

Work
in the
School
place

Tennessee's School-to-Work Program

Kimberley Potts
Principal Research Analyst

Ethel R. Detch
Director
Office of Education Accountability
505 Deaderick St., Suite 500
Nashville, Tennessee 37243-0268
telephone 615/532-1111
fax 615/532-9237

W. R. Snodgrass
Comptroller of the Treasury

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Executive Summary

In 1992, the Tennessee General Assembly adopted the Education Improvement Act (EIA), which, among other provisions, directed the Commissioner of Education to develop and the State Board of Education to approve “a high school curriculum that will prepare students to be successful in the twenty-first century, including a two-track high school curriculum, one for college bound and one for students entering the work force.”

The State Board of Education adopted the High School Policy in 1993 to address the General Assembly’s directive. The new policy, which was implemented with students entering the 9th grade in 1994-95, creates distinct paths for students who are preparing to go to college and those who are preparing to enter the work force immediately after high school. It requires all students to prepare a focused plan of study prior to the 9th grade with the help of parents, faculty advisors, and/or guidance counselors. Students are also required to select either a technical or university path, or they may select a dual path, which combines aspects of both the technical and university paths.

Although the two-path system has been implemented only a short time in Tennessee schools, there is a fast-moving trend—initiated by a combination of the state Departments of Education and Labor and the business community, and fostered by a federal grant—to implement a “career cluster” approach as a better way of integrating academic and vocational education. A career cluster system basically organizes curriculum into broad “clusters” that represent fields of business or industry, such as health or communications. Each cluster contains curricula common to all “job pathways” in that cluster and contains more specific curriculum relating to particular jobs in that field.

In part, this has been spurred on by the federal passage of the School-to-Work Opportunities Act of 1994, at a time when Tennessee schools were just beginning to implement the two-path system. The federal initiative, signed into law by President Clinton on May 4, 1994, provides grants to states and local partnerships to create school-to-work systems by building on existing programs and reforms, and has become an impetus for many states to develop school-to-work programs. Tennessee received a \$770,000 development grant under the Act in February 1994 to be used for planning and some initial activities. More recently the state successfully competed for a five-year \$28.2 million implementation grant under the Act, and in doing so, proposed the “cluster system.” (Note: Tennessee’s School-to-Work program was first called School-to-Career, but has been renamed Education Edge. This report still uses the School-to-Career name for the sake of clarity and for use by parties outside the state of Tennessee.)

As of September 1997, a newsletter produced by the School-to-Career office indicates that a total of 54 partnerships involving 63 counties have been formed, and three action plans submitted by local Community Partnerships have been approved for funding. According to the Department of Education, as of November 1997, 88 of the 95 counties have elected to participate in School-to-Career.

This report describes the basic elements of the High School Policy, and describes how the department’s career cluster proposal may affect the legislatively mandated two-track provision of the High School Policy. In addition, the report briefly summarizes the state’s

recent successful grant proposal under the federal School-to-Work Opportunities Act. The report also raises concerns that the Office of Education Accountability believes policymakers should consider.

On pages 13-15, the report concludes:

- It is not clear how the legislatively mandated two-path system will work within the School-to-Career structure. The department has not maintained a database of basic information concerning the two-path, such as the number of students in each path. Analyzing results of the two-path system could help policy makers make more informed decisions about future education programs.
- Some schools may find it difficult to implement another major change in direction so soon after the two-path's implementation.
- The success of the School-to-Career design hinges on heavy private sector involvement. However, it appears that the business sector is not yet participating in the school-to-career planning to the extent needed.
- The Department and State Board staff indicate that all clusters may not be available to students in every school system. This leads to the question of whether educational opportunities will be equally available to all students in the state.
- Because some elements of the cluster system are not clear, it is difficult to determine the long-term cost of or effectiveness of implementing the School-to-Career system. The grant for \$28.2 million is non-recurring, but any related significant curriculum or staffing changes could increase costs.
- The federal government will require the reporting of certain information in order to assess the effectiveness of the school-to-work system. If properly carried out and acted upon, a strong data collection and evaluation system could lead to better planning and more meaningful results.
- It is not clear whether the work-based learning opportunities that School-to-Career supporters advocate will include experiences with either government, education, nonprofit organizations, or the arts.

Recommendations

See pages 16-19 for recommendations and a complete text of the responses submitted by the Department of Education and the State Board of Education.

- **The Department of Education should gather more definitive information about the effectiveness of the High School Policy, and specifically the two-path system, as well as other educational approaches.**

Summarized Responses:

Department of Education: *The Department of Education, Division of Finance, Administration, and Technology has specified the addition of path choice indicators to be collected in the Student Information System beginning in Fall, 1998. The Common Core Team presented their recommendations to the State Board of Education for revisions to the core curriculum and are now analyzing the curriculum frameworks for math to identify specific competencies for inclusion.*

State Board of Education: State Board of Education members noted at their retreat in July 1996 that they saw school-to-career as a next step in the development of the high school policy. The career cluster concept was seen as a logical extension of the high school policy.

- **If the School-to-Career system is implemented, the State Board of Education and the Department of Education should develop measures to evaluate whether School-to-Career efforts are truly benefiting students and, additionally, whether this approach to education is benefiting the state's economy, as its proponents claim. Some of these measures may be derived from the information required by the federal government; others should be undertaken in order to inform Tennessee's stakeholders and decision makers.**

Summarized Responses:

Department of Education: *The Department of Education has contracted with Dr. Russ French of the University of Tennessee to develop a multiple data source evaluation system that will frame, guide, and shape the evaluation of the Education Edge initiative.*

State Board of Education: *The contract between the School-to-Career office and the U.S. Department of Education requires the collection and reporting of data on the progress toward achievement of the state's goals and measures. The Board staff are available to assist the School-to-Career office to draft designs of the data collection system and to ensure that the necessary measures of effectiveness are incorporated.*

- **The State Board of Education should review the duties and responsibilities of the regional and local partnerships to assure that there is no conflict with the duties and responsibilities of the State Board and local boards of education.**

Summarized Responses:

Department of Education: *Regional partnerships are responsible for conducting marketing and awareness activities and developing local partnerships. Local partnerships are responsible for developing and sustaining Education Edge system activities. They can inform school boards about the changing demands of the workplace, offer teaching strategies to help students apply what they learn to real-life situations, and offer work-based teaching experiences to students and teachers to provide relevancy and enhance teaching and learning. Local partnerships cannot, however, usurp the authority of the local school board.*

State Board of Education: *Under no circumstance can either a local or regional STC partnership usurp the authority of either the State Board or local board of education as provided in statute.*

- **The State Board and the Department should make certain that the structure of the School-to-Career system provides similar educational opportunities for all Tennessee students.**

Summarized Responses:

Department of Education: *The Department has conducted several professional development activities for local partnerships to acquaint them with the requirements [of] action plans for building systems. Education Edge will be*

available to all students in the 88 participating counties. Local partnerships will decide which of the seven clusters they will develop locally.

State Board of Education: *The School-to-Work Opportunities Act requires that all students in all sections of the state are provided with the opportunity to participate in School-to-Work activities.*

OEA Comment: *Because local partnerships will be determining the clusters offered, they are likely to represent primarily careers available in those areas. The Department of Education needs to assure that all local partnerships succeed in providing exposure to many career opportunities.*

- **The State Board and the Department should make certain that work-based opportunities for students include careers in government, education, nonprofit organizations, and the arts.**

Summarized Responses:

Department of Education: *The choice of work-based learning activities is to be decided by community partnerships. The Arts/Communication cluster team will consider work-based learning opportunities as they define the knowledge and skills needed for occupations in the cluster. The Human Services cluster (including government and nonprofit careers) will be developed in the 1998-99 school year. Their team assignment will include identifying appropriate work-based learning opportunities for the cluster. Service learning opportunities are particularly applicable to this cluster. The Department has already sponsored one professional development event showcasing service learning.*

State Board of Education: *The State Board of Education will make every effort to ensure that a broad array of work-based learning opportunities are made available to students.*

OEA Comment: *OEA staff observations of policy team meetings indicated a strong influence by persons representing business interests. Broadening the representation within the planning and oversight structure could help diminish opposition to the program as well as assure that students who seek other professions such as teaching, public administration, art, music, or criminal justice are given opportunities equal to those seeking careers in business, manufacturing, or sales.*

In its response, the State Board of Education raised additional concerns about this report. See page 19 for a summary of their comments as well as the Office of Education Accountability's response.

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Introduction

In 1992, the Tennessee General Assembly adopted the Education Improvement Act (EIA), which, among other provisions, directed the Commissioner of Education to develop and the State Board of Education to approve “a high school curriculum that will prepare students to be successful in the twenty-first century, including a two-track high school curriculum, one for college bound and one for students entering the work force.” In addition, the curriculum was to be submitted to the Joint Legislative Oversight Committee on Education for its review and recommendation.¹ The impetus for this directive sprang largely from concern among educators and the business community that students in Tennessee’s schools be adequately prepared to become a part of the work force.

The State Board of Education adopted the High School Policy in 1993 to address the General Assembly’s directive. The new policy, which was implemented with students entering the 9th grade in 1994-95, creates distinct paths for students who are preparing to go to college and those who are preparing to enter the work force immediately after high school. It requires all students to prepare a focused plan of study prior to the 9th grade with the help of parents, faculty advisors, and/or guidance counselors. Students are also required to select either a technical or university path, or they may select a dual path, which combines aspects of both the technical and university paths.

Tennessee’s business community appears to have reacted positively to the two-path system after its passage. Articles in *The Tennessean* and *Nashville Business Journal* praised education’s new direction toward working with business to match “student interests to training for specific careers.”² While some businesses throughout the state already had begun involvement with schools through adopt-a-school and various award programs, the effort was piecemeal—according to one account in the *Nashville Business Journal*, the two-path approach represented perhaps the most far-reaching cooperative attempt between education and businesses in Tennessee.³

Although the two-path system has been implemented only a short time in Tennessee schools, there is a fast-moving trend—initiated by a combination of the state Departments of Education and Labor and the business community, and fostered by a federal grant—to implement a “career cluster” approach as a better way of integrating academic and vocational education. A career cluster system basically organizes curriculum into broad “clusters” that represent fields of business or industry, such as health or communications. Each cluster contains curricula common to all “job pathways” in that cluster and contains more specific curriculum relating to particular jobs in that field. The cluster system has been designed as part of the state’s School-to-Career program and the grant was through the federal School-to-Work Opportunities Act of 1994. (Note: Tennessee’s School-to-Work program was first called School-to-Career, but has been renamed Education Edge. This report still uses the School-to-Career name for the sake of clarity and for use by parties outside the state of Tennessee.)

¹ *Tennessee Code Annotated* §49-1-212.

² Don Mooradian, “Vocational training in vogue in area schools,” *Nashville Business Journal*, October 23-27, 1995, p. 33; Reagan Walker, “1995: Great Expectations,” *The Tennessean*, September 19, 1993.

³ Mooradian, p. 33.

This report describes the basic elements of the High School Policy, and describes how the department's School-to-Career proposal may affect the legislatively mandated two-track provision of the High School Policy. In addition, the report briefly summarizes the state's successful grant proposal under the federal School-to-Work Opportunities Act. The report also raises concerns that the Office of Education Accountability believes policymakers should consider in determining the future of education in Tennessee.

Methodology

The analysis and conclusions reached in this report are based on:

1. Interviews with staff of the Tennessee Department of Education, the State Board of Education, and key legislators.
2. Interviews with staff of the Tennessee Education Association.
3. A review of reports, program summaries, and other literature from the Tennessee Department of Education.
4. Public hearings at the State Board of Education.
5. The Master Plan for Tennessee Schools (for years 1991, 1992, 1993, 1994, and 1995).
6. Reports from the Southern Regional Education Board.
7. Tennessee Public Acts and Tennessee Code Annotated.
8. Meetings of the School-to-Career Policy Team.
9. A review of the state's grant application under the federal School-to-Work Opportunities Act.
10. A public hearing before the Joint Legislative Oversight Committee on Education regarding School-to-Career.

Background

The EIA required implementation of the two-path system during the 1994-95 school year. In devising the High School Policy, the State Board of Education identified nine elements, including the two-path system, that it determined essential for school-wide reform:⁴

1. Core curriculum. All students are required to complete a core curriculum that totals 14 units: English, four units; Mathematics, three units; Science, three units; Social Studies, three units; Health, Physical Fitness and Wellness, one unit. A total of 20 units is required for graduation.

2. Two paths: university or technical. All students will pursue a focused program of study preparing them for post-secondary study either in university or post-secondary technical training. Students on both paths will complete the core curriculum. Students electing the university preparatory curriculum will complete courses required for entrance into Tennessee's public colleges and universities, including two units of foreign language and one unit of fine arts, for a total of 20 units. Students electing a technical preparation curriculum will complete a four-unit program of study focusing on a particular technical area with two units of electives, for a total of 20 units. Students on the technical path have the opportunity to move directly into the post-secondary component

⁴ Tennessee State Board of Education, *High School Policy: A New Vision for Tennessee High Schools*, September 17, 1993, pp. 8-13.

of a tech-prep program. (See page 8 for an explanation of “tech-prep.”) It is possible for students to change from one path to another. It is also possible for students to choose a dual path option, for which they must meet the requirements for both the university preparatory and technical preparatory curriculum (a total of 21 units).

3. *A focused plan of study.* Prior to the 9th grade, the student, parent(s), and faculty advisor or guidance counselor are to prepare a focused, purposeful plan of study for the student’s high school years. The plan is to be reviewed annually and should connect the student’s academic and career interests to school.

4. *Active learning.* In both academic and technical courses there will be greater emphasis on learning strategies such as cooperative learning, peer tutoring, technology, and the application of knowledge to real-life situations. Students will work in teams, participate in laboratory activities and other hands-on learning experiences, do more writing, and create their own projects.

5. *Integrated curriculum.* This concept refers to integrating academic with work-based learning. It can be accomplished using various methods, including collaborative planning among school administrators, teachers, and employers; and project-based learning, in which students and teachers collaborate to create projects related to an occupational issue.

6. *Extra support to meet student needs.* School systems must provide remediation for students who need extra help. Each special education student will continue to have an Individualized Education Program (IEP) developed by a multi-disciplinary team.

7. *Assessment of learning.* State and local assessments are to be linked to learning outcomes and measure higher order learning. Beginning in 1995, all 11th grade students began participating in the state writing assessment. In accordance with the EIA, students are to complete an upgraded proficiency test that includes skills at more advanced levels. The new test was administered to students in grades 9-12 beginning in 1994-95. The EIA also required that by 1995-96 all students must complete an exit examination. Students completing the university path take either the ACT or SAT. Students completing the technical path take Work Keys. By 1998-99, the state is to develop high school course assessments.

8. *School-wide improvement plan.* Each high school must develop a written school-wide improvement plan detailing goals focusing on revising curriculum, increasing the number of tech-prep agreements, continuing to encourage innovations in scheduling and instruction, and providing additional time for professional development. The new technical curriculum is to link practice with results. Students should learn to make connections between abstract academic theories and actual tasks in the workplace.

9. *Professional development.* Both the Department of Education and the State Board of Education believe that to accomplish needed reforms, schools must be organized so that faculty members have opportunities for professional development.

Curriculum Requirements Before and After

One of the major elements of education reform across the country has been the elimination of the general track curriculum. While Tennessee’s curriculum was never officially labeled

the “general track,” the result was the same—all 9th-12th grade students were required to complete the same curriculum including seven units of electives, in order to graduate with a regular diploma. The High School Policy basically instituted curricula for all students nearly identical to the previous requirements for the Honors Diploma under the “general track.” See page 5 for a comparison of the curriculum requirements under the previous requirements and those under the High School Policy. One purpose of the curriculum changes under the High School Policy was to require students to complete a focused plan of study. Under the previous system, students not seeking an honors diploma were not required to select a focus of study. This allowed students to take a broad range of classes that might or might not fulfill the admission requirements for postsecondary education, and additionally might not prepare students to enter the work force immediately upon graduating. Under the High School Policy, all students are required to focus their studies either on the classes necessary to enter a university or on a technical area.

Preparing Students for the Workplace

When the two-path approach to curriculum was devised, it was at least partly in response to concern among both educators and members of the business community regarding the preparation of students for the workplace. Former Education Commissioner Charles E. Smith told the Select Oversight Committee on Education as early as 1987 that, “College prep curricula and high standards have their places in quality schools, but so do programs that prepare students for the workplace...”⁵

Many educators and private sector representatives indicate that the workplace now requires skills and capabilities quite different from those needed in the past and that schools could improve in their efforts to teach students these necessary skills. One report indicates that not only are current students unprepared to enter the U.S. work force—those currently employed lack the necessary skills as well because “...it is not the performance level of students that has declined. Rather, the demands of the external competitive environment have increased.”⁶

This growing concern appears to be part of a national trend, which has emerged as the result of global economic competitiveness and the changing nature of the workplace.⁷ In 1995, the Bureau of Business and Economic Research / Center for Manpower Studies of Memphis, Tennessee, presented its findings on the economic outlook for Tennessee: “More than ever before, the primary determinant of the success of Tennessee’s economic development initiatives will be how well we educate and train our citizens....Every day employers complain about the shortage of qualified workers available to fill the jobs being created.”⁸

⁵ From text of prepared remarks by State Education Commissioner Charles Smith, Legislative Oversight Committee, Thursday, October 15, 1987, p. 15.

⁶ Nan Stone, “Does Business Have Any Business in Education?,” *Harvard Business Review*, March-April 1991, p. 47.

⁷ Ibid., and Susan Imel, *Trends and Issues: School-to-Work Transition*, ERIC Clearinghouse on Adult, Career, and Vocational Education, 1995, p. 1; Joel Dreyfuss, “The Three R’s on the Shop Floor,” *Fortune*, Special Issue on Education, 1990, p. 87.

⁸ Memphis Bureau of Business and Economic Research/Center for Manpower Studies, *Tennessee’s Good Times Continue in 1996*, University of Memphis, pamphlet, December 7, 1995, p. 2.

Previous Requirements

Regular Diploma

Courses	Units
English Language Arts	4
Mathematics*	3
Science	2
U.S. History	1
U.S. Government	1/2
Additional courses in Math, Science, or World History, World Geography, Ancient, Modern, or European History	1/2
Economics	1/2
Physical Education	1
Health Education	1/2
Electives	7
Total	20

or students could complete the following curriculum for an honors diploma.....

Honors Diploma

Core Curriculum plus either..

Courses	Units
English (Honors level, if offered)	4
Math (Algebra 1 or Math for Technology II, and Geometry or Advanced Math)	3
Science	3
Social Studies (U.S. History, Economics, and 1 1/2 additional units)	3
Physical Ed.	1
Health Ed.	1/2
Subtotal	14.5

General Education

Courses	Units
Foreign Language	2
Fine Arts	1
Electives	3
Subtotal	6

or

Vocational Education

Courses	Units
Program of study focusing on a vocational area	4
Electives	2
Subtotal	6

Total 20.5

Current Requirements under the High School Policy

Core Curriculum plus either.....

Courses	Units
English Language Arts	4
Mathematics	3
Science	3
Social Studies*	3
Wellness	1
Subtotal	14

University Preparation

Courses	Units
Foreign Language	2
Fine Arts	1
Electives	3
Subtotal	6

or

Technical Preparation

Courses	Units
Program of study focusing on a technical area	4
Electives	2
Subtotal	6

Total 20

or students may take an option combining both paths.....

Dual Path

Courses	Units
English	4
Mathematics	3
Science	3
U.S. History	1
World Geography or World History	1
Economics	1/2
U.S. Government	1/2
Health, Physical Fitness and Wellness	1
Fine Arts	1
Foreign Language	2
Related Technical Area	4
Total	21

A 1991 report issued by the Secretary's Commission on Achieving Necessary Skills (SCANS) indicated that the workplace of the future could be described as "high performance work organizations," entities for which there is no clear definition, but which involve such elements as work done by teams organized around processes, collaboration among teams, and workers with high skill levels. The report also indicated that schools should attempt to equip graduates with the capacity for lifelong learning.⁹

Much of the rhetoric surrounding current education reform efforts uses similar terms to describe what schools should be teaching. For example, one element of Tennessee's High School Policy is "active learning," which encompasses activities such as students working in teams and participating in hands-on learning experiences. And both Board and Department staff frequently refer to the need for students to be prepared for lifelong learning.

In the last few years, the subject of education reform has become even more focused on preparing students for the workplace. In part, this has been spurred on by the federal passage of the School-to-Work Opportunities Act in 1994, at a time when Tennessee schools were just beginning to implement the two-path system. The federal initiative, signed into law by President Clinton on May 4, 1994, provides grants to states and local partnerships to create school-to-work systems by building on existing programs and reforms, and has become an impetus for many states to develop school-to-work programs. Tennessee received a development grant under the Act in February 1994 of approximately \$770,000 to be used for planning and initial activities. More recently the state successfully competed for a five-year \$28.2 million implementation grant under the Act, and in doing so, proposed the "cluster system."

Business and Education

The federal School-to-Work Opportunities Act requires involving businesses in education. In a book titled *The Monster Under the Bed*, authors Stan Davis and Jim Bodkin describe corporate America as the somewhat "reluctant heir" to the technological solutions that they believe will completely revise the educational system. Davis and Bodkin write of a learning revolution driven by economic necessity. They believe that "business is coming to bear the major responsibility for the kind of education that is necessary for any country to remain competitive in the new economy."¹⁰ They also believe that school systems are not keeping step with the learning that is occurring outside of schools. They cite computer skills as an example, since more users have learned to use computers outside, rather than inside,

⁹ Secretary's Commission on Achieving Necessary Skills (SCANS), *What Work Requires of Schools*, Washington, D.C.: 1991 (as cited by Elliott Medrich, MPR Associates, Inc., in "Preparation for Work" from *The Condition of Education* found at <http://www.ed.gov/NCES/pubs/ce/>) and Sandra Kerka, *Myths and Realities: High Performance Work Organizations*, ERIC Clearinghouse on Adult, Career, and Vocational Education, 1995.

¹⁰ Stan Davis and Jim Bodkin, *The Monster Under the Bed: How Business is Mastering the Opportunity of Knowledge for Profit*, New York: Touchstone, 1995, p. 15.

schools.¹¹ According to the authors: “Over the next few decades the private sector will eclipse the public sector and become the major institution responsible for learning.”¹²

It is worth noting that there are critics of the increased involvement of the corporate world in education. In *Giving Kids the Business*, author Alex Molnar argues that school reform that emphasizes corporate involvement is “a cover for inventing new ways to generate corporate profit.”¹³ He views the debate over public education reform as a struggle between America’s democratic ideals and the pull of the market. Molnar contends that there is little evidence of a skills crisis, citing, among other references, a report released in 1990 by the Commission on the Skills of the American Workforce, entitled *America’s Choice: High Skills or Low Wages!* The commission found that “only five percent of employers feel that education and skill requirements are increasing significantly” and that most of the so-called shortages of “skilled” labor were in “chronically underpaid ‘women’s’ occupations and traditional craft trades.”¹⁴ Under this scenario, the claim that there is a looming crisis in the workplace caused by an ineffectual educational system is less persuasive.

Others question the idea of corporate involvement in education as an “equal partner,” pointing to regional and local partnerships required by the School-to-Work Opportunities Act with memberships of 50 percent or more private sector employees. Tennessee’s implementation grant application outlines committees with private sector members “charged with developing career pathways, curriculum frameworks, and private sector global performance standards.” Another will “develop learner outcomes, establish work-based learning activities, design student/mentor/teacher activities, and a performance based assessment process for evaluating student outcomes.”¹⁵ While local school boards have traditionally represented the electorate, private sector representatives selected to participate in regional or local partnerships represent private sector interests, which may or may not be in the best interest of the public. Simply put, if members of local school boards fail to perform, the voters can choose to elect others. If non-elected private sector members of a local or regional partnership fail to perform as the public expects, the public apparently has no recourse.¹⁶

Other Programs Linking Schools and Work

The High School Policy was not the first attempt to better prepare students for the workplace or for postsecondary education. Prior to 1993, the Tennessee Department of Education revised all vocational-technical courses, “taking into consideration job market needs, technical advancements and related academic skills.”¹⁷ The Department added technology courses aimed at preparing students for jobs in high-tech fields. According to the Depart-

¹¹ Ibid., pp. 15-16.

¹² Ibid., p. 16.

¹³ Alex Molnar, *Giving Kids the Business: The Commercialization of America’s Schools*, Boulder, CO: Westview Press, 1996, p. 19.

¹⁴ Ibid., p. 4. (The book cites Commission on the Skills of the American Workforce, *America’s Choice: High Skills or Low Wages!*, Rochester, N.Y.: National Center on Education and the Economy, 1990, p. 25.)

¹⁵ School-to-Work Opportunities: State Implementation Grant Application, State of Tennessee, August 30, 1996, p. 23.

¹⁶ Dani Hansen, “No Wonder Johnny Can’t Read,” *Education Week*, May 1, 1996.

¹⁷ Wayne Qualls, Commissioner, *Status Report on the Implementation of the 21st Century Schools Program*, Department of Education, April 1994, p. 7.

ment, more than three-fourths of all Tennessee’s high schools were offering “tech-prep” programs in 1994, which combine high-level math, science, and language arts courses with high-quality technical courses.¹⁸ In addition, about 80 percent of the high schools were offering applied academics courses—including Applied Communication, Math for Technology II, Principles of Technology, and Agriscience—which are accepted by state universities as the equivalent of academic credits required for entry.¹⁹

Tech Prep programs are designed to link high school, technical training, college education, and careers. Tech Prep includes high school courses like Math for Technology II, Principles of Technology I, and Applied Communications, which meet admissions requirements of all public universities in Tennessee. Tech Prep programs are set up to prepare and encourage career-bound students to enter post-secondary technical education. The state receives federal funding for Tech Prep through the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. The Tennessee Department of Education and the Tennessee Board of Regents have set up 14 Tech Prep consortia serving the state. The executive board for each consortium includes representatives from business, industry and/or labor, local school systems, state community colleges, technical institutes, and technology centers.

In addition, about 40 high schools in Tennessee have adopted methods developed and endorsed by the Southern Regional Education Board (SREB). In 1987, SREB formed the first “High Schools That Work” (HSTW) sites, designed to integrate high-level academic and vocational studies. SREB’s purpose in forming these schools, based partly on the belief that expectations for vocational students have traditionally been too low, was to “revise the high school and postsecondary vocational education curricula.” According to the Southern Regional Education Board (SREB), more workers in today’s U.S. economy need to be prepared to use new technology and “work in an environment where they define problems and perform in a different way.”²⁰ SREB encourages instructional approaches designed to help students make connections between school studies and the workplace.

The Transition from School to Work: Two Paths to Clusters?

Although the two-path system has been implemented only a short time in Tennessee schools, there is a fast-moving trend to implement the “career cluster” approach as a better way of integrating academic and vocational education. This trend—initiated by the state Departments of Education and Labor and the business community—is largely the result of a competitive grant offered under the federal School-to-Work Opportunities Act.

The Department of Education and the Department of Labor have worked in conjunction with private sector representatives and other state agencies in creating the school-to-work system required by the grant. The grant application describes a newly structured system for Tennessee’s schools that greatly emphasizes private sector involvement with schools. The system would basically “provide all students with comprehensive career guidance activities

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Gene Bottoms, *Redesigning and Refocusing High School Vocational Studies*, Southern Regional Education Board, Atlanta, 1993, p. 2.

beginning in kindergarten” to encourage them to work toward a career. The system defines seven “career clusters” chosen, according to Department of Education staff, because they comprise approximately 90 percent of the current jobs and industries in Tennessee. The School-to-Career Office has compiled a list of the specific careers that fall under each cluster. The clusters are:

- Health Care
- Arts / Communication
- Sciences / Technology
- Human Services
- Business / Marketing
- Hospitality / Tourism
- Manufacturing / Construction / Transportation

At a recent State Board retreat, some board members raised concerns about this compartmentalized approach, questioning whether students under the School-to-Career program would still have the freedom to pursue their own choices in education rather than following a rigid prescription.

While the cluster system would represent a major change from the two-path portion of the High School Policy, apparently other elements of the policy would not change. Under the cluster system as under the High School Policy, students, working with parents and educators, would decide, at the end of the 8th grade, the course of their education during their high school years. Students would still choose a university or technical path, but would also choose a “cluster.”

Similar to the two-path system, all students would be required to complete a core curriculum, which would contain the academic requirements set by the State Board of Education and “the employability skills, technical skills, and life skills identified through private sector involvement.” In addition, students would be required to complete a “cluster core” that will contain the training required for all careers common to the cluster. (For example, a student who wants to be a physical therapist would be in the same cluster as a student who wants to be an optician. They would both complete an identical “cluster core curriculum.”) Students would also be required to complete a “specialty core” that would be unique to the career option they choose from within their cluster. (At this point, a student who wants to be a physical therapist and a student who wants to be an optician would complete different courses geared toward their respective career choices.)

The department has indicated that it intends to work within the two-path framework while implementing the new School-to-Career concept. This clarification came after various public presentations about School-to-Career indicated that the cluster system would replace the two-path.

Criticism of the Two-Path System

Before submitting the grant application under the School-to-Work Opportunities Act, the U.S. Department of Education provided two consultants to assess “the current status of School-to-Work system building efforts” in Tennessee in order to “advance the design and implementation of Tennessee’s School-to-Work system.” Anne Heald, Executive Director of the Center for Learning and Competitiveness, and Jean Wolfe, an independent consultant, heavily criticized the two-path system, stating that most people they interviewed “believe the policy places a wedge between the integration of academic and vocational education, a major emphasis for School-to-Work. Opponents of the policy cite dumbed-down curriculum for technical students and an increased rate of students opting for the university track as two major obstacles to implementing true education reform and School-to-Work in the state.”²¹

In addition, the consultants believe that the two-path system “contributes to the perception that School-to-Work is a vocational education rather than a comprehensive education initiative.” The consultants recommend the career cluster system, which they say “has been proven to enhance the integration of academic and vocational education and could help eliminate the stigma of the two-track system.”²²

Apparently, the federal government also believes that the two-path system conflicts with School-to-Work initiatives. Following Tennessee’s grant application submission and subsequent site team visit, the federal government’s School-to-Work office requested that the state respond to the following:

“A two track system is currently mandated by the State Board of Education policy. The State team indicated that it is likely the Board will rewrite this policy. However, while it stands, the code impedes the State’s ability to reach all students. Provide strategies for ensuring that the State’s system will, from its inception, provide all youth—regardless of their course of study with the opportunity to benefit from STC [School-to-Career] activities.”

The state’s response was that “...legislation and policy changes are being developed to move Tennessee from the two path program of studies, required in the high school policy, to career pathways using selection of career clusters and majors.”²³ The School-to-Career policy team has designated a committee to examine legislative changes that may be needed, including revising the two-track requirement.

Opposition to School-to-Career

Criticism of School-to-Career by interest groups to the legislature began during the spring of 1997. Opponents were successful in persuading the General Assembly to amend the budget by including the following:

“Nothing contained in this act shall be construed to relinquish control to the Federal Government of the United States or usurp the traditional authority of the local

²¹ Anne Heald, Executive Director, Center for Learning and Competitiveness, and Jean Wolfe, Independent Consultant, *Interim Report: Assessment of Current Status*, pp. 2-3.

²² *Ibid.*, p. 3.

²³ From School-to-Work Implementation Response Attachments, Attachment C, Tennessee School-to-Work Budget Narrative, November 5, 1996, p.1.

school boards of the State. The General Assembly specifically reserves the right by appropriate legislation to terminate or continue acceptance of any funds from any grant from the Federal Government for a School-to-Career program. The Joint Oversight Committee on Education is directed to investigate and conduct public hearings of the School-to-Career program and report its findings to the General Assembly no later than February 15, 1998.”²⁴

On October 9, 1997, the Joint Oversight Committee on Education held the public hearings required by the law. Parties spoke both in favor of and against the school-to-career structure. Those who spoke against School-to-Career included a representative of the Eagle Forum, local school board members, teachers, an economist/professor, and other interested members of the public. Opponents’ views included the following:

- School-to-Career will allow the federal government to determine the course of education in Tennessee.
- The Department of Education sought the federal grant and began implementing School-to-Career without the full knowledge and consent of the General Assembly, who by law is responsible for the structure of education.
- The purpose of School-to-Career is to train students for the work force, which should not be the intent of education.
- School-to-Career makes poor economic policy since it is not possible to determine the jobs the economy will require in the future. Therefore, students could be preparing themselves for jobs that will not exist or for which there will be no market.

Funding for “School-to-Career”

The grant application submitted by Tennessee under the School-to-Work Opportunities Act indicates that the non-recurring \$28.2 million received under the implementation grant is to be spent over a period of five years in the following categories:

- Personnel: Funds will be used to establish the Office of School-to-Career Systems, with an Executive Director and an Executive Secretary. In addition eight full-time positions have been contributed by various state agencies.
- Fringe Benefits: These are calculated at 30 percent for all personnel.
- Travel.
- Equipment: This includes personal desktop computer equipment, presentation equipment, network equipment, software, and enhanced state network capacity.
- Supplies: This includes postage, printing costs, and other supplies related to conducting technical assistance visits, workshops, and conferences.
- Contractual: These are monies available via contracts to local partnerships for implementation, development, design, and incentive purposes.
- Other: This includes monies for renting space to house the STC office; meeting, report producing, and dissemination expenses of the state cluster and restructuring teams; and statewide marketing.

²⁴ Public Chapter 552 (1997), Section 10, Item 37.

In addition, the state plans to redirect \$55 million in state and federal funds and an estimated \$200 million over the course of five years to “accomplish systemic change in education and career preparation for all students.”²⁵

The School-to-Work Opportunities Act requires a state submitting an application for an implementation grant to demonstrate that it will use funds only to develop a school-to-work system and will not become dependent on the increased funding. In addition, it mandates that states can use only up to 10 percent of the grant funds for administrative purposes.²⁶ According to Tennessee’s grant application, “[f]ederal funds under the School-to-Work Opportunities Act will be used to change the way we do business in Tennessee—not to create a new bureaucracy that will become dependent on increased funding.”²⁷

Other States’ Implementation of Similar Programs

By the end of 1996, the federal government had awarded implementation grants under the School-to-Work Opportunities Act to 37 states. According to the SREB, by mid-1995 few states had comprehensive school-to-work legislation or state policies, although many had elements of school-to-work systems. SREB identifies the following as elements of a comprehensive program:

- higher-level academics
- integration of academic and vocational studies
- linkage of high schools, postsecondary institutions, community and technical colleges, and the workplace
- career and educational guidance and advisement
- students gateway, mid-course, and exit assessment with employer involvement
- employer involvement in setting curriculum standards, assessing students, and promoting work-based learning²⁸

It is too early to make meaningful statements regarding the effectiveness of the School-to-Work concept as applied in various states. However, in September 1996, the federal School-to-Work Office reported their initial findings to Congress after collecting data from states that had been granted implementation funds. Only a portion of the states’ information could be used, since not all states had fully implemented programs. This information indicated that for the 10 states represented, there were 210 partnerships with 135,000 participating businesses. Employers in these states are providing approximately 39,000 work-based learning sites and about 53,000 slots for students. There is no student outcome information available because programs have not been in existence long enough.

The federal Departments of Education and Labor have contracted for a national evaluation of School-to-Work to be accomplished over five years. The initial phase of the evaluation

²⁵ From School-to-Work Implementation Response Attachments, Attachment C, Tennessee School-to-Work Budget Narrative, November 5, 1996.

²⁶ School-to-Work Opportunities Act of 1994, Public Law 103-239, 108 Stat 568, May 4, 1994, Section 213(d)(11) and Section 217.

²⁷ School-to-Work Opportunities Grant application, p. 38.

²⁸ Southern Regional Education Board, *State Initiatives in School-to-Work: A Working Paper*, prepared for the Southern Regional Education Board Legislative Work Conference, July 29, 1995, pp. 2-3.

indicated some concern regarding employer involvement. Employers have expressed concerns about employer liability, child labor laws, and a lack of financial incentives. According to the School-to-Work Opportunities Act, the national evaluation should be completed no later than September 30, 1998 “to track and assess the progress of implementation of State and local programs and their effectiveness...”²⁹

In addition, the School-to-Work Opportunities Act outlines information to be collected routinely from states and local partnerships, including information that measures the extent to which schools offer School-to-Work activities as well as student participation.

Tennessee’s Progress in Implementing School-to-Career

The implementation of School-to-Career has been an organized effort involving people from several departments and agencies within the state as well as people from various industries. Personnel who have been dedicated to working with STC include staff from the state departments of Education, Employment Security, Labor, Economic and Community Development, as well as staff from the University of Tennessee and the Tennessee Board of Regents. Several School-to-Career focus committees have been formed comprised of members from both the public and private sectors. The grant document contains a “School-to-Career Directory,” listing those persons serving on the STC Policy Team, Grantwriting Team, Design Team, Restructuring Team, and Cluster Team. Membership totals 142, although some persons serve on more than one committee. Recently, an Advisory Committee was added.

As of September 1997, a newsletter produced by the School-to-Career office indicates that a total of 54 partnerships involving 63 counties have been formed, and three action plans submitted by local Community Partnerships have been approved for funding. According to the Department of Education, as of November 1997, 88 of the 95 counties have elected to participate in School-to-Career.

Conclusions

It is not clear how the legislatively mandated two-path system will work within the School-to-Career structure. The department has not maintained a database of basic information concerning the two-path, such as the number of students in each path. A May 1997 performance audit conducted by the Division of State Audit pointed out that “the department does not request that schools submit information on the number of students in the technical path or their chosen programs of study.”³⁰ Analyzing results of the two-path system could help policy makers make more informed decisions about future education programs.

Some schools may find it difficult to implement another major change in direction so soon after the two-path’s implementation. Since the early 1980s, several reforms have been heaped upon school systems resulting in a large measure of skepticism among educators. This skepticism will probably be the most difficult obstacle to overcome in implementing any new strategy. To be successful, the School-to-Career system obviously will require widespread

²⁹ Public Law 103-239, May 4, 1994, Section 404(b).

³⁰ Comptroller’s Office, Division of State Audit, *Performance Audit: Department of Education and State Board of Education*, May 1997, p.19.

commitment and support primarily from educators. Apparently, however, little input was solicited from either superintendents or principals in the School-to-Career planning process. These groups' lack of involvement in early stages may result in future difficulties.

The success of the School-to-Career design hinges on heavy private sector involvement. However, it appears that the business sector is not yet participating in the school-to-career planning to the extent needed. This has reportedly been a problem in many states. To be successful, the cluster system will require heavy involvement from the private sector. Concern has been expressed at the School-to-Career policy team meetings that, while some support currently exists, business and industry have not become involved to the extent needed. Some of the regional meetings that have been held to date have been well attended by school participants, but poorly attended by those in the private sector. SREB indicates that this is a common problem among states attempting to build school-to-work systems.³¹

The Department and State Board staff indicate that all clusters may not be available to students in every school system. This leads to the question of whether educational opportunities will be equally available to all students in the state. In *Tennessee Small School Systems v. McWhorter*, the Tennessee Supreme Court declared the state's funding method to be unconstitutional on the grounds that it caused constitutionally impermissible disparities in educational opportunities.³² Department officials have indicated that the decision as to which clusters to offer in each school system will be determined to some extent by industry that is prevalent in the region. However, it seems possible that this could result in problems for students in some rural areas with little industry and high unemployment rates. It also seems possible that this could limit opportunities for students who may want to pursue careers that are not prevalent in their regions. Department officials say these problems could be addressed by using a combination of the Internet, videotapes, and field trips. It is difficult to determine whether these methods would adequately and fairly fulfill all students' needs, or whether this could create "constitutionally impermissible disparities in educational opportunities."

In addition, School-to-Career officials have stated that the success of the program will depend largely on the success of local partnerships. If that is the case, and local partnerships are successful in varying degrees or not successful at all, then it seems that educational opportunities will not be equally available to all students.

Even now, some school systems may be unable to provide comprehensive programs. The May 1997 performance audit conducted by the Comptroller's Division of State Audit concluded that "some smaller systems may not be able to provide a comprehensive technical path because of a lack of resources (e.g., up-to-date equipment and supplies) and limited course offerings."³³ The audit also found that it is difficult to make conclusions about the technical path offerings since systems count programs differently and since the department

³¹ Southern Regional Education Board, *State Initiatives in School-to-Work: A Working Paper*, July 29, 1995, pp. 6-8.

³² 851 S.W. 2d 139 (Tenn. 1993) ("Small Schools I").

³³ Comptroller's Office, Division of State Audit, *Performance Audit: Department of Education and State Board of Education*, May 1997, p.19.

does not collect data on the number of students in the technical path. The School-to-Career initiative will also have to overcome these problems.

Because some elements of the cluster system are not clear, it is difficult to determine the long-term cost of implementing the School-to-Career system. As described above, for example, it is not clear whether all of the clusters will be offered in all school systems. In addition, there are varying opinions regarding whether instituting the cluster system will require curriculum changes. State Board staff indicate that curriculum changes will be needed, although the changes have not been determined. However, a member of the Knox-Blount County partnership, which qualified on its own for a federal grant in July 1996, indicates that the partnership has no plans to alter curriculum. They point to the federal grant's purpose, which is not to develop new programs, but to expand on existing best practices.

Whether teaching staff will have to be increased in some systems is an equally blurry issue. The \$28.2 million grant under the federal School-to-Work Opportunities Act is made up of nonrecurring funds. However, it seems plausible that the "systemic" changes in the state's education system that the department refers to could result in significant curriculum and staffing changes, which in turn could increase future costs.

The federal government will require the reporting of certain information in order to assess the effectiveness of the school-to-work system. If properly carried out and acted upon, a strong data collection and evaluation system could lead to better planning and more meaningful results. The School-to-Work Opportunities Act states that performance measures will be established for assessing state and local programs regarding, among other things, participation by employers, schools, students, and school dropouts, including information on gender, race, ethnicity, socioeconomic background, limited-English proficiency, and disability of students; outcomes for participating students and school dropouts, including academic learning gains; and the extent to which the program has met the needs of employers. Other information is to be collected to identify whether any federal programs implemented at the state or local level are "duplicative, outdated, overly restrictive, or otherwise counterproductive to the development of comprehensive statewide School-to-Work Opportunities systems." If these measures are properly collected and analyzed, the resulting analysis could be used to make appropriate and thoughtful revisions to the state's delivery of education services.

It is not clear whether the work-based learning opportunities that School-to-Career supporters advocate will include adequate experiences with careers in government, education, nonprofit organizations, or the arts. The dominant role of business, a key component of School-to-Career, is probably the element that draws the most criticism. This perception might be softened if it were made clear that students could also obtain experiences in non-business work areas, such as government, nonprofit organizations, and the arts, and if representatives of these professions were included in statewide planning.

Recommendations

- **The Department of Education should gather more definitive information about the effectiveness of the High School Policy, and specifically the two-path system, as well as other educational approaches.** Careful analysis of data from the current system could help policy makers make more informed decisions, which could result in an improved system.

Responses:

Department of Education: The Department of Education, Division of Finance, Administration, and Technology has specified the addition of path choice indicators to be collected in the Student Information System beginning in Fall, 1998. The Common Core Team presented their recommendations to the State Board of Education for revisions to the core curriculum and are now analyzing the curriculum frameworks for math to identify specific competencies for inclusion.

Findings from the Southern Regional Education Board's 1996 evaluation of High Schools that Work are now available and support the School-to-Work principles of raising academic standards for all students to university preparation levels and integrating academic and vocational instruction.

State Board of Education: State Board of Education members noted at their retreat in July 1996 that they saw school-to-career as a next step in the development of the high school policy. The career cluster concept was seen as a logical extension of the high school policy. There was agreement that career pathways which address the requirements of both the university path and the technical path could be developed and included in each cluster appropriately while maintaining the requirements of the High School Policy.

One of the concerns with the current core curriculum that was discussed at the Board's July 1996 retreat centered around the apparent failure to maintain high standards for student achievement in the applied academic courses. There was discussion about incorporating the applied strategies into the traditional academic courses and, as the result, have the same core subjects for all students in an attempt to prevent core subjects from being watered down.

The 1996 High Schools That Work NAEP results support the assumption that expectations for student achievement in the applied academic classes are indeed lower than in the traditional academic classes.

- **If the School-to-Career system is implemented, the State Board of Education and the Department of Education should develop measures to evaluate whether School-to-Career efforts are truly benefiting students and, additionally, whether this approach to education is benefiting the state's economy, as its proponents claim.** Some of these measures may be derived from the information required by the federal government; others should be undertaken in order to inform Tennessee's stakeholders and decision makers. Such evaluations should be undertaken regularly and the results should be made public. Too many past reforms and programs, including the two-path, have been abandoned using little or no analysis to determine their effectiveness. This is an important component that should be well-developed on the front end and should be used to keep the General Assembly, as well as other key stakeholders, informed.

Responses:

Department of Education: The Department of Education has contracted with Dr. Russ French [beginning October 1, 1997] of the University of Tennessee to develop a multiple data source evaluation system that will frame, guide, and shape the evaluation of the Education Edge initiative. We are appending a copy of the evaluation plan for your review. We are also appending copies of the 1996-97 Progress Measures Survey and the Mathematica Survey of School-to-Work Partnerships to illustrate the federal reporting requirements.

State Board of Education: The contract between the School-to-Career office and the U.S. Department of Education requires the collection and reporting of data on the progress toward achievement of the state's goals and measures. The Board staff are available to assist the School-to-Career office to draft designs of the data collection system and to ensure that the necessary measures of effectiveness are incorporated.

- **The State Board of Education should review the duties and responsibilities of the regional and local partnerships to assure that there is no conflict with the duties and responsibilities of the State Board and local boards of education.** This is important to ensure that the public retains a voice in Tennessee's education system.

Responses:

Department of Education: On February 21-22, 1997, and October 8, 1997, the Education Edge Office met with Regional Co-chairs—a lead business representative, Chamber of Commerce executive, and a lead school superintendent—from all fifteen regions to discuss duties and responsibilities. At the February 21 meeting, the Chair of the State Board of Education made the opening presentation, which covered the role of state and local boards of education and the State Board's immediate objectives in Education Edge.

Regional partnerships are responsible for conducting marketing and awareness activities and developing local partnerships. Local partnerships are responsible for developing and sustaining Education Edge system activities. They can inform school boards about the changing demands of the workplace, offer teaching strategies to help students apply what they learn to real-life situations, and offer work-based teaching experiences to students and teachers to provide relevancy and enhance teaching and learning. Local partnerships cannot, however, usurp the authority of the local school board.

Beyond the minimum requirements imposed by the State Board of Education, only the elected officials of the local school system can make fundamental shifts in education policy. Any actions recommended by a local partnership can only be implemented with the approval of the local board. The Department provided professional development activities to local partnerships that sensitized them to the authority of the local school boards and focused on building effective communication between them to accomplish their goals for the community. Partnerships were instructed to submit action plans to local school boards for approval at workshops conducted July 14-17 and September 25-26.

State Board of Education: Under no circumstance can either a local or regional STC partnership usurp the authority of either the State Board or local board of education as provided in statute. Local and regional partnerships can make recommenda-

tions, provide input about current workplace demands, and other such services to local boards of education. Additionally, local and regional partnerships can provide work-based learning opportunities for students and teachers which make learning real, applied, and more relevant.

- **The State Board and the Department should make certain that the structure of the School-to-Career system provides similar educational opportunities for all Tennessee students.** The School-to-Career structure should be designed so that students have access to areas of study in addition to those related to the industries/businesses that are prevalent in their geographic locale.

Responses:

Department of Education: The Department conducted several professional development activities for local partnerships to acquaint them with the requirements [of] action plans for building systems. These included the SCANS training for trainers June 11-12, 1997 and August 4, 1997, Tennessee Leadership Collaborative for Partnerships, July 14-17, 1997, The Superintendents' Leadership Conference, September 28-30, 1997, and the Action Plan Workshop, September 25-26. The Request for Proposal requires the partnership to develop strategies and timelines for developing a system that provides all students in the geographic area school-based, work-based, and connecting activities. The Education Edge Office conducted professional development that presented materials about the different types of work-based learning and effective strategies for including all students in these activities. One example was the Service Learning videoconferences, October 16-17, 1997. In addition, the Upper Cumberland Partnership is conducting a distance learning project for reaching students in rural areas.

State Board of Education: The School-to-Work Opportunities Act requires that all students in all sections of the state are provided with the opportunity to participate in School-to-Work activities. Accordingly, the School-to-Career office is charged with ensuring that local partnerships develop and implement strategies which provide all students with the opportunity to participate in the required School-to-Career components. The State Board will review the School-to-Career structure and ensure that similar opportunities for all of Tennessee's students are more readily available than they are currently.

OEA Comment: Because local partnerships will be determining the clusters offered, they are likely to favor careers available in those areas. The Department of Education needs to assure that all local partnerships succeed in providing exposure to many career opportunities.

- **The State Board and the Department should make certain that work-based opportunities for students include careers in public service and the arts.** Students should have access to non-business work areas, such as nonprofit endeavors, government, education, and the arts. Students' opportunities for apprenticeships, internships, job shadowing, and other work-based learning experiences should extend to artists, musicians, government agencies at the federal, state, and local levels, and nonprofit agencies.

Responses:

Department of Education: The choice of local work-based learning activities is to be decided by community partnerships. The role of the Education Edge Office is to share information about effective practices, convene cluster teams, specify deliverables from the cluster team processes, and fund the development of effective practices by community partnerships. The Arts/Communication cluster team will consider work-based learning opportunities as they define the knowledge and skills needed for occupations in the cluster. The Human Services cluster (including government and nonprofit careers) will be developed in the 1998-99 school year. Their team assignment will include identifying appropriate work-based learning opportunities for the cluster. Service learning opportunities are particularly applicable to this cluster. The Department has already sponsored one professional development event showcasing service learning.

State Board of Education: The State Board of Education will make every effort to ensure that a broad array of work-based learning opportunities are made available to students. It has never been the intent of the State Board of Education or Education Edge/STC to exclude work-based learning experiences with artists, musicians, government agencies at the federal, state and local levels, and non-profit agencies. These options have been included in the Education Edge/STC concept from the beginning. The State Board will make every effort to encourage students to choose educational experiences, both in the classroom and on the work site, which are relevant to their dreams and plans.

OEA Comment: OEA staff observations of policy team meetings indicated a strong influence by persons representing business interests. Broadening the representation within the planning and oversight structure could help diminish opposition to the program as well as assure that students who seek other professions such as teaching, public administration, art, music, or criminal justice are given opportunities equal to those seeking careers in business, health services, manufacturing, or sales.

In its response, the State Board of Education raised additional concerns about this report. Among them:

- The report fails to demonstrate a clear, unbiased understanding of key concepts.
- Much of the report is now out of date and is obsolete; it has been about a year since much of the research upon which the conclusions are drawn was conducted. If the intent is to provide an accurate and unbiased view of Education Edge/STC, the research should be revisited and data updated to current status before being released.

OEA Comment: At the request of the State Board chair, OEA staff conducted an additional interview and read suggested materials, which have been reflected in this report. OEA staff has attended most policy team meetings throughout 1996 and 1997, and has monitored the federal government's School-to-Work Internet site. As a result, we disagree that the report is out of date and obsolete. Rather, the overriding concerns have not changed in spite of the program's many adjustments. Staff has attempted to conduct an objective assessment of School-to-Career so that all views are considered.