What’s Next for School-to-Career?

Richard Kazis and Hilary Pennington

Jobs for the Future

Funding for this project was provided by the Charles Stewart Mott Foundation.
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A final word of thanks: to the Charles Stewart Mott Foundation, and to program officer Christine Sturgis, for encouraging us in this effort, generating guiding questions, and funding the research, production, and dissemination of this report.
The school-to-career movement is at a critical juncture after a decade of enthusiasm, experimentation, and progress, and after about five years of moderate federal support. This paper is about “what’s next”: our focus is how to build upon school-to-career’s significant successes in today’s policy and political environment.

On the one hand, the school-to-career movement and the federal funding that has fueled it during the past five years has sparked much activity and progress in localities around the country. Recent years have seen steady growth and maturation of programs and initiatives that engage and motivate students through contextual learning inside and outside the classroom and through ending the isolation of schools and young people from the larger community. In a few short years, school-to-career has become a core element of some communities’ efforts to reform high schools and improve how young people prepare for their futures. Federal “venture capital” has supported some high-quality innovation. Research on these efforts indicates some very promising outcomes for participating young people.

Moreover, a powerful argument can be made that school-to-career’s basic principles—the innovations in teaching and learning and the relationship between schools and their communities that are at its heart—will become common elements of twenty-first century education. That education will be richer in technology, less classroom-bound, and more focused on what young people will do when faced with new demands or real problems.

Yet, short-term dilemmas face school-to-career advocates and practitioners. The School To Work Opportunities Act will sunset in 2001. New education and workforce initiatives, including the Workforce Investment Act and US Department of Education’s high school reform initiatives, will have important implications for local practice. The nation is entering a next phase of efforts to tackle the persistent challenges of raising student achievement, promoting positive youth development, and preparing all youth for careers and further learning.

How should those who are engaged in building effective school-to-career systems respond? What lessons from school-to-career experience to date can help sustain progress and momentum for the best aspects of school-to-career, strengthen promising efforts, and accelerate adoption of core school-to-career practices?

In today’s environment, school-to-career proponents must engage in rigorous analysis and vigorous debate on the lessons from our efforts, so we determine how best to build upon these initiatives’ strengths. Toward this end, the Charles Stewart Mott
Foundation asked Jobs for the Future to initiate conversations and discussions of “what’s next for school-to-career.” This report is the product of our inquiry. The opinions are those of the authors, but they synthesize what we have seen and heard in the field.

After a brief survey of the evolution of school to career activities from the late 1980s to today, we organize our assessment around two key questions:

1) Given the implementation experience in states and communities, what are the most important lessons to be drawn from school-to-career experience to date?

2) Looking ahead, what strategies will promote what has been most successful and appears most promising about school-to-career?

The Rise of School-to-Career

In the late 1980s, interest in improving the career prospects of young people struck a responsive chord with many Americans, propelled by very real economic and educational concerns and hopes. The school-to-career movement seized upon this interest and articulated an ambitious reform agenda to promote both academic achievement and economic opportunity for young people—both during and after high school. The general principles of this approach, which a broad bi-partisan coalition of Republicans and Democrats codified in the School To Work Opportunities Act of 1994, are:

- Most young people need some help making the transition to adulthood.
- Effective solutions must improve both educational achievement and career prospects. This can best be accomplished through a combination of: active instructional methods, high-quality work-based learning, expanded relationships with adults, and counseling on postsecondary options and their requirements.
- This educational strategy demands that schools enter into new relationships with community partners, particularly the business community.
- Reform must be systemic, altering how schools are organized and how major systems—schools, employers, government—interact and interrelate.
- Centralized, federal solutions will not work; state and local flexibility must be maximized.
- Gradual, customized local implementation will enable schools and their partners to overcome the all-too-familiar cycle of: new proposal → initial enthusiasm → disillusionment → weakening of reforms.

Since 1994, the federal government has made over $1.6 billion available to states and local partnerships as seed funding for school-to-career experimentation and implementation, with annual appropriations cresting at $400 million in both FY 1997 and 1998. States are investing the funds in: developing new working relationships among education, workforce training, and economic development; statewide outreach; professional development; new curricula; and other activities. Local partnerships have significant leeway in their use of funds, provided they demonstrate support for the local investments from employers, schools, and other partners. While no new grants will be made after FY 2000, some states will have until 2005 to fully spend their funding.
Anyone who has visited well-designed efforts supported by the Act’s resources has felt the excitement and energy of effective learning—among participating youth, teachers, administrators, and workplace supervisors and partners. The best of these initiatives are demonstrating impressive positive outcomes that include improvements in:

- Student attendance
- Student motivation and satisfaction
- The rigor of course selection
- Employer engagement
- The quality of adult relationships
- Dropout prevention
- College attendance rates
- Wages in first jobs.

As evidence from Philadelphia, Boston, New York State, and elsewhere indicate, some of the most encouraging gains have been in urban schools with high concentrations of minority students. Few reform efforts, particularly at the high school level, are generating the kinds of results that are beginning to be seen in the best school-to-career efforts.

At the same time, as with any young national initiative, implementation has been uneven. The kinds of changes required to implement school-to-career in a community take time. Some communities invested too much in planning, or in modest activities that did not significantly alter students’ academic or work-related learning experiences. In other instances, resources were spread too thinly. While many school-to-career programs have shown that they can help young people go to and stay in college, research to date has had difficulty demonstrating academic achievement gains measured by grades and standardized test scores.

Despite the progress made in many localities during the past few years, there appears to be little national political support for reauthorization of the Act, which was conceived by Congress as a five-year experiment in venture capital to states and localities. Since 1994, several factors have contributed to Congressional reticence to reauthorize the law as written and to a disconnect between the Washington policy world and local communities about the value and potential of school-to-career strategies. These inhibiting factors include:

1. **Shifting political realities**: The political realignment in Congress in 1994 altered many political dynamics and calculations, particularly in the areas of education and other domestic policies. Strong bi-partisan support for school-to-career gave way to partisan politics. In this new environment, the Far Right launched an ideological attack on school-to-career as an unwarranted federal intrusion in local decision making.

2. **The growing separation of school-to-career from standards-driven reforms**: During the past five years, standards-driven reform and the standardized assessments that states are developing to test students’ knowledge have dominated federal and
Our recommendations focus on both the near-term, while the National School-to-Work Office is still funded under the Act, and the longer-term, when the demands of building and sustaining the field nationally will become even more challenging. The recommendations are directed primarily to federal and state policymakers who control resource allocations and policy priorities. The short-term recommendations focus on how remaining School to Work Opportunities Act funds can best be used. The longer-term recommendations propose strategic choices and priorities that we believe are most likely to yield continued support for and expansion of high-quality initiatives that link schools, young people, and community resources in rigorous and relevant learning programs.

In the short-run, while the National Office is distributing resources under the Act, we recommend that the Departments of Education and Labor and states receiving federal money should use the Act’s resources to sustain and promote what is best about school-to-career, based on five priorities:

1. **Focus relentlessly on data and outcomes.** School-to-career advocates have to be able to demonstrate the effect of their initiatives on traditional academic outcomes. Without data that show evidence of improvement in standard measures of academic gains (e.g., state tests and well-established nationally available assessments), it will be hard to mobilize public and governmental support for significant investment in
these approaches. At the same time, traditional measures must be augmented by data that track the longer-term education and economic career outcomes that we desire for all youth. For this reason, the Departments, the National Office, and the states should encourage and support longer-term, innovative, longitudinal research that track students’ postsecondary choices and outcomes, both educational and economic.

2. **Support leading innovators.** Target resources to programs and initiatives that can demonstrate through research that they are achieving quality outcomes for participating young people. The National Office should make fifteen to twenty multi-year local grants based on the ability of applicants to demonstrate progress in meeting quality and other performance indicators. To the extent possible under the law, the Office should also provide additional support to states that have demonstrated significant progress in generating quality outcomes.

3. **Strengthen partnerships and intermediaries.** One of the most important contributions of school-to-career investments to date has been the strengthening of both local business-school partnerships that plan and govern local initiatives and local intermediary organizations that convene and connect schools, businesses, and other community resources. The Departments should continue to support employer associations, local consortia, and other networks that organize employer participation in partnerships and programs that connect schools to their communities. Employer engagement is critical not only to program success but also to ongoing political support. The National Office should also fund a number of operational intermediaries that have proven their ability to promote the extension of quality learning beyond the schoolhouse doors. This funding should target the documentation of intermediary models and should extend efforts to measure intermediary effectiveness.

A particularly important federal role in strengthening local partnerships and connecting activities is presented by the new Workforce Investment Act (WIA), which requires the establishment of local Youth Councils to help plan local youth programming. The National Office and the Department of Labor should help their constituencies understand how local school-to-career partnerships and WIA’s Youth Councils can collaborate to maximize high-quality youth programs that emphasize both academic achievement and economic opportunity.

4. **Reach out to new allies.** Many new, potentially rich alliances are emerging for school-to-career advocates, in addition to the new Workforce Boards and Youth Councils. Postsecondary institutions, as key customers of public education, can influence program standards and are themselves searching for ways to improve quality for a largely working population of students. Charter and alternative schools are potential allies with significant national and state-level political support and much parental support locally; so are after-school programs and their advocates and standards-based reformers at the state level and in big cities. The Departments, the National Office, and states receiving national funds should make strategic investments to promote exchange between high-quality school-to-career initiatives and representatives of these other movements.
5. **Seed the creation of independent, nongovernmental entities that will continue to promote quality school-to-career efforts.** The Departments of Education and Labor should promote continued documentation of effective practices and positive outcomes, as well as sources of information and assistance and other support for school-to-career practitioners. Along with national and regional foundations, they should provide seed funding for a private/public partnership, independent of the government, to serve the school-to-career field as a resource and documentation center and increase its future cohesiveness and visibility. This entity would help state and local innovators interact, learn from each other, and serve as a strong voice in emerging debates on educational and youth policy and practice. (Any such effort should sustain the excellent Web site maintained by the School to Work Learning Center.) In addition, the Departments and interested foundations should also provide seed support for an association or network of organizations that will promote continued peer learning and accelerated progress among local groups that convene and connect schools and their community.

Preserving and promoting the best of school-to-career practice demands a longer-term strategy as well. Political realities make reauthorization of the Act unlikely, yet powerful long-term trends are likely to make school-to-career’s pedagogical and organizational strengths attractive, particularly to secondary and postsecondary institutions. These trends include:

- The deepening public dissatisfaction with the nation’s high schools;
- Continued employer frustration with the products of our nation’s schools;
- The likely pendulum-swing away from the narrow, content-driven focus of current standardized state assessments;
- The intensifying concern with postsecondary access;
- Demographic trends that continue to put a premium on young people’s skills and readiness.

The school-to-career movement must find ways to take advantage of these trends. Proponents must also find ways to preserve the hard work of the past decade—the progress made, the lessons learned, and the institutions and networks that have evolved.

We do not want to wait a generation for the education reform cycle to “rediscover” the power of school-to-career. To this end, we advocate five longer-term strategies which, in our judgment, will enable school-to-career advocates and activists to take advantage of promising leverage points. These strategies should begin now but are dependent neither upon the time frame of the School To Work Opportunities Act nor primarily on investments of existing STWOA resources. They should be high priorities for the many states that are investing new or existing resources into sustaining the school-to-career progress of the past few years.

1. **Focus on high schools.** The challenges facing high schools, particularly in large cities, are among the most intractable facing education reformers. Moreover, high schools are like the “elbow” of the educational system, linking the K-8 system below them and the higher education system above. School-to-career initiatives
can provide alternative strategies for encouraging and motivating academic achievement for young people in their last years of compulsory education and can influence practice and policy in elementary and higher education. The National Association of Secondary School Principals’ Breaking Ranks supports this approach. Including a secondary school title in the Elementary and Secondary Education Act, as some have proposed, would encourage attention to innovative high school strategies.

2. **Focus on postsecondary connections.** Postsecondary institutions can both help school-to-career efforts and benefit themselves from greater engagement. Stronger leadership from able postsecondary institutions would send clearer signals to secondary schools and their students about standards and expectations. They would also help postsecondary institutions establish predictable pipelines from high schools to their institutions. Moreover, as concerns about postsecondary costs, effectiveness, and quality mount, these institutions would benefit from rethinking their own instructional methods and organizational structures along lines that encourage experiential learning and efficient links between students’ work lives and education.

3. **Promote school-to-career principles within other education and workforce initiatives.** School-to-career advocates must understand new education and workforce development initiatives (e.g. Workforce Investment Act, Perkins III, Elementary and Secondary Education Act, charter school legislation, as well as state education and workforce initiatives) and strategically consider where interests might coincide and where the constituency for core school-to-career principles might be extended. Promising opportunities include:

- **Youth employment and development:** The youth component of the Workforce Investment Act provides more opportunities than CETA or JTPA ever did for ties between local workforce and education institutions. Though many school-to-career proponents were disappointed by the lack of explicit connections between WIA and school-to-career, local school-to-career partnerships should explore ways that Workforce Board and Youth Council structures can help sustain their collaborative efforts. Linkages to other youth-focused initiatives, including the public/private Youth Opportunity Movement, should be created.

- **High school reform:** New initiatives to improve high school education—including charter schools, small learning communities, middle colleges, and other alternatives—embody many school-to-career principles, even if they do not use the term “school-to-career.” Charter high schools and middle colleges frequently turn to school-to-career pedagogy and community connections to organize their curricula. The size, flexibility, and community links of these schools, combined with their relative freedom from bureaucratic rules, are amenable to the kinds of changes in course requirements, daily schedules, and adult roles that characterize ambitious school-to-career initiatives. As the growth of Career Academies shows, efforts to create small, thematic, personalized environments for young people within large public schools frequently turn to school-to-career strategies. This emphasis on “small learning communities” is an increasingly important component of Title I and other federal education initiatives that promote quality and equity.
• **After-school and summer programming:** As the federal government and national foundations follow parental and community opinion and invest more resources in after-school programming, learning programs during non-school hours and in the summer provide an opportunity for creative alliances. School-to-career proponents should identify ways to create or fund initiatives that use school-to-career and service learning models to promote academic achievement and to make after-school work into a richer learning experience.

4. **Fund the local intermediaries that can become the institutional base for long-term school-community partnerships.** There is no substitute for a stable, staffed intermediary organization that can manage the day-to-day connections among schools, students, employers, and other community institutions. Over time, the institutionalization of these relationships improves both education and civic life. States and/or the federal government should provide incentive funding for this important function, as Massachusetts now does. However, government alone should not fund these convening and connecting entities. A district’s or region’s business community, schools, philanthropic foundations, and political institutions must invest both time and hard resources to making these connections real—and sustainable over time.

5. **Fund research to improve design and implementation.** High-quality, defensible, and widely disseminated research on student performance in and after high school is critical if school-to-career is going to be a viable alternative to traditional methods for educating high school youth. There is an opportunity: in the coming years, high stakes testing will likely focus attention on large numbers of high schools whose students fail to achieve test scores required for graduation. If and when this happens, there will be an opening for alternatives that have had success in raising achievement among low-achieving students. However, for school-to-career models to compete against alternative reforms, they will have to prove their value through data on student outcomes. Research on traditional academic performance measures will be necessary. However, careful research on postsecondary outcomes—college-going and persistence; wages and career trajectory—also need support. And, in the long run, additional and alternative achievement measures will be required that capture a broader range of academic and non-academic competencies, rather than typical standardized assessments.

We believe these strategies can advance the school-to-career agenda: continuing to promote quality and improvement, sustaining state and community efforts that have taken root and are showing results, and supporting the school-to-career community during a time when the national agenda and funding priorities are evolving.
The school-to-career movement is at a critical juncture after a decade of enthusiasm, experimentation, and progress, and after about five years of moderate federal support. On the one hand, the school-to-career movement has sparked much activity and progress in localities around the country. The last decade has seen the steady growth and maturation of programs and initiatives that engage and motivate students through contextual learning inside and outside the classroom and through ending the isolation of schools and young people from their surrounding community. In some communities, school-to-career has become a core element of local efforts to reform high schools and improve the way they prepare young people for their future.

Moreover, a powerful argument can be made that school-to-career’s basic principles—the innovations in teaching and learning and the relations between schools and their communities that are at its heart—will become common elements of twenty-first century education. That education will be richer in technology, less classroom-bound, and more focused on what young people will do when faced with new challenges or real problems.

At the same time, targeted federal “venture capital” funding is shrinking and will end within a year or two of the 2001 sunsetting of the School To Work Opportunities Act. Moreover, political support for school-to-career at the national level has eroded significantly since the law’s enactment in 1994.

In this environment, school-to-career advocates and practitioners face difficult strategic questions about how best to move forward, building on what is best and learning from the experience of early implementation. With support from the Charles Stewart Mott Foundation, the authors have assessed the options for sustaining school-to-career—as a national reform movement and as a field. This paper is the result of our inquiry.

We have asked ourselves and others, “What’s next for school-to-career?” in an effort to stimulate discussion and encourage advocates at the national, state, and local levels to articulate and rally around a program for advancing the best of school-to-career practice into the next century.

Our goal is to focus attention on what is important to protect and preserve about these initiatives—and how best to do so in the coming years, as national policy and funding priorities evolve. We emphasize constructive strategies that can be pursued now, so that the nation and our young people do not have to wait a generation for the education reform cycle to rediscover the power of linking school and work.
To this end, we organize this report around three questions:

1. What did school-to-career proponents in the late 1980s and early 1990s hope to achieve, and how did early debates affect the evolution of state and local efforts?

2. What are school-to-career’s greatest strengths and weaknesses, given the implementation experience in states and communities?

3. Looking ahead, what strategies will promote what is most successful and appears most promising about school-to-career?

Our recommendations focus on both the near-term, while the National School-to-Work Office is still distributing resources under the Act, and the longer-term, when building and sustaining the field nationally will be even more challenging.

In preparing this paper, we relied on:

- over 40 conversations with policymakers and practitioners, within the school-to-career movement and outside it; a half dozen focus groups with local school-to-career and education activists; frank discussions with close to 20 leaders from Jobs for the Future’s several networks of practitioners engaged at the school and district level with building strong school-to-career programs; Internet debates that JFF initiated on several electronic discussion groups; our reading of the evaluation literature; and our first-hand knowledge of the progress of individual programs and ambitious district and state efforts.

The input we received has been rich and provocative. We are grateful to those who contributed their time and views. We have tried to be candid and honest in our analysis of current reality and future prospects, in the spirit of both continuous improvement and a commitment to quality and impact. Needless to say, we take sole responsibility for the views expressed here.

**Voices from the Field**

As part of this project, Jobs for the Future elicited E-mail comments from participants in several school-to-career and education reform list-servs. Some of the responses we received are threaded through this paper in side-bars. While not a scientific sample, the comments capture the variation—and the passion—of those who are trying to improve young people’s futures by promoting closer links between school-based and work-based learning.
The Rise of School-to-Career

School-to-career coalesced as a movement in the late 1980s and gathered momentum during the early 1990s. That entrepreneurial energy culminated in the School To Work Opportunities Act of 1994, which has stimulated additional local and state activity.

Factors driving interest in school-to-career

In the late 1980s, the public’s interest in improving the career prospects of America’s young people was propelled by a number of very real economic and educational concerns and hopes. These included:

- **Concern about international competition and its impact on U.S. economic well-being**: Compared to Japan and Europe, the U.S. economy looked tired, with low productivity and weak performance. Many scholars and policymakers argued that how a nation educates and trains its non-elite, front-line workforce is critical to economic success, particularly in a globally competitive and technologically sophisticated world.

- **Rediscovery of the “Forgotten Half”**: Since the 1960s, educators had focused significant attention on the problem of school dropouts. In the mid-1980s, blue-ribbon commissions and policy networks redefined the issue from a school dropout problem affecting 25 percent of the nation’s young people to a lack of access to economic opportunity for the 75 percent who were unlikely to complete a four-year baccalaureate.

- **General dissatisfaction with the quality of high school education**: Critics of the “shopping mall high school” pointed to the lack of focus and academic rigor in American high schools. Electives were proliferating, and getting youth through high school seemed to be the outcome that mattered, rather than readying them to succeed in further education or career employment.

- **Crisis in vocational education**: Enrollment in vocational courses was falling as a result of state campaigns to raise graduation requirements. The quality of vocational programming came under intense attack, particularly at the federal level. Critics argued for a modernization of vocational education that would train less narrowly and raise academic expectations.
By the early 1990s, a rough consensus had emerged on the nature of the youth challenge and the general outline of a reform agenda to help more young people succeed in and after high school. The following broad tenets guided practitioners and policymakers as they experimented with school-to-career strategies:

1. **Most young people need help making a more successful transition to adulthood.** For too many young people, our society does not provide enough preparation and support for success in the increasingly complex and demanding labor market. Routes to decent jobs and careers are limited for many young people by the choices they make—or that are made for them—in the K-12 years.

2. **Any effective solution must address both academic/educational achievement and employment and career prospects.** The preparation needed for success in postsecondary education and in securing a family-supporting job are quite similar. Schools should provide all young people with a combination of experiences—school-based and work-based, academic and practical—that can motivate and help them achieve. To achieve that goal, the core components of high school programs should include:
   - Rigorous learning that incorporates applied, contextual pedagogy;
   - High-quality work-based learning and experience that provides an added venue for skill development and relationships with caring adults; and
   - High-quality career exploration and counseling that connects young people to postsecondary educational and employment opportunities.

3. **This educational strategy demands that schools enter into new relationships with community partners, particularly the business community.** For both economic and educational reasons, schools must become less insular and better-integrated into the economic and social fabric of the local community or region. The suppliers of educated and skilled labor need to understand more about, and work more closely with, employers who want their graduates. And in an information-rich society, schools can no longer claim to be the repository of knowledge; they have to become a place where knowledge and information are interpreted and made useful.
4. Reform must be systemic, altering the way schools are organized and the way major systems—schools, employers, government—interact and interrelate. Reform cannot simply add more programs to existing school responsibilities. Change efforts must alter the incentives that have led our schools to their current structure and strategy, so that the goal becomes school-wide and system-wide reforms, not just “boutique” programs benefiting a small, select group of young people.

5. To succeed in our national political context, reform cannot be based upon a centralized, federal solution. Unlike our European counterparts, our national culture, ideology, and institutions all militate against centralized educational or workforce policies. The best the federal government can do in the present context is seed innovation, provide incentives for states and districts to organize efforts differently, and promote models and practices that appear effective. However, the relative underdevelopment of both employer and labor organizations in this country presents a challenge. Public and private-sector efforts will be needed to strengthen local institutions that organize employers and connect schools to their community.

6. Gradual implementation that provides significant flexibility to states and localities will enable schools and their partners to overcome the all-too-familiar cycle of new proposal → initial enthusiasm → disillusionment. With a “reinventing government” fervor, school-to-career reformers hoped that a locally driven policy approach would be more likely to meet local needs—and therefore sink roots faster and survive longer than typical reform “fads.”

This broad consensus formed a foundation for the School To Work Opportunities Act of 1994, which earned broad bi-partisan support after 1992 presidential candidates George Bush and Bill Clinton both promised to create a national youth apprenticeship/school-to-career system. The Act passed with little opposition and relative good cheer among congressional Republicans and Democrats. Though modestly funded, its passage signaled a commitment to five years of federal support for experimentation and development.

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“For the first time they had hope.”

I became involved in the school-to-work movement after watching a presentation by 30 or so inner-city students about the impact that their involvement in a school-to-work program had had on them…. For the first time, they had hope for their future, they could see a pathway up for them that was obtainable, a future that was different probably than the one their parents had. They became engaged in their learning, and their at-risk behavior stopped. Many were going on for further education or to well paying technician-level jobs.

Personally, I think the best thing you can do for any student is to help her or him master a skill that she can feel proud of…. All students benefit from education connected to the workplace but probably those students who have struggled the most with being good citizens, those who have had the least advantages, benefit the most.

Non-profit Trainer and Advocate
Washington, DC

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Tough questions and implementation choices

The broad agreement around defining school-to-career, while advantageous for passing legislation, concealed many tensions within the movement: permissive legislative language about allowable activities also encouraged diverse interpretations and
The School to Work Opportunities Act provides grants to states and localities to implement school-to-career systems that enable any interested student to pursue a program of study that includes the following:

**School-based learning:** Partnerships are encouraged to create opportunities for career exploration, beginning no later than the seventh grade. By the end of the eleventh grade, students should make an initial selection of a coherent sequence of courses (called a “career major” in the Act) that prepares them for either postsecondary education or employment in a broad industry or occupational area. These courses of study should meet high academic standards as set by the state and also offer students a chance to earn portable, industry-recognized skill certificates.

**Work-based learning:** Local initiatives are encouraged to provide participating students with adult mentoring and a range of work experiences, coordinated with their school curriculum and program of study. The work experience should provide progressively more advanced skill instruction and encompass all aspects of the student’s chosen industry or career area.

**Connecting activities:** Partnerships are encouraged to help coordinate the interactions among schools, employers, and young people through assistance with recruiting employers, matching students with work experiences, and helping employers work with students.

designs. These differences began to emerge when states began to create their systems and local partnerships set priorities for program design and resource allocation. Implementers have had to decide:

- **Who is school-to-career for?** Is this reform for all students or for the “forgotten half”? Is it about better jobs for the non-college-bound, or about greater opportunity for anyone who participates?

- **What age group should school-to-career target?** Is school-to-career a high school reform initiative? A system-wide K-16 initiative? What investment should be made in middle and elementary schools? In two- and four-year colleges?

- **What school-to-career practices are essential?** Is school-to-career primarily about work experience and career exposure? Improved school pedagogy and changes in classroom experiences? Or both? Which elements should be implemented first? Where should resources be concentrated?

- **Which local institutions should school-to-career reform target?** The Act, a joint initiative of the Departments of Education and Labor, emphasized the importance of “connecting activities” linking schools and employers. Is school-to-career a school reform, a way to change employer hiring practices and young people’s career prospects, or a combination of the two?
• **Who should manage school-to-career?** At both the state and local levels, how should school-to-career be governed? Should governance and accountability be community-wide, employer-driven, or school-based? Should school-to-career be housed in the vocational education office, in the core academic instruction offices, or outside the schools?

These are difficult questions. In 1994, many answers competed for dominance. Some emphasized improved technical education, others the elimination of general education, still others dropout prevention. Some models stressed work experience, others classroom instruction, and some career counseling. Some advocates saw school-to-career as a way to improve traditional academic tracks; others saw it as a way to de-track. Some communities focused on “building the system,” others on creating or adapting a program, others on offering some type of school-to-career activity to as many young people as possible as quickly as possible.

Could these competing visions coexist? Some observers argued that school-to-career demanded too many concurrent changes—that bringing all the interests to the table or implementing the components of school-to-career in toto was simply too difficult. Writing in 1994, soon after the Act’s passage, Norton Grubb of the National Center for Research in Vocational Education cautioned that as different interests argued for their priorities “to the near exclusion of others,” school-to-career advocates ran the risk of implementing incomplete reforms that could not deliver on the promise inherent in the fully articulated vision.

During the past five years, federal “venture capital” has seeded a decentralized laboratory for experiments with different models for reforming high school learning and the relationship of schools with communities. Lessons are emerging from this experimentation—with different design choices “on the ground.” Additional lessons can be gleaned about how school-to-career implementation has been received and interpreted in the political arena, nationally and in the states. It is to this assessment of how school-to-career has evolved, and where it stands today, that we now turn.
School-to-Career Today

Today, school-to-career is progressing along two tracks. On the one hand, there have been many successes. Practitioners in many communities are changing the learning environment for young people and creating more adult connections for them. Excitement is building about how these changes benefit students, teachers, and workplace partners—as is evidence of positive outcomes for many young people. Momentum is real: in many communities, it is strong and growing. At the same time, however, the national profile of school-to-career as a reform strategy has cooled.

What has happened since 1994? As we indicate below, the answer does not lie primarily in the objective picture of how funds have been invested and what results have been documented. As one would expect from a complex reform effort in its early years, research points to both bright spots and weaknesses. There has been much progress in both implementation and outcomes. And there is growing evidence of where the next efforts should concentrate.

How Have Federal School-to-Career Funds Been Used?

Since 1994, the School To Work Opportunities Act has made over $1.6 billion available to states and local partnerships. Because Congress intended annual appropriations to peak mid-way through the Act’s life, the largest appropriation was $400 million per year in FY 1997 and 1998. For FY 2000, Congress has authorized $110 million.

Spread across 50 states and more than 15,000 school districts, three or four hundred million dollars a year does not go far. A national evaluation estimated spending per district at $25,092 in 1997-98—about $4.32 per elementary and secondary student per year.

The lion’s share of federal resources has been distributed to states in one-time, four- to five-year grants for re-granting to local school-to-work partnerships. States have used their remaining funds to: develop new working relationships among education, workforce training, and economic development; statewide outreach; professional development; new curricula; and other activities.

Local partnerships have had significant leeway in the use of the funds, provided they could demonstrate broad support from employers, schools, and other partners. Local school-to-career investments fund activities that include: coordination of student work experiences by school staff, professional development opportunities for teachers (including teacher internships in modern workplaces), curriculum development, local labor market analyses, career exposure events and activities, and supplemental support services for students who need them.
Assessing school-to-career’s progress

The school-to-career movement has generated a myriad of diverse opportunities for young people to have a more coherent and engaging high school experience. Anyone who visits the best of these efforts feels the excitement and energy of effective learning—among participating youth, teachers, administrators, and workplace supervisors and partners. And research on the best school-to-career programs is demonstrating impressive results for participating young people.

As noted above, states are using federal funds to create and promote new relationships among agencies and to bring business, school, and government representatives into ongoing planning and deliberations about strategies for improving youth transitions. In some states and communities, these system-building efforts have changed the patterns of policy making and interagency collaboration in lasting ways. A study by the Sar Levitan Center for Social Policy Studies at the Johns Hopkins University found that states with the greatest amount of interagency collaboration and joint planning between the workforce and education fields have moved in that direction largely as a result of their federal school-to-career and One Stop initiatives.

Federal funds have supported an impressive variety of innovative and high-quality program models. Some of these initiatives—including many launched before the 1994 Act—are demonstrating positive outcomes that include improvements in:

- Student attendance;
- Student satisfaction;
- The rigor of course selection;
- Employer engagement;
- The quality of adult relationships;
- Dropout prevention;
- College attendance rates; and
- Wages in first jobs.

Few other reform efforts, particularly at the high school level, are generating the kinds of results that are beginning to be seen in the best school-to-career efforts.

At the same time, implementation has been uneven. The grandest claims of some school-to-career proponents are yet to be achieved. Some communities have invested too much in planning or in isolated add-on activities that do not significantly alter students’ academic or work-related learning experiences.

The uneven nature of school-to-career’s progress to date is predictable, given the modest investments in most communities, the temptation to spread rather than target...
resources, the short time for showing results, and the difficulties of implementing a complex reform strategy. Progress has been impressive in many communities. But there have also been efforts that are too small, of too low an intensity, or too laxly implemented to change significantly young people’s daily experiences. The research gives hope that the best school-to-career efforts translate into real educational and employment gains for young people. At the same time, it cautions against ill-conceived, poorly implemented efforts to provide work experience linking school and work.\footnote{4}

Early evaluation literature provides evidence of impressive progress, particularly in the areas of employer engagement and college attendance and attainment. At the same time, the research also indicates how improvements in academic achievement require long-term investments and commitments:

**Employer engagement:** Employer involvement has increased steadily since the Act was passed. In fact, increasing collaboration between employers and schools has been a particularly successful aspect of school-to-career implementation. About one-fourth of U.S. firms report formal participation in a school-to-work partnership, and one in three report providing work-based learning opportunities.\footnote{5} Businesses are providing students and teachers with work experiences and are participating in curriculum development, promotion and marketing, guest presentations at schools, and provision of material resources. Businesses and their industry associations are helping to bring industry-valued skill standards and expectations into the schools.

This growing employer engagement has positive results for young people and for employers:

- **For students,** employers provide the resources, perspective, and real-world experience and connections that schools have difficulty offering. According to the national evaluation of school-to-career, worksite experiences that students get through school, particularly in paid positions, are of higher quality than jobs they find on their own. Through these opportunities, students gain access to more diverse workplaces and career information, spend more job time in training, and receive more feedback on performance.\footnote{6}

- **For firms,** employers who partner with schools have more stable youth employment rates, with many fewer of their young workers quitting or being fired.\footnote{7} This can result in lower overall hiring costs and higher productivity.

**Local partnership formation:** The establishment and funding of local partnerships involving schools, employers, postsecondary institutions, organized labor, community-based organizations, and other community interests has been a priority school-to-career activity. By fall 1997, in the 37 states that had received federal implementation funding, more than 90 percent of high school age students lived in districts covered by local school-to-career partnerships.\footnote{8} The number of partnerships has expanded annually since 1994 to over 1,000 in 1998. These collaborations tend to be led by educators, with strong business involvement, and with somewhat uneven representation of two- and four-year colleges and organized labor. In many communities, partnerships have
increased communication, joint planning, and collaboration among local institutions, benefiting the school-to-career initiative as well as other youth programming.

**Students served:** The number of secondary school students receiving an integrated academic and work-related curriculum rose from 700,000 to 1.2 million, and the number participating in work-based learning experiences rose from 280,000 in 1996 to 470,000 in 1997, according to the federal government.9

School-to-career implementation reflects Congress’ intent that programs linking school and work be available to any student, from the low achieving to the “academically talented.”10 Participation in comprehensive career development activities and workplace activities linked to school appears to be as common among high school seniors enrolled in college-preparatory curricula as among those who are not.

At the same time, school-to-career programs appear particularly attractive to and beneficial for students less likely to continue their education past high school, including African-American youth. More intensive programs that combine career-related academic courses, work experiences linked to school, and comprehensive career development have tended to attract students from the general and vocational tracks who do not plan extensive postsecondary education.11 In addition, the rate of participation in academic classes that students perceive to be focused on their career interests has increased most dramatically among African-American students, due largely to school-wide expansion of these activities in urban and suburban areas where black students are concentrated.12

**Student satisfaction:** Students give high marks to school-to-career activities, particularly those that afford them workplace experiences and academic classes related to their career goals.13 In general, students are most positive about activities that involve individualized experiences, such as job shadowing and school-arranged internships. This emphasis on opportunities to relate to adults outside the classroom is consistent with findings in Boston that school-to-career students consider worksite supervisors and school-to-career coordinators to be a greater influence on their postsecondary plans than their teachers.14

**Postsecondary educational attainment:** One of the most important benefits of participation in effective school-to-career programs appears to be an increase in college attendance. Graduates of ProTech, a multi-year school-to-career program in Boston, go on to college at rates higher than those of their peers. Among recent African-American ProTech graduates, 80 percent enrolled in college the year after graduating.

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**“Where a credible school-to-work effort has results.”**

The “Let’s form a partnership and do some shallow things” is not what school-to-work was intended to do, yet it is an easy path to follow and enables partnership administrators to generate statistics documenting... high levels of participation. It’s much harder to be creative and integrate the kinds of skills that all students (college and non-college bound) need into both work-based learning and academic experiences. Yet that effort is where a credible school-to-work effort has results—meaningful internships, project-based learning, and the like connected not only to the workplace but to the application of academic learning as well.

**Independent Curriculum Consultant • Illinois**
high school, compared to only half the black students in a comparison group. Other effective programs show similar results. Graduates of New York City career magnet high schools, for example, earn at least a third more college credits and are more likely to have chosen a college major in their first year or two after graduation than their peers in the city’s comprehensive high schools.

**Academic performance:** Participation in well-designed school-to-career programs appears to increase young people’s academic focus and motivation. Studies have found that students in quality programs enroll in more college prep courses than their peers in the general curriculum, particularly in advanced math and science courses. An evaluation of school-to-career efforts in New York State concluded that participating students had better school attendance than their classmates, spent more time doing their homework, cut fewer classes, and were more challenged by their coursework.

However, it is in the area of academic achievement that school-to-career programs have had the most difficulty demonstrating clear-cut gains. Several reasons have been suggested. In some communities, the emphasis on identifying and securing workplace experiences is so great that the program staff work harder on those design elements in the early years than on changing classroom teaching and learning. The use of standardized test scores by some states and districts as the most significant measure of academic achievement disadvantages those school-to-career programs that are more interdisciplinary, stress workplace-oriented productivity and employability skills, and do less “teaching to the test.”

Thus far, programs showing promising progress can rarely conduct the kind of careful research that would enable them to demonstrate that student gains are due to the program and not to the way students are selected into programs. Are those who enter the programs more motivated than the typical student? Is the personalized attention of a small learning community the key, independent of work-based learning? We don’t know as much as we need to on key questions such as these.

**How Students Benefit: Evidence from Four Studies**

As research on different school-to-career models and initiatives becomes more available, some common findings and themes are emerging about how these efforts affect young people’s outcomes during and after high school. Although the research methods have typically left questions about how much progress was the result of program design and how much a result of how students were selected for participation, evidence from recent studies appears broadly consistent. While academic indicators such as test scores are difficult to improve, success in postsecondary admissions and persistence appears greater, as do career-related outcomes such as wages, career direction, and postsecondary planning.
Career Magnet High Schools, New York: Students admitted to career magnet high schools (small learning communities focused on a particular career area, with career-specific courses and internships coupled with an academic curriculum) fared better in some ways and worse in others than their peers who “lost the lottery.”

Graduates of career magnets earned more college credits and were more likely to choose a college major sooner. Career magnet students reported they were less likely to engage in high-risk behaviors (smoking, drinking, involvement in a pregnancy). Successful career magnet students were more likely than their peers to have developed a career identity and to report that high school enabled them to become “really good at something.”

At the same time, researchers found, many career magnets had lower graduation and higher dropout rates than comprehensive schools, due to their higher academic standards. On reading test scores, absenteeism, and advanced graduation test-taking, magnet students did no better and no worse than comprehensive high school students.

ProTech, Boston: Boston’s school-to-career system has expanded significantly since the early 1990s. Today, nine high schools and seven middle schools have been designated school-to-career schools as part of a systemwide effort to institutionalize “career pathways,” defined as programs that: last at least two years; focus on a career-related theme; integrate two or more academic subjects each year; devote time to career and personal development; and provide a multi-year sequence of worksite experiences integrated with academic learning.

Currently, 17 percent of Boston high school students (2,828 young people) are enrolled in a formal school-to-career pathway. Expansion has been rapid in the past three years (from under 600). The number of employer partners in ProTech, Boston’s most long-standing and well-developed career pathways program, has risen from 46 in 1995-96 to about 200 in 1997-98. In the 1998-99 school year, across the district, more than 1450 different employers provided work placements for one or more school-to-career students.

Research on 107 1993-95 ProTech graduates found that these young people were more likely than their peers, locally and nationally, to graduate from high school, attend college or other postsecondary school, have a job, and have a job that pays higher wages. African-American students benefited most from participation.

Wisconsin Youth Apprenticeship Program: One of the first states to receive a federal School-to-Work implementation grant, Wisconsin created a youth apprenticeship program that provides high school juniors and seniors with 900 hours of supervised worksite learning aligned with a series of academic and technical courses. The state targeted the program to students who intended to go directly into the workforce, attend college, or combine both.

Preliminary findings indicate that a youth apprenticeship, although a significant time commitment outside the classroom, is no barrier to success in college. Youth apprenticeship graduates in the 1994-97 classes who entered technical college were far more likely than other entrants to complete a degree or certificate within three years. Youth apprentices who entered the four-year university system stay in college into the second and third years at rates comparable to other freshmen in their age cohort.
Wisconsin’s youth apprentices are also able to secure relatively high-wage employment. Around 70 percent of graduates found jobs directly related to their training, a rate much higher than among vocational programs nationwide. These jobs paid a median wage two to three dollars above the median national hourly earnings for youth. Almost two-thirds of graduates were combining work and postsecondary education and training.

**Philadelphia’s Education for Employment**³² Results from several studies conducted by the School District of Philadelphia and outside evaluators clearly point to measurable gains associated with the city’s school-to-career approach, especially its work-based learning program. For example, Dr. Frank Linnehan of Drexel University found that participation in the work-based learning program significantly improved a student’s grade point average and attendance. These effects were found after controlling for the influence of students’ prior grades, attendance, year in school, and school attended.

A telephone survey of graduates conducted by an opinion consulting firm showed the benefits of work-based learning largely from the student perspective. Students who participated in work-based learning were more satisfied with the employment they received in high school than students who did not participate, and they felt the experience helped them land a job after graduating; 44 percent reported receiving job offers from the organization in which they received work-based learning experience.

Comparing all work-based learning students in the eleventh and twelfth grades with their peers city-wide, the district’s own data shows higher attendance rates, lower drop-out rates, and better grades for work-based learning participants. The results are similar for work-based learning students in small learning communities in the comprehensive high schools, comparing the students with peers in the same small learning communities with similar grades and attendance but without work-based learning experiences.

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**Key challenges for school-to-career today**

The research on school-to-career implementation provides a picture of impressive growth in activity and promising results for a number of indicators of quality and effectiveness. While academic achievement gains are difficult to demonstrate, indications of improved postsecondary admissions and retention, coupled with positive evidence on wages in postsecondary employment, give reason for optimism. So, too, does persistent local-level enthusiasm for the school-to-career principles, models, and strategies.

If the relative weakening of school-to-career as a national reform initiative cannot be attributed to the objective merits of programs funded under the School To Work Opportunities Act, what has happened?

From our research and experience, we believe that four factors have contributed to the current state of affairs:

1. Political realignments;
2. The complexity and ambition of the school-to-career vision;
3. Implementation choices; and
4. The conflict between implementation of standards-driven reform and school-to-career’s experiential, outside-the-classroom core.

1. **Shifting political realities:** Some observers blame declining support for school-to-career on the intense attack from the radical right, a high-profile campaign that has sent a chill through many communities and silenced high-visibility political advocates who touted school-to-career just a few years ago.

The orchestrated grassroots campaign, led by Phyllis Schlafly and the Eagle Forum and advanced by Lynne Cheney and other opinion leaders, has been a barrier in some communities to local innovation and experimentation. It has undercut the bipartisan political enthusiasm that once existed in Congress and has had a similar impact in some state legislatures and local school boards.

However, this campaign could not have been so successful had it not coincided with the Republican capture of Congress in 1994, a political shift that dramatically changed the dynamics of national domestic policies, including education. National politics became increasingly partisan; in this environment, the end of Democratic control in Congress altered political calculations about the wisdom of supporting an initiative increasingly identified as “President Clinton’s school-to-work program.”

Party politics had another dampening effect: if the Democratic leadership in early 1994 had thought that a five-year appropriation could be reauthorized when expiration neared, the political realignment voided this strategy. As a result, school-to-career began to look like a political lame duck three years into its legislative authorization.

When the campaign against school-to-career took shape, advocates were slow to respond. The Administration hoped the furor would die down. The Department of Education had already begun to downplay school-to-career in order to project a single unified message around improving student academic achievement. Supportive governors and business leaders were also relatively quiet. National business organizations, including the National Alliance of Business, the Committee for Economic Development, and the U.S. Chamber of Commerce, did produce a strong statement in defense of school-to-career in 1997. However, compared to the negative campaigners, the school-to-career movement generated only modest active public support.

Unfortunately, the right-wing attack on school-to-career cannot simply be dismissed as cynical politics. The campaign has resonated with the fears and anxieties of many parents about their children’s future: fears of tracking, of narrow careerism, and of a reduction rather than an expansion of choice for young people. Some programs unwittingly provided opponents with effective ammunition.

2. **The model’s complexity and ambition:** School-to-career’s strength—its comprehensiveness and emphasis on changes not only within schools (difficult enough) but also in the relationship of schools and young people to the community and its economic institutions—is also a challenge to rapid and high-quality implementation.
In communities where these models have taken hold, years of development and expansion have been necessary, frequently building upon similar efforts that were already in place. Even in the most mature efforts, integration of school- and work-based learning is still evolving. Vibrant programs are experimenting with different combinations of in-school and out-of-school activities and reevaluating the extent to which components must be coordinated and integrated. They are growing and changing each year, finding models that are more cost-effective and efficient.

The complexity of school-to-career has had practical and political costs. In some communities, it has been difficult to move beyond planning or implementation of a few modest innovations, given real resource, time, and capacity constraints. Politically, the complexity of school-to-career has made it easy for critics to point to examples of poor design and implementation and to highlight gaps between school-to-career rhetoric and reality.

3. Implementation dynamics: With the wisdom of hindsight, it is apparent now that some implementation choices made by school-to-career advocates and practitioners (including the authors) have had the effect of weakening the support for and impact of local efforts.

Underemphasis on high school reforms and links to post-secondary institutions: Many communities have implemented school-to-career as a broad K-12 initiative; this has spread activities thinly across schools. The primary focus of activity in some districts has been career exposure activities in the elementary grades. While such activities are often valuable, the emphasis on earlier grades has diluted the potential for school-to-career to offer employment connections and to be a key factor in high school reform efforts. At the same time, a K-12 focus has meant that links to postsecondary institutions have been frequently underdeveloped—and the potential of two-year colleges as the appropriate location for certain programs linking school and work has been overlooked.

The rush to demonstrate scale and numbers: Political pressures at the national level have led the school-to-career movement to place great emphasis on moving quickly toward reaching large numbers of students. This emphasis is a logical result of the legislation’s short five-year lifespan and of the pressure to demonstrate significant results. Success would be measured in numbers—schools participating, districts with partnerships, employers engaged, and students involved in some form of school-to-career activity.

The concern with measuring progress is laudable. However, the drive to document school-to-career expansion has made scale, not quality, the primary measure of early success. States and localities are asked to “count heads.” Research and development on measures that could demonstrate how programs affected young people, employers, and teachers has received lower priority.
This is one finding of the national evaluation of school-to-career. Because of both the complexity of the design and the rush to show substantial activity, schools and districts have tended to implement the program elements that are easiest to isolate and deliver, such as job shadowing days or career fairs and career counseling activities that do not require coordination with either employers or classroom curricula. While understandable, this strategy has opened the movement to the criticism of poor definition, diffuse programming, and “mile-wide, inch-deep” implementation—and has made it difficult for programs to demonstrate the kind of academic achievement gains that parents, administrators, and state officials want most from these initiatives.

**The challenge of communicating the “all students” goal:** This came through loud and clear in our interviews: the school-to-career movement set itself up for an unwinnable public relations battle by the way it insisted that school-to-career was for “all students.”

The goal is right and critically important. Experiential learning combined with a more active pedagogy is a powerful way for anyone to develop knowledge and skills. Moreover, access to effective school-to-career programs should be available to students with disabilities as well as “typical” students, to high achievers as well as the academically challenged, and to suburban and urban students alike. The best professional schools—business, law, and medical schools—rely on internships and learning outside the classroom. And some of the most effective programs for learning-disabled students and other special populations involve contextual instructional strategies.

Emphasizing that school-to-career is for “all students” positions school-to-career as a systemic reform initiative that could ultimately change the routine organization of learning across schools, districts, and states. It is a way to emphasize system-building over program models, which is critically important if a reform is to reach significant scale and permanence.

Unfortunately, the admirable commitment to universality became a political trap. Proponents opened themselves to the (false) charge that the federal government was mandating participation by all students: for how could an initiative be for all students unless it were required for all? Opponents characterized an effort to ensure quality choices for more young people as a government attack on student and parental choice.

**4. The isolation of school-to-career from standards-driven reforms:**

During the past decade, the most powerful movement in education reform has been state-led efforts to raise academic achievement through higher standards and greater accountability. Almost every state has crafted new, higher academic standards that its students must meet. Many reforms have linked professional development funds to helping teachers understand the new standards and teach toward them. And most states have introduced new assessment mechanisms, by instituting state-wide tests that measure progress of students, schools, and districts toward meeting the standards.

This movement has dominated education reform as states have moved quickly to implement new academic standards, statewide assessments, professional development opportunities, and curricula. The results of this “first wave” of the standards movement vary greatly. Some states have created narrower, more traditional academic content standards than others. State tests vary markedly in terms of quality and focus.
Curricular reform has typically lagged. Yet the landscape of education reform has changed significantly: higher academic standards are a core element—and lever—for school reform.

There is no inherent conflict between school-to-career and the standards-based education reform movement. In the early 1990s, *America’s Choice: High Skills or Low Wages* argued forcefully for a reform strategy that combined high standards with increased opportunities for high school students to “build a bridge to the workplace.”23 In the early years of the Clinton Administration, Goals 2000 and the School To Work Opportunities Act were seen in Washington as part of the same agenda, though they were enacted as separate legislative initiatives.

The Committee for Economic Development (CED) stressed the compatibility of standards-driven reform and the school-to-career movement in its 1998 policy statement, *The Employer’s Role in Linking School and Work*. According to CED, “High standards are essential, but no guarantee of learning. Students must be motivated to learn, and new instructional strategies are required to reach those young people for whom abstract, passive learning is relatively ineffective. We believe that school-to-career practices can address both these challenges.”24

But by that time, CED was arguing for reversing a trend that frequently pitted advocates of high standards against school-to-career pedagogy and programs. States have made huge investments in new academic standards and assessments. With much more limited investment and support, school-to-career has taken a back seat while states and localities have scrambled to respond to demands for quick gains in academic performance. This divide has been exacerbated by the tendency in most states and communities for the school-to-career office to be housed in vocational education while the standards initiatives are driven by mainstream curriculum and instruction offices.

Two aspects of the standards movement challenge the short-term diffusion of school-to-career instruction and pedagogy: 1) the nature of most state assessments; and 2) the pressure to “teach to the test.” For reasons of simplicity, cost, and validity, the standardized tests introduced in most states do not incorporate communication, teamwork, and other skills that people need to succeed. Performance-based assessments are the exception rather than the rule. State tests focus on what people should know, not what they can do or, more importantly, will do when faced with a new situation or real problem.

Kentucky, a leader in raising standards and introducing a statewide assessment system around them, provides a good illustration. The state initially designed an assessment system that incorporated portfolios, performances, and other less-standardized

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"A funding source for many isolated groups."

Right now, [school-to-career] is a funding source for many isolated groups who wish to do a few good things with the money and hope that these things can be maintained after the money is gone (which isn’t necessarily a bad outcome). With local, state, and national support, adequate long-term funding and motivations from a broad cross-section of stakeholders, school-to-career could be a success at helping to reform schools. [But] I don’t see this happening.

Classroom Teacher
indicators. After a few years, faced with high costs and legal challenges, the state retreated toward simpler, more standardized paper-and-pencil tests, with an increasing number of multiple choice questions. Few states have even tried to be as flexible and creative as Kentucky.

The pressures on teachers and administrators lead toward teaching to the test and away from risk-taking with non-traditional approaches to curriculum, use of time in school, and classroom activities. With limited evidence that work-based or project-based learning programs can generate increased test scores, school-to-career advocates have a hard time promoting their reform strategy.

The story of New York State is typical. All New York students will have to take the college preparatory Regents Exams in five core subjects by 2005. Today’s eleventh graders will have to pass the English Regents Exam to graduate in 2000. Each year hereafter, another exam will be added to graduation requirements, in this order: math, U.S. history and government, global studies, and science. The first—and quite understandable—reaction of teachers and administrators is to figure out ways to cover the material that will be tested. All else becomes secondary.

The United States is approaching the end of the first wave of standards-driven reform. The initial rush by states to introduce new standards and assessments is largely over. Now states have to assess the results of their work, fine tune or revamp their tools and systems, and address the inevitable problems. The combination of rigor and relevance embodied in quality school-to-career teaching and learning should be an important strategy for addressing some of the limitations of standards-driven reform, particularly in poorly performing urban and suburban high schools.

As this reassessment takes shape in the coming years, there will be increased opportunities to reopen the dialogue and bring school-to-career strategies back into standards-driven reform. Although states such as Maryland and Oregon and localities such as Philadelphia have tried hard to align these two reform strategies, there are too few states and localities where the movements are seen as complementary. At present, most state assessments test students’ factual knowledge rather than their ability to retain and use information in different settings and to demonstrate skills that are needed to succeed in our increasingly complex world. In the process, school-to-career has become increasingly isolated from mainstream educational reform, to the ultimate benefit of neither movement.

“We must, as educators, prepare them for their future.”

In our program, we have developed a school-to-career curriculum that consists of four courses for credit. Each course is based on academic skills and concentrates on the transference of those skills to the world of work through projects that involve proposals, and project planning, data collection, teamwork, problem solving and reflection. We have piloted this for one year with wonderful results. Our students are typically disinterested in school. This change in pedagogy has motivated them to perform at levels beyond their or our expectation.... Having seen this work... I have come to believe that the first and most important step is the connection to the classroom. As educators, we prepare students for education. We must, as educators, prepare them for their future.

County Education Official California
The Future of School-to-Career: Strategies and Challenges

The importance of taking the long view

Today, the school-to-career movement is caught in a paradox. Targeted funding at the national level is on the wane. Yet, on the ground, enthusiasm continues to build in many classrooms, schools, and communities. The core ideas and principles of school-to-career are powerful. And they are popping up in many different places and ways:

- The push toward small, more personalized learning communities in large comprehensive high schools often takes a career focus; a recent Education Week article described a restructuring in Newburgh, New York, that turned the high-school into small, thematic academies, yet the author never used the term “school-to-work” or “school-to-career.”

- School-community partnerships continue to grow and deepen, though some of the newest and best may see themselves as part of efforts to raise academic achievement (e.g., El Paso), strengthen after-school programming (21st Century Communities efforts), or improve regional economic development.

- Many small, innovative public and private charter high schools are creating curricula and community-based learning experiences that map to school-to-career principles.

- Service learning initiatives and community-based arts programs for youth, while frequently divorced from the school-to-career movement, share many of its basic design principles and program components.

The paradox is this: if we take the short view, there is cause for concern about the future of school-to-career as codified in a specific piece of federal legislation that is soon to sunset.

However, if we take the long view, the picture is quite different.

It is our view that the nation is in the beginning stages of a new era. The early-twentieth-century factory model of education, and particularly high school education, is as much a dinosaur as the factory model of production it mimics. The position of schools in our society is changing dramatically, as are the organizational forms of effective learning environments.

As Ted Sizer has often said, schools are no longer the repository of knowledge, as they were in the Middle Ages, or even at the turn of the century. Knowledge is now everywhere; if anything, it is too easily accessible. Schools must become the place where the skills of analysis, discernment, synthesis, and use of knowledge are taught.
Technology, work organization, the more networked economy, the growth of entrepreneurship—changes in these spheres will ultimately drive changes in our system of educating and preparing people for productive careers and rewarding lives. The questions for education reformers are: how quickly will such changes occur, what institutional form will they take, and what strategies can be pursued to accelerate them?

Given current trends, school-to-career’s basic design elements are likely to be far more commonplace and far less controversial in the economy and learning systems of the next generation. These elements are:

- An academically rigorous pedagogy that is active, experiential, and contextual and that focuses on skills for solving problems in real situations;
- Strong connections to local employers and other community resources, for rich adult connections, effective career exploration, and school learning standards that align with standards expected in high performing workplaces;
- Better strategies for helping young people make postsecondary choices, combine school and work, and earn postsecondary credits, credentials, and skills; and
- A more personalized, less standardized education that enables individuals to discover and develop “something they are good at.”

What is controversial is not these design elements, but how to get from here to there—how to change schools, standards of learning and instruction, routes to career success, and adolescents’ daily experiences as they prepare for the future toward these ends, as well as how to ensure that these positive outcomes are not unequally distributed because of social class, race, or other accidents of birth.

**Reducing that isolation is one of the more important contributions.**

More and more, I think the engagement of employers with the education system is key, particularly in urban systems because the education system is so isolated. You see in our city how the banks have stood up. I think that makes a big difference, first of all in terms of support but secondly in engaging educators and employers in a discussion of what young people need to learn. I think those of us in education operate in isolation from the broader community. Reducing that isolation is one of the more important contributions.

*School-to-Career Coordinator Philadelphia*

**Shorter-run optimism is also warranted**

Even if we look to the next few years, there are reasons for optimism about the resurgence of school-to-career models and principles. The problems that led to the design of school-to-career models are not going away. And certain emerging policy priorities lead right back to strategies for improving the learning opportunities available for young people and addressing their isolation and disconnection from caring adults, responsibility, and opportunity.

In our research, practitioners and policymakers repeatedly noted the following strategic openings that will emerge in the coming years:

**Opportunities to focus on high schools will expand.** Districts (and states) are starting to worry about high schools. Standards-driven reform efforts have been least
effective at turning around student achievement in high schools. In many urban high schools, administrators, teachers, and parents are concerned that an unacceptably large proportion of students will fail high-stakes tests required for graduation. Even in “good” high schools, where students score well on standardized tests, there is a sense that traditional models are inadequate and unable to motivate students and break through the alienation and drift.

Alternative models for high schools are less common than for elementary schools. It is noteworthy that experimentation with alternative high schools frequently incorporate school-to-career’s core principles and design elements: thematic clustering; project-based learning that takes students out of the classroom; small learning communities; more personalized and individualized attempts to connect with students and their aspirations.

Openings will increase for addressing youth more holistically, not solely in terms of their intellectual needs. School reform has focused for a decade on raising academic achievement, which is critical. The progress that states and localities have made is real and necessary—and must continue. We believe, though, that the pendulum will swing back in the coming years. Adolescents have physical, psychological, and other developmental needs that cannot be measured by standardized tests—and cannot be addressed by a single-minded focus on those metrics of student progress. Perhaps accelerated by highly visible instances of school violence, parents and others are coming to an uneasy realization that the mix of parental and institutional supports for many adolescents are simply not working well enough. In this environment, alternatives that help reduce isolation, strengthen social networks, encourage responsibility and discourage alienation become more attractive. And this may open space for the kind of innovation that has been constrained in recent years by the pressure for higher standardized test scores.

Attention is growing to issues of postsecondary retention, completion, and quality. The “Forgotten Half” has been shrinking. One of the success stories of American education is the rapid rise in the percentage of young people entering two- and four-year colleges, now about 65 percent. However, attrition rates are high and many of the new entrants drop out for financial, academic, and other reasons by the end of their first year. The social and personal costs are tremendous. Policymakers are beginning to take a hard look at how to improve college retention and completion.

At the same time, postsecondary institutions are themselves looking at a changing competitive environment that pits them against distance learning and for-profit institutions and forces them to be more responsive to employers who hire their graduates. The pressures for quality and accountability that K-12 systems have been responding to in recent years are beginning to reach postsecondary institutions (including schools of education). This can create an opening for creative approaches to pedagogy, curriculum, and assessing learning that can bring school-to-career principles more quickly into postsecondary institutions.
Employer interest in ways to assess competencies will not slacken. Employers want to know what people know and, even more so, what they can do. There is evidence that employers are looking for more, and more specific, indications of a job applicant’s abilities. Frustration with high school transcripts and college diplomas runs deep.

More and more employers, particularly those in high-tech fields, are creating certifications that have meaning in the labor market. Internet learning technologies will both encourage these alternatives and make it more imperative that they be valid. As industry skill standards come on-line nationally, employers will look to see how these can be used to send clear signals of expectations to schools and their faculties. In their search for better fits between jobs and new hires, many employers are experimenting with internships, temporary trial periods, and other ways of getting to know potential workers. This, too, can provide an opportunity for school-to-career efforts.

Demographics trends will help keep employers engaged. For as long as the economy stays hot, the combination of large numbers of soon-to-retire older workers with a relatively small cohort of young people means that employers will be willing to try new, less conventional ways to identify potential employees, including novel partnerships with schools and colleges. The rapid expansion of collaborative projects such as Automotive YES, established first by General Motors and now run as an industry consortium, demonstrate the potential.

But political realities cannot be ignored

The opportunities are significant; emerging research is promising; and local progress around the country is impressive. However, these developments are not powerful enough—in the short run—to reverse the political isolation of school-to-career among federal policymakers and in many states.

“IT’S NOT SO MUCH THE MONEY…”

Federal dollars are seen as a federal priority. Once the money goes away, there is a sense that the priority has gone away. It’s not so much the money as the commitment.

Classroom Teacher • Florida

1999 is not 1994. And some of the assumptions many of us made in 1994 must be revised as school-to-career enters a new period in its development.

In 1994, many of us assumed that reauthorization of the School To Work Opportunities Act would be a possibility five years later. We thought there was a good chance that the key principles of school-to-career would be integrated into reauthorized Vocational Education, Elementary and Secondary Education, and Workforce Investment Acts. We assumed that states would have had sufficient time and will to create strong school-to-career systems through greater coordination, collaboration, and planning. We assumed that Congress and the states would look seriously at the lessons of five years of experimentation and development—and that a second generation of improved initiatives might be encouraged and supported. And we assumed that support from national foundations, which had been critically important to the launch of the movement, would continue to grow.
As the sunsetting of the Act approaches, we are far from the realization of this scenario. Instead of seeking opportunities to integrate school-to-career with mainstream education and workforce legislation, Congress carefully avoided specifying explicit links. Most governors who took leadership roles in promoting school-to-career have left office or are focused on other issues—even as some of their states move ahead with initiatives that promote many of the movement’s core principles. Many foundations have moved on to other priorities. Reauthorization of the School To Work Opportunities Act is on neither the Republican nor the Democratic agenda.26

At the national level, the battle for school-to-career as defined in the 1994 legislation is unlikely to be won in the short-run. Among those we interviewed, there was broad consensus that reauthorization of the School To Work Opportunities Act was politically unrealistic and that repositioning and promotion of the key design elements of school-to-career is likely to bear more fruit than a determined campaign to reauthorize the Act.

For this reason, we propose a strategy that distinguishes between defending the 1994 legislation and aggressively promoting the kinds of programs, activities, and outcomes Congress was trying to encourage. This strategy argues for a long-term perspective that responds to current political realities, incorporates lessons that have been learned during the past decade, and pursues a range of strategies to strengthen the best of what exists today, sustain the field that has emerged, and motivate other reformers to embrace core school-to-career principles.

So What’s Next?—While the Act is in effect

While the Act and its resources are available, they should be used to sustain and promote what is best about school-to-career. We propose five priorities for the Departments of Education and Labor and for states receiving federal money, all of which can be furthered with existing authorization and funds:

1. **Focus relentlessly on data and outcomes.** Are local school-to-career efforts improving young people’s future choices and success? That is the essential question. School-to-career programs will have to be able to demonstrate their effect on traditional academic outcomes (i.e., grades and standardized test scores). At the same time, longer-term longitudinal research on postsecondary choices and outcomes, both educational and economic, must be encouraged and supported. The Departments and states should support innovative efforts to measure postsecondary outcomes. Evidence on what doesn’t work is as important as evidence about what does work, both for credibility and for improving program design in a field where much about what works still remains unknown or based largely upon intuition. We must be our own most exacting critics.

2. **Support leading innovators.** The Departments and the National School-to-Work Office should target additional resources to programs and initiatives that have demonstrated promise and progress in achieving quality outcomes for participating young people. They should make 15 to 20 multi-year local grants based on the
ability of applicants to demonstrate progress in meeting quality and other performance indicators. To the extent possible under the law, the Office should also provide additional support to states that have demonstrated significant progress in generating quality outcomes. There are states and communities that have embraced school-to-career as a comprehensive reform strategy. These should receive resources to continue to grow their efforts. Other programs, though less comprehensive, are demonstrating an ability to change young people’s daily experiences to the good: these, too, deserve support. The message should be about the transformative power of projects operating at high quality, serving significant numbers of young people, and having a broad impact on schools and communities.

3. Strengthen partnerships and intermediaries. The Departments, through the National School-to-Work Office, have invested in institutions that can sustain employer and community support for school-to-career approaches beyond the lifetime of the Act. One of the most important outcomes of school-to-career investments to date has been the strengthening of both local business-school partnerships and local intermediary organizations that convene and connect schools, businesses, and other community resources. The Office should continue to support employer associations, local consortia, and other networks that are emerging as organizers of employer participation in partnerships and programs connecting schools with resources in their communities. Employer engagement is critical not only to program success but also to ongoing political support. The National Office should also provide funding for a small number of operational intermediaries that have proven their ability to promote the extension of quality learning beyond the schoolhouse doors. This funding should target the documentation of intermediary models and efforts to derive measures of intermediary effectiveness.

A particularly important federal role in strengthening local partnerships and connecting activities is presented by the new Workforce Investment Act, which requires the establishment of local Youth Councils to help plan local youth programming. The National Office and the Department of Labor should help their constituencies understand the ways in which local school-to-career partnerships and WIA’s Youth Councils can collaborate and partner to maximize high-quality youth programs that emphasize both academic achievement and economic opportunity.

4. Reach out to new allies. In today’s political environment, many potentially rich and powerful new alliances are available to school-to-career advocates (in addition to the new Workforce Boards and Youth Councils). An important one is with post-secondary institutions. As key customers of programs, they can influence program standards. And they are themselves searching for ways to improve quality for a largely working population of students. Charter and alternative schools that have significant political and parental support are another potential ally. So are after-school programs and their advocates, arts and community service program advocates, and standards-based reformers at the state level and in big cities. The Departments, the National Office, and states receiving federal funds should make strategic investments in promoting dialogue and information exchange between...
high quality school-to-career initiatives and representatives of these other movements. This outreach should look to new constituencies—postsecondary institutions, charter and alternative schools, different business groups, mayors and urban leaders, after-school program advocates, mainstream educational audiences—while still providing support and data for the traditional school-to-career base.

5. **Seed the creation of an independent, nongovernmental entities that will continue to promote quality school-to-career efforts.** The school-to-career movement needs to develop a more independent “field-building” capacity than the government has promoted during the past five years. The existence of a federal office and resources has had significant positive impact. A downside, though, has been that the independent capacity to promote and sustain the school-to-career vision and lessons is relatively weak. The Departments of Education and Labor should promote continued documentation of effective practice and positive outcomes, as well as sources of information and assistance and other support for school-to-career practitioners. In partnership with national and regional foundations, which have helped build capacity for other reform efforts (including service learning and community development), the Departments should provide seed funding for a private/public partnership, independent of the government, that can serve the school-to-career field and increase its cohesiveness and visibility, in the coming years. The School to Work Learning Center’s Web site is the kind of resource for the field that should be sustained. In addition, the Departments and interested foundations should also provide seed support for an association or network of organizations that can promote continued peer learning and accelerated progress among local groups that convene and connect local schools, employers, and other community institutions.

**What’s Next?—Sustaining and growing the field**

The above suggestions are directed primarily to the federal Departments of Education and Labor and to states that receive funding under the Act. **However, preserving and promoting the best of school-to-career practice demands a longer-term strategy for building and growing a field.**

In our view, this longer-term strategy should take advantage of the emerging opportunities identified above—and address perceived and real implementation challenges. It must combine a number of elements: commitment to promoting quality in specific places, documenting and marketing evidence of effectiveness and results for students, looking for alliances and influence with other reform efforts, capitalizing on the business community’s continuing frustration with high schools and their products, and a willingness to build a national system more slowly and incrementally.

What does it take to grow and sustain a “field”? The Academy for Educational Development has recently specified necessary activities, as part of its work in support of service learning: a knowledge base; identification of best practices; a workforce devoted to the growth of practice and knowledge; ways to deliver services; political support from key sectors; public support; material resources; and an infrastructure for bringing people together and for collecting, analyzing, and disseminating knowledge.26
The school-to-career movement has had, or has been developing, all these. As we look ahead, the question is: how can these elements of a self-conscious “field” be sustained and strengthened in the coming years, as resources are reallocated at the national level toward other education and workforce priorities?

We suggest that establishing five priorities can extend and deepen the work and advance what is best in school-to-career. These priorities should guide the many states that are investing new or existing resources into sustaining the progress made by school-to-career initiatives in recent years. They should also guide local practice.

1. **Focus on high schools.**
   The challenges facing high schools, particularly large urban schools, are among the most intractable problems facing education reformers. Moreover, high schools are like the “elbow” of the educational system, linking the K-8 system below them and the higher education system above. School-to-career initiatives can help point toward different ways of encouraging and motivating academic achievement for young people in their last years of compulsory education. This was a clear recommendation of the National Association of Secondary School Principals’ 1997 *Breaking Ranks* report, which remains a powerful and influential document today.

   The reauthorization of the Elementary and Secondary Education Act may include a separate title to encourage improvements in secondary schools with high concentrations of poor students. We believe it should, given the historic underinvestment in high school reform by the federal government. And school-to-career advocates should organize in support of a separate secondary education title.

   Whether or not a separate title is created, increased interest in high school reform strategies is inevitable, an interest signaled by the recent Request for Proposals from the Department of Education to promote comprehensive whole school reform models designed specifically for high schools. An emphasis on high schools will enable school-to-career advocates to focus their efforts, address a recalcitrant problem, and play to the movement’s strength—its ability to bridge the worlds of work and school for young people who are beginning to make important decisions about each.

2. **Focus on postsecondary institutions and connections.**
   Increasing postsecondary attendance is at the heart of public education policy today. There are several ways in which greater attention to postsecondary institutions can promote the broad goals of the school-to-career movement. And such initiatives are increasingly in the interest of colleges and universities as they compete for students and are being held to higher standards of accountability for quality and results.

   Postsecondary institutions can and should form closer and more creative partnerships with secondary schools. Tech Prep is one model of creating more structured pathways for high school students, but these efforts should not be limited to vocational programs. In many communities, the boundaries between secondary and postsecondary institutions are becoming more permeable. Some charter schools in Massachusetts, for example, require that students take at least one college course to
graduate high school. Closer partnerships would encourage a more rational division of labor between high school and postsecondary institutions, so that more job-specific technical skills are taught at the postsecondary level, where employers are more likely to look for new permanent hires into technician-level jobs. Stronger leadership from able postsecondary institutions would send clearer signals to secondary schools and their students about standards and expectations.

Colleges can also influence high school curricula and instruction through their admissions policies. Public systems in particular can promote more experiential pedagogies in high school through flexible admissions criteria that do not penalize non-traditional courses (following the lead of states like Wisconsin, Oregon, Colorado, and New Hampshire).27

In addition to these opportunities to recruit new groups of students, colleges and universities are likely to find it in their interest to explore the relevance of school-to-career pedagogy to their own programs. Well over 50 percent of college students work, and the difficulty of balancing work and school is one of the primary reasons for high attrition rates. Postsecondary institutions should consider ways to bring students’ work and classroom experiences into better alignment. Moreover, as parents, state governments, and students become more discerning consumers of postsecondary learning, the poverty of pedagogy in many institutions is becoming a problem, one that school-to-career strategies are addressing in the K-12 context. The positive experience of graduates of postsecondary co-op programs such as LaGuardia Community College and Northeastern University are instructive.

3. Promote school-to-career principles within other education and workforce initiatives.

In the past few years, within education and workforce development, several new strategies and initiatives have gained momentum. School-to-career advocates need to understand these—and look for opportunities to ally with them to advance the overall agenda. We do not advocate trying to “convert” activists in other movements. Rather, we propose a careful and strategic consideration of where interests coincide and where the constituency for some or all of the core principles of school-to-career can be extended. Examples include:

- **Youth employment and youth development:** After several years of stalemate, the new Workforce Investment Act has been enacted. While passed in an environment hostile to overt links to school-to-career, the youth component of the bill provides more opportunities than CETA or JTPA have for closer ties between workforce and education institutions at the local level. Although local Youth Councils mandated in the Act do not require school participation, communities that want to integrate their youth efforts can involve their schools. Local school-to-career partnerships should explore ways that Workforce Boards and Youth Councils can help sustain their collaborative efforts. (Like the Workforce Investment Act, federal welfare reform also provides an opportunity for school-to-career funding and programming. TANF can be used to fund school-to-career activities for children in welfare families.) Linkages to other youth-focused initiatives, including the public/private Youth Opportunity Movement, should be created.
• **High school reform** New initiatives to improve high school education—including charter schools, small learning communities, middle colleges, and other alternatives—embody many school-to-career principles, even if they do not use the term “school-to-career.” Charter high schools and middle colleges frequently turn to school-to-career pedagogy and community connections to organize their curricula. The size, flexibility, and community links of these schools, combined with their relative freedom from bureaucratic rules, are amenable to the kinds of changes in course requirements, daily schedules, and adult roles that characterize ambitious school-to-career initiatives. As the growth of Career Academies shows, efforts to create small, thematic personalized environments for young people within large public schools frequently turn to school-to-career strategies. This emphasis on “small learning communities” is an increasingly important component of Title I and other federal education initiatives that promote quality and equity.

• **After-school programming:** The Clinton Administration has made improved after-school programming a high priority, and government and foundation funding has risen steadily in the past few years. Districts and schools should develop strategies for using the federal after-school initiative and related foundation support to promote existing or new efforts to link schools with community resources for academic and career-related learning experiences during non-school hours and in the summer.

4. **Fund the local institutional base for long-term school-community partnerships.** The pedagogical strengths of school-to-career—the integration of classroom and external experiences, the projects, and the performances—can be integrated into mainstream education reform, if a district or state wishes. Cities such as Boston and Philadelphia and states that include New Hampshire and Maryland have shown that professional development resources can be redirected and concentrated; school improvement funds can be targeted to helping teachers develop curriculum; and districts can change policies to make flexible class schedules, interdisciplinary courses, and out-of-class learning easier to arrange.

What schools cannot easily do on their own is promote and fund the institutional infrastructure within the local community that makes possible ongoing connections among schools, employers, and other community resources. There is no substitute for a stable, staffed intermediary organization—within the schools or, more effectively, outside it—that can manage the day-to-day work of building, maintaining, and growing the kind of partnerships that work.

This is a new function, one that has been stitched together by creative entrepreneurs who have used public and private funds, school system dollars, and workforce development resources to create a capacity to link schools and other institutions. The School To Work Opportunities Act showed how important and powerful this kind of investment can be.
We agree with the recommendation of the Committee for Economic Development in its 1998 policy statement. States and/or the federal government should provide incentive funding for this important function, as Massachusetts now does. Government should use incentive grants, competitions, and research to promote innovation and experimentation with different models of staffing and organizing connecting activities. However, government alone should not fund these convening and connecting entities. A district’s or region’s business community, schools, philanthropic organizations, and political institutions must invest both time and hard resources in making these connections real—and sustainable over time. Without that commitment, the scale, quality, and dynamism of these efforts are likely to remain modest.

5. **Fund research to improve design and implementation.**

   High-quality, defensible, and widely disseminated research on student performance during and following high school is critically important if school-to-career proponents are to be able to convince skeptics of the power of school-to-career instructional strategies—and if mainstream education reformers are to recognize school-to-career as a viable alternative to more traditional methods for teaching high school youth.

   Research on traditional academic performance measures will be necessary. However, careful research on postsecondary outcomes—college-going and persistence; wages and career trajectory—should be supported as well. And, in the long run, additional and alternative achievement measures that capture a broader range of academic and non-academic skills and competencies than typical standardized assessments will be required.

   *

*We believe the short- and long-term strategies proposed above can advance the school-to-career agenda.* They can: promote quality and improvement; sustain state and community efforts that have taken root and are showing results; and support the school-to-career community during a time when national political and financial capital are evolving. The next few years will not be easy ones for school-to-career; but at the federal, state, and local levels, there are ways to promote what is best about past efforts and position school-to-career principles for emergence and implementation over the long-run.
We are well-aware that this paper provokes many challenging questions. For example:

- If the support of intermediaries, connecting activities, the generation of long-term student outcomes, or the improvement and use of performance assessments cost more money (which they will), where will additional resources be found?

- If the focus on a national school-to-career system cannot be sustained in the short-run, how can states and communities continue to build their systems? Will this be a period of consolidating and improving programs models but of minimal systemic change?

- If school-to-career becomes less distinct as a separate movement, how can it maintain visibility, community, learning, and quality?

These are critically important questions that the school-to-career community—as well as its supporters in government and the funding world—must grapple with as the field looks ahead and plans proactively for “what’s next.” We assume that readers will have other questions. But when there are questions, people can start to work together toward answers. We hope that this paper contributes toward that end—in Washington, state capitols, and communities around the country.
Language has been an important battleground in defining this reform movement. In the late 1980s, many who were interested in European models of preparing youth for the future advocated the term “youth apprenticeship,” but this was bitterly opposed by organized labor and others who thought it too oriented to training rather than education. The 1994 federal legislation codified the term school-to-work, which had been used in academic circles for many years. Because that seemed to imply that the goal of these efforts was to move young people in a linear progression through high school and into the labor market, the term “school-to-career” came into vogue. We use that term here because it implies, first, an open set of choices for young people, a future marked by a career not just a job, and, second, a recognition that for most people successful careers demand lifelong learning, not “12 (or 14) years and out.”


For all the interest in school-to-career, there is still only a modest body of well-designed research on results. However, new data are emerging. The national implementation evaluation conducted by Mathematica, while based on student data from only the second year of implementation and partnership data from the third, is useful. Interim results from studies of New York’s Career Magnet High Schools and from ten Career Academies nationally (by the National Center for Research on Vocational Education and Manpower Demonstration Research Corporation respectively) provide helpful evidence on both outcomes and obstacles, as do independent studies of certain individual programs.


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Female and minority students are more likely than whites to attach a high value to their school-to-career experiences.


18 Westchester Institute for Human Services Research, 3.

19 Crain et al., op. cit.


24 Committee for Economic Development, 16.

25 Lew Smith. “This is a Nice Private Public School.” *Education Week*. February 17, 1999, 50-52.


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Patricia McNeil, Office of Vocational and Adult Education, U.S. Dept of Education
John Niles, Corporation for Business, Work, and Learning
Katherine Oliver, Office of Career, Technical and Adult Learning, Maryland Department of Education
Robert Pearlman, Autodesk Foundation
Stephanie Powers, Chris Kulick, Sharon Belli, Shannon Gordon, National School-to-Work Office
Scott Reid, PICO
Tony Sarmiento, Working for America Institute, AFL-CIO
Robert Schwartz, ACHIEVE, Inc.
Dianne Smithers, State School-to-Work Coordinator, Kentucky
Jean Stevens, State School-to-Work Coordinator, New York
Neil Sullivan, Boston Private Industry Council
Paul Weckstein, Marco Fung, Center for Law and Education
Janet Zobel, National Urban League
Alan Zuckerman, National Youth Employment Coalition