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## ABSTRACT

The Survey on State Initiatives to Improve School and Workplace Learning asked state education agencies (SEAs) a series of questions about activities in their states. The questions were grouped around several important aspects of the connection between school and employment. Forty-seven states and U.S. territories returned completed surveys. Most SEA responses indicated that current efforts to identify and assess work readiness skills focused on those skills required for specific jobs. A considerable number of states explained they were in the early stages of curriculum reform for emphasizing student preparation for employment. Several states noted that guidance and counseling were required or available; no evaluation of the effectiveness of the current guidance approaches was mentioned. Most states responded to questions about incentives by the SEA to local education agencies or schools to improve employment readiness by pointing to monies made available for Tech Prep under the Perkins Act. In addition to the typical examples of annual conferences, regional workshops, or inservice training days focused on improving student preparation for employment, the Perkins Act was most frequently associated with SEA staff development efforts. Incentives provided to employers to prepare youth for employment were few. (Appendixes include a compilation of programs in the states where at least one-fourth of student instruction occurs in the workplace and a list of 12 references.) (YLB)

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# STATE INITIATIVES FOR SCHOOL AND THE WORKPLACE

1991

Council of Chief State School Officers  
One Massachusetts Avenue, N.W.  
Suite 700  
Washington, DC 20001-1431  
(202) 408-5505

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## **Council of Chief State School Officers (CCSSO)**

The Council of Chief State School Officers (CCSSO) is a nationwide non-profit organization of the 57 public officials who head departments of public education in the 50 states, five U.S. extra-state jurisdictions, the District of Columbia, and the Department of Defense Dependents Schools. It has functioned as an independent national council since 1927 and has maintained a Washington office since 1948. CCSSO seeks its members' consensus on major education issues and expresses their views to civic and professional organizations, to federal agencies, to Congress, and to the public. Through its structure of committees and task forces, the Council responds to a broad range of concerns about education and provides leadership on major education issues.

Because the Council represents each state's chief education administrator, it has access to the educational and governmental establishment in each state and to the national influence that accompanies this unique position. CCSSO forms coalitions with many other education organizations and is able to provide leadership for a variety of policy concerns that affect elementary and secondary education. Thus, CCSSO members are able to act cooperatively on matters vital to the education of America's young people.

The CCSSO Resource Center on Educational Equity provides services designed to achieve equity and high quality education for minorities, women and girls, and for the disabled, limited English proficient, and low-income students. The Center is responsible for managing and staffing a variety of CCSSO leadership initiatives to assure education success for all children and youth, especially those placed at risk of school failure.

**Council of Chief State School Officers**  
Werner Rogers (Georgia), President  
Bill Honig (California), President-Elect  
Gordon M. Ambach, Executive Director  
Cynthia Brown, Director, Resource Center on Educational Equity

One Massachusetts Avenue, NW  
Suite 700  
Washington, DC 20001  
(202) 408-5505  
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## **I. ACKNOWLEDGEMENTS**

The 1991 priority of the Council of Chief State School Officers (CCSSO) -- Connecting Schools and Employment -- focuses attention on the preparation of American youth for adulthood and their eventual entry into employment. As part of its focus, the Council recognizes the need to restructure secondary education in ways that will improve the preparation for employment for all students.

This emphasis on connecting school and employment is an extension of the Council's examination of school restructuring programs and proposals in 1989 and its study of efforts to restructure learning itself -- especially the teaching of thinking and reasoning to all students -- in 1990.

At its 1991 Annual Meeting, Council members adopted a policy statement on connecting school and employment, which delineated principles for action and strategies for the implementation of those principles. Council members also reviewed this compendium.

Several people are responsible for the research, writing and final release of this resource compendium on state initiatives to improve school and workplace learning. The CCSSO Task Force on Connecting School and Employment, co-chaired by Maine Commissioner of Education Eve M. Bittner and Missouri Commissioner of Education Robert E. Bartman, was responsible for directing the Council's efforts on preparation of students for employment.

The members of the Task Force on Connecting School and Employment include: Bill Honig (California), John Ellis (New Jersey), Pat Forgione (Delaware), Sandy Garrett (Oklahoma), Nancy Keenan (Montana), Richard Mills (Vermont), Diana Ohman (Wyoming), Norma Paulus (Oregon), and Wayne Sanstead (North Dakota).

The Council is grateful to the members of the Task Force for their leadership throughout the year. CCSSO Executive Director Gordon M. Ambach guided the development of the several Council initiatives and publications focused on improving the transition from school to employment.

The work of the Task Force on Connecting School and Employment was supported by the staff of the Council's Resource Center on Educational Equity, directed by Cynthia G. Brown. Christopher M. Harris, Senior Project Associate of the Resource Center on Educational Equity, was the primary author of this resource compendium. Adam Samaha and Tiya Miles provided important assistance in the compilation of survey data. Ronald D. Bisailon, Resource Center on Educational Equity Secretary, prepared the compendium for publication.

The Council of Chief State School Officers' efforts to improve the transition between school and employment -- and to restructure secondary education -- are possible because of the generous support of several funders. The Council is extremely grateful to the Ford Foundation; the Exxon Education Foundation; the Charles Stewart Mott Foundation; the National Center for Research on Vocational Education; the W.T. Grant Foundation Commission on Work, Family and Citizenship; the Pew Charitable Trusts; and the German Marshall Fund of the United States. The opinions expressed in this document are the Council's and do not necessarily reflect those of the funders noted above.

## II. INTRODUCTION

### A. Resource Compendium Purpose and Structure

The purpose of this resource compendium is to provide education policymakers with a review of current state efforts to improve school and workplace learning. In particular, this compendium identifies and categorizes state-level initiatives to:

- *Improve the connection between school and employment.*
- *Ensure student readiness for high-performance employment opportunities and lifelong, higher-order learning.*
- *Provide the types of restructured learning environments, curricula, and appropriately trained staff to realize these goals.*

The results of the CCSSO survey will serve several purposes in addition to forming the basis of this document on the range of state efforts to improve the school-to-work transition. As a report, it will inform states of successful and promising school- and work-based learning efforts being carried out in other states as they plan and initiate activities. It will also provide a national picture of the variety of services and components required to meet the education and employment preparation needs of American youth. Finally, the resource compendium will inform the activities of the Council as it influences state and national policies supportive of changes in schools and institutions that effectively prepare youth for employment.

One aspect of the efforts to connect school and employment that this compendium does not capture well is the speed with which change is occurring. The information in the pages that follow is -- because of the nature of a printed document -- frozen in time. Social scientists frequently use the metaphor of a "snapshot" when describing a report on fluid phenomena, and activities around the country focusing on the school to-work transition are quite fluid. For example, when a draft of this compendium was sent to all chief state school officers in September (based on data collected late in the spring) almost 20 states made revisions and updates because activities, legislation, and initiatives had evolved during those few months.

Nevertheless, this compendium captures the broad array of activities in the states that are currently assisting students prepare for employment. The information contained here provides a unique and comprehensive collection of examples of efforts by states to support the transition from school to employment.



## **B. The Need for New Secondary Schooling**

In recent years, our nation has devoted much thought and effort to reforming education of our youth. "School restructuring," called for by many sectors of public and private enterprise, has focused on issues of governance, organization of curriculum and instruction, new professional roles for educators, and new accountability measures for our schools and staffs. Despite the realities of an internationally competitive labor market for which better skilled workers are required, improved preparation of youth for employment, in both school and at the workplace, has not been a central concern of restructuring or reforms.

There must, however, be a substantial change in how youth are prepared for adulthood -- as family members, citizens, and workers. There must, therefore, be significant restructuring of our schools and workplaces to support this change. Changes in the ways we restructure the school and employment preparation continuum is critical to motivate all our youth to stay in school and to participate in challenging and necessary courses of study. Changes in the ways curriculum and instruction practices support the development of strategic skills required on the job and the ways the workplace reinforces competencies built at the school are needed. Change must occur in the ways students are counseled and guided by experiences and the expectations we have for them. Finally, change is critical for new links between schools and businesses; schools and continuing education; and schools and other services that support preparation of all youth for world-class' productivity and citizenship.

CCSSO believes that the basis for a highly skilled workforce begins in the school years with a range of effective and appropriate instruction and work-related experiences that allows students to reach high school graduation prepared to enter immediately the world of work, to continue in some form of postsecondary education or training, or both. To achieve these goals, the Council has called for a restructuring -- a fundamental change -- in secondary schooling, which involves a number of reforms in the nature and organization of curriculum and instruction, including changes in:

- education's goals to meet the needs of students and the changed demands of society and the workplace;
- the organization and kind of knowledge stressed in many schools from a primary emphasis on minimal competencies to an expanded emphasis on higher order abilities and critical thinking skills;



- instruction of a type that emphasizes passive reception of discrete information to instructional approaches that stress active, exploratory, and contextualized learning; and
- the way time is structured in schools from a fixed variable to an acknowledgement that students learn at different rates and in different ways. (CCSSO, *Restructuring Schools: A Policy Statement of the Council of Chief State School Officers*, 1989.)

Virtually all youth will eventually seek employment. Whether employment directly follows secondary school or follows postsecondary studies, all students can benefit from improved systems of school and workplace preparation. There are many forms and strategies that address youth employment preparation needs. Some are longstanding; other are relatively new.

The U.S. experience stands in sharp contrast to broadly based training and apprenticeship programs in Western Europe, especially Germany and the Scandinavian countries. These nations have constructed webs of social, educational, and labor/training supports that help young people enter adulthood with experience, guidance, and training as workers -- and options for employment that pays living wages. All major actors in this effort -- government, business, and labor -- invest considerable human and financial resources to ensure that high school graduates are prepared for employment. This sort of arrangement in which government, employers, and organized labor cooperate to support a system of employment preparation does not exist on a similar scale in this country.

As a starting point for discussion of new systems of preparation in this country, it is important to review what currently exists or is being developed to prepare U.S. students for employment.

### C. **Current Efforts to Support Improved Student Preparation for Employment**

Despite the absence of universal statewide systems or a single national system that supports the transition from school to employment there are a variety of initiatives underway that deserve study. In *States and Communities on the Move: Policy Initiatives to Build a World-Class Workforce*, a recent publication of the W.T. Grant Foundation Commission on Work, Family and Citizenship (1991), several important initiatives are described. This document provides a very helpful overview of different efforts around the country to improve preparation for employment. It examines four national reports on building a world-class workforce -- *Workforce 2000* (Johnston and Packer 1987), *The Forgotten Half: Non-College Youth in America* (W.T. Grant Foundation January 1988) and *The Forgotten Half: Pathways to Success for America's*

*Youth and Young Families* (W.T. Grant Foundation, 1988), and *America's Choice: High Skills or Low Wages!* (Commission on the Skills of the American Workforce 1990). *States and Communities on the Move* also organizes examples of initiatives into nine topical chapters:

- Coordinated Human Resource Investment Planning Bodies
- School-to-Employment Transitions
- Student Apprenticeship
- Technical Preparation (Tech Prep)
- Youth Community Service
- Employers as Active Partners in Education and Training
- Alternative Learning Centers
- New Pathways to Postsecondary Education
- Creative Funding Mechanisms for Human Investment

The authors note that while it is "too early to speak of a 'fair chance' for America's non-college youth and young families," their publication documents that many states and communities are clearly moving in this direction. Growth in new, higher-skilled jobs, along with a shrinking domestic labor pool and increasing concern about lost productivity among young workers, are causing policymakers at several levels to focus greater efforts on the transition from school to employment for young workers.

#### The Vocational Technical Education System

The way many youth receive preparation for employment is through a vast and diverse array of vocational and technical education. This network spans secondary and postsecondary levels and is funded by federal, state, local, and private sources.

According to the 1988 National Assessment of Vocational Education (January 1988):

- Almost all students take at least one course in vocational education at the secondary level.
- College-bound students account for almost half of all vocational enrollments.
- Work-bound students take almost 40 percent more vocational credits (6.01) than the average for all students.
- Participation rates in vocational education remained steady during the 1980s.

- In 1982, almost 16 million students were enrolled in public vocational education programs (60 percent at the secondary level and 40 percent at the postsecondary level) and more than one million were enrolled in proprietary schools as of 1986.
- Vocational technical education is offered by more than 33,500 public and private (mostly proprietary) institutions across the country.

Federal support for vocational technical education is provided through a variety of programs and statutes including the: Carl Perkins Vocational and Applied Technology Education Act Amendments of 1990; the Job Training Partnership Act (JTPA); the student financial aid title of the Higher Education Act; the Adult Education Act; veterans' education benefits programs; the Department of Defense tuition assistance program for military personnel; and the Family Support Act.

Important objectives of the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 include: the development of new connections between academic and vocational studies; new links between in-school and workplace training; and strong connections with the programs of JTPA, the Family Support Act, and other educational programs serving at-risk populations. The Carl D. Perkins Act also includes a new Tech Prep program through which grants are made to consortia of secondary and postsecondary institutions to provide well-connected preparation programs that bridge the two levels. Passage of this legislation provides tech prep programs (described below) a considerable boost nationally.

JTPA programs prepare youth and unskilled adults for entry into the labor force and provide job training for economically disadvantaged individuals and others facing serious barriers to employment. The Summer Youth Employment and Training Program of JTPA served 689,000 youngsters last year.

In addition to implementing JTPA programs, the U.S. Department of Labor has recently initiated a \$10.5 million program that is expected to change the way students learn basic workplace skills. DOL has funded demonstration projects to explore ways of redesigning school curricula so that students learn job-related subjects in a practical context so that those who plan to enter the workforce directly are better prepared to do so.

### Other Promising Approaches

Worthy of examination are several special projects or strategies that exist within schools and vocational education. Approaches for training adults are

also worth noting. Elements may apply whether youth are immediately work-bound; in need of interventions to motivate, retain, or return them to school or other learning environments; seeking certificates and credentials below the baccalaureate; or seeking the baccalaureate degree. Examples of these approaches include:

(1) High Schools with Character or Focused Schools. These are schools identified by the National Center for Research in Vocational Education that successfully integrate academic and vocational studies; provide students with cooperative learning; require collegial work by teachers; and possess a special school identity, commonly established through an industrial connection. Examples include: Aviation High School, the High School of Fashion Industries, and the Murray Bergtraum School for Business Careers in New York; and the Chicago High School for Agricultural Sciences. These schools have a dual mission (to prepare students for an occupation and for entering college), have high expectations for all students, minimize ability grouping, and base admission on student interest in the career specialty or subjects, not solely on test scores (Mitchell, Russell, and Benson 1990).

(2) Tech Prep or 2 + 2. Tech Prep links the last two years of high school and two years of postsecondary school through a common core of required courses in math, science, communications, and technologies that lead to an associate degree or certificate in a specific career field. These programs closely link academic and vocational courses leading to college course work within a rigorous technical education concentration (U.S. Department of Education March 1991). They may or may not include elements of on-the-job training.

(3) School-Business Partnerships for Employment Preparation. These partnerships strengthen the ties between school and successful employment. The Boston Compact is an example in which businesses throughout the city work with schools to provide career preparation services to students. Businesses provide summer and after-school jobs, guarantees of postsecondary employment, aptitude and ability testing, and mock interviews. In some cases, businesses tie students' school performance to preferential hiring and pay scales.

(4) Vocational Academies. The academy is usually a school-within-a-school possessing a broad vocational theme (e.g., health careers) but not preparation for a particular job area (e.g., licensed vocational nurses). Typically, three academic teachers and one vocational teacher stay with a group of students for two to three years. The model has been used as an intervention for at-risk students (in Philadelphia) and a vehicle for meeting desegregation goals (in Fresno, California).

Academies have strong links with local employers in the relevant career sector. Employers commit time, resources, and job placements to students. A true partnership between the industry and the academy ensures that the training students receive authentically reflects the skills they will need in the job market. The original model of the academies was developed in Philadelphia with the school-within-a-school format. It was designed to build social cohesion among students and coordinate the academic and vocational curriculums.

Academies require smaller class sizes and extra preparation time for teachers. They also require organized participation by employers. (U.S. Department of Education March 1991; Grubb and McDonnell 1991)

(5) Alternative Schools usually offer small classes; programs that integrate remedial reading, writing, and mathematics instruction into all subjects; and work/study options in which the curriculum is closely related to the skills students need on the job. These schools often offer flexible scheduling and individualized instruction so that students can master skills at their own pace within extended timeframes. They also offer special services such as personal and career counseling, daycare, family education, and referrals to other agency services.

(6) Second Chance Programs for Dropouts and Poorly Prepared Youth. These programs are limited and serve only a small portion of youth with special needs. The Job Corps funded through the Job Training Partnership Act (JTPA) is considered one of the most effective federally supported second chance programs for overcoming educational deficits and other employment barriers. It is primarily a residential program for dropouts, which provides intensive, long-term job training and remedial education as well as health care, counseling, and job placement assistance. Job Corps enrolls about 70,000 youth a year and has an annual cost-per-participant of \$15,000 (U.S. General Accounting Office May 1990). Currently, fourteen states and a number of cities operate year-round youth corps that incorporate elements of the Job Corps experience.

(9) Cooperative Education combines classroom instruction with work experience and on-the-job training related to a student's career goals. Students earn curriculum credit, receive grades, and are often remunerated for their co-op experience. Co-op placements are governed by written training agreements signed by the employer, student, co-op coordinator (typically vocational teacher), and sometimes the parent. These agreements specify the responsibilities of each party. Secondary school programs are limited to juniors and seniors of which only about 8 percent participate (U.S. General Accounting Office August 1991).



(10) School-Based Enterprise (SBE) is an activity that engages students in providing services or producing goods for people other than the participating students. Examples include: school restaurants, construction projects, print shops, farms, child care centers, retail and auto repair shops, production of school newspapers and yearbooks, and so on. Whereas these activities are common, they do not involve the majority of students and are seldomly integrated into the basic structure of the education system (U.S. Department of Education March 1991).

(11) Youth Apprenticeships are not new in the United States. They have a long history in labor unions, which used them as training programs and pathways to jobs in the construction trades of bricklaying, plumbing, and electricity. But despite the history of apprenticeships in this country, relatively few young people have access to them -- and historically access to trade apprenticeships has been very inequitable. Out of a national workforce of 117 million, traditional apprenticeships only involve 300,000 workers, almost all of whom are already in the workforce. Estimates of the average age of new apprentices in the construction trades range from 27-29, leaving an average span of 10 years between schooling and entrance into training and employment.

The apprenticeship systems in Western Europe are dramatically different in scale. In what was West Germany in 1989, 1.7 million young people -- a figure that represents 70 percent of the 16- to 19-year old cohort -- were enrolled in apprenticeships with a half million employers in 380 different occupations.

Youth apprenticeship programs capture the elements of traditional apprenticeship programs -- work in exchange for support and learning -- which combine classroom and on-the-job training that leads to an occupational credential. Because a variety of experiments with youth apprenticeship models are either underway or under consideration around the country -- and because of the promise they hold as effective connections between school and employment -- this section provides a bit more information than the preceding descriptions of programs.

Youth apprenticeships are designed to provide youth either in the last two years of high school or following high school graduation with monitored work experiences that are integrated with classroom study. Those being offered as a practical solution to prepare students for entry level employment credentials and positions offer more options to students who are not planning to attend four-year colleges.

According to Jobs for the Future, Inc. (August 1991), youth apprenticeship programs combine at minimum the following elements:

- work experience and guided learning opportunities for youth by employers within an industry or occupation cluster;
- structured linkage between secondary and postsecondary components of the program leading to the high school diploma, postsecondary credential, or certification of occupational skills;
- close integration of academic and vocational learning and of school and workplace experiences through planning and ongoing collaboration between school and industry personnel and through innovations in curriculum and instructional strategies in the classroom and at work.

Ideally, the proposed apprenticeship model allows for strong links between schools and employers, and provides alternative and contextual learning environments that motivate students to stay in school. The model also encourages schools to develop programs of applied learning, which integrate academic and vocational subjects closely tied to labor force needs.

**Oregon** and **Wisconsin** passed legislation in 1991 that established broad school-to-employment policies. While the specifics of their efforts differ, both states incorporate several of the recommendations from *America's Choice: high skills or low wages!* (Commission on the Skills of the American Workforce 1990). These elements include the development of a certificate of initial mastery ("Tenth Grade Gateway Assessment" in Wisconsin) that students earn as early as the 10th grade. The aim of both states' programs is to change the high school curriculum -- raise standards, initiate proficiency assessment, and provide contextualized, hands-on learning -- and to provide a choice of two career paths to students at the 11th grade. One path is college preparatory while the other provides a professional, technical, or vocational course of study after high school or after technical/community college. Each state also established the basis for a system of youth apprenticeships.

**Arkansas** has also begun to create youth apprenticeships. The Arkansas Youth Apprenticeship Initiative, supported by \$1 million in FY 1992 and twice that amount in the following year, was introduced by Governor Clinton and enacted by the legislature. The initiative supports a statewide competitive grants program that will award 10 to 12 project grants to establish youth apprenticeships. The design and administration of the youth apprenticeships will be the responsibility of the employers who will work in tandem with educators.



The U.S. Department of Labor in September 1990 awarded two-year grants to six organizations to explore ways to redesign school curricula to improve student preparation for employment. DOL provided \$3.2 million in seed money and leveraged a total of \$10.5 million from additional sources for the grantees. The groups that were named as demonstration projects are the Pennsylvania Department of Commerce, the Los Angeles Unified School District, the Boston Private Industry Council, Maryland's Department of Economic and Employment Development, the National Alliance of Business, and the Electronics Industry Foundation.

Pennsylvania began work on a youth apprenticeship program in 1990 with funding from the state, the U.S. Department of Labor (as noted above), and several private foundations. Initially focusing on the metalworking industry, Pennsylvania established a pilot laboratory program with participants attending college-level courses related to their apprenticeship and working at one of several firms. Like other experiments with youth apprenticeships, Pennsylvania is exploring the integration of academic and vocation curriculum, work-based instruction and mentoring, and -- with the assistance of the Learning Research and Development Center at the University of Pittsburgh -- portfolio assessments.

CCSSO has awarded grants of \$20,000 each to 10 state education agencies for the design and development of youth apprenticeships. The grant program -- *New Career Paths Through Youth Apprenticeship* -- is supported by the Pew Charitable Trusts, which has made a \$600,000 grant to the Council for a three-year effort to connect schools and workplaces for more effective preparation of youth for employment. The youth apprenticeship design grants are part of the Council's 1991 priority to improve connections between school and employment. CCSSO provides grant monies and technical assistance to the state grantees. Jobs For the Future, as part of its National Youth Apprenticeship Initiative, provides additional technical assistance and access to its information resources to the states. During 1992, the Council will award several \$50,000 second-stage implementation grants to advance the implementation of youth apprenticeships. These grants will be supported by the Pew Charitable Trusts and other foundations.

The 10 states that received design grants were: Arkansas, California, Illinois, Iowa, Michigan, Pennsylvania, Vermont, Virginia, West Virginia and Wisconsin. The following are brief descriptions of their efforts.

The Arkansas Department of Education, with assistance from expert consultants, will conduct a four-day training conference for nine teams -- each representing a partnership of industry, education, and organized labor. The

team training will support capacity-building within the state for the design, development, and implementation of Arkansas' Youth Apprenticeship/Work-Based Learning programs.

The **California** state education agency will identify the most promising local, state, and national youth apprenticeship efforts and will establish a New Apprenticeship Steering Committee to oversee project activities. The Committee will identify potential resources for support and barriers to implementation and develop an evaluation plan. It will also create guidelines and an implementation plan for model "new apprenticeship" programs in health, finance, and electronics/computer use.

The **Illinois** State Board of Education will expand three current Tech Prep programs in manufacturing and food service to include work-based learning opportunities in youth apprenticeships. Illinois also plans to develop widespread in-service training opportunities about youth apprenticeships for teachers, administrators, members of business and organized labor, parents, and guidance counselors. An additional objective is the development of techniques for emphasizing higher-order and critical thinking skills.

**Iowa** plans to develop support for youth apprenticeships among educators, business, organized labor, and government agencies. The state department of education will identify laws, rules, and policies that stimulate or impede the development of youth apprenticeships and will establish at least three models of youth apprenticeships in health, insurance/banking, and construction.

The **Michigan** Department of Education will establish a statewide Task Force on Youth Apprenticeship, which will: assess existing youth apprenticeship programs in Michigan; develop an action plan for the expansion of these programs; identify and recommend changes in related state policies; recommend relevant curriculum reform; recommend improvements in teacher and counselor preparation; redefine occupational skills; and develop new, collaborative relationships with specific employment sectors and public agencies to support youth apprenticeships.

The **Pennsylvania** Department of Education will establish a statewide, advisory task force to expand the current youth apprenticeship program in the machine tool trades and consider including auto mechanics, meat cutting, and health occupations. It will also direct efforts to: identify alternate sources of funding, develop industry-education linkages, identify state policies to be developed or altered, recommend the kind of retraining necessary for counselors, suggest curriculum and assessment reforms, and link state and federal (e.g., Carl D. Perkins Act) efforts.

**Vermont** will promote occupational certificates and develop youth apprenticeships for 50 students in culinary arts, building trades, machine trades, and stone trades. A statewide task force will oversee inter-agency funding; coordination among government, industry, and labor sectors; the drafting of sequential courses of study that lead to a mastery certificate; and the initiation of "aggressive procedures for ensuring a gender balance" in the participant pool.

The **Virginia** Department of Education and the Virginia Department of Labor and Industry will establish project teams to coordinate the development of youth apprenticeships that enable students to become chefs, industrial maintenance mechanics, and machinists. Each project team will: develop a model of a youth apprenticeship curriculum; analyze linkages with appropriate employers and organized labor; identify new career paths in its occupational area; devise training for educators, employers, and potential apprentices and their parents; and develop a public information campaign.

**West Virginia's** Department of Education will create a Youth Apprenticeship Task Force to oversee all activities related to the development of a system of youth apprenticeships. Initially, the Task Force will identify work competencies, apprenticeship responsibilities, and appropriate and coordinated curriculum for youth apprenticeships in the occupational areas of health and facilities construction/maintenance. The Task Force will also work to implement necessary statutory and policy changes.

As a part of a larger strategy of connecting school and employment, the **Wisconsin** Department of Public Instruction plans to develop youth apprenticeships in the printing industry. Prior to developing the apprenticeships, Wisconsin will contract an independent consultant to conduct 12 focus groups comprised of parents and students in five Wisconsin local school districts. Information gained from the focus groups will direct the program design as well as provide recommendations for marketing strategies to encourage student and parent participation in youth apprenticeships.

\* \* \* \* \*

**Jobs for the Future, Inc. (JFF)** -- a non-profit organization in Massachusetts that works to improve workforce quality in the United States -- is very active in many of the initiatives described above. JFF established a Youth Apprenticeship Initiative through which it provides technical assistance, convenes conferences and training meetings, conducts research and evaluations, and disseminates information to parties interested in developing systems of American Youth apprenticeships.

The Education Development Center, Inc. is working with the City of Chicago in helping a broad coalition of business, labor, secondary education, community colleges, and community-based organizations develop a career preparation system in two subsectors of Chicago's economy -- financial services support operations and metalworking/manufacturing technologies. Implementation teams in both sectors are developing performance-based standards that are the result of a collaborative effort of industry representatives working together with secondary and postsecondary educators.

#### **D. CCSSO Survey**

In an effort to identify and categorize the activities underway to improve student preparation for employment, CCSSO distributed its survey -- State Initiatives to Improve School and Workplace Learning -- to all chief state school officers in May 1991. State education agencies (SEAs) were asked to complete the survey and provide documentation or supplementary materials where appropriate. The Council received 47 completed surveys from the states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the Northern Mariana Islands. Thirty-two SEAs sent copies of their state plans required under the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 and 24 states sent additional materials.

This resource compendium is divided into 10 sections. After the first two brief introductory sections, six major sections describe the responses from the states to the Council's survey regarding policies and practices to support improved employment readiness for all students. These sections discuss the identification and assessment of work readiness skills, curriculum change, guidance and counseling, incentives to schools, staff development, and education and business efforts. The Conclusion (Section 9) provides an overview of the strengths and shortcomings of the responses to the survey. Section 10 -- an appendix -- serves as a compilation of programs in the states where at least 25 percent of student education occurs at the workplace. A list of references completes this compendium.

#### **E. Summary of Findings**

The CCSSO Survey on State Initiatives to Improve School and Workplace Learning asked SEAs a series of questions about activities in their states. The questions were grouped around several important aspects of the connection between school and employment. The headings below represent each of those areas and the related text serves as a brief summary of the responses sent by the SEAs.

## Identification and Examination of Work Readiness Skills

Most SEA responses indicated that current efforts to identify and assess work readiness skills focus on those skills required for specific jobs. Very few states noted that they are looking at broader sets of skills or knowledge that crosses many occupations.

## Occupational and Academic Curriculum Change

A considerable number of states explained that they were in the early stages of curriculum reform for emphasizing student preparation for employment. There were few comprehensive efforts to move in this direction. States reported a heavy reliance on the Perkins Act as a locomotive (and funder) of curriculum change (especially the integration of academic and vocational instruction). Both the Southern Regional Education Board and the Agency for Instructional Technology were cited as important catalysts in curriculum integration. In response to questions about available flexibility regarding time and place of instruction most states explained that current regulations permitted flexibility (although only a few reported creative and effective experiments with alternative arrangements). Maryland, New York, and Minnesota offered interesting models (See Pages 56-57). Few states explicitly tied flexibility to other school restructuring initiatives or identified flexibility of place for instruction.

## Introduction to Careers

Several states noted that guidance and counseling were required or available. No evaluation of the effectiveness of current guidance approaches was mentioned. A small number of states indicated that systemwide improvement of guidance was underway and several noted the existence of the use of individualized student career plans. Most noted their reliance on state occupational information coordinating committees.

## Incentives to Schools to Improve Employment Readiness

Most states responded to questions about incentives by the SEA to LEAs or schools to improve employment readiness by pointing to monies made available for Tech Prep under the Perkins Act. A few states said that they relied on money from General Aid, or public recognition, or small challenge grants as incentives to localities. Assistance by outside groups such as Jobs for the Future and Jobs for America's Graduates were also cited.



## Staff Development for Improved Student Preparation for Employment

In addition to the typical examples of annual conferences, regional workshops, or in-service training days focused on improving student preparation for employment, the Carl Perkins Act was most frequently associated with SEA staff development efforts. Training required for Tech Prep initiatives was cited by many states as a major part of their staff development program. Several states had devised creative programs (e.g., Florida, Indiana, Maryland, and Ohio). One clear message was that several states have had to scale back or eliminate professional development activities not covered by Perkins funds.

## Education and Business Efforts to Support Student School Success and Employment Preparation

Incentives provided to employers to prepare youth for employment were few. Only a handful of states provided tax breaks of any sort; most identified the Targeted Job Tax Credit. A few states did identify efforts of their own to support training and retraining programs. A very small number of states described the availability of targeted new worker benefits to increase training. Assistance to current workers emphasized traditional adult education services, especially literacy training.

### **F. CCSSO Initiatives**

Since 1986, CCSSO has focused its efforts on policy formulation and activities that result in quality education and services for children and youth at risk. In 1987, the policy statement, "Assuring School Success for Students At Risk," was adopted unanimously by Council members. The statement set forth a set of state guarantees for educational and related services for at-risk students, which, if implemented, should result in the high school graduation of virtually all students by the year 2000.

The Council made meeting the educational needs of at-risk children and youth the central theme of its work during 1987 and 1988. CCSSO activities for 1988 included specific projects based on 1987 recommendations as well as new policy and programmatic activities in support of early childhood and parent education programs.

In 1989, the Council initiated a two-year program to examine ways policymakers could create an environment supportive of dramatically improved learning in schools. The Council's efforts included both an examination of proposals to restructure schools and an analysis of new research about the nature of learning. The focus in 1990 on restructuring

learning called for fundamental changes in the relationships among students, teachers, and knowledge to support the development of higher-order learning for all students.

The Council has identified connecting schools and employment as its priority in 1991 and will continue this focus for three years. The Council's goal is to provide leadership in improving school and workplace learning for better education and employment outcomes for all youth. CCSSO has planned a set of reinforcing activities to assist states in the development of policy and implementation of changes in practice that will result in improved student preparation for employment.

In addition to the survey of states on initiatives to improve school and workplace learning -- and the subsequent preparation of this resource compendium -- CCSSO has initiated the following set of activities.

- Establishment of a Task Force of chief state school officers to oversee Council school-to-work activities.
- A study tour of chiefs and staff to Germany, Denmark, and Sweden to investigate their systems of school-to-work connections with a view to distilling the best components for our U.S. systems of education and employment in a report of these findings.
- Research on and preparation of a major Council statement on preparing students for work in a changing economy.
- Information-gathering and coalition-building activities to (a) inform national organizations and their constituents of CCSSO activities regarding concern for improving school and employment linkages; (b) strengthen federal and state legislative initiatives in school-to-work transition; and (c) develop recommendations for federal action (e.g., youth work laws; federal tax policy; and federal programs such as Vocational Education, JTPA, and the Family Support Act).
- Research and preparation of a guide for chief state school officers on new findings about school-to-work transition and how schools must change to support more effectively the employment preparation of students. The guide will identify and analyze the range of federal funding for support of this goal. It will present specific ways to draw upon the array of federal funds available in any state and to orchestrate them to restructure programs, particularly for students at greatest risk of failure in school.



- Holding of the 1991 CCSSO Summer Institute, a week-long professional development session for the chiefs, which also provided the basis for Council policy positions. At this Institute, chiefs considered the current state of school-to-work policy, practice, and research. Issues related to program design and implementation of collaborative approaches between education and industry were reviewed. CCSSO commissioned a set of 12 papers by experts in the area of school-to-employment transition, which were presented at the Summer Institute and which the Council will publish.
- Hosting, in September 1991, CCSSO's Annual Meeting of its Study Commission -- the organization of deputy superintendents of education -- assisted the Council and the states on new assessments of "employment skills," including SCANS, Worklink, and Job Skills; and developed a set of recommendations on the use of assessments for screening, diagnosis, and/or program assessment.
- Development of a multi-state consortium to collaborate in the design of new systems for work/study and apprenticeship programs, standards for credit, criteria for training, funding arrangements, and so on.
- Establishment of a Council competitive grant program to support planning for state-initiated youth apprenticeship policies and programs in 10 states and implementation of policies and programs in five states. [See II,C,(11)]
- Implementation of a conference for state education agency teams to showcase model school-to-work transition efforts and to develop action plans for improved preparation of students for the workplace.
- Implementation of an interagency conference of states to showcase model programs targeting the education and training needs of youth at greatest risk and to explore creative use of multiple federal and state funding including FSA/JOBS, JTPA, vocational, and regular education sources.
- Distribution of public education and technical assistance activities to states implementing plans to bring about changes in school-to-work programs.

It is the Council's objective that by the year 2000 the educational attainment of children and youth placed at greatest risk of school failure will be equal to that of children and youth judged not to be at risk. This objective will be

evidenced not only in graduation rates but in the readiness of all youth to prepare for and embark upon challenging careers and continuing study as responsible adults.

### III. IDENTIFICATION AND EXAMINATION OF WORK READINESS SKILLS

A first question that must be answered before efforts can begin that support student preparation for employment is, "What are the knowledge and skills that students will need to be successful adults and workers in the 1990s and early 21st century?"

A great deal of work is underway to identify competencies needed for specific jobs. These are task analyses. An even more substantial effort has been undertaken to identify wider domains of thinking and skills that cross many occupations and provide workers with skills much more universal than those specific to a single occupation.

One effort to identify these broader competencies or skills is the work done by the U.S. Secretary of Labor's Commission on Achieving Necessary Skills (SCANS). The SCANS report identified two elements of workplace abilities and knowledge -- competencies and a foundation. The report highlighted five competencies (resources, interpersonal, information, systems, and technology) and a three-part foundation of skills (basic, thinking, and personal qualities). According to SCANS, these include:

**COMPETENCIES** -- effective workers can productively use:

- **Resources** -- allocating time, money, materials, space, and personnel;
- **Interpersonal Skills** -- working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;
- **Information** -- acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;
- **Systems** -- understanding social, organizational, and technological systems; monitoring and correcting performances; and designing or improving systems;
- **Technology** -- selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

**THE FOUNDATION** -- competence requires:

- **Basic Skills** -- reading, writing, arithmetic and mathematics, speaking, and listening;
- **Thinking Skills** -- thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning;

- **Personal Qualities** -- individual responsibility, self-esteem, sociability, self-management, and integrity.

An initial set of questions in the Council survey asked if the SEA or any other state agency had made any statewide effort to identify the skills and knowledge youth need for employment. A related question asked if the state had or supported any formal and systematic effort to inform students and parents of academic, occupational, or general skill requirements for employment in specific occupations or industries.

#### **A. Skills Identification**

Most of the states surveyed responded that they had in place or were in the process of creating a system for identifying skills necessary for employment. Forty-two SEAs indicated that they had some activity underway to identify and define job-related skills.

This group of 42 respondents fell into essentially two camps regarding the delineation of employment skills. The first group emphasized the identification of specific, individual-job related skills. The second group focused on the combination of these discrete skills (usually reserved for vocational programs) with more generic skills required for successful adult development of which employment is only part. These latter competencies might include interpersonal skills as well as critical analysis and evaluation skills, which are necessary for employment.

The process of identifying skills necessary for employment was most frequently directed by the state office or department of vocational education and resulted in the development of vocational education curriculum. It was not clear in the majority of responses if these efforts had a significant impact on the non-vocational, academic education curriculum. Nor was it clear the degree to which these task forces and joint committees outlined skills needed for the traditional and typical 20th century U.S. workplace or the sort of workplace described in the SCANS report.

Most of the states fell into the first group with regard to delineating employment skills. Many states pointed to the work of technical skills committees whose members included employers and representatives from organized labor and education. These committees determined the specific tasks, duties, and performance levels required for a particular set of occupations. Maine, for example, has developed competency-based curricula in the occupational areas of: auto collision repair, carpentry, childcare, drafting, electricity, electronics, food service, general office work, graphic arts, machine tools, metal fabrication/welding, and wood harvesting. Maine's approach was typical of most of the state responses.

Oklahoma uses technical committees to conduct occupational and duty/task analyses for specific jobs. It also analyzes the relative academic, occupational, training, and retraining needs of secondary, adult, and postsecondary students in the state. In this second, more general effort the SEA collects an array of data including: job turnover statistics (replacement rates and retraining needs); labor force demands; population demographic trends; current vocational and applied technology enrollment data; graduation, drop-out, and literacy rates; and students' standardized test results.

A smaller number of states have identified job-specific skills while also attempting to identify broader competencies. While fewer in number than the first group, several of the efforts by these states warrant examination:

**Florida.** The Florida Education and Training Placement Information Program (PIP) conducts annual employer opinion surveys on workplace competency. The state Chamber of Commerces' Industry and Education Coalition aids this effort. PIP staff visit businesses for survey follow-ups and in 1989 began gathering information on general workplace competencies. Eighty-two elements in three categories (academic skills, personnel management, and teamwork) have been defined. The SEA makes this information available through printed materials and computer databases.

**Indiana.** In addition to efforts by the Indiana Department of Workforce Development and the SEA to delineate industry-validated task lists and determine fundamental skills necessary in various technical trades, the SEA has begun to establish proficiencies in each academic discipline. The SEA will produce guides for each discipline (e.g., mathematics, social studies, etc.) and will define "essential skills." With representation from elementary and secondary education, business, industry, and higher education, the SEA is attempting to determine which skills students should have before they leave high school. Parallel efforts are underway to design assessment measures for those skills.

**Michigan.** Public Act 25 mandates the development of a core curriculum for outcomes in nine areas. The legislation also calls for a readiness test tied to a statewide education and employability planning effort. Students, with assistance from teachers and counselors, will develop a personal career goals portfolio and plan that will be shared with parents. Vocational technical education is being revised to include outcomes identified in curricular areas.

**New York.** The Futuring process in New York state, which began in 1981, involved approximately 200 representatives of business and industry, social science, students, teachers, and administrators at several levels of occupational

and special education. This group met bimonthly for two years as eight instructional area Futuring Committees to determine what the purposes and programs of occupational and practical arts education should be through the remainder of the century to prepare students adequately for employment.

A career preparation validation study was conducted in the summer of 1990 to identify the precise skill levels required to be successful in a career or college, emphasizing jobs that did not require a four-year college degree. Based on the advice of national experts, the SEA developed scales describing a continuum of competence from "simple" to "complex" for previously identified skill areas. The scales reflect adult standards of performance from the lowest observable demonstration of an outcome to outstanding performance of that outcome. The current education restructuring effort entitled, *A New Compact for Learning*, will identify student outcomes for statewide education goals. One of the goals reflects preparation for employment.

The Anderson Committee, which oversaw the career preparation validation study, recommended that performance levels in academic areas be raised for all students and that a new group of skills -- "Expanded Basics" -- be incorporated in all educational experiences. These Expanded Basics included manual dexterity, interpersonal skills, thinking skills, human relations, information systems, and personal skills.

**West Virginia.** In response to a recent legislative mandate, a "certificate of proficiency and warranty" will record, among other academic items, special competencies related to vocational training and achievement levels in the areas of reading and mathematics. This certificate guarantees employers and educational institutions that a high school student is capable of accomplishing specific skills and tasks associated with the world of work.

A study of employability skills (**Skills 2000 Employability Survey**) was conducted by the Statewide Labor Market Data Steering Committee, which included the State Occupational Information Coordinating Committee, the Governor's Office of Community and Industrial Development, and the West Virginia Department of Employment Security. Targeted industries were surveyed to determine work skill levels necessary now and for the year 2000. Implications from the survey revealed that in addition to specific workplace competencies, basic skills and critical thinking skills are required for the U.S. workforce.

Eight "Developing a Curriculum" (DACUM) studies were conducted in cooperation with LEAs to identify appropriate academic and vocational competencies needed by graduates in selected vocational programs. The



DACUM studies centered on the positions of engineering technician, office worker/secretary, electronics technician, forestry technician, draftsman, secretary, culinary arts technician, and licensed practical nurse. This effort was undertaken to facilitate the articulation of vocational and technical offerings between secondary and postsecondary programs and to support the tech-prep initiative in the state.

## **B. Information Systems about Employment Skills**

A critical element of any effort to improve the link between school and employment is the dissemination of information to educators, students, and parents about the academic, occupational, or general skills necessary for employment -- and how that mix may differ among specific occupations and industries. When states were asked whether they make any formal and systematic effort to inform students and parents about the requisite skills for employment, a broad array of responses emerged, which can be grouped into five main categories:

- Career Information Databases
- Special Programs
- Curriculum-Based Efforts
- Career Information Publications
- Student Guidance Counselors

*Career Information Databases.* The method most widely identified by the states to alert students and parents about employment skills is career information databases. Fourteen states indicated that career information databases are available -- Colorado, Connecticut, Florida, Indiana, Maryland, Michigan, Minnesota, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and Wisconsin.

Florida, for example, has developed a database--CHOICES--which contains information on 1,000 jobs and an interactive career exploration system for middle schools--CHOICES, Jr. Indiana also uses CHOICES software to provide state and national information on requirements for employment as well as information about how to receive the education and training needed.

VISIONS--Maryland's Career Information Delivery System--is available to all educational systems in the state and provides current occupational, labor market, and other information. VISIONS is provided by the Maryland Occupational Coordinating Committee, which is part of the Department of Economic and Employment Development. Ohio's Career Information System (OCIS) is a comprehensive, computerized career information system that



contains information on civilian and military occupations, training institutions, financial aid, and job search strategies. South Carolina's SCOIS is similar to Ohio's system.

*Special Programs.* This category includes several approaches by the SEAs to inform students and parents about employment skills. Alabama reported that profiles are kept for each student in vocational programs with academic and occupational skill requirements documented for the student. Arizona provides program competency lists to local schools. Arkansas, North Carolina, and Texas report that specific courses on career orientation are provided for students. The District of Columbia reports that career information is sent to the homes of students enrolled in vocational education once a year. Massachusetts funds six regional technical assessment centers that link academic and occupational competencies and suggest remediation plans. The Northern Mariana Islands holds annual orientation sessions where career and skills information is distributed to students and parents. West Virginia distributes a recommended sequence of academic and vocational courses for students in vocational education. Missouri has established 27 regional assessment centers that provide students/clients with employment skills information; appropriate assessments regarding abilities, interests, and aptitudes; career counseling; and educational/training planning. Also, the Missouri SEA has established three regional career education centers that function as resource centers to disseminate information and instructional materials regarding careers and career education for all educators within the state.

*Curriculum-Based Efforts.* Georgia, Maine, North Dakota, Oklahoma, South Dakota, Utah, and Puerto Rico explained that the curriculum serves as the mechanism to provide students with information about employment skills. Utah identified several methods including a one-semester course "Critical Workplace Skills Training"; several workplace readiness and applied technology modules; the state's Student Education Occupation Plan (SEOP), which, among other things, provides a "pre-employment class approved by the state" and identification of vocational technical educational goal for all students.

*Career Information Publications.* Delaware, Hawaii, Iowa, Kansas, Louisiana, and New Hampshire indicated that they distribute printed materials about employment skills as their primary effort to inform students and parents.

*Student Guidance Counselors.* Idaho, New Mexico, Vermont, and the Virgin Islands reported that they rely on guidance counselors to provide students and parents with information about the skills necessary for employment.

### C. Examination of Student Mastery of Employment Readiness Skills

A highly controversial issue closely related to the identification of employment readiness skills is how and when to assess students' mastery of those skills. **America's Choice: high skills or low wages!** (1990) recommends an examination for 16-year-olds leading to a Certificate of Initial Mastery. That proposal has sparked a lively debate about what students should know and be able to do, and what are appropriate, fair, and equitable methods to assess their knowledge and skills.

Currently there are two major commercial efforts to develop an assessment of work readiness. The Educational Testing Service (ETS) is producing **WORKLINK**, which is designed to serve as a work/school record containing generic and job-specific skill assessments, confidential ratings of work habits, a condensed school transcript, and information on work and training. American College Testing (ACT) is developing **WORK KEYS**, a four-component, developmental system for assessing and teaching employability skills. The four components of **WORK KEYS** are: (1) a systematic process for profiling job skill requirements, (2) multidimensional assessments to measure job skills levels, (3) formats for recording and reporting assessment results, and (4) instructional materials and resources dedicated to developing workplace skills. ACT has prepared cognitive assessments based on the Carl Perkins Act requirements, which include reading for information, composing written communications, and mathematical problem solving (with a calculator). According to ACT, assessments available by 1994 include science reasoning, listening, communications, leadership, motivation, and the ability to learn. ACT is developing **WORK KEYS** in consort with the American Association of Community and Junior Colleges, the National Association of State Directors of Vocational Technical Education Consortium, the National Association of Secondary School Principals, and the **WORK KEYS** charter states of Tennessee, Wisconsin, Michigan, and Iowa. Several other states are considering charter status.

The Council survey included a question about the development of examinations of students' mastery of employment readiness skills. A related question asked states whether or not they had developed a credential of student mastery of these skills. In response to the first question -- if the state has developed an exam -- the states reported to be at one of four stages: early planning stage; tests are embedded in their curriculum; tests only in specific areas of study; or currently developing examinations for all students.

Several respondents indicated that they were in early planning stages or were still considering whether or not to develop such an examination. These respondents include: Arizona, Indiana, Minnesota, Nebraska, New York,

North Carolina, Rhode Island, Vermont, Washington, the District of Columbia, and Puerto Rico. Idaho, Mississippi, Nevada, and New Hampshire tied their efforts to assessment efforts under development in relation to the Perkins Act. Georgia and Missouri reported that they are working on examinations in conjunction with JTPA. Missouri has also developed a set of core competencies -- several are employment-related -- for all public school students with a statewide criterion-referenced testing program that measures mastery at the 3rd, 6th, 8th, and 10th grades. All of Missouri's vocational education curriculum contains instructional units on employment readiness skills on which students are tested for mastery. Vermont indicated that a new assessment is under development by the SEA to include "job seeking as well as job keeping" skill competencies. Vermont plans to implement this assessment in September 1992.

Kentucky, Michigan, and North Dakota explained that testing for employment readiness skills is embedded in their core curricula. Michigan is currently pilot testing a portfolio that will document outcomes and skills identified in their core curriculum and will include employability skills.

Twelve states -- California, Colorado, Connecticut, Florida, Massachusetts, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Utah, and West Virginia -- identified testing programs that are focused on particular programs (e.g., vocational education) or courses of study (e.g., instructional unit on work readiness). Rhode Island, for example, has developed criterion-referenced competency examinations for each competency-based curriculum in an occupational area. In addition, merit examinations for 12th graders in selected vocational-technical programs have been administered to identify Rhode Island "Merit Scholars." Rhode Island has also conducted field tests for the administration of standardized, norm-referenced occupational competency tests for 12th graders.

Colorado's initiative is not from the SEA but from the Governor's Job Training Office (JTO), which confers a certificate. The SEA is promoting the use of certified diplomas, supported by a portfolio of students' work and a written compact between student, school, and parents. California, in contract with the Far West Laboratory, is developing a performance-based student certification program. The testing will involve case studies, demonstrations, and portfolios. It will be occupationally specific, employment-oriented, and given to students at the end of occupational training. Connecticut is developing an exam for students completing state-approved Cooperative Work Education-Diversified Occupations programs.

Three additional states -- New York, Tennessee, and Wisconsin -- reported attempts to develop an examination for all students--not just those enrolled

in particular vocational education or cooperative education program. All three indicated that they are still in the development stage but that work is underway. The efforts by these three states are described below.

**New York.** In March 1991, the Board of Regents approved a New Compact for Learning. The compact provides for a comprehensive strategy for improving public education outcomes in the 1990s and includes substantial changes in the state assessment systems. Students will be assessed for progress toward proficiency and mastery, as well as for minimum competency. The emphasis will be on individual progress toward fixed standards of performance (including employability skills), not on comparative ranking among those in the same age or grade. New York has five years of experience with a test in Introduction to Occupations. Approximately 60,000 students take this course and are tested annually on skills related to becoming a working citizen and handling personal resources.

**Tennessee.** The state's 21st Century Challenge Plan calls for those students not immediately entering post-secondary education to take a work readiness test. The state will be the first to pilot the American College Testing (ACT) program as an SAT/ACT alternative. There will be no score requirement for graduation. The test is to complement the SEA plan to redesign the secondary curriculum for improved work readiness for all and to strengthen academics in vocational education programs.

**Wisconsin.** Based on recently passed legislation, Wisconsin's "Tenth Grade Gateway Assessment" is an attempt to create a performance- and competency-based measure. The assessment will be: multi-disciplinary (incorporating core competencies such as reading, writing, computation, and scientific literacy); performance-based (assessing problem-solving, analytical, and critical reasoning skills); and a key component in the school-to-work transition for students' and parents' planning and decision making. Furthermore, the legislation provides that the assessment developed for the Tenth Grade Gateway allow for comparison of pupil performance in relation to state and school district student goals and outcomes. Wisconsin is also participating as an ACT/WORK KEYS pilot state.

#### **D. Credential or Certificate of Student Mastery**

Very few states reported having initiated work on a system that gives students a credential or certificate of mastery of general employability skills. California, Colorado, Florida, Georgia, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Utah, West Virginia, and Puerto Rico indicated that they do award certificates in specific occupational areas or that they are developing such certificates.

**Vermont** is developing certification for basic, intermediate, and advanced skills within fields.

**Ohio** grants a "Career Passport," which is designed to help employers evaluate a student's skills and capacity to perform prior to employment. The passport contains three components: a student profile (education and training, work/community experience, and goals for continuing education and training), skills assessment (information on occupational endorsement); and supporting documentation (diploma, certificates, or business/industry credentials).

**Maryland.** In Maryland, "Passport to the Future" is a state initiative that links students with businesses. Students who have a "C" average, achieve 95 percent attendance, and participate in an employment readiness program receive a Passport. Participating employers agree to give passport holders special hiring consideration. LEAs can implement the program using a variety of strategies including expanding the passport to a portfolio of credentials including competency profiles, high school transcripts, letters of reference, resumes, and special awards. Employers are encouraged to review portfolios and to look for passports when hiring graduates.

**Florida.** Florida developed its Gold Seal Endorsement program, which combines a scholarship and award for "outstanding high school graduates who complete a course of study in career preparation." Recipients are given a gold seal on their diploma, a medallion, and a certificate. The requirements for the award include: a 3.0 grade average; completion of a job prep program; three or more credits with a 3.5 grade point average; mastery of reading, writing, and computation, competency in general employability skills and knowledge; and vocational competency.

Delaware, Massachusetts, Missouri, Nevada, New Hampshire, and New Jersey indicated that the LEAs grant diplomas or certificates in occupational-specific areas or more generally in employability.

Illinois, Indiana, Michigan, New York, North Carolina, and Wisconsin indicated that they were at the stage of considering whether or not to develop such a credential. Michigan is developing a portfolio of core curriculum and employability skills, which is designed to assist the students' searches for employment but there was no indication in Michigan's response that it is developing a certificate.



#### IV. OCCUPATIONAL AND ACADEMIC CURRICULUM CHANGE

The previous section examined states' efforts to identify the skills students need for employment, to devise assessment measures related to employment skills, and to develop some formal recognition of how well students had acquired those skills. This section explores how the states responded to questions about changing curriculum in ways that would support preparation for employment by linking academic and vocational education. SEAs were asked if they or other state agencies had any initiatives underway to guide or assist LEAs in this regard. Further, the survey inquired about the approaches those initiatives might promote. In particular, states were asked to characterize their initiatives according to three approaches:

- *Incorporating academic competencies into vocational courses.*
- *Making the academic curriculum more vocationally relevant (e.g., use of "applied academics").*
- *Modifying both academic and vocational education and integrating their curricula.*

In addition, the SEAs were asked if they had developed curriculum frameworks that link academic and vocational education to improve employment readiness and increase school success.

##### A. Curricular Change

The states' responses to questions about curricular changes can be grouped into three general categories: states that are beginning initiatives, states working through LEA's, and states that emphasize curricular changes in specific programs of study. No states said that they had successfully integrated vocational and academic education throughout the entire curriculum.

##### Early Stages of Curricular Change

Seventeen SEAs responded that they were in various stages of planning or early development of curricular change to support preparation for employment. The descriptions provided suggest significant variation among their efforts. Arizona, Delaware, Illinois, Louisiana, Maine, Maryland, Michigan, Missouri, North Carolina, North Dakota, South Carolina, Tennessee, Texas, West Virginia, Wisconsin, the District of Columbia, and the Northern Mariana Islands noted that some sort of efforts for curricular change were underway. Some states have only begun planning, others have pilot efforts to integrate curriculum, still others cite the efforts to implement and expand the Tech Prep component of the Perkins Act as an engine for

curriculum change. The following four states -- Louisiana, North Carolina, South Carolina and Tennessee offer examples of the SEAs' activities in the early stages of curricular change.

**Louisiana.** The SEA has supported the teaching of applied academics on a pilot basis in several schools. Applied Mathematics is being piloted statewide during 1991-92. Applied Biology/Chemistry is being reviewed in two sites and Principles of Technology has been implemented statewide. Principles of Technology II is ready for implementation. Applied Communications is being integrated into existing courses. Efforts to incorporate academic competencies into vocational courses include the intensive development of curriculum by curricular writing teams of vocational and academic instructors. Louisiana is also a member of the Southern Regional Education Board's (SREB) Integration of Academic and Vocational Skills Consortium.

**North Carolina.** North Carolina was an early developer of Tech Prep (1986) and operates state programs at more than 75 sites. Four sites have all high school staff implementing programs of the SREB Integration of Academic and Vocational Skills Consortium. One high school has created a business academy as a "school within a school." The SEA has introduced four applied academic courses: Principles of Technology, Technical Math, Applied Communications, and Applied Biology/Chemistry. (These courses were developed by a consortium of states with the Agency for Instructional Technology. Eleven states surveyed reported their adoption).

**Oklahoma.** Oklahoma is another member of the SREB consortium to integrate academic and vocational education. In addition, the SEA has purchased a statewide site license to disseminate applied math and physics software. This software supports Applied Mathematics and Principles of Technology print materials.

**South Carolina.** In 1983 South Carolina initiated Reinforcing Basic Skills through Vocational Education, a program that provides vocational education instructors and administrators with guides, lesson plans, and other materials. South Carolina is also a member of the SREB consortium noted above. Three pilot sites are currently operating and have provided the framework for the state's Tech Prep effort. "Preparation for the Technologies" addresses the federal Tech Prep provisions by outlining a comprehensive program of study and staff development. This interdisciplinary method of academic and vocational instruction is being implemented by the LEAs. South Carolina is also implementing the AIT-developed applied academics courses as alternatives to traditional academics.



**Tennessee.** The SEA reports that the high school curriculum is being redesigned "to eliminate the general track leading to nowhere." During the first two years of high school all students will take core academics. In their sophomore year, students will be assessed to help them decide on a vocational or academic track for their last two years. The vocational curriculum is being redesigned to integrate academics -- all students will be required to take mathematics, science, and social studies. Tennessee is a member of the SREB and the AIT consortia and is adopting the courses and materials provided by both. An example of the reorganization/development of vocational education courses with strong academic content is Science IA, an introductory agriculture course "infused with science." It is equivalent to academic science credit and has been approved by state boards as fulfilling one entrance science unit for state universities.

### **Curricular Change by Local Education Agencies**

The second major category of approaches described by respondents when asked about changing curriculum emphasizes curricular changes by LEAs, which support the teaching and learning of employment skills. Ten states identified the assistance that goes to the LEAs under the 1990 Carl Perkins Act. California, Massachusetts, Minnesota, Nebraska, New Hampshire, New Jersey, New Mexico, Rhode Island, Washington, and Wyoming pointed to requirements that LEAs receiving Perkins funds develop a plan for curriculum integration. Several states in this group noted additional assistance. For example, along with the Perkins funds, New Hampshire cited its efforts as part of the AIT Applied Academics consortium to integrate vocational and academic curriculum.

### **Program-Specific Curricular Change**

A third set of state responses to the question about curriculum initiatives focused on a specific program of study (e.g., vocational education instead of infusion across the entire curriculum) or on particular courses (e.g., a limited number of courses aimed at a few occupational areas). Alabama, Arkansas, Connecticut, Florida, Hawaii, Indiana, Iowa, Kansas, Mississippi, Missouri, Nevada, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Vermont, Utah, and Puerto Rico responded that they were making curricular changes in a programmatic area. In most instances the states indicated that they were emphasizing the development of applied academic courses in vocational education. Indiana described such an approach, which included demonstration sites, staff development for incorporating applied academics into vocational courses, and summer fellowships for teams of secondary teachers to plan, implement, and evaluate "an expanded academic-vocational curriculum." Indiana also noted that the SEA has developed mathematics and

science proficiency guides that incorporate the recommendations of the National Council of Teachers of Mathematics and aim to make the academic curriculum more vocationally relevant.

## **B. Revising Curriculum Frameworks**

In a related question, the CCSSO survey asked if SEAs had developed curriculum frameworks that link academic and vocational education in ways that will improve students' employment readiness and enhance their school success. Maine and Nevada explained that they are providing guides and curriculum materials. Alabama noted that it is requiring more academic courses for students in vocational education. Louisiana reported that not only must all students complete academic requirements but that more efforts are being made to include academic instruction within vocational classes. Arkansas, Arizona, California, Idaho, Illinois, Kentucky, Michigan, Rhode Island, and Tennessee indicated that they were in the process of revising their curriculum frameworks or were in the planning stage. Colorado replied that it was not developing curriculum frameworks but explained that the SEA does not establish curriculum requirements but promotes similar outcomes through the use of a guaranteed graduate concept and its outcomes and proficiency goals.

The largest set of responses identified curriculum framework revisions in specific areas, mostly vocational education. This group included Florida, Georgia, Hawaii, Indiana, Kansas (providing a handbook on employability skills for area vocational-technical schools), Maryland, Massachusetts, Nebraska, North Carolina, North Dakota, Ohio (cited its Jobs for Ohio's Graduates program), Oklahoma, West Virginia, and the District of Columbia. Several of these states identified Tech Prep initiatives and efforts to raise the academic content of vocational education courses.

### **Flexibility of Time and Place for Learning**

In addition to changes in the substantive aspects of the curriculum, CCSSO inquired if SEAs have developed policies that provide flexibility regarding the time (e.g., schedule, length, sequence) and place of student learning in schools to improve employment readiness and increase school success. This question has important implications for the flexibility and subsequent appropriateness of and access to instruction. Despite a wide variety of student learning styles, developmental rates, and possible instructional methods, time has been treated almost universally in schools as a fixed and unchangeable resource. Typically, students are expected to master knowledge and skills at the same rate, in the same order, and at the same time as their entire age cohort. A dramatic contrast to this requirement would be the suggestion that all

40-year-olds in the nation complete their work at the same pace, in the same increments, in the same limited amount of time, and in the same physical work environment.

Altering time, sequence, and location of instruction permits the consideration that students might learn at worksites as well as in classrooms. Such arrangements might facilitate more flexibility regarding the scheduling and chronology of learning.

Responses from the thirty-six states answering the question about state policies that support such flexibility ranged widely from noting that planning is underway to change policies, to noting very minor changes in the use of time, to noting the availability of waivers from the SEA, to providing a list of real options. The states' responses follow.

## Flexibility of Time and Place for Instruction

### ALABAMA

Some programs are taught in different sequences, in different class period lengths, and in various combinations involving classroom, clinical, or cooperative training arrangements. By a joint effort of special needs, vocational education rehabilitation, and academic programs, program outlines and content support students who need course modifications, integration with academics, or special services.

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### ARKANSAS

In Cooperative Education, students attend class part of the day and go out into the workforce for part of the day.  
Arkansas is in the process of designing and implementing a statewide Youth Apprenticeship Program that will provide two years of apprenticeship training at the senior high/junior college level.

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### CALIFORNIA

The High School Innovation Program will allow for waivers to schools for flexibility and innovation or for the use of new strategies that might be prohibited or hindered by state rules and regulations.

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### COLORADO

The Public School Finance Act allows flexibility as to when and where time may be counted for funding, with considerable flexibility left to the LEAs. The statute also gives the SEA authority to waive rules and some statutes in order to support local district reform and improvement.

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### DELAWARE

The SEA has developed frameworks through its competency standards that improve readiness based upon core content and competencies.  
Southern Regional Education Board (SREB) strategies suggest three years of math and three years of science for students in vocational education.

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### FLORIDA

Vocational education in the state uses cooperative instruction. Students may receive on-the-job training through cooperation with a training plan. The plan delineates curriculum and lists the skills and competencies the student must master to become competent. Teacher/coordinators must visit the student at the work site at least once per grading period. Training agreements between the student, parent, teacher, and employer are also required.

#### Florida Compact:

**Schedule:** Many participating school programs use a block schedule of two to four class periods wherein instruction and learning occurs in larger but less frequent time blocks (e.g., one three-hour block devoted to a science project).

**Length:** Five of twenty-three active Compacts were designed for mastery learning and accelerated credit earning so students have the opportunity to catch up to peers and graduate on time or ahead of time.

**Place:** Several local Compact programs use the business or military partner site for instruction including: Okaloosa Compact/Fort Walton Beach High School (one day per week science instruction at a corporate plant is team taught by corporate and business representatives), and Bay Compact/Rutherford High School (a one-day-per-week science research project on Tyndall Air Force Base in collaboration with Air Force personnel).

GEORGIA	Vocational education classes are scheduled in one and two-hour blocks of time. Students participating in cooperative vocational education have both on-the-job training and a related study class daily.
IDAHO	Flexibility of time and location of instruction is a local decision. Release time is provided for cooperative education programs.
ILLINOIS	While maintaining some specific requirements in the areas of teacher certification, life safety, and so on, the SEA is implementing a new regulatory process that emphasizes outcomes rather than processes. LEAs have the flexibility to lengthen the school day, add class periods, and so on. Outcomes will be emphasized in voc tech as well. Six state goals for vocational education have been established.
INDIANA	The SEA has adopted a rule that allows LEAs to seek a waiver to offer a "non standard course or curriculum program." These are courses or curriculum programs that differ from those authorized by the rules of the State Board in ways including, but not limited to: content, organization, methods, staffing, course title, instructional materials, or criteria for course or program completion. This rule allows for flexibility in time and place of student learning in school to improve employment readiness and increase the opportunity for school success. The SEA has indicated that it is openly considering such waivers and has encouraged local school administrators and boards to make better use of this waiver policy.
IOWA	Flexibility of time and location of instruction is a local decision.
KANSAS	In some instances, LEAs have open entry/open exit at Area Vocational-Technical Schools and community colleges. A minimum number and annual hours are required for secondary schools.
KENTUCKY	<p>Students enrolled in secondary vocational education have the opportunity to participate in cooperative education programs. Students are placed within business and industry occupations while enrolled in high school vocational education programs to gain practical occupational experience. Local boards of education may approve academic credit for such programs on an hour-for-hour basis with a maximum of three credits for combined course work and work experience. Other models for work experience are being explored.</p> <p>The Kentucky Education Reform Act states that schools shall be measured on the proportion of students that make successful transitions to post-secondary education, work, or the military.</p>
LOUISIANA	Alternative programs may be developed at the local level with SEA approval.

MAINE	There is a procedure for obtaining waivers of specific school requirements concerning schedule, length, sequence, and other components. The Commissioner has indicated a willingness to grant waivers for schools that undertake restructuring. A local plan must be developed by the LEA and community members for consideration.
MARYLAND	Current graduation requirements specify several alternatives to a four-year enrollment in a public high school. The alternatives are: early college admission; early admission to an approved vocational, technical, or other post-secondary school; the General Educational Development Testing Program; the Maryland Adult External High School Diploma Program; alternative methods for students to fulfill graduation requirements; and transfer. Proposed changes to graduation requirements would provide increased flexibility. Included are: an earlier opportunity for students to demonstrate basic competencies; local school system authority over the definition of "unit of credit"; credit by examination; and independent study/internships. The state is now in the planning stages of a new initiative, School After Hours. The purpose of this initiative is to provide at-risk youth opportunities to earn "original" academic credit through evening, weekend, and summer courses at satellite centers strategically established in the state. The initiative will increase the number and quality of options available for youth to satisfy graduation credit requirements outside the traditional day program.
MASSACHUSETTS	Chapter 74 Regulations require students to spend half the school day in voc tech services and the other half in academic or related study. Students are allowed to move from each task as they achieve the stated level of competency. This flexibility is aimed at increasing readiness and success in retraining.
MICHIGAN	Policies and practices related to time and place of learning are being studied by the SEA to allow LEAs flexibility to provide additional program options and worksite-based education opportunities to students.
MINNESOTA	A waiver of up to five years of SEA rules will be granted to implement outcome-based education through schedule length alterations. School districts must report information on school success to the state.
MISSISSIPPI	Length has been altered from a three-hour block to a two- to three-hour block for flexibility. Courses in grades 7-12 were restructured in order to make them more available.
MISSOURI	The SEA has always encouraged flexibility through sequencing, scheduling, and so on in vocational education. When districts alter scheduling, they are encouraged to assess students enrolled in vocational education and to initiate appropriate instruction for school and work success.
NEVADA	Districts have the authority to provide a number of options regarding time and location of instruction.



NEW HAMPSHIRE	Academic requirements continue to outnumber vocational course requirements. Accepted vocational course credit varies by district, however, incidence of shared credit remain extremely low.
NEW JERSEY	Each district has local autonomy to be flexible. The state mandates minimums only.
NEW MEXICO	New Mexico has an optional graduation credit process that validates basics taught in vocational courses as meeting core academic graduation requirements. This process allows more students to participate in vocational programs. New Mexico has the traditional cooperative education programs found in vocational education. New Mexico has concurrent enrollment legislation. This legislation allows students enrolled in secondary schools to participate in vocational education programs at the post-secondary level. Credit can be for high school graduation, for postsecondary credit, or both. Schedules are relaxed and the three credit hour expectation is recognized by participating secondary schools.
NEW YORK	<p>The New York State Education Department provides local districts a number of options for students to meet graduation requirements:</p> <p>A. A number of occupational education courses have been identified to be used to meet academic diploma requirements.</p> <p>B. The high school sequence requirements can be met through hundreds of options, including interdisciplinary sequences and programs that combine instruction at LEAs and area vocational centers.</p> <p>C. Schools have options to implement cooperative occupational experience programs.</p> <p>D. Because most of the state requirements represent the acquisition of minimum standards, local schools may exercise a number of options in designing programs to improve employment readiness and increase school success.</p> <p>E. Under the Compact for Learning, the Regents will promote the exercise of responsible initiative by school districts to make changes in school and school system organization that will help pupils achieve better results. To promote such an initiative, New York will remove rules and regulations that inhibit practitioners from reaching the state goals more effectively and efficiently.</p>
NORTH CAROLINA	SB2 legislation gives most local districts flexibility options. The alternative school day is available. More difficult academic courses have been lengthened (e.g., Algebra I is now a two-year course rather than a one-year course). Course difficulty is not reduced; more time is simply allowed. Vocational courses have time blocks extended from one to two or three periods with extensive individualized instruction.
NORTH DAKOTA	The state does permit and encourage proposals that are innovative and/or exemplary. If the proposals are approved, statutes or regulation may be set aside.
OHIO	LEAs are provided great flexibility in the use of funds and the design of programs funded through the 1990 Perkins Act. The vocational education planning districts (VEPDs) develop a

one-year plan outlining their goals with specific outcomes. Once the VEPD plan is approved, school districts proceed with the plan and programs in terms of scheduling, course sequence, and determining the setting for the programs.

Students are provided flexibility and increased opportunities for employment readiness and school success through the vocational co-op programs and early senior year job placement. Students excelling in the vocational occupational training programs are placed in a business or industry setting directly related to their courses of study. These students are then followed up on to determine their placement rate. Ohio has a 94.6 percent job placement rate for secondary students and a 98.2 percent rate for adult vocational students.

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**OKLAHOMA**

The state will not be able to achieve greater flexibility regarding time and location for this instruction because of schools' overreliance on the Carnegie unit -- seat time.

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**PENNSYLVANIA**

SEA curriculum regulations are under revision to stress flexibility.

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**RHODE ISLAND**

In Rhode Island, each district has local autonomy regarding flexibility. The state mandates minimums only. Cooperative education programs are in place at each of the nine area vocational-technical centers.

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**SOUTH CAROLINA**

Flexibility is provided in designing the appropriate vocational program structure. Suggested course titles, levels, length of class periods, credit, and so on, are given as a guide.

An experimental application process is available whereby local school districts can develop innovative program offerings to meet local needs. LEAs evaluate the programs annually and modifications are made.

While a school must provide opportunity for cooperative instruction in the final level of an occupational program, LEAs have flexibility to develop their own cooperative education plan.

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**SOUTH DAKOTA**

The state changed administrative rules to allow more flexibility in delivering vocational education courses.

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**TENNESSEE**

The SEA in 1991 adopted a state board proposal to increase local flexibility/authority by eliminating 3,700 rules, regulations, and minimum standards. School systems now have greater flexibility in structuring the school day, class periods, and scheduling. Additionally, the state is calling for greater accountability in outcomes and meeting identified student needs, as measured by the 21st Century Plan, which is under development.

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**UTAH**

The state legislature passed legislation for an extended school day and year. There is an agriculture summer program. The past two summers Dixie and Southern Utah Universities have provided one- and two-week intensive residency programs for rural Utah youth. They have been vocational in nature and offer three to six quarter-hours of college credit, which equals to one-half to one high school credit. Eight to twelve different programs are offered.

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**WEST VIRGINIA**

Many schools across the state have restructured vocational offerings to allow greater student access (i.e., courses rather than block programming). Schools are also encouraged to establish cooperative programs with area business and industry, wherein students are placed and supervised on the job for a specified period of time. Additionally, the state grants waivers of specific time and instructional requirements if a school district can demonstrate the ability to attain appropriate outcomes through alternative means. Current educational policy development will move the state's educational system toward an outcome-based program, allowing much greater flexibility in terms of the time and place for learning.

In cooperation with Private Industry Councils, the Governor's Office of Economic & Community Development, and selected malls in northern and southern West Virginia, the West Virginia Department of Education has organized "training" programs in retail sales, supervisory, and entrepreneurship training. These mall programs are flexible in terms of clock hours, number of classes, and enrollment date times.

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**WISCONSIN**

The amendment of Child Labor Laws encourages work-based learning, the relation of school and employment, and curbs total hours of teenage employment on school days. According to the recently adopted legislation, 16- and 17-year-old students employed in areas other than domestic service or agriculture may only work four hours on a school day, and 26 hours total in a week while 14- and 15-year-olds can only work 18 hours a week. Other restrictions also apply. The Youth Apprenticeship Initiatives relocate student learning to the workplace. Tech Prep and Occupational Options provide for high school students to alter schedules and locations of learning to attend colleges or technical schools.

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**WYOMING**

LEAs have the option to request alternative schedules.

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**D.C.**

The Workplace Basics program is scheduled to begin during the 1991-92 school year. Plans include the scheduling of at least two (two-and-a-half-hour) workplace basics time blocks during each week. Time will also be identified for actual on-the-job activities and shadowing of employees and supervisors.

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**PUERTO RICO**

The SEA has established a cooperative education program in which 12th grade vocational education students participate in practice experiences aimed at enhancing and strengthening their employability skills.

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**VIRGIN ISLANDS**

Plans and recommendations are underway. A "two year program" would be ideal for academic education and work for a vocational education certificate.

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## V. INTRODUCTION TO CAREERS

A critical component of the transition from school to employment is the advice and counseling provided to the student by a knowledgeable adult. In schools, this adult might be a vocational or academic teacher, guidance counselor, or some other specialist who not only provides information about the sorts of employment opportunities available, but offers advice about which jobs might be more appropriate and gives guidance concerning continuing education options. The adult advisor or mentor may be found in a worksite if he is involved with some form of work-based learning. The CCSSO survey asked if the SEA or other state agency is involved in any effort (apart from that required under the Perkins Act) to support the development of career guidance.

The survey offered several elements of career and employment that the state might promote. These include:

- *Helping students analyze and evaluate their abilities and interests*
- *Providing guidance on career possibilities*
- *Providing guidance on education requirements for occupations of interest (including non-traditional careers)*
- *Providing students with up-to-date labor market information*
- *Using guidance, academic, and vocational education personnel for counseling*
- *Informing parents about academic and vocational course requirements for employment readiness or post-secondary training that leads to employment*
- *Providing job placement assistance*

Forty SEAs responded that they have efforts other than those required under the Perkins Act to support comprehensive career guidance. Twenty-one of those SEAs stated that they promoted all of the seven elements listed above. These states include Arizona, Arkansas, Connecticut, Delaware, Florida, Illinois, Iowa, Maine, Massachusetts, Michigan, Missouri, New Hampshire, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Utah, Washington, and West Virginia.

In addition to the 21 states that reported providing all the services listed, the remaining 23 SEAs identified a number of efforts. Fourteen SEAs reported helping students evaluate their abilities and interests. Sixteen said that they provide guidance on career possibilities. Fourteen reported that they guide students on education requirements for specific occupations. Thirteen SEAs noted that they give labor market information to students. Ten responded that they use a variety of professional staff as counselors. Only 6 of the 21 reported any systematic effort to inform parents about course requirements for employment readiness or post-secondary job training. Fewer still -- only 5 -- said that they offered assistance with job placement.

The responses themselves are contained in the following chart. In order to identify which of the services the SEA said it provides, in parentheses are abbreviated titles of the services listed above. The following phrases will indicate that the SEA reported that it promotes such assistance:

- Students Analyze
- Career guidance
- Education Requirements
- Labor Market Information
- Personnel for Counseling
- Inform Parents
- Job Placement

"All" in parentheses indicates that the SEA responded that it provides all seven elements of guidance. A few states noted which services are available in middle schools and in high schools. In those instances "M" stands for middle schools and "H" represents high schools. A few states added the description of an additional program. They are marked as "Other."

# Comprehensive Career Guidance

## ALABAMA

(Students Analyze) Students are provided with interest tests.

(Career Guidance) Counselors provide testing, counseling, and placement services for programs and jobs.

(Education Requirements) An active Gender Equity Coordinator encourages exemplary efforts to address non-traditional careers. A direct computer hook-up with each school (State Occupational Information Coordinating Committee or SOICC) provides current occupational data and identification of sources where training can be acquired.

(Labor Market Info) Information is provided by SOICC, counselors, and craft committees made up of educators, business people, and community personnel.

(Personnel for Counseling) Counselors in the state are concerned with both vocational and academic activities. They work together with teachers, administrators, parents, and students.

(Inform parents) Parents are informed through brochures explaining course content, grade level, objectives, and information on job readiness.

(Job Placement) Each teacher has responsibility for placing students who complete their programs.

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## ARKANSAS

(All; all checked indicate middle and high school except Students Analyze, which indicates only middle school)

In addition to what the 1990 Perkins Act requires, Arkansas has a network of Tech Prep coordinators who complete assessments at the middle school level and track each student through senior high. They also give pre- and post-tests in basic skills to those school districts that request their services. They also aid each school district in implementing Tech Prep and applied academics.

Career Orientation Curriculum requires self-assessment.

Guidance counselors are in each vocational center; guidance counselors are required by statute in elementary and secondary schools (ratio 1:450); career guidance is a required part of all guidance programs in the public schools.

There are special needs coordinators.

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## CALIFORNIA

(Students Analyze) Assessment instruments to identify career interests are being developed for both middle and high schools.

(Career Guidance) There will be increased emphasis placed on providing career information to students beginning at the elementary level.

(Education Requirements) Documents are being developed to help inform students.

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## COLORADO

Contact Colorado Community College and Occupational Education System (CCCOES).

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## CONNECTICUT

(All) The SEA has endorsed and supported a developmental guidance curriculum for all students in grades K-12, including all of the named initiatives. While not mandated, the curriculum is "strongly encouraged."

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## DELAWARE

(All) The Career Guidance Counselor is an effort that predates Perkins II.



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## FLORIDA

(All) The "Blueprint" will be used for guidance on careers and to coordinate the academic and vocational curricula needed. Other programs such as the software MicroCHOICES and CHOICES Jr. help students identify requirements of occupations. The "Career Development Program Guide" is distributed by the SEA to LEAs as a career development program implementation guide. It contains information on student competencies by area and level, and a step-by-step process. "Student-Use Career Development" software programs, videos, and print products are produced and distributed by the SEA to LEAs for grades K-Adult. Parental training materials, resource guides, programs of study manuals, and financial aid software are also available from the SEA.

(Job Placement) A joint effort of the state Department of Labor and Employment Security and the SEA resulted in locating placement specialists from the Florida Job Service in area vocational centers. These specialists can acquire job listings to counsel and assist students. The Job Service has also distributed information from their Job Bank through the Florida Career Information Delivery System projects. This information is updated daily and is electronically available at school sites statewide. Much of this information will be developed with local information building on a core of employer data from the Florida Education and Training Information Placement Program.

(Other) A joint effort between the Department of Labor and Employment Security and the SEA has been the delivery of "Improved Career Decision-Making" workshops. These have been ongoing for four years and are directed to provide up-to-date labor market information for school career counselors and occupational specialists.

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## GEORGIA

(All except Job Placement) The SEA provides assistance to students in developing a positive self-concept; involves business and industry personnel as career information resources and role-models; provides hands-on and shadowing experiences; runs a statewide computer labor market data system.

Georgia has developed a comprehensive instructional career awareness, exploration and planning program (grades 6-12). Career Connection, a developmental middle school program, is implemented as an exploratory program at each of three grade levels. The program seeks to educate parents and students about education, the world of work, labor market projections, and the relevance of these to the individual. The Program of Education and Career Exploration (PECE) is Georgia's high school instructional program for career exploration and planning. Hands-on experiences in the community, as well as exposure to the world of employment in a variety of formats, encourage students to realize their own "multipotentiality" and to design their personal career development plan through high school and beyond. Both programs contain components that make them vital to the present and future well-being of students (i.e., self-awareness, strong parent and business components, cooperative learning and team-building strategies, work ethic emphasis, and a continuing focus on the relevance of education to career options). Career Connections is endorsed by the Southeastern Region of the National Alliance of Business. PECE and Career Connection teachers must successfully complete an intensive training and internship program. Curriculum guides, teacher resource manuals, and a videotape have been developed for these programs. The goal of PECE and Career Connection is to empower students in career development, to encourage them to be undeterred by sex bias and discrimination, and to assist them and their parents in developing a vision for the student's potential in the world of employment. PECE and Career Connection have been designed for all students.

<b>HAWAII</b>	(Students Analyze, Career Guidance, Education Requirements, Labor Market Info) All public high schools require a half year of guidance for graduation.
<b>IDAHO</b>	(Inform Parents - 7-12, Job Placement - H, the rest - K-12) The state has developed a comprehensive K through 12 guidance and counseling program model aimed at career, education, and personal/social development for all students. The model has been adopted by the SEA and implementation projects have been initiated. The model is outcome-based and integrates academic and vocational education. The Idaho Career Information System provides labor market information in the model, and guidance advisory committees provide a two-way flow of information between schools and parents/employees.
<b>ILLINOIS</b>	(All) The majority of funding is through the Perkins Act. The state encourages such efforts.
<b>INDIANA</b>	<p>(Students Analyze, Career Guidance, Education Requirements, Labor Market Info, Personnel for Counseling, Inform Parents)</p> <p>All of the above items are proficiency statements to be achieved by all students pre-K through 12, under the "Indiana State Plan for Developmental School Counseling." School counselors work with school staff, students, parents, and businesses to help students achieve the competencies, based on needs assessment data for the local community. Two Indiana school corporations, one rural and the other suburban, pilot tested this K-12 state plan during the 1990-91 school year. In addition, the SEA introduced the plan to school counselors through a series of workshops. In the coming year, technical assistance will be provided to help counselors work with administrators and other school staff to implement the state plan. During the spring of 1992, a workshop series will be scheduled for school administrators. SEA staff are also looking at ways to reach those who train teacher and administrator educators at Indiana's colleges and universities.</p> <p>Indiana PLUS is a pilot project for the summer and fall of 1991 in which selected high school students will explore the relationship between school and work through an extensive survey and report their findings to their peers and younger students. They will also report their findings to the community at large through the participation of the ABC affiliated television stations in Elkhart, Evansville, Fort Wayne, Indianapolis, and Terre Haute. The project is intended to accomplish three goals:</p> <ol style="list-style-type: none"> <li>1) To increase awareness of the need for all students to graduate with a solid basic education and first-rate job skills</li> <li>2) To assist students in the assessment of their personal levels of workforce preparation</li> <li>3) To encourage community action among employers, educators, students, and government officials</li> </ol> <p>The students will record their experience in a variety of ways (written reports, photos, videotapes). Each team will produce a local handbook, written for younger students, that can serve as a guide for thinking about and planning for future vocational interests. In their news and public affairs programming, the four television stations will cover the school-to-work issue and the activities of the student teams, building toward the culminating event of the project -- a</p>

statewide simulcast on the world of work. This unique project is being test-marketed with the cooperation of the Indiana Department of Education, local employees, the U.S. Department of Labor, PLUS, and the five ABC affiliates in the state.

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IOWA	(All) Schools can purchase a variety of resources, including "Choices," a career information service. They can also purchase a K-12 Career Guidance Guide and the materials produced by the University of Northern Iowa with a grant from the American Association for Counseling and Development. The LEA-developed state guide, "The Iowa K-12 Career Guidance Curriculum Guide for Student Development," addresses all seven elements in the survey.
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KANSAS	(Career Guidance, Education Requirements, Personnel for Counseling, Inform Parents, Other) 1) A statewide survey of all levels is being conducted, which will provide information on the seven elements in the survey with results available for FY 1992. 2) Kansas Careers is used in Kansas by about 100 high schools to meet Students Analyze and Career Guidance.
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KENTUCKY	(Career Guidance, Students Analyze, Education Requirements, Personnel for Counseling, and Inform Parents.) Valued outcomes will focus on career awareness and development of skills necessary to make a transition to post-secondary education, work, or the military. An individual career plan will be developed by all students based on assessment of aptitudes, abilities, and interest. A new middle school course has been developed to explore the 15 occupational clusters and to focus students on establishing a career objective.
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LOUISIANA	(Labor Market Info, Inform Parents) The Louisiana Occupational Information Coordinating Committee prepares materials regarding education requirements and occupational opportunities.
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MAINE	(All) The SEA and the MOICC have developed a series of initiatives for career education and guidance: Planning to Realize Educational Potential, The Maine Guide: Career Transitions for Adults, The Maine Guide: A Developmental Framework for Life Choices, and so on. Future Builders was completed with the University of Maine and has been incorporated into parts of the Maine Guide projects. Specific information about many careers is available through CIDS (MOICC). The Job Box provides an Occupational Search Guide and indexed job information. The interactive television series "Maine Works" is available in printed and videotape form, contains sample profiles of people in specific occupations, and deals with the following cluster areas: the environment, criminal justice and law enforcement, sports recreation, small business entrepreneurship, social services, and media journalism. Videotape copies may be obtained through the Maine State Library/The Interactive Television Network.
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MARYLAND	(Students Analyze - M/H, Career Guidance - M/H, Education Requirements - H, Labor Market Info - H, Personnel Counseling - H) Maryland mandates that all students complete a four-year educational plan, as well as a career folder. The career folder, developed by each LEA, includes interest and aptitude surveys, and the results of individual and group guidance sessions. Up-to-date labor market information is
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provided through VISIONS, Maryland's career information system. The SEA supports the development of comprehensive career guidance through an inter-divisional team, which assists local systems in implementing a system of career guidance and counseling. Maryland graduation requirements also mandate that all students participate in an approved program of World of Work competencies.

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**MASSACHUSETTS**

(All) The SEA has established six regional technical academic assessment centers.

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**MICHIGAN**

(All) Other employability skills are being infused into the curriculum.

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**MINNESOTA**

(Students Analyze, Career Guidance, Education Requirements, Labor Market Info, Job Placement)

Work Readiness is a skill required by the SEA at all levels.

"A Restructured Model for Vocational Education" is a vocational education reform movement that incorporates work readiness. Materials and workshops will be made available to aid teachers.

Some school districts employ staff to provide job placement services.

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**MISSOURI**

(All) Several initiatives of the state -- prior to the new federal vocational legislation -- address the listed initiatives.

**Model Guidance Program** - The Missouri Comprehensive Guidance Program is designed to aid schools, grades K-12. Developmental projects have been designed for two-year periods during which counselors conduct a time and task analysis of current activities; carry out a student needs and staff/parent assessment; develop guidance curriculum units to address needs; establish an advisory committee; conduct a resource assessment; and redirect activities to make comprehensive guidance specific in content rather than a set of miscellaneous services. Specific activities center around: guidance curriculum, responsive services, individual planning, and system support. The program cost, materials acquisition, and inservice were supported by federal vocational improvement and local funds. Specific materials have been developed including three distinct kits for grade groupings K-6, 6-9, and 9-12. Each kit has a step-by-step procedure and necessary forms and charts. The high school kit contains about 300 guidance activities addressing 90 competencies within 16 broad categories. The middle/junior high kit has 250 activities on 62 competencies within 12 categories. The elementary school kit covers 44 competencies in 11 categories. A "Scope and Sequence" process has been developed, which details the specific competencies. Additional components include: revised 15-minute overview video, additional evaluation criteria, continued gathering of student impact data.

**Counselor Education** - Counselor educators have participated in meetings and workshops to develop and restructure university programs to conform to new certification requirements and to address the Model Guidance Program. Other activities are developing guidelines for off-campus practicums, developing consistent course titles, developing school psychologist certification guidelines, and reviewing the training institution curriculum.

**Career Guidance/Vocational Education Resource Centers** - Three centers (in St Louis, Kansas City, and Sedalia) are expanding operations through information dissemination and, inservices, and writing and developing curriculum for the state's Model Guidance Program. A strong emphasis is placed on career guidance, vocational education materials, and inservice at the 7-12 level. Centers also aid grades K-6.

Missouri Vital Information for Education and Work (MOVIEW) - is a high school counselor resource. The system provides up-to-date information on 800 careers, the state's area vocational schools, community/junior colleges, and four-year colleges and universities. Microfiche materials include the Military Job File, Energy Related Fields of Study, New and Emerging Occupations, Apprenticeships, and the National College File and College Majors Index. Four hundred and fifty sites receive MOVIEW at no cost. Also available are: Basic VIEW, Micro VIEW, Basic Micro VIEW, Search and Learn, and CASHE (on scholarships and financial aid). Two hundred seventy-five sites now carry "Awareness of the World of Work and Related Ed" (AWARE), a computerized program for elementary level students.

Placement Services - Job Development-Placement involves the establishment, expansion, and maintenance of positive and direct communications with employers and the placement of vocational education exiters with saleable skills. The main purpose has been to place vocational education exiters in full-time employment and to find part-time jobs for those in financial need who desire to continue with school. Thirty secondary and 20 post-secondary/adult placement coordinators are partially funded.

Helping Industry Recruit Employees (HIRE) - HIRE was established as an umbrella organization for 21 area vocational schools and community/junior colleges. Kansas City Metro Community Colleges administer the program. The goal is to provide a visible organization for school collaboration for vocational education and student jobs. Job openings are shared through an on-line computerized system. Equipment is located at each site. Transactions included listings of placement of present and past students.

Statewide Job Placement Service - A network of 57 area vocational schools and 16 community colleges cooperate to place exiting vocational trainees. The program is designed to supplement the efforts of participating institutions. The emphasis has been providing inservice training for placement coordinators and instructors as to their roles and responsibilities. The service coordinates statewide marketing strategies, job development techniques, and professional resources (books, films, brochures) for use by participating institutions. A student database is maintained on the institutions' existing students.

Employment Security Placement Project - A cooperative effort of the SEA, the Division of Employment Security, and 18 participating area vocational schools. The project provides a placement technician at least two days a week at each site. The service uses a statewide job/applicant matching system developed by the Division of Employment Security.

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## NEVADA

The SEA has mandated a Comprehensive Career Guidance Program for all students, grades 7-12, effective September 1, 1991 under Course of Study in Nevada's Administrative Code.

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## NEW HAMPSHIRE

(All) The SEAs program aims to help LEAs develop "individualized" programs for all students. This is an integrated plan involving individual planning, system support, a guidance curriculum targeted at student needs, and responsive services. Students needs assessments have been done, local advisory committees are in operation, and an action plan has been written and approved by the SEA.

The New Hampshire Air Guard offers career guidance workshops and presentations statewide based on the New Hampshire Model of Comprehensive Career Guidance (CCG). The CCG program has a business and industry technical committee.



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**NEW JERSEY**

(Students Analyze, Personnel for Counseling) The SEA has issued a request for proposals, "Teaching Essential Life Skills," to be implemented in FY 1992. It is based on National Career Development Guidelines and New Jersey Technology, Education Proficiencies for each grade (K-6), and will assist students in workplace basics and life skills.

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**NEW MEXICO**

(Career Guidance) New Mexico Schools mandates that every high school student have a file that shows the student has received counseling and that a planned program is available from the regular course offerings of the school to meet the student's career objective. New Mexico, with Carl Perkins and state funding, has also established five pilot career guidance centers. This number will be expanded to 11 by this year.

(Labor Market Info) New Mexico has a network of approximately 30 secondary schools participating in a Career Information System supported by Carl Perkins, State Occupational Information Coordinating Committee (SOICC), and state funding.

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**NEW YORK**

(Students Analyze, Career Guidance, Education Requirements, Labor Market Info)

All school districts in New York State must prepare and submit a guidance plan, which includes an annual review of all students.

Home and Career Skills, a junior high school requirement for all students in the state, includes a guidance component and the development of a study plan for all students. Through this experience, students identify their abilities and interests, select career goals, and develop an educational plan to meet them. Introduction to Occupations, a high school requirement for all students majoring in occupational education, is based upon the work students complete in Home and Career Skills. This course also provides students with labor market information and guidance on career possibilities.

As a part of a comprehensive staff development and technical assistance program for occupational education for teachers in New York State, a number of career videos and guidance counselor newsletters have been developed. The state has also sponsored a number of career expos in recent years.

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**NORTH CAROLINA**

(All) A career exploration program offered for grades 6-8 concentrates on competency-based instruction and self-awareness. It assists parents and children in planning a high school program. Each student leaves 8th grade with a personal education plan. The state also has industry education coordinators in each local school system to provide counseling and job placement (grades 9-12 and vocational completers).

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**NORTH DAKOTA**

(Elementary - Students Analyze, Personnel for Counseling. Middle and High - Students Analyze, Career Guidance, Education Requirements, Personnel for Counseling. High - Labor Market Info)

(Career Guidance) Provided in several ways. New accreditation standards support guidance programs in schools. Failure of a school to provide a guidance program will result in a decrease in the school's state foundation aid. A statewide committee of counselors and state-level personnel developed a comprehensive school guidance model. Its four components are: guidance curriculum, individual planning, responsive services, and system support. The SEA has adopted the National Career Development Guidelines (NCDG). The NCDG represent a communitywide effort to foster career development at all levels K-Adult. Community

involvement is an important component in this process. The guidance areas of self-knowledge, educational and occupational exploration, and career planning have indicators that are addressed in existing curriculum. Classroom teachers are the primary delivery system with guidance counselors serving as coordinator, consultant, and counselor. Schools that are developing the NCDG are eligible for two years of grant funding. Implementation is to begin during the third year. North Dakota had the first two elementary pilot sites in the nation.

(Students Analyze) Students analyze and evaluate their abilities and interests in multiple ways. Norm-referenced standardized achievement tests and school ability tests administered statewide at grades 3, 6, 8, and 11 are used. Many students in the state already have access to guidance personnel who use interest inventories and aptitude tests. With the new accreditation standards all students in the state should have this available to them in the near future.

(Education Requirements) Requirements for specific occupations are currently being provided by schools that have comprehensive guidance and comprehensive career development programs such as the NCDG. This number is increasing each year. Beginning this year all schools are required to have a guidance program.

(Improved Career Decision Making) Workshops are offered to school personnel to increase their knowledge of local, state, and national labor market information. Computerized guidance programs at the junior high and secondary level are receiving widespread support. A career tabloid, sponsored by SOICC, is provided to every 10th, 11th, and 12th grader in the state.

(Personnel for Guidance) Guidance personnel provide academic and vocational counseling. Schools with enrollments over 250 are required to have a credentialed school counselor with a master's degree. Schools with an enrollment of 1-100 students need at least a guidance designate with at least eight semester hours of core graduate guidance courses. Schools with enrollments between 101-250 need a guidance designate with at least 16 semester hours of core graduate guidance courses. All guidance designates must be working toward obtaining a guidance credential.

(Inform Parents) The SEA promotes informing parents about academic and vocational course requirements for employment readiness or post-secondary training that leads to employment. The NCDG as well as comprehensive guidance programs described above address this issue. The SOICC sponsored a career tabloid provided to 10th, 11th, and 12th grade students, which helps inform students and parents about academic and vocational course choices that lead to employment.

(Job Placement) Some special education students' individual education plans (IEPs) provide for a cooperative work experience at the high school level. They also provide for career planning through the IEP process. Some special education personnel provide information on careers in special education upon request by local educators. Guidance personnel provide additional information. Cooperative education programs also provide job placement. North Dakota Job Service provides a placement service for senior high students.

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## OHIO

(All) The SEA's Division of Vocational and Career Education is involved in several activities that support a comprehensive career guidance program. One such activity is the Career Plan. Recognizing diverse student capacities, strengths, achievement levels, career interests, and program readiness, each student entering the 9th grade or a post-secondary vocational program will have an individual career plan that culminates in receiving a career passport.

The Career Education Program assists kindergartners through adults in relating classroom learning to skills needed for employment and provides students with career-related skills. Career education is infused into all coursework the student receives, and is accomplished through career assessment, career information, staff development, curriculum support, instructional materials, community resource management, and coordination of staff and special projects.

The Middle School Blueprint Program assists middle school students in attaining basic

competencies prior to the development of self-esteem/concept, assessment of interest, abilities and skills, career exploration, goal setting and decision making, and the reduction of bias.

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#### **OKLAHOMA**

(All) Vocational Guidance has established a set of program standards for the development and evaluation of guidance programs in the area vo-tech schools. Technical assistance is provided to each area vo-tech school through two statewide inservice conferences, at least one site visit per school, and a series of regional inservice activities each year.

Secondary school counselors are provided the opportunity to participate in the Vocational In-Service Program for counselors. The program provides information about industry trends, vocational training, scheduling students effectively, career planning, and working with handicapped and disadvantaged students in vocational programs. The format consists of three two-day sessions with industry and area school visits as well as content sessions.

The Guidance Division has been involved in a two-year pilot project of the National Career Development Guidelines (NCDG). The project has now been expanded to 10 additional school districts. The districts are currently in the planning and development stages of the process. Guidance, Career Development Services, and the State Occupational Information Coordinating Committee are working cooperatively to implement this project. A reference guide has been developed for schools to show them how the NCDG can work to strengthen the Oklahoma Guidance Model "Building Skills for Tomorrow," which has been developed by the SEA.

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#### **RHODE ISLAND**

The Rhode Island SEA, the Rhode Island Department of Labor, and Workforce 2000 collaborate with and help support the Rhode Island Occupational Information Coordinating Committee (RIOICC). The work of this committee provides all the elements of career guidance mentioned in the survey. RIOICC is an interagency committee among developers and users of labor market information. Its mandate is to provide occupational information for use in program planning, career counseling, and individual career decision making.

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#### **SOUTH CAROLINA**

(All) The Comprehensive Career Guidance Program (K-12) was developed in 1990 and contains sequential, developmental, and competency-based activities. The activities are facilitated by a counselor with support from teachers, parents, business/industry, and administrators. Three curriculum resource guides (K-12) and a Career Development Record have been developed along with the "Picking Your Path" video and teacher's guide for grades 3-5. "Career Guidance Guidelines" were mandated in 1989 by the state legislature. They are the basis for the state initiative.

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#### **SOUTH DAKOTA**

(Job Placement) The state developed a program in cooperation with the Department of Labor whereby each post-secondary Vo Tech Institute has a Job Services representative at each of the four campuses.

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#### **TENNESSEE**

(All) The state has developed and piloted a comprehensive career development program through a grant to the University of Tennessee. The Education Improvement Act of 1991 passed by the state legislature calls for implementation of the 21st Century Plan: Career Awareness curriculum for middle schools; expansion of the Governor's Study Partners peer tutoring to 60 additional

high schools; expansion of the Jobs for Tennessee Graduates school-to-work transition program to 100 additional schools and 3,300 more students; and funding "distance learning" via satellite instruction for additional rural schools.

The SEA is rewriting all vocational education courses that have large components of math, science, and/or communications to produce the same competencies as academic courses.

The SEA is committed to increasing vocational education-industry partnerships. The 21st Century Plan calls for linking needs of local industry with student experience and teacher knowledge. The Plan also calls for cooperative initiatives with higher ed, public TV, and business/industry for research, development, and production of technology programs to be supported primarily by the private sector. Furthermore, the plan directs the SEA to set up a fundraising arm or foundation to collect private gifts for public schools.

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TEXAS	(All H/Career Guidance, Education Requirements, Labor Market Info, Personnel for Counseling - M) New documents include "A Comprehensive Career Development Program for Texas Schools" and "A Career Resource Center Model." The state has a comprehensive vocational/career guidance program, but it is not mandated.
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UTAH	(All) Guidance
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WEST VIRGINIA	West Virginia has implemented a comprehensive professional development training system for teachers, supervisors, counselors, principals, and other personnel within the human services arena related to career decision making, labor market data, employability in the future, and employers' perspectives on workplace skills.
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"Improved Career Decisionmaking," "National Career Guidance Guidelines," "America 2000," and "What Works Requires of Students" have been the primary vehicles to present training strategies and instructional materials to clientele associated with the work skill requirements and the roles of secondary and post-secondary programs in producing a world-class workforce.

The West Virginia SEA has funded three pilot sites in order to test new career guidelines in cooperation with NOICC and SOICC assistance. Other initiatives that help students plan for their future include: (1) a "four-year academic plan," which is collaboratively developed by parents, students, and teachers for students in grades 8 through 12; (2) a statewide "special needs" conference to assist counselors and local vocational administrators with current labor market information and new instructional materials that help promote student decision making; and (3) a joint effort between the West Virginia SEA and the West Virginia Department of Employment Security to provide LEAs with access to the most current job openings via computer linkages.

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VIRGINIA	(Career Guidance) Virginia VIEW provides career information materials through a computerized information service, updated annually. Over 1,500 people per year participate to prepare themselves to deliver information to students in middle/high schools and community colleges. Workshops were conducted to help school divisions develop a plan for implementing an interdisciplinary team approach to improve the delivery of career guidance and counseling, and instruction to students in grades 6-12. These efforts are designed to motivate students to higher achievement levels and promote appropriate career decisions. All school divisions were provided with an opportunity to participate.
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(Labor Market Info) Through "Virginia Occupational Demand, Supply and Wage Information" the Virginia Occupational Information Coordinating Committee provides information on job openings, vocational education enrollments, and occupational supply and demand. This information and technical assistance is available to LEAs throughout the state.

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**WASHINGTON**

(All) The SEA does not have state standards for career guidance and counseling, so quality varies.

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**WISCONSIN**

(Students Analyze, Career Guidance, Education Requirements, Personnel for Counseling) The SEA is involved in the following programs:

The Wisconsin Developmental Guidance Model (WDGM), which is a multi-level preventive system. The WDGM illustrates: developmental learning, personal/social, and career planning needs; students' competencies necessary to meet those needs; possible providers and resources; suggested activities; and levels of resource organization and guidance required. The system is flexible and localities may use it as they wish, depending on local circumstances and resource devotion.

The Wisconsin Career Information System, which is a fee-based consortium for districts, colleges, agencies, and individual schools, "provides a comprehensive array" of student, client, teacher, and counselor materials, resources, computer programs, videotapes, and so on.

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**NORTHERN MAR IS.**

(Career Guidance) Each of the local high schools provides career guidance for all interested students in the school. Previous counseling practices centered around helping students in their quest for higher education, not necessarily in particular careers. However, the recent trend has been to help the majority of students who want to work after high school.

(Labor Market Info) The State Occupational Information Coordinating Council has been instrumental in providing information on careers both locally and nationally. Cooperative and collaborative efforts concerning the preparation of youths for work are being made by LEAs.

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## Employers' Role in Providing Career Guidance

The CCSSO survey also asked the SEAs to describe the employer's role in state efforts to provide comprehensive career guidance (including efforts to train their staff to support career guidance in the schools and workplaces). In much of Western Europe, employers and labor unions play a significant part in the provision of career guidance to the large numbers of students enrolled in apprenticeship programs.

The responses to this question suggest the absence of any "system" of career guidance by employers. Several states mentioned that there were some informal, local efforts but none at the state level. These SEAs included: Arkansas, California, Kansas, North Carolina, Rhode Island, Tennessee, Texas, the Northern Mariana Islands, and the Virgin Islands. Alabama, Massachusetts, Mississippi, Oklahoma, Utah, and West Virginia explained that employers only served as members of advisory committees. New Hampshire responded that Tech Prep grants from the 1990 Perkins Act will address the objective of involving employers in career guidance.

Arizona, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Michigan, Minnesota, Missouri, Nevada, New Jersey, New Mexico, New York, Ohio, South Carolina, South Dakota, Vermont, Virginia, and Wisconsin provided the most substantive responses. These SEAs explained that employers served on advisory committees and provided some additional service. The responses were mixed regarding what type of services but there were no surprises. The services included: adopt-a-school programs, school-business partnerships, guest speakers, internships, "shadowing," mentoring, and career fairs

Three states from this last group -- Florida, Michigan, and Wisconsin -- report involvement in some additional, interesting activities.

**Florida.** Advisory Committees and State Technical Committees -- Some 3,000 program advisory committees exist for school districts and community colleges in the state. They include representatives from business and industry, professional associations, credentialing agencies, and other state agencies. Nine state technical committees exist for each of the nine program service areas. Some of their functions are: helping identify types of occupations and available opportunities; helping identify and verify essential competencies; evaluating instructional materials and program needs; and assisting in the recruitment of professional staff. Some advisory committees have concentrated on integrating basic skills with technical specialty instruction. This was expanded through business and industry to further define basic skills needed for jobs, revise program standards, and provide inservice training for teachers, and through Vocational Student Organization competitive skills events. Their participation seems to have significantly improved the articulation of programs through middle/high/post-secondary school education.

**Michigan.** Employers have helped to develop learning activities, are members of local advisory committees, aid personnel development in-service (e.g., modified career shadowing), helped develop local standards for the new student portfolio, and are serving on a state task force to provide recommendations to the SEA.

**Wisconsin.** The Wisconsin Jobs Council is involved in the school-to-work transition program and the Youth Apprenticeship Program created by recent state legislation and provides for a state coordinating council that includes business representatives. State and local Education for Employment Councils also involve employers and educators in partnerships.

## **VI. INCENTIVES TO SCHOOLS TO IMPROVE EMPLOYMENT READINESS**

The effort to improve student preparation for employment, by definition, requires schools to operate differently -- to provide new instructional content, integrate vocational and academic coursework, emphasize contextual learning, teach in interdisciplinary teams, provide for cooperative learning experiences, encourage experimentation with workplace learning, and so on. There are structural as well as behavioral reasons why schools typically do not incorporate such practices. An important question for those interested in supporting the adoption of elements noted above is "What sort of incentives from the state might best drive such change?"

The CCSSO survey asked if the state provides any incentive systems for LEAs or schools to improve student preparation for employment and post-secondary education (especially two-year technical programs) leading to work. The majority of responses referred to funds available under the Carl Perkins Act Tech Prep grants. A few SEAs (e.g., California, Florida, and Maryland) appear to have tied incentives to schools for improving employment readiness to larger initiatives for school reform. The overwhelming majority of the states made no such claim.

The chart below outlines the responses by the SEAs.

## **Incentives to Schools to Improve Employment Readiness**

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### **ALABAMA**

Students are provided Student Apprenticeship aid in the form of training on the job and financial support while receiving credit on a journeyman's level. This program is funded by the SEA. Screened, second-year vocational education students are eligible and are paid as registered apprentices. The state reimburses businesses at 50 percent of wages/cost up to \$2.25 an hour.

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### **ARKANSAS**

Arkansas is currently taking requests for proposals for Tech Prep programs from secondary and post-secondary institutions. Each grant given will provide approximately \$45,000 for the development and implementation of a sequential program of study that will lead to work or further education in a junior college/ four-year college/university.

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### **CALIFORNIA**

The High School Investment Program provides funds for 30 school sites to restructure their secondary programs for this purpose. Integration of academic and vocational education is required. "2+2" projects provide development funds for secondary school-community college connections. Work/ability programs are state-funded to improve and expand programs for students with disabilities in secondary schools and community colleges. Finally, the state provides \$15,000 to schools with Partnership Academies. Matching grants are required from the LEA and the business community. The Academy is a school-within-a-school and requires a working relationship between schools and employers. A mentor program and work experience are components of the academy program.

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### **COLORADO**

The state offers support by recognizing and promoting good examples, but does not offer monetary support. The state encourages rather than requires a high school transcript. Either the Colorado SEA or the Colorado Community College and Occupational Education System encourages schools to do these things locally (e.g., through portfolio ideas, business education councils, accountability process, or career information activities).

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### **CONNECTICUT**

Tech Prep grants (2+2) are issued to secondary and post-secondary institutions to create a link from school to work.

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### **DELAWARE**

The state has formed the Delaware Technical Preparation Consortium to foster articulation agreements and Tech Prep curricula. Under the Delaware funding system, approved vocational-technical secondary programs are funded at a higher rate than academic secondary programs.

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### **FLORIDA**

The SEA identifies exemplary programs -- those with "high success rates" -- and showcases these programs to other districts.

The Gold Seal program can be used to inform potential employers about academic and vocational preparation. Students who receive the Gold Seal on their diploma are eligible to apply for the Scholarship Program. The annual award is \$2,000 maximum per recipient.

Florida Compact: The Hillsborough Compact gives financial rewards to graduates with skills; a maximum of \$500 for a two-year effort is given. Okaloosa/Flagler Compacts - Hours of work or an internship are dependent upon academic performance/attendance. Polk Compact - Work in industry is conditional upon employer/mentor reviews.

A major revision of all employability skills materials for grades 9-Adult will be completed in fall 1992. Tech Prep grants have been distributed to 11 community college, vocational centers, and district consortia. Within high schools, applied academics increase course rigor and relevancy to the workplace. Integration of academic and vocational instruction in grades 6-Adult is facilitated by cross-curricula teams, integrated units, and career academics (school-within-a-school). Charts (Career MAPS) listing individual occupational competencies in various program areas are certified upon mastery by instructors to reflect student progress and document completion for potential employers.

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**GEORGIA**

Tech Prep grants (2+2) are provided to develop articulation agreements between secondary and post-secondary institutions.

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**IDAHO**

The Idaho Committee Guidance Project annually selects 12 new districts to which it grants technical assistance for comprehensive guidance. A \$1,000 incentive is given per district for guidance materials, and graduate level credit is offered to participants. Tech prep grants are available to develop articulation between the secondary and post-secondary institutions. Occupational profiles are being developed for specific program areas.

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**ILLINOIS**

Program improvement efforts in targeted sites are funded through the Carl Perkins Act. These efforts include integrating academic and vocational education, equipment, curriculum, and staff development acquisition. Plans to expand incentives for students are underway. Tech Prep is designed to prepare students for post-secondary education.

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**INDIANA**

State legislation currently calls for the Tech Prep program to be available to all Indiana high school students by the 1994-95 school year. As an incentive to encourage schools to plan and implement Tech Prep programs, planning funds (state and federal funds) have been made available to LEAs/post-secondary institutions. State-sponsored staff training is also available to the planning grant recipients.

Also, as an incentive, Perkins funds have been provided to each area vocational district for the purchase of applied academic curriculum materials. Recipients of these grants are required to send staff to state-sponsored training sessions.

A skills guarantee for program completers is being considered for statewide implementation.

The standards and measures established as required by the Perkins Act will also be an incentive.

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**IOWA**

K-12 developmental guidance programs deal with the indicators people need in order to succeed on the job. The three components of LEAs' guidance program development are mandated by SEA standards. The components are personal development, educational development, and career development.

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**KANSAS**

There is financial incentive in the form of general state aid to secondary schools. Area Vocational-Technical Schools also receive formula funding for the same student who attends an AVTS and LEA high school.



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**KENTUCKY**

Tech Prep has been initiated within Kentucky through the approval of 21 projects providing funds available under the Carl Perkins Act. The 21 sites will be developing plans to implement Tech Prep programs to provide an articulated curriculum that will lead to an associate degree or vocational diploma.

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**MAINE**

The Carl Perkins Act provides the state approximately \$338,000 for development of Tech Prep/Work Prep. The State Consortia Board has issued a request for proposals for 1991-1992 in these areas. In July 1989 the SEA and technical college trustees began dialogue on this area of vocational education, largely on a regional basis.

The SEA and the Department of Labor collaborate on a Jobs for America's Graduates program through eight sites. The Governor hopes to broaden this initiative and add a component for 16 year olds -- Jobs for the Future -- to develop school-to-work transitions.

Furthermore, Lewiston High School and the Chamber of Commerce began cooperation three years ago to increase student awareness of the link between employment and "excellence in school." The negative effect on school success for students working more than 20 hours per week were recognized. Work Advantage became a cooperative endeavor between the Maine Secondary School Principals' Association, the Development Foundation, and the Maine Chamber of Commerce and Industry.

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**MARYLAND**

As part of the Maryland School Performance Program (MSPP), schools will be eligible to receive challenge grants to improve student preparation to achieve the proposed mission of the public high school: to graduate students prepared for post-secondary education, employment, or both. Tech Prep offers grants to consortia of school systems and post-secondary institutions for the express purpose of improving student preparation for post-secondary technical programs and employment.

Grants are available to serve teen parents, and disadvantaged youth and to encourage sex equity efforts.

If approved, the proposed high school graduation requirements would allow LEAs to define "credit" and explore alternative routes to graduation. A task force will be appointed by the State Board of Education to begin developing outcome-based graduation requirements.

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**MASSACHUSETTS**

To maintain Chapter 74 approval LEAs must achieve and establish minimum placement rates for completers.

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**MICHIGAN**

The SEA has supported business education partnerships, local advisory committees, and inservices for communication and understanding. Also, an occupational information service has been funded for counseling and decision making. The SEA cooperates with the occupational information committee to train counselors in the use of labor market information. The SEA publishes a career tabloid with the Department of Labor and the Occupational Information Coordinating Committee.

MISSOURI	The SEA has an incentive funding system for secondary vocational education at area vocational schools. It incorporates enrollment, labor market supply/demand, and placement data for the funding formula. The SEA plans to expand the system to all vocational education preparatory programs as funds become available.
NEBRASKA	None reported.
NEVADA	A "scholarship" is currently being developed for 23 of the state's best occupational education students (\$2,000 toward community college or occupational education program).
NEW HAMPSHIRE	Beyond comprehensive guidance, Cooperative Education is one mechanism used by schools to increase employment opportunities and school success. In addition, annual Business and Industry Partnership Conferences held in various regions throughout the state offer schools and businesses suggestions on how to increase cooperative ventures and improve education and employment opportunity.
NEW MEXICO	New Mexico is currently in the process of revising its Education Standards for New Mexico Schools. New Mexico conducts workshops on Coordinating Vocational & Academic Education. Teams of Academic & Vocational teachers meet, visit employment sites, identify workplace expectations, and then design joint lesson plans to address employability needs. The New Mexico State Board of Education has adopted an employability model. The focus of the model is the recognition that employability is an educational (K-Life) issue and not solely the purview of vocational education. New Mexico has adopted and is integrating the Applied Basic courses developed by AIT and CORD and is developing related Tech Prep programs. New Mexico actively encourages the participation of the business community in the 88 public school districts in areas such as: monetary contributions, participation in advisory committees, guest presenters, and curriculum development. State Board of Education Regulations mandate the establishment of business advisory committees at the district and program levels to assist the district in assessing community workforce needs, developing relevant curricula, and securing other resources.
NEW YORK	Carl Perkins Federal money is used to fund Tech Prep projects and other local efforts to better prepare students. No state funds are specifically provided to encourage modification in instruction; however, schools are invited to develop innovative programs through the Excellence and Accountability Program.
NORTH CAROLINA	A number of activities are under consideration pursuant to the Workforce Preparedness Commission Report. Also, Senate Bill 2 provides for increased local flexibility. And, a 20-point plan which deals with this need has been advanced by the State Superintendent. Special grants are provided for Tech Prep and other designated special programs.
NORTH DAKOTA	Several schools have program articulation agreements with two-year colleges. The new Tech Prep articulation program will enhance this, as it will be one statewide consortium.

OHIO	<p>Current "Occupational Competency Analysis Profiles" are made available free to each local vocational education program for purposes of reviewing and updating local courses of study in accordance with business/industry standards.</p> <p>Additionally, 15 Tech Prep grants of up to \$300,000 each will be awarded annually to eligible consortia that assure the implementation of an employer-validated, competency-based Tech Prep curriculum.</p>
OKLAHOMA	<p>Six Oklahoma Education partnerships have been awarded nearly \$1 million in Tech Prep program grants. Each of these consortia consists of an area vo-tech school, a community college, and local school districts. These programs will build a bridge between secondary and post-secondary education by encouraging high school students to take organized, sequential courses of study to prepare for further study at an institution of higher learning, including area vo-tech schools, community colleges, and four-year universities.</p>
RHODE ISLAND	<p>In Rhode Island, the Boy Scouts of America has provided career guidance programs to school systems in the "Explorer Program" through the use of guest speakers. (For example, an engineer would visit schools in "Career Day" to explain the career of engineering.) In addition, Rhode Island schools have had the opportunity to collaborate with Junior Achievement in order to provide career guidance to students through guest speakers, internships, and guided tours of business and industry.</p>
SOUTH DAKOTA	<p>The state provides "significant" financial incentives to schools conducting occupational post-secondary vocational education programs.</p>
TENNESSEE	<p>Technical and community colleges have joined with local high school vocational education programs in the 2+2 concept to provide employment preparation and post-secondary vocational education.</p>
TEXAS	<p>Vocational education courses receive weighted funding and are designed to improve student preparation.</p>
UTAH	<p>Efforts include the Vocational Excellence and Vocational Scholarship.</p> <p>Custom Fit: The legislature has appropriated \$2 million to provide short-term, intensive training for new and expanding businesses. High school students can participate in this program to prepare them for employment.</p>
VERMONT	<p>The SEA offers incentive grants for school restructuring. Two technical centers have received such grants. For the past two years, budget shortfalls have forced discontinuation of performance-based grants to technical centers.</p>

<b>VIRGINIA</b>	Planning grants have been provided to local school systems to address six intervention areas used at pilot sites: (1) developing programs of study, (2) counseling students, (3) setting higher expectations, (4) offering applied academic courses, (5) assessing student needs, and (6) relating student needs to occupational needs in the future.
<b>WASHINGTON</b>	Federal vocational education funding is limited.
<b>WEST VIRGINIA</b>	The SEA recognizes "exemplary programs" and distributes information about them. Also, incentive grants are distributed to vocational schools to assist in their efforts to meet national accreditation standards. Technical assistance is provided to the LEAs in order to encourage funds outside of the department. Three additional additional ongoing incentive mechanisms relate to: (1) small grants to institute-applied instruction; (2) mini-grants to teachers to start-up entrepreneurial project; and (3) funds to pilot demonstration projects.
<b>WISCONSIN</b>	This has been done primarily through the Carl Perkins Act and as a component recently passed in school-to-work transition legislation.
<b>D.C.</b>	A 2+2 Tech Prep committee has been established to develop articulation agreements with area post-secondary institutions. Possible incentives include awarding college credits for courses taken at the high school level.
<b>NORTHERN MAR IS.</b>	This is currently being done at the two-year college level, however, current Tech Prep agreements are heading in that direction for secondary school students.
<b>PUERTO RICO</b>	As part of Cooperative Ed, vocational students receive an economic incentive during workplace practice experiences (in industries, banks, and stores).
<b>VIRGIN ISLANDS</b>	The SEA encourages programs such as computer literacy and typewriting.

## Additional Incentives to Improve Student Readiness for Employment and Increase School Success

In order to understand further the kinds of initiatives that states are supporting to help both schools and employers develop policies and practices to improve student employment readiness and increase school success, CCSSO identified several possible initiatives and asked the SEAs if they were involved in such activities. The incentives included:

- *Tying continued employment to satisfactory performance in school*
- *Requiring a high school transcript with employment applications*
- *Rewarding those students who demonstrate academic and technology achievement in school with high pay, scholarships, guaranteed jobs, and training or other incentives*
- *Promoting employees' participation in mentoring, tutoring, or other public school programs*
- *Assisting public schools in providing career information, guidance, and counseling to all students*

In most instances the SEAs simply indicated whether or not they provided incentives in these areas and offered few details about the nature, extent, or effectiveness of the services. The SEAs of Arkansas, Indiana, Maryland, and Ohio provided some more extensive details about their use of incentives.

**Arkansas.** (Rewarding Students, Employee Participation, Assisting Schools) The "Arkansas Youth Apprenticeship Program" provides two years of apprenticeship training on the senior high/junior college level. Secondary vocational counselors and Tech Prep Coordinators in 13 cooperatives throughout the state assist the majority of Arkansas's school districts in providing career information, guidance, and counseling to all students beginning at the 8th grade level and continuing through the senior high level. Arkansas requires enrollment in school for a student to obtain/keep a driver's license. In 1994 students will have to maintain a "C" average to keep a driver's license. Students who graduate with a "C" average or better and meet family income guidelines are guaranteed a \$1,000 scholarship for post-secondary education. Career Orientation is a required course.

**Indiana.** (Tying Continued Employment to School Performance, Requiring a High School Transcript) A state law passed in the 1990 legislative session allows students' work permits to be revoked when their grade point averages decline significantly. "Education First" is a program sponsored by the Indiana Restaurant Association that plans to involve a significant percentage of Indiana's 10,000 restaurants in an effort to encourage academic success, avert problems, and keep teenagers in school by having restaurant managers show their concern for school work by contacting workers' parents and school counselors and inviting them to call if students' jobs seem to be hurting their grades.



**Maryland.** (Rewarding Students, Promoting Employees) "Passport to the Future" is a state initiative that links students with businesses. Students who graduate with a "C" average, achieve 95 percent attendance, and participate in an employment readiness program, receive a Passport. Participating employers agree to give passport holders special hiring consideration. "Maryland's Tomorrow," the state's drop-out prevention program, provides employers who serve as mentors and tutors to students in public schools. Job shadowing and work experience opportunities are provided to students in local businesses. Businesses sponsor seminars and are involved in designing employment readiness courses. In cooperation with the Department of Economic and Employment Development, the Department of Education conducts a school-to-work apprenticeship program for high school students in several LEAs. Maryland Manufacturing Association and the Foundation for Manufacturing Excellence worked with Baltimore City Schools to provide information on manufacturing careers to guidance counselors and principals.

The 10 goals and 15 strategies that encompass the "Maryland 2000 -- Schools for Success" initiative are intended to improve schools and promote student success. The SEA provides leadership, expertise, and technical assistance to coordinate school improvement efforts with LEAs. Annual report cards are prepared for schools, which provide data to help guide school improvement efforts.

**Ohio.** (Tying Continued Employment to School Performance, Requiring a Transcript, Rewarding Students, Employee Participation, Assisting Schools) "Ohio's Future at Work: Action Plan for the Acceleration of the Modernization of Vocational Education in Ohio" provides that completers of vocational programs (secondary and adult) will have an individual career passport that enables them to pursue work and/or lifelong learning. The passport would include items such as documentation of work and community experiences; a student profile establishing performances or competency levels, student achievement levels, leadership experiences, and attendance records; an outline of continuing education needs; and career credentialing. The passport is designed to help employers determine students' employability. Vocational students who have demonstrated academic and vocational achievement, regular attendance, and a required grade point average are given the chance to be involved in an early placement program in January of their junior and senior years. The early placement is a real job in the real world. It provides students with work experience prior to graduation. The Ohio Career Information System (OCIS) provides career information via a computerized network to over 1,000 end terminals serving 70 percent of Ohio's 7th through 12th grade and adult students. Along with this system, the Ohio Bureau of Employment Service provides Ohio's labor market information through companion computer files.

The chart below tallies the responses by all the SEAs responding to this question and shows which of the seven incentives identified by CCSSO they reported providing. (Note that Colorado explained that it cannot require a transcript but that it "encourages" their use by LEAs). The headings correspond to the incentives listed above.

**SEA Support to Efforts by Schools and Employers to Develop Policies and Practices to Improve Student Readiness and Increase School Success.**

SEA	Tying Employment	Requiring a Transcript	Rewarding Students	Employee Participation	Assisting Schools
AL			✓	✓	
AZ				✓	✓
AR			✓	✓	✓
CA				✓	✓
CO		✓		✓	✓
CT					
DC			✓		✓
DE				✓	✓
FL	✓		✓	✓	✓
GA				✓	✓
HI	✓	✓	✓		
ID			✓	✓	✓
IL			✓		
IN	✓	✓			
IA					✓
KS					
KY				✓	✓
LA			✓	✓	✓
ME	✓	✓	✓	✓	✓
MD			✓	✓	
MA	✓				✓
MI				✓	✓
MN					
MS				✓	✓

SEA	Tying Employment	Requiring a Transcript	Rewarding Students	Employee Participation	Assisting Schools
MO					✓
NE	✓	✓	✓	✓	✓
NV	✓	✓	✓	✓	✓
NH					✓
NJ	✓				✓
NM				✓	✓
NY			✓	✓	✓
NC	✓			✓	
ND	✓				
NMI			✓		✓
OH	✓	✓	✓	✓	✓
OK					✓
PR		✓	✓	✓	
RI					
SC	✓	✓	✓	✓	✓
SD				✓	✓
TN					
TX				✓	✓
UT			✓		
VT		✓			
VI	✓				
VA				✓	✓
WA					
WV	✓			✓	
WI	✓		✓		

SEA	Tying Employment	Requiring a Transcript	Rewarding Students	Employee Participation	Assisting Schools
WY					



## **VII. STAFF DEVELOPMENT FOR IMPROVED PREPARATION FOR EMPLOYMENT**

Teachers play a pivotal role in the preparation of students for adulthood and employment. Instructional content and teaching methods need to support the development of critical thinking and creative reasoning skills, as well as social practices such as cooperative problem solving and respect for diversity. Teachers must bring an impressive array of knowledge, skills, and attitudes to the classroom in order to be successful in these endeavors. The training and professional development activities to develop and support these skills are critically important. The pre-service and inservice training of educators to support student preparation for employment must be a central focus of state and local education agencies. Without such a focus, any other effort to improve the quality of instruction regarding employment readiness will not be entirely successful. Teachers, administrators and counselors need additional training in order to practice successfully a kind of instruction that many of them may have never experienced.

In its 1990 policy statement on the improvement of teaching of thinking **Restructuring Learning for All Students**, the CCSSO pointed out the need to provide "significant and appropriate professional development opportunities." While the theme of that policy statement was on higher-order and critical thinking skills, the issue of student preparation for adulthood, employment, and lifelong learning is strongly related.

In that policy statement the Council underscored the critical importance of high quality professional development activities for educators and called for fundamental changes in current practice. The Council wrote, "Success at teaching for higher-order learning [and success at teaching for employment preparation] requires fundamental changes in content, method, organization, and relations within the classroom and supportive changes throughout the school system . . . states should provide professional development that is of sufficient quality (e.g., provides models of successful instruction for all students) and length (i.e., is available to teachers, administrators, and staff of state and local education agencies) to ensure effective preparation, the development of local capacity, and systematic change. States should also influence teacher pre-service education to include similar preparation."

The Council's survey inquired about the efforts in the states to support professional development and special training for educators to help them improve student preparation for employment. Several innovative activities came to light in the responses. Most states explained that they organize professional development conferences and hold workshops on applied academics and Tech Prep (several SEAs pointed to the use of funding for the latter under the Carl Perkins Act).

A few states support visits by vocational instructors to industrial and business worksites for training in current business practices, the organization of work, and recent advances in technology. One state supports summer internships for instructors in businesses so that teachers can better understand the requirements of the current workplace. Another state provides grants of approximately \$1,000 to teachers who wish to improve their technical skills. Indiana has established a Teacher Summer Employment Tax Credit Program under state code through which employers can claim a credit against their taxes for employing eligible teachers during the summer. Another SEA noted that a teacher training institute in their state and several area secondary schools have collaborated to develop a program on teaching critical thinking skills in vocational education courses and related professional development.

Ohio described a program for all professional staff in vocational education in the state. Each staff member must prepare an Individual Professional Development Plan that identifies major competencies and points to further training. Five regional Professional Development Centers in Ohio offer courses for vocational educators.

The chart below details the Ohio program as well as all of the responses from the other SEAs. (Few states identified efforts to co-train academic and vocational educators to support development for adulthood and preparation for employment for all students.)

## Staff Development for Improved Preparation for Employment

ALABAMA	Continuous upgrading is accomplished through industry-based activities that provide teacher training for helping students acquire and maintain a job. A professional development conference is held annually for all teachers in the state.
ARKANSAS	The Arkansas SEA, Vocational and Technical Education Division, is sponsoring a number of workshops for academic and vocational teachers on the implementation of applied academics and the Tech Prep curriculum. Also, these teachers are encouraged to attend the training provided by the Southern Regional Education Board on the integration of academic and vocational education.
CALIFORNIA	Professional development activities are provided by subject matter units that conduct workshops, conferences on curriculum development, and other activities. Such activities are also provided by other units that reach across all subject matters (example: programs dealing with LEAP).
COLORADO	Contact Colorado Community College and Occupational Education System.
CONNECTICUT	Workshops are planned for teachers in each vocational area by state consultants.
D.C.	The SEA encourages and fully supports vocational educators' participation in return-to-industry programs. Additionally, the SEA identifies and plans professional development activities that address student preparation for employment. These activities are offered during the summer and evenings.
DELAWARE	The Department of Public Instruction and the Delaware Advisory Council on Vocational Education provide bi-monthly staff development for Career Guidance Counselors. Supervisory staff from the Department of Public Instruction periodically conduct inservice for content teachers.
FLORIDA	<p>Workshops, teleconferences, technical assistance, and electronic OfficeVision are supported by the state. Staff development is held on a regular basis either one-on-one with districts, through regional workshops or through statewide meetings.</p> <p>1. Vocational inservice and the Business Exchange Program are jointly funded by state and federal revenue, and are designed to ensure contemporary teaching skills for vocational educators in a changing job market. Current teachers return to industry for a brief time and are introduced to new equipment, materials, and techniques. The program is completing its fifth year and receives positive evaluations from participating teachers. Twenty-two counties (or 33 percent) and 14 community colleges (or 50 percent) participated in the 1989-1990 program. Three hundred and sixty-eight teachers were trained at 115 sites. Three hundred and twenty-three teachers represented high schools, 45 represented community colleges. Teachers spent up to 79 days working in an industry, with some working at as many as four different businesses during their internships. A review of evaluations shows that knowledge gained was used widely for:</p>

curriculum improvement, new technology, and improved private industry relationships.

2. Technical Updating Conferences and Workshops -- The major activity is an annual workshop for teachers and administrators. During the annual Vocational and Adult Educators Conference, the Division of Vocational, Adult, and Community Education provided more than 150 workshop sessions and 170 educational exhibits for 1,800 instructional, administrative, and counseling personnel. During the 1990-91 project year over 50 corporations and associations contributed an estimated \$150,000 in technical assistance (personnel and equipment) in support of the 30 technical updating workshops for Industrial Education teachers. Four hundred and forty-seven teachers attended the specialized workshops.

3. Florida Compact - Teacher Quest is statutorily authorized to pay public and private sector agencies which employ K-12 teachers for mathematics, science, and computer ed 50 percent of the teachers' salaries during the summer, (e.g., Polk County teachers were employed by Lakeland General Hospital to work on state-of-the-art lab procedures for use in classroom instruction). Teams of administrators, counselors, and academic and vocational educators (grades K-University) participate in Blueprint Staff Development activities. During 1990-91, over 3,500 educators were trained directly by the SEA in Blueprint implementation strategies. Pilot Blueprint schools deliver schoolwide and feeder-pattern staff development activities to build integration, articulation, and school improvement capacity.

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#### GEORGIA

Over 100 statewide staff development activities are planned for FY 1992. Induction activities for new teachers and skills development and updating for current teachers are included. Some are specifically designed to assist educators with employment preparation skills: Career Center Project Orientation; Group Work Activities for Adolescents; Group Work Activities Follow-Up; Developing Youth Leadership Skills; Career Connection Workshop and Internship (for counselors).

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#### HAWAII

The SEA provides occupational skills and teaching methodology workshops.

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#### IDAHO

The state Division of Vocational Education has established a Professional Development Advisory Council for vocational educators. Inservice and pre-service emphasis will continue to be on employability skills.

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#### ILLINOIS

Professional development activities may be funded through state and federal funds for vocational education. In addition, the state appropriates approximately \$1.5 million for the Vocational Instruction Practicum, which supports instructor summer internships in business and industry.

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#### INDIANA

The SEA, with Carl Perkins Act resources and additional financial assistance from the Indiana Corporation for Science and Technology, has funded four pilot workplace internship programs in the state. These programs are designed to improve secondary classroom instruction and student services by exposing secondary vocational-technical educators to new technologies and procedures used in the workplace, which can be incorporated into existing course content; and exposing secondary counselors and administrators to potential careers, job requirements, and expectations of employers, which can be communicated to students. A handbook will result from these pilot projects. It will contain a systematic process and guidelines for establishing, implementing, and evaluating internships and training experiences for statewide adoption and

adaptation. Besides these pilot programs, a number of Indiana communities have begun workplace internship programs with local resources.

A partnership between a teacher education institution and several local secondary schools involves a vocational education critical thinking skills project. It is anticipated that the materials and the trained staff from this pilot effort will be used in the next few years to expand this initiative.

A variety of conferences and workshops have been offered by the SEA. Topics covered include: special education and vocational ed, competency-based curriculum, integration of academic-vocational education, applied academic curricula, and Tech Prep. Some of these training efforts target specific groups like counselors or administrators. During the spring 1991, two video teleconferences were sponsored in Indiana, one by the SEA and the other by the Department of Workforce Development. Both teleconferences focused on Indiana's changing workplace needs and innovative approaches for preparing people for the new workplace.

A vocational leadership academy has been planned and will be implemented during the 1991-92 school year. This academy will address all levels of leadership, including administrators, counselors, and teachers at the secondary and post-secondary levels, as well as vocational teacher educators and other employment and training personnel.

A Teacher Summer Employment Tax Credit Program has been established under Indiana code and employers can claim a credit against their income tax liabilities for employing eligible teachers in qualified positions during summer school recess. The credit for each eligible teacher employed in a qualified position is limited to the lesser of: 50 percent of the amount of compensation paid to the eligible teacher by the employer during the summer school recess, or \$2,500.00. An eligible teacher is one who is licensed to teach in a "shortage area" and is employed during the regular school term by a public school corporation. Shortage areas include math, science, and others designated by the Advisory Committee on Teacher Training and Licensing. A "qualified position" is one which is relevant to the teacher's academic training in the shortage area and uses skills and expertise developed as a result of the teacher's academic training and/or teaching experience.

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#### KANSAS

Two statewide conferences are held annually on integrating competency-based instruction into the classroom involving high school, Area Vocational-Technical Schools, and community college staffs. Also, about 20 schools request on-site service on an annual basis.

The SEA provides statewide or regional workshops annually. (One 3-day statewide summer conference; two regional fall and spring workshops, three to four hours in length.)

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#### KENTUCKY

A statewide Tech Prep Conference was conducted to provide orientation information for educators representing local school districts, state vocational-technical schools, community colleges, and leaders from the SEA and Department of Adult and Technical Education. Regional workshops have been conducted to discuss implementation strategies and the SEA has developed a strategic plan to improve the transition from school to work, post-secondary education, or the military. The staff members in Secondary Vocational Education have conducted inservice workshops for individual secondary schools for improving teacher skills in developing academic and vocational integrated curriculums.

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#### LOUISIANA

Summer inservice programs for vocational teachers include topics related to student preparation for employment.



MAINE	State initiatives provide for professional development, particularly in Future Builders, Maine Guide, Planning to Realize Educational Potential, and the ABC's of the World of Work. Furthermore, the Bureau of Adult and Secondary Vocational Education created a research project with the University of Maine at Orono entitled "From Craftsman to Teacher." An outgrowth was the development of a three-phase approach to inservice training: understanding students' needs, technical information, and developing instructional strategies.
MARYLAND	Tech Prep under the Carl Perkins Act requires staff development activities for teachers and counselors. Instructional frameworks will be piloted in four regional school-based school improvement centers. The instructional framework is a technology-based resource that provides educators, especially classroom teachers, direct access to current research, programs, and assessment models related to effective teaching practices.
MASSACHUSETTS	The Division of Occupational Education has two pre-service and inservice training projects for new vocational technical teachers and administrators. Professional improvement workshops have been conducted for teachers in the following areas: Cosmetology, Machine Shop, Electricity, and Electronics. The Annual Professional Development Conference focuses on updating teacher skills to ensure adequate student preparation for changing technological employment.
MICHIGAN	The SEA provides a number of inservice sessions, from awareness to in-depth training. Resource materials and requisite training are provided statewide for administrators, teachers, counselors, equity coordinators, and paraprofessionals.
MINNESOTA	The SEA is involved in providing training. The focus is on how and what to teach.
MISSISSIPPI	Pre-service, internships, and staff development for teachers are offered annually.
MISSOURI	The SEA continually supports statewide professional development. Inservice and workshops are conducted on a statewide, regional, and local basis using department staff and others (college/university staff, job service staff).
NEBRASKA	Various training sessions and conferences/seminars are held throughout the state.
NEVADA	Under the 1984 Carl Perkins Act the state earmarked funds for Professional Development Centers that serve all occupational educators. Under the 1990 Perkins Act, the state may not have the resources to continue this effort.

<b>NEW HAMPSHIRE</b>	The state sponsors a week-long annual workshop for teachers on ways to improve instruction in vocational-technical ed. At the state level, each vocational program area specialist offers workshops and other resources designed to improve curriculum, instruction, and career information in their content areas.
<b>NEW JERSEY</b>	The SEA has: coordinated and co-sponsored a statewide comprehensive career development program conference; provided regional training workshops for the 30 urban special needs (QEA) districts; given presentations at LEA inservice training sessions upon request; presented Improved Career Decision Making (ICDM) workshops sponsored by the New Jersey OICC; and co-sponsored Mid-Atlantic Regional Career Development conferences.
<b>NEW MEXICO</b>	The SEA conducts several workshops to keep instructors updated on new and emerging curricula and methodologies in electronics, gerontology, applied basics, and integrating academics into vocational education courses.
<b>NEW YORK</b>	Using Carl Perkins Act dollars, the state has conducted an extensive staff development and technical assistance program for all teachers of occupational education. For six years, the New York State Legislature has provided funds for teachers in math, science, and occupational education to gain practical experience in changes in technology in industrial and service work settings during the summer. This experience has provided teachers with an opportunity to update their own knowledge and integrate this in their teaching. The program was suspended in 1991 for fiscal reasons.
<b>NORTH CAROLINA</b>	The Division of Vocational Education Services conducts staff development annually. Special sessions are held for principals and their assistants. The focus is on academic and vocational competencies necessary for students. Special training is also provided for vocational teacher trainers.
<b>NORTH DAKOTA</b>	Technical upgrade grants, not to exceed \$1,000 each, are given to vocational teachers who wish to improve specific technical skills. High-tech inservice is conducted to improve teacher skills in computer-assisted processes (drafting, manufacturing, numerical controls, etc.). Several inservice activities to help teachers in computer applications have been initiated (desktop publishing, database management, spreadsheets, word processing, etc.). The SEA sponsors workshops to help teachers utilize applied curricula either as stand-alone or integrated courses.
<b>NORTHERN MARIANA IS.</b>	The SEA's current policy is to provide skills training through institutes for all teachers annually. The SEA attempts to provide training based on what teachers say their needs are. Current plans call for training of teachers in industry so they know what will be expected of their students.

OHIO	<p>One of the major imperatives of "Ohio's Future at Work" is that all vocational educators will be "current and competent." Each professional in vocational education, including instructors, administrators, student services personnel, and Ohio Department of Education staff, must develop an Individual Professional Development Plan (IPDP). The plan is based on the individual's needs as determined by societal, technological, and educational changes. Major competencies of the plan include linking with business, industry, labor, community, and governmental agencies. The major components of the IPDP are planning, developing, and evaluating programs; managing programs; and enhancing the profession. The accomplishment of the plan demonstrates the educator's commitment to providing students with "the best preparation for employment."</p> <p>Once an educator's professional development needs have been identified, they may choose to enroll in courses at one of five regional Professional Development Centers for vocational educators. These centers provide pre-service programs for non-degreed teachers seeking certification, and inservice for certified teachers dealing with technical and pedagogical upgrading as they relate to preparation for employment.</p> <p>Several other networks provide professional development for guidance, career education and job placement personnel. These networks provide professionals with information and resources to assist students in gaining career information and educational planning.</p>
OKLAHOMA	<p>Basic Skills training will be continued in workshops held throughout the state. These workshops will focus on the need for a unified effort between academic and vocational teachers, the involvements and changing needs of industry, U.S. demographics, international trade, implications for curriculum, learning styles, bridging the gap between academic and vocational education, workplace basics, and integrating academics into the vocational curriculum delivery system.</p> <p>Professional Improvement of Vocational/Occupational Teachers is a program designed to promote leadership and professional development for Oklahoma vocational educators. The participants attend five weekend workshops during the school year. The workshops focus on new educational research on effective schooling, curriculum alignment, recordkeeping, inventive teaching techniques, grading patterns, classroom discipline, and teacher training. After completing the program, participants are qualified to conduct in staff development workshops in their local systems.</p>
PENNSYLVANIA	<p>Federal and state funds are used at three universities having approved teacher preparation programs to conduct professional development activities for vocational educators and counselors.</p>
PUERTO RICO	<p>The SEA has a plan for professional development aimed at upgrading the competencies of vocational teachers according to job market needs and necessary occupational competencies.</p>
RHODE ISLAND	<p>Funds available under the Carl Perkins Act will be used to support professional develop activities.</p>
SOUTH CAROLINA	<p>Special training institutes are provided in cooperation with colleges and universities to prepare academic teachers to utilize workplace applications in content instruction. Courses in applied academics have been developed. A graduate level course -- Educators in Industry -- is being</p>

offered to all educators. The course addresses academic and vocational skills and work readiness. Annual specialized technical workshops and seminars are provided by business and industry for vocational instructors.

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<b>SOUTH DAKOTA</b>	The state supports and coordinates numerous workshops for teachers related to workplace readiness.
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<b>TENNESSEE</b>	The SEA sponsors an annual summer conference for about 3,000 educators. The SREB Vocational Consortium provides staff development conferences for pilot sites. Periodic staff development is conducted for applied academics teachers; one each year focuses on employment activities.
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<b>TEXAS</b>	All aspects of industry are covered. Staff members participate in regional and state inservice training integrating workplace basics into both academic and vocational education.
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<b>UTAH</b>	Vocational inservice and technical assistance are provided continually throughout the year in all program areas. Each year a three- to five-day Vocational Conference is held where 1,800-2,000 vocational teachers, counselors, and administrators receive inservice training in their particular vocational areas. A mid-winter one-day inservice is held for program specialists.
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<b>VERMONT</b>	The SEA sponsors a summer workshop in Applied Academics.
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<b>VIRGIN ISLANDS</b>	During the summer of 1991 the Vocational-Technical and Adult Education project invited vocational educators to participate in a variety of training fields: Automotive, Electronics, Home Economics, Business Education, Computer Instruction, and a course in Analysis of Vocational-Technical Education.
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<b>VIRGINIA</b>	Staff development programs are being provided so that each school division during the next three years will offer vocational instructors additional training to help them integrate academic and vocational education. Initiatives may include: using computer technology, developing critical thinking and problem-solving skills, and managing and teaching adult programs.
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<b>WASHINGTON</b>	All vocational educators are required to do coursework to maintain vocational certification.
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<b>WEST VIRGINIA</b>	Skill training programs, inservice, staff development, and labor market information workshops are all used.
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<b>WISCONSIN</b>	The SEA is involved in the following efforts: Carl Perkins workshops on Tech Prep and Apprenticeship, PL 94-142 and JTPA 8 percent training sessions, Career Guidance under
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Wisconsin Developmental Guidance model, Education for Employment workshops, participation in ACT "Work Keys" Assessment Development, and Youth Apprenticeship Initiatives under recent state legislation.

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WYOMING

The state sponsors inservice and professional development through meetings, workshops, and such.

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## **VIII. EDUCATION AND BUSINESS EFFORTS TO SUPPORT STUDENT SCHOOL SUCCESS AND EMPLOYMENT PREPARATION**

One option open to SEAs in advancing school and workplace connections is the creation of business incentives. CCSSO asked if states provide any incentives to encourage employers to support the preparation of youth for employment and upgrade the skills of entry-level workers through work-based training or retraining. The survey suggested three general areas of business incentives that states might offer:

- *Financial incentives for training and retraining programs.* Several states identified the Targeted Job Tax Credit (TJTC), as designed by the Jobs Training and Partnership Act (JTPA), as a mechanism to attract business participation.
- *Incentives for worker and student participation in school-to-work transition programs.* Possible initiatives in this area included, but were not limited to, the provision of health care, child care, or insurance waivers for potential participants.
- *Financial incentives or other assistance for educational programs aimed at the current workforce.* SEAs were provided a list of possible state-supported activities including the identification of workers for remedial education, the allowance of or compensation for time off for education, and/or benefits rewards for workers completing education programs.

Many SEAs reported business community initiatives in these areas independent of state direction or noted that programs were under development. But, unfortunately, the activities described in the survey responses were usually limited in scope.

### **A. Financial Incentives for Training**

Few direct financial incentives, tax breaks in particular, were identified by states as current efforts to encourage industry to support work-based training. The Targeted Jobs Tax Credit (TJTC) provision offers tax breaks for vocational transition programs serving disadvantaged workers. Up to 50 percent of JTPA-eligible workers' wages may be subsidized through federal funds. Eight states -- California, Connecticut, District of Columbia, Louisiana, New Mexico, North Carolina, Ohio, and South Dakota -- responded that the TJTC was the only direct financial incentive within the state.

A few SEAs did report that they support training and retraining programs with their own initiatives. Examples include the following:

- **Florida.** Florida offers tax credits to agencies that hire disabled persons through the state's Supportive Services Developmental Disabilities programs. Encouragement and incentives are also given to businesses to train/employ JTPA-eligible workers



through contracts with the state Office of Jobs and Training. The impact of these contracts is unclear in the SEA's survey response.

- **Maine.** Maine provides "adult basic education grants" that support workplace initiatives for employee basic education. Funding levels, average grant statistics, and specific instances/incentives were not reported.
- **Maryland.** More than 100 businesses have received training grants from Maryland's "Partnership for Workforce Quality" project. The state Department of Economic and Employment Development funds up to 50 percent of business training costs.
- **Missouri.** The Missouri SEA, through the Vocational and Adult Education Division, has supported an extensive business/industry "customized" training system, which provides state funding for business and industry firms to assist in training and retraining employees to become more skilled and productive workers.
- **Utah.** Utah's SEA grants financial aid to those participating in its On-the-Job Training Programs. Funds for job placement assistance within these programs is also available.

#### **B. Incentives for Students and Workers**

For the most part states offering incentives/services to business and industry have instituted direct or indirect financial benefits or have provided special services. Only a handful acknowledge the availability of targeted worker benefits to increase training participation. For instance, Florida's SEA described an integrated and comprehensive group of school-to-work transition services, yet only identified time off for training and daycare some businesses provide to single mothers as a tangible worker benefit.

The following are few good examples of state-sponsored programs to aid transition initiatives:

- **Maine.** Maine offers technical assistance to employers for special needs students participating in transition and on-the-job training programs.
- **Michigan.** Michigan's SEA offers funding through early childhood education funds for childcare "latch-key" programs.
- **Ohio.** In a more strategically targeted effort, the SEA in Ohio allows welfare recipients to retain their state-sponsored health benefits for a year after employment and/or entrance into a training program.

- **New Hampshire.** New Hampshire provides "job coaches" to directly assist students with handicapping conditions "until such time as the worker is able to function well on his or her own."

### C. Assistance to Current Workforce

Most states have some form of adult education included in their program for vocational education, frequently as a division of adult education either within or integrated into their Vocational Education Agency. Responses concerning initiatives and incentives for the business sector in these areas were far more common. Programs that can be included in this category may be operated under other state agencies (e.g., the adult literacy programs within Wisconsin's Department of Health and Social Services) and may actually be JTPA-initiated programs. The combination of state-initiated programs and state-administered/federally-funded programs makes it difficult to single out individual and independent state initiatives. Some general outlines can be drawn, however.

For the most part, the worker education programs reported by the SEAs are remedial in nature. Many focus on workplace literacy or "basics." Community college systems also tend to be involved in carrying out the programs. Often, classes take place on their campuses and are taught by their faculty. Some examples of state initiatives in this vein include:

- **Florida.** Florida allows state government employees time off to participate in worker education programs. Grants and scholarships are also available as rewards to students. The state supports workplace literacy programs at community colleges "to ensure that employers have an available pool of prospective employees who possess basic skills needed to perform in entry-level occupations."
- **Illinois.** Illinois' High Impact Training Services program gives grants to LEAs, which in turn give subsidies to businesses for training. The program is only for "businesses and industry expanding or locating in the state." The grant process is year-round and "quick start."
- **Indiana.** Training for Profits and Basic Industry Retraining Grants are given by Indiana's SEA for modernizing industries.
- **Maryland.** Maryland is conducting a demonstration workplace literacy program funded by the U.S.E.D. The SEA, LEAs, and the AFL-CIO provide instruction at the worksite and at union halls for 700 workers in Baltimore and six counties.

- **South Carolina.** In South Carolina, cooperative examples exist (largely on the local level) whereby public school instructors are used in private businesses. Some cooperatives operate "mobile labs" for workplace training.
- **West Virginia.** The SEA, the state Bureau of Employment Programs, and the Governor's Guaranteed Work Force Program offer job training assistance to businesses. Their program focuses on: job creation, expansion of investment, and job retention. Assistance is available through the program for business training initiatives that result in job retention or expansion. About 100 companies were assisted in training over 2,500 workers in 1990.
- **District of Columbia.** The DC SEA maintains a free training and retraining program and "encourages" businesses to allow time off at no cost to the employee for educational purposes. Availability and eligibility requirements were not reported.

It should be noted that several additional incentives systems have been in place in recent years only to be discontinued due to budget necessities (including those in New Jersey and Michigan).

#### **D. Business-Education Partnerships**

One possible mechanism to support student school success and employment readiness is the business-education partnership. At least in theory, partnerships provide a link between the two institutions, which holds potential for activities and instruction that could support employment readiness or point students toward post-secondary education that leads to employment. Too often business-education partnerships have resulted in limited, albeit welcomed, gifts to schools of computers and other materials or loaned staff from businesses. Too rarely have these partnerships resulted in substantive programs for broadening the kind and quality of instruction and learning for the students. Rarely have school-business partnerships served as the basis of deep and rich exchanges by each party -- so that each better understands the needs of the other -- and fundamental improvement of student instruction results.

The Council asked in its survey if there is a business-education partnership in the state that could serve as a model of successful support for improving students' readiness for work or further education (especially two-year technical training) that leads to employment. The chart below provides the responses from the SEAs.

Despite the generalization about the quality of local business-school partnerships above, the survey identified several interesting statewide partnership models that involve sophisticated training for participating students. While many of the respondents reported that partnerships exist in their states, several others (e.g., Florida, Massachusetts, Nebraska, New Hampshire, Tennessee, and Virginia) identified specific arrangements through which special training and work experiences are available, which could serve as model projects.

Michigan is currently developing a system of partnerships. South Carolina's Tech Prep efforts have been identified by the U.S.E.D. as a national model.

## Business-Education Partnerships

### ALABAMA

The Student Apprenticeship Linkage Program in vocational education requires the cooperation of businesses to provide the hands-on environment and supervision, and the schools to provide training plans, supervision, and focused students.

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### ARKANSAS

The Vocational and Technical Education Division joined with the Arkansas Associated General Contractors (AGC) of America to provide trained workers for the construction industry. Using the AGC Vocational Recognition Program for standards, 40 secondary and 10 post-secondary schools with building trades programs have qualified to submit applications; 9 have currently been recommended for approval. Metropolitan Vocational Center, the Vocational and Technical Education Division, and the Arkansas Chapter of the Associated Builders and Contractors have entered into a program labeled as an Association Sponsored School To Work Linkage Program. Students in their junior or senior year enroll in a comprehensive Heating, Ventilation, and Air Conditioning (HVAC) Program, which includes theory and labs. First-year graduating seniors who enter the field immediately receive one year of credit toward a four-year apprenticeship program. And upon graduation they enter the field with three years of credit toward their apprenticeship. Juniors are given the opportunity to work with HVAC Contractors during the summer between their junior and senior years. To ensure that Arkansas provides quality education in the automotive area, all programs are required to achieve certification from the National Institute for Automotive Service Excellence. The Arkansas Gazette and local schools send kits, newspapers, and so on to classes, which keep track of stocks and monitor the New York Stock Exchange. Students give "money" to invest. The school with the best performance wins. Junior Executive Training (JET): School teams manage fictitious production companies. This functions in three fundamental areas of management: marketing, production, and finance. There are competitions between school teams.

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### COLORADO

The Colorado Alliance of Business and the School Restructuring Initiative are examples of several such collaborations that are underway. Contact: Janis Bolt (303) 832-9791. There is a Colorado Business Education Partnership Council. Contact: Richard Hulsart (303) 866-6685.

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### CONNECTICUT

In 1990 the state created the Forum on School-Business Partnerships to facilitate these efforts. The forum is composed of teachers, business people, parents, public policy officials, administrators, and higher education representatives. The forum promotes dialogue, advocacy, and action in public policy and partnerships. Many partnerships exist. They can be divided into the following categories: business education, health occupations, home economics, marketing education, technology education, trade and industrial education, vocational agriculture, regional and statewide award programs, vocational education advisory committees, and national vocational education partnership programs.

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### DELAWARE

The Delaware Business/Industry Education Alliance was created in 1982 and includes representatives of large and small business, education, and government agencies. Its purpose is to build bridges between educators, employers, and the communities they serve.



## FLORIDA

Partnership Include: Regional Coordinating Councils, Office of Business Partnerships, Industry Services, and Sunshine State Skills.

### Industrial Education

1. Centers of Automotive Emphasis -- A core curriculum and delivery system for auto partnerships has been developed by the Florida High Tech and Industry Council and the SEA. The curriculum is "bumper-to-bumper" with industry-identified outcomes and an innovative delivery system. Students are challenged with Computer Aided Instruction (CAI), a Computer Managed Laboratory (CML), and the use of simulators and models. Students work with a specially modified automobile interfaced with fault control software of the CML (Instructor's) computer and the CAI (student work station) computer. Major U.S. auto manufacturers have donated current models to be interfaced. Laboratory settings are used after theory and concepts have been developed. After completing the core curriculum students are prepared to enter the workforce or continue training in one of nine areas of specialization (8 ASE areas of certification plus automotive electronics/autotronics). Over 150 auto vocational instructors receive updated training in industry-sponsored workshops annually. Major auto manufacturers have established technical training sites in partnership with local school districts and community colleges. These sites provide product-specific technical training to several thousand dealerships and independent garage technicians annually.

2. Centers of Electronic Emphasis -- These began in 1983-84 when businesses expressed a need for skilled electronics workers. The Florida High Technology and Industry Council, the electronics industry, and the education community recognized the need for all electronics students to master common competencies with the use of state-of-the-art technology and continual business/industry guidance. This also ensures readiness for specialized electronics training.

Enrollment increased 6 percent from 1987-88 to 1988-89. 71 percent of students are at community colleges; 29 percent are at vocational centers; 9 percent are females. After the initial program year, the 10 original Centers of Electronic Emphasis reported graduates' gross wages at \$2.9 million for the state's \$1.3 million investment (123 percent return).

Agribusiness and Natural Resources Education, an Agricultural Enhancement Project in Florida - DVACE - established the Centers for Agricultural Enhancement (CAE) -- exemplary programs. The first step was to identify "what to enhance" that could: (1) solve the problems, (2) meet the needs of agribusiness, and (3) facilitate replication. The core programs consist of minimum competencies common to all job prep programs -- specialized programs are more advanced and job-specific. Enhancement curricula were developed for ornamental horticulture, agricultural technology, and forestry and natural resources. The common core program is agri-science. The curricula were field-tested and then replicated in nine sites during 1990. Plans are underway for statewide implementation.

Health Occupations Core Curriculum -- There is an urgent need nationwide to increase efficiency in preparing students while maintaining quality in this area. The state is developing a core curriculum that will consist of "the body of essential knowledge, skills, and competencies which are common to more than one health occupation." Skills training will move from basic to specialized.

Marketing and Diversified Education, Academy for Entrepreneurship -- (Design and Curriculum) Marketing Education of the Vocational Division has established a program for business management. Instruction is in planning, developing, and operating a small business through classroom instruction, related projects, and internships with business and industry. The curriculum is based on existing marketing and business education. After students meet graduation requirements and complete academy course work, they choose electives with an emphasis on higher level math, communication, and problem-solving skills.



Hands-on projects help students apply knowledge to real-life, small business situations. These might include: new product or service development, creative marketing research, public relations, entrepreneurship, or advertising campaigns.

Business Education, Project InVEST (Insurance Vocational Education Student Training) is an alliance between the education community and the Insurance Agents of America (IAA), Inc., and is offered at local districts in cooperation with the IAA, the originating sponsor. There is usually a senior level business education component within the existing curriculum. The goal is to teach basic business skills, introduce insurance career opportunities, and develop personal and professional skills. The program is offered at 16 secondary sites.

Florida Compact - Improving student readiness is one of the primary goals of the Compact, particularly those local partnerships that provide thematic or innovative internships/work-study collaboratives.

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#### GEORGIA

Evaluation and certification of vocational/technical education courses by industry experts represents one of the most promising techniques for program improvement, and many such industry certification programs have been implemented in Georgia high schools. This has resulted in the development of new curriculum guides, which better address the needs of today's modern workplace.

Currently, training programs are being certified by industry in the areas of auto mechanics, construction, graphic arts, auto body repair, forestry, horticulture, and marketing. Additional certification programs are being planned now in the areas of business education, electronics, food service, health occupations, and metalworking.

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#### HAWAII

The SEA has a compact with the travel industry that guarantees job placement if students are successful in high school.

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#### IDAHO

In the Boise school district, there are business-education partnerships between each elementary, junior high, senior high, and a business. These partnerships have been developed to improve career awareness and work readiness skills. The Foundation for Vocational Education supports business-industry partnerships with secondary vocational education programs.

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#### ILLINOIS

Tech Prep can be viewed as a business education partnership. Illinois supports the Apprenticeship Reteaching Program, which serves as a partnership effort.

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#### INDIANA

The five Tech Prep pilot projects in the state work closely with local employers, as well as with postsecondary personnel in determining the competencies for their prototype Tech Prep programs. In several cases, the business partner(s) provided funds for the initial planning efforts, which were matched by state funds.

The Workplace Learning pilot projects (youth apprenticeship type programs) could also serve as model partnerships.

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#### IOWA

Des Moines Public School District's "Business Education Alliance" is a business-education partnership.

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**KENTUCKY**

Ford Assess program with Jefferson Community College is a business-education partnership, along with Jefferson State Vo Tech School and Ford Motors in training for future auto technicians. As Tech Prep and Transition to Work is implemented in Kentucky, the business-education partnership will become a stronger component of the educational system. Business will be asked to be involved in planning Tech Prep programs. Cooperative education is a source of business-education partnerships.

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**LOUISIANA**

Woodlawn High School in Shreveport has implemented a Business Academy structured to assist business education students in developing and using on-the-job training.

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**MAINE**

A collaborative project between the Finance Authority, the Maine Technical College System, the university system, and the SEA entitled "Project Opportunity" provides free tuition to General Education Development (GED) recipients for up to six hours of formal post-secondary instruction.

Key Bank of Maine provides 23 \$100 scholarships to GED recipients who wish to pursue higher education.

The UNUM Insurance Company offered grants to support school restructuring efforts.

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**MARYLAND**

Maryland's Tomorrow, the state's drop-out prevention program, is funded through the Maryland Workforce Investment Board and Service Delivery Areas and under the purview of the Private Industry Councils. The Councils include industry representatives who approve program planning. This represents a commitment from the business community to fund a comprehensive drop-out prevention program that includes career development, skills enhancement, mentoring, and support services.

The Greater Bowie Chamber of Commerce, in cooperation with Prince George's County Public Schools, provides opportunities for students to systematically explore careers at community business sites while earning academic credit. This can be particularly valuable for students enrolled in alternative education. Business resource people provide encouragement and hands-on experience to students who might otherwise leave school unprepared for further education or employment.

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**MASSACHUSETTS**

The John Hancock Life Insurance Co. and the Boston Public Schools' partnership in support of the city's business education program provides state-of-the-art equipment and program advising for training. The partnership between Northboro-Southboro Regional School District and its businesses and industries has acted in the areas of curriculum and program enhancement through job placement. During the 1991-92 school year, 69 students were placed in related jobs experience.

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**MICHIGAN**

The Michigan Partnerships for Education are formal voluntary relationships between the schools and their communities (business, industry, labor, hospitals, civic organizations, government, professionals, etc.) with mutually agreed upon goals and objectives. Executives from The Dow Chemical Company, Federal-Mogul, and the Dow Corning Corporation have chaired an 18-member statewide taskforce of business, labor, and education leaders from across the state. The program has been incorporated into approximately 200 of the state's

619 local and intermediate school districts. The SEA and taskforce provide informational brochures and videotapes; a "how-to" handbook; regional and statewide awareness conferences and workshops; state funding for seed-money grants to start or expand a partnership program and for model programs to help others get started or improve their programs; training seminars for partnership coordinators; a "Partnership Press" newsletter with a circulation to over 15,000 educators and businesspersons, an annual Partnerships for Education Showcase Conference; and an annual awards program (sponsored by 18 statewide business and education associations) to honor successful programs.

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#### MINNESOTA

Business-education partnerships are now under consideration at the state level. Legislation recently passed forming a task force of business, government, education, and community leadership to improve work readiness. This is in response to "The Forgotten Half" and "Skills of the American Workforce" reports. The task force must report to the legislature in 1993 with specific statewide recommendations. The state has had a business/education group, but they have not focused on transition issues. The interest has been in education reform (e.g., more math, science, etc.).

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#### MISSISSIPPI

The Industrial Training Network involves all community colleges in the state.

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#### MISSOURI

The business/industry "customized" training network involves all the area vocational schools and community colleges throughout the state.

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#### NEBRASKA

Magnolia Metal/Auburn Public Schools is a model partnership. Some basic aspects include: exposure to state-of-the-art industrial technology (computer controlled lathes, computer assisted design systems, and advanced equipment for industrial application); an opportunity to simulate a work day; increasing educational productivity by using private sector approaches; and motivating pupils by emphasizing curriculum relationships to the world of work. Outcomes include students acquiring applicable skills that aid employment opportunities and productivity, and students developing self-esteem.

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#### NEVADA

Effective September 1, 1991 Nevada school districts are required to establish technical skills committees for each occupational education program. Committee members will include employers and employees who will determine specific duties, tasks, and performance levels to be taught. This includes academics, employment, and technical skills.

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#### NEW HAMPSHIRE

The New Hampshire Auto Dealers Association established an Education Foundation for the establishment of automotive trade business-ed partnerships; one Perkins-funded project is designed to recruit women. Both academic and vo tech training were performed on site at dealerships. After first-year completion, students were allowed to apply for a post-secondary scholarship to continue training. Full-time work is guaranteed to successful completers and part-time work to those continuing their education. The Foundation also created the first auto manufacturer technical college partnership in Northern New England. Ford, Toyota, and GM have established full factory-school partnerships with technical colleges. The Massachusetts state program is within commuting

distance for 50 percent of New Hampshire residents.

Project Partnerships provides "severely handicapped students" with job skills and employment opportunities. The project has been nominated for the US Department of Labor LIFT award, which grants funds to exceptional programs that serve the potential handicapped workforce. Project Transition employs handicapped youth with the aid of job coaches.

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#### NEW JERSEY

The state's Supermarket Career Program has been awarded model status. Wakefern Corporation and their subsidiary, ShopRite Foods, have established supermarkets within selected schools to train handicapped students and prepare them for the workplace.

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#### NEW MEXICO

The ASEP program at NM Junior College involves the General Motors Corporation and the college. The junior college prepares all of GM's service technicians in that part of west Texas and New Mexico. The school provides the instruction and GM provides the materials. Also, a partnership between San Juan Community College and Mesa Airlines provides pilot training with equipment made available by Mesa. The State Superintendent of Public Instruction has established and meets regularly with the Business/Education advisory committee. The committee provides advice and direction to the SEA on all aspects of education. The State Board of Education recently expanded its subcommittee on Vocational Education to include six additional members. Priority for appointment will be representation from the business/industry community.

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#### NEW YORK

The School and Business Alliance (SABA) program focuses on communities with high at-risk populations and has served more than 30,000 students since its creation in 1986. More than 1,400 businesses have entered partnerships with 250 community organizations and 130 schools and school districts under the auspices of the program. A number of career academies that are closely linked with business and industry are in operation. One such example is Transit High School in New York City.

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#### NORTH CAROLINA

The Tech Prep program in Richmond County has had excellent support from business. Contact: Dr. Doug James, Superintendent/ Richmond County Schools/ P.O. Drawer 1259/ Hamlet 28345-1259.

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#### OHIO

Ohio law (1989) requires that each city, local, and exempted village school district have a business advisory committee to advise school district personnel on future needs in the world of work. As a result of this movement, 13 Regional Business Advisory Council Centers have been established to assist school district personnel in conducting worthwhile advisory council meetings, planning sessions, and implementing plans. An outgrowth of the centers is School-Business Partnerships for various programs and projects (i.e. career motivation, student and teacher recognition, equipment purchase, and student tutoring). The business industry partnership with Automotive Service Excellence and Polaris Career Center Job Shadowing and Mentoring Program are examples of Ohio's model.

PENNSYLVANIA	Several business-school partnerships deserve mention, including: Lehigh Valley-Allentown, Bethlehem, Eason, York, Pittsburgh, and Philadelphia.
RHODE ISLAND	Workforce 2000 in Rhode Island has supported a consortium of Chambers of Commerce that has a number of progressive initiatives to establish business-education partnerships. Included in this consortium are the Chambers of Commerce of Warwick, Providence, Northern Rhode Island, North Kingstown, and Cranston.
SOUTH CAROLINA	The Partnership for Academic and Career Education (PACE) is a partnership initiating Tech Prep in a three-county area and has been named the nation's model Tech Prep program by the U.S.E.D. The program is one of three recipients of the American Assoc. of Community and Junior Colleges' Inaugural Tech Prep/Associate Degree Partnership Award. Unique program qualities include: a comprehensive approach, effective collaboration between secondary and post-secondary educators, extensive involvement of business and industry partners, and creative thinking on the parts of all local educators.
SOUTH DAKOTA	South Dakota's "Education Counts" is a statewide program of community/school/business partnerships whose goals include: increased business involvement in education; the development of productive workers; improved academic performance; and the development of positive role models for young people. Education Counts is sponsored by the state's Council on Vocational Education and the Industry and Commerce Association.
TENNESSEE	The Nissan auto plant in Smyrna, in partnership with Rutherford county area schools, allows students to use the plant's high-tech equipment. Areas of instruction include pneumatics, hydraulics, and robotics. A Greenville/Green County Center for Technology program provides students with internships according to vocational interest.
UTAH	Utah supports a Nine-District Consortium, which, among other activities, supports business-school partnerships.
VERMONT	The Vermont Associated General Contractors Vermont Department of Education Memorandum of Agreement creates a partnership between the construction/building industry and area vocational centers.
VIRGINIA	The NORSTAR program is a partnership of the Norfolk County schools and NASA designed to prepare robotics and automated systems technicians. The 2+2 = Master Technician program provides training for: automated manufacturing, biomedics, computer maintenance, electronmechanics, electronics, environmental equipment repair, fiber optics, fluid power, instrumentation controls, robotics, systems analysis, and telecommunications. Participants are: Thomas Nelson Community College, Hampton City Schools, New Horizons Technical Center, Newport News City Schools, Poquoson City



Schools, Williamsburg-James City County Schools, and York County Schools.

The 2+2 = Engineering Design Technician program provides training for the following occupations: architectural design, civil design, engineering, laboratory technology, manufacturing processes, mechanical design, and urban planning. Participants are: Central Virginia Community College, Altavista City Schools, Amherst County Schools, Appomattox County Schools, Bedford County Schools, Campbell County Schools, and Lynchburg City Schools.

The 2+2 programs meet the requirements outlined in the 1990 Perkins Act.

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#### WASHINGTON

Community colleges and secondary systems have 2+2 programs on a limited basis. The state plans to increase participation with the use of new Tech Prep dollars.

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#### WEST VIRGINIA

Four partnerships exist between the SEA, a local school district, and a mall developer to provide retail training. The mall developers have provided a rent-free classroom, office space, free utilities, and promotion assistance. The educational bodies contribute staff, equipment, and curriculum materials. Some courses are open to the public. One of the partnerships offers on-site training as well and college credit is granted in some cases.

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#### WISCONSIN

A state mandate in Education for Employment requires that every LEA maintain an Education for Employment (E4E) Advisory Council. The majority of members represent the private sector and guide efforts to improve the linkage between school and work.

The expansion of E4E standards will provide stronger connections to work through school-to-work initiatives: Tech Prep, Youth Apprenticeship program, and post-secondary options.

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#### D.C.

Partners for American Vocational Education (PAVE) is a private, non-profit foundation that has received a grant from D.C. Public Schools to establish a Joint Venture in D.C. This Joint Venture is the first of a two-phase process. The administration of PAVE is under the purview of the Senior High Division and will involve the participation of two career schools. The SEA is responsible for monitoring and evaluating the program as well as providing technical assistance.

The Joint Venture is a unique partnership involving the D.C. Public Schools, the business community, and PAVE. This new partnership prepares health care workers for the rapidly changing world of work. PAVE and its partners have brought together health care providers to assist with technology, training, and placement of health care workers.

A major activity of the Joint Venture is to work with employers to identify new roles and new education agendas that satisfy the skill needs of their employees. Personal contact employers and education policymakers and administrators led the formation of partnerships that benefit all parties.

The Joint Venture provides a catalyst for existing educational institutions to better serve the needs of employers and citizens who seek employment. It communicates to employers the willingness of educational institutions to meet workforce needs and stimulate greater use of education programs by employers. In addition, the Joint Venture opens new avenues for employers to assist education institutions, including teacher recruitment and mentoring of students and potential employees.



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**NORTHERN MAR IS.**

The SEA is trying to reactivate current partnerships that have been stagnant over the years. They are presently in existence but not functional.

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**VIRGIN ISLANDS**

This specific Business Education Partnership needs to be fully developed, assessed, and upgraded to effectively reach more businesses and industries.

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## **IX. CONCLUSION**

**The CCSSO's Survey on State Initiatives to Improve School and Workplace Learning** has identified a substantial and complex network of programs and initiatives that support efforts to improve student preparation for employment.

The survey has highlighted innovative and creative initiatives in identifying work readiness skills and their assessment, changes in curriculum to make it more appropriate as preparation for employment, improvements in guidance and counseling, incentives for change to schools and businesses, advances in professional development, and effective collaboration between schools and business. The survey has also compiled a substantial collection of examples of programs from states where students spend a considerable fraction of their time learning at the workplace. Two cross-state efforts identified by several SEAs as helpful to their attempts to improve student preparation for employment are the Southern Regional Education Board's Integration of Academic and Vocational Skills Consortium and The Agency for Instructional Technology's Consortium on Applied Academics.

Together, this information is designed to assist in the constant improvement of student preparation for adulthood -- including family and citizenship -- as well as preparation for employment. With this overall goal in mind it is important to note as well some of the shortcomings identified by the survey.

First, it was unclear in many states' responses whether the employability skills identified as "necessary" reflect those skills necessary in the typical American workplace -- based on a traditional system of work that requires little thinking or flexibility by workers -- or of the competitive workplace of the next century that demands teamwork and critical analysis by all workers. This is a fundamental difference in approach and a question that must be answered in each state.

Related to the question of what sort of skills are necessary for employment is the issue of whether to provide specific job skill training or more generic skills such as those identified in the SCANS report by the U.S. Department of Labor. While job-specific skills are important for entry into a particular occupation, the rapidly changing nature of work signals the need for more universally applicable skills. Most states offer the former; few noted that they are preparing their students with the latter.

Second, while several states have made laudable efforts to include more academic -- and applied academic -- material in vocational education courses, no state identified a comprehensive effort to integrate fully academic and vocational content throughout all educational tracks, especially the general education track. A few states have begun efforts in this direction but more work is required.

Third, the states' responses concerning flexibility and creative use of time and location for teaching and learning were generally -- although not universally -- disappointing. More experimentation based on sound pedagogy and research must be encouraged by SEAs and LEAs in this regard. The potential for exciting and innovative approaches is great.

Fourth, serious equity issues remain unaddressed. Virtually no state identified initiatives or programs for employment preparation that meet the particular needs of language minority, limited-English-proficient students. While such programs may exist, none were reported. Also, despite a few examples of hopeful change, some vocational education programs continue to support inequitable outcomes by race and gender. One apprenticeship program described in the survey involved 20 times more males than females and 100 times more white males than black males. In contrast, another state reported a 50/50 gender split among participants in an employment preparation program. Programs to support preparation for employment must be available to all students and special efforts must be made to ensure access to non-traditional occupations.

Fifth, while there were a number of interesting approaches identified to provide parents with information about necessary skills for employment and possible areas of work, most efforts to involve parents and families seemed weak. Greater emphasis is necessary in providing all parents -- especially low-income and limited-English-proficient parents and other caregivers with useful and appropriate materials on a timely basis.

Lastly, but very important, apart from a small handful of states that are attempting to do so, most states described few if any ties between changing schools for improved preparation for employment and larger state school reform or restructuring efforts. Effective restructuring of secondary schools for improved learning by all students can be successful only if a significant part of that effort deals with issues of preparation for employment and an emphasis on employment preparation will be sustained only if it is part of mainstream change.

The Council invites educators, policymakers, employers, organized labor, and all levels of government to consider the examples provided in this report -- their successes and difficulties -- and work with increased energy to ensure that all students receive an education that prepares them for adulthood in the 1990s and into the next century. We must support the full development of young people as responsible and caring family members, active and thoughtful citizens, and productive and creative workers.

**X. APPENDIX: PROGRAMS WHERE AT LEAST 25 PERCENT OF STUDENT EDUCATION AND TRAINING OCCURS AT THE WORKPLACE**

This appendix to the compendium provides, in rich detail, the responses of the SEAs regarding specific workplace learning programs. The result of this set of questions in the survey is a substantial collection of current programs where at least one-fourth of instruction occurs at the workplace.

In addition to identifying state policies and practices related to improving student readiness for employment, CCSSO requested information about a specific type of program where at least 25 percent of student education and training occurs at the workplace. The survey asked state's if they support any programs of this sort and offered several examples of possible initiatives:

- *Alternative high schools*
- *Career academies*
- *Community service*
- *Internships*
- *Youth Apprenticeship programs*
- *Youth enterprises*

The survey raised more detailed questions about each program the state might identify -- a description of the initiative; numbers of students served disaggregated by gender, ethnicity, and location; student or staff eligibility requirements; and duration of the initiative. Additional questions dealt with the changes the initiative caused in schooling (e.g., curriculum, instructional methods, guidance and counseling, and classroom time /scheduling); if there is an evaluation of the initiative; and issues related to student assessment (e.g., any links among employment readiness skills, curriculum, and assessment). Other questions focused on staff (e.g., professional development and incentives) and school organization (e.g., any restructuring as a result of the initiative and what sorts of accountability exists). Finally, SEAs were asked to provide a contact to allow SEA staff in other states (and others interested in those programs) to learn more about particular initiatives.

The initiative most often reported was cooperative education. The 42 SEAs reporting workplace learning programs cited 33 cooperative education programs (some states identified more than one). Second in terms of frequency of programs identified (12 total) were youth apprenticeship programs (although several states mistakenly reported having "Youth Apprenticeship" programs when they described traditional U.S. Department of Labor-certified apprenticeship programs). Other reported initiatives included: internships (8), alternative high schools (8), "other" (5), career academies (4), youth enterprises (2), and community service (2).

## Programs Where at Least 25 Percent of Instruction Occurs at the Workplace

### ALABAMA

**Initiative.** Cooperative Education, Internships - Integrated into regular vocational education instruction, Youth Apprenticeship - also integrated.

**Initiative Description.** An Industrial Cooperative Training Program combines classroom instruction and on-the-job experiences to prepare students for a chosen career in each of the seven service areas:

Agribusiness Education

Home Economics Education

Business Education

Health Occupations Education

Marketing Education

Trade and Industrial Education

Industrial Arts/Technology Education

**Students Served.** Total enrollment = 10,174

Agribusiness	400
Business Ed	1,950
Marketing	4,050
Consumer and Home Ec	240
Trade/Industrial Ed	3,500
Health Occupations	34

**Eligibility Requirements.** Teachers must have a valid certificate and a Teacher Coordinator's endorsement for the subject area to be taught.

**Duration.** The cooperative programs are one or two years in length and are governed by the training agreement, course objectives, and training stations.

**Changes in Schooling.** (Curriculum) Development of course objectives is in agreement with employer and trainee, the signing of a training agreement, and an integration of academic and vocational skills.

(Instruction) Instruction consists of individual study with immediate feedback from the employer and teacher in addressing problems.

(Guidance) Guidance is aligned with the requirements of the employer.

(Classroom Time) One hour per school day is spent on related study and two hours after school are spent in on-the-job training.

**Initiative Evaluation.** Each coordinator (teacher) is evaluated by the district specialist from the applicable service area.

**Link Skills, Curriculum, Assessment.** Each student has a competency profile folder with personal info, a task list to record accomplishments, and a certificate of completion. Students are also evaluated each grading period by the employer.

**Student Assessment.** Students are assessed for skills learned during the related study and the on-the-job components. Task lists are updated as skills are taught. Written tests, performance tests, and on-the-job evaluation scores are kept in each student's file and transferred to the permanent file upon program completion. This task list serves as an official record to be sent to technical schools, colleges, or employers.

**Professional Development.** Professional development workshops are held for Cooperative Education teachers in each service area in coordination with industry. Teachers visit industries and vice versa.

**Teacher Incentives.** Teachers are evaluated annually to determine funding continuation. They must produce job-ready students and place them.

**School Reorganization.** Cooperative education can serve as a placement/coordination program for several instructional areas. Students in smaller program areas may be served by the same teacher, allowing smaller schools to participate.

**Accountability.** Each student has a competency profile with a teacher's signature beside each competency the student has mastered. Employers send an evaluation to the teacher coordinator each grading period.

**Contact.** Dr. Stephen B. Franks, Director/ Division of Vocational Education Services/ Room 5106 Gordon Persons Building/ 50 N Ripley St/ Montgomery 36130-3901  
Phone: (205) 242-9111

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## ARKANSAS

**Initiative.** Cooperative Education, Youth Apprenticeship. Cooperative Education involves the areas of Business Education, Marketing Education, General Cooperative Education, and Coordinated Career Education (Special Needs). Students may work up to 16 hours per week during the 11th and 12th grades while taking regular courses at school for one-half day. The school courses consist of state requirements of English, math, science, and a related vocational course. Normally, two units of credit are granted for the on-the-job training. There are 185 Cooperative Education programs. The emphasis is on business, marketing, home economics, trade, industry, and health occupations. (The Youth Apprenticeship Program is currently being designed and implemented to provide two years of apprenticeship training at the senior high/junior college level.)

**Students Served.** There are approximately 2,000 students enrolled, primarily located in urban areas: 55 percent male, 45 percent female.

**Eligibility Requirements.** Students must be 16 years of age and have completed or be concurrently taking related vocational courses. Student must have had two business courses, one of which must have been keyboarding. Students must have a career objective in a job training area.

Teachers must have had at least three years of teaching experience and have had courses in cooperative education at the university level. Staff must take a course entitled "Coordination of Vocational Cooperative Programs."

**Duration.** Normally, the students are in the program for one or two years during their junior or senior years in secondary programs. The programs that extend for two years are marketing education (11th and 12th grade) and health occupations.

**Changes in Schooling.** (Curriculum, Guidance and Counseling, Classroom Time)

There is a specialized curriculum developed for Cooperative Education. Cooperative Education will undergo a curriculum change to meet the new Tech Prep initiative of sequential courses and Applied Academics.

There are guidance counselors in vocational centers; some high schools have vocational counselors.

Schools that are restructuring will be allowed to develop flexible schedules.

**Initiative Evaluation.** The cooperative programs involved in Tech Prep will be evaluated based on student performance and follow-ups will be conducted to track students after completion of the program.

**Link Skills, Curriculum, Assessment.** The SEA performs assessments at the 8th grade level to find out areas of interest and aptitude. These students are counseled into the appropriate areas and are tracked through graduation. Follow-ups are conducted during the first five years of work/higher education.

**Student Assessment.** All 8th graders in Arkansas public schools are given interest and aptitude tests and counseled into the areas of their interests or greatest aptitudes.



**Professional Development.** Trade and Industrial teachers are given special training in building trades for AGC, automotive for NATFF, and heating, ventilation, and air conditioning for HVAC contractors. Teachers in other areas receive specialized training pertaining to the classes they teach.

There is an annual Career Orientation Conference.

Every even-numbered year there is three-day inservice training.

**Teacher Incentives.** None Reported.

**School Reorganization.** None Reported.

**Accountability.** Arkansas currently has student competency testing in the vocational areas. When Tech Prep is implemented further testing will be done through pre- and post-testing and the use of national tests.

**Contact.** John H. Fincher/ Deputy Director/ #4 State Capitol Mall, Room 304-A/ Little Rock 72201

Phone: (501) 682-4205

Maggie L. Powell/ Youth-at Risk Coordinator/ #4 Capitol Mall, Room 304-B

Phone: (501)682-4205

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## CALIFORNIA

**Initiative.** Internships. The vocational emphasis is on the Health Careers Education programs. Each course requires 50 percent internship time, with some requiring as much as 60 percent (e.g., Vocational Nurse and Psychiatric Technician programs). Courses impacted by state licensure or certification require an internship.

**Students Served.** Total Health Careers enrollment is approximately 44,000 annually - all include an internship.

Males 9,944	Females 34,368
American Indian	0.1 %
Asian	7.0
Pacific Islander	0.6
Filipino	2.0
Hispanic	30.0
Black	8.0
White	51.0

**Eligibility Requirements.** Staff eligibility requirements are prescribed by the individual licensing agency, but in general the instructor must hold an appropriate credential in the subject matter and be a licensed professional.

**Duration.** The internships have been in place since 1956 and have expanded with new courses.

**Changes in Schooling.** (Curriculum, Instructional Methods, Guidance and Counseling, Classroom Time, and Scheduling) Internships are essential to ensure safe patient care, adequate and appropriate content, and students' ability to practice in stressful and crisis-oriented circumstances. All of the above changes are considered in course development as reviewed by the SEA and on-site by the licensing agencies. Industry representatives also provide advice and counsel.

**Initiative Evaluation.** Results of on-site visits are: approval, probation to correct problem areas, or disapproval and course dissolution.

**Link Skills, Curriculum, Assessment.** See "Changes in Schooling."

**Student Assessment.** See "Changes in Schooling."

**Professional Development.** A Teacher Preparation program was designed for health careers to meet credential requirements. Coursework is provided through California-Poly Pomona School of Science and co-sponsored by the SEA. Students receive upper division, undergraduate, and science residency credit.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** For those courses approved for licensure or certification, students are able to sit for the related state exam upon course completion.

**Contact.** Sally Mentor/ Associate Superintendent, High School Programs/ California Department of Education/ 721 Capitol Mall, 4th Floor/ Sacramento 95814

Phone: (916) 445-3314

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## COLORADO

See the Colorado Community College and Occupational Education System (CCCOES). The initiatives are mostly local, with various state support.

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## CONNECTICUT

**Initiative.** (Cooperative Ed, Other) Cooperative Work Education Program Review is a two-year initiative to collect data on CWE-DO programs. It will culminate in the revision of the state approval process, curriculum changes, and a staff development plan. Legislative changes are also possible.

**Contact.** Gregory C. Kane, CWE-DO Consultant/ Bureau of Vocational Services/ 25 Industrial Park Rd/ Middletown 06457

Phone: (203) 638-4067

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## DELAWARE

**Initiative.** Cooperative Ed, Internships

**Initiative Description.** Cooperative Education in Delaware is as it is defined by the survey.

**Students Served.** None reported

**Eligibility Requirements.** Typically, seniors who have not achieved LEA academic requirements are eligible.

**Duration.** The duration is usually one academic year.

**Changes in Schooling.** None reported.

**Link Skills, Curriculum, Assessment.** Assessment takes place at the local level and varies among LEAs.

**Student Assessment.** None reported.

**Professional Development.** SEA supervisory staff periodically conduct inservice training for teachers in content areas. The SEA also works with the Delaware Advisory Council on Vocational Education to provide bi-monthly training for career guidance counselors.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** Sometimes sanctions include course failure for poor job performance or inadequate attendance.

**Contact.** Lewis T. Atkinson III, Ed.D./ State Supervisor for Vocational Education Curriculum Development/ Department of Public Instruction/ P.O. Box 1402/ Dover 19901

Phone: 302-739-4681

## FLORIDA

### **Initiative.** Internship, Career Academy

**Initiative Description.** The Academy of Travel and Tourism is a two-year program designed to introduce students to the travel industry. Working closely with several travel and tourism-related companies including American Express Travel Related Services, Delta Airlines, Discovery Cruise Line, Jacaranda International Travel, and Travelhost Magazine. The Academy teaches economic and social travel concepts and provides hands-on familiarization with industry practices. Introductory classwork is done in 11th grade, a paid internship occurs in the summer, and advanced courses are taken in the 12th grade. Courses include: Travel and Tourism I, English III, Global Studies, Business and Computer Applications, Travel and Tourism Internship, Travel and Tourism II, Economics, and American Government.

**Students Served.** There are few complete records at this time. The current total enrollment is 70 students in three high schools. It is an urban area program.

**Eligibility Requirements.** There are no requirements but students must apply.

**Duration.** The duration is two years.

**Changes in Schooling.** (Curriculum, Instructional, Classroom Time) The state provides frameworks for each Academy. The specific curriculum is obtained from the National Academy Foundation.

**Initiative Evaluation.** Program coordinators will keep records on each student. Students are given a certificate after passing all courses and completing an internship. The Florida Education and Training Placement Information Program's record linkage will track subsequent student employment and education. Measures will be developed to aid administrators in determining work and education preparedness.

**Link Skills, Curriculum, Assessment.** Students and staff will attend seminars put on by participating companies to link skills.

**Student Assessment.** Program coordinators do all student follow-ups using computer records and contact with the high school and student.

**Professional Development.** All special or inservice training is provided at the LEA level.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Dr. Winnie Dickinson, Dir/ Vocational and Technical Education/ School Board of Broward County/ 701 S. Andrews Ave/ Fort Lauderdale 33316

Phone: (305) 760-7400

### **Initiative.** Internship, Career Academy

**Initiative Description.** The Academy of Finance is a two-year program including both required and elective credits in three parts, beginning with introductory courses in 11th grade, paid summer internships in a financial services firm, and advanced courses in the senior year. Participating companies include American Express, Barnett Bank, C&S National Bank, Citibank, and Shearson Lehman Brothers. With their aid, students are given "a head start in the financial world, both professional and personal." Recommended coursework includes: financial operations, financial accounting, financial computing, financial internship, financial planning, economics, and American government.

**Students Served.** The current total enrollment is 243:

Male = 96 Female = 147

45 Black, 17 Hispanic, 12 Asian, 169 Other

This is an urban area program.

**Eligibility Requirements.** There are no requirements for staff. Students must apply and be interviewed for acceptance.

**Duration.** The duration is two years.

**Changes in Schooling.** See description of Academy of Travel and Tourism.  
**Initiative Evaluation.** See description of Academy of Travel and Tourism.  
**Link Skills, Curriculum, Assessment.** See description of Academy of Travel and Tourism.  
**Student Assessment.** See description of Academy of Travel and Tourism.  
**Professional Development.** See description of Academy of Travel and Tourism.  
**Teacher Incentives.** See description of Academy of Travel and Tourism.  
**School Reorganization.** See description of Academy of Travel and Tourism.  
**Accountability.** See description of Academy of Travel and Tourism.  
**Contact.** See description of Academy of Travel and Tourism.

**Initiative. Career Academy**

**Initiative Description.** The Academy of Entrepreneurship is an integration of business and marketing programs to promote cross-discipline training for careers in entrepreneurship and small business management. Coursework will include: principles of entrepreneurship skills, business management and law, and business ownership, and existing curriculum.

**Initiative Description.** None reported.

**Students Served.** The program has not yet started on the school district level.

**Changes in Schooling.** See the description of Academy of Travel and Tourism.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Loretta Cordell, Program Director/ Marketing and Diversified Ed/ Florida Department of Education/ 1224 Florida Education Center/ Tallahassee 32399

Phone: (904) 487-3140

**Initiative. Other**

**Initiative Description.** The Constructive Youth Act emphasizes construction trades and the construction, renovation, or rehabilitation of sites and structures in economically disadvantaged or low-income areas.

**Students Served.** The approximate total enrollment is 50 students. The program is new and will be implemented in five additional districts in 1991-92.

**Eligibility Requirements.** Students must be between the ages of 16 and 24, economically disadvantaged, or a high school dropout, and unemployed.

**Duration.** Students may remain in the program for up to 24 months.

**Changes in Schooling.** None reported

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Dr. Mae O. Clemons, Coordinator/ Florida Constructive Youth Act Programs/ FL Department of Education/ 1101 Florida Education Center/ Tallahassee 32399

Phone: (904) 487-3861

**Initiative.** Alternative High Schools, Youth Enterprises, Florida Compact

**Initiative Description.** Alternative High Schools include the following:

Hi-Tech: 68 students, Hardee County Schools, CAP; 68 students, Polk County Schools, PBDP; 150 students, grades 9-12, St. Lucie County Schools.

Performance based with work-study, grades 10-12 at each site.

- Environmental Studies Institute: Taylor County Schools.

Thematic curriculum built around environment for grades 10-12. 72 students.

- Law Studies Academy: Baker County Schools.

Thematic curriculum built around law and judicial operations for 60 students, grades 10-12.

- Disney Classroom: Osceola County Schools.

Work-study program with Disney careers upon graduation. Located at EPCOT Center for 60 students, grades 10-12.

Youth Enterprises include the following:

The Journalism Academy at Bay County Schools.

This is a two-year newspaper and science digest production program for 50 students, grades 8-10.

Youth Apprenticeships include the following:

VAC: Deerfield Beach M.S., Broward County Schools.

This program has apprenticeships in area businesses for 30 students, grades 8-9. SLD students over-age in grade up to 16 years old.

Planning for 1991-92 includes the following:

- Health Science Academy: Leon County Schools with Tallahassee Memorial Regional Medical Center, 120 students, grades 10-12.

- Tourism Academy: Osceola County Schools with Tourist Council, 75 students, grades 10-12.

- Financial Services Institute: Orange County Schools with SunBank and First Union, 75 students, grades 10-12.

- Marine Science Academy: Clay County Schools with area businessmen and the US Navy, 60 students, grades 9-12.

- Film (Media Studies) Academy: University H.S., Orange County with U. of Central FL, Valencia Community College, and MGM, Universal Studios, 90 students, grades 10-12.

**Students Served.** Student enrollment is based on a competitive nature and reflects a general population mix.

**Eligibility Requirements.** Requirements are based on student assessment as underachievers or at-risk category to graduate.

**Duration.** Duration of the program is individually negotiated.

**Changes in Schooling.** (Curriculum) The initiative has required building new content within existing frameworks including interdisciplinary use of language arts, math, and so on around a theme or learning approach. There is a great deal of self-paced work and hands-on experience.

(Instruction) Instruction entails coaching, real case studies, cooperative learning, and media materials rather than textual work, and so on.

(Classroom Time) There is extensive off-campus time plus the use of block scheduling.

**Initiative Evaluation.** All Compact-supported students are tracked through graduation (or not) and their initial decision to work, take military service, or continue schooling.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.



**Professional Development.** Professional development is provided through the use of teacher training by business, military, or community partners during summers and inservice opportunities with partners.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Peter M. Kreis, Program Coordinator/ Florida Compact/ Office of Business Partnerships/ Florida Department of Education/ 126 Florida Education Center/ Tallahassee 32399

Phone: (904) 488-8385

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## GEORGIA

**Initiative.** Cooperative Education, Other

**Initiative Description.** Cooperative Education includes: Marketing Education, Home Economics, Business Education, Diversified Cooperative Training, Agriculture Education, Coordinated Vocational Academic Ed, Program for Education and Career Exploration (PECE) - Career Education (Initiative area with on-site visits). Each cooperative vocational education program must have both a related study class and on-the-job training daily.

**Students Served.** For 1990, the total number of cooperative education students was 23,681.

**Eligibility Requirements.** Each cooperative student must be over 16 and at least in 11th grade, except in Coordinated Vocational Academic Education (CVAE) and PECE. Vocational cooperative teachers must be certified in the appropriate program area.

**Duration.** The program is ongoing.

**Changes in Schooling.** Curriculum, Classroom Time.

**Initiative Evaluation.** Every vocational education program is evaluated every 5 years. Data is kept on enrollment and job-site placement.

**Link Skills, Curriculum, Assessment.** Every disadvantaged and handicapped student must be assessed prior to enrollment.

**Student Assessment.** The method of student assessment is locally controlled.

**Professional Development.** Currently, state-supported workshops are provided in each vocational education program area for administrators and counselors. This statewide effort is being eliminated by the new Perkins Act: funds are being shifted to local school systems.

**Teacher Incentives.** Perkins Act funding will provide incentives.

**School Reorganization.** None reported.

**Accountability.** Data are collected for student completion and placement.

**Contact.** William P. Johnson, Director/ Secondary Vocational Instructional Division/ 1752 Twin Towers E/ Atlanta 30334-5040

Phone: (404) 656-6711

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## IDAHO

**Initiative.** Cooperative Education

**Initiative Description.** Cooperative work experience is a formal training program involving credit, teacher supervision, work plans, and employer cooperation. Time on the job and in the classroom is also specified. Cooperative education is available in all program areas and is used in varying degrees throughout the state. Not all programs offer a formal cooperative education option. Most of these programs do make an informal work experience component available to their students.

**Students Served.** In FY 1990, 1,290 students participated in paid cooperative experience programs.



**Eligibility Requirements.** Students must be enrolled in an occupational training program and must average 15 hours per week in work experience. Cooperative teachers must be certified in the appropriate program area.

**Duration.** The program is generally one year with a minimum of one semester.

**Changes in Schooling.** The work experience is linked to the information presented in the classroom. The training plan is individualized for each student. Statewide technical committees have also been working to develop industry-based competencies for each of the vocational programs.

**Initiative Evaluation.** Individual programs are evaluated through state supervisory visits, advisory committee input, and five-year, on-site evaluations. Program completers are also followed up to determine where they went after graduation. Finally, a five-year research based followup is conducted to determine statewide program effectiveness.

**Link Skills, Curriculum, Assessment.** Employers generally rate recent "hirees" who have had cooperative education as being superior in skill and attitude development.

**Student Assessment.** Instructors review the progress of students bi-monthly.

**Professional Development.** Professional development consists of workshops, seminars, and regular classes offered through Teacher Education.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** A five-year evaluation is conducted on vocational programs. Program supervisors also visit programs regularly and complete a program evaluation sheet.

**Contact.** Ann Stephens, Associate Administrator/ State Division of Vocational Education/ 650 W. State St./ Boise 83720

Phone: (208) 334-3216

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## ILLINOIS

**Initiative.** Cooperative Education, Cooperative Extension

**Initiative Description.** The state has cooperative education in the five occupational areas for students over the age of 16, special cooperative education for lower-level special education students, work experience and career education programs for 14- and 15-year-old dropouts, and early school leaver programs for 16- to 24-year-old dropouts. The program is a combination of in-school and on-the-job training for one to two years. Students are usually enrolled in a vocational skill or career exploration program.

**Students Served.** Approximately 40,000 are enrolled annually and are representative of the general population.

**Eligibility Requirements.** Students must be 16 years old (except in the work experience and career education programs). For regular cooperative education instructors, 24 semester hours in vocational area, 6 hours in cooperative education coursework, and 2,000 hours of work experience are required. The vocational coursework is waived for special cooperative education programs.

**Duration.** The program lasts for one or two years.

**Changes in Schooling.** (Curriculum, Instruction, Class Time) A two-year sequential course outline has been developed. Instruction takes place in the state's 200-minute-per-week in-school requirement and at the work station under a training plan. Students must have schedules allowing for this.

**Initiative Evaluation.** Programs are evaluated as part of the comprehensive vocational evaluation. Work experience, career ed, and early school leaver programs conduct yearly summaries and 3 month, 1 year, and 3 year follow-ups.

**Link Skills, Curriculum, Assessment.** The training plans include the employability skills and duty areas previously defined. Mastery of skills is noted on the training plan or under separate documentation.

**Student Assessment.** Employability skills and specific tasks under each duty area are listed on the training plan. Periodic evaluation (usually every 6 weeks) is conducted by the teacher coordinator and job supervisor.

**Professional Development.** Each state teacher training institution offers the six hours of required instruction for cooperative education on a regular basis. The state conducts regional workshops on an annual basis for teacher coordinators.

**Teacher Incentives.** Annual workshops are given on different subject matters such as development of training plans, task lists verification, student evaluations, and development of training stations.

**School Reorganization.** The changes in Illinois' Administrative Code 23 requirements of the SEA prompted many schools to reorganize for scheduling of a related class and adequate work station supervision. Many schools added coordinators or reduced the number of students.

**Accountability.** Successful program completers are awarded high school or college credit. Many students are given a certificate with skills completed and degree of mastery. Most schools with cooperative education have recognition programs for student and employer achievement.

**Contact.** John D. Sweeney/ Vocational Administrator, Cooperative Education/ IL State Board of Education/ 100 N 1st St/ Springfield 62777  
Phone: (217) 782-4862

**Initiative.** Apprenticeship, School-to-Work Transition Program

**Initiative Description.** Through a coordinated effort with the Illinois Bureau of Apprenticeship and Training, students participating in cooperative education may enroll in a transition program. The program provides hours toward journeyman status. Currently the program is in the early stages of implementation.

**Students Served.** None reported.

**Eligibility Requirements.** Available to senior year high school students or first year community college enrollees.

**Duration.** The programs will be conducted during the senior year of high school.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** Evaluation proposals are currently under discussion.

**Link Skills, Curriculum, Assessment.** The curriculum is centered on employment readiness skills both in the classroom and the workplace.

**Student Assessment.** The program is now using locally designed assessments. Efforts to design a state employment readiness assessment are underway.

**Professional Development.** No specialized activities are provided solely for this group of educators. Coop education workshops and seminars are provided annually through professional organization activities in SEA projects. The Vocational Instruction Practicum (VIP) is available to all involved.

**Teacher Incentives.** Participation in industry-based experiences during the summer (such as VIP) are available for staff.

**School Reorganization.** No school reorganization has been necessary.

**Accountability.** A system of Performance Standards and Measures is under development in compliance with the Perkins Act.

**Contact.** Kathleen Nicholson-Tosh, Manager/ IL State Board of Ed/Adult, Vocational, and Technical Education/ 100 N 1st St/ Springfield 62777  
Phone: (217) 782-4877

**Initiative. Other:** Extended Campus, Health Occupations

**Initiative Description.** Students study theory and practice skills in school and apply clinical competencies in hospitals, extended care facilities, doctor and dentist offices, and other sites for a minimum of two hours per day, variable days per week.

**Students Served.** 1,500-2,000 total enrolled. All locales. The majority are female.

**Eligibility Requirements.** Staff members must have 2,000 hours of work in the medical specialty taught, a minimum of 60 credit hours from an accredited university, professional registration, and certification or licensure. Other requirements are dependent on the occupation taught. Example: Nurse Assistants must have completed a course in Alzheimers Disease and have work experience in a long-term care facility.

**Duration.** The program is integrated throughout the school year. Duration depends on the occupation studied.

**Changes in Schooling.** (Curriculum) Change is dependent on the occupation taught. Example: Nurse Assistants are prescribed by the state Department of Health. All occupational programs have ongoing business input to keep skills up-to-date.

(Methods) Adaptation to clinical teaching has been necessary.

(Counseling) Recruitment includes "appropriate" information.

**Initiative Evaluation.** Nursing Assistant is evaluated by the Department of Health on an ongoing basis. All occupations will be evaluated on the number of placements and number of students who go on to further education in their field of study.

**Link Skills, Curriculum, Assessment.** Advisory committees from business continually assist the program in identifying appropriate skills, curriculum, and sometimes evaluation/assessment of student skills. Employability skills are updated by business input and incorporated into all classes.

**Student Assessment.** Teachers evaluate student competency of skills. Nurse Assistants take a state Illinois Department of Public Health (IDPH) competency exam (written and skills), which is nationally mandated.

**Professional Development.** The Department of Health provides classes for the preparation of Nurse Assistant teachers. The state provides update workshops as necessary. Clinical teacher education modules are sometimes used.

**Teacher Incentives.** The state VIP grants funds for teachers to work in various sites during the summer.

**School Reorganization.** None reported.

**Accountability.** Completers are reported to the SEA as well as the number employed or continuing education.

**Contact.** Ann L. Gilbert, Health Occupations Consultant/ IL State Board of Ed/Adult, Vocational, and Technical Education/ 100 N 1st St/ Springfield 62777  
Phone: (217) 782-4877

# INDIANA

**Initiative.** (Cooperative Education) There are 7 program/course titles. They are locally known as:

Name	Area(s) in which Training is Provided
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Agricultural Coop. Ed	- agriculture/agribusiness careers
Cooperative Office Ed.	- business/office related careers
Health Coop. Programs	- health related careers
Home Ec. Related Occupations	- home ec related careers
Industrial Coop Training	- trade/Industrial careers
Interdisciplinary Cooperative Ed	- two or more vocational areas
Marketing Education (formerly MDE)	- marketing/distribution related

**Initiative Description.** Each program operates in basically the same way: on-the-job training for 15 hours of employment each week, the written training plan and agreement coordinator works with the training sponsor and student to design meaningful training experiences and the student is provided release time to participate. Related classroom time lasts for 250 minutes each week. General related instruction is provided along with specific instruction.

**Students Served.** An estimated 900 to 1,000 students are participating. There is no breakdown available.

**Eligibility Requirements.** For certification as a Coop. coordinator in one of the six vocational areas, candidates must: (1) have a teaching major in the area; (2) complete a 12 hour endorsement consisting of philosophy, coordination, methods, and resources; and (3) and have 4,000 hours of employment in the vocational area.

**Duration.** The typical program operates during the school year (36 weeks).

The students spend approximately 540 hours on the job and 180 hours in the related class.

**Changes in Schooling.** (Classroom Time and Scheduling) Due to increased academic requirements, providing release time for students who participate in Coop. Education has become challenging, especially in smaller schools with a limited number of academic class sections. As a result, students are being released later in the day to participate.

**Initiative Evaluation.** 20 percent of the state's Vocational Education programs, including Coop. programs, are evaluated each year through a self-study evaluation instrument.

**Link Skills, Curriculum, Assessment.** Ideally, the related class curriculum is structured to develop and reinforce employability skills needed for the on-the-job training portion of the program. The current assessment of these skills varies widely throughout Indiana, depending on the program type and teacher initiative.

There is a current statewide initiative that calls for an outcomes- or performance-based assessment of all vocational education graduates. This system may be in operation within the next 1-2 years.

**Student Assessment.** In the related class, students are evaluated based on their mastery of course competencies. On-the-job students are evaluated formally and informally according to their performance of the training objectives outlined in the training plan. The assessment is meant to be jointly completed by the employer, student, and teacher-coordinator.

**Professional Development.**

1) At the Annual Vocational Association (summer conference) specific sessions are conducted for Coop. coordinators.

2) A "Turkey Run Workshop" is sponsored by an ICT/ICE professional affiliate; a one-week annual workshop open to any Coop. coordinator.

3) Joint Department of Education and Department of Labor presentations are given upon request to small groups of administrators and teachers.

**Teacher Incentives.** Not at the present time.

**School Reorganization.** No reorganization has been necessary.

**Accountability.** None reported.

**Contact.** Daniel Martin/ Assistant Manager, Vocational Education Section Center for School Improvement and Performance /Indiana Department of Education/Room 229, State House/ Indianapolis 46204-2798

Phone: (317) 232-9184

**Initiative.** Workplace Learning Pilot Programs. Began with enrollees in the fall of 1991.

**Initiative Description.** None reported.

**Students Served.** Three projects are rural, one is suburban, and two are urban.

**Eligibility Requirements.** Eligibility requirements are determined locally.

**Duration.** The program lasts approximately three years.

**Changes In Schooling.** (All)

**Initiative Evaluation.** There will be on-going evaluation. Evaluation by business, industry, and labor partners will be a major part of the projects.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Ms. Peggy O'Malley/ Director, Division of Technical Education Indiana Department of Workforce Development/ Indiana Government Center South/ 10 N. Senate Avenue/Indianapolis 46204-2277

Phone: (317) 232-1832

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## IOWA

**Initiative.** Cooperative Education

**Initiative Description.** Cooperative Education has been an ongoing initiative in Iowa for some time. The programs are directed by teachers who coordinate the students' classroom instruction with on-the-job supervisors. A training agreement is signed by the student, a parent/guardian, the teacher, and the employer. The student, teacher, and training sponsor formulate a training plan, which outlines specific tasks the student will learn and perform.

**Students Served.** In the 1989-90 school year, 2,086 males and 2,461 females participated in a Cooperative Vocational Education program primarily for seniors.

**Eligibility Requirements.** The program requires students to select the experience that will prepare them for a chosen career. There is no screening except an attempt to make sure that the student wants to learn in the job setting rather than just get out of school.

All coordinators must have work experience in the areas for which they are coordinating worksites and must have completed coursework in coordination techniques.

**Duration.** The duration is ongoing in an attempt to provide opportunities for students to apply in an actual setting what has been learned in a school setting.

**Changes In Schooling.** (Curriculum, Instructional Methods)

The curriculum is competency-based and training plans that are utilized in the job setting will also contain both general and specific job competencies.

Instructors will need to be certain that each offering includes an opportunity for students to demonstrate mastery of knowledge in an actual situation.

**Initiative Evaluation.** The evaluation process and criteria are being developed.



**Link Skills, Curriculum, Assessment.** Employment readiness skills/competencies must be assessed in each vocational offering and in each training station as identified in the training plan and evaluated by the training sponsor and coordinator.

**Student Assessment.** Determined at the local level.

**Professional Development.** Each service area has an annual conference that focuses on employment readiness and minimum competencies. Area superintendents meetings emphasize these issues as well.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** The state evaluation for programs and student evaluation is in the process of development.

**Contact.** Dr. Joann Horton and Dr. Susan J. Donielson/Division of Community Colleges and Division of Instructional Services/Iowa Department of Education/Grimes State Office Building/Des Moines 50319-0146

Phone: (515) 281-8260

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## KANSAS

**Initiative.** Cooperative Education at high school and post-secondary institutions (area vocational technical schools and community colleges).

**Initiative Description.** General-related and direct-related instruction is given at the school along with training at the work site. A maximum program could be 1,440 hours with 900 hours on the job.

**Students Served.** Cooperative Education is found more in urban areas. 1989-90 public secondary schools had 4,053 females and 2,702 males served.

**Eligibility Requirements.** Staff employed by secondary schools or Area Vocational Technical Schools must meet SEA certification requirements.

**Duration.** The program is ongoing.

**Changes in Schooling.** (Curriculum, Classroom Time)

Business Education/Marketing has completed an updated curriculum guide for secondary and post-secondary programs in FY 1991 and Agriculture Science is completing one for FY 1992.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** The SEA uses teachers in developing profiles.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Contact.** Tom Moore/ Director, Technical Education/ 120 East 10th St./ Topeka 66612

Phone: (913) 296-3952

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## KENTUCKY

**Initiative.** (Alternative High Schools, Cooperative Ed, Internships, Community Service) Training time varies.

**Initiative Description.** None reported.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.



**Student Assessment.** None reported.  
**Professional Development.** None reported.  
**Teacher Incentives.** None reported.  
**School Reorganization.** None reported.  
**Accountability.** None reported.  
**Contact.** Susan Henson, Program Consultant/ 2132 Capital Plaza Tower/ 500 Mero St/ KY  
Department of Education/ Frankfort 40601  
Phone: (502) 564-3472

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## LOUISIANA

**Initiative.** (Cooperative Education) For Agribusiness, Business Ed, Marketing Ed, Health Occupations, and Trade and Industry Education.  
**Initiative Description.** Students are placed in occupationally related jobs for 15 hours per week minimum and attend a one-hour related class. Three hours of high school credit are earned for completion.  
**Students Served.** 6,000 students attend the program. It is located in urban areas.  
**Eligibility Requirements.** Each program area has specific student requirements. Students must be a junior or senior with a 2.0 grade point average and good attendance record. Staff must have cooperative certification as well as certification in a specific program area.  
**Duration.** The program lasts one or two years depending on the program area.  
**Changes in Schooling.** This initiative has been in place since 1950. Curriculum and instructional methods are updated regularly.  
**Initiative Evaluation.** No formal evaluation has been completed.  
**Link Skills, Curriculum, Assessment.** Development of training memoranda aid employers and teacher/coordinators in structuring curriculum and evaluating results.  
**Student Assessment.** No formal evaluation has been made. The assessment process is aided by on-the-job observations and class examinations through applications and production work.  
**Professional Development.** All vocational programs offer inservice training, workshops focus on job development skills, integration of academics, and so on.  
**Teacher Incentives.** Vocational instructors are reimbursed for participation in inservice activities.  
**School Reorganization.** None reported.  
**Accountability.** Students receive high school credit for completion.  
**Contact.** F. Travis Lavigne, Jr., Asst Superintendent for Vocational Education/ PO Box 940644/ Baton Rouge 70804  
Phone: (504) 342-2897

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## MAINE

**Initiative.** Youth Apprenticeship  
**Initiative Description.** Through a Perkins grant, two secondary vocational centers are conducting a pre-apprenticeship program with several area businesses. Secondary students select a series of preparation courses for industry-based apprenticeships. The program is in the development stage and no students have been enrolled in a formal apprenticeship program.  
**Students Served.** None reported.  
**Eligibility Requirements.** None reported.  
**Duration.** None reported.

**Changes in Schooling.** (Guidance and Counseling) General secondary educators, secondary vocational educators, and guidance personnel have worked with the Maine Apprenticeship Council to develop the necessary core curriculum to prepare students to enter an apprenticeship program.

**Initiative Evaluation.** The grant document provides for a measure of goals and objectives. **Link Skills, Curriculum, Assessment.** Followups and assessments will be ongoing. The town of Brunswick has been proposed as the first site for assessment (Region 10).

**Student Assessment.** Labor surveys have been used to promote the project but intended program assessment techniques are unclear.

**Professional Development.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Pearley A. Lachance, Director of Apprenticeship Training/ Maine Technical College System/ Office of Apprenticeship Related Instruction/ Augusta

Phone: (207) 453-9762

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## MARYLAND

**Initiative.** High school apprenticeship linkage program.

**Initiative Description.** School-Apprenticeship Linkage refers to the concept of in-school apprenticeship. It is an approach to education and training that allows career and technology education seniors to become pre-apprentices while completing their secondary school education. Students are employed part-time as pre-apprentices once they complete high school. The School-Apprenticeship Linkage concept involves the in-school employment of youth in registered, apprenticeable trades and provides a direct transition from part-time to full-time apprenticeship employment. The School-Apprenticeship Linkage Program is a cooperative venture between the U.S. Department of Labor, Bureau of Apprenticeship and Training; the Maryland State Department of Economic and Employment Development, Office of Employment and Training/Maryland Apprenticeship and Training Council; and the Maryland SEA, Division of Career and Technology Education.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Mr. Richard Kiley, Specialist, Maryland State Department of Education/Division of Career and Technology Education/ Baltimore 21201.

Phone: (301) 333-2548

**Initiative.** Cooperative education.

**Initiative Description.** Cooperative career and technology education involves cooperative arrangements between the school and employers, enabling students to receive career and technology instruction in the school and on the job through part-time employment. This instruction is planned, organized, and coordinated to ensure that each component contributes to the students' education and employability.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.  
**Duration.** None reported.  
**Changes in Schooling.** None reported.  
**Initiative Evaluation.** None reported.  
**Link Skills, Curriculum, Assessment.** None reported.  
**Student Assessment.** None reported.  
**Professional Development.** None reported.  
**Teacher Incentives.** None reported.  
**School Reorganization.** None reported.  
**Accountability.** None reported.  
**Contact.** Mr. Richard Kiley, Specialist, Maryland State Department of Education/Division of Career and Technology Education/ Baltimore 21201.  
**Phone:** (301) 333-2548

**Initiative.** Marketing education.  
**Initiative Description.** Marketing and distribution is a summary of instructional programs that prepares individuals for occupations dealing with the flow of goods in channels of trade or the provision of services. These programs are concerned with marketing, sales, distribution, merchandising, and management, including ownership and management of enterprises engaged in marketing. Instructional programs prepare individuals to perform one or more of the marketing functions such as selling, buying, pricing, promoting, financing, transporting, storing, market research, and marketing management. In addition, instructional programs include varying emphases on technical knowledge of products or services marketed, related communication and computation skills, and abilities and attitudes associated with human relations and private enterprise.  
 DECA (Distributive Education Clubs of America) is an integral component of the distributive education program. DECA is a local, state, and national organization designed to develop leadership, vocational, civic, and social skills among its members. DECA motivates students through a planned program of work that includes instructional activities, competency-based event competition, and leadership training.  
**Students Served.** None reported.  
**Eligibility Requirements.** None reported.  
**Duration.** None reported.  
**Changes in Schooling.** None reported.  
**Initiative Evaluation.** None reported.  
**Link Skills, Curriculum, Assessment.** None reported.  
**Student Assessment.** None reported.  
**Professional Development.** None reported.  
**Teacher Incentives.** None reported.  
**School Reorganization.** None reported.  
**Accountability.** None reported.  
**Contact.** Mr. Louis Kaminski, Specialist, Maryland State Department of Education/Division of Career and Technology Education/ Baltimore 21201.  
**Phone:** (301) 333-2584

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## MASSACHUSETTS

**Initiative.** Cooperative Education  
**Initiative Description.** None reported.  
**Students Served.** None reported.  
**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Elaine Cadigan, Director/ Bureau of Program Services/ MA Department of Education/ Quincy 02169

Phone: (617) 770-7354

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## MICHIGAN

**Initiative.** Other. Externships: Workforce Entry, Health Occupations I, Health Occupations II.

**Initiative Description.** Curriculum includes skills and theory related to a number of health careers (i.e., anatomy and physiology and taking blood pressures). First-year training takes place in a hospital with equipment and personnel. Personnel assist with job shadowing, skill demonstrations, and lectures. In the second year, students work as paid externs in a hospital or community care facility.

**Students Served.** Total Externs = 14 (1 male, 13 females)

Total Health Occupations I = 42 (23 a.m., 19 p.m.)

**Eligibility Requirements.** Staff must be vocational certified health professionals and certified to teach science at the secondary level.

**Duration.** The program has been in operation (since September 1990) and is to be expanded next year (18 externs, 75 Health Occupations I).

**Changes in Schooling.** (Curriculum, Instruction, Classroom) The first year is in a hospital classroom with some instruction by personnel. A revised curriculum from one focused on nursing aides. Second-year students receive related instruction on terminology at the community college. Instructional methods have been revised to include job shadowing, use of facilities for demonstrations, and hospital personnel as speakers.

**Initiative Evaluation.** An evaluation by the Advisory Committee will be done in the fall of 1991.

**Link Skills, Curriculum, Assessment.** There is a natural integration of the externship, on-the-job training, and employment readiness. Each student in an externship must complete an employability skills unit and job shadowing experience before placement.

**Student Assessment.** Instructor-designed pre- and post-tests are conducted. All students are accepted.

**Professional Development.** The coordinator of the initiative is the president-elect of MASPP, an exec. board member of MOEA, and pursuing a doctoral degree in Human Resource Development. The instructor is a member of HOE and MOEA, has presented the program around the state, attended workshops and conferences on school-to-work transition, and is pursuing a science certification.

**Teacher Incentives.** Added-cost funds and private industry grants pay for one-third of the program.

**School Reorganization.** None reported.

**Accountability.** There is a 100 percent retention rate throughout the externships. Where funds are available, hospitals have retained students for employment. All students received excellent evaluations.

**Contact.** Teresa V. Staten, Ph. D., Assoc Superintendent for Instructional Services/ MI Department of Education/ PO Box 30008/ Lansing 48909  
Phone: (517) 373-4595

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## MISSOURI

**Initiative.** Cooperative Ed, Internships

**Initiative Description.** The SEA funds Cooperative Vocational Education throughout the delivery system. The programs are designed to provide more than 50 percent of training (particularly job-specific) at the work site. Also, the Department allows industrial education and health occupations education providers to initiate Internships to provide direct occupational experience.

**Students Served.** These programs involve over 12,000 students annually.

**Eligibility Requirements.** Students over 16 years of age are recruited.

**Duration.** The instructional program lasts for the academic year.

**Changes in Schooling.** On-the-job training is coordinated and supplemented by classroom/laboratory training.

**Initiative Evaluation.** Program operation/success is evaluated through Department evaluation/monitoring systems as well as local evaluation systems.

**Link Skills, Curriculum, Assessment.** Specific occupational skill competencies are taught, experienced and measured.

**Student Assessment.** Students are evaluated by teacher and work experience sponsor.

**Professional Development.** An annual vocational education conference and regional inservice conferences are held to provide professional development activities for teachers.

**Teacher Incentives.** Partial salary reimbursement plus partial professional development course tuition reimbursement are provided.

**School Reorganization.** None reported.

**Accountability.** State/local evaluation/monitoring systems, plus review of ongoing final placement records.

**Contact.** Fred Linhardt, Dir of Vocational Planning and Evaluation/ Department of Elementary and Secondary Ed/ P.O. Box 480/ Jefferson City 65102

Phone: (314) 751-8465

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## NEBRASKA

**Initiative.** Cooperative Ed

**Initiative Description.** The goals and general requirements/structures of the program are as defined by Perkins 1990. Teacher Coordinators and academic/related courses are required. Well-supervised on-the-job training is the centerpiece of the program. A written training agreement and plan is signed and students are then paid for their work.

**Students Served.** 1,500 total secondary students. 750 males, 750 females. 1,200 non-urban students.

**Eligibility Requirements.** Interested students are recruited.

**Duration.** The program lasts for the academic year.

**Changes in Schooling.** (All) As with the general model of Cooperative Education, on-the-job time is often rotated with class time. Some flexibility in scheduling must be incorporated.

**Initiative Evaluation.** Self-assessment is not required by the SEA. Few programs have been deemed unsuccessful in the last two years.

**Link Skills, Curriculum, Assessment.** The competencies for Cooperative Education are an initial attempt at linkage, however, their use is not required.



**Student Assessment.** Students are evaluated by their respective supervisor/owner and teacher-coordinator for related class participation.

**Professional Development.** Annual vocational education conference, annual Cooperative Education conference, and various training activities at the local level are conducted.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** Most schools conduct follow-up studies of Cooperative Education students at one, three, and five year intervals after graduation.

**Contact.** None reported.

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## NEW HAMPSHIRE

**Initiative.** Alternative High Schools

**Initiative Description.** The schools offer vocational programs with work experience similar or identical to Cooperative Education. Three out of five schools are operated through community-based organizations. Initiatives vary in occupational focus.

**Students Served.** Approximately 500 students are participating.

**Eligibility Requirements.** Students are accepted on interest. Staff must have state certification.

**Duration.** The program is permanent and ongoing.

**Changes in Schooling.** (Alternative High Schools, Cooperative Education, Diversified Occupations) Adjustments for each of the listed items depend on local population, guidelines, and jurisdictions.

**Initiative Evaluation.** If the project is supported by federal funds, an end year report is required, including descriptions of served population, student success, terminations, employment/school attendance rates. Locally supported initiatives are not required to report to the SEA and state funds are not available.

**Link Skills, Curriculum, Assessment.** Typically efforts are ongoing to ensure workplace relevance, but vary by site.

**Student Assessment.** None reported.

**Professional Development.** Presently there are no state-sponsored initiatives. Prior to the 1990 Perkins Act, staff development workshops were sponsored.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** Each institution maintains its own system of assessment.

**Contact.** G. William Porter, Administrator/ Bureau of Vo Tech Education/ 101 Pleasant St/ Concord 03301

Phone: (603) 271-3454

**Initiative.** Cooperative Education is offered at all of the state's 23 vocational centers and at three community-based organizations. No specific initiative titles exist.

**Initiative Description.** Programs vary.

**Students Served.** Current enrollment is 1,127 students.

**Eligibility Requirements.** See responses for New Hampshire Alternative Schools.

**Duration.** See responses for New Hampshire Alternative Schools.

**Changes in Schooling.** See responses for New Hampshire Alternative Schools.

**Initiative Evaluation.** See responses for New Hampshire Alternative Schools.

**Link Skills, Curriculum, Assessment.** See responses for New Hampshire Alternative Schools.

**Student Assessment.** See responses for New Hampshire Alternative Schools.

**Professional Development.** See responses for New Hampshire Alternative Schools.

**Teacher Incentives.** See responses for New Hampshire Alternative Schools.  
**School Reorganization.** See responses for New Hampshire Alternative Schools.  
**Accountability.** See responses for New Hampshire Alternative Schools.  
**Contact.** See responses for New Hampshire Alternative Schools.  
**Initiative.** (Other) Diversified Occupations are programs in which 100 percent of instruction and training is obtained at the work site.  
**Initiative Description.** Programs vary.  
**Students Served.** Total enrollment is 135.  
For additional areas, see responses for New Hampshire Alternative Schools.

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## NEW JERSEY

**Initiative.** Cooperative Education  
**Initiative Description.** The program offers students on-the-job training and related instruction through written cooperative agreements between the school, employer, parent or guardian, and student.  
**Students Served.** The program areas of agriculture, business, marketing, health, home economics, technical ed, and trade/industrial ed. include 12,000 students.  
**Eligibility Requirements.** Teacher Coordinators are certified in the following areas: Cooperative Business Education, Cooperative Marketing Education, Cooperative Agriculture Education, Cooperative Industrial Education, Cooperative Health Occupations Education, Cooperative Home Economics Education.  
**Duration.** The program operates during the senior year of high school.  
**Changes in Schooling.** (All) Curriculum, classroom time, and scheduling must be redesigned to accommodate the program. Instructional methods are provided on an annual basis by the Division of Vocational Education staff as part of teacher-coordinator inservice. Guidance and counseling is addressed through annual meetings counselors attend for updated information in the program areas.  
**Initiative Evaluation.** No assessment has been done within the last five years.  
**Link Skills, Curriculum, Assessment.** Assessment began in 1991.  
**Student Assessment.** Assessment will probably be done by survey and interview.  
**Professional Development.** One annual meeting of all stakeholders and various meetings for program areas are held.  
**Teacher Incentives.** None reported.  
**School Reorganization.** None reported.  
**Accountability.** The competency project allows for the state to close programs where demand has fallen and students have failed to meet standards over a two-year period.  
**Contact.** Dr. Michael G. Curran, Jr., Manager/ Bureau of Vocational Programs/ NJ State Department of Education/ Division of Vocational Education/ CN 500/ Trenton 08625  
Phone: (609) 292-6582

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## NEW MEXICO

**Initiative.** Cooperative Ed  
**Initiative Description.** The program goals and design are drawn from federal vocational legislation. The SEA recommends at least two hours of on-the-job, supervised work per day for participants. Most schools offer between one and three.  
**Students Served.** 2,296 total. 1,256 female 1,040 male.  
**Eligibility Requirements.** Staff must be vocationally certified.  
**Duration.** Courses are one year in duration.  
**Changes in Schooling.** None reported.

**Initiative Evaluation.** See "Cooperative Education Closing Report, 1989" from New Mexico SEA. Such statistics are compiled every year and include student earnings and breakdowns of programs by type.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** Teacher-made tests, informal evaluations, and employer satisfaction surveys are used.

**Professional Development.** Professional development is conducted through the statewide effort.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** School-level accountability is measured by employer satisfaction.

**Contact.** Al Zamora/ State Director for Vo Tech and Adult Education/ Education Building/ Santa Fe 87503

Phone: (505) 827-6511

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## NEW YORK

**Initiative.** Cooperative Occupational Education

**Initiative Description.** The New York SEA supports some 300 Cooperative Occupational Education Programs. These programs offer students opportunities to apply occupational skills learned in the classroom to supervised work situations related to their subject areas.

**Students Served.** 12,956 BEDS 1990-91 enrollment. No male/female numbers are available.

**Eligibility Requirements.** Students must be enrolled in an occupational preparation sequence. Work-experience coordinators must be certified in the occupational area in which students are obtaining work experience or have a diversified cooperative education certificate.

**Duration.** Cooperative Occupational Work Experience has been available to students for sequence credit since 1989 and will continue to be an option.

**Changes in Schooling.** (Instructional Methods, Classroom Time) All registered programs use training plans. They also provide teachers and coordinators time for on-site visits in order to coordinate classroom instruction with on-the-job experiences.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** Each year state inservice training is provided to teachers/coordinators through a State Coordinator's Workshop.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Mark MacFarlane/ Associate/ Bureau of Occupational Education Program Development/One Commerce Plaza, Room 1623/ Albany 12234

Phone: (518) 474-4806

**Initiative.** Youth Apprenticeships

**Initiative Description.** Apprenticeship Demonstration Program (pilot program in school-to-work transition) allows students to combine an apprenticeship (on the job) with their studies in grades 11 and 12. Upon graduation, students become full-time apprentices with the ultimate goal of becoming journeypersons. This initiative is designed both to ease the students' transition from school to work, and to increase the number of workers prepared to enter technical occupations.

**Students Served.** Initial enrollment is to begin in the 1991-92 school year.

**Eligibility Requirements** As of now, enrollment is open.

**Duration.** Because of budget considerations, the duration has not yet been determined.

**Changes in Schooling.** (All) All of the listed areas are being considered in the planning phase. Changes will be implemented as they become necessary.

**Initiative Evaluation.** An evaluation will be done by the SEA in concert with Cornell University.

**Link Skills, Curriculum, Assessment.** Linkage is being considered in the planning phase.

**Student Assessment.** None reported.

**Professional Development.** Staff development is to be addressed.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Dr. Stephen Hamilton, Professor/ Cornell University/ College of Human Ecology/ C 5 Martha Van Rensselaer Hall/ Ithaca 14853  
Phone: (607) 255-9856

Paul Ahrens/ Director of Continuing Education/ 98 Oak Street/ Box 2126/Binghamton 139902  
Phone: (607) 772-0101

**Initiative.** (Other) Health Occupations Education sequence programs include 25 percent or more time in clinical facilities (e.g., hospitals, nursing homes).

**Initiative Description.** Practical Nursing and Nurse Assisting programs require students to spend time in health care facilities working under the supervision of a nursing instructor (faculty member from school).

**Students Served.** Approximately 6,000 students total are involved, half of which are located in urban areas. Over 90 percent are females, approximately one-half are minority students.

**Eligibility Requirements.** Staff must meet the requirements of the Teacher Certification office, as well as criteria of the Professional Licensing office.

**Duration.** None reported.

**Changes in Schooling.** (Curriculum) State curricula developed in practical nursing and nurse assisting courses include emphasis on science and skills and prepare students for certification and/or licensure required to work in these jobs.

**Initiative Evaluation.** Evaluation will be based on successful completion of examination and employment in this field.

**Link Skills, Curriculum, Assessment.** Job-seeking skills are included in the health occupations education curriculum.

**Student Assessment.** This initiative uses state tests and clinical evaluation records.

**Professional Development.** A yearly meeting of teachers and administrators involved in health occupations education programs is held. Regional meetings of teachers, administrators, and counselors occur.

**Teacher Incentives.** None reported.

**School Reorganization.** Students participating in these programs often must have their non-occupational classes rearranged so that they receive release time to fulfill the supervised clinical experience requirement.

**Accountability.** Licensure or certification examination is administered by the state. Employment experience is required.

**Contact.** Patricia Hodgins/Associate in Health Occupations/One Commerce Plaza, Room 1619/Albany 12234  
Phone: (518) 474-6240

**Initiative.** (Other) Health Career Oriented High School Program

**Initiative Description.** The Health Career Oriented High School Program is a joint initiative of the New York SEA and the State Health Department. The program establishes a partnership among high schools, health care facilities, and colleges to provide a strong academic program with a health care focus and practical experience in a professional setting. Students are introduced to health careers in 7th and 8th grade through required instruction in new state-developed courses. Based on their interest and aptitude, students are selected for the program in grade nine, and spend their high school years taking specialized courses and participating in field trips to health care facilities and summer internships. Graduates of the Health Career Oriented High School Program are prepared to pursue a post-secondary education or for immediate employment in the health care field.

**Students Served.** Approximately 500 students participate in five health oriented high schools established to date.

**Eligibility Requirements.** The student and staff eligibility requirements vary in each of the five locations. In its original design, the program targeted high-achieving, minority students.

**Duration.** The program has been in existence for two years.

**Changes in Schooling.** (Instructional Methods) instructional strategies have been developed that incorporate health care skills in the academic subjects of English, science, and home and career skills.

**Initiative Evaluation.** Each of the five health career oriented high schools submit an annual final report.

**Professional Development.** To date, three statewide conferences have been conducted for the personnel involved in each of the health career oriented high school programs.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Timothy Ott/ Aide to the Assistant Commissioner/New York State Education Department/ Office of General and Occupational Education/One Commerce, Room 1623/Albany 12234

Phone: (518) 474-2451

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## NORTH CAROLINA

**Initiative.** Alternative Schools (An extended school day is available at several locations). Academies. The Business Academy and Finance Academy within the Charlotte-Mecklenburg Schools.

**Cooperative Ed.** The statewide program serves 30,000 students annually in six different vocational education program areas.

**Internships.** Health Occupations Internships and Supervised Occupational Programs.

**Apprenticeship.** Numerous such programs offered through regular vo-ed programs.

**Youth Enterprises.** Rural Entrepreneurship through Action Learning (REAL).

**Initiative Description.** All have a vocational emphasis and are focused on alternative delivery systems (simulated or actual practice environments).

**Students Served.** Cooperative Ed: 30,000 Others: 5,000

Minorities: approximately 40 percent

Males: 50 percent Females: 50 percent

Suburban and Rural: 85 percent

**Eligibility Requirements.** Educators must be professionally trained and hold education credentials in area served.

**Duration.** All of the above programs have been in existence for over fifteen years. Cooperative education is 40 years old; Academic Integration is the newest.

**Changes in Schooling.** (All) The curriculum is updated annually to include new workplace



technologies. Instructional methods for special populations have been enhanced. Guidance, classroom time, and scheduling have been modified.

**Initiative Evaluation.** All initiatives are evaluated annually. The success of each initiative is based upon the gains by students and/or the reactions of students and employers. The state has conducted a follow-up survey.

**Link Skills, Curriculum, Assessment.** VoCATS system will be fully implemented by the 1992-93 school year, along with a new "applied curriculum - Workplace Readiness" by the Agency for Instructional Technology.

**Student Assessment.** VoCATS includes the development of competencies for each course, test items for each competency, and course blueprints for curriculum. The information is aggregated for statewide results.

**Professional Development.** Professional development includes curriculum content, instructional delivery methods, learning styles, effective school concepts and processes, outcome-based education concepts and practices, utilization of business/industry personnel. Professional development is conducted in small- and large-group sessions for teachers, administrators, counselors, teacher educators, and business persons.

**Teacher Incentives.** The state provides educators with professional development funds, special materials, software, exemplary funds, and release time to participate in business/industry training.

**School Reorganization.** No restructuring has been done as of yet, but much change is occurring in school organization due to Tech Prep and academic-vocational integration.

**Accountability.** None reported.

**Contact.** Dr. Clifton Belcher/ Dir., Division of Vo-Ed Services/ 116 W. Edenton St/ Raleigh 27603-1717

Phone: (919) 733-7362

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## NORTH DAKOTA

**Initiative.** Alternative High Schools, Cooperative Ed

**Initiative Description.** Special Needs Diversified Occupations programs exist within many Alternative High Schools. They are designed to serve adjudicated youth trying to succeed in a school environment. The purposes are to:

- assist students in acquiring a diploma or GED,
- provide vocational training of the student's choice, and
- provide the opportunity for work experience through supervised, paid Cooperative Education Experience.

**Students Served.** The annual total enrollment is 132. The SEA was not able to disaggregate.

**Eligibility Requirements.** Instructors must be credentialed vocational teachers and approved Special Needs Instructors. Students in this program must have been adjudicated or be at an extremely high risk of becoming so.

**Duration.** The program is on a year-round basis (12 months). Students may enroll for as long as necessary to accomplish objectives.

**Changes in Schooling.** (All) A state handbook and guidelines have been distributed establishing: required related class instruction for cooperative education credit, minimum standards, required training plans, training agreements, school-coordinated work experience, supervision, guidance, and scheduling.

**Initiative Evaluation.** Evaluations are completed on a regular basis according to state and federal guidelines. An enrollment and follow-up report are conducted annually. Formal research involving control groups is being done. No state funding is provided.

**Link Skills, Curriculum, Assessment.** The cooperative component is required to be related to classroom instruction and utilize training plans and training agreements with coordination by an approved coordinator.

**Student Assessment.** Both standardized objective assessment and subjective interview techniques are used for student evaluations. Classroom instruction related to on-the-job assessment is conducted using training station supervisors and classroom teachers.

**Professional Development.** Annual inservice activities in all areas help teachers keep current with employment needs.

**Teacher Incentives.** Teachers may participate in individual technical improvement grants to improve employment readiness training skills.

**School Reorganization.** None reported.

**Accountability.** Standard enrollment and follow-up reports are used to measure the success of program completers.

**Contact.** Leonard Pokladnik, Supervisor/ Marketing Education/ 600 E Blvd Ave/ State Capitol Building, 15th Floor/ Bismark 58505

Phone: 224-3182

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## OHIO

**Initiative.** Alternative High Schools, Joint Vocational Schools (JVS)

**Initiative Description.** A JVS is an area institution that provides vocational education to a number of local school districts. Each JVS provides a minimum of 12 different vocational programs and 20 different course offerings. Each program receives business/industry input and guidance through an advisory committee.

**Students Served.** There are 49 JVS's in Ohio serving a mixture of 39,686 rural, urban, and suburban students.

**Eligibility Requirements.** Student eligibility is determined locally, but most often includes students' having reached 16 years of age or junior class standing.

**Duration.** The JVS concept has been in existence for almost 30 years in Ohio. The first two JVS's recently celebrated 25 years of serving youth and adults.

**Changes in Schooling.** (All) Curriculum is developed in accordance with employer-verified competencies. Instructional methods vary, but always emphasize hands-on experience. Guidance and counseling are key to assisting students in making appropriate educational choices, especially when it necessitates a student leaving the home-school environment to go to the JVS. Scheduling restrictions and classroom time requires that students complete all required courses for graduation at the JVS. Thus, academic and vocational courses are often taught at the JVS.

**Initiative Evaluation.** Evaluation of the initiative includes the number of students served and the placement rate for those students. Last year, 94.6 percent of students completing secondary vocational education and seeking employment were placed into jobs. Beginning with the 1991-92 school year, all JVS's as well as other providers of vocational education will be evaluated on their local Vocational Education Planning District (VEPD) plan. This plan has been identified through the acceleration of the modernization of vocational education as required by Ohio law and the 1990 Perkins Act.

**Link Skills, Curriculum, Assessment.** Employment readiness skills may be taught through a program entitled "Employability Skills." The curriculum encourages job readiness.

**Student Assessment.** Student assessment is done through the vocational achievement tests. These tests score students' mastery of employer-verified competencies.

**Professional Development.** School personnel may receive training through the five regional Personnel Development Centers, the Ohio Vocational Association, the Ohio Vocational Leadership Institute, and the Ohio Department of Education workshops and seminars.

**Teacher Incentives.** Salary and tenure incentives are based upon earned credit hours of teacher improvement and certification upgrade.

**School Reorganization.** In Ohio, all district schools must belong to a VEPD, which can be

organized for different delivery formats to provide vocational education, one of which is a JVS. Of the 102 VEPDs, 49 contain a JVS.

**Accountability.** Accountability measures include student placement in occupational areas for which they are trained; wages; placement; vocational achievement tests; and employer satisfaction ratings in accordance with the 1990 Perkins Act. Beginning in 1991, all students were pre- and post-tested in basic and advanced academics and in occupational competencies.

**Contact.** Dr. Darrell L. Parks/ State Director, Division of Vocational and Career Education /Ohio Department of Education/ Room 907, 65 South Front Street/ Columbus 43266-0308  
Phone: (614) 466-3430

**Initiative.** Cooperative Ed. Students are enrolled in job training programs that combine related classroom instruction with supervised on-the-job training in paid employment.

**Initiative Description.** Programs are available in all major vocational education curriculum areas including Agribusiness Education, Business Education, Marketing Education, Diversified Cooperative Training for Trade and Industrial Education students, and Home Economics Education. Dropout prone students are also served in the Ohio Occupational Work Experience (OWE) programs.

**Students Served.** In FY 1990 total enrollment was 27,108.

The distribution by program areas is as follows:

	Male	Female	Total
Agricultural ed.	468	103	571
Business ed.	229	2,831	3,060
Marketing ed.	2,246	2,903	5,149
Diversified Coop- erative Training	515	277	792
Home Economics Ed.	384	739	1,123
Health Ed.	16	552	568
Occupational Work Experience Programs	10,335	5,510	15,845
<b>TOTAL</b>	<b>14,193</b>	<b>12,915</b>	<b>27,108</b>

**Eligibility Requirements.** Cooperative education programs generally serve students during their senior year. Teachers are certified vocational education instructors who receive extensive preparation related to coordination of cooperative ed. programs.

**Duration.** Students are employed a minimum of 15 hours per week throughout their participation in the program.

**Changes in Schooling.** (Curriculum) The occupationally based and competency-based curriculum is being updated to reflect the occupational, academic, and employability skills necessary for employment and advancement in the career field of choice.

**Initiative Evaluation.** All programs have been evaluated annually on the standards of 84 percent overall job placement upon program completion and 60 percent of students available for placement must be employed in jobs related to their field of training.

**Link Skills, Curriculum, Assessment.** All vocational education curriculum is competency-based. Assessment is accomplished through Ohio Competency Assessment Program process of the Ohio State University Instructional Materials Laboratory.

**Student Assessment.** Detailed information is available upon request.

**Professional Development.** Staff inservice activities are conducted by Ohio Department of Education staff; five vocational education regional personnel development centers; and the annual All Ohio Vocational Education Conference.

**Teacher Incentives.** Continuing Education Units are available to individuals who participate

In inservice activities.

**School Reorganization.** See the SEA Plan for Accelerating the Modernization of Vocational Education.

**Accountability.** Proposed statewide core standards and measures of performance under the new Perkins Act includes placement, retention, and academic and occupational learning gains.

**Contact.** Dr. Darrell L. Parks; same contact person as above.

**Initiative.** Cooperative Ed. Cooperative Marketing and Occupational Work Adjustment (OWA) Education.

**Initiative Description.** Occupationally specific job training programs emphasize basic occupational skills, applied academics, and employability skills. Also, there are cooperative programs serving at-risk youth emphasizing remediation, career exploration, and job adjustment.

**Students Served.** Marketing education enrolls 5,000 students; OWA enrolls 10,000.

**Eligibility Requirements.** Staff requirements include professional education, technical content coursework, occupational pedagogy, and occupational experience.

**Duration.** Marketing and OWA programs are one or two years in length.

**Initiative Evaluation.** One-year and five-year follow-ups to show placement in related occupations are used for evaluation purposes.

**Link Skills, Curriculum, Assessment.** Competencies required for employment readiness are identified through the Ohio Competency Analysis Profile.

**Student Assessment.** For assessment, the SEA uses one-year and five-year student follow-ups to indicate related occupational placement.

**Professional Development.** Pre-service and inservice teacher education services are available, as well as Professional Development Centers.

**Teacher Incentives.** State-funded employability skills units are available for local school districts.

**School Reorganization.** None reported.

**Accountability.** Criterion-referenced competency tests will be administered in a pre/post-test design along with measures of increased attendance, reductions in suspension/expulsion, and reductions in course failures for at-risk students.

**Contact.** Dr. Darrell L. Parks; same contact as above.

**Initiative.** Other. Early Job Placement is a program for seniors in a two-year vocational education program.

**Initiative Description.** Students who master the program competencies are eligible for early job placement during the second semester of their senior year.

**Students Served.** The total number of students involved in early placement is estimated to be about 18,000.

**Eligibility Requirements.** Students must meet the attendance standards and competency rating necessary for program participation. Standards are established at the local level.

**Duration.** Students who master the program competencies are eligible for early job placement during the second semester of their senior year.

**Changes in Schooling.** (Curriculum, Classroom Time) The occupationally based and competency-based curriculum is being updated to reflect the current occupational, academic, and employability skills necessary.

**Initiative Evaluation.** All programs have been evaluated annually on the standard of 84 percent overall job placement upon program completion and 60 percent of students available for placement must be employed in jobs related to their field of training.

**Link Skills, Curriculum, Assessment.** Assessment is accomplished through the Ohio Competency Assessment Program process and testing program through The Ohio State Univ. Instructional Materials Laboratory.

**Student Assessment.** Detailed information is available upon request.

**Professional Development.** Staff inservice activities conducted by Ohio Department of Education staff; five vocational education regional personnel development centers; and the annual All Ohio Vocational Education Conference.

**Teacher Incentives.** Continuing Education Units are available to individuals who participate in inservice activities.

**School Reorganization.** See the SEA Plan for Accelerating the Modernization of Vocational Education.

**Accountability.** Proposed statewide core standards and measures of performance under the new Perkins Act include placement, retention, and academic and occupational learning gains.

**Contact.** Dr. Darrell L. Parks; same contact as above.

**Initiative.** Apprenticeship Programs.

**Initiative Description.** Vocational apprenticeship classes are developed for adults who are employed full-time in a trade or industrial occupation as registered apprentices.

**Students Served.** The following is information from FY 1990.

	Total	Indian	Asian	Black	Hisp.	White
Male	6,372	8	25	420	90	5829
Female	325	3	0	61	2	259
Totals	6,697	11	25	481	92	6088

Apprenticeships served in urban, rural, and suburban areas were not identified.

**Eligibility Requirements.** Apprentices must be registered by the Ohio State Apprenticeship Council. Instructors must have a high school education or equivalent with five years of employment in the trade or occupation.

**Duration.** Apprenticeship programs operate from one to five years. Most are four years or 8,000 hours with 144 hours of related instruction per year.

**Changes in Schooling.** (Curriculum) Industrial programs are developed to satisfy the needs of several employers in a geographic region. Local vocational administrators develop the curricula with the advice of local sponsors. Construction trades follow their national apprenticeship guidelines.

**Initiative Evaluation.** The Ohio Department of Education does a five-year review of all local programs. Local schools are encouraged to review all local programs annually.

**Link Skills, Curriculum, Assessment.** Apprentices are currently employed when they enter the program.

**Student Assessment.** All apprentices must be employed for 2,000 hours per year at the worksite. They are evaluated by journeymen. Apprentices are also required to complete 144 hours of classroom training each year. Assessment for this component is completed through performance and written tests as prescribed by the Joint Apprenticeship Council.

**Professional Development.** Local administrators are encouraged to participate in state-sponsored conferences for adult vocational administrators. Instructors are provided inservice training in the local schools.

**Teacher Incentives.** None reported.



**School Reorganization.** None reported..

**Accountability.** Certificates are given to those who successfully complete programs. The certificates are signed by both a representative of the Bureau of Apprenticeship and Training and the Executive Secretary of the Ohio State Apprenticeship Council.

**Contact.** Dr. Darrell L. Parks; same contact as above.

**Initiative.** Other. Small Business Management.

**Initiative Description.** This program is for adults who own new and existing small businesses. A bi-weekly series of three-hour classes is followed up with a monthly instructional visit.

**Students Served.** Since 1980, 56,546 small business owners have been served, of which 17,940 have been females.

**Eligibility Requirements.** Students own and/or operate an ongoing small business.

**Duration.** This is a two-year program. Many teachers offer update workshops to former class members.

**Changes in Schooling.** (Curriculum, Instructional Methods) The curriculum for the Small Business Management program is constantly updated based on information and data from the Occupational Competency Analysis Profile (OCAP). Instruction is provided in the classroom and at the business site.

**Initiative Evaluation.** Evaluation is based on enrollment, completion, and retention in businesses ownership.

**Link Skills, Curriculum, Assessment.** All individuals enrolled in the program own their own businesses. The instructor visits each participant several times during the year to assess their individual needs and to determine if skills learned in class are being applied to the operation of the business.

**Student Assessment.** Competency gains are determined by the OCAP process, using a pre/post criterion-reference test design.

**Professional Development.** The Ohio Department of Education sponsors two inservice meetings for instructors annually. In addition, new instructors attend an inservice meeting developed exclusively for their needs. There is also an international small business owners instructors' organization.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** Success is measured by the number of individuals that are still in business three to five years after completing the program.

**Contact.** Dr. Darrell L. Parks; same contact as above.

**Initiative.** Job Training Coordinator Program (Option 4) for Individuals with Disabilities.

**Initiative Description.** A specialized vocational job training program that provides specific job-skill training for students with disabilities in community-based employment sites. The program matches students' skills and interests to specific jobs in the community and assists students through the use of job coach services in the training process.

**Students Served.** There are currently over 800 students being served by this program. The primary population served by these programs are individuals with multiple handicaps or low-functional developmental disabilities. Several of the programs are also serving students with severe behavioral handicaps including those in institutional settings. Experimentation is being performed to determine if the program is also effective for other populations who have difficulty transitioning from job training to the employment site.

**Eligibility Requirements.** Students eligible for this program must be 16 years of age, enrolled in a special education program, and have an individualized educational plan that specifies that this program meets the unique job training need of the student.

**Duration.** Students can participate in the program beginning at 16 years of age and can continue until their 22nd birthdays as required for students with disabilities. Typical participation is approximately one to one-and-a-half years.

**Changes in Schooling.** Job Training Coordinators draw upon the validated competency list identified through the OCAP to match specific competencies needed for the community-based job site. This program also provides substantial time in community-based activities.

**Initiative Evaluation.** Job Training Programs are evaluated annually on the standards of 84 percent overall placement upon completion of the program and 60 percent in a job related to their specific field of training.

**Link Skills, Curriculum, Assessment.** Each individual student is provided a comprehensive functional assessment through both formal and informal vocational and life-skill assessment and then a specific job training plan and individualized educational plan map out the specific curriculum approach that will link the skills to the job and community needs.

**Student Assessment.** Student assessment is provided through specific on-the-job feedback by the employer, co-worker, job site coach, and job training coordinator.

**Professional Development.** Job Training Coordinators are required to participate in five days of staff development activities, which use experienced practicing coordinators and mentors.

**Teacher Incentives.** Alternative methods including alternative staffing schedules allow teachers greater exposure to the business community.

**School Reorganization.** See the SEA plan for Accelerating the Modernization of Vocational Education. This program enhances schools' linkages with other educational and human services agencies, which has resulted in realignment of school organizations to be compatible with new methods of delivery.

**Accountability.** None reported.

**Contact.** Dr. Darrell L. Parks; same contact as above.

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## OKLAHOMA

**Initiative.** Cooperative Education.

**Initiative Description.** Students are enrolled in job training programs that combine related classroom instruction with supervised, on-the-job training in paid employment. Programs are available in the following vocational education curriculum areas: Agricultural Education, Business Education, Marketing Education, Individualized Cooperative Education, and Home Economics Education.

**Students Served.** The distribution by program areas is as follows:

	Male	Female	Total
Agricultural Ed.	45	30	75
Business Ed.	4	9	13
Marketing Ed.	896	1,409	2,305
Individualized Cooperative Ed.	500	550	1,050
Home Economics Ed.	8	45	53
Food Management	34	35	69
Child Care	3	84	87
	1,490	2,162	3,652

**Eligibility Requirements.** Cooperative education programs generally serve students during their junior and senior years. Teachers are certified vocational education instructors who receive training in coordination of cooperative education.

**Duration.** Students are employed a minimum of 10 hours per week throughout their participation in the program.

**Changes in Schooling.** Curriculum is being updated to incorporate academic and employability skills necessary for employment and advancement in the career field of choice.

**Initiative Evaluation.** Technical assistance visits are made to each program on a yearly basis. Formal program evaluations are conducted on a five year cycle.

**Link Skills, Curriculum, Assessment.** Curriculum is competency-based.

**Student Assessment.** Students are evaluated by employers on a quarterly basis.

**Professional Development.** The Oklahoma Department of Vocational and Technical Education conducts an annual August conference and a mid-winter conference of all vocational educators.

**Teacher Incentives.** Continuing Education Units are available to teachers who participate in inservice activities.

**School Reorganization.** None reported.

**Accountability.** Programs are evaluated on a five-year cycle.

**Contact.** Mr. Gene Warner, State Supervisor, Marketing Education Division/ Oklahoma Department of Vocational-Technical Education/ 1500 W. 7th Street/ Stillwater 74074.  
Phone: (405) 743-5475.

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## PENNSYLVANIA

**Initiative.** Alternative High Schools, Career Academies, Community Service, Cooperative Education (The SEA is not directly involved in these activities.)

**Initiative Description.** None reported.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Dr. Ferman B. Moody, Director of Vocational-Technical Education/ Pennsylvania Department of Education/ 333 Market Street, 6th Floor/ Harrisburg 17126-0333  
Phone: (717) 787-5530

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## RHODE ISLAND

**Initiative.** Cooperative Education. Cooperative education placement programs exist at both the secondary and community college level.

**Initiative Description.** Each of the state's nine area vocational-technical centers and the Community College of Rhode Island offer cooperative education placements through which students follow an agreed-upon training plan. Work and training activities are coordinated between the school and the worksite.

**Students Served.** Approximately 450 students are enrolled.

**Eligibility Requirements.** Student eligibility is based on teacher recommendations, student readiness, and grade level.

**Duration.** Typically the program lasts for the entire senior year and two semesters at the community college.

**Changes in Schooling.** (Curriculum) Workplace readiness skills training has been incorporated into most of the cooperative education programs.

**Initiative Evaluation.** The Community College of Rhode Island has conducted formal evaluations of their program. The secondary cooperative education programs have not undergone a formal evaluation.

**Link Skills, Curriculum, Assessment.** This is done on an informal anecdotal basis. No formal process is in place.

**Student Assessment.** Student performance is evaluated by the employer based upon the agreed to training plan.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Dr. Frank M. Santoro/ Director/ Vocational and Adult Education/ 22 Hayes Street, Room 222B/ Providence 02908

Phone: (401) 277-2691

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## **SOUTH DAKOTA**

**Initiative.** Cooperative Ed

**Initiative Description.** Post-secondary level: Agribusiness Tech program lasts twenty months, five of which are for supervised occupational experience (three months in the first year, two in the second). Secondary: Ag Education program with supervised ag experience component and marketing program with a cooperative education element.

**Students Served.** Postsecondary = 60 males 10 females

Secondary = 1,200 males 1,200 females

**Eligibility Requirements.** Students must be 16 years of age. Staff have to be vocationally certified, which includes instruction on "How To Coordinate Cooperative Programs."

**Duration.** Durations are: four years for Agricultural Education, one year for Marketing Vocational Education, and 18 to 20 months for post-secondary programs.

**Changes in Schooling.** Changes have been required in curriculum, instructional methods, guidance, and scheduling.

**Initiative Evaluation.** All cooperative education programs are evaluated on a four-year cycle. Earnings of enrolled students and their training agreement are filed with the SEA.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** Workshops related to the coop education program are sponsored by the state office.

**Teacher Incentives.** No.

**School Reorganization.** No.

**Accountability.** Rewards for the most successful students are provided through the various vocational student organizations (e.g., FFA, PAS, DECA).

**Contact.** Larry G. Nelson, Asst State Director/ Kneip Building/ Pierre 57501

Phone: (605) 773-3423

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## **TENNESSEE**

**Initiative.** Related Programs. The traditional student coop program has been in effect since 1917.

The SEA also supports a pilot internship program. Contact Person: Dr. Floyd Sellers, Vocational Director/ Greenville/Green County Center for Technology/ Greenville 37743. Phone: (615) 639-6055

The state has approved alternative student licensure based on a year in the classroom as a

teaching assistant, seminars with a teacher mentor/university advisor, and graduate level summer courses. Contact Person: Dr. Connie Smith, Director/ Teacher Education/ TN Department of Education/ 102 Cordell Hull Building/ Nashville 37243  
Phone: (615) 741-6055

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## TEXAS

**Initiative.** Cooperative Ed

**Initiative Description.** Available in all regular program areas. Funded by the state at a 1.37 weight.

**Students Served.** Approximately 80,000 students participate.

**Eligibility Requirements.** Students must be in 11th or 12th grade and at least 16 years of age.

**Duration.** Ongoing.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None reported.

**Professional Development.** Cooperative Education teachers have the opportunity to participate in statewide summer inservice education workshops.

**Teacher Incentives.** Inservice education programs.

**School Reorganization.** None reported.

**Accountability.** Follow-up reports are required.

**Contact.** Robert S. Patterson/ Dir of Vocational Education Programs/ TX Education Agency/ 1701 N Congress Ave/ Austin 78701

Phone: (512) 463-9446

**Initiative.** Internships

**Initiative Description.** Several "High Technology Internship" programs are in operation. Funded by the state at a 1.37 weight.

For additional questions, see Cooperative Education above.

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## UTAH

**Initiative.** Youth Apprenticeship Programs and Job Corps.

**Initiative Description.** None reported.

**Students Served.** The current total Youth Apprenticeship enrollment is 20 students; projected enrollment for FY 1992 is 150.

Job Corps enrollment: 350. The Custom Fit Project enrolls 150 high school students.

**Eligibility Requirements.** None reported.

**Duration.** The initiatives are ongoing.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** The statewide SAT is given.

**Link Skills, Curriculum, Assessment.** There are 13 Assessment Centers in Utah that assess and prescribe training and place students. The high school job placement project is another initiative.

**Professional Development.** Counselor inservice is performed by the SEA with a certified Guidance Specialist.

**Teacher Incentives.** None reported.

**School Reorganization.** Strategic Planning is done with cooperation between the state legislature, school districts, the schools, and the U.S.E.D.



**Accountability.** A Placement Bonus for successful vocational education programs.  
**Contact.** R. Russell Whitaker, Ed. D./ Coordinator, Placement and Economic Development/  
250 East 500 South/ Salt Lake City 84111  
Phone: (801) 538-7742

## VERMONT

**Initiative.** (Cooperative Education) Cooperative Vocational Work Experience.

**Initiative Description.** There are three types of placements: Cooperative Vocational Education (CVE) - paid training station work; Supervised Work Experience (SWE) - paid work in an occupation for which no local vocational program exists; Career Work Experience (CWE) - short-term, unpaid career exploration.

Students Served.	Females	Males
CVE	111	104
SWE	6	5
CEW	60	3

TOTAL 289

**Eligibility Requirements.** CVE students must have completed their vocational programs. SWE students may participate only if a vocational program in that occupational area does not exist locally.

CWE students must be enrolled in a vocational program.

Vocational co-op coordinators must be state licensed.

**Duration.** CVE - one semester or less, SWE - up to four semesters, CWE - part of a semester.

**Changes in Schooling.** (Curriculum) CVE requires vocational completion and competency list achievement. SWE requires a training plan. CWE must be an integral part of a comprehensive curriculum.

**Initiative Evaluation.** No statewide effectiveness assessment has been done. Preliminary data suggest that 80 percent of CVE students pursue occupation/education in that area in which they co-oped.

**Link Skills, Curriculum, Assessment.** Employability skills must be acquired as assessed by the program coordinator.

**Student Assessment.** Through pre- and post-standardized testing and assessment by program coordinators, CVE and SWE students are evaluated on academic, occupational, employability, and workplace skills.

**Professional Development.** Coordinators receive training for certification through the state-sponsored Mentor Program and monthly meetings.

**Teacher Incentives.** There is a state Teacher the Year Award (with a financial reward) for technical education instructors.

**School Reorganization.** No.

**Accountability.** Cooperative Education programs are evaluated once every five years.

**Contact.** Contact: Tony Campbell, Technical Education Student Services Coordinator/ 120 State Street/ Montpelier 05620.

Phone: (802) 828-3101

**Initiative.** (At-Risk Youth) Education for Youth Employment Program (EYEP), Summer Youth Employment Program (SYEP), and Jobs for Vermont Graduates (JVG).

**Initiative Description.** JVG provides employability skills and internships for at-risk students. EYEP and SYEP use private and public subsidized employment, pre-employment, and skills training to vocationally train those at risk.

**Students Served.** EYEP: 350 per year. SYEP: 1650 per year. JVG: 300 per year.

**Eligibility Requirements.** EYEP and SYEP participants must be economically disadvantaged and disabled. EYEP has a 10 percent window for those at risk but not meeting the income guidelines. JVG students must be at-risk of acquiring no employment after graduation.

**Duration.** EYEP runs annually, SYEP runs from late June to early August, JVG runs mainly during the school year.

**Changes In Schooling.** (Curriculum) Changes have been made to keep potential dropouts in school. Occupational and academic skills are integrated. Special instructional methods are used for the disabled.

(Guidance and Counseling) Counseling for "life-skills" on a one-to-one basis is done.

**Initiative Evaluation.** End-of-the-year reports are required.

**Link Skills, Curriculum Assessment.** Tutoring for those in EYEP and SYEP reading below a 7th grade level is available.

**Student Assessment.** If test scores are unavailable for SYEP and EYEP students, a reading exam is given.

**Professional Development.** EYEP - 4 days of training per year, SYEP - 1 day per year, JVG - up to 12 days per year.

**Teacher Incentives.** No.

**School Reorganization.** Champlain Valley Union is planning to organize a schedule so that any student can participate in JVG.

**Accountability.** Schools may lose funding if pre-employment skills and/or unsubsidized employment are not attained.

**Contact.** EYEP Contact: Julie Lambert, EYEP Grants Manager/ Department of Employment and Training/ Green Mt. Drive, PO Box 488/ Montpelier 05601-0488

Phone: (802) 828-4346

SYEP Contact: Jim Clark, SYEP Grants Manager/ Department of Employment and Training/ Green Mt. Drive, PO Box 488/ Montpelier 05601-0488

Phone: (802) 828-5146

JVG Contact: Linda Gray, Program Director/ JVG/ Department of Education/ 120 State Street/ Montpelier 05620

Phone: (802) 828-3131

**Initiative.** (Youth Apprenticeship) Workplace Education Program

**Initiative Description.** Technical Certification Programs are being developed. Broadened by a CCSSO grant, WEP is creating tests and competency lists based on employer input. High school vocational students enter apprenticeships to acquire a level 1 certification in the chosen field.

**Students Served.** Approximately 30 students in 1992.

**Eligibility Requirements.** The Certificate of Initial Mastery is being developed.

**Duration.** Intended to become permanent and expanding.

**Changes In Schooling.** (All) Changes will be required to allow apprenticeships during the day. Cooperative learning will be emphasized. Guidance counselors will have to inform students of certification requirements.

**Initiative Evaluation.** There will be a comprehensive evaluation with surveys and tracking of level 1 completers.

**Link Skills, Curriculum Assessment.** Students must demonstrate mastery of specified employment readiness and technical skills.

**Student Assessment.** Assessment will include written and hands-on performance.

**Professional Development.** Being developed for 1992.

**Teacher Incentives.** Not yet.

**School Reorganization.** The Stafford Technical Center has become the pilot site as of January 1992.

**Accountability.** Achievement of level 1 certification will be assessed in the future.  
**Contact.** Robert McLaughlin, Director/ Workplace Education Program/ 235 Main Street/  
Montpeller 05602  
Phone: (802) 223-0463

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## VIRGINIA

**Initiative.** Cooperative Ed

**Initiative Description.** Cooperative Education is not a new initiative. The programs are directed by a teacher who coordinates the student's classroom instruction with an on-the-job supervisor. A training agreement is signed by the student, a parent/guardian, the teacher, and the employer. The student, teacher, and training sponsor formulate a training plan, which outlines specific tasks the student will learn and perform.

**Students Served.** The current student enrollment is 22,464. There are 15,964 sites in operation.

The total earnings during the past year were \$54,439,407.

The areas covered are agriculture, business, health occupations, marketing, home economics, and trade and industrial education.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Teacher Incentives.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** None reported.

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## WASHINGTON

**Initiative.** (Alternative High Schools, Cooperative Ed, and Internships) The state has ongoing programs in these areas.

**Initiative Description.** None reported.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Teacher Incentives.** None reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** None reported.

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## WEST VIRGINIA

**Initiative.** Cooperative Ed (marketing, diversified cooperative training, cooperative office education, agriculture, occupational home economics)  
Youth Apprenticeship (planning stages, expected initiation in fall 1992)

Community Service (not a statewide initiative)

**Initiative Description.** Typically, three credits are awarded for one hour a day in class and 15-25 hours of on-site work per week.

**Students Served.** Programs are one or two years long. Most Cooperative Education programs are in urban areas.

Students Served (1990-1991):

Agriculture	550
Business Education	315
Diversified Cooperative Training	835
Occupational Home Economics	616
Marketing Education	687
TOTAL:	3,003

**Eligibility Requirements.** Selection standards vary by county, and are based on age (16 or older), interest, attendance, discipline record, and occasionally grade point average. Teachers must be certified in the appropriate vocational area. Nine credit hours in cooperative education design and management are required for Cooperative Education teachers.

**Duration.** Programs last one or two school years

**Changes in Schooling.** (Curriculum) Job-search and retention skills have been integrated. Competency records are required.

(Instructional Methods) Training agreements and plans including competencies are required. (Class Time) Increased academic requirements have made cooperative education scheduling more difficult. The downsizing of county school systems is putting pressure on teachers to neglect coordination time and teach more classes instead.

**Initiative Evaluation.** A state evaluation every 3 years, and SEA staff provide technical assistance and evaluation as requested by county administrators.

**Link Skills, Curriculum Assessment.** Ongoing and formalized. Efforts are being made on a statewide basis to match training activities with curriculum modifications in order to create compatibility and stringent alignment with employer and workforce needs.

**Student Assessment.** On-the-job training plans and employer evaluations assess progress.

**Professional Development.** An annual summer conference provides professional development workshops for each service area. Various other workshops are held throughout the year.

**Teacher Incentives.** None.

**School Reorganization.** Only scheduling changes have been necessary.

**Accountability.** Data on student placement rates are gathered by the service areas. Training plans, and such are available for review. No rewards or sanctions exist.

**Contact.** W. Jack Newhouse, Director of Secondary and Special Programs/ West Virginia Dept. of Education/ Bldg 6, Room B-230/ 1900 Kanawha Blvd East/ Charleston 25305  
Phone: (304) 348-2348

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## WISCONSIN

**Initiative.** Youth Apprenticeship Programs.

**Initiative Description.** The legislature:

Created a statewide Youth Apprenticeship Program in the Department of Industry, Labor, and Human Resources (DILHR) funded at \$150,000 GPR and 2.0 GPR positions annually. DILHR would be required, in cooperation with Department of Public Instruction and the state's vocational, technical and adult education postsecondary institutions, to: (1) develop a Youth Apprenticeship program and maintain the program statewide; and prepare a report, submitted to the Governor and appropriate committees of the Legislature, describing the actions necessary to budget and staff a mature Youth Apprenticeship Program statewide; (II) create a 13-member council in DILHR to coordinate the development and establishment

of a youth apprenticeship program. Members of the Council would include one VTAE administrator and one high school administrator appointed by the Governor, three vocational instructors appointed by the state VTAE board, three high school teachers appointed by the State Superintendent of Public Instruction, plus two representatives of business and two representatives of labor appointed by DILHR; (III) specify that the youth apprenticeship programs have no effect on existing apprenticeship programs.

**Students Served.** None reported.

**Eligibility Requirements.** None reported.

**Duration.** None reported.

**Changes in Schooling.** None reported.

**Initiative Evaluation.** None reported.

**Link Skills, Curriculum, Assessment.** None reported.

**Student Assessment.** None Reported.

**Professional Development.** None reported.

**Teacher Incentives.** None reported.

**School Reorganization.** None reported.

**Accountability.** None reported.

**Contact.** Lyle C. Martens/ Deputy Superintendent/ Department of Public Instruction/ P.O. Box 7841/ Madison 53707-7841

Phone: (608) 266-1771 or

Maggie Burke/ Special Assistant/ same address as above

Phone: (608) 267-1056

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D.C.

**Initiative.** Cooperative Education consists of student afternoon training at work stations.

**Initiative Description.** Interdisciplinary Cooperative Education Programs provide career preparation within certain occupational areas through classroom, job-related instruction and on-the-job training experiences in cooperation with area business, industry, and community agencies. The two experiences are supervised in such a manner as to enhance students' opportunities for rewarding employment. Students attend scheduled seminars and are provided counseling in class and at the training station.

Students are required to complete job evaluations and follow-up survey forms after graduation. Employers are asked to complete and submit student and program evaluation forms after each training cycle. Program operational changes are periodically made in response to changing requirements in the local area businesses, industry, and community agencies.

**Students Served.** The estimated number of students served is 983.

All students served are minority and urban.

**Eligibility Requirements.** Staff must comply with certification requirements. The Cooperative Education course is offered to all senior high school students.

**Duration.** Cooperative Education has existed in D.C. Public Schools since 1965.

**Changes in Schooling.** The initiative has required no basic changes.

**Initiative Evaluation.** Plans have been made for employer evaluations during the 1991-92 school year.

**Link Skills, Curriculum, Assessment.** The employer evaluation will be used to assess the employment skill readiness of the students and the appropriateness of the curriculum.

**Student Assessment.** The course content consists of exploring careers, applying for jobs, researching careers, human relationships, and meeting adult responsibilities. The teacher and the employer assess students based on job performance.



**Professional Development.** Professional development activities are provided in the following areas:

- Curriculum
- Cooperative placement
- Targeted sales tax utilization
- Entrepreneurship instruction

**Teacher Incentives.** Funds are provided for a limited number of teachers/educators to attend educational conferences.

**School Reorganization.** None reported.

**Accountability.** Feedback from employers is used to measure success for students. School personnel are not rewarded for the success of students.

**Contact.** Dr. Otho E. Jones/ Assistant Superintendent/ State Office of Vocational and Adult Education/ Browne Administrative Unit/ 26th Street & Benning Road, N.E./ Washington D.C. 20002

Phone: (202) 724-4178

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## NORTHERN MARIANA IS.

**Initiative.** Cooperative Education, Youth Apprenticeship. The SEA is seeking to strengthen its existing programs in coop education to ensure that all students who want training receive it from employers who want to provide it.

The SEA currently has few students involved in programs of this nature. The number is small due to the reluctance of some employers.

**Initiative Description.** The emphasis on both initiatives depends largely on the questionnaire sent to prospective employers before the start of each school year. It inquires about the necessary skills employers want the programs to emphasize.

The current boom in the state's construction industry has resulted in a focus on related skills. Demand for computer skills also seems to be on the rise.

**Students Served.** Approximately 50 students: 25 females, 25 males.

**Eligibility Requirements.** Teachers must be full-time vocational education teachers currently teaching in any one of the affected program areas.

Students must be in school full-time and must be seniors at the time of their appointment to the program. They must go out into the community to perform their tasks.

**Duration.** Two semesters or one academic year.

**Changes in Schooling.** (Curriculum, Instructional Methods) The curriculum should be updated to meet current trends in the community. Instructional Methods should use more contemporary mediums (i.e. audio-visual).

**Initiative Evaluation.** No evaluation has been done as of yet. The SEA will conduct one soon.

**Link Skills, Curriculum, Assessment.** Skill linkage will be covered in the evaluation of the initiative.

**Student Assessment.** None reported.

**Professional Development.** There is no special training other than the programs previously explained.

**Teacher Incentives.** Training takes place during regular working hours, which means that educators cannot be compensated per local public laws. When the training takes place during non-working hours, the teachers and staff receive compensation.

**School Reorganization.** None reported.

**Accountability.** Assessment is under development.

**Contact.** Patrick U. Tellei/ Vocational Education Coordinator/State Director/ Public School System P.O. Box 1370 CK/ Saipan, MP 96950

Phone: (670) 322-4056

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## PUERTO RICO

**Initiative.** Cooperative Education.

**Initiative Description.** The Coop Education Program is a partnership between schools and local industries. It provides hands-on experience in a real work setting for students during training. The program is aimed at knowledge, skill, task, attitude, and competency preparation.

**Students Served.** Total 1989-90 participants were 4,830.

**Eligibility Requirements.** Students must be over 15 years of age and have the approval of a parent or guardian.

**Duration.** The program lasts the entire school year.

**Changes in Schooling.** (Class Scheduling) The Vo Tech Education Program regulates student participation in Cooperative Education through a circular letter that establishes the agreements between schools and firms.

**Initiative Evaluation.** A document was designed to help industrial coordinators in the evaluation of student performance. Successful completers usually stay on as employees.

**Link Skills, Curriculum, Assessment.** Vocational programs prepare a supplementary outline resulting from an occupational analysis, which lists the tasks and skills to be achieved by participating Cooperative Education students.

**Student Assessment.** The outline noted above contains the tasks and skills that cannot be attained at the worksite due to lack of high-tech materials and equipment. The students are assessed according to the tasks and skills on the outline.

**Professional Development.** Vocational education programs provide internships to teachers aimed at updating their skills in the use of high-tech materials and equipment.

**Teacher Incentives.** Several incentives are provided to teachers such as scholarships, economic bonuses, internships, leaves of absence with pay, and payment of tuition fees.

**School Reorganization.** None reported.

**Accountability.** During FY 1990-91, students earned \$7,171,949 with 2,622 employers.

**Contact.** Mrs. Adaljisa Cruz de Bedot, Asst Secretary for Vo, Tech, and High Skills Education Program/ Commonwealth of Puerto Rico/ Department of Education/ PO Box 759/ Hato Rey 00919

Phone: (809) 753-9128 (809) 754-0860

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## VIRGIN ISLANDS

**Initiative.** Cooperative Education, Youth Apprenticeship.

The job program has to be assessed to determine percentages of success in each vocational area.

No additional information reported.

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