a review is to work toward high school standards that are rigorous and reasonable, performance-based, and aligned with the knowledge and skills all students will need once they leave high school. The challenge is to set standards that inspire rather than stifle challenging and engaging instruction—and that encourage diversity and innovation within the overall delivery system.

Making Midterm Corrections in State Standards and Graduation Requirements

- **Rethink high school graduation requirements.**
  - Create a system of rigorous, aligned standards for all students that combine uniform assessments for the most essential knowledge and skills with greater flexibility in how performance is demonstrated in other subject areas.
  - Make sure standards and assessments are rigorous, reasonable, and coherent.
  - Align state standards with postsecondary admissions and placement requirements.
  - Review standards to ensure they reflect the real-world application of knowledge, as well as its acquisition.
  - Increase the rigor of academic programs for all students with upgraded course requirements and end-of-course exams.
  - Require participation in community-based activities that promote positive youth development.

If states and urban school systems work together to implement the first two sets of recommendations in a coherent, sustained, and high-quality fashion, one would expect to see steady gains in student achievement and high school graduation and postsecondary enrollment rates. Yet the question remains whether these strategies will sufficiently alter an institution as complex and as entrenched as the American high school. Therefore, the paper includes a third grouping of action steps that states and districts could take to begin now to lay the groundwork for a more radical and directly transformative agenda—especially in persistently low-performing communities, where capacity and mobilization are low and obstacles particularly difficult to overcome. Even while providing immediate and intensive help to the lowest performing schools, state and local leaders should begin to plan and pilot strategies that address the fundamental structure of urban school systems, including their governance and financing in addition to their standards and educational practices.

Laying the Groundwork for Transformation

- **Plan and pilot more fundamental changes.**
  - Create a system of small, focused, autonomous, and accountable high schools operating under specific performance contracts.
  - Strengthen capacity throughout the system.
  - Enlist the support of teacher unions, local businesses, employers, institutions of higher education and other community-based groups.
  - Replace governance and management structures.
  - Phase in the changes over three to five years.
  - Carefully select sites to try out this approach.
  - Make the necessary design changes in certification, finance, governance, and other areas.

Despite the urgency to improve our high schools, the strategies recommended here must be understood as a long-term agenda. Some strategies and action steps can be put into place relatively quickly. However, the needed changes are so unprecedented in scale and scope that no one has all or even most of the answers. *Transforming the American High School* suggests how state and local leaders can maintain a balance of acting now on shorter-term, more immediate steps, especially focused on the lowest-performing schools, even while devoting sufficient attention to long-term issues through investing in research and development efforts. Certainly state and local leaders will need to document and monitor progress carefully, learn from initial experience, make midcourse corrections as needed, and not be afraid to think even more boldly than anyone might now imagine.

Transforming the American High School

New Directions for State and Local Policy

At a time when high schools must be pathways to college for all students, they are pathways to nowhere for many. After nearly two decades of sustained attention to education reform at all levels, today's rapidly growing interest in high school reform could not be more timely.

The most urgent reason to overhaul high schools is quite simple. Many young people are leaving high school lacking both the academic preparation necessary for postsecondary education and the broad knowledge, habits of mind, and personal and social skills necessary for success in the workplace and in a diverse, democratic society. That's a crisis—for the students and their families, for their communities, and most certainly for the high schools.

This crisis can't be solved simply by trying to push more students through the same pipeline that now works for only a portion of them. Most high schools —in the face of quite dramatic changes in their external environments, their student bodies, and in societal expectations for the results they must produce— continue to use instructional approaches, structures, and organizational arrangements that are better suited for their old mission of sorting students for college *or* work, for thinking *or* doing. These high schools are obsolete.

Despite the magnitude of the crisis, it remains largely hidden from view. It is obscured both by the reassuring annual rituals of proms, football games, and graduation ceremonies and by several positive statistical trends. For example, approximately 85 percent of all 18-24 year olds eventually earn a diploma, a rate that hasn't changed much in the past decade. Teen pregnancy and juvenile violent crime rates have declined consistently over the past decade. While U.S. twelfth graders rank near the very bottom internationally in math and science achievement, those same twelfth graders increasingly take honors and AP courses and get admitted to college or other postsecondary institutions at record rates. And among those who graduate from high school, the gap between African Americans and whites in college enrollment has all but disappeared.

Yet beneath the surface, the warning signs of crisis are clear:

- A recent analysis of census data by the Educational Testing Service shows that success in the knowledge-based economy requires virtually all workers to gain some postsecondary education (Carnevale 2001). Yet nearly 40 percent of U.S. eighth graders in 1988 had not attended any postsecondary education institution by 1994, two years after scheduled graduation (National Center for Education Statistics 1996). And the figures in urban school districts are dramatically worse: estimates from nonselective high schools in one mid-Atlantic city indicate that only 5-10 percent of high school freshman attend any postsecondary institution, and fewer than 1 percent go to a four-year college (Legters and MacIver forthcoming).

- Growing numbers of students who do go to college must take remedial courses because they lack the knowledge and skills for college-level work. In 1995, 29 percent of all college freshmen, and more than 40 percent of those in colleges with high minority enrollment, were required to take remedial courses in reading, writing, or math (National Center for Education Statistics 1997), and they faced significantly reduced chances of completing their college education. Students who required the most extensive remediation (more than two semesters of reading) were six times less likely to earn a B.A. than those who required no remedial work (Adelman 1999).

- Nor does academic preparation for college tell the entire story. The "new basics" (Murnane and Levy

1996) required in knowledge-driven, high-performance work organizations involve a variety of other cognitive and interpersonal skills. These include, for example, the ability to read at high levels, do at least elementary algebra, use computers for word processing and other straightforward tasks, solve semi-structured problems where hypotheses must be formed and tested, communicate effectively orally and in writing, and work in diverse groups. High schools rarely afford students the opportunities to develop and apply these knowledge and skills: Murnane and Levy estimated that nearly one half of 17-year-olds cannot read or compute at the ninth-grade level.

■ High school students say that schools are boring—if anyone would listen. Steinberg (1996) found that about 40 percent of high school students were just going through the motions in school; over one-third of the students surveyed said they got through the school day "goofing off" with their friends and neither tried hard nor paid attention when in class.

The purpose of this paper is to identify systemic policy issues, change strategies, and overall state and local policy directions necessary to respond to this emerging crisis—on a large scale and in the fastest possible time frame. It begins by sketching a vision of high schools for the 21st century, building upon a growing knowledge base about the characteristics of effective learning environments for adolescents. It then turns to an action agenda for state and urban leaders, recommending steps they can take to transform, not merely reform, our nation's system of secondary education.

A Vision of High Schools for the 21st Century

The goal of a transformed system of high schools is to prepare every student to succeed in postsecondary education without remediation. While not every adolescent will or must attend a four-year college immediately after high school, some postsecondary education—whether in a four-year college, a high-quality technical training program, or a community college—is now a necessity on the pathway to a successful adulthood.

A high school education must open the doors to college for all, whenever individuals may choose to take advantage of the opportunity. Meeting this goal will require changes not just at the school site itself but also at the district and state levels. The starting point for these changes needs to be a simple, clear vision of the central design features of an effective high school. The one offered below draws upon the knowledge base about the characteristics of effective learning environments for young people that has steadily grown over the last several decades.

Existing evidence offers far fewer answers to the critical question of how to make those effective learning environments available to every young person. Although somewhat more speculative, key design features of systemic reform are also identified below.

Features of Effective Learning Environments

Numerous studies and reports over the last several decades point to a set of basic design features that are central to effective learning environments for young people:

Intellectual Depth and Breadth

Effective high schools have high standards and expectations for all their students, a rigorous curriculum that prepares them to attend postsecondary education without remediation, and engaging instructional strategies—such as in-depth projects and learning that takes place in the workplace as well as the classroom—that help each student learn important concepts and ideas in depth and see their practical applications. They have well-prepared teachers who not only know their content and how to deliver it but also how to connect with young people. New teachers are mentored and supported, and all teachers are continuously involved in high-quality professional development.

Personalization

Good high schools are student-centered. They provide caring, personalized environments and make sure each student is known well by at least one adult. Students have a say in how the school is run. In good high schools, students are not anonymous and do not fall through the cracks. Young people get help in developing the array of skills, attitudes, and dispositions that will enable them to make it in mainstream adult society. These include a sense of personal worth and identity, a positive assessment of the future and how to plan for it, a sense of civic responsibility and a commitment to give back to their community, and attitudes of persistence, reflection, responsibility, and reliability.

Attention to Student Engagement and Healthy Adolescent Development

As society increasingly segregates youth from the adults and institutions that previously assisted with these developmental tasks, it is both more important and more difficult for youth to develop these dispositions. High schools that make a difference in young people's lives are connected to their communities—to employers, postsecondary institutions, and community-based organizations—and learning takes place in the context of the entire community, not just the school. A generation of resiliency studies that look at young people who have "beaten the odds," as well as emerging research on small schools and program evaluations on prevention of risk behaviors such as teen pregnancy, substance abuse, youth violence, and dropping out of school, all point to a core set of essential supports and opportunities that motivate young people to work hard, achieve at high levels, and develop the knowledge, skills, and orientations necessary for later success (Steinberg 2001). Effective high schools work with community partners to deliver these supports and opportunities.

An Intellectual Mission and the Leadership and Commitment to Achieve It

Effective high schools have strong leadership and a clear sense of mission. Whether these schools take the form of career academies that organize academic instruction and work-based learning around particular occupational fields, small schools based on the Coalition of Essential Schools approach, specialized magnet schools, or more traditional college preparatory programs, they have a clear focus and purpose rather than a long menu of program options. Teachers and students know what the school's focus is—and why they chose that school.

Effective high schools are never satisfied. School staff work at continuous improvement. They use indicators of student performance and other data to identify weaknesses, and they seek out research-based approaches to address them.

Principles of System Design

Many communities have at least one school or program with these characteristics. The features of effective learning environments are most likely to be found in magnet schools, career academies, alternative schools, certain charter or private schools, or newly created nontraditional schools, most of which are small and often operate at the margins of the public school system.

The Five Cs: Essential Supports and Opportunities

Jobs for the Future's *From the Margins to the Mainstream* initiative has codified the essential supports and opportunities young people need in order to become productive adults as the Five Cs:[1]

1. **C**aring relationships that help young people build an attachment to the learning environment and provide them with the support they need to overcome obstacles;
2. **C**ognitive challenges that engage young people intellectually and help them to develop the competencies they will need for postsecondary success;
3. **C**ulture of support for effort that pushes young people to do their best work;
4. **C**ommunity membership and voice in a group young people feel is worth belonging to; and
5. **C**onnections to high-quality postsecondary learning and career opportunities through an expanding network of adults.

The challenge is to put in place the strategies, policies, and resources that will help create these conditions on a large scale, for all students. At this point, communities face a severe shortage of high-quality learning environments for youth, and this is particularly true in cities where such environments are most needed. If we are to overcome the systemic barriers to school redesign, our response must go beyond looking at individual schools. It must recognize the diverse needs of today's students, the varying strengths and weaknesses of today's high schools, and the resources that partners outside the K-12 system can provide.

The deep systemic changes that are required are anchored in a few key principles for how the system must operate for students:

Make Small High Schools and Small Learning Communities a Centerpiece—But Not a Silver Bullet

Growing empirical evidence suggests that small high schools generally have higher achievement levels, higher graduation and lower dropout rates, and are safer than larger high schools (see Raywid 1996; Gladden 1998; Lee 2000).[2] Further, the benefits of small size are greatest for students in schools with high minority and/or low-income enrollments (Lee and Smith 1997), particularly in urban communities. Small

size is not a silver bullet, but it can be an important lever for bringing about a related set of changes that together produce significant results.[3]

In the main, small high schools work better because their size helps create the conditions for success: more personal relationships between school staff and students, reduced feelings of anonymity among students, a more appropriate student load for teachers, more student-centered and in-depth instruction, active learning, and greater collegiality and shared accountability among teachers.

In addition, the process of creating new small schools or breaking larger high schools into smaller learning communities can unleash the change processes that also contribute to school success—creating autonomous and accountable schools with a clear mission and focus, attracting staff and students committed to those visions, and aligning professional development, curriculum, instructional strategies, and other elements to the school mission.

Within a Framework of Common Rigorous Standards, Promote Variability in Institutional Forms and Arrangements, Pedagogy and Curriculum, and Time

To help all students reach common, high standards, the one-size-fits-all approach of today's high school must yield to a system that presumes students will learn through different pedagogies, institutional arrangements, and amounts of time. The current education system, including high schools, provides students with a constant amount of time and a single approach for learning—and produces unacceptably large variations in student performance. The only way to get all students up to common, high performance standards is to flip this formulation on its head. We must provide students with multiple learning options and pathways and varied lengths of time to complete high school and gain the skills necessary to enter postsecondary education without remediation.

We can begin to see concrete ways to do this in current or emerging practices around the country. For example, career academies, work-based learning, schools-within-schools, high schools located on college campuses or in community-based organizations, on-line AP courses, and specialized, magnet, and charter schools all provide significant variations in the dominant modes of teaching and learning, the structure and sequencing of learning activities, and the physical or institutional location where teaching and learning occurs. Similarly, dual-enrollment options (which enable students to take community college courses for both high school and college credit) or approaches such as the Talent Development model (which provide extended learning time during and after the school day for ninth graders who are seriously behind) begin to demonstrate ways in which students can be helped to meet challenging standards in a time span other than the conventional four years of high school. Beyond the traditional school day, afterschool programs, service learning, extracurricular activities, and community-based youth development programs also provide learning environments with the potential to become part of alternative pathways for student learning.

These options exist now, although not on a large scale or in any systematic and coherent fashion. It should be clear that these are examples of learning options and pathways, not of tracking into immutable instructional groupings to which schools assign students based on perceived ability to learn. Such options are intended to keep the doors to future learning opportunities open to all students, not to sort young people into unequal opportunities after high school. As states and communities work to expand and institutionalize these and other alternatives, it is very important to not reproduce the tiered tracks of the past.

Build Linkages to Postsecondary Education and to All the Resources the Community Has to Offer

If high schools are to provide students with pathways to their futures, there must be tighter linkages between postsecondary education and the K-12 system, particularly the high schools. This is particularly important for ensuring that high school graduation standards are properly aligned with postsecondary admissions and placement standards. K-16 partnerships are also critical to ensuring that new teachers and school leaders are adequately prepared to staff high schools of the future.

High schools also need to be more strategic in their partnerships with businesses and community-based organizations. Although many high schools have business or community partners, little is done to use these connections to create a seamless set of educational experiences for young people, in school and outside it. These partners can potentially offer young people

powerful learning opportunities to complement school-based work. School personnel rarely know about educational experiences students are having outside the school walls or the skills and talents young people are building and demonstrating through these experiences. And the adults working with young people outside of school rarely know how to form alliances not just with the young person but with the school as well.

The linkages discussed here are also central to creating a system of multiple pathways and learning options—all of high quality. For example, new forms of high schooling are developing on the campuses of community colleges and colleges across the country, as well as within the spheres of community-based organizations. At this point, such experiments are few and far between. The action agenda presented here lays the groundwork for remedying that situation.

Toward an Action Agenda for State and Urban Leaders

Creating systems of high-performing high schools will require unprecedented changes in the schools—and new approaches to state and local policy and change strategy. Previous efforts at high school reform have left the basic approach to teaching and learning unchanged. This was true, for example, of state efforts in the 1980s to increase high school graduation requirements by setting minimum course-taking requirements. We have also seen efforts to create diversity in urban school systems, through magnet schools, charter schools, and other alternative high schools, although by design these have operated at the margins rather than the core of the school system.

While it is important to transform high schools in virtually all communities, the task is most urgent in our large cities, which generally have the high schools with the greatest problems. Cities tend to have the largest concentrations of poverty, the most ethnically and linguistically diverse student populations, and many large, impersonal high schools with high dropout rates and low achievement. By the time young people reach high school growing numbers of them are so alienated and disengaged from school that higher expectations and more challenging curricula—the primary tools of standards-based reform—are far from sufficient to engage or motivate them. Consequently, the bulk of the hard work on high school reform is taking place in our big cities, and this should be the top priority of both state and local education leaders.

State/City Partnerships

State/city partnerships are essential, because neither level of government alone can effect the full set of changes necessary to transform urban high schools on a large scale. Together, state and city leaders must develop and implement a coherent plan that will help ensure that each high school—whether existing, newly created, or reconstituted—has the leadership, support, and resources necessary to create and sustain effective learning environments for young people.[4]

The leadership to overhaul urban districts must come locally—from the superintendent and school board, the mayor, civic and business leaders. To mobilize the community resources necessary to carry out a high school reform agenda, cities must form strategic partnerships that join the school system with business, higher education, community-based groups, and general government at the state and local level.

State government cannot lead this effort, but it can and must support it—with targeted funding and political support for local reform initiatives, accountability and reconstitution policies that provide credible external pressure for reform, and maximum flexibility to use state and federal resources to support a local reform agenda. Where urban communities suffer from inequitable or inadequate financing, dysfunctional governance structures, or other significant obstacles to improvement, the state must be a partner in finding solutions. Special legislation that creates a formal partnership between the state and the city, as well as new governance and finance arrangements, may be necessary to ensure long-term stability.

"Inside-out" and "Outside-in" Strategies

State and local policymakers will need to use a combination of "inside-out" and "outside-in" strategies.

Inside-out strategies recognize that lasting and meaningful school change requires the deep engagement and collaborative work of teachers and administrators, students and parents in each school, working together to design and implement coherent improvement strategies tailored to their needs and conditions. Helping local educators develop the capacity to change their own schools, and to start new schools to test out new models and visions, are important components of

this strategy, but these steps will take considerable time and the investment of additional resources. Providing the opportunity for policymakers and others in the system to learn from their efforts and devise ways to sustain and expand them is also an important part of this approach, but it is not a part of the conventional policymaking process.

However, if we depend entirely on a cadre of self-motivated, visionary educators, 20 years from now we will still have a handful of islands of excellence in a sea of mediocrity. Outside-in strategies are based on the recognition that large systems don't change much without considerable outside pressure that forces change and legitimates internal change agents. External pressure can and does make a difference. The continued use of standards-based accountability for schools and school systems is a necessary complement to inside-out strategies. Efforts to mobilize grassroots support for needed reforms, in partnership with neighborhood groups and community-based organizations, business coalitions, universities, and other local institutions, are essential. So is the expanded use of public charter schools and other public school choice mechanisms.

A Combination of Incremental and Radical Change Strategies

The task for policymakers and educators is to build upon, and go beyond, the foundation of standards-based reform with a combination of both incremental and more radical change strategies. The decade-old standards movement represents the first significant statehouse-led effort to drive change in curriculum and instruction in the classroom. Urban school systems have eagerly embraced higher standards for their students and been at the forefront of implementing them. The standards movement will continue to provide the overall framework for strategies to transform high schools.

The first group of recommended strategies below highlights actions that state and local policymakers can take to accelerate and adequately finance several processes that have already begun: redesigning large urban high schools into small schools, investing in building the capacity of teachers and principals to engage in continuous renewal at the school site, and creating new models of schools and youth pathways that will expand opportunity and choice, especially for the most underserved young people. Such efforts must be significantly strengthened and then implemented in a sustained and coherent fashion.

While taking all those steps within the framework of standards-based reform, policymakers also need to make sure that they've got the standards right. The second category of action steps calls for an immediate review of high school graduation requirements, with an eye toward balancing rigor and relevance. Such requirements should support a system of rigorous, aligned standards for all students, combining parsimonious uniform assessments in the most essential knowledge and skills (e.g., literacy, quantitative reasoning and skills) with greater flexibility in where learning takes place and how performance is demonstrated and credited in other key subject areas (e.g., science, social studies, the arts).

At the same time, there is no guarantee that even coherent, sustained implementation of an incremental, standards-based approach will suffice to bring about all of the necessary changes. We know enough now about the challenges of changing institutions as complex as the American high school and about the multiplicity of issues affecting young people's lives to understand the enormity of the task. Under the best of circumstances, this will be a long process—coming on the heels of an already sustained period of reform. In many communities, the patience of parents, the public, and policymakers is wearing thin.

Therefore, states and districts can take a third grouping of action steps now to begin laying the groundwork for a more radical and directly transformative agenda—especially in persistently low-performing communities, where capacity and mobilization are low and the obstacles are particularly difficult to overcome. Even while providing immediate and intensive help to the lowest-performing schools, policymakers should begin to invest in more radical strategies that will require changes in certification, financing systems, governance, and accountability.

In laying out this path, we are well aware of the inherent complexities in fundamental, long-term initiatives and the likely need for midcourse corrections. We therefore recommend that policymakers make use of multiple feedback mechanisms, including careful documentation and evaluation of the efforts undertaken, and that they stay cognizant of new research and key lessons learned throughout the country.

Accelerating Current Reform Processes

■ Provide immediate, intensive help to the lowest performing high schools.

States should partner with local districts to provide immediate, intensive help to schools with large concentrations of low-performing students, particularly where students must pass high school graduation exams. According to the most recent *Quality Counts* report, 18 states require students to pass exams in order to graduate from high school; over the next several years this will increase to at least 23 states (*Education Week* 2001). Only 15 states require remediation for students who don't pass the test, and only 9 finance the remediation. Remediation after the fact should be the *last* resort for high-stakes testing, not the sole intervention, but it is probable that states that neither require nor finance this strategy are also not investing in the full range of supports necessary to prevent failure in the first place.

Consequently, many observers fear that a disaster is waiting to happen, especially in urban high schools. Yet if states and districts act strategically, quickly, and together, much can be done to transform the pressures generated by strong accountability into needed reforms that will help students and improve schools.

Concentrate first on the students and schools with the greatest need.

One approach would be to concentrate first on the schools in the worst shape, and the students in them. For example, in a study of 25 central cities, Balfantz and Letgers (2001) recently estimated that there are 200 to 300 high schools with especially low "promotion power"—essentially high schools with unusually high drop-out rates. This works out to an average of about 10 high schools per city, a number that will be taxing to take on but manageable nonetheless. It is likely that these same schools, or at least a similar number of schools, will be the ones with the largest concentrations of students in danger of failing graduation exams. While helping these students and fixing these schools is a tall order, it is far from impossible.

Determine each school's capacity and readiness for improvement and match the intervention to the school's situation.

Low-performing high schools will need considerable outside technical assistance and other support in order to improve. But not all low-performing schools can immediately benefit from such help, so it is essential that district leaders determine early on each school's readiness for improvement and ability to benefit from outside assistance. Berman and Chambliss (2000) found significant differences among low-performing elementary schools with respect to their willingness and capacity to benefit from external support and assistance. While some low-performing schools had strong leadership and staff that were willing and able to undertake substantial improvements, others were far too dysfunctional to benefit from externally provided technical assistance.

Similarly, in an ongoing study of how state accountability requirements affect high schools, Siskin and Lemons (2001) found that the lowest-performing high schools lacked the capacity to respond effectively to new testing and accountability requirements. These schools lacked the leadership to organize and direct school improvement activities. They also lacked the internal accountability that would obligate teachers to work together to analyze, and where necessary upgrade, the curriculum and undertake the planning and professional development necessary to strengthen instructional practice. Department chairs and other potential leaders were unable to find the time for the collaborative work to be done.

Clearly, schools will need different types of external assistance and varying amounts of time to improve. Initial intervention must ensure strong instructional leadership, give high priority to creating shared expectations that faculty will work together to plan and implement necessary improvements in curriculum and instruction, and provide the time and expert resources

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- Provide design-based assistance.
- Finance implementation adequately.
- Mobilize community resources to support at-risk youth.
- Align pressure and support.

necessary to assist them. In schools with dysfunctional cultures, poor leadership, and staff that lack the willingness and capacity to improve, the district should determine as quickly as possible if it will provide assistance devoted to changing the culture and building school capacity while keeping the staff largely intact. If not, the district should move swiftly to replace school leadership and staff as necessary before devoting time and other resources to an assistance strategy.

Break large, low-performing high schools into small schools or smaller learning communities.

As indicated previously, small schools outperform larger ones, principally because they help create the instructional and social conditions that increase school effectiveness. However, many factors beyond school size must be addressed. Breaking a large, low-performing, urban high school into separate small schools or autonomous schools-within-schools—each with a distinctive mission and focus—will not in itself turn a school around, but it can be a catalyst to a more comprehensive set of necessary changes. For example, it provides the occasion to identify staff strengths and interests, build a cohesive staff in each school that is committed to its particular vision and focus, and then follow through with the professional development, curricular changes, and other steps necessary to create an effective school.

Provide design-based assistance.

A small but growing number of research-based, comprehensive, whole school designs are appropriate for high schools, and particularly appropriate for intervening in the lowest-performing schools. Though the designs vary with respect to the weight of evidence of their effectiveness and the quality of support they can deliver, overall they provide a coherent framework, research-based practices, and access to expert implementation assistance. These designs can help reduce the time and energy a school staff would otherwise spend identifying, learning about, and selecting among potential "reforms" and vendors available in the marketplace. They can help move a school with limited capacity and experience to appropriate action faster than if left to its own devises.

The Talent Development model, developed by the Center for the Social Organization of Schools at Johns Hopkins University, is an example of one such design-based approach (McPartland and Jordon 2001). This model establishes small ninth-grade academies, with 120 to 180 students and 4 to 6 teachers, enabling teachers to get to know their students and to reduce the discipline problems often plaguing large, urban high schools. Teachers receive planning time, technical assistance, and ongoing professional development and support.

The approach provides extra instructional time to help students catch up in reading and math skills through double periods of reading and math, additional tutoring during the school day, and extended learning time in after-school, Saturday, and summer programs. The model has worked to incorporate instructional materials and strategies appropriate to young adults, despite their low reading levels. As students progress through school, they continue to learn in smaller learning communities, organized around career clusters. And the school makes clear to them from the outset that they are ultimately expected to meet the same standards set for all other high school students, that they are fully capable of doing so, and that they will get the support they need to succeed—although it may take them more time than others, and they will most certainly have to work hard at it.

Evaluations of Talent Development and other similar approaches show that, when well implemented, they can boost student achievement and increase high school graduation rates (Balfanz and Jordon 2000; McPartland and Jordon 2001). Further, helping the lowest-performing schools implement these approaches not only helps their students meet graduation standards in the short run, it also gives the schools a leg up on implementing the strategies necessary to become higher performing schools in the long run.

Finance implementation adequately.

Making and sustaining these changes will require additional funds. For example, model developers estimate the cost of introducing the ninth-grade academies from Talent Development into a high school of 1,500 students at approximately $250,000 per year, and the total cost will be perhaps $1 million per year when the entire model is phased in. While some portion can come from reallocated resources, most schools will require additional funding as well. States and districts alike should be prepared to make the investments necessary to support these strategies—though many do not now.

Significant federal resources available to states can be used to support interventions in low-performing high schools. These include funds provided under Title I Part A, the Comprehensive School Reform Demonstration Program, the Title I Accountability Fund, and the 21st Century Community Learning Centers Programs, as well as competitive grants to local school districts through the Smaller Learning Communities Program.[5] States should work with local school districts to ensure that these funds, together with state and local resources, support coherent and powerful interventions in low-performing high schools.

Mobilize community resources to support at-risk youth.

The strategies described above are necessary but insufficient to help current and future high school students who enter ninth grade woefully underprepared academically. High schools alone cannot be expected to make up for the accumulated weaknesses in their preparation, especially given that some of these schools are themselves struggling through the first stages of improvement.

The crisis presented by the possibility of thousands of students being denied diplomas or becoming so discouraged that they drop out of school requires a community-wide response. State and local leaders should work together to mobilize the resources of community- and faith-based organizations, institutions of higher education, business, libraries, and other local organizations on behalf of at-risk youth. Together, they can provide after-school learning environments and evening study space, trained tutors, service-learning programs, summer employment with study opportunities, and other supports and incentives for young people to stay in school and work toward their high school diplomas. And together they can provide a powerful signal and positive message to urban youth.

Align pressure and support.

"High stakes" testing for high school graduation, if done the right way, has the potential of generating enough pressure on school systems and schools to produce action for improvement where little or none may have occurred before. However, an improvement strategy based entirely on pressure, without equal attention to support for students and schools, is doomed to fail—and to harm students in the process. As states continue to implement high-stakes tests, they must also provide the most vulnerable students and the lowest-performing schools with the resources and tools needed to meet new standards.

Where this is not yet occurring, states should make two critical midcourse corrections: increase their investment in support and capacity building; and delay consequences for students until quality learning opportunities are in place on a sufficient scale. Doing this is not yielding to pressure from those who oppose standards-based reform, assessments, or holding all students to high standards. Rather, it is maintaining a clear commitment to the initial vision that standards-based reform would be a tool for lifting students up by spurring both the needed changes and the needed investments in the education system.

■ Invest in Capacity Building for Teachers, Principals, and Schools.

At its core, any strategy for improving achievement in urban high schools must involve significant changes in teaching and learning in the classroom, changes that cannot occur without providing teachers and principals in every school with new instructional practices and tools—and the knowledge and skills to use them effectively. Accomplishing this requires a systemic approach to human resource development, including strategies for recruiting, selecting, mentoring, retaining, evaluating, and rewarding teachers and, where necessary, removing low-performing teachers and principals. It also requires strategies for building capacity in each school for data-based decision-making and for continuous improvement.

■ **Invest in Capacity Building for Teachers, Principals, and Schools.**

- Provide high-quality professional development for teachers and school leaders.
- Develop new tools to support data-driven school improvement.
- Ensure adequate financing and support for capacity building.

In this broad context, several strategies are particularly important:

Provide high-quality professional development for teachers and school leaders.

Providing high-quality, ongoing professional development, to help current staff gain new knowledge and skills and to create a culture of collegiality and contin-

uous improvement, is a precondition for any improvements in teaching and learning. This will be a massive undertaking, particularly in big cities, where there is often such a shortage of qualified teachers that many high school teachers are forced to teach subjects for which they lack a college major or minor. Helping these teachers acquire needed expertise, aligned with state standards, must be a high priority.

San Diego is an acknowledged leader among urban school systems in designing and implementing high-powered approaches to professional development. On the theory that increased student achievement can only be produced by changes in instructional practice, San Diego has placed professional development for teachers and principals, centered around literacy and math standards, at the center of its overall improvement strategy. Key components of the district's approach, applied first at the elementary level and now being adapted for use in high schools, include:

- A district-wide approach to professional development in literacy and mathematics, focused on improving teachers' knowledge of the concepts and skills that must be taught, and how they are to be taught;
- Site-based peer coaches/staff developers in each school (and, in high schools, the mathematics department chair) who use such strategies as co-teaching, demonstrations, observations, videotaping, and discussions of student work;
- Summer professional development institutes;
- Professional development as part of summer school, involving teaching in the morning and reviewing the day's lesson in the afternoon;
- An Education Leadership Development Academy that provides support and development for aspiring site leaders, new and experienced principals, and instructional leaders (central office leadership positions);
- A Mentor Principal Program and principal coaches who support existing principals through engaging in reflective activities, problem solving, strategizing, and providing non-evaluative feedback; and
- An internship program that helps teachers with demonstrated leadership potential prepare for school leadership positions.

Develop new tools to support data-driven school improvement.

Urban systems can build school capacity by providing schools with the tools to support school improvement. These tools would include, for example, detailed curriculum maps that enable teachers to relate state academic standards to the curriculum and to key foundation skills students must develop. They would also include tools schools can use to analyze achievement and other data, compare their performance with that of other, similar schools, and stimulate and inform discussions within each school about what is going on, why they are seeing certain trends, and what can be done to address them.

The Boston Plan for Excellence developed the FAST Track tool, for example, which helps school staff identify patterns of performance among groups of students by disaggregating student formative assessments using up to 30 different pieces of data. Once performance trends are analyzed, school staff can make the necessary instructional interventions.

Ensure adequate financing and support for capacity building.

Urban school districts and states should work to provide each school with a guaranteed set-aside for school improvement funds that could only be used for capacity building. Schools and school systems frequently under-invest in professional development and capacity-building strategies. Moreover, resources that are available for these purposes are often fragmented, allocated to a variety of incoherent and ineffective activities that are not aligned with the district's overall school-improvement strategy or with school-specific improvement plans. Districts can address these issues by auditing their use of funds for professional development, reallocating funds where necessary, and seeking external funding.

San Diego financed a substantial portion of the cost of its site-based peer coaches by reallocating Title I funds that it had previously used to hire paraprofessionals and for other purposes that generally had low payoff with respect to improved teaching and learning. In partnership with the Boston Plan for Excellence, the Boston Public Schools conducted a detailed analysis of its use of available professional development funds, and then used the analysis to reallocate a portion of the funds. The Boston Plan for Excellence also pro-

vides significant funding to support the development of whole school reform plans in the district.

■ Provide Incentives for Creating Small High Schools and Small Learning Communities.

Schools can become "small" as a result of the initial design of a new school or by breaking large high schools into smaller, autonomous, learning communities of teachers and students—into "houses," each with a distinct and coherent focus and a curriculum that is integrated and aligned with that focus. In many cases, at least some small learning communities or schools-within-a-school are organized around career themes that couple academic and applied learning, career exploration and/or internship opportunities, and partnerships with employers into coherent instructional programs.

States can support the development of small schools and small learning communities in several ways:

Provide incentive grants to create small schools and learning communities.

States can provide competitive grants to school districts and schools to help create smaller learning communities. Funds could cover the costs of planning, professional development, curriculum development, the creation of partnerships, and other related activities. Because reducing school size is a catalyst for other needed changes, schools and school districts should be required to demonstrate how they will use these funds to take other necessary steps—for example, to enable like-minded faculty to come together to establish small schools or small learning communities with a coherent mission, undertake the necessary curriculum and professional development, and foster personal relationships between students and teachers through advisory periods and mentoring relationships.

School districts should be required to demonstrate how they will provide the fiscal, technical, and policy support needed to launch and sustain small learning communities. This could include: helping schools identify policies that might be at odds with the conditions of small schools (e.g., teacher assignment policies, policies that make it difficult for lead teachers to serve as administrators); instituting public school choice policies for students; and building the infrastructure of support that small schools will need (e.g., to develop partnerships with employers, universities, and other community institutions).

■ Provide Incentives for Creating Small High Schools and Small Learning Communities.

- Provide incentive grants to create small schools and learning communities.
- Review the incentives and disincentives built into state subsidies for school construction.

Further, to create multiple pathways for students, school districts will want to look across high schools to identify gaps in the kinds of pathways and opportunities being provided, and then work with individual schools and community partners to fill the gaps. Districts will also want to put in place networking and professional development opportunities to ensure that educators throughout the system begin to learn how to incorporate the lessons from these schools throughout the system.

States with charter schools programs should consider ways in which those initiatives can also encourage the creation of smaller learning communities at the high school level.

Review the incentives and disincentives built into state subsidies for school construction.

State policies for financing local school construction vary considerably among the states, and not all states provide funding in this area. Those that do should review their approach to determine if their reimbursement formulas encourage the construction of large facilities despite their questionable education value, and consider making changes if they do. At the same time, states should provide incentives for the construction of small high schools by limiting the size and capacity of schools they will help finance, or at least by phasing out state funding once the school reaches a certain size.

■ Stimulate the Creation of New Models of Schools and Youth Pathways.

The only realistic way to hold all students to the same standards is to design the school system so that it creates options and choices that meet their diverse

■ Stimulate the Creation of New Models of Schools and Youth Pathways.

- Create additional pathways that permit young people to learn at their own pace.
- Determine the potential of "virtual high schools" for expanding opportunity and choice.

learning styles, interests, and needs and allows for significant variations in how long it takes student to reach the standards.

Urban districts already provide at least some students with an array of choices—specialized schools, exam schools, small schools, alternative schools, magnet schools, and the like. States have also helped foster the creation or expansion of additional options, such as charter schools, dual-enrollment programs, and Advanced Placement programs. Together, these form a foundation in many cities of programs that provide a range of approaches to teaching and learning and allow students to earn high school and college credits at their own pace.

Yet there is more to be done to create a system of high schools that permits instructional approaches and time for learning to vary to the extent necessary. In addition, as states and school districts widen the range of options, they will need to consciously adopt new roles, and develop corresponding new strategies, for managing a portfolio of diverse learning environments.

More specifically, states and districts should:

Create additional pathways that permit young people to learn at their own pace.

While many districts have programs that help students accelerate learning and college preparation (e.g., AP, dual enrollment), there are fewer examples of programs that reflect the needs of students who require additional time, or different ways of using time, to meet standards. Yet significant numbers of inner-city students enter ninth grade with only elementary-level reading and math skills; they will need intensive help *and* additional time to meet challenging state standards. In addition, young people who are recent immigrants with limited English proficiency, or recent dropouts who can be "recaptured," will also need to use time for learning differently than in conventional high schools. Some urban districts are beginning to test models that respond to these needs.

For example, the Rochester, New York, public schools recently instituted a Pathways program that offers students the opportunity to complete high school in three, four, or five years. The five-year program spreads the traditional course of study over an extra year, enabling students to get extra instructional time (through double periods, for example) in the subjects in which their academic need is the greatest. In their fifth year, students could continue to catch up where needed and take additional courses in areas of interest or advanced courses in the career or college field of their choice. The three-year program allows students to take their high school courses in one fewer year, including summers as an option. College-level courses could then be taken during the traditional twelfth-grade, giving students a head start on postsecondary studies. Students could also involve themselves in apprentice programs, meaningful volunteer work, or other non-traditional experiences in their field of study.

The Boston Adult Technical Academy, part of the Massachusetts Diploma Plus Program, is an afternoon and evening program that serves older teenagers and those in their early 20s, including a significant number of recent immigrants. This is a two-stage program. The first stage is performance-based, preparing students in core academic competencies tied to state standards and other foundation skills, while also exposing students to a variety of careers. Upon demonstrating competency, students move to the second stage: internships and at least one credit-level course in a community college. Consequently, students who complete this phase graduate with a high school diploma and college credits.

Trenton's Twilight Academy offers a no-frills approach in four-hour shifts. Dropouts, disaffected students, adults returning to school, and others can accumulate credits toward a regular high school diploma. The program provides credit for work-study and community service, as well as for courses that prepare students to meet the standards on the state high school proficiency test. The Twilight Academy enabled Trenton to double the number of students earning a high school diploma in one year.

Determine the potential of "virtual high schools" for expanding opportunity and choice.

More than half the states have established some form of virtual high school or otherwise offer courses for credit online, and many other states are considering such a move. These "schools" enable students to take selected courses on line, anytime and anywhere. Most of these programs are in their infancy and enroll relatively few students. They typically offer courses through the student's home school and attract students who want to take courses not otherwise readily available to them due to limited student enrollment or a shortage of qualified teachers. It is too early to deter-

mine much about their impact or operations, although not too soon to consider their potential (Clark 2000).[5]

One of the most frequent uses of virtual high schools is to provide AP courses, particularly in rural areas that have difficulty finding qualified AP teachers. Virtual high schools combine offsite but online and fully certified teachers with a school-based mentor who monitors student participation and troubleshoots problems. Here too the evidence is largely anecdotal but points to the promise of this use of technology.

In the next few years, we can expect to learn a great deal about the conditions necessary for effective e-learning, especially for disadvantaged students. Nonetheless, it is *not* too early to see that this approach may have important potential for big cities. Like rural communities, urban districts often lack teachers qualified to teach AP courses—and there is concern in some quarters that the expansion of AP courses will have the effect of placing the best teachers with the most academically advantaged students, while those with the greatest academic need continue to rely on the least experienced and least qualified teachers. Because virtual high schools use offsite teachers—usually provided by the vendor or the state (e.g., certified, retired teachers who could be living anyplace), on-line AP might be implemented in urban areas without further straining the supply of qualified teachers. This approach might also be used in other courses, where a shortage of qualified teachers forces schools to use out-of-field teachers.

Making Mid-Course Corrections in State Standards and Graduation Requirements

■ Rethink High School Graduation Requirements.

States should undertake serious, mid-course reviews of high school graduation requirements, standards, and assessments. The purpose would be to work toward creating high school standards that are rigorous and reasonable, performance-based, and aligned with the knowledge and skills all students will need once they leave high school—and to ensure that the standards promote high-quality teaching and learning. The challenge is to set standards that inspire rather than stifle challenging and engaging instruction and that encourage diversity and innovation within the overall delivery system.

■ **Rethink High School Graduation Requirements.**

- Create a system of rigorous, aligned standards for all students, combining uniform assessments for the most essential knowledge and skills with greater flexibility in how performance is demonstrated in other subject areas.
- Make sure standards and assessments are rigorous, reasonable, and coherent.
- Align state standards with postsecondary admissions and placement requirements.
- Review standards to ensure they reflect the real-world application of knowledge as well as its acquisition.
- Increase the rigor of academic programs for all students with upgraded course requirements and end-of-course exams.
- Require participation in community-based activities that promote youth development.

Over the past decade, most states have raised their high school graduation requirements, obligating students to take and pass more courses, meet higher standards, and, in most states, pass state exams. While these efforts have added heft to the high school diploma, states can and should do more to ensure that new requirements and standards reflect the knowledge and skills essential to success in postsecondary education and high-performance workplaces, and that they promote and support the needed high school reforms discussed throughout this paper. The standard-setting processes in many states paid more attention to the recommendations of disciplinary organizations than to alignment with the knowledge and skills that really matter in postsecondary educational and work settings. A new look at alignment might well result in a more parsimonious set of standards.

States must find ways to determine what is *truly essential* for all students to learn, while providing some degree of flexibility in other subject areas. This would go a long way toward addressing another key challenge: setting standards and assessments that accommodate diversity in approaches, including the portfolio and performance assessment practices of some small or alternative schools. Finally, states need to review their tests to ensure that they reinforce in-depth and engaging instruction, not "skill and drill" and test-taking skills.

In particular, states should:

Create a system of rigorous, aligned standards for all students, combining uniform assessments for the most essential knowledge and skills with greater flexibility in how performance is demonstrated in other subject areas.

States should set literacy and math standards aligned with the requirements for doing credit-bearing work in postsecondary institutions and the knowledge and skill requirements of high-performing workplaces, and they should require students to pass state assessments in these areas in order to earn a high school diploma.[7] They should also set content and performance standards in other core academic subject areas (also aligned with postsecondary requirements).

There has been a vigorous debate in several states as to whether high-stakes exams in every core academic subject inhibit the ability of nontraditional schools to organize instruction around an interdisciplinary curriculum and project-based learning, an approach that can be quite effective for many at-risk youth.[8] The jury is still out on whether these instructional approaches are in fact incompatible with state standards and assessments. However, if it is possible to meet a state's compelling equity and accountability needs with uniform assessments in a limited number of areas, while protecting schools with a clearly defined focus, mission, and normative culture, this should be done.

One strategy is for states to enable schools or school districts with coherent but different approaches to curriculum and instruction to use different types of assessments, such as significant projects and other major pieces of student work, for students to demonstrate they have met rigorous academic standards in the required subjects. To ensure that alternative assessments do not undermine the fundamental equity purposes of the standards movement by allowing lower standards, alternative assessments and performance standards should be validated by the state's postsecondary system to determine if they are sufficiently rigorous to meet admissions and placement requirements.

Accomplishing this will require establishing a structure and mechanism for reviewing, approving, and monitoring the implementation of proposed alternative assessments and performance standards. This might be a joint K-16 body with broader responsibility for aligning high school graduation and postsecondary admissions and placement requirements or a special commission representative of the state postsecondary system, working closely with state education agency. Whatever form it takes, it would be responsible for: determining if the knowledge and skills required to meet alternative performance standards are substantially comparable to those incorporated in state standards and constitute adequate preparation for postsecondary coursework; monitoring implementation; and tracking the postsecondary enrollment, academic performance, and persistence of students using alternative assessments.

This approach, while it differs from current practice in most states, will make it easier to promote diverse approaches to teaching and learning. In addition, allowing some schools to use different approaches to assessment, with careful oversight to ensure no slippage in rigor, can inform efforts to improve instruction and assessment throughout the system.

Make sure standards and assessments are rigorous, reasonable, and coherent.

States should review their standards to make sure that they are challenging, focused, and realistic. This means ensuring that the standards in each subject area emphasize the most important concepts, skills, and information essential for all students to master, rather than covering such a broad array of topics and facts that teachers are forced to emphasize coverage of material rather than understanding. It also means ensuring that the assessments are fully aligned with the standards and that they assess in-depth understanding and the ability to apply knowledge and skills, rather than primarily assessing low-level skills and discrete bits of information.

Align state standards with postsecondary admissions and placement requirements.

A critical step in developing the content standards, exams, and performance standards is to forge a K-16 partnership, bringing together a state's postsecondary and K-12 education leadership. For example, in Oregon, representatives from K-12 and higher education developed a Proficiency-Based Admission Standard System under which state colleges and universities admit students based on their performance on assessments required to earn Certificates of Initial Mastery

and Advanced Mastery. New York State is phasing in a new requirement that all students pass Regents Exams in order to graduate from high school. These exams, established long ago but previously administered on a voluntary basis, were developed to reflect admissions requirements in the state university system.

States must determine which postsecondary institutions are appropriate benchmarks for performance standards, and assist faculty and administrators in those institutions in determining and validating the knowledge and skills that constitute adequate preparation for the first year of college. And states must insist that agreed-upon standards drive requirements for postsecondary admissions and placement as well as those for high school graduation.

A number of national efforts are underway to help states address these and related issues. The Education Trust, together with the National Association of System Administrators, has been helping a number of state K-16 partnerships to address these and related issues. The American Association of Universities has launched a project to help faculty in some of its member institutions define both standards of success in freshman courses and the prerequisite knowledge and skills necessary for success. More recently, Achieve, along with the National Alliance of Business, the Education Trust, and the Fordham Foundation, has begun a project to identify the literacy and math skills high school graduates must have in order to take credit-bearing courses in postsecondary institutions and be equipped to work in high-performance work organizations.

Review standards to ensure they reflect the real-world application of knowledge as well as its acquisition.

States must consider whether their academic standards adequately reflect the application and use of academic knowledge and skills, particularly in the world outside of high school. This is equally important for students who will enter the workplace immediately after high school and those who will enter postsecondary education. For example, many of the "new basic skills" identified by Murnane and Levy can be incorporated in a variety of different subject areas. Doing so will tend to encourage applied learning, project-based learning, and other strategies that effectively engage young people and help them integrate concepts and ideas across disciplines.

Increase the rigor of academic programs for all students with upgraded course requirements and end-of-course exams.

States should require all students to pass a solid core of rigorous, college-prep courses to graduate from high school. State requirements should include challenging performance standards for the courses, not just course titles. End-of-course exams that students must pass can also be a powerful tool in the effort to: provide a rigorous curriculum and incentives for students to work hard; foster genuine partnerships between teachers and students; and ensure that students have mastered essential knowledge and skills (Bishop and Mane 1998).

The High Schools That Work program of the Southern Regional Education Board is perhaps the best model of this approach. HSTW has demonstrated that career-bound students who take its recommended course sequence show significantly higher performance on rigorous exams aligned to the National Assessment of Education Progress (Bottoms 2000).[9] HSTW provides curriculum guidelines and performance standards to help ensure that the course content is rigorous, as well as professional development to help ensure that instruction is high quality. Teachers are encouraged to assign challenging reading materials and to require frequent writing assignments.

This approach has several advantages. It is relatively simple for states to adopt and for school districts and schools to implement. Changing course requirements, upgrading curriculum, and providing professional development are strategies that states, districts, and schools all know how to carry out. It works, especially for many low-income and minority students. By creating a climate of high expectations, providing the curriculum and instruction to match, and reducing students' ability to take less-demanding courses, states can boost student achievement, especially for disadvantaged students who otherwise simply get by in high schools because little is expected or demanded of them.

In addition, this strategy can provide a foundation for subsequent reforms that include steps such as detracking high schools and creating stronger preparation in and transitions from middle school. As one of a handful of comprehensive school reform designs focused on secondary schools, HSTW can be a source

of networking and technical assistance for schools adopting this approach.

Require participation in community-based activities that promote positive youth development.

Promoting healthy personal and social development is an important objective of high schools and an integral part of their academic missions. Helping young people develop the skills, attitudes, and dispositions necessary for a successful transition to adulthood—a sense of personal identity and civic responsibility, personal habits of persistence and reliability, and a commitment to community and a sense of their place in it—can't be accomplished solely within the walls of the high school.

Therefore, states should consider requiring students to participate in at least some community-based activities that can contribute to personal and social development. These activities might include service learning, structured internships, field-based investigations, or other community projects. Ideally, these activities would involve:

- Partnerships with community-based organizations, including employers, youth organizations, and others;
- Projects that are grounded in and address real-world problems, take extended effort and persistence, have an external audience, and are integrated into the school curriculum;
- Learning goals that are tied to state standards;
- Sustained, meaningful interaction with adults outside the school; and
- Supervision and support from school staff.

■ Plan and Pilot more Fundamental Changes.

- Create a system of small, focused, autonomous, and accountable high schools operating under specific performance contracts.
- Strengthen capacity throughout the system.
- Enlist the support of teacher unions, local businesses, employers, institutions of higher education, and other community-based groups.
- Revamp governance and management structures.
- Phase in the changes over three to five years.
- Carefully select sites to try out this approach.
- Make the necessary design changes in certification, finance, governance, and other areas.

This is a significant departure from current practice, though it builds upon considerable work done in school-to-career and service learning programs throughout the country. Nonetheless, it will take a considerable effort to implement such a requirement for all students. States that pursue this approach should take the time to plan this carefully, with particular attention to the strategies and supports to build the necessary partnerships and the professional development for staff in schools and community organizations necessary to implement this approach effectively.

Laying the Groundwork for Transformation

■ Plan and Pilot more Fundamental Changes.

If states and urban school systems working closely together implement the preceding recommendations in a coherent, sustained, and high-quality fashion, one would expect to see steady gains in student achievement and high school graduation and postsecondary enrollment rates. The question raised by many parents, students, and school reformers is whether this improvement will happen fully and quickly enough to change the life prospects of current and near-future generations of students, especially those historically underserved by schools.

Another key issue is whether such progress can actually be sustained. Urban school systems not only face some of the most daunting educational challenges, they also face seemingly intractable bureaucratic and political obstacles to sustained improvement. The frequent turnover of district leadership, conflicts within local school boards or among city leaders, and shortages of qualified teachers and principals, exacerbated by difficult working conditions, uncompetitive salaries, and a myriad of internal and external constituencies (e.g., employee unions, central office or individual school staff, supporters of specific programs, parent groups) can all make it difficult to implement coherent reform strategies in a sustained fashion. Furthermore, finding the resources to support needed change is difficult in many districts, either because of inadequate funding or impenetrable budget processes and inefficiencies built into the system, or both.

Based on case studies of previous efforts at urban school reform, Paul Hill and his colleagues (Hill and Celio 1998; Hill, Campbell, and Harvey 2000) argue

that urban school reform will occur only through bold, coherent, sustained strategies based on three fundamental principles:

- Investments in building the capacity of schools, teachers, and principals;
- Performance incentives for schools, teachers, and principals, tied to results; and
- Freedom for schools to establish their own focus and procedures for producing results.

These principles are consistent with the major recommendations in this paper, but to realize them fully would take an even more radical approach. The outlines of such an approach are sketched below. The intent here is to offer a starting point for thinking through such an approach, not a detailed road map. Just as there are no guarantees that a sustained-but-incremental approach will produce needed improvements, there is no guarantee that more radical structural change will. But where the former is not possible or has not worked, the latter approach should be on the table.

It is important for state and local leaders to begin now to consider approaches that address the fundamental structure of urban school systems, including their governance and financing, in addition to their standards and educational practices. State and local leaders should begin now to plan the strategies and details of such an approach and to look for appropriate opportunities to carefully test them out.

Specifically, leaders should:[10]

Create a system of small, focused, autonomous, and accountable high schools operating under specific performance contracts.

The central idea is to transform an urban school system into a system of small, focused, autonomous, and accountable high schools. Each school would operate under a performance contract that provides considerable flexibility and real accountability for results, and each school would be a school of choice. In effect, this would be a system comprised entirely of charter schools.

The underlying assumption is that, under these conditions, each school will create the powerful, normative environment necessary to support students, engage them intellectually and personally, and motivate them to work hard. Further, the flexibility afforded such schools will enable them to create attractive and effective work environments for teachers (including, perhaps, more competitive salaries), where educators enjoy the proximity of committed colleagues who share their education vision and priorities and are eager to collaborate on behalf of students and to grow together professionally. Finally, the accountability for results incorporated into each school's performance contract should provide additional, external incentives for improved performance and an assurance that ineffective schools will be improved or closed.

The leaders who start each school would be responsible for establishing its focus and vision and for recruiting like-minded staff and students. These must be schools of choice for staff and students alike. Each school must have the freedom to select its own staff. Current practices for assigning staff to schools, including seniority, must give way to allowing each school to select team members in light of vision, mission, and specific needs.

The performance contract would specify a limited set of school parameters, including:

- Academic and developmental goals;
- Performance standards and assessments (although schools would be required to use state standards and assessments for math and literacy);
- The means by which staff and students are held accountable for performance;
- Operating parameters, including heath, safety, and civil rights requirements, enrollment procedures, etc;
- Benchmarks for progress in student performance; and
- The types of progressive interventions and corrective actions to be taken if the school is not making adequate progress.

Strengthen capacity throughout the system.

The effectiveness of this overall approach depends heavily on staff capacity: no radical governance changes will overcome limited staff capacity, and they can only work in the hands of capable staff. Therefore, districts wanting to move in this direction will need to invest in sustained capacity-building to help strengthen instructional leadership, instructional practices, and the ability to analyze and use data for school improvement.

Enlist the support of teacher unions, local businesses, employers, institutions of higher education, and other community-based groups.

A successful transformation process will need the political support of key education and community leaders and institutions. It will be particularly important to form a strong partnership with the local teachers' union to help design and implement the needed changes. Business and foundations can also play important roles by helping to finance an infrastructure needed to support the planning, start-up, and incubation of new schools and, along with institutions of higher education and community groups, by helping to start new schools themselves.

Revamp governance and management structures.

The action steps described above assume fundamental changes in the functioning of the school board and the central office, and they may require the establishment of a new governing board and the creation of a different type of infrastructure to replace the central office. The new, community-based governing board envisioned here would primarily be responsible for establishing and managing a portfolio of small schools under performance contract, and its duties would include the annual review and approval of new performance contracts. This new board would assure a sufficient supply of quality schools, pathways, and learning options. A critical role of the board, or perhaps of a separate body with adequate technical capacity, would be to establish a data-reporting and accountability system so that parents, the public, and system leaders have accurate and timely information regarding school performance.

Key changes would be made in financing and budgeting as well. State and local funds would follow each student to the public school of his or her choice. Schools would have the freedom to allocate their resources as they see fit.

In most school districts, the central office is the designated provider of all school services, from accounting and purchasing to professional development and technical assistance. Under the proposed new arrangements, schools would have the freedom to purchase needed services from a variety of sources, including, if they wish, from the former central office. However, it would be expected that networks of like-minded schools would emerge, either within the city or even across local and state boundaries. These networks could provide curricular and instructional materials, professional development, and technical assistance aligned to each school's vision. They could partner with institutions of higher education to design teacher-preparation programs aligned with the network's vision.

Phase in the changes over three to five years.

It will take a number of years to transform existing schools into the more powerful learning communities envisioned here—and to shift them from central office control to new performance contracts. These changes must be carefully phased in to build the capacity necessary for the schools to be effective. One possible phase-in strategy would:

- Give performance contracts first to the most successful schools;
- Establish a fund to support the development of new schools and award these to teams of teachers or principals, community groups, and other local institutions ready to plan and design new schools based on promising approaches;
- Break up large, low-performing, dysfunctional schools and replace them with new, small schools operating on performance contracts;
- Invite staff and community partners from throughout the district to start these new schools;
- Use the physical plants of the old schools to house the new ones;
- Encourage staff from high-performing schools to launch similar new schools;
- Help schools "in the middle" achieve self-renewal;[11] and
- As schools shift to contracts, revamp central offices to accommodate their needs.

Carefully select sites to try out this approach.

Prime candidates for trying out this approach would include: urban school districts that have already launched systemic high school reform based on breaking up large high schools and simultaneously creating new "stand-alone" small schools; districts where local leaders have concluded that sustained incrementalism has reached its limits; and persistently failing districts where there seems to be little hope

that local leadership on its own can turn things around and that are thus facing some form of "state takeover."

Whatever the circumstances, state leaders must play a critical role in securing the statutory authority for the needed changes, forming a partnership with community leaders to build local support, and lending legal weight and political muscle to the change process. No new approach that departs dramatically from traditional practice, however failed it may be, will take hold and work if it is imposed from the statehouse into a hostile environment. However, little different will occur or last unless the state is willing and able to apply consistent pressure.

Finally, independent, intensive, and ongoing research and evaluation should accompany any such effort. This component would document the change strategy and its effects, highlight the need for midcourse corrections, and help the community, local and state leaders, and others throughout the nation learn from this experience.

Make the necessary design changes in certification, finance, governance, and other areas.

Over the long run, policymakers must address a number of key structural issues if they are to transform our current system of high schools into one that is performance-based, with common standards, multiple pathways, and varied learning time to meet the standards. These issues will emerge and be defined more clearly as the other action steps are carried out; they do not need to be resolved in the short run. However, as state and local leaders begin the initial steps, they will want to pay attention to longer-term issues, including, but not limited to:

- **The relationship between standards and access to learning pathways and opportunities:** Some have argued that all students should be prepared to meet common, core academic standards, geared to college admissions, by the end of tenth grade, before they access alternative pathways tied to careers and technical training, additional college preparation, or postsecondary institutions. This approach is intended to ensure that alternative pathways do not recreate a tracking system, in which students who have not met core academic standards are slotted for career pathways, while those who have met the standards enter the more prestigious and rigorous college-prep program. Others argue for a system that would enable students to pursue alternative pathways from the beginning of high school, as long as they meet the same academic standards by the time they complete high school. Advocates for each side argue that their approach would best serve disadvantaged students and be less likely to recreate the features of a tracking system. Who's right, or are there other ways to think about it?

- **Financing systems:** At present, states have separate systems for financing K-12 and postsecondary education. States finance dual-enrollment systems differently, with some providing per capita funding to both systems for high school students enrolled in college level classes, while others transfer funds between systems. Few states provide a reliable stream of funding for dropout recovery programs, and states are still determining how best to finance virtual high schools. As more students cross the boundaries between once completely separate systems, and as learning takes place more frequently in different institutional settings (e.g., workplaces, youth development organizations, on-line), often with different cost structures, states will need to reexamine how these various systems are financed and the nature of the incentives being created both for students and for systems.

- **Governance and accountability:** What new forms of governance and coordination will be necessary, at the state and local levels, as the mechanisms for delivering services and supporting student learning become more varied? How will different institutions, each of which contributes to youth learning and development, be held accountable? How can "adequate yearly progress" be determined for high schools whose students are also taking courses offered by the local community college, state colleges, and on-line providers?

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Notes

[1] For more detail on the Five Cs, see "Coming of Age in 2001," a paper prepared for Jobs for the Future's *From the Margins to the Mainstream* initiative and posted on the Jobs for the Future Web site at jff.org/programs/cluster1/M2M.html.

[2] There is no firm agreement or empirical support for the ideal number of students in a "small" high school. Most analysts consider that small ranges somewhere between 300 and 900 students; many advocates of small schools call for a maximum of 400 students.

[3] It may not even be an *appropriate* strategy in rural communities, many of which already have small high schools and face other challenges, such as attracting and retaining qualified teachers.

[4] The partnership between the State of Maryland and the Baltimore City Public Schools is a model of this approach. Special legislation (SB795) created a new Board of School Commissioners jointly appointed by state and local officials, required the development and regular state monitoring of a comprehensive master plan for the district, and provided additional state funds. This legislation has helped create a strong working partnership and impressive district-wide gains in achievement in elementary schools.

[5] For a comprehensive overview of the potential of virtual high schools and the state policy issues that must be addressed in their establishment and implementation, see the report of NASBE's Study Group on e-Learning: The Future of Education (NASBE 2001).

[6] The Elementary and Secondary Education Act bills passed by both the House and Senate in the current session of Congress slate the Title I Accountability Fund for expansion. These bills would also charge the states with administering the 21st Century Community Learning Centers Programs.

[7] The selection of literacy and math as "essential" is somewhat arbitrary; some states may wish to consider science or other subjects as well. The point is to agree on a limited set of subject areas for which all students will be required to pass a statewide exam.

[8] Networks of small schools organized according to the principles of the Coalition of Essential Schools in New York State and Massachusetts have argued strongly that the requirement that their students must take and pass the New York State Regents Exams or the MCAS, respectively, will force them to abandon an interdisciplinary curriculum and project-based learning in order to fully align their curricula with the state standards. State officials have maintained that *all* students in *all* schools must be held to the same standards, without exception, and that preparing students for state exams will not require abandoning the unique approaches of these schools. Because the tests are being phased in at present, there is little direct empirical evidence that will help resolve this debate.

[9] The recommended course sequence includes four years of college-prep English; three credits of mathematics, including two equal to Algebra I, geometry, or higher; three credits of science, including two equal to chemistry, physics, or lab-based, college-prep biology; and four additional credits in an academic, career/technical, or blended major.

[10] This section draws heavily on discussions at the July 2001 Aspen Workshop on High School Transformation, particularly with Tony Bryk from the University of Chicago and Tom Vander Ark from the Bill and Melinda Gates Foundation.

[11] Hopefully, a combination of ongoing professional development and capacity building, the fund to support new school development, and experienced staff from the first phase of schools will provide sufficient capacity to help this set of schools.

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