Building the School-to-Work System

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Introduction

The purpose of the federal legislation that created School-to-Work or School-to-Careers was to meet the educational, economic, occupational, and skill-training needs of our future workforce. It also was to address the needs of employers as they face the challenges of competing in a global economy. The School-to-Work Opportunities Act of 1994 is managed jointly by the U.S. Departments of Education and Labor. The legislation granted financial resources for a five-year effort to encourage partnerships among schools, employers, government entities, parents, and students to design a system of transition from the classroom to the workplace.

Three key concepts outline this initiative: work-based learning, school-based learning, and connecting activities between school and work. School-to-Work (STW) is designed to offer career information, career exploration, and career application opportunities to students. By the year 2001, when the legislation sunsets, the plan is to have a system in place that will institutionalize school-to-work at the local and state levels. Only through partnerships between the private sector, community organizations,
government entities, and education institutions will the foundation for this system be built.

This fastback summarizes the work now going on to build the school-to-work system.
Development of the School-to-Work Initiative

Today's worksites, and those of the 21st century, require a new kind of worker. Between 1950 and 1980 a high school diploma was important; it was the ticket to a good job with a future. However, to compete for high-wage careers in the 1990s, strong academic skills, the ability to solve problems, the skill to manage information using computers, and the need for teamwork increased in importance.

The trend in previous generations was that workers would find a job with a company, remain with that company for 40 years, and then retire. However, today most of the jobs that will exist in 20 years do not even exist yet. The need for flexibility and the ability to adapt to different environments in the workplace is far more important than in the past. In fact, the best estimate is that American students today will change careers an average of seven to ten times before they retire. They will be competing with and working with a very diverse set of co-workers and clients.
Consider how much the marketplace has changed in the last ten years. Ten years ago compact discs, videocassette recorders, voice mail, faxes, and the Internet were not a part of our daily lives. These new technologies have revolutionized our society. The motivation for the school-to-work initiative is to help students to prepare for the future and to provide a link between what is being taught and what is needed in the workplace. The School-to-Work Opportunities Act is designed to help communities build a system to achieve these goals.

Why School-to-Work?

In the act Congress identified why a school-to-work initiative is needed. A study from the Department of Labor made the following points:

- Three-fourths of high school students in the United States enter the workforce without baccalaureate degrees, and many do not possess the academic and entry-level occupational skills necessary to succeed in the changing United States workplace.
- A substantial number of youths in the United States, especially disadvantaged students; students of diverse racial, ethnic, and cultural backgrounds; and students with disabilities, do not complete high school.
- Youth unemployment in the United States is intolerably high, and earnings of high school graduates have been falling relative to earnings of individuals with more education.
- The workplace in the United States is changing in response to heightened international competition
and new technologies; and such forces, which are ultimately beneficial to the nation, are shrinking the demand for and undermining the earning power of unskilled labor.

- The United States lacks a comprehensive and coherent system to help its youths acquire the knowledge, skills, abilities, and information about and access to the labor market necessary to make an effective transition from school to career-oriented work or to further education and training.

- Students in the United States can achieve high academic and occupational standards, and many learn better and retain more when the students learn in context, rather than in the abstract.

- While many students in the United States have part-time jobs, there is infrequent linkage between their jobs and career planning or exploration or the school-based learning of the working students.

- The work-based learning approach, which is modeled after the time-honored apprenticeship concept, integrates theoretical instruction with structured on-the-job training; and this approach, combined with school-based learning, can be very effective in engaging student interest, enhancing skill acquisition, developing positive work attitudes, and preparing youths for high-skill, high-wage careers.

- Federal resources currently fund a series of categorical, work-related education and training programs, many of which serve disadvantaged youths, that are not administered as a coherent whole.
• In 1992 approximately 3.4 million individuals in the United States age 16 through 24 had not completed high school and were not currently enrolled in school, a number representing approximately 11% of all individuals in this age group, which indicates that these young persons are particularly unprepared for the demands of a 21st century workforce.

There is a need for more relevance in learning throughout students’ years in school to help them attach to learning for life. Leo (1996) painted a devastating picture of the work ethic among first-year college students whose primary expectations were that courses should be “easy,” “fun,” and result in high grades. Whether high school students enter the labor market or matriculate to postsecondary institutions, they must learn the demands of careers, jobs, and employers (“From School to Work” 1996). STW offers many positive results, including the development of ambitious career goals, an increased focus on academic subjects, a better understanding of career paths, a deeper awareness of the relevance of reading and mathematics, and a lower dropout rate (Steinberg 1997).

The Secretary’s Commission on Achieving Necessary Skills (SCANS 1991) at the U.S. Department of Labor examined a variety of different kinds of work, from manufacturing to government. They worked with a wide variety of employees and employers to identify the fundamental skills common to all jobs and to determine the levels of skill proficiency needed to perform effectively in the workplace at the entry level. In its
findings, the Commission outlined a three-part foundation of skills and personal qualities needed for solid job performance:

- Basic skills of reading, writing, arithmetic and mathematics, speaking, and listening;
- Thinking skills including creativity, decision making, problem solving, and reasoning; and
- Personal qualities such as individual responsibility, self-esteem, sociability, self-management, and integrity.

Together, these are known as the SCANS skills and competencies. These skills have been the basis of much of the development of school-to-work models.

The world is changing from a manufacturing-based economy to an information-based economy. In order to help students make the connections, career counseling is needed. In Ohio, the Career Planning Program was introduced to encourage students in middle schools to feel a positive connection between school and work (Benz 1996). Similar efforts to emphasize the importance of connecting school to work are necessary across the United States because of rapid and far-reaching changes in labor requirements (NEGP 1993).

The School-to-Work Opportunities Act of 1994

The School-to-Work Opportunities Act of 1994 (P.L. 103-239) provided federal support for the creation and development of state and local systems to help Ameri-
can youth make successful transitions from secondary education into further education or training and thus into productive, high-wage careers. Under the act, competitive federal grants were made to eight states in 1994. Additional grants were made directly to 36 local STW partnerships in 1994. In 1995 Congress funded an additional 19 states. Grants served as "seed money" to help state and local efforts to build on the foundations of current, related initiatives and to create new opportunities for students.

States then awarded grants to local partnerships of employers, schools, postsecondary education institutions, labor and industry organizations, teachers, parents, students, and others. Local partnerships worked to build the STW system. States could use portions of their grants to promote the formation of local partnerships, to provide technical assistance, to develop curricula, and to conduct outreach to business and education partners.

On the first anniversary of the School-to-Work Opportunities Act of 1994, the President claimed that the act had created opportunities for more than 100,000 youth to learn about work and its benefits to themselves and their communities. More than 40,000 employers, working with educators from more than 27,500 schools, blended workplace skills with academic subjects. The President contrasted apprenticeship programs in Colonial America with the complexity of jobs in the Information Age (Clinton 1995).

In order for the STW act to be fully implemented, racial, sexual, and social inequalities must be eliminated (Beachboard 1995). Tomorrow’s workplace will need all
workers, which includes a diversity of employees unequal to that at any other time in the history of the United States.

If we are successful in building the school-to-work system, the prediction is that young people’s lives will be improved. They would be more actively engaged and challenged in their learning, get the academic and workplace skills needed for a successful future, gain the support of additional caring adults, and be able to use their education to achieve their dreams.

Developments in building the system for school-to-work partnerships have evolved into a focus on the three components: school-based learning, work-based learning, and connecting activities.

School-based learning. A firm belief in the STW initiative is that all students need academic basics, whether they are headed directly to the world of work, to a technical school, to a vocational learning site, or to a four-year academic program. Another essential basic in building the school-to-work system is that all students, even those in the earliest grades, will be exposed to the economic life of the community. Regardless of the skills students bring to the classroom, it is believed that all students will benefit from understanding how the lessons they learn are used in the workplace and in life. Examples of school-based learning include:

- Collaboration of teachers with employers to identify the connections in the curriculum.
- Community speakers in the classroom that help students learn about how skills are applied in work settings.
• Developing authentic projects and working in student teams to solve problems.
• Implementing career awareness programs prior to seventh grade.
• Career fairs.
• Integrating career development activities into academic and vocational classes.
• Developing individual student plans specifying relevant high school and postsecondary courses.
• Completing career interest inventories or surveys and using this information in the development of the individual student plan.
• Regularly scheduling the use of career centers for student research on careers.
• Individual career counseling.
• Developing and implementing applied academics curricula.
• Pairing academic and vocational-technical teachers for team teaching.
• Grouping teachers together to develop joint curricula that emphasize a specific career path.
• Promoting common planning periods for secondary teachers involved with the same students to integrate learning and focus on career pathways and interests.
• Developing an academic program that enables students to meet state standards and earn a skills certificate.
• Developing career pathways.
• Implementing block scheduling to create more time for contextual and project-based instruction or work-based experiences.
• Following up with out-of-school youth to help them connect to classroom learning or work experiences to enable them to become productive citizens.
• Facilitating a continuum from school to work or additional training.

Work-based learning. Work-based learning experiences should exist throughout a student’s education career. The purpose is, again, to bridge the gap between classroom lessons and life. Work-based learning experiences might include:

• Job shadowing.
• Tours that have a direct tie to classroom instruction.
• Unpaid or paid work experience, particularly in areas related to the students’ career interests.
• Student internships, particularly in areas congruent with a student’s career interest.
• Teacher internships, particularly in an area congruent with the teacher’s curricular area.
• Apprenticeships, which are encouraged to be registered with the state office of apprenticeships.
• Instruction in general workplace competencies or employability skills.
• Junior Achievement.
• Work-study opportunities.
• School-sponsored enterprises.
• On-the-job training programs.
• Instruction in all aspects of an industry.
• Workplace mentoring.

Connecting activities. Schools and employers must develop connecting activities that integrate classroom and
on-the-job instruction. Connecting schools and worksites does not happen naturally or automatically. It requires a range of activities to integrate the worlds of school and work to ensure that the student is not the only common factor between the two. Connecting activities provide program coordination and administration. There also must be a tie between interest inventories, career assessments, and the plan for further academic learning and worksite placements. Examples of connecting activities include:

- Identification of liaisons from the community and school to work together on behalf of the student in the workplace.
- Paid or unpaid work experience that relates to a career interest or career pathway that the student has chosen.
- Identification and training of worksite mentors for students.
- Connecting employers and employees with lessons in the classrooms and learning from the school site.
- Cooperative education that ties workplace experiences with classroom experiences.
- Community and school staff working on integrating curriculum with lessons from the workplace.
- Provision by community members of materials needed for the classroom.
- Community service by students.
- Courses being taught at the community site with assistance provided by employees.
- Support of staff development through teacher internships or job shadowing for teachers.
• Providing counseling support for each student to develop and implement their educational and career plan.
• Developing articulation agreements between secondary and postsecondary institutions.
• Analyzing post-graduation research to identify trends and promote changes that are needed in the education system.
• Developing dual credit opportunities for students.

The School-to-Work Opportunities Act was designed to enable local partnerships to develop, particularly through school-based learning, work-based learning, and connecting activities. However, it did not give specific plans to the schools or their partners. It was clear that STW was to provide staff development and curriculum alterations in schools. Many grantees have been unclear about how to build the coalitions that were described or how to change an entire system.

In order to receive STW funds, a board or advisory committee needed to be formed. The requirement was to include participation by representatives of parents, business organizations, key business leaders, civic organizations, local education agencies, local postsecondary institutions (including representatives of area vocational education schools, where applicable), local educators (such as teachers, counselors, or administrators), representatives of labor organizations or non-managerial employee representatives, and students. Other organizations that also could be included are employer organizations, community-based organiza-
tions, national trade associations working at the local level, industrial extension centers, rehabilitation agencies and organizations, registered apprenticeship agencies, local vocational education entities, proprietary institutions of higher education, local government agencies, parent organizations, teacher organizations, vocational student organizations, and private industry councils. This requirement was made to encourage cooperation of the agencies, organizations, and community entities that would share a common interest in the development and implementation of the system.

The authority provided by the School-to-Work Opportunities Act will terminate on 1 October 2001. Organizers were clear that the purpose of the funding was to be "seed money" and that the local partnerships would need to provide their own plan for sustainability.

What Is School-to-Work?

The School-to-Work Opportunities Act of 1994 established provisions for states and communities to build school-to-work systems. STW is open to all students and is meant to increase each student's opportunity to enter a high-skill, high-wage career. The goal is to prepare all students for postsecondary education, careers, and citizenship. School-to-work highlights the cultural imperative to teach youth about civic and citizenship virtues and responsibilities, as well as to prepare them for their roles in an enlightened workforce with respect to scholarship, citizenship, and partisanship (Hartoonian and Van Scotter 1996).
Eight elements are designed to help states and local partnerships develop and implement school-to-work:

1. *Opportunities for all youth.* A primary objective of school-to-work is to build a system in which all young people participate.

2. *A continuum of school-to-work concepts integrated into the core curriculum.* School-to-work elements should be incorporated into the curricula of grades K-12 and postsecondary in progressive steps, building on a foundation of rigorous academic standards. Career awareness at the elementary level, career exploration at the middle school level, and career application at the high school level will be the stages of the continuum. As one student noted, “The program is not just about being released from school, but more about learning because you want to learn” (Steinberg 1997, p. 9). Whereas students in school do most of their reading from textbooks, students at work read from computer screens and printouts, flyers, forms, manuals, product directions, and other materials.

3. *Professional development.* In order to successfully implement a school-to-work system, staff development and training are necessary for all school-to-work partners, including school staff, parents, employers, employees, unions, and community-based organizations. The act includes provisions for educators to work in business and industry so that they can improve curricula and improve their programs (Brustein and Mahler 1994; Education Commission of the States 1996). The staff development provided through the act affords teachers, counselors, and administrators firsthand ex-
periences, in summers or during the school year, in firms in which their students might work later. Educators reached several conclusions, including the importance of computer skills, job search and application skills, teamwork, interpersonal skills, problem-solving skills, and such work habits and traits as a positive work ethic, accountability, punctuality, and dependability (Luft, 1997). Teachers can learn for themselves what their students must do to apply for jobs, for example, by competing for positions and undergoing job interviews, testing, and orientation. Teachers who had not applied for jobs in years often were surprised to learn of the extensive screening processes now in place. They also acquired numerous ways of increasing the relevancy of their courses to students. Likewise, employers were pleased that educators acquired current information about the workplace, obtained a firsthand understanding of how organizations operate, and learned how to advise students about how different types of education are used in the world of work and thus could improve the way they prepared their students for work as well as for college. Not surprisingly, many educators affirm their satisfaction with teaching after engaging in internships. Because of the complexities of STW, counselors must expand their knowledge of the education system and the business and political scenes (Fouad, 1997; Gysbers, 1997). Additionally, community and business leaders learn a great deal from their exposure to the classrooms, students, and teachers.

4. Exploration by students of all aspects of an industry. This broad approach to work-based learning ensures
that students are exposed to every aspect of an industry, including sales and marketing, management and finance, technical skills, labor and community issues, health and safety, and even environmental issues in an integrated instructional system. Experiences in all aspects of an industry can equip students with a greater awareness of their career options, more transferable skills, and increased mobility within an industry.

5. Participation of employers and labor unions. Employer and union involvement is essential for bringing school-to-work initiatives to scale. Employers and union leaders can be involved in school-to-work in a number of ways: providing leadership and acting as a catalyst for change, working with other partners in system planning, participating in curriculum development, serving on advisory councils, and providing work-based learning opportunities for students and teachers. Labor unions, especially in the skilled trades and manufacturing, have a long history of collaborating with employers on the development of apprenticeship programs that link classroom-based learning with on-the-job training. Unions provide a venue for building grassroots support from workers for the shadowing, mentoring, and work-based learning that are key to building the foundation of a school-to-work system.

6. Establishing career majors. Career majors structure a student's educational experiences around a broad career theme and give students a context for learning, as well as providing opportunities to use their experiences in the classroom and the workplace to help determine what they might or might not want to do. A career major,
such as business, health care, or technology, generally coincides with state and local labor market information to ensure the relevance of student learning to available jobs. All career majors should incorporate skill standards and academic standards. This may require some restructuring of the school day to allow for block scheduling, interdisciplinary instruction, and work-based learning.

7. Development of local and regional structures. The strength of state efforts to build and to operate a statewide school-to-work system depends, in large part, on how the state establishes its local and regional structures — how it "rolls out" its implementation plan. The roll-out plan is a means for achieving statewide coverage by building local partnerships over the course of the five-year period of federal funding. The local and regional structures should help to align local reform efforts in workforce development, economic development, and education.

8. Accountability. All partners are individually and jointly accountable for the success of the school-to-work system. School-to-work initiatives must develop data collection systems and evaluations to build accountability into their systems.

What STW Is Not

School-to-work is not designed to be just another expensive job-training program. In fact, it is designed to build on existing models and efforts, such as apprenticeship programs, job-training programs, tech prep,
and cooperative education. It is about building a seamless system for developing academic and occupational skills for high-wage careers.

School-to-work is not going to go away. By the year 2001, when the legislation sunsets, the plan is to have a system in place that will institutionalize school-to-work at the local and state levels. The legislation was intended to provide "seed money," but the concept was not designed or intended to disappear in the year 2001.

The school-to-work initiative is not another top-down federal program. It has a prerequisite that all sectors of the community will serve as co-sponsors of the grants. These local and state partnerships will drive the planning, implementation, and operation of school-to-work systems.

School-to-work is not just for the "vocational" students who plan to attend "technical" schools. Today's job market demands that workers have academic skills and appropriate workplace behaviors whatever they aim to do.

School-to-work is not just more of the same. Change is required. It is required in both the workplace and in the schools.

School-to-work is not about preparing students only for four-year degree programs. It is about preparing all students for future employment and lifelong learning, matching them to the best postsecondary option for their career path.

School-to-work is not about business and community members criticizing education, but it is about participating in a productive way.
School-to-work is not about lowering academic standards. The heart of the school-to-work concept is to break down the barriers between academic and vocational learning and preparing students to meet high academic standards. The "national standards movement" under way in the 1990s included the establishment of standards for industries and occupations in the labor force, as well as for mathematics, social studies, and other subjects (Schulz 1996). The national standards movement, like the School-to-Work Opportunities Act, is about raising the bar.

School-to-work is not focusing only on special populations. It is about helping all students see their potential and be exposed to a myriad of career options. School-to-work systems are encouraged to be attentive to nontraditional occupations for students and to eliminate barriers to future careers.

School-to-work is not about limiting options or low-wage jobs. Some parents fear that their children will be deprived of a normal high school program (Vo 1997) or will be steered toward limited job options (Cheney 1998). Some fear that corporations will turn schools into training grounds for cheap labor (Steinberg 1997). The focus of STW is on high-skill, high-wage careers.

Young people, when given relevant learning situations, are more highly motivated. School-to-work will be more motivational by integrating academic and vocational experiences. In a recent U.S. Department of Labor survey of 500 students, 9 out of every 10 students said they would prefer learning both on the job and in school. Two-thirds of high school students would prefer to get
work experience while in school. Three in four teens who are employed say their current jobs are not preparing them for the career of their choice. The fact of the matter is, today's students are interested in building the school-to-work system to meet their needs.

**Benefits of School-to-Work**

The reality of school-to-work is that everyone benefits. The other reality is that STW will be successful only if everyone becomes involved. Partnerships between governmental agencies, civic organizations, businesses, business organizations, educators, parents, students, postsecondary institutions, and schools are needed to build school-to-work systems. Following are some of the benefits to students, employers, educators, and communities:

**Students:**
- See the relevance of an education with high standards.
- Gain practical experience in the field.
- Acquire a more in-depth understanding of career and education options.
- Work with adult role models.
- Develop potential contacts with employers that might evolve into job opportunities.
- Enhance self-confidence and experience success at school and at work.
- Benefit from counseling and assistance in developing and obtaining education and career goals.
- Become better-informed consumers.
- Develop a heightened motivation for learning.
- Gain an increased sense of community.
- Choose from a wider range of education and career opportunities.

Employers:
- Gain access to an expanded pool of future or current employees.
- Influence the connection between curriculum and the workplace.
- Contribute to the development of the community and human resources.
- Enhance their community relations efforts.
- Acquire a better understanding of the education system and its complexities.
- Decrease the need for extensive retraining programs in the future.
- Can reduce turnover of employees in the future because they are better prepared.
- Improve morale and management skills of adult workers.

Educators:
- Become better informed about expectations of their students in the workplace.
- Gain expertise to aid in the compatibility of instruction with workplace needs.
- Receive support and recognition for their expertise.
- Increase the connection between students' education and postsecondary plans.
- Integrate academic instruction with lessons from the workplace and authentic activities, which provides more relevance for students.
- Reduce the number of students who are not attached to learning.
- Become more aware of resources and available support.
- Are rejuvenated by a focus on interdisciplinary team-teaching.
- Are empowered in their profession, within restructured high schools and their communities.
- See major benefits for a broader range of students.

Communities:
- Improve the opportunities for youth in their community.
- Develop increased potential for economic growth through partnerships between the community and the schools.
- Better utilize governmental funds, taxes, and other financial resources by promoting coordination of resources.
- Assist in the development of a skilled workforce.
- Build a stronger community connectedness.
- Have reduced long-term social service expenses by promoting intervention.

Roles of Stakeholders
The most immediate role for stakeholders in STW was to participate in the governing board or advisory committee for the local partnership effort. Following are some of the additional roles for stakeholders:
Employers:
- Identify an individual in the organization to work closely with the schools to develop STW partnership activities and opportunities.
- Ask for transcripts and recommendations from teachers before hiring students or graduates.
- Actively recruit nontraditional employees.
- Serve on STW or partnership committees.
- Help to develop procedures for job shadowing, internships, and apprenticeships for students.
- Pay attention to labor laws and work with appropriate parties to help define criteria.
- Offer job shadowing and internship opportunities to educators.
- Participate in career fairs and job fairs, speak to classes, and provide tours of the employment site.
- Give employees time away from the worksite, with pay, to participate with the schools.
- Coordinate opportunities so that they benefit both the worksite and the schools.
- Develop an ongoing relationship, a partnership, with a school. Meet regularly and coordinate mutually beneficial activities.
- Help schools connect with organization affiliates and with service clubs, faith-based organizations, and business organizations.
- Tell the story of STW activities with the schools through the community and company newsletters.
- Post news about partnerships between the schools and businesses on the company bulletin board.
• Reinforce employees who work cooperatively with the schools; recognize them in front of their coworkers and encourage the participation of others.

_Labor representatives:_
• Participate in the development of STW partnerships.
• Work to eliminate any barriers that keep students from experiencing the opportunities of the profession as a potential career.
• Work with the employer and the schools to promote the integration of work-based learning into the schools.
• Negotiate contract language that will support time off work with pay for union members to participate in school-to-work activities.
• Develop training programs for union members to learn how to better present to students as classroom speakers, to improve the quality of tours of the worksite, or to provide the support needed to be workplace mentors.
• Include information about opportunities for union members to be involved in publications and communications.
• Recognize members who have been actively engaged in STW partnership efforts.
• Research nationally developed skill certificates in careers that are related to the business. Make plans to implement them in the area.
• Form partnerships with teacher unions to meet mutual goals.
• Volunteer to present at regional and national conventions about participation in school-to-work activities.

**Teachers:**
• Encourage students to think about how the knowledge and skills they are learning in school will help them succeed in the future.
• Assess teaching content and how it will help students in their adult lives.
• Promote student internships and job shadowing at local businesses and community sites.
• Accept an opportunity for a teacher internship.
• Job shadow at worksites and share experiences with students.
• Look for school-to-work professional development opportunities.
• Ask local employers what students must know to succeed in their businesses.
• Organize colleagues, local employers, unions, community leaders, and parents to link the classroom with the business world.
• Organize tours of community sites to explore how lessons are applied to different occupations.
• Use curricula to integrate school and work more effectively.
• Link with postsecondary education institutions to articulate what is being taught.
• Form partnerships with local businesses and parents to make lessons more relevant to the workplace.
• Develop authentic learning opportunities.
• Encourage colleagues to collaborate in planning, providing an interdisciplinary approach for students.
• Share the benefits of interdisciplinary approaches and involvement of the community in the classroom.
• Encourage all students to explore career options and help to break down traditional barriers.
• Encourage all students to reach their full potential.
• Volunteer to present at a local, regional, or national conferences to share the involvement with school-to-work.

Business leaders:
• Work with educators to develop a school curriculum that more accurately reflects what students need to know to thrive in the workplace.
• Evaluate potential employees before hiring them full time.
• Gain access to a larger pool of qualified job applicants.
• Form partnerships between educators and other employers to plan work-focused opportunities in the community’s schools.
• Encourage employees to visit schools.
• Make room in the workplace for students to gain direct work experience while still in school.
• Hire qualified graduates who have participated in school-to-work or school-to-career programs.

Parents:
• Notify the educators who work with their children that they are willing to share their work-based expertise with the class.
Inform the school that they are interested in helping to connect the students learning with the community through partnerships.

- Find out about opportunities at the school that connect with the community, and sign up their son or daughter.
- Work with their employer and the school system to develop a program exposing children to the world of work.
- Encourage other parents and get them to involve their workplaces in the classroom.
- Share with their children that learning takes place continually.
- Support their children's explorations of career opportunities and options.
- Be informed about potential career options and the training paths that support various careers.
- Attend parent teacher conferences and be active as a volunteer in their local school.

**Students:**

- Explore career options. Ask neighbors, parents of friends, and family members about what they do at work. Learn from everyone.
- Participate in job shadowing, internships, apprenticeships, or other school opportunities that will connect with the world of work.
- If opportunities for job shadowing, apprenticeships, and internships do not exist at school, ask an educator or business person to help develop this type of option. Work through the channels that ex-
ist for curriculum or course development for the school system.

- Schedule appointments with the school counselor to discuss academic and career options.
- Write letters to people in a field of interest to acquire more information about the field.
- Contact professionals in a field of interest. Arrange to job shadow at their convenience, preferably without missing school.
- Focus on classes. Join clubs or organizations in an area of career interest to help further explore the potential opportunities.
- Start a portfolio and résumé. Ask a teacher to help if this is not already part of a class. Look for a job that goes beyond just earning wages.
- Explore job options that will help to build an experiential base for the future.
- Take any job seriously. Job history is important.
Evaluation of School-to-Work

The School-to-Work Opportunities Act requires the Department of Education and Department of Labor to conduct a national evaluation of STW. Mathematica Policy Research and its subcontractors, MPR Associates and Decision Information Resources, were contracted for a five-year period, beginning in 1995, to evaluate the STW initiative.

The evaluation has four objectives: 1) assessment of state progress in creating the STW system, 2) identification of promising practices and barriers to development, 3) description of the extent and nature of STW partnerships, and 4) measurement of outcomes achieved in high school and postsecondary education.

These objectives are carried out through three major components:

- Surveys will be mailed to all local partnerships that have received grants, collecting data on the partnerships, program designs, school-based and work-based activities, postsecondary linkages, student assessment approaches, and levels of student involvement.
• Case studies will be made of selected state and local partnerships. Site visits will be made to eight states and 42 local partnerships. The analysis will be on the development of school-based, work-based, and connecting activities. Students will analyze the breadth and depth of the STW system for availability to all students and utilization.

• Thirty-two partnerships, randomly selected across the eight case study states, will be surveyed for a student study. Twelfth-graders will be the target population, including about 85 students in each partnership, and will be given a questionnaire about their high school experiences. Information will center on access to and participation in school-based and work-based activities that became available through the STW system.

Data Collection

In the study of local partnerships, the Mathematica survey requires great detail in accounting for the activities of the students and the partners. One tool for tracking data is a school-to-work software tool from the Coop 2000 family that has been joined by a "Companion" that fully links the various applications to Microsoft Office. It enables users and STW grant recipients to collect and track the kinds of data needed for STW reporting purposes and to coordinate the STW program interests of students with those programs available in businesses. It also has data import/export capability. The various applications link what students do in work-based learn-
ing or academic classroom projects and activities to sets of skills, such as SCANS, CDOS, Maryland “Skills for Success,” Missouri “Show-Me” Standards, and others. Specific programs supported include internships/apprenticeships, service learning internships, job shadowing, service learning volunteers, middle school career exploration, and the in-classroom “Instructional Strategies” to link academic courses with various skill sets.

Follow-Up Studies

Graduation follow-up studies are to be completed by STW partners. The hoped-for long-term effect of STW is to help youth match their interests with a career. Ultimately this would mean that they have a more direct route from high school to appropriate postsecondary training and jobs that relate to their career of choice. Many young people graduating from high schools are unable to find stable, career-track jobs for the first five to ten years after graduation (Jobs for the Future 1995). In the long-term, follow-up studies, it is predicted that this will change.

STW partnerships are using technology to support learning, collect data, and connect students from education to a position in their career interest. In an effort to assist with the tracking of those pathways and connecting to employment, the National Association of Secondary School Principals has an alternative transcript program. The School and College Record on the Internet for Better Employment (SCRIBE) allows high school
and college students to transmit records of their work to employers. With SCRIBE, students construct one record of their accomplishments and update their records as their careers advance. Employers can search SCRIBE’s database, post vacancy notices, and receive applications through the network.

Mathematica Results

The early findings from the Mathematica study were reported in April 1997 for the eight states that were studied in depth and can be summarized in eight points:

1. Educators and employers in large numbers are excited about the concept, and things have been set in motion.
2. States have begun building a system by creating employer incentives, promoting career development models, facilitating college enrollment, and defining target career clusters. Only eight states have done all of these.
3. STW concepts have been made a central theme for education reform in two of the eight in-depth study states.
4. Improving students’ career awareness is the most widely available aspect of STW. Few schools have a coherent career development sequence at this time.
5. Career majors and integrating vocational and academic instruction are a lower priority for career development than are workplace activities.
6. Early efforts are concentrating on workplace activity. Barriers do exist in expanding this in an
effort to link extended activities to the school curriculum.

7. Few students so far participate in a full range of STW activities.

8. Local partnerships are widespread at the early stages of development.

State Evaluations

School-to-work partnerships also report their results to statewide offices. For example, as part of Nebraska's efforts to assess its progress and hold it responsible, the Nebraska Industrial Competitiveness Alliance, the governing board of STW in Nebraska, commissioned a statewide poll of parents. The purpose of the poll was to measure parents' attitudes toward STW and to determine their level of support for or opposition to the initiative.

The STW polling involved 600 interviews using a random-digit dialing system. Respondents were screened to ensure that they had at least one child under the age of 22. Polling results included:

*Public awareness.* Fifty-three percent of the parents were aware of the STW initiative in Nebraska. About one-third (32%) of Nebraska parents were actively involved in providing STW opportunities.

*Need for school change.* Most parents (83%) rate Nebraska schools as "good" or "excellent." Despite high ratings, 92% of the parents polled believe that local schools need to make either major (24%) or minor (68%) changes in the way they operate.

*Reaction to specific changes.* On five questions, parents gave uniformly high marks (81% to 87%) in their support for changes offered by STW programs.
Specific attitudes toward STW. Another series of questions explored parents' perceptions of STW. In every case, larger percentages of parents agree with positive statements and disagree with negative statements about STW. Parents believe that STW will work because businesses will invest time and resources in school programs and because school systems will change due to more parent, business, and community input; that STW is good for all students, including the college bound; and that STW provides training for all types of jobs. Finally, 53% of parents believed STW was a good example of education reform.

Support for the STW initiative. Eighty-six percent of parents surveyed either "support" or "strongly support" the STW initiative, while only 7% are opposed. In addition, 57% said they would vote for a candidate for office who strongly supports Nebraska's STW initiative, and 38% would move their child to another school in order to enable participation in an STW program.
Examples of School-to-Work Partnerships

We conclude this fastback with examples that we know best. Nebraska’s version of school-to-work is centered on School-to-Career Partnerships, an effort that covers all 93 counties, 320 school districts (54% of the total), and nearly 230,000 students (77%) with more than 9,000 business partners.

This effort is governed by the Nebraska Industrial Competitiveness Alliance (NICA). NICA is an alliance of industry, government, and academic representatives, organized to plan and to oversee programs to enhance the technological capabilities of business and to provide a competitive, quality workforce. The NICA board governs four major competitiveness initiatives with administrative support from the Nebraska Department of Economic Development.

Ultimately, economic development is about improving the quality of life in our communities. Nebraska businesses, education, labor, youth, civic and religious organizations, and government are all working together to make a difference in a state’s success on a communi-
ty-by-community basis. In simplest terms, economic development is business development. Today, businesses compete with products made from around the globe. School-to-Career is an economic strategy to increase competitiveness.

Following are examples of School-to-Career Partnerships:

Opportunities Jobs Careers (OJC) is a local partnership including community and education partners serving more than 80,000 students in the Omaha Public Schools, District 66, Millard, Ralston, and Fremont. In 1994 OJC was selected as a model system and was one of the first STW initiatives to receive direct federal funding. Activities include comprehensive guidance, an early awareness program, A+ businesses, internships and apprenticeships, teacher and counselor summer internships, Omaha Work Keys, Career Options Plus, ProPal Plus, and a Job-Link Hotline.

Career Pathways Project of Greater Omaha is a part of the AIM Institute. The partnership includes 94 schools with a combined student enrollment of 52,847. Other key partners are major corporations and community organizations. With its focus on technology careers, the project is tailored to meet the specific needs of the local community. It will facilitate a better-educated, more adaptable workforce that will make Omaha and Nebraska more competitive in business. At the same time, this program offers students an opportunity to gain an understanding of new and emerging technologies.

School-to-Careers of Lincoln (STC) is a partnership serving more than 31,000 public school students and
students at four postsecondary institutions. Lincoln received a year of direct federal funding for its model initiative. Five strategies are being used: 1) infusing STC concepts into the K-12 curriculum, enabling all students to participate; 2) enhancing career counseling and career education and developing and supporting school-community partnerships; 3) creating professional development partnerships through STC institutes for school community teams, internships, workshops, and shadowing; and 4) implementing an employability (workplace behavior) curriculum, which includes Junior Achievement.

The School-to-Careers Institute was held for nine school-community teams in this partnership. The National Association of Partners in Education, a technical service provider for STW, facilitated the three-day institute. A trained Partners in Education facilitator was used for each of the school-community teams as they developed their action plan.

Gage County Economic Development School-to-Work Partnerships serves 67,382 students in partnership with stakeholders. In addition to internships, comprehensive counseling, creating portfolios, job placement programs, and labor analysis information, a key focus is character education. The Character Counts! Coalition in Gage County involves nine key partners in the development of character education. The Six Pillars of Character are respect, responsibility, trustworthiness, caring, fairness, and citizenship. Many 4-H organizations throughout the United States are sponsoring this initiative.
East-Central Regional Career Pathways and Partnerships (CPP) is a local partnership that builds on the successful collaboration existing in the nine-county eastern and central Nebraska region. This system serves more than 14,000 students in grades K-14 in 60 elementary-secondary school districts and in Central Community College. Columbus Lakeview High, a partnering school in CPP, was chosen for a lead site in Nebraska for the Center for Occupational Research and Development (CORD) Integrated System for Workforce Education Curricula (ISWEC), and Columbus High School was chosen as the lead site for the Building Linkages for Manufacturing project.

Sugar Valley Career Coalition includes nearly 1,800 businesses in a three-county, eight-community coalition in western Nebraska. School partners include Western Nebraska Community College and eight elementary-secondary school districts serving more than 12,000 students. Students in the Sugar Valley Career Coalition participate in a minimum of two job shadowing experiences after completion of an applied communication class. Internships are a major focus for the initiative.

South Platte Regional School-to-Work Partnership involves 246 businesses and 43 education entities serving all 10,186 students throughout the south-central region. This initiative aims to facilitate a comprehensive system to help all students acquire the knowledge, skills, and information necessary to transition from school to career-oriented work and encourage lifelong learning.

Southeast School-to-Work Partnership represents 7,477 students from 16 school districts in the rural, agricul-
tural, southeast corner of Nebraska. With support from more than 50 local businesses and agencies, this initiative aims to build collaborative partnerships, expand career development, expand mentoring and job training, and provide technical support and evaluation. The ultimate goal of the program is to equip young people with the basic academic and occupational skills needed in an increasingly complex labor market.

*Northeast Business and Education for the Future—School-to-Work Partnership* is a collaborative effort to combine career education and training for students with workforce development for employers. The partners include eight secondary schools, with a total student population of more than 7,000 students, and three postsecondary institutions. Other partners include some 40 local businesses and organizations. The overall goal of the project is to develop a seamless system in which students can progress through all levels of education to the workplace.

*Buffalo County School-to-Work Initiative* includes five school districts, two postsecondary institutions, more than 20 local businesses, and eight human service agencies in the area. The philosophy of this initiative is that all 6,000 students need to develop an awareness of careers early in life, need curricular opportunities throughout their schooling to explore work requirements, need to experience job-site learning, and need assessment feedback to identify career interests, strengths, and areas for skill development.

*McConaughy Business and Education Regional School-to-Work Partnership* represents five counties and nine
school districts serving more than 3,200 students in the Lake McConaughy region. All students begin with career awareness and exploration and continue through structured experiences, such as job shadowing, mentoring, selecting career paths, developing portfolios, and eventually participating in internships and cooperative work experiences.

Pine Ridge School-to-Work Partnership spans three counties in the northwest corner of Nebraska, serving about 3,100 youth. The project will promote and enhance career awareness, develop an understanding of the workplace culture, provide technical assistance, include applied learning in academic subjects, provide access to area labor market trends and statistics, and integrate educational goals and workforce development.

Southern Panhandle Regional School-to-Work Partnership is a rural consortium representing Chadron State College, Western Nebraska Community College, Educational Service Unit 14, Nebraska Job Training Partnership, Job Service of Nebraska, and the Cheyenne and Kimball Chambers of Commerce, including some 356 businesses. Education partners represent five school districts serving about 2,000 students. Activities include comprehensive career guidance and counseling, career exploration, a six-year plan of study leading to or supporting a career major, and a paid or an unpaid internship.

South Sioux City Partners in Education is the product of cooperation between employers, K-12 educators, the South Sioux City Community School District, students, parents, employees, community agencies, and support services. Students will begin with career awareness and
exploration and will move into varied experiences, such as job shadowing and mentoring.

Cooperation BEST School-to-Work Initiative is a business, education, and community partnership in place in the Papillion-La Vista area. The program will provide a focus on teacher training and information for teachers. Students will benefit from the infusion of the STW concepts into the curriculum throughout the education system.

Crete School-to-Work Partnership includes 180 public and private businesses, civic organizations, and three school districts and two postsecondary institutions, serving 2,300 students in the area. The program works mainly through integrating career education into the K-12 curriculum and meeting the varying needs of the partners. The partnership brings rural Nebraska employers and educators together to assist all students in achieving a smooth transition to the workforce or post-secondary education by creating a distinct correlation between education and employment.

Metropolitan Areas – Rural STW Partnership involves more than 112 business partnerships in 10 participating school districts. School districts have joined tech prep consortia to enhance links between secondary and post-secondary education programs. Mentors work with students to help them establish career pathways and achieve their goals.

Rural Lancaster and Saunders County STW involves the commitment of local businesses, students, and teachers. Cooperating businesses are involved in connecting activities and are prepared to offer job shadows, in-
ternships, and teacher internships. All students have the opportunity to access career assessment software and individualized educational plans. Teachers have participated in a teacher job shadow and received Work Keys training.

_Hall County Area School-to-Work Partnership_ includes more than 190 businesses and agencies and 13 education entities. The partnership plans to expand through a philosophy of helping students develop an awareness of careers early in life, fulfilling curriculum opportunities through job-site learning, and assessing career interests, strengths, and skill development.

_Career Readiness Education for the Workplace_ covers a seven-county area with 6,220 students in school districts working with nearly 800 businesses in the western part of the state. Seventeen of the school districts administer Work Keys to all ninth-grade students. A career education class has been added as a graduation requirement.
References


Jobs for the Future, Academy for Educational Development.  


Selected Resources

The National School-to-Work Learning and Information Center
400 Virginia Ave., S.W.
Room 210
Washington, DC 20024
E-mail: stw-lc@ed.gov
Phone: 1-800-251-7236
Fax: (202) 401-6211
Website: http://www.stw.ed.gov

Junior Achievement National Headquarters
Education Outreach
One Education Way
Colorado Springs, CO 80906
Phone: 1-800-362-6479 or
(719) 540-8000

The Junior Achievement Elementary School Program features sequentially integrated themes for kindergarten through sixth grade. Business volunteers from the community present the learning activities, which center on the theme assigned to the grade. Local Junior Achievement staff members train volunteers.
Mathematica was hired to conduct the national evaluation of the STW initiative. The national evaluation includes several types of data collection. Quantitative data gathered as part of the survey of Local STW Partnerships and the study of student participation in STW activities rely on questionnaires administered by Mathematica through the mail, in school, or over the telephone. Mathematica is also conducting a longitudinal study in eight states.

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901 North Pitt Street
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Alexandria, VA 22314
Phone: (703) 836-4880
E-mail: NAPEHQ@aol.com

The National Association of Partners in Education is a technical service provider for school-to-work. They provide facilitation processes, partnership training, and training in mentoring.
Phi Delta Kappa Educational Foundation

The Phi Delta Kappa Educational Foundation was established on 13 October 1966 with the signing, by Dr. George H. Reavis, of the irrevocable trust agreement creating the Phi Delta Kappa Educational Foundation Trust.

George H. Reavis (1883-1970) entered the education profession after graduating from Warrensburg Missouri State Teachers College in 1906 and the University of Missouri in 1911. He went on to earn an M.A. and a Ph.D. at Columbia University. Dr. Reavis served as Assistant Superintendent of Schools in Maryland and Dean of the College of Arts and Sciences and the School of Education at the University of Pittsburgh. In 1929 he was appointed director of instruction for the Ohio State Department of Education. But it was as assistant superintendent for curriculum and instruction in the Cincinnati public schools (1939-48) that he rose to national prominence.

Dr. Reavis' dream for the Educational Foundation was to make it possible for educators to write and publish the wisdom they acquired through professional activity. He wanted educators and the general public to “better understand the nature of the educative process and the relation of education to human welfare.”

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