DOCUMENT RESUME

ED 352 465 CE 062 559

AUTHOR McDonnell, Lorraine M.; Zellman, Gail L.
TITLE Education and Training for Work in the Fifty States: A Compendium of State Policies.
INSTITUTION National Center for Research in Vocational Education, Berkeley, CA.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE Dec 92
CONTRACT V051A80004-90A
NOTE 440p.
AVAILABLE FROM NCRVE, Materials Distribution Service, 46 Horrabin Hall, Western Illinois University, Macomb, IL 61455 (order no. MDS-184: $12.95).
PUB TYPE Reference Materials - Directories/Catalogs (132)

EDRS PRICE MF01/PC18 Plus Postage.
DESCRIPTORS Comparative Analysis; *Educational Finance; *Educational Policy; Federal Aid; Federal Programs; *Government Role; *Job Training; Postsecondary Education; *Public Policy; Secondary Education; State Aid; *State Government; State Programs; Statewide Planning; *Vocational Education; Welfare Recipients
IDENTIFIERS Job Opportunities and Basic Skills Program; Job Training Partnership Act 1982

ABSTRACT

This report and the database on which it is based provide an overview of five federal and state education and training programs: secondary vocational education, postsecondary vocational education, the Job Training Partnership Act (JTPA), welfare-to-work programs, and state-funded job training. Section 1 describes the study methods, namely interviews with state-level administrators of the 5 areas in all 50 states and staff in the governors' offices. Sections 2-6 are each organized around one of the five policies. Corresponding tables are found at the end of each section. Within each section, a single policy is compared across the 50 states, and major similarities and differences on several dimensions are identified. Section 2 on secondary vocational education focuses on types of institutions, state governance and influence over local institutions, funding sources and mechanisms, state role in program approval, teacher certification requirements, outcome data collected, and current and emerging policy issues in work-related education. Section 3 on postsecondary education provides data on types of institutions, state governance and influence over local institutions, financing mechanisms, performance indicators, and recent policy changes. Section 4 summarizes how states have implemented the Job Training Partnership Act (JTPA). Section 5 on welfare-to-work programs provides information about delivery systems for state Job Opportunities and Basic Skills programs. Section 6 is an overview of recipients and services, funding, and delivery systems of state-funded job training programs. The concluding section compares the five policy areas and summarizes emerging trends and issues that cut across programs. The document has 42 references. (YLB)

NCRVE

National Center for Research in Vocational Education

University of California, Berkeley

EDUCATION AND TRAINING FOR WORK IN THE FIFTY STATES: A COMPENDIUM OF STATE POLICIES

Supported by
the Office of Vocational and Adult Education,
U.S. Department of Education

This publication is available from the:

National Center for Research in Vocational Education
Materials Distribution Service
Western Illinois University
46 Horrabin Hall
Macomb, IL 61455

800-637-7652 (Toll Free)

EDUCATION AND TRAINING FOR WORK IN THE FIFTY STATES: A COMPENDIUM OF STATE POLICIES

Lorraine M. McDonnell

Gail L. Zellman

RAND

National Center for Research in Vocational Education
University of California at Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704

Supported by
The Office of Vocational and Adult Education,
U.S. Department of Education

December, 1992

MDS-184

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A80004-90A
Act under which Funds Administered:	Carl D. Perkins Vocational Education Act P.L. 98-524
Source of Grant:	Office of Vocational and Adult Education U.S. Department of Education Washington, DC 20202
Grantee:	The Regents of the University of California National Center for Research in Vocational Education 1995 University Avenue, Suite 375 Berkeley, CA 94704
Director:	Charles S. Benson
Percent of Total Grant Financed by Federal Money:	100%
Dollar Amount of Federal Funds for Grant:	$5,675,000
Disclaimer:	This publication was prepared pursuant to a grant with the Office of Vocational and Adult Education, U.S. Department of Education. Grantees undertaking such projects under government sponsorship are encouraged to express freely their judgement in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
Discrimination:	Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." Therefore, the National Center for Research in Vocational Education project, like every program or activity receiving financial assistance from the U.S. Department of Education, must be operated in compliance with these laws.

PREFACE

This Note introduces readers to a data base that provides basic descriptive information about state policies and practices with regard to five education and training programs: secondary vocational education, postsecondary vocational education, the Job Training Partnership Act (JTPA), welfare-to-work programs, and state-funded job training. It differs from most reports issued by RAND and the National Center for Research in Vocational Education (NCRVE) in that it neither analyzes the design and implementation of particular policies nor assesses their effectiveness. The data come from a survey of work-related education and training policies in the fifty states, and are available to researchers and members of the policy community through NCRVE. Policymakers and program administrators can use this data base to learn about the different approaches that states take in managing and funding programs designed to prepare individuals for employment. Researchers can draw on it for initial overviews of policies that they plan to examine in greater depth with other data.

SUMMARY

State governments provide much of the funding for publicly supported education and training, and they are now assuming a greater role in defining the content and direction of those services. Federal legislation has prescribed expanded roles for state governments in implementing federal programs, and many states have initiated policies on their own, especially in job training for economic development. Consequently, understanding the range of federal and state policies—the problems they seek to address, their expected effects, and funding mechanisms—is a critical first step in assessing the effectiveness of local education and training institutions.

This report provides an overview of five federal and state education and training policy areas: (1) secondary vocational education, (2) postsecondary vocational education, (3) Job Training Partnership Act (JTPA) programs, (4) welfare-to-work programs, and (5) state-funded job training programs. It assembles for the first time basic information about how each of the fifty states organizes the governance and finance of education and training programs and how major policies vary across states. Its purpose is to introduce readers to a data base that can serve as a starting point for more in-depth analyses of particular aspects of work-related education.

APPROACH

Throughout 1990, we conducted telephone interviews in each state with administrators of the five programs as well as with staff responsible for secondary and postsecondary vocational curricula, teacher policy, and data collection. We also interviewed the governor's education aide or state legislative staff about the state's broader education policy agenda, as well as staff in the governor's office or state department of commerce about the condition of the state's economy and its development strategies. The interviews, which ranged from 15 to 90 minutes and asked for open-ended answers, were recorded and configured into a computerized data base.

This Note presents the survey results for the five vocational training areas in separate chapters. We set out most of the data in a series of tables, and we provide text to identify some of the key similarities and differences among policy areas and among states within each policy area. What follows is a brief summary of the kinds of data we collected and some general observations that we drew from them.

SECONDARY VOCATIONAL EDUCATION

We explored the state approach to secondary vocational education by focusing on six topics: the types of institutions delivering secondary instruction, the ways that states govern secondary education and the degree and type of state influence over local institutions, funding sources and mechanisms, teacher certification requirements for secondary vocational education, the type of performance data collected by the states, and current and emerging policy issues in work-related education.

Although a good deal of secondary vocational education continues to be offered in comprehensive secondary schools, nearly all states now offer publicly funded secondary vocational programs in other institutions as well. The programs offered in vocational high schools, area vocational-technical centers, and other settings are usually sequenced, provide greater depth and a broader range of courses, and are more likely to lead to state certification than programs in the comprehensive high schools.

The mix of funding sources for vocational education varies considerably by state. The local contribution varies from less than 5 percent to 91 percent.

One of the major levers that states have for influencing local service delivery is the program approval process. Most states have in place an approval process for new programs that validates the need for the program, ensures standards are met, and reduces duplication of efforts. For the most part, the approval process is an interactive one, with state personnel providing informal input and technical assistance at many points. As a result, few programs fail to receive formal state approval once formal application is made; the state's authority and power is exercised prior to the formal approval process.

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 place increased emphasis on the quality and outcomes of vocational education programs. We gathered data to find out what kinds of outcome data the states were collecting before the implementation of the Perkins amendments. This information can serve as a baseline against which to assess the extent of change required to meet the more rigorous collection requirements in the 1990 amendments.

Seven states collect data on vocational education students' academic performance. Sixteen collect data on job skill performance. These measures are usually collected from employer reports and student follow-up.

States appear to be spending considerable time, energy, and resources on coordinating the operations of different federally funded education and training programs, both with each other and with related state programs. Respondents in many states described coordination

as a high priority. States are also upgrading their vocational training by developing more rigorous and standardized curricula and by applying competency-based assessments.

POSTSECONDARY VOCATIONAL EDUCATION

For postsecondary vocational education, we collected data in five areas: the types of institutions delivering postsecondary instruction, the ways that states govern these programs and the extent of state influence over them, financing mechanisms, the type of performance data collected by states, and recent policy changes in postsecondary work-related education.

Although the majority of states offer postsecondary vocational education in community colleges, most offer programs in more than one kind of institution, including technical institutes, regional or area vocational-technical schools, occupational centers, and four-year colleges and universities.

Vocational education at the postsecondary level is funded differently from that at the secondary level. The majority of states either base their funding on program costs or consider it as a direct budgetary appropriation. Only 13 states use a funding formula based on the number of students enrolled in the program. As in secondary education, the federal contribution is minimal in most states, typically below 10 percent. Slightly more than half the states report state contributions of 50 percent or more of total funding.

In contrast to their role in secondary education, state governments typically impose far fewer policy directives on postsecondary institutions delivering vocational education. State-level boards and legislatures generally take a "hands-off" attitude towards them and leave their direction to local governing boards.

JOB TRAINING PARTNERSHIP ACT

The Job Training Partnership Act (JTPA) is targeted to specific categories of disadvantaged people, with funding sufficient to serve only about 6 percent of the eligible population. JTPA training is typically shorter and more directly linked to immediate employment than vocational education programs. Because it is essentially a federal program, the federal government is the prime funder and definer of program performance standards. Most JTPA services are delivered through institutions that are outside the public education system, such as community-based organizations (CBOs), proprietary schools, firms, and labor unions.

Our interviews focused on how the states have chosen to implement this federal job training program. Federal JTPA legislation stipulates who can be served with program funds and what types of outcomes should be produced. The states and localities, however,

are given responsibility to determine which services should be provided and which institutions should provide them. The states, in turn, have left these decisions to the discretion of service delivery areas (SDAs).

To improve coordination between JTPA and vocational education, Congress authorized that 8 percent of funds be set aside from each state's allotment to be used to establish cooperative programs between JTPA and education agencies. Eighty percent of the states have established priorities for the use of these funds. A number of states view JTPA as an economic development tool and link it with efforts to attract and retain industry. Some governors have used JTPA as part of an overall welfare reform strategy; other governors have involved JTPA in initiatives to integrate the state's entire employment and training system.

STATE WELFARE-TO-WORK POLICIES

The Family Support Act (FSA) is the latest in a series of amendments to the Aid to Families with Dependent Children program designed to replace welfare benefits with employment. Under FSA, each state is required to include specific components—such as basic literacy education, English-language classes and on-the-job training—in its Job Opportunities and Basic Skills (JOBS) program. The FSA and its goals were not new to many states. Thirty-one had a program in place for helping welfare recipients prepare for work before FSA was enacted. These programs received substantial state funding and went beyond the requirements of the federal Work Incentive program that preceded FSA.

We collected data about these earlier programs—their recipients, the services provided, the level of funding, and funding sources—in order to provide a context for making comparisons between welfare-to-work policies and programs before and after JOBS.

The pre-JOBS programs provided a range of services. Consistent with their welfare-to-work emphasis, all provided or contracted for job training and vocational education. A number offered on-the-job training, job readiness training, and job search activities as well. Nearly all also provided educational services—most focused on remediation. All programs provided child care support. The costs of these programs ranged broadly, from $4000 to $400 per participant.

STATE-FUNDED JOB TRAINING PROGRAMS

State-funded job training programs receive no federal financial support and are shaped entirely by state-specific political and economic factors. They share a common objective of providing short-term training customized to the needs of individual firms. Because they are designed as economic development tools, their primary purpose is to attract

new industries to a state or retain those already there. Consequently, the primary client for most state-funded programs is not the individual worker who receives the training, but the firm that defines the training needs and receives the economic benefits of a more skilled workforce. The majority of states restrict the kinds of firms that may apply for services. The most common restriction is that a firm must be either new to the state or expanding its workforce.

At the time of our survey, 47 states had some kind of state-funded program, while several had more than one program operating. Increasingly, these programs have focused on a job-retention strategy that helps firms upgrade so that they can remain economically competitive. Although the need to attract new firms (particularly foreign ones) remains a priority in most states, program goals have expanded over time.

Despite their high visibility in states and local communities, most programs are small. As a result, these programs serve only a limited number of firms and workers, and their budgets are dwarfed by those for vocational education, JTPA, and JOBS. The importance of state-funded job training programs is the flexibility they provide, their facility in responding to the needs of particular employers in ways that other education and training programs cannot, and the symbolic value of mounting a training program clearly linked to economic development.

USES AND LIMITATIONS OF THE FIFTY-STATE DATA BASE

This compendium was designed to introduce readers to a unique data base and to present a broad, descriptive overview of how five major education and training policies operate in the fifty states. It provides no basis for judging the performance of state systems, and the data can generate only clues about the likely directions that states will take as they face the twin demands of a changing labor market and a more diverse workforce. Nevertheless, these data do illustrate both the depth and complexity of state systems, and they depict the diversity of the political and organizational cultures in which state policies are embedded. They also show the critical role that state governments play in maintaining the current system and their potential for innovation.

It is our hope that this compendium will open the door to further examinations of the state role in work-related education and training. The next step is to use these data as a starting point for more in-depth investigations, such as measuring the effectiveness of state and local education and training systems, designing meaningful accountability strategies, using policy to promote the delivery of more integrated curricula, and building productive collaborations among various components of the education and training system.

ACKNOWLEDGMENTS

This Note and the data basc that it summarizes represent an extraordinary amount of work from those who collected the information and organized it in a useful format. We are grateful for the efforts of Susan Bell, Margaret Bitzinger, Thomas Buffett, Patricia Damiano, Joan DaVanzo, Anne Johansen, Stephanie Martin, Jennifer Pascal, and Kathy Rosenblatt, who conducted the telephone interviews that comprise the data base. Marilyn Gerbi and Lawrence Picus were responsible for designing and organizing the data base to allow convenient and systematic access to over 800 interviews.

Conducting such a large number of interviews would have been impossible without the cooperation of numerous officials in each of the fifty states. We appreciate their willingness to provide documents and to give of their time in explaining the operations of their programs.

Marilyn Gerbi prepared all the tables included in this Note, and Donna White assisted in producing the text. Larry Hanser and an anonymous reviewer for NCRVE helped us to clarify our presentation.

Despite all the collaborative work represented in this compilation, however, we must take full responsibility for the analysis and conclusions reported here.

CONTENTS

PREFACE iii
SUMMARY v
ACKNOWLEDGMENTS xi
TABLES xv
GLOSSARY xvii

Section
1. INTRODUCTION 1
Purpose 2
Study Methods 3
Organization of the Report 4

2. SECONDARY VOCATIONAL EDUCATION 6
Types of Postsecondary Vocational Education Institutions 6
State Governance and Influence Over Local Institutions 7
Funding Sources and Mechanisms 8
State Role in Program Approval 10
Teacher Certification Requirements 13
Outcome Data Collected by States 16
Current State Initiatives on Articulation and Vocational Education-Academic Integration 18
State Coordinating Mechanisms 21
Current and Emerging Policy Issues in Secondary, General, and Work-Related Education 23
Teacher Issues 24
Summary 24

3. POSTSECONDARY VOCATIONAL EDUCATION 97
Types of Postsecondary Vocational Education Institutions 98
State Governance and Influence Over Local Institutions 99
The Financing of Postsecondary Vocational Education 102
Performance Indicators in Postsecondary Vocational Education 102
Recent Policy Changes And Emerging Issues 104

4. JOB TRAINING PARTNERSHIP ACT (JTPA) 160
The Role of State Government 160
JTPA Services and Local Providers 162
The Six Percent Incentive Funds 163
The Eight Percent Coordination Funds 164

5. STATE WELFARE-TO-WORK POLICIES 185
Introduction 185
Research Objectives 188
Delivery Systems for State JOBS Programs 192
Conclusions 193

6. STATE-FUNDED JOB TRAINING PROGRAMS 219
Recipients and Services 220
Funding 222
Delivery Systems 223
Conclusion 224

7. EDUCATION AND TRAINING POLICY IN TRANSITION 239
The Current Status of State Policies 240
Emerging Issues 244
Conclusions 246

REFERENCES 249

TABLES

2.1 Type and Number of Institutions Providing Secondary Vocational Education 26
2.2 State Governance of Secondary Vocational Education 30
2.3 Sources and Funding Mechanisms for Secondary Vocational Education 39
2.4 Elements of State Program Approval Process 54
2.5 Differences in State Certification Requirements for Secondary Vocational and General Education Teachers 59
2.6 Secondary Vocational Education Data Collected by States 73
2.7 Current and Emerging Policy Issues in Secondary General Education and Work-Related Education 86
3.1 Type and Number of Public Institutions Providing Postsecondary Vocational Education 107
3.2 State Governance of Postsecondary Vocational Education 111
3.3 Extent of State Involvement in Postsecondary Vocational Education 122
3.4 Elements of State Program Approval: Postsecondary Vocational Education 125
3.5 Funding Mechanisms and Sources for Postsecondary Vocational Education 131
3.6 Postsecondary Vocational Education Data Collected by States 143
3.7 Recent Policy Changes in Postsecondary Work-Related Education 157
4.1 Distribution of JTPA Funds or Clients by Types of Service 166
4.2 Distribution of JTPA Funds by Types of Providers 169
4.3 State Use of JTPA Eight Percent Funds 172
5.1 States with Pre-JOBS Welfare-to-Work Programs 197
5.2 State JOBS Funding and Delivery Systems 207
6.1 State Approaches to Job Training for Economic Development 225

GLOSSARY

ACT	American College Test
ADA	Average daily attendance
ADM	Average daily membership
AFDC	Aid to Families with Dependent Children
AVTS	Area vocational/technical school
BSSC	Bay State Skills Corporation
CBO	Community-based organizations
CWT	Community Work and Training
FSA	Family Support Act
FTE	Full-time equivalent
GA	General assistance
GAIN	Greater Avenues for Independence (California)
GED	General equivalency diploma
IPEDS	Integrated Postsecondary Education Data System
JOBS	Job Opportunities and Basic Skills
JTPA	Job Training Partnership Act
LEA	Local education agency
LEP	Limited English proficiency
NCES	National Center for Education Statistics
NCRVE	National Center for Research in Vocational Education
NOCTI	National Occupational Competency Testing Institute
NTE	National Teachers' Exam
OCR	Office of Civil Rights

OJT	On-the-job training
PIC	Private Industry Council
PSAV	Postsecondary Adult Vocational
PSV	Postsecondary Vocational
RFP	Request for proposal
ROC	Regional Occupational Center
ROP	Regional Occupational Program
SAT	Scholastic Aptitude Test
SBE	State board of education
SDA	Service delivery area
SEA	State education agency
SREB	Southern Regional Education Board
T&I	Trades and Industry
VEDS	Vocational Education Data System
WIN	Work Incentive

1. INTRODUCTION

Just as the range of local institutions that educate and train for employment has grown over the past thirty years, so have the number and scope of policies that govern and fund those institutions. They represent an increasingly diversified portfolio of federal and state strategies to promote goals ranging from economic development and welfare reform to the strengthening of academic education. These policies, all of which influence work-related education, are not just targeted on different types of individuals, but are also aimed at changing the behavior of private-sector firms and public agencies. Federal and state funding for vocational education now supports not just high schools, but also adult schools, area vocational-technical schools, community colleges, and technical institutes. Outside the formal schooling system, programs funded by the federal Job Training Partnership Act (JTPA) provide shorter-term job training to various categories of disadvantaged and at-risk individuals, and states have also established their own training programs to promote economic development. Another set of programs provides job training to welfare recipients as part of recent welfare-to-work initiatives.

This expanded array of policies has two major implications for those interested in education and training. Firs individual programs cannot be adequately understood independent of the larger policy and organizational context in which they operate. Not only are multiple education and training programs designed to provide similar services to overlapping groups of clients, they are often implemented by the same local institutions. So, for example, one cannot examine secondary vocational education without considering its relationship to postsecondary programs and to other training efforts such as JTPA youth programs and JOBS (Job Opportunities and Basic Skills) programs for parenting teens.

Second, although local institutions have considerable discretion in how they deliver education and training services, federal and, particularly, state policies play a central role in shaping those services. The federal contribution has remained a small proportion of the total cost of work-related education and training, but as the federal government expanded its own programs and more precisely targeted aid, it has influenced who is served and what kinds of services they receive from local institutions. In most cases, state governments are providing a majority of the funding for publicly supported education and training, and recently they have assumed a greater role in defining the content and direction of those services. State influence over all of elementary, secondary, and postsecondary education has increased; federal legislation has prescribed expanded roles for state governments in implementing

federal programs; and, partly because of a diminished federal presence in education and training during the 1980s, many states have initiated policies on their own (especially in job training for economic development). Consequently, understanding the range of federal and state policies—the problems they seek to address, their expected effects, and funding mechanisms—is a critical first step in assessing the effectiveness of local education and training institutions supported by those policies.

PURPOSE

This Note and the data base on which it is based provide an overview of five federal and state education and training policy areas: secondary vocational education, postsecondary vocational education, JTPA programs, welfare-to-work programs, and state-funded job training programs. These five policy areas were selected because they represent the major mechanisms through which the federal government and the fifty states fund education and training for employment. The purpose of the Note is to summarize the characteristics of each policy area and to introduce readers to a data base that can serve as a starting point for more in-depth analyses of particular aspects of work-related education. The document is neither a comprehensive analysis of education and training policies nor an assessment of their effectiveness. Rather, it assembles in one place for the first time basic descriptive information about how states organize the governance and finance of education and training programs, and how major policies vary across the fifty states.[1]

As part of its service function for the National Center for Research in Vocational Education (NCRVE), RAND conducted a survey of work-related education and training policies in the fifty states. The resulting data base is designed to provide basic descriptive information about state governance and funding mechanisms, administrative operations, and recent initiatives in the five policy areas. It is available to researchers and members of the policy community through NCRVE. Policymakers and program administrators can use the data base to learn about approaches adopted by other states, and researchers can use it to obtain an initial overview of policies that they plan to examine in greater depth with other data. Because individual policymakers and researchers will want to tailor inquiries to their

[1]Two recent reports draw on these and other data to analyze the different types of policy instruments the federal government and states use in promoting their education and training objectives, and to understand how different types of local communities organize education and training services (McDonnell and Grubb, 1991; Grubb and McDonnell, 1991). Other NCRVE reports use the fifty-state data as a starting point for in-depth analyses of a variety of topics, including the integration of academic and vocational curricula and accountability systems in vocational education.

own information needs, this report provides only a brief introduction to the data base. However, the data and complete documentation can be obtained through NCRVE.

STUDY METHODS

Between January and December 1990, state-level administrators of secondary and postsecondary vocational education, JTPA, welfare-to-work, and state-funded job training programs were interviewed in all fifty states. In addition, the governor's education aide or state legislative staff were interviewed about the state's broader education policy agenda, and staff in the governor's office or state department of commerce were interviewed about the condition of the state's economy and its economic development strategies. Because the major focus of the survey was vocational education, staff responsible for secondary and postsecondary vocational curriculum, teacher policy, and data collection were also interviewed.

Depending on the size and complexity of state administrative structures, between 15 and 20 respondents were interviewed in each. Interviews averaged about 30 minutes, but ranged from 15 to 90 minutes. Interviewers used a structured interview guide, but asked respondents for open-ended answers.[2] These were recorded and configured in a computerized data base that allows researchers to access responses systematically by individual states and respondent role positions.

For both secondary and postsecondary vocational education, the interviews covered the basic institutional structure of the state's vocational education system; its governance structure; any state policies delineating responsibilities among different types of institutions; funding mechanisms and fiscal policies (including the use of federal funds); teacher certification and other policies related to teacher training and compensation; state program review, curriculum, and evaluation policies; and state policies dealing with data collection, student assessment, and technical assistance. Interviews with the state director of vocational education and the governor's aide or legislative staffer also explored the effect of other state education policies on vocational education and on the extent of state influence over local funding and curricular decisions.

For state-funded job training programs, welfare-to-work programs, and JTPA, we typically interviewed the state official in charge of those programs. (In some states with

[2]In January-September 1989, we had collected from each state extant documents on their vocational education programs (e.g., the plan they submit to the federal government to obtain Perkins funds, internal planning documents, budgets, curriculum guides, teacher certification requirements, etc.). Therefore, in interviewing state officials, we were able simply to verify and update most quantitative information.

multiple job training programs, such as Illinois and Massachusetts, this involved interviews with several administrators.) The interviews with JTPA officials concentrated on state interpretations of federal legislation, including the choice of performance standards, the establishment of priorities, and the use of six-percent incentive funds and eight-percent coordination funds. We also asked about any state policies in addition to the federal requirements, especially relating to coordination, evaluation and data reporting, and supplemental state funding. Because of the growing links between JTPA and JOBS, we also explored the extent of formal and informal coordination between the two programs. The interviews with officials of state-funded job training programs and welfare-to-work programs concentrated on policymakers' expectations in establishing the program and on program operations, including beneficiaries, funding levels and allocation mechanisms, and the types of services provided.

Despite our best efforts, we were unable to collect data from each state. Consequently, some states are missing from a few tables, and some cells are empty. Because of resource constraints, no data could be collected on local implementation of federal and state policies or attempts made to verify state reports of local practice. However, at the state level, numerous efforts were made to verify information by triangulating among respondents and by checking documentary sources.[3]

ORGANIZATION OF THE REPORT

Because this volume is designed as a policy compendium, to be read selectively depending on one's interest, Sections 2 through 6 are each organized around one of the five education and training policies. Each section's tables may be found at the section's end. The concluding section compares the five policy areas and summarizes emerging trends and issues that cut across programs.

We could have organized the information presented in this compendium in any number of ways—e.g., by the types of institutions providing education and training services or by trainee characteristics. However, we chose to organize it around the five policies because it is the most useful format for members of the policy community and those researchers who will use the NCRVE data base. The categorical nature of these policies, with their separate targeting requirements, funding mechanisms, and service mandates, means that they will most often be analyzed within their respective programmatic

[3]All the summary tables included in this Note were also sent to relevant program administrators in each state, to make certain that the information reported was accurate as of early 1992.

frameworks. Nevertheless, institutional links among these five policies are becoming increasingly important, particularly at the local level. Therefore, in the last section we step outside the categorical framework of each policy and discuss themes common to all publicly funded education and training programs.

The five sections vary in length; those on vocational education are longer and present more detailed information because they represent NCRVE's major area of emphasis. The sections on JTPA, JOBS, and state-funded training programs are considerably shorter, but still present key descriptive information about program operations in each state. Because the data on state JOBS programs were collected just as that policy was first being implemented, more recent information from other sources on the status of state programs is also included.

Within each section, we compare a single policy across the fifty states and identify major similarities and differences on several dimensions. Due to the limited nature of our data, we can make far fewer comparisons across the five policy areas within any one state. However, in reading this Note, it is important to keep in mind that commonalities do exist. Although they may differ in their specific purposes, these five policies are all shaped by the state political cultures in which they operate. Regardless of the design of specific policies, that political culture influences how those policies are administered, the complexity of the local delivery system, and above all, the extent of state influence over local education and training institutions.

While our discussion is necessarily tentative and incomplete, we note major similarities and differences across policy areas in the last section, and suggest that subsequent research should attempt to identify dominant patterns among state policy systems. Such an exercise would increase the likelihood that future policies will be designed consistent with the varied organizational and political cultures in which they are implemented.

2. SECONDARY VOCATIONAL EDUCATION

Because the vast majority of secondary vocational education is provided by comprehensive high schools, the policies and goals that influence secondary education shape vocational education as well. At the same time, its status, mission, and, in some instances, independent governance exert unique influences. How vocational education is responding to broader changes in kindergarten through 12th grade education, and its efforts to define and better meet the needs of its clientele, constitute important issues for secondary vocational education. These issues are discussed in this section around six topics described below.

In this section, we explore major dimensions of secondary vocational education by focusing our discussion on six topics: (1) the types of institutions delivering secondary instruction, (2) the ways that states govern secondary education and the degree and type of state influence over local institutions, (3) funding sources and mechanisms, (4) secondary vocational education teacher credentialing requirements, (5) the type of performance data collected by the states, and (6) current and emerging policy issues in secondary, general, and work-related education.

TYPES OF POSTSECONDARY VOCATIONAL EDUCATION INSTITUTIONS

The majority of institutions offering secondary vocational education are comprehensive high schools, as shown in Table 2.1. In most cases, the numbers in column 1 of Table 2.1 represent all or almost all comprehensive high schools in the state, as virtually all provide some vocational education.

Forty-eight states offer publicly funded secondary programs in more than one kind of institution. In addition to comprehensive high schools, vocational programs are offered in vocational high schools, area voc-tech centers, and other publicly funded institutions such as community colleges, schools for the handicapped, and correctional facilities. After comprehensive high schools, the next most common delivery institution is the area vocational-technical center. These differ from vocational high schools in generally serving larger geographic areas and in providing services to adults as well as secondary students.

Typically, the programs offered by comprehensive high schools and voc-tech centers differ in their intensity and sequencing. While students often take one or two unrelated courses in comprehensive high schools, in the voc-tech centers courses tend to be sequenced, in depth, and often lead to state certification. In most states, enrollees in voc-tech centers receive general education courses as well, either on-site or by splitting their day or week

between the voc-tech center and their home high school. The latter arrangement was described by one respondent as preferable, since it prevented vocational schools from becoming "dumping grounds" for students who cannot make it in the high schools.

Seventeen states run vocational high schools. In some states, these schools provide both general and vocational education; in one state, New Jersey, whether or not the vocational education high school provides a full day and full range of educational services varies by location.

STATE GOVERNANCE AND INFLUENCE OVER LOCAL INSTITUTIONS

The information in Table 2.2 shows that the state board of education governs vocational education in almost every state. Exceptions include Colorado, Idaho, Indiana, Maryland, North Dakota, and Oklahoma, where specialized vocational education boards serve this function. Just as there is consistency across states in governance, there is consistency in the agencies with administrative responsibility for secondary vocational education. Virtually all states administer secondary vocational education through an office or division of the state education agency. In some cases, these offices or divisions specialize in vocational education and/or occupational development.

Although specific responsibilities vary slightly from state to state, the governing boards' prerogatives are typically broad, including policy development, planning, establishment of program standards, program review and approval, teacher certification and oversight, and evaluation. In the overwhelming majority of states, secondary vocational education is ultimately governed by the same bodies that oversee all secondary education.

In contrast to postsecondary vocational education, state agencies with administrative responsibility for secondary vocational education are often actively involved in monitoring local programs. In Alaska, for example, a team from the Office of Adult and Continuing Education goes out to conduct on-site program evaluations. In the course of these visits, OACE staff ascertain that the requirements for vocational programs are being met. In Delaware, in addition to evaluation, staff of the Vocational Education Division provide school districts with technical assistance, and conduct the in-service training for teachers in local programs. In Idaho, the Division of Vocational Education similarly provides technical support through school visits and workshops.

In several states, state-level guidelines are precise and prescriptive. In Georgia, for example, a full-time vocational education director is required in comprehensive high schools with enrollments of 300 or more. A part-time director must be employed in smaller high schools. In Florida, the legislature and state board of education view vocational education as

a state-directed program; consequently, oversight, evaluation, and performance reporting are state responsibilities. Recent provisions specify standards that tie state funding to student outcomes, an issue described below.

In a few states, a strong tradition of local control limits state involvement in the oversight of secondary vocational education. In Kansas, for example, the State Board of Education limits its regulatory involvement to setting the number of units required for graduation. Other activities are viewed as strictly advisory. In New Mexico, local districts are responsible for program review and approval. In Indiana, program review and approval, formerly responsibilities of the staff of the Commission on Vocational and Technical Education, have been assumed by local districts.

The last column in Table 2.2 shows respondents' assessments of the extent of state influence over secondary vocational education. As suggested above, most states for which we had an assessment were described as exerting a considerable degree of state influence over secondary vocational education programs in local institutions. In a number of other states, the level of influence was described as lower overall, or as specific to certain types of programs or funding requests.

The strong state role in secondary vocational education is evidenced in the state role in program approval, and in the credentialing of secondary vocational education teachers. These two issues are discussed below.

FUNDING SOURCES AND MECHANISMS

The manner in which vocational education programs are financed varies from state to state, as shown in Table 2.3. Since vocational education programs generally cost more than regular education programs, many states provide special assistance to school districts for vocational education. Although some states, like Wyoming, offer no special assistance to school districts, others use a variety of different mechanisms to help districts pay the excess costs of vocational education programs.

Vocational education funding mechanisms are generally related in some way to a state's general school finance formula. The most common state aid formula for funding of general education is the foundation program, which is currently used in 36 states. In most of these states, the foundation program is the sole determinant of state aid to local school districts. Nine of these foundation states rely on a two-tier program that combines a foundation program base with a second level of support, which is usually funded through a guaranteed tax base or percentage power equalizing program. Georgia uses a two-tiered

system of this sort, as does Kentucky. In some states, aid is based on the number of pupils, while in others it is based on instructional units.

Other options for state school finance systems include guaranteed tax bases or percentage equalizing formulas, found in one form or another in 19 states. Two states, Hawaii and Washington, provide full state funding, while California relies on a legislatively determined revenue limit to determine each district's general aid. In that state, a district's general state aid is the difference between its receipts from the state's 1 percent property tax levy (actually levied at the county level) and its revenue limit.

Because students with special needs, including vocational education students, are not enrolled uniformly across school districts, many states have developed additional aid distribution formulas to help districts fund the additional costs of programs to serve these students.

The most common method for providing additional support for these students is a weighted pupil formula. Each vocational education student receives a weight greater than one (with one weight assigned to regular education students), and thus generates additional support from the state. Fifteen states include a weighting factor for vocational education in the state aid formula. As shown in column 2 of Table 2.3, these weights vary from a low in Arizona of 1.071 to a high in Texas of 1.37. In a number of states, e.g., Michigan and Montana, the weight varies by program type. In Florida, 24 different weights may be applied, depending on program type and student characteristics.

Another model, used by Louisiana, is a cost reimbursement program. Under this structure, districts are reimbursed by the state for the excess costs of vocational education programs. Washington provides $739 for each full-time equivalent (FTE) vocational education student in its funding formula, and provided an additional $143/FTE for equipment costs in FY 1991.

The mix of funding sources for vocational education varies substantially by state. As shown in column 5 of Table 2.3, the local contribution varies from $0 in Hawaii and less than 5 percent in Alaska to 91 percent in Arizona. In a number of states, federal funds (mainly through Perkins) represent an additional, generally very small source of funds, but often these funds are folded into the state share and thus do not appear separately in column 5.

In the 43 states for which a percentage figure was available, on average more than half (56 percent) of Perkins funds went to secondary vocational education. The range across these states was substantial, with a low of 0 percent in New Mexico to a high of 86 percent in Idaho, as shown in column 6 of Table 2.3.

Sixteen states restrict the use of state vocational education funds. As shown in column 3 of Table 2.3, these restrictions include simply adhering to applicable federal rules (Alabama), use of the funds for vocational education only (Virginia and Washington), or for the purposes originally stated or approved (Michigan, Idaho, and Hawaii). Often, restrictions vary by program type, as in Delaware, Ohio, and Oklahoma. Seventeen states attach no restrictions to the use of state vocational education funds.

STATE ROLE IN PROGRAM APPROVAL

As Table 2.4 indicates, most states have in place an approval process for new secondary vocational education programs. Forty-six states have instituted a process designed to validate the need for the program, to ensure that standards are met, and to reduce the likelihood that the new program will duplicate existing efforts. Two of these states, California and Kansas, require plans only if the program is to be implemented in a Regional Occupational Program (ROP) or area voc-tech school; programs in comprehensive high schools are exempted from the state review process. Connecticut, Florida, Wisconsin, and Wyoming are exceptions in that they reviewed no new local programs at the time of our survey, although Connecticut plans to do so under the reauthorized Perkins Act. In Florida and Wisconsin, existing programs are reviewed, although in the case of Wisconsin, state-level review is limited to programs receiving Perkins funds.

Consistent with states' concerns that new programs demonstrate need, 36 states require new program applicants to show labor market demand for new programs. The way in which such demand must be demonstrated is rarely specified. In California, for example, the methods used and the complexity of the analysis vary both by occupational and geographic area. As one respondent noted, cutting out help-wanted advertisements to establish demand and examining community college course offerings to measure supply has sufficed in some instances.

A number of states have specified processes that must be followed to increase the likelihood that there will be sufficient demand for the program and for the skills of program completers. In Iowa, for example, program planners must demonstrate that members of the local business community were involved in the design of program outcomes. In Illinois, business and industry representatives must verify program task lists, and these in turn must be integral to the curriculum. In Mississippi, new programs must receive approval from the Industry Council, while in New Jersey, a new course or program requires signoff by the local Private Industry Council (PIC), which is affiliated with the JTPA program. In New York, a school wishing to offer a new program must consult with the local Labor Department office

about market demand. In Oregon, the Department of Education has developed a program planning system that helps to evaluate program need. The system uses data from high schools and from the employment division. In Missouri the Occupational Coordinating Committee supplies the Department of Vocational Education with supply and demand information on businesses, industry, colleges, and secondary vocational classes.

The program approval process in most states also involves a review of proposed program content. Thirty-six states examined program content during the new program review process at the time of our survey; Connecticut planned to implement such a policy in the near future. In some states, content can be reviewed against established curriculum guidelines and standards. In Alaska, for example, comprehensive vocational education curriculum handbooks produced by a committee of educators under the auspices of intermediate education agencies are heavily relied upon to assess proposed program content. In others, the content must meet clearly specified standards. In Georgia, for example, content review includes program prerequisites, exit points, completion standards, and timetables. South Dakota requires that proposed courses be offered in two-hour blocks in specified subjects, e.g., trade and industry. In Washington, districts are required to sign assurances that maximum class size will not be exceeded.

In a number of states, e.g., Hawaii, Idaho, South Dakota, Delaware, and Washington, vocational education advisory councils operating at different levels (state, district, school) guide program design and content. Their inputs are often a required part of the state-level review process.

Twenty-eight states require evidence of adequate facilities and equipment. If equipment is not on hand, consideration is given to the availability of resources to acquire it. Since many new programs require sophisticated and expensive equipment, this may create a significant stumbling block to program approval. In Mississippi, for example, the state owns or must purchase such equipment. In recent years, fiscal limitations have forced the state to deny approval to several programs because equipment could not be acquired. Sometimes, "adequacy of facilities" takes on a broader meaning. In North Carolina, for example, programs in the health area that promise to supply students with internships receive special scrutiny. If there appears to be a lack of available facilities for internships, programs can be and are turned down.

Evidence of qualified teaching personnel is required by 30 states. Since states are actively involved in teacher certification, as discussed below, such requirements imply some control over teacher quality in new secondary vocational education programs.

As shown in column 5 of Table 2.4, 19 states request information about and evaluate the number of instructional hours to be provided in proposed programs. Typically, a certain number of hours are specified as a minimum for delivering particular courses, as is the case in Pennsylvania. In South Dakota, the state specifies the amount of time each program session must be held. Fourteen states required evidence relating to course sequencing, which may include articulation agreements between the secondary institution seeking approval and the community college in the area. Connecticut planned to do so in the near future.

Looking across the six components of the program approval process, shown in columns 2–7 of Table 2.4, it is evident that states vary in their emphasis on the components. Most commonly, states focus either on all six components (six states), or on market demand, adequacy of facilities and equipment, evidence of personal qualification, and course content (six states).

Data not included in Table 2.4 indicate that, for the most part, the approval process is an interactive one, with state personnel providing informal input at many points. Programs that appear to lack resources are encouraged or helped to find them; programs that appear to lack evidence of market demand may be helped to uncover such evidence or to revamp the program so that demand can be demonstrated. When content guidelines exist, program planners are reminded of them and of their importance in the approval process. As a consequence, few programs fail to receive formal state approval once formal application is made; the state's authority and power is exercised prior to the formal approval process.

Despite requirements for program approval and the interactive nature of the program approval process, some programs become outdated over time or otherwise prove ineffective in helping students find work. In most states, some procedure exists to terminate such programs. In most states, this power is vested in the state board of education or is shared with local school districts. For example, in Massachusetts and Idaho, the state may terminate funding for a program. However, the local district may keep the program if it is willing to cover costs. In Oklahoma, the state board may recommend closure, but closure remains a local decision. In other states, board of education power is stronger and more likely to be used. In Alabama, for example, 67 programs had been terminated in the year of our survey. In most cases, these programs duplicated other offerings, or the course was obsolete. In Alaska, the Office of Adult and Vocational Education relies on curriculum handbooks to determine if courses are up to date. Recently, keypunch operating and office machine operation programs have been dropped, based on curriculum handbook guidelines.

The state's power to terminate programs is rarely exercised in a heavy-handed way. In many states, the first state board of education activity involves informing programs of

their shortcomings, and offering technical assistance to improve course content, enrollment, or other deficiencies. Often the state allows local programs a year or more to comply with standards, e.g., three years in Alabama and one year in Oklahoma. If the program appears headed for closure, Vermont provides help in winding it down.

In a few states, e.g., Montana, Connecticut, Minnesota, Florida, Maryland, Nebraska, Wyoming, and Nevada, the state board of education does not have the power to terminate programs or program funding. Indeed, one respondent in Nebraska told us that "they [the state] wouldn't dare!"

TEACHER CERTIFICATION REQUIREMENTS

States regulate secondary vocational education in part through the certification of vocational education teachers. This activity is a natural extension of the state's traditional role in certifying elementary and other secondary teachers.

Vocational Education and General Education Teachers

Vocational education teachers are not necessarily like other secondary teachers. Many, for example, have earned their stripes practicing their trade, and may lack the formal educational background required of other secondary teachers. Or they may have focused all their formal training exclusively on their trade, forgoing the specialized education courses generally required of secondary teachers.

Growing concerns about whether secondary vocational education is sufficiently up to date may impact as well on certification criteria for vocational education instructors. Such concerns may incline states to ease the process, so that people with recent or concurrent work experience can more easily transition into the classroom. Such people, it is believed, can provide students with state-of-the-art knowledge of their industries and trades.

To explore these issues, interviewers asked respondents to talk about the teacher certification process in their state, focusing on the ways that the process differs for general and vocational education teachers. In most states, state certification requirements for most categories of secondary vocational education teachers are equivalent to those for other secondary teachers, as shown in Table 2.5. These vocational education teachers are expected to have a B.A. degree, and to complete a specified number of hours of credits in their area of specialization and in professional education. In states with teacher exams, vocational education teachers generally must take and pass these as well.

Most states allow some or all categories of vocational education teachers to be certificated with less than a bachelor's degree. In many of these states there is more than one certification category for vocational education instructors; typically, one category

requires a B.A. while others do not. In Delaware, for example, business, agriculture, and industrial arts instructors must meet the same requirements as other teachers, while trade and industry (T&I) instructors need not have a B.A. However, they must have two to six years of relevant work experience, the level dependent on their academic degree. Similarly, while most vocational education instructors are expected to meet the same certification requirements as other teachers in Maryland, trade and industrial teachers may be certificated on the basis of work experience.

Seventeen states ultimately require the same credentials for vocational as other teachers, but allow the former more time to achieve them. In Delaware, for example, training and industry teachers are awarded six-year provisional certificates, which are not available to other teachers. During the provisional period, the training and industry teacher must take the "pre-professional skills test" and the "basic skills test," and complete 60 hours of course work, the equivalent of an associate degree. In Oklahoma, secondary vocational education teachers who have not passed the competency exam are allowed to teach with the understanding that they will pursue an educational plan, eventually pass the competency exam, and receive a standard certificate.

In five other states, vocational education teachers may remain in special categories on a permanent basis. In New York, for example, vocational education teachers without a bachelor's degree may qualify for a certificate with a high school diploma, four years of experience in a specific occupation, and 18 hours of professional education classes. In a few instances, e.g., Illinois, such special categories exclude the possibility of promotion, thus encouraging achievement of regular certification.

In some states, vocational education instructors must meet requirements greater than those required of other teachers. Typically, the increased requirements have to do with work experience not required of general education teachers. For example, in Hawaii, industrial technical teachers must meet the same general education requirements and complete the same state-approved teacher education program as other teachers, but they must also have 3600 hours of work experience as a journeyman. Business instructors must have completed 1800 hours of business experience. Similarly, in Wyoming, vocational education teachers must meet all the requirements for general education teachers and must also have documented work experience in one or more businesses in the area of expertise.

When a B.A. is not required, work experience generally substitutes. In all of the states that permit permanent alternative certification, a specified number of years of work experience or journeyman status are required for the special certificate. Journeyman status in a trade is roughly equivalent to a work experience requirement.

In 26 states, testing requirements differ between vocational education and other teachers. Most commonly, vocational education teachers, or particular kinds of vocational education teachers, e.g., trade and industry, must take the National Occupational Competency Testing Institute (NOCTI) exam, while other teachers take the National Teachers' Exam (NTE), as shown in column 3 of Table 2.5. In a few states, e.g., Montana and Kansas, vocational education teachers are not required to take exams.

In their continuing quest to improve teacher quality and educational outcomes, states have shifted their efforts away from curriculum prescriptions and toward efforts designed to professionalize teaching (Darling-Hammond and Berry, 1988). Forty states reported having implemented major changes in state policies governing the training, recruitment, certification, evaluation, or compensation of secondary teachers in the last several years. These changes typically involve moving from input-based to competency-based assessments (as in Oregon) or increased testing (as in Ohio, for example). A number of states, e.g., Missouri, have created more ladder positions, which allow both more opportunities for performance monitoring and new monetary recognition of outstanding teachers, as in Utah. Some of these new ladders eliminate "permanent" credentials, as in Connecticut, replacing them with time-limited credentials that require additional coursework or demonstration of competencies for renewal.

States have developed other ways to improve teacher quality. In Vermont, for example, teachers will no longer be able to major in education, a change that occurred some years ago in California. In other states, e.g., New Jersey, major requirements increased, while education credits were capped at 30. In many states, stricter education or training requirements are combined with increased on-the-job training, e.g., a mentor teacher or more in-service hours, to improve quality among current and new teachers. In a number of states, on-the-job assessments have been introduced as a means of capturing abilities that are poorly measured at best by paper-and-pencil tests (Darling-Hammond and Berry, 1988). In Delaware, for example, a statewide evaluation system requires local districts to use a standardized teacher evaluation instrument. As part of the process, any unsatisfactory performance must be disclosed, and an "improvement plan" must be established.[1]

In most states, vocational education teachers also must meet these criteria. Exceptions are fairly obvious. For example, in states where some vocational education

[1]Research suggests that such standardized assessments of "generic" behaviors ignore the context-specific behaviors that are key to good teaching. See Darling-Hammond and Berry (1988) for further discussion of this point.

teachers are not required to have B.A.'s, new requirements relevant to B.A.'s, e.g., in Florida a required 2.5 GPA, do not apply to nondegreed vocational education instructors.

In a few states, special teacher-improvement programs have been developed specifically for vocational education teachers. In Idaho, for example, a professional development program for trade and industry teachers without a B.A. degree sets up a plan by which they can move up the salary ladder. In Indiana, a similar occupational specialist license program has been set up for new secondary trade teachers. Through a professional development plan, the teacher moves toward eligibility for the standard vocational education license, which requires a B.A. degree.

OUTCOME DATA COLLECTED BY STATES

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (PL101–392) gives increased emphasis to vocational education program quality and outcomes. As part of our data-collection effort, we assessed what type of outcome data states and localities were collecting prior to its implementation. These data would serve as a baseline against which one could assess the extent of change required to meet the more rigorous data-collection requirements in the 1990 amendments.

As shown in column 1 of Table 2.6, virtually all states collect basic enrollment data on all types of students. In most cases, these data are broken down by gender and by ethnicity. Twelve states collect data on limited English proficiency (LEP) status, and eight states collect data on other disabilities and disadvantages.

Column 2 of Table 2.6 indicates that 35 states collect some sort of achievement test data on all students. Typically, tests are given in a few specified grades, e.g., 9th and 11th in Indiana, 12th in California and Louisiana. When the level of aggregation is indicated in our data, the most common level is the school. A few states aggregate achievement test data at the district level, e.g., Kansas, student level, e.g., Indiana, or state level, e.g., New Mexico.

While the collection of achievement data is common, other measures of student attainment are collected only rarely. Six states collect dropout data, while two conduct follow-ups of graduates.

Columns 3–6 of Table 2.6 describe the data collected by states on secondary students enrolled in vocational education. Seven states collected data on these students' academic performance at the time of our survey. Sixteen collect data on job skill performance. These measures are usually collected from employer reports and student follow-up, as discussed below; performance is inferred from placement in one state (Florida).

Data on program completion rates are collected more often. Thirty-five states collect such data on a regular basis; these data are for the most part collected by local districts on an annual basis. An additional state (Wyoming) collected it one time only.

Definitions of program completion vary by state; in some states the definition is left to local districts, where teachers simply compile lists based on their own implicit criteria. In Montana, for example, the state definition of "completion" requires four or more semesters in a particular vocational area. In West Virginia, program completion is "ambiguously defined," according to one respondent, and is based on having spent "sufficient time" in a vocational education program and having gained "appropriate competencies."

How program completion is defined is important, as completion rates increasingly figure into program funding decisions. In Florida, for example, programs incur penalties for failure to achieve 70 percent placements for three years in a row. Some states require a minimum placement rate in order for the program to continue to receive state funds. The minimum placement rate is calculated with the number of program completers as the denominator. If the definition of program completion is strict, the placement rate is likely to be greater, while loose definitions may increase the denominator and thereby reduce the apparent placement rate.

Follow-up data on program completers are currently collected by 42 states, with an additional state, Kansas, planning to begin one-year follow-up this year. In California and Massachusetts, follow-up is restricted to those in voc-tech and regional occupational centers. These data are typically collected by survey, from former students and from employers, with the former typically surveyed more often. Students are asked to describe their own employment status. Questions typically include hours worked, wages, and perceived usefulness of their training. If employed, they are asked to indicate whether they are working in the field in which they trained. If not, they are asked to provide an explanation.

In a few states, e.g., Florida, Maryland, and Washington, social security numbers are also collected. In Florida, tracking former student progress over time through social security numbers, e.g., into the military or on and off the welfare rolls, has been proposed; this process has begun in Washington. In North Carolina, employers compare target students to other entering workers in terms of technical knowledge, ability to use tools, attendance, punctuality, ability to learn, and personal attributes.

Response rates for these surveys vary rather dramatically from state to state. In Montana and Hawaii, for example, response rates are low (but not revealed) for the student survey. In Maryland, the response rate is high, averaging about 70 percent for students and 50 percent for employers.

States reported many uses for the outcome data that they collect, as shown in column 8 of Table 2.7. Enrollment data help in making resource allocation decisions in a number of states. In Minnesota, for example, completer data are used to determine program funding, as the number of completers is the basis for funding. In a number of states, data are required by state or federal funders. These data are used to write reports, for planning, and to justify increases in allocations to the legislature. In other states, outcome data help program planners gauge program effectiveness. Data on student outcomes and employer satisfaction help planners determine the relevance of courses and programs.

Eleven states anticipated no new data-collection efforts in the near future. In some of these states, respondents believed that all needed data were being collected. Data overload and reporting burdens were cited in one state as already unbearable. "Over my dead body" was how the prospect of additional requirements was viewed there.

Twenty-three states intend additional data collection, as shown in the last column of Table 2.6. One additional state (Texas) plans no new data collection but does plan to link existing data, e.g., test scores and courses taken. Twelve states had no plans of their own to collect additional data, but anticipated that under the new Perkins bill they would be required to do so. These data, they assumed, would focus on vocational education outcomes.

CURRENT STATE INITIATIVES ON ARTICULATION AND VOCATIONAL EDUCATION-ACADEMIC INTEGRATION

The Perkins Act encourages cooperation between secondary and postsecondary institutions and the integration of academic and vocational education. It does so by including vocational education and academic integration as a demonstration priority, and it includes academic and vocational education integration among Basic Grant Priorities as well. It also authorized $125 million in fiscal 1991 to create a program for technical preparation education, in which schools join with two-year colleges or apprenticeship programs to create new tech-prep curricula. These curricula, which involve the last two years of high school and two years of postsecondary education, are designed to lead to an associate degree or certificate in a specific career field. They generally combine academic and vocational courses (Stern, 1990).

During our interviews, we asked respondents about these issues as a means of establishing a baseline against which the new Perkins requirements might be gauged. In examining and projecting the states' role on these matters, it is important to recognize that while the Perkins reauthorization promotes articulation and integration efforts, as noted above, the states' role in these efforts may actually be reduced under the new law. While the old Perkins law required that states allocate 57 percent of their grants to localities based on

set-asides for various groups, the new law reduces state flexibility substantially by requiring that 75 percent of federal vocational education grants be distributed directly to school districts and postsecondary institutions. With substantially more money going to local school districts and postsecondary institutions, the level of state involvement in academic-vocational education integration and secondary-postsecondary articulation may actually decline.

Articulation

Articulation was a widespread concern among our respondents. Indeed, in most states the state department of education was actively involved in supporting articulation efforts in some way; in the few states in which the state was not active in this area, there was considerable articulation activity at the local level.

State involvement tended to take a range of approaches:

- **Mandated Articulation**. In South Carolina, for example, skill development courses are required to be coordinated so that students taking secondary courses receive advanced placement credit in postsecondary institutions. In Texas, new programs must demonstrate cost effectiveness for state approval, one component of which is articulation.

- **Technical Preparatory Model**. A number of states are working to develop or test technical preparatory (tech-prep) models, which involve curricula that link secondary schools with two-year colleges or apprenticeship programs through college preparatory and rigorous technical course work. In Indiana, for example, five pilot sites were implementing the technical preparatory program at the time of our interviews. The program will be phased in at the local level, with all districts expected to be involved with the program by school year 1994–1995. In Maryland, the Department of Education is funding the development of a technical preparatory model that will be made available to local institutions.

- **2+2 Agreements**. These agreements coordinate secondary and postsecondary curricula and sometimes standards as well. In some states, the state has been very active in promoting these agreements. In Oregon, for example, the state created 18 work force development regions. In each, there are "two plus two" high schools that provide general vocational education. Community colleges provide more specific vocational education training.

In some states, state-level support for articulation is material, and is demonstrated through joint funding, e.g., Illinois; technical assistance, e.g., Vermont and Delaware; and planning funds, e.g., Maryland. In an innovative approach, a senior plan in Georgia allows students to attend a technical institute while in high school, with each institution receiving full-time equivalent credit for the same student.

Vocational Education-Academic Integration

The separation of academic and vocational programs has increasingly been questioned of late on several grounds.[2] First, research on learning suggests that for at least some students, academic material is learned best when it has real-world applications (e.g., Raizen, 1989). Second, employers have become increasingly concerned that vocational students are not acquiring basic academic skills. Third, separation of vocational and academic courses has been criticized as a tracking system that precludes higher education opportunities for less affluent students (Selvin et al., 1990).

Congress responded to these concerns by mandating that federally funded vocational education be integrated with academic instruction. States and localities have responded to this mandate. Nearly all are actively involved in promoting vocational education–academic integration (Grubb et al., 1991). Forty-two reported having purchased curricula from one or more groups, including the Southern Regional Education Board and the Center for Occupational Research and Development.[3] In most of these states, local districts may borrow the curricula or purchase them for a nominal fee, typically with Perkins funds. In one state (Wisconsin), districts may request videos of integrated courses. States support their use through in-service workshops, e.g., Kansas and Michigan, technical assistance, e.g., Idaho and Oregon, and distribution of materials, e.g., Florida.

In most states, adoption of new integrated curricula is encouraged but not required. The voluntary approach has encountered some obstacles, according to our respondents. Several noted that while vocational education teachers have generally been enthusiastic, academic instructors have shown some resistance. One respondent noted that the hardest thing is to get schools to use the materials that the state makes available.[4] In a few states,

---

[2]See Stern (1990) for more detailed discussion of the historical factors motivating vocational-academic integration.

[3]The purchase of curricula developed by out-of-state experts gains support from Texas' experience. There, funds were offered on a competitive basis to local districts that proposed model programs for teaching applied courses. While funds were available for six programs, only two districts applied, and these proposals were viewed as not worth funding.

[4]These difficulties have been documented in implementation research studies, which find that effective practice is more effectively achieved through support for change strategies rooted in local networks (e.g., McLaughlin, 1990; Elmore and McLaughlin, 1988; McLaughlin, 1987).

some integration efforts are mandated. In New York, for example, all districts are expected to adopt a new set of courses that teach applied academics, including business education, applied mathematics, and technical communication. In South Dakota, vocational education programs eventually will be required to offer at least five units in one of the applied academic programs now being piloted around the state.

Given the fairly extensive, state-level involvement with integrated curricula, it was striking that virtually no states have attempted to systematically assess their impact. Most respondents had nothing to say about impact; those that did pointed to formative criteria such as improved communication or closer working relationships between academic and vocational education teachers. One respondent said that these efforts had led people to see education in a more holistic way. While respondents in several states contended that these curricula have increased student interest and led to higher-level work among vocational education students, only one state, Louisiana, had actually looked at test score data as a means of assessing the impact of integrated curricula. These investigations revealed that students taking agriculture (applied science) courses are passing the earth science questions on the state test at the same rate as those taking the (general education) earth science course.

STATE COORDINATING MECHANISMS

States appear to spend a good deal of time, energy, and resources on efforts to coordinate the operations of different federally funded education and training programs, both with each other and with related state programs. Respondents in many states described coordination as a high priority. A respondent in North Carolina noted that this priority may have gotten too big, describing the state as "overwhelmed with coordination activity," where "lots of tails are wagging this dog."

Most coordination efforts begin with the development of a coordinating body, which generally includes members from relevant state agencies, such as the Division of Vocational Education, Department of Labor or Employment, JTPA, Division of Rehabilitative Services, and the Department of Social Services. Some states, e.g., Maryland, have coordinating bodies which include PICs or other private industry representation. In several states, e.g., Maryland and Louisiana, these bodies are appointed by the governor, reflecting the high priority attached to coordination.

In many states, coordination boards meet fairly frequently. For example, in New Mexico the agency heads from JOBS, JTPA, and vocational education, who comprise the Governor's Job Readiness Cabinet Council, meet every two to three months to discuss which

programs are best able to meet particular needs and provide particular services. But each program remains, for the most part, autonomous. Like most other such mechanisms, this council lacks the teeth or the will to do more than talk.

In a few states, efforts have been made to strengthen the coordination process. For example, in West Virginia, the Division of Vocational and Technical Education has a staff member who works as a liaison with other education and job training programs. In Illinois, coordination among federally funded education and training programs is facilitated by the sharing of a data base among representatives to the Employment and Education Subcabinet.

Interagency agreements, coordinated targeting of state funds, and service foci typically comprise the agenda for these boards. Some, e.g., Nevada, have undertaken to produce massive state plans that describe coordination efforts. In Michigan, vocational education and JTPA funds jointly support training and retraining programs, and the state board gives grants to consortia of institutions working to develop joint programs. However, such joint activities are rare.

The considerable amount of smoke and few fires around state-level coordination were noted on occasion in our interviews. Having described the State Council on Vocational and Technical Education, which along with JTPA has formed an independent committee to review programs and suggest ways to strengthen them, a respondent from South Carolina wondered aloud if this was merely a "paper exercise." A respondent from Ohio described coordination as a struggle, due to the friction inherent in such relationships. Coordination between JTPA and vocational education there has been characterized as "an unnatural act between two unconsenting adults."

Coordination between secondary and postsecondary education typically occurs locally. Grubb and McDonnell (1991) describe patterns of local coordination among local education and training programs that minimize both duplication and competition while providing meaningful services to reasonable numbers of clients. To varying degrees, they found that local coordination is facilitated by funding arrangements that encourage programs to try to shift costs to others to expand service opportunities; by policy directives that may require clear divisions of labor or target state funds; by local initiatives, e.g., articulation agreements; by local brokers, e.g., JTPA subcontractors; by small scale; by local institutional histories; and by the desire to avoid competition among providers.

State initiatives may facilitate these local efforts. In Oregon, for example, 18 workforce development regions support local coordination efforts by mandating a council with specified memberships. Similarly, area vocational education centers in South Carolina facilitate local coordination. Cooperative funding or curriculum development for local 2+2

programs in a number of states, e.g., Texas and Virginia, contribute as well to coordination at the local level. In Wisconsin, Perkins funds support local articulation projects.

CURRENT AND EMERGING POLICY ISSUES IN SECONDARY, GENERAL, AND WORK-RELATED EDUCATION

States have enacted a variety of policies that impact on secondary curriculum, assessment, teacher training, and compensation.

Upgraded Curricula and Standards

These reforms are generally designed to increase accountability, usually through upgrading of curricula, more rigorous assessment of student competencies, and reporting of dropout rates and graduation levels to the community and/or the state. In a number of states, e.g., California and Alaska, such assessments have taken the form of school "report cards." The first column of Table 2.7 identifies issues and changes related to curriculum and student outcomes. As shown in column 1, a common change is an upgrade of graduation requirements. Sixteen states reported having increased their high school graduation requirements in academic subjects, such as math, English, and science, in response to national concerns over the poor educational preparation of high school graduates.[5]

These changes have caused difficulties for vocational education. Increased academic requirements limit the time available for students to take electives; this has caused declines in vocational education enrollments in many states (e.g., Guthrie et al., 1987; Clune, 1989; Hanson, 1989).[6] Vocational educators have attempted to mitigate this problem by upgrading vocational education courses so that enrollees may receive academic credit for participation, an effort supported by articulation and integration efforts described above. In Kansas, for example, applied technology, applied communications, applied math, and applied science will be given academic credit after new curriculum models developed by the state are implemented. In Louisiana, applied math, applied communications, and applied physics/biology are being field tested to determine if they will substitute for general education requirements. There, academic teachers are involved in the development of these applied courses to ensure comparability and support.

---

[5]Other studies report that nearly all states have made such a change. See, e.g., Clune (1989).

[6]Clune and White (1992) found no overall decline in vocational education coursetaking in the 16 lowest-achievement-quartile high schools in the four states that they studied. This lack of effect masked significant declines in one state and one other district and significant increases in vocational education coursetaking in Pennsylvania, which had increased its vocational education requirement along with increased requirements in academic subjects. The authors conclude that the impact of reforms on vocational enrollments varies locally in response to deliberate policy choices.

More generally, states are upgrading their vocational training and curricula through the development of more rigorous and standardized curricula, as in Ohio and Oklahoma, through competency-based assessments, as in Rhode Island and South Dakota, and through the development of new state-level curriculum standards that apply to all courses, as in Alaska and Mississippi.

TEACHER ISSUES

Education improvement programs in many states include teacher components. As shown in the second column of Table 2.7, all but four states have enacted major initiatives in recent years that impact on teacher training, credentialing, and/or salaries. In California, for example, teachers credentialed after 1985 are required to complete 150 hours of continuing education every five years. In North Carolina, they are now required to be certified in the area in which they teach half or more of their time.

Fifteen states raised teachers' salaries. In a few states, e.g., North Carolina and Washington, increased pay is tied to teacher achievement or student performance. Salary increases have been paired in many of these states with increases in training requirements. In Washington, for example, a program was developed that rewarded additional education, in particular a master's degree. Delaware also restructured salary scales to reward additional coursework, but some there are having second thoughts about the impact of the restructuring on teacher competence, in particular, whether more courses, many in "irrelevant" areas, will improve teacher expertise or effectiveness.

Selected recruitment efforts have occurred in a number of states, where uncertificated people with expertise in understaffed areas, such as math, are given support for training to become certificated. These plans often include a mentor teacher, a feature commonly found in recent teacher initiatives.

SUMMARY

While much secondary vocational education continues to be offered in comprehensive secondary schools, nearly all states now offer publicly funded secondary vocational programs in other institutions as well. These latter programs, offered in vocational high schools, area voc-tech centers, and other settings, are generally sequenced, provide greater depth and a broader range of curricular offerings, and are more likely to lead to state certification than programs offered in comprehensive high schools.

In virtually all states, the state board of education governs vocational education. Although specific responsibilities vary slightly from state to state, the governing boards'

prerogatives are typically broad. State agencies with administrative responsibility for secondary vocational education are often actively involved in monitoring local programs.

Consistent with their active role in secondary vocational education, most states have in place an approval process for new secondary vocational education programs. Criteria focus on the need for the program, enforcement of quality standards, and the avoidance of duplication.

States also monitor continuing programs, and a number can choose to unfund programs that demonstrate declining enrollment or other problems. Most, however, attempt to rescue floundering efforts with advice and technical assistance.

Vocational education teachers in most states must meet the same state certification requirements as general education teachers. However, concerns about teacher shortages and the relevance of vocational education to workplace needs has led a number of states to create special credentialing and testing requirements for some categories of vocational education instructors, most often those teaching in the trade and industry (T&I) area. Typically, special credentials are temporary, although a few states provide for permanent alternative credentials.

In their continuing quest to improve teacher quality and educational outcomes, states have attempted to both professionalize teaching and increase accountability in recent years. Many states have increased teacher training requirements and have initiated more teacher evaluation efforts. Several states have eliminated permanent credentials as a means of promoting continuing education and evaluation. States have also begun to collect more data on both general education and vocational education students.

Consistent with the intent of the Perkins Act, states are devoting greater efforts to articulation and vocational-academic education integration. In most states, integration efforts are encouraged; in a few, they are mandated.

States expend considerable effort to coordinate different federally funded education and training programs. Most such efforts begin with the development of a coordinating body; these bodies typically meet frequently. Nevertheless, much coordination activity occurs at the local level and is driven by funding arrangements that encourage programs to shift costs to other providers.

In recent years, states have enacted a variety of policies aimed at improving educational outcomes. States have used upgraded curricula and standards, more testing, and more rigorous teacher training and evaluation in particular, to achieve this goal.

Table 2.1

TYPE AND NUMBER OF INSTITUTIONS PROVIDING SECONDARY VOCATIONAL EDUCATION

	Comprehensive High Schools	Vocational High Schools	Area Voc/Tech Centers That Include Secondary Level	Other Public Institutions That Offer Secondary Voc Ed
Alabama	42	None	73	None
Alaska	200	None	3	None
Arizona	168	1	1	None
Arkansas	326	None	10	None
California	1000	None	71	Some private adult schools
Colorado	260	None	11	None
Connecticut		17 state-run regional schools	17 regional vocational-agriculture centers 3 state-run satellite centers	None
Delaware	31	6	None[1]	None
Florida	5	3	33	None
Georgia	212	None	7	None
Hawaii	39	None	6 (These are voc magnets within comprehensive high schools)	None
Idaho	116	None	None	Small number of voc programs at alternative high schools
Illinois	6	None	28	16[2]
Indiana		None	49	2 (schools for deaf and blind)
Iowa	320	None	4	State school for the deaf
Kansas	374[3]	None	14	2 AVTS/CC; 17 community colleges
Kentucky	Yes	1	76	10 social service institutions
Louisiana	365	None	14 (career centers)	None

Table 2.1 (continued)

	Comprehensive High Schools	Vocational High Schools	Area Voc/Tech Centers That Include Secondary Level	Other Public Institutions That Offer Secondary Voc Ed
Maine		None	28	None
Maryland	186	5	19	6 comprehensive vocational high schools
Massachusetts		20	27	None
Michigan	423	None	56	About 30 handicapped, prison, and voc rehab schools
Minnesota	432 districts	None	60	
Mississippi		None	130	6 community colleges deliver voc ed at voc ed centers
Missouri	409	None	58	None
Montana	175	None	0	0
Nebraska	300	None	None	5 settings for delinquent youth
Nevada		3	None	None
New Hampshire		None	20	30 (high schools)
New Jersey	316	41	18	1989
New Mexico		None	None	17 (2–yr.) schools
New York	838	30	60	None
North Carolina		None	None	Corrections and handicapped programs
North Dakota	189	1	5	None
Ohio	716	21	61	9 correctional facilities
Oklahoma	400–499	None	48	None
Oregon	260	About 3[4]	1[5]	Some JTPA-affiliated institutes

Table 2.1 (continued)

	Comprehensive High Schools	Vocational High Schools	Area Voc/Tech Centers That Include Secondary Level	Other Public Institutions That Offer Secondary Voc Ed
Pennsylvania	562	16	69	13 intermediate units and 7 juvenile correctional institutions
Rhode Island		1	8	None
South Carolina		None	53	None
South Dakota	160	None	6	None
Tennessee	147	None	51	None
Texas		None	None[6]	Prison system schools
Utah		None	5	5[7]
Vermont	6	None	16	1 Job Corps
Virginia		None[8]	47	None
Washington		3	8	5 (voc/tech institutes)
West Virginia	27	None	37	12
Wisconsin	38	1	None	None
Wyoming	75	None	None	None

[1]Delaware's six vocational high schools are also comprehensive high schools.

[2]The Department of Corrections has about 10 institutions which deliver vocational education to juveniles; the Department of Rehabilitation has about 3 facilities which deliver vocational education in part to juveniles. While all 3 receive funds through the SBE, they are governed independent from the board.

[3]Of this number, 224 offer less than 30 credits per year.

[4]The policy in Oregon is that there should be no vocational high schools. However, some of the larger school districts have a vocational high school serving their district.

[5]Again, this runs counter to Oregon's policy, which is not to have anything but comprehensive high schools.

[6]A number of comprehensive high schools serve as area vocational schools in that students from neighboring districts may attend vocational classes not available on their home campus.

[7]This includes 2 district skill centers and 3 area vocational centers.

[8]Virginia has no high schools that are strictly for vocational education students. Vocational education students spend half a day in their home schools and the other half at vocational education centers.

Table 2.2

STATE GOVERNANCE OF SECONDARY VOCATIONAL EDUCATION

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Alabama	State Board of Education	Approves allocation formulas, curriculum content for course of study guidelines, and adopts teacher certification requirements. Program evaluation and planning.	State Department of Education	Significant state influence leveraged through program and budget approval. Strong state influence on content through state-approved course of study guidelines.
Alaska	State Board of Education	Sets generic standards for all educational programs.		Significant state influence is maintained through the program review and approval process. Individual voc. programs are required to follow basic standards set by SBE, but must also establish their own.
Arizona	State Board of Education	Establishes policy directions and long-range planning. Responsible for standard setting and program oversight.	State Department of Education	State conducts a program approval process.
Arkansas	State Board of Education	Establishes policy directions and long-term planning; program review and approval; standard-setting and oversight.		Substantial state influence on use of funds through incentive funding, approval of all courses and programs and instructor certification.
California	State Board of Education	Establishes long-range plans and provides policy direction.	State Department of Education	Provides strong leadership and extensive assistance. Only approves programs occuring in ROC/P's.
Colorado	State Board for Community Colleges and Occupational Education	Establishes policy directions and long-range planning, reviews and approves programs, sets course standards, and maintains oversight.	Community Colleges and Occupational Education System	State maintains some control through review and approval of program content and voc ed teacher credentialing.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Connecticut	State Board of Education	Responsible for establishing and implementing the state plan and for evaluation (programs, services and activities).	State Board of Education (with some input by the Council on Voc Ed)	State maintains some degree of control through administering, supervising, and evaluating voc ed programs.
Delaware	State Board of Education	Establishes policy directions and long-range planning; is responsible for program review and approval; sets standards.	Department of Public Instruction	Significant amount of state control through the program review and approval process and through the state's role in monitoring voc courses on the basis of cost-effectiveness and usefulness.
Florida	State Board of Education[1]	Responsible for final approval of program review, standard setting, and evaluation.	Department of Education	High degree of state influence through standard setting, oversight, evaluation, and performance reporting. State places great importance on maintaining the uniformity of courses statewide.
Georgia	State Board of Education	Establishes policies and participates in programmatic standard setting, performance reporting, and oversight.	Department of Education	High degree of state influence through a mandated statewide basic curriculum which ensures uniformity of core curriculum in each subject area.
Hawaii	State Board of Regents	Responsible for establishing policy, planning and coordinating voc ed programs, and oversight of federal funds.	Department of Education	State maintains some degree of control through implementing, monitoring, and evaluating policies and programs.
Idaho	State Board of Voc Ed	Appropriates funds for voc ed, hires state director, sets up evaluation procedures, approves state plan and state standards.	State Division of Vocational Education	State maintains authority over program approval through program funding, and conducts program reviews and evaluations.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Illinois	State Board of Education[2]	Recommends planning guidelines to local districts; ensures minimum standards are met; controls state funding.		Little influence over planning process, which is basically driven by the local level. However, the state is responsible for approving applications requesting state funds and for program evaluation.
Indiana	Commission on Vocational Technical Education[3]	Establishes policy directions and long-range planning, sets performance standards, and evaluates programs.		Little state influence over program review and approval. This is handled by the local districts. The state maintains some influence through program evaluation.
Iowa	State Board of Education	Has authority over program approval for state and federally funded programs and for the evaluation of programs.	Department of Education	State maintains authority over program approval for state and federally funded programs, and for program evaluation. By 1992, the state will be responsible for establishing and monitoring standards.
Kansas	State Board of Education[4]	Sets the minimum number of graduation requirements. Sets standards for teacher certification and accreditation.	State Department of Education	Kansas has local autonomy. The local districts establish their own policies and practices. SBE sets minimum standards. Contract law and teacher negotiations are generally a local responsibility.
Kentucky	State Board for Elementary and Secondary Education	Establishes policy in all areas except teacher certification requirements.	State Board for Elementary and Secondary Education	Influence restricted to program approval for voc ed funds. These programs must meet state standards.
Louisiana	State Board of Elementary and Secondary Education	Sets policy on standards, curriculum, and teacher certification.	Department of Education	Significant state influence through standard setting, program approval, and on-site evaluation.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Maine	State Department of Education	Establishes policy directions and long-range planning, reviews and approves programs, sets standards, maintains oversight.	State Department of Education	Significant state influence through program review approval and evaluation.
Maryland	State Board for Vocational-Technical Education (SBVTE)	Technically responsible for establishing policy and long-range planning.	Division of Vocational-Technical Education	Significant state influence through program approval. All voc ed programs must gain prior state approval and meet predetermined standards or have exceptions approved.
Massachusetts	State Board of Education	Establishes policy direction through program approval criteria and weights for vocational education students relative to other students. Maintains oversight through review and approval.	State Department of Education	Substantial state influence through establishment of comprehensive program approval criteria.
Michigan	State Board of Education	Establishes policy and planning directions and coordinates plans for all public education statewide.	Vocational Technical Education Service	Considerable state influence over all programmatic aspects—review, approval, and evaluation. State also involved in planning and oversight.
Minnesota	State Board of Education			Some state influence through funding of special programs with categorical funds. Four different voc ed programs (local choice) required.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Mississippi	State Board of Education	Establishes policy directions and long-range planning, reviews programs, sets standards, and coordinates federal with local standards.		Considerable state influence through program approval and evaluation.
Missouri	State Board of Education	Distributes state and federal funds to local districts and develops policy for voc ed programs.	Department of Elementary and Secondary Education	Some state influence over how local districts use funds. Vocational course offerings must be approved by the state.
Montana	Board of Regents[5]	Responsible for policy direction, long-range planning and program review and approval.	Office of Public Instruction	Considerable state influence through program review, approval and evaluation.
Nebraska	State Board of Education	Establishes policy directions and guidelines for review and approval.	State Department of Education	No real state influence because there are no state funds available. State chooses not to exercise informal influence.
Nevada	State Board for Occupational Education	Provides direction by making recommendations to school districts. Expedites program review and approval process.	State Board for Occupational Education	Little state influence over policies and programs. Some fiscal control through Perkins funds.
New Hampshire	State Board of Education			Very limited state influence. State may recommend but does not prescribe program or course offerings.
New Jersey	State Board of Education[6]			

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
New Mexico	State Board of Education	Establishes policy directions and long-range planning and prescribes broad standards.		Little state influence over program review and approval. Program content is determined at the local level. Although the state evaluates programs, the decision to terminate is a local issue.
New York	Board of Regents	Sets policy for secondary occupational education; adopts rules and regulations governing occupational education sequences, student outcomes, and teacher certification.	State Education Department	Considerable state influence through program review and testing to monitor program quality.
North Carolina	State Board of Education[7]	Establishes overall direction of policy; defines the funding formula; program approval; standard setting.	Superintendent of Public Instruction	Some state influence through program oversight process, which includes review and approval of local plans. Local schools given some latitude in adopting new programs.
North Dakota	State Board for Vocational Education	Establishes policy directions and does long-range planning. Sets program standards and evaluation guidelines.	State Board for Vocational Education	Some state influence, exercised through funding decisions.
Ohio	State Board of Education	Confers approval on policy decisions.	Department of Education	High degree of state influence through program approval, evaluation, and performance reporting.
Oklahoma	State Board of Vocational and Technical Education[8]	Limited to the accreditation and certification processes.	Department of Vocational/Technical Education	High degree of state influence through planning, standard setting, and program review, approval, and evaluations.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Oregon	State Board of Education	Prescribes required or minimum courses of study. Has moderate responsibility for policy and long-range planning.	Superintendent of Instruction	Significant state influence through expedition of program approval.
Pennsylvania	State Board of Education	Establishes policy and regulations.	State Department of Education	Moderate influence through expedition of program approval. Locals determine when to terminate programs.
Rhode Island	State Board of Regents for Elementary and Secondary Education	Establishes policy directions and long-range planning, and sets standards.	Department of Education	Significant state influence through informal collaborative occupational advisory centers and through standard setting.
South Carolina	State Board of Education	Establishes policy directions and long-range planning, sets overall direction, sets standards.	State Department of Education	Significant state influence through standard setting, and evaluations of program performance.
South Dakota	State Board of Education	Sets policies on the administration of programs, standards for delivery of programs, and procedures for allocation.	State Department of Education	Significant state influence through program reviews, especially for new programs.
Tennessee	State Board of Education	Establishes policy directions.	Department of Education	Some influence through mandated class size and curriculum approval process. But once funded, LEAs have considerable discretion.
Texas	State Board of Education	Establishes rules for implementation of legislation, approves courses, and approves Master Plan for voc ed.	State Education Agency	Significant state influence through program approval and review.

Table 2.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Utah	State Board for Vocational Education	Establishes policy directions, approves use of state and federal funds on a program by program basis, and sets standards.	State Education Agency	High degree of state influence over approval process when local district seeks state funding.
Vermont	State Board of Education	Sets program standards, curriculum, activities allowable for funding, number of hours of instruction, and competencies.	Department of Education	Significant state influence through program review and approval.
Virginia	State Board of Education	Establishes policy and long-range planning through the state plan, approves courses and standards.	Department of Education	Little state influence other than for program approval. Curriculum and performance standards are not mandated.
Washington	State Superintendent of Public Instruction[9]	Receives and distributes state funds, approves and evaluates programs, recommends curriculum.		Little state influence. Program approval and curriculum development are not mandated.
West Virginia	State Board of Education	Has broad governing authority, including program approval and long-range policy and planning.	Department of Education	Signicant state influence for program approval, curriculum and evaluation.
Wisconsin	Department of Public Instruction[10]	Makes recommendations for administration of rules, approves programs seeking federal funds, and evaluates programs.		Little state influence over programs unless local boards request federal funds. Local control predominates because federal funds are scarce.
Wyoming	State Board of Education[11]	Makes broad policy recommendations, is responsible for accreditation of state schools, and oversees funding issues.	State Department of Education	Little state influence. State's role is primarily advisory. Local autonomy is strong.

NOTES TO TABLE 2.2:

[1]Florida's legislative branch is responsible for formulating voc ed laws.

[2]The state provides guidelines and planning documents to the local districts that work as recommendations, not requirements. The planning process is driven by the local level. The State Board ensures that schools meet minimum standards for educational programs.

[3]The Commission establishes policy directions, conducts long-range planning, and establishes performance standards and evaluation mechanisms.

[4]Kansas is a state of strong local control. Therefore, the state board functions primarily as an advisory board. Its authority is limited to establishing the number of graduation units required. The state's 304 districts basically establish their own policies and practices.

[5]Governance is a collaborative effort between the Board of Regents and the Office of Public Instruction. The Board of Regents has responsibility for post-secondary vocational education. It contracts with the Office of Public Instruction to manage voc ed at the secondary level.

[6]Major responsibilities of the SBE and the SEA are expected to change after August 1990, when the Board is expected to adopt a new administrative code. At this time, state responsibility will increase in conjunction with new proposals set forth in the code.

[7]The General Assembly sets broad standards regarding vocational education plans and criteria, while the State Board sets the specifics within this framework.

[8]In Oklahoma, six members of the SBE are also members of the State Board of Vocational/Technical Education. The other six are representatives of business and industry and are appointed by the governor. The chairman, who is elected, is the state superintendent of public instruction.

[9]The SPI is responsible for program approval and evaluation, curriculum development (as recommendation, not mandate), teacher training, in-service training, and certification of vocational education instructors. The other entity that has authority over vocational education is the State Board for Vocational Education. The State Board is responsible for receiving and distributing federal funds.

[10]There is no state board for vocational education serving secondary students in Wisconsin. Secondary vocational education is run by an elected State Superintendent with a staff that comprises the Department of Public Instruction (DPI). The DPI makes recommendations for the administration of rules and interpreting statutes. Program review and approval is carried out by the DPI only if the local boards are requesting federal funding. Many boards do not request federal money because there is not much of it. Local boards requesting federal money must submit a series of courses and programs to the Department.

[11]Although the Wyoming State Board of Education establishes policy direction and long-range planning, many decisions are made at the local level. The Board is in charge of accreditation of schools. Although the accreditation process is outcome-based, the standards are established at the local level. The Board oversees funding issues and certifies all secondary teachers.

Table 2.3

SOURCES AND FUNDING MECHANISMS FOR SECONDARY VOCATIONAL EDUCATION

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)		Percent of Perkins Funds Allocated to Secondary Voc Ed
Alabama	Foundation program[2] based on instructional unit		Restricted to vocational activities.	$83 million[3] in FY90.	Local State Federal	<5% 88% 12%	70% in FY90.
Alaska	Foundation program[2] based on instructional unit	ADM[4] IUs 5–10 students = 1 11–25 = 2 26–40 = 3 41 and over = 3 plus 1 for each 20 ADM[3]	None, other than federal requirements		Local	<5%	66% in FY89. 64% in FY90.
Arizona	Block grant based on weighted pupils.	Voc ed students weighted additional 0.071 in aid formula.[3]		$43.8 million[3, 5] state and local only, does not include federal.	Local State	91% 9%	85%
Arkansas	Foundation program.[2]	None		State provides $10.8 million based on formula. Local responsible for balance of costs. Total unknown.			

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
California	Funding based on historically determined revenue limit.	None		State regional occupation centers, $209.4 million.[3, 5] Agriculture incentive funds, $3 million. VSOs, $500,000.	State 93% Federal 7%	48%
Colorado	Guaranteed yield program[6] based on pupil units.	None	None	State funds,$14.6 million.[3]	State provides assistance on formula basis, districts make up difference.[3]	40%
Connecticut	Education cost sharing grants.	None	Vocational funds restricted to equipment purchase or agriculture centers.	Data on local funds not collected. Area voc tech schools 100% state funded.	State and federal governments assist districts on formula basis, districts responsible for balance.	80% of Part C under PL101-392.
Delaware	Flat grant plus salary assistance and equalization program.	1 instructional unit for each 15 FTE pupils.[3]	Specific program requirements.	State share based on voc ed enrollment through basic aid formula.	State 70% Federal and local 30%	About 70%.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Florida	Foundation program[2] based on weighted FTE pupils.	24 different weights determined on the basis of program and audience (e.g., Agriculture has weights of: 1.796 Grades 7-12 1.556 Adult 1.253 Adult supplemental[1]	No limitation on spending, but limits on number of FTE enrollees by program area.	Part of basic aid formula.[3]	95.5% through state aid formula. 4.5% from federal. No state grant program. 36% of federal aid is included in state formula distribution.	29.3% in FY89.
Georgia	Combination foundation[2] and guaranteed tax base programs[6] using weighted pupils.	Vocational ed students weighted an additional 0.13504.	None	FY87: $67.7 state funds based on aid formula[3, 5] FY89: State $97M (73%) Local $35M (27%)	FY89: State $97M (73%) Local $35M (27%)	50% in both FY89 and FY90.
Hawaii	Full state funding.	None	Can only be used for purpose for which funds were requested, and must meet federal requirements.		State funds voc ed based on school needs and available funds. No local funds, only state and federal.	Approximately 50% for FY89.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Idaho	Foundation program[2] based on instructional units.	None	For approved program improvements only.	FY90: $27 million for secondary and post-secondary, excluding secondary voc teacher salaries and "regular expenses," e.g., texts.	91.5% of state funding distributed through state aid formula.	86% for FY89 and FY90.
Illinois	Three formulas: flat grant, guaranteed tax base,[6] and foundation program.[2] District receives funds through whichever option provides the greatest amount.			$46.5 million in state funds.[3, 5]	State provides funding for authorized programs. Local contribution not required.	65%
Indiana	Foundation program[2]	Program-dependent weights ranging from 0.14 to 0.48.[3]	None	State share through general aid formula, amount not known.	State and local total estimated at $160 million, but shares not broken out.	60% for FY89 and FY90 as mandated by law.
Iowa	Foundation program[2] based on FTE pupils	None	None	$3.7 million in state funds.	State and federal funds pay 40% of adult costs and approximately 20% of day school program costs.[3, 5]	28% for FY89 and FY90.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Kansas	Power equalization program[7]	None	None	AVTS (secondary):[5] $3.1 million. General state aid to voc ed students: $31.2 million. Estimated total: $34.3 million.	Local 48% State 45% Federal 7%	Approximately 35%, or $1.75 million in FY89 and $2 million in FY90.
Kentucky	State aid based on ADA.	Based on classroom units for exceptional children.		$72.4 million estimated.[3, 5]		Approximately 48% (FY92).
Louisiana	Foundation program[2] based on instructional units.	None, state uses a cost reimbursement model.	State controls budgets and sets allowable categories for use of voc ed dollars. Within categories, districts have spending flexibility.	$11.2 million in state funds.[3, 5]	State pays 100% of calculated allowance. Amount shown does not include federal funds also used for this program. Locals responsible for all costs not covered by the program.[3, 5]	FY89 62.95%. FY90 56.51%.
Maine	Foundation program[2] based on pupil units.	Yes: elementary student = 82,030 high school = 2,703 1986–87	None	$14.6 million in state funds.[3, 5]	State pays approximately 50% of state and local share.	FY89 22.84%. FY90 22.63%.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Maryland	Formula based on wealth and enrollment factors.	None	No more than 20% on instructor salaries; no more than 25% on matching funds for Perkins disadv/ handicap funds. Funds may also be spent on equipment repair or replacement, supplies and materials, technical upgrade (staff development), job placement for students and extended day or extended year programs. In practice, 85–90% is spent on equipment and 5% on supplies.[8]	$160 million from all sources.		75% to 76% in both FY89 and FY90.
Massachusetts	Combination percentage equalizing[7] and foundation program[2] based on pupil counts in ADM.					

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Michigan	Guaranteed yield program[6] based on ADM[4] pupil units.	Yes, but varies depending on the program.	Must be used for intended purpose.	Out of possible 30 to 40 occupational areas, only 10% receive state funds.	10% from state, with 18% of state funding allocated through state aid formula.	50% in FY89 and in FY90.
Minnesota	Multi-tiered foundation program.[2]	None		$11.7 million (non-handicapped) $4.6 million (handicapped)	LEAs receive 75% of the difference between secondary voc ed teacher salaries and 50% of general ed revenue multiplied by secondary voc ed FTE + 30% of other expenses, e.g., travel, supplies.	
Mississippi	Foundation program[2] based on instructional units.	None		$42.9 million state share[3, 5]	State pays up to 50% of calculated amount. Federal funds are in addition to the state share. Local districts responsible for the balance.	47% for both FY89 and FY90.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Missouri	Foundation program[2] with a guaranteed tax base[6] add-on, pupil basis.	None	Funds can only be used for salaries and equipment.	$30.8 million in state funds. Schools reimbursed for a portion of the cost of operating approved vocational programs.[3, 5] FY90 estimated state funds: $70 million.		70% in both years.
Montana	Foundation program[2] based on pupil units plus guaranteed yield program.[6]	None	None	$900,000 in each year of the biennium + funds from foundation program.	Local expenditures: $3 million.	54%
Nebraska	Three part system: foundation program,[2] incentive funds based on instructional staff degree level, and equalization aid on top of that.			$122,911 in state funds.[3, 5]		45%

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Nevada	Foundation program[2] based on weighted pupils.	None	None		State aid formula does not earmark funds for occupational education except for handicapped and disadvantaged. Local districts spend $4.8 million to match Perkins aid.	Approximately 62% for both FY89 and FY90.
New Hampshire	State aid based on average per pupil costs in eight programs times an equalization factor times state share for average district wealth (8% in FY88).			$1.8 million in state funds to pay all or part of tuition for high school students to go to schools with vocational education program. Second program provides construction assistance for vocational education, appropriation not available.[3, 5]	State pays 100% of approved costs for tuition and transportation, local districts responsible for excess costs.	
New Jersey	Guaranteed tax base[6] approach based on pupil units.	Additional cost factor of 0.28 applied to each enrolled pupil.	None	$7.8 million state funds.[3, 5]	Relative shares unknown, but local funds exceed the $20 million in federal funds.	Approximately 58%.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
New Mexico	Foundation program[2] based on weighted pupil units.	All 7–12 students (voc ed and other) weighted 1.25.[3, 5] Weighting of voc ed students under review.	None	Can't determine since there is no specific allocation to vocational education. All state funds allocated through state aid formula.		0%
New York	Percentage equalizing formula.[7]	1.25	None		Local 42% State (through state aid formula) 47% Federal 11%	46% for both FY89 and FY90.
North Carolina	Foundation program[2] based on instructional units.	None	None	$138.2 million state share.[3, 5]	State funds allocated on ADM[4] basis, districts responsible for all costs not covered through state reimbursement.	2/3 of $26 million in Perkins funds, or $17 million in both FY89 and FY90.
North Dakota	Foundation Program[2] based on weighted pupil units.	None		$4.2 million in state funds. State participates as funds permit. Districts apply for state funds and receive money on program approval basis.		

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Ohio	Foundation program[2] based on pupil units and on voc ed classroom units.	None	Limited to specific programs and to specific target groups for which funds were intended.	$328 million for classroom units, adult programs, career education, and equipment.	Local 43.9% State 49.5% Federal 6.6%	Two-thirds.
Oklahoma	Two tiered system with a foundation program[2] and a power equalizing program[7] based on weighted pupils in ADM.[4]	None	None except specific criteria appended to programs when they were developed.	Total state and federal funding was $91 million in FY89.	Area voc tech school, 65% local and 35% state. Comprehensive high schools, 35% local and 65% state.	60% for both FY89 and FY90.
Oregon	Foundation program[2] based on pupil units per ADM.[4]	None	None for voc ed through general funding; but of $6 million state work force grant, $2.3 million allocated to the technology prep program, $1.8 million to the advanced technology/communications center; the rest is used for high school equipment and curriculum development.	$19.2 million in state block grant for vocational education.[9]	30% state, balance from local and federal sources.	50%

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Pennsylvania	Combination of percentage equalizing[7] and foundation program.[2]	Formula based on the number of students in voc ed multiplied by the days of enrollment.	No limits on funds allocated through state aid formula, balance limited to categorical requirements.	$600 million, all sources.	$59 million (9.8%) federal; $35 million (5.8%) state ($27M through formula and $8M distributed by RFP); $506 million (84.3%) local share	Approximately 80% of FY90 Perkins funds ($38.9 million).
Rhode Island	Percentage equalizing program.[7]	None	None	$2.7 million in state funds distributed to districts on basis of average vocational education costs times a funding ratio of 27% in FY87.[3, 5]		
South Carolina	Foundation program[2] based on weighted pupil units in ADM.[4]	1.29	None	$113.8 million in state funds.[3, 5]	25–30% from local sources.	75% in both FY89 and FY90.
South Dakota	Foundation program[2] requiring a greater local effort as expenditure level increases.			$9.5 million.		50% over last 3 fiscal years.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Tennessee	Foundation program[2] based on weighted pupil units in ADA.			$135 million.	State 85% Federal 15%	85%
Texas	Foundation program[2]	1.45 in FY90, 1.37 in FY91.	Must be used to support vocational education.		FTE generated from contact hours multiplied by adjusted basic allotment. Locals spend more than their allotted state funds.	60% for FY89 and FY90.
Utah	Foundation program[2] based on weighted pupils plus a guaranteed yield program.[6]	Three different weights based on program cost: Level 1 0.46 Level 2 0.84 Level 3 1.42	None	$17.5 million in state funds, no data available on local contribution to vocational ed programs.	Unknown	31% to school districts, 33% to vocational centers which serve both secondary and post-secondary students, and 8% for statewide purposes.
Vermont	Foundation program[2] based on two-year weighted ADM.[4]			$6.4 million in state funds in FY90.		80% in FY89–90.
Virginia	Foundation program[2] based on ADM[4] pupils		Only limit is that funds must be spent for voc ed.		$37 million allocated through state aid formula.	75% for both FY89 and FY90.

Table 2.3 (continued)

	State Aid Formula for General Funding[1]	Student Voc Ed Weight Factor in State-Aid Formula	Restrictions on Use of State Funds	Total Voc Ed Funding	Sources of Funds (percentages)	Percent of Perkins Funds Allocated to Secondary Voc Ed
Washington	Full state funding of basic education program.	Extra funds for voc ed: $739 per FTE plus $170 per FTE for equipment in FY90. FY91 equipment funds are $143 per FTE.	No limit until FY91. School districts must use the apportionment funds on approved voc ed only and limit indirect costs to 22.5%.		State funding is 100% apportionment funding (block grant). Local funds represent about 12% of that apportionment.	40% for both FY89 and FY90.
West Virginia	Foundation program[2] based on instructional units.	None	None	$43,349,712 for FY89.	Local 24% State 67% Federal 9%	$3,859,644 in FY89 and $3,965,294 in FY90.
Wisconsin	Guaranteed tax base	None	None		$248 million from local sources.	45% for both FY89 and FY90.
Wyoming	Foundation program[2] based on instructional units.	State funding for voc ed is allocated together with general ed, and it is up to the individual school district to allocate its education funds to general or vocational education.	None			58% for both FY89 and FY90.

NOTE: Unless otherwise indicated, source of information is project interviews.

[1]Source: Verstegen, Deborah, *School Finance at a Glance*, Denver, CO: Education Commission of the States, 1988.

[2]Under a foundation program the state guarantees each district a specified minimum amount of revenue per pupil (the foundation level) at a stipulated tax rate. A district's state aid is the difference between the foundation level and the per-pupil revenue the district raises at the stipulated tax rate.

[3]Source: Richard Salmon, Christina Dawson, Steven Lawton and Thomas Johns, *1986–87 Public School Finance Programs of the United States and Canada,* Blacksburg, VA: American Education Finance Association, 1988.

[4]ADM is average daily membership, which equates roughly to enrollment.

[5]1986–87.

[6]Guaranteed tax base programs or guaranteed yield programs guarantee each district a minimum revenue per pupil for each mill of tax rate. The amount of state aid to the district is the difference between the guaranteed revenues per pupil for the tax rate it levies and the revenues per pupil it actually raises at that tax rate.

[7]Power equalizing or percentage equalizing programs specify the revenues per pupil guaranteed/allowed a district for each mill of tax rate. Unlike foundation programs or guaranteed yield programs, under these programs the state recovers local revenues collected in excess of the guarantee.

[8]These restrictions apply only to $3.9 million state aid funds set aside for vocational education

[9]Imputed from interview data.

Table 2.4

ELEMENTS OF STATE PROGRAM APPROVAL PROCESS

	State Has Program Approval Process	Demonstrated Labor Market Demand	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course Sequencing/ Articulation	Program Content Is Reviewed
Alabama	Yes		Yes	Yes			
Alaska	Yes	Yes					Yes
Arizona	Yes	Yes	Yes	Yes			Yes
Arkansas	Yes				Yes	Yes	
California	Yes[1]	Yes	Yes		Yes		Yes
Colorado	Yes	Yes	Yes	Yes			Yes
Connecticut	Yes	Yes[2]				Yes[2]	Yes[2]
Delaware	Yes	Yes	Yes	Yes	Yes		Yes
Florida	No[3]	—	—	—	—	—	—
Georgia	Yes		Yes				Yes
Hawaii	Yes	Yes	Yes				Yes
Idaho	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Illinois	Yes	Yes		Yes		Yes	Yes
Indiana	Yes						
Iowa	Yes	Yes				Yes	Yes

Table 2.4 (continued)

	State Has Program Approval Process	Demonstrated Labor Market Demand	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course Sequencing/ Articulation	Program Content Is Reviewed
Kansas	Yes[1]	Yes[4]		Yes, for high schools and AVTs		Yes	Yes
Kentucky	Yes			Yes			Yes
Louisiana	Yes	Yes	Yes	Yes			Yes
Maine	Yes	Yes	Yes	Yes		Yes	Yes
Maryland	Yes	Yes	Yes	Yes		Yes	Yes
Massachusetts	Yes	Yes[5]			Yes		
Michigan	Yes	Yes	Yes				Yes
Minnesota	Yes	Yes	Yes	Yes			Yes
Mississippi	Yes	Yes	Yes	Yes			Yes
Missouri	Yes	Yes	Yes	Yes	Yes		Yes
Montana	Yes[6]	Yes	Yes	Yes	Yes	Yes	Yes
Nebraska	No	—	—	—	—	—	—
Nevada	Yes[7]	No[8]					
New Hampshire	Yes	Yes					

Table 2.4 (continued)

	State Has Program Approval Process	Demonstrated Labor Market Demand	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course Sequencing/ Articulation	Program Content Is Reviewed
New Jersey	Yes[9]	Yes					
New Mexico	Yes		Yes	Yes			Yes
New York	Yes[10]	Yes	Yes[11]	Yes	Yes		Yes[10]
North Carolina	Yes[12]	Yes	Yes	Yes			
North Dakota	Yes			Yes			Yes
Ohio	Yes	Yes	Yes	Yes	Yes	Yes/sometimes	Yes
Oklahoma	Yes	Yes	Yes	Yes	Yes[13]	Some	Yes
Oregon	Yes	Yes		Yes	Yes	Yes	Yes
Pennsylvania	Yes	Yes	Yes	Yes	Yes	Yes	Yes[14]
Rhode Island	Yes	Yes					Yes
South Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes
South Dakota	Yes	Yes		Yes	Yes		Yes
Tennessee	Yes	Yes	Yes	Yes	Yes		Yes
Texas	Yes[15]	Yes			Yes	Yes	
Utah	Yes			Yes	Yes		Yes

Table 2.4 (continued)

	State Has Program Approval Process	Demonstrated Labor Market Demand	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course Sequencing/ Articulation	Program Content Is Reviewed
Vermont	Yes	Yes	Yes		Yes		Yes
Virginia	Yes[16]	Yes	Yes	Yes	Yes		Yes
Washington	Yes		Yes	Yes			Yes[17]
West Virginia	Yes	Yes	Yes	Yes			Yes
Wisconsin	No[3]	—	—	—	—	—	—
Wyoming	No[3]	—	—	—	—	—	—

[1] Applies only to ROC/P programs or area voc/tech schools, not to programs in comprehensive high schools.

[2] Will be required under PL101-392.

[3] No state program approval process for new programs.

[4] Area voc tech schools must complete approval forms stating that the cour· is not duplicated, is consistent with labor market demand, and has adequate enrollment. High schools are no longer required to get approval. LEAs determine course content.

[5] Demand must be demonstrated if the new program offers skills training that has not historically led to jobs (e.g., cosmetology).

[6] In Montana, schools wishing additional voc ed funding must have OPI program approval.

[7] The SBE becomes involved in the approval process only if the course or program is not identified in the State Course of Study, which lists all accepted courses in the state.

[8] There is no policy in effect for evaluating either the quality of or the market demand for locally offered voc ed courses and programs. These efforts are undertaken at the local level only.

[9] More state control is anticipated with the implementation of a new state administrative code. The changes that will be put into effect are reflected here to indicate the direction in which the state is moving.

[10] All agencies must follow state-approved curriculum. Only area centers must apply for program approval.

[11] Area centers must demonstrate labor market demand and adequate facilities when applying to offer a program.

[12] At the secondary level, no formal review process occurs. The program is put on the roster after the local school system demonstrates demand for the program and adequate facilities and personnel.

[13] For secondary programs and licensed occupations.

[14] For one performance objective only.

[15] Districts' applications to offer new vocational programs must demonstrate cost-effectiveness, articulation with community colleges, student interest, and business support.

[16] If a completely new course is being introduced, the SBE is involved in the approval process. If the new course fits in with any of the state's seven vocational areas, the corresponding program leader is responsible for approval.

[17] State is moving toward mandatory curriculum and performance standards.

Table 2.5

DIFFERENCES IN STATE CERTIFICATION REQUIREMENTS FOR SECONDARY VOCATIONAL AND GENERAL EDUCATION TEACHERS

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Alabama	For teachers coming from industry, no B.A. required. But work in industry required prior to teaching.		Passage of NTE for all teachers pending.	All T&I teachers will be required to have a bachelor's degree and pass an occupational competency exam in the next few years.
Alaska	No differences.	No differences	No difference. Certification is based on institutional endorsements, not on tests.	No
Arkansas	Additional hours of training required for some voc ed teachers, e.g., business, home economics.	Increased hours required for specified occupational areas. All voc ed teachers must have 2000 hours work experience in specialty.	NTE for certification and re-certification of all teachers. NOCTI required of trade and technology teachers.	
Colorado	B.A. and professional education for general ed, CCCOES credential and 5 years experience in field for voc ed.	Alternative provisional certification for general ed, not for voc ed.	California Achievement test for general ed; Vocational Basic Skills Test and subject area test for voc ed.	
Connecticut	Only subject-matter specialization requirements are different for general and vocational ed teachers.	Subject matter specialization requirements: 35 hours for home economics, agriculture and technology education; 12–30 hours for all others.	No difference. CONNCEPT and CONNTENT examinations are required for all teachers.	Changes under review.

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Delaware	Only T&I is different. There are no differences in requirements for general ed and vocational ed teachers in the areas of business, agriculture, and industrial arts.	T&I: Non-B.A. certification permitted. 2–6 year work experience for entry and 60 hours of coursework in first 6 years. Not permanent.	All must pass PPST and Basic Skills Test.	Mentoring internships for all teachers with teaching skill assessment will be established.
Florida	There are differences in requirements for vocational and general ed teachers. No differences for degreed certifications.	Nondegreed teachers need a high school diploma or state certificate of equivalency, 6 years of experience and training in the area of specialization, and 18 semester hours of professional ed courses.	Florida Teachers Exam is required for nondegreed teachers. No difference for degreed certification; both take Florida Teachers Area Test and CLAST (Basic Skills Test).	No
Georgia	There are differences in the requirement for level-two vocational, level-four vocational and for nonvocational secondary teachers.	Level two (only for voc ed instructors): Prerequisite requirements are either an associate's degree, 90 quarter hours of acceptable college credit, 2000 clock hours at a voc/tech school in the field of certification, or a minimum of 45 hours of college credits plus a minimum of 1000 clock hours through a voc/tech school.	NOCTI exam is required for a level-two certificate. Other vocational and general secondary teachers are not tested.	Certification requirements are expected to change when industrial technology is brought into the curriculum. Additionally, more academic courses are expected to be incorporated into vocational programs.
Hawaii	No differences, with the exception of Industrial Technical teachers.	Industrial Technical teachers require 3600 hours as a journeyman or 1800 hours in business.		No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Idaho	Yes	Vocational ed teachers have a vocational endorsement in addition to a secondary credential.	NTE for all except T&I and health applicants. NOCTI for T&I and health.	Alternative certification is being set up.
Illinois	Yes	2000 hours of work experience for vocational ed teachers is required.	Same	After 1991, the number of hours in specific vocational areas will be stipulated.
Indiana	Yes. Requirements for nondegree certification programs differ.	As of 1991, a GED, 5 years related work experience and in-service training classes are required for nondegree certification. B.A. required for general and other vocational ed teachers.	NOCTI exam plus a basic skill test will be required for nondegreed certification as of 1991.	
Iowa	No differences for teachers who enter through the regular certification process, with the exception of teachers in automotive mechanics and health.	Experience only is required for teachers in automotive mechanics and health.	None for regular teaching certificates for general or vocational ed. NOCTI for teachers in automotive mechanics and health.	No
Kansas	There are differences in requirements depending upon category of vocational endorsement.	Differences in academic and experience requirements.	Precertification test, PPST, and the professional knowledge component of the NTE for all new general ed teachers. Voc ed based on a teacher education program.	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Kentucky	Vocational ed teachers without a B.A. must have 4 years of work experience, and must eventually complete an associate degree.	Most voc ed has same requirements. T&I must have high school diploma/GED and 4 years work experience.	Aptitude test, basic skills test required of all teachers. Academic and most voc ed take NTE. T&I take NOCTI.	
Louisiana	Only T&I is different.	T&I teachers must have minimum of 6 years work experience, 2 at the journeyman level. B.A. required for all others.	NOCTI required for T&I teachers. NTE for general ed and other voc ed areas.	No
Maine	Yes	Voc ed teachers must participate in the professional education experience/support system development individual plan, complete professional certification courses, and have relevant work experience. B.A. required for general ed teachers.	NTE required for all general teachers. PPST required for all vocational teachers.	No
Maryland	Only T&I is different.	T&I certification requires high school diploma, 5 years work experience, and 21 semester hours college coursework. B.A. required for other secondary teachers.	NTE required for all except T&I.	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Massachusetts		Voc ed teachers may receive a one-year, nonrenewable waiver to teach in a vocational school.		
Michigan	Voc ed teachers must have a voc certificate in addition to a regular teaching certificate. All other requirements are the same.	Work experience is required in order to receive a voc certificate. Provisional certification is given for voc ed only.	No tests are administered.	No
Minnesota	Voc ed teachers are permitted to substitute training and work experience for non-B.A. certification.	Voc ed teachers must have an education degree in target area, or graduation from two-year technical institute with some experience or industry training with some work experience.	Pre-professional skills test required for all teachers as of 1991.	No
Mississippi	Non-B.A. vocational certification has different requirements. No difference for voc ed teachers who have a B.A. but no teacher education.	Voc ed: Non-B.A. certification requires at least 2 years of work experience beyond the journeyman level in the target area. 18 to 24 methodology courses, a language arts course, and a math course are required during the first 3 years of teaching.	General ed: NTE is required. Voc ed: non-B.A. certification requires the California Achievement Test and passing the written and performance sections of the NOCTI exam or holding a certificate in the target area.	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Missouri	There are differences in requirements for voc ed teachers based on the type of credential sought. Requirements for general education teachers also differ from voc ed.	Voc ed: Non-B.A. Two-year credential can be renewed twice. Five-year credential requires 20 hours of teacher ed plus either a B.A. and voc ed courses or 4000 hours of work experience in the target area for 3 of the last 5 years. General ed: B.A. required for certification. Provisional certification available.		Changes in certification requirements from a subject certification to a generalized professional education program which includes subject areas is under discussion (as of January 1990).
Montana	There are differences in requirements for the 3 levels of vocational certification. Requirements for general ed teachers also differ from voc ed requirements.	Voc ed: GED and 10,000 hours work experience required for temporary 4C entry-level certification. Education coursework and 150 hours student teaching is required to reach the 4B level. The 4B level requires 6 quarter credits and 1 year of teaching experience and is renewable every 5 years. General ed: B.A. required, plus coursework in teacher preparation and student teaching experience.	NTE core battery required for general ed teachers. No tests administered to voc ed teachers.	No
Nebraska		No differences.	Competency test applies to all teachers.	

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Nevada	There are differences between voc ed and general ed requirements in area specialization, professional education, and work experience.	Voc ed: Requires 22 hours of courses in area of specialization, 9 semester hours in professional ed, and 2 years work experience or 4000 hours in area of specialization. Home economics and industrial arts can substitute one year of college or work experience.	No tests are administered.	No
New Hampshire	No differences for most teachers. T&I teachers may receive certification based on work experience.	T&I teachers may substitute work experience for post-secondary education. Plan must be written to ensure that all requirements are met within three years. Virtually all T&I instructors hold alternative certification.		Certification policies currently under review.
New Jersey	No difference for degreed certificate except for testing and work experience requirements.	Voc ed: Four years experience required or B.A. for degreed certification.	Voc ed: Basic Skills Test. General ed: NTE.	Alternate route certification will permit nondegreed vocational instructors to teach while completing coursework.

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
New Mexico	There are differences in requirements for voc ed certification. There are also differences between voc and general ed certification.	Voc ed: Two-year work experience required for applicant with B.A., A.A. degree, or certificate. Five years is required for applicants with GEDs. Subject matter specialization requirements can be met by 15 semester hours of professional education and teaching experience or through a Professional Development Plan. General ed: No work experience required. 24-36 semester hrs. in subject matter specialization are required.	Voc ed: NTE core battery, plus appropriate specialty sections. General ed: No tests are administered.	No
New York	Requirements for voc ed and general ed are in most cases the same. Some vocational certificates can be gotten without a B.A.	General ed teachers must have a B.A. for provisional certification and an M.A. for permanent certification. Some voc ed certificates allow less than a B.A., but require work experience. Additional coursework required for permanent certification.	NTE for all teachers.	New certification requirements for general education personnel; new requirements for occupational education certificates.

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
North Carolina	There are differences for degreed and non-degreed vocational certification and between voc and general ed certification.	Voc ed: GED and 9–12 hrs. of coursework in the target area and in teaching are required for nondegreed certification. Degreed certification requires a B.A. and passing specialty area exam section of the NTE.	Specialty area of the NTE required for degreed certification.	No
North Dakota	T&I teachers treated differently.	T&I instructors need not have a B.A.. Work experience required. Other voc ed teachers have same education requirements as general ed teachers. Voc ed teachers take different "methods" courses.	NTE during college.	
Ohio	Industry-based teachers are different. No difference for degreed voc ed and general ed teachers.	Industry-based: 36-hour course of study emphasizing general ed and 5 years of work experience required.	Voc ed: Technical test required for degreed certificate. General ed: Professional academic and general ed tests.	Secondary general ed instructors might be permitted to substitute some work experience for academic preparation in the future. Creation of basic academic skills test.
Oklahoma	There are differences in requirements for general and voc ed teachers.	Voc ed: Certification requires three years work experience. Voc teachers may substitute work experience for academic instruction.	Voc ed: NOCTI, plus state-developed test.	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Oregon	Nondegreed vocational certification is different from degreed certification. Some difference for voc and general degreed certification.	Nondegreed voc ed: General teaching certificate not required. Applicants' competency determined by the Instructor Appraisal Committee. Degreed voc certification requires additional job-specific training.	CBEST	No
Pennsylvania	Some testing requirements, but tests are scheduled at different intervals for voc certification. Also, differences for voc and general certification.	Voc ed: Vocational Intern requires an occupational competency assessment and 2 years work experience. Voc I requires 18 credits. Voc II requires 42 additional credits and 3 years teaching experience. Instructional I requires a B.S. degree. Instructional II requires 24 credit hours and 3 years teaching experience.	Voc Intern: Occupational competency assessment (specialty competency). Voc I: Basic skills. Voc II: General and professional knowledge. General ed: Basic skills, general and professional knowledge, and specialty competency.	Qualifications for voc ed teachers may change due to difficulty in passing the Basic Skills Test.
Rhode Island	There are differences for vocational and general ed (voc certification is for nondegreed applicants and is temporary).	Instead of a B.A., required for general ed certification, voc ed requires GED plus 5 years experience and 12 credits of professional ed courses. Renewable if holder is working toward B.A.	Voc ed: NOCTI. General ed: No tests administered.	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
South Carolina			Basic skills entrance exam, APT, NTE and core battery in professional knowledge exam.	No
South Dakota	There are differences in requirements for degreed and nondegreed voc certification and for voc and general requirements.	Voc ed: Nondegreed. Teacher training program or industry experience required. Work experience can substitute for education. Those with B.A. only are given a one-year certificate. General ed: B.A. and teacher training program required. Experience can't substitute for education.		Salary increases for voc teachers expected to improve quality of teachers.
Tennessee	Some voc ed teachers must have work experience in addition to general education requirements.	Probationary certificate available to nondegreed trade/shop teachers while pursuing degree. Interim probation A and B Certificates available to those with a B.A. but lacking other certification requirements (limited renewals).	NTE required of all general ed teachers and most voc ed teachers. Exceptions: trade, shop and health occupations.	

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Texas	Only marketing, health, T&I and office are different. Requirements for home ec, agriculture, and industrial technology are the same as for general ed.	Marketing, health, T&I and office require 2–5 years of relevant work experience. Emergency certification allowed if applicant has no professional teacher training and is working toward a regular certificate. Non-degreed certification available.	Competency tests required for all teachers. Degree programs require a competency test to enter upper division courses and subject matter exit tests. Nondegreed applicants take general competency test.	No
Utah	Only work experience requirements differ for vocational and general ed. There are also differences within voc ed requirements for degreed and nondegreed certification.	Voc ed: 2-year provisional renewable certificate available for voc ed teachers who have 6 year work experience. 9 hours of education courses required for renewal. 5-year certificate requires 9 more education courses 18 hours of education courses required for basic certificate. Work experience for voc only.		No
Vermont	T&I is different.	Nondegreed certification for T&I requires work experience plus 33 hours of education courses. B.A. and experience required for other vocational areas. Alternative licensing permitted for all applicants who have B.A. and experience but lack professional education course.	NOCTI for T&I teachers. (Substitutes for up to 2 years of the 6-year requirement.)	No

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Virginia	There are differences in vocational and general ed requirements. Voc ed certification requirements vary according to the type of certificate.	Teachers with a B.A. must have BTAP participation, teacher preparation, and pass the NTE. Nondegreed teachers must have a high school diploma, 9 hours of professional studies, license in field, and 2 years of work experience for a voc ed certificate. Certificates are renewable every 5 years.	NTE for general ed only. NOCTI for voc ed only.	Changes are anticipated in 1992, when the state is expected to pass new regulations.
Washington	There are differences in certificate and renewal requirements for general and voc ed teachers.	B.A. required for general ed. Work experience for voc ed. Renewable, provisional certification permitted for both.	All teachers will be required to pass a certification test by 1991 or 1992.	No
West Virginia	There are differences in requirements for voc and general ed teachers and within voc ed.	B.A. required for professional certificate and for a temporary license. Temporary license has subject area requirements and the professional certificate has professional ed requirements. T&I and health occupations can receive nondegreed certification with work experience.	Basic Skills Test and the professional education performance assessment for voc teachers not in T&I and the health occupation fields. California Aptitude Test and NOCTI for T&I and health occupations.	

Table 2.5 (continued)

	Are there Differences in Requirements for General and Vocational Education Teachers	Nature of Differences in Certification	Testing Requirements for General and Vocational Teachers	Any Changes Expected?
Wisconsin	There are differences in requirements for voc ed and general ed teachers.	Subject matter specialization is different. Voc ed applicants must major in field in which they wish to teach. General ed teachers need only a minor in their teaching field. All other requirements are the same.	No tests are administered.	Beginning in 1992, teacher ed students will have the option of being certified as a middle level vocational or secondary teacher.
Wyoming	There are differences in requirements for voc and general ed teachers.	Voc ed teachers must have documented work experience in their field, outside the teaching program for distributive education and cooperative education. Regular voc ed teachers must meet certification requirements for discipline.	None	Program standards for teacher training programs are expected to be set by 1992. The standards will be used to approve teacher training programs in the colleges. If the program does not meet the standards, students in the program will not be certified.

Table 2.6

SECONDARY VOCATIONAL EDUCATION DATA COLLECTED BY STATES

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Perform-ance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Alabama	Enrollment data by ethnicity.	ACT, SAT, and Alabama Testing Exam data reported by school.			State collects data yearly on completion rates.	State sends teachers completer names; they follow up.	Last year's completer lists sent each February.	Perkins allocation, public information.	Plan to use Social Security numbers for future tracking.
Alaska	Enrollment data by ethnicity, gender, and LEP status.	No	No	No	No	No	N/A	OCR, allocation of Perkins money, program changes by local districts.	SEA would like to conduct follow-ups within next 5 years.
Arizona	Enrollment data by ethnicity, gender, disadvantaged and disability status, LEP, and course.	No	No	No	State collects data.	Survey of those finishing in prior year.	Annual	For funding purposes.	SEA will collect additional performance data for Perkins II.
Arkansas	Enrollment by ethnicity, gender, disability and disadvantaged status.	Achievement test data for grades 7, 8, and 10 repoprted yearly by LEAs.			State collects data on program completion rates.		Annual reporting.		Will collect academic achievement data for voc ed students.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	**Student Achievement & Attainment**	**Academic Performance**	**Job Skill Performance**	**Program Completion Rates**	**Follow-up on Completers**	**Frequency/ Method of Collection**	**Use of Data**	**Plans to Collect Additional Data**
California	Enrollment data by gender, ethnicity, LEP status, and course.	Achievement test data for twelfth graders; reported by school. Drop-out data.	No	Some regional programs conduct surveys to assess employer satisfaction; data not reported to state.	State records placement categories of program completers.	Yes, only for those in regional occupational centers and programs.	Questionnaire issued 6 months after program completion. What constitutes program completion is locally determined.	For funding purposes.	MIS is being developed to record more information on program completers (graduate's income, cost of training) using a sample method.
Colorado	Enrollment data by ethnicity, gender and grade level.	Test scores by school.	No		Yes	Yes	Telephone survey of completers one year post-graduation.		Plans to continue building a longitudinal data base.
Connecticut	Total enrollment by ethnicity, gender, LEP status.	Graduation follow-up. Achievement test data by district.			Total number of completers	Self-report survey mailed to completers.	Total enrolled, number of completers reported yearly by computerized system.	Used for those being served by Perkins money.	None specified, but more data on Perkins funded programs are believed to be needed.
Delaware	By gender and ethnicity. Some dropout data.	SAT and state achievement test scores.	No[1]			2-part survey: prior to graduation and 6 months later. Employers also surveyed.	Part 1: At school Part 2: Mail survey	Reports to local schools for program improvement	Statewide computerized tracking system planned.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Perform-ance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Florida	Comprehensive automated system includes enrollment, demographic data (ethnicity, gender, health, disadvantaged status).	Achievement and competency test scores by school.	Basic skills test required after 450 hours.	Placement as indicator.	State collects follow-up and placement data on all completers.	Employment in related field, post-secondary education or military service.	Enrollment and follow-up data collected yearly.	Data used to measure placement rate. 70% req. for state funds.	Automated system implemented this year. Expect further modifications including tracking students by social security number.
Georgia	Enrollment and composition tracked by student IDs.	Student achievment scores by school, drop-out data.	Course completio n records.	No	State keeps records of program completers.	Self-assessment conducted 3–6 months after graduation. Employers also contacted.	Annually	Measuring successful placement and employer satisfaction.	State plans to adopt new report-ing measures for Perkins and federal-level initiatives, and move away from self-reports.
Hawaii	New process to collect school input/output data for accountability purposes.	Student achievement scores by school.	No	No	Collected in 3 different categories based on status of student.	Postgradu-ation survey mailed to completers to determine status. Low response rate.	Annually	Updating courses, ensuring relevancy.	
Idaho	Enrollment data by grade.	Achievement test score data by district for grades 6, 8, and 11.		Follow-up data collected every 5 years.	Obtained indirectly from follow-up data.	Teachers' survey.	Yearly	Reports to SBE, State Council on Voc Ed.	None, unless required to under Perkins re-authorization.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Illinois	Enrollment by ethnicity, gender, and LEP status. High school students enrolled in community college courses.	Achievement data by school.	No	No	Yes	No	Enrollment and completion rate data collected annually.		Performance standard information as per Perkins.
Indiana	Enrollment, course offerings, gender, and ethnicity by school.	Achievement test scores for grades 9 and 11 by student.	Collected yearly on all students enrolled in voc courses.	Collected yearly, from employers ,to verify if skill level appropriate to job specifications.	Collected yearly.	Student placement status and employer follow-ups collected yearly. Match on postsecondary and military status by social security numbers.	Annual collection through state's data system: the Indiana Reporting System.		State's goal is to collect more data relating to performance standards.
Iowa	Enrollment by course, gender, ethnicity.	No	No	No	Yes	No	Annually	Federal performance report and internal planning at state/local level.	Depends on federal requirements. Performance standards could be affected, if new regional boards require data on competencies.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Kansas	Course offerings and enrollments by school. Ethnic and gender composition.	Achievement test data by district.	No	No	No. Plans to do so in FY92.	Next year will begin follow-up one year after graduation.	Annual collection on graduates and placement in related jobs.	Compliance with state accountability mandate for AVTS/CC.	Awaiting new Perkins regs on performance data.
Kentucky	Enrollment by course, gender, and ethnicity.				Yes	Conducted six months after program completion.	Annually		Plans to report on academic progress of voc ed students.
Louisiana	By subject area and by race and grade.	Graduation test, beginning with the class of 1991.	No	Contained in employer follow-up reports.	Yes	Completer information is categorized by employment or postsecondary status. Employer follow-ups rate completers' skills.	Annual collection.	To determine formula allocation.	Future plans depend on reauthorization of the Perkins Act.
Maine	Number of graduates, total enrollment by ethnicity and gender.	Test scores, grade 11.	General data can be disaggregated so that voc ed students can be tallied separately.						

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Maryland	Voc student data by 6-digit CIP code, by race, gender, grade, periods per week, and minutes per period of instruction.	Criterion-referenced testing grades 3, 5, 8.	Student grades in academic & voc ed courses collected every 5 years.	Every 5 years, employability data collected on occupational program completers.	No	Annual survey to determine student plans and current status. (70% response rate). Employer follow-up survey (50% response rate).	Annual student reports. Follow-up survey to completers once every 5 years.	Annual and customized reports prepared.	Statewide school performance program being developed.
Massachusetts	Enrollment by grade, ethnicity, language proficiency, disadvantaged status. Drop-out data collected.				By school; definition of completer locally determined.	Yes, for graduates of voc-tech centers only.	One year and four years after graduation.		New efforts anticipated under Perkins, e.g., performance requirements, student competencies.
Michigan	Enrollment by gender, race, and LEP status.	Achievement test data on tenth graders.	No	No	Yes	Conducted 9 months after completion.	Yearly census and completer follow-ups. (75% response rate).	Reported to planning centers for analysis and reimbursement.	No plans, but expect to collect more data in the future.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Minnesota	Collected by school on gender and race.	State requires that local districts test on "core learner outcomes," using items developed by the state.	No	As reported by employers on completer follow-ups.	Yes	Schools' participation is voluntary. 20% participation goal set by state.	Completer self-assessment conducted at 1- and 5-year intervals.	Number of completers provides basis for funding.	No
Mississippi	Enrollment by school, gender, and ethnicity.				Yes. Used to route programs across state. Lowest 8% get technical assistance.	Conducted by school staff.	Done in fall for students who completed courses previous spring.	Reports to superintendent of education, governor, and legislature.	None
Missouri	Enrollment by school, course, teacher, gender, and ethnicity.		No	No	Annually except for employer follow-up every 5 years. Data collected by schools at individual student level reported to state by programs.	Collected by school, course, teacher and placement category.	Follow-up 180 days after completion.	Data available for SEA and legislative use.	None

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Montana	Course enrollments, ethnic, gender composition.	State achievement test used and reported at local option.	No	No	No	95% of districts collect data. State follows up on all voc ed graduates.	Student self-evaluations. Data collection varies by district.	For accreditation and funding purposes.	
Nebraska	Enrollments by gender and ethnicity.	No	No	No	No	No	—		None
Nevada	Enrollment by ethnicity, gender, and course offerings in populous areas collected by census; rural areas by sample method.	Proficiency exam data by district.	No	Employer follow-up reports rate performance.	Yes, for 11 of 16 districts.	Yes, in 2 most populous counties.	Yearly compilation of student/employer follow-ups from most populous counties.		None
New Hampshire	Enrollment by gender, ethnicity.			Yes, assessed by employer.		Yes, through a mail survey.		Used by local schools for programmatic improvements.	None
New Jersey	Enrollment by gender, ethnicity, LEP status, grade, specialty program.	Basic skills test in 11th grade. Drop-out rates, graduate follow-up.	No	No	No	Schools required to collect data on completers every November.	State collects enrollment and completer data yearly on 11th and 12th graders.	Determine student status, program effectiveness.	Plans to differentiate among different kinds of disadvantaged students and do long-range student follow-up.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
New Mexico	Annual census of enrollment by ethnicity.	Achievement test scores reported at state level.	No	Yes	Yes	Job skill performance and placement data collected by teachers.	Follow-ups sent to teachers yearly, who contact employers.	Used in accrediting schools.	Depends on reauthorization of Perkins.
New York	Course offerings, enrollments by ethnicity, gender, and LEP status.	Competency tests. N.Y. State Regents test by school.	No	No	No	Follow-up data collected six months after students leave school.	State collects data yearly from local districts.	Policy analysis, annual reports to schools.	Yes, additional data will be collected based on "A New Compact for Learning."
North Carolina	Grade, gender, age, disability status, and enrollment rates for gen ed. For voc ed, enrollment data include courses taken, career objectives and LEP status.	No	Yes	Yes	Yes	Student and employer assessment.	Surveys mailed to completers yearly and to employers every other year. (49% response rate.)	Given to local voc ed administrators.	Additional data to be collected in conjunction with VOCATS—an instructional management system to monitor students' mastery of specific competencies—projected for 1992–93.
North Dakota				No		Census of completers and leavers.	Yearly census.	Reports for program planning.	None, but changes may be dictated by federal government.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Ohio	Enrollment by gender, ethnicity, disability and disadvantaged status, LEP, and course offerings.	Pending	Pending	Yes	Yes	Census of completers.	Yearly census telephone interviews with completers.	Reports to federal government, SBE, legislature.	Prescribed performance outcome measures will be used by FY93; school report cards.
Oklahoma	Enrollment by race, sex, and disability status.	Norm-referenced testing and writing assessment in grade 10.	No	Reported through employer follow-ups.	Yes	Student and employer assessment.	Each year teachers send questionnaire to former students. State Dept. of Voc Ed sends employers evaluation form.	Used by state administrators, planning divisions, and the legislature. At the local level by school staff and chambers of commerce.	Possibility that test scores might be collected in the future.
Oregon	Course offerings and student enrollment by ethnicity and gender.	SAT scores by school.	No	No	Yes, most districts collect and report to state.	Unemployment insurance file follow-up of secondary and community college students on a special project basis.	Annually	Used by state administrators, planning divisions, and the legislature. Local school staff and chambers of commerce use data as well.	State to expand use of unemployment insurance file.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Pennsylvania	Total enrollments by grade and ethnicity.	No	No	No	No	Yes	Annually	Reports used by DOE and LEAs to improve voc ed program.	None
Rhode Island	Enrollment by gender, ethnicity, LEP, disability and disadvantaged status.	Assessment test scores for grades 8 and 10.			Yes	Data from completers and employers.	Six months after completion.	Reports used by DOE and LEAs to improve voc ed programs.	None
South Carolina	Enrollment by race, gender, grade, and school.	Students tested in 9th, 10th, and 11th grades.	No	No	Yes	Follow-up on completer's placement status.	Follow-ups conducted 10 months after program completion.	Status data on course completers reported to OVE, gov's office, legislature, and Council on Voc and Technical Education.	None
South Dakota	Enrollment collected by attendance centers, grade and gender. Ethnicity collected at district level.	Test scores collected at the district level, but only reported in statewide summaries.	No	No	Ye.	Follow-up on completers' status.	Annual follow-up of students and of completers' activities. No employer follow-up.	Federal reports, planning, funding, and evaluation.	No

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Perform-ance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Tennessee	Enrollment by course.	State assessment program data.			Yes	LEAs follow up. No statewide follow-up.	—	Widely disseminated status reports.	Plans to reimplement follow-up data collection.
Texas	Social security number, name, gender, ethnicity, birthdate, and enrollment data by grade.		No	Reported through employer follow-ups.	Yes	Follow-up on job placement.	Employers rate completers' training after one year.	Data reported for evaluation and funding purposes.	State plans to link data together (e.g., test scores and course taken), rather than collect additional data.
Utah	Enrollment by gender and ethnicity. Course offerings.	Achievement test scores on 11th graders by school.	No	No	No	Student self-report.	Enrollment yearly. Student survey 9 months after program completion.		Extensive study of all secondary voc ed students in next few years.
Vermont	Enrollment, graduates by ethnicity.				Yes	Student self-report.	Follow-up data collected 1st and 3rd years after completion.		New student assessent plan to be piloted this year.
Virginia	Total enrollment by courses.	Achievment and proficiency tests in grade 11.	Limited	Limited	Districts maintain data on completers.	Sample of 20% of students. No employer follow-up.	Student follow-up data collected on sample basis.	Follow-up analyzed for planning. Other data used for reimburse-ment.	Accountability based on student outcomes. Core standards and performance measures.

Table 2.6 (continued)

	Data on All Types of Students		Outcome Data on Secondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Washington	Enrollment by school, gender, and ethnicity.	Students tested in grade 10. Drop-out data by school.	No	As reported through student follow-up data.	Yes	Survey of completers (80% response rate).	Annual surveys sent to completers. Enrollment data collected quarterly.	Reported to state.	Beginning to track students by social security nos., through unemployment insurance one and five years later.
West Virginia	Enrollment by gender and ethnicity.	No high school achievment data. Retention and promotion rates can be calculated.	Students' competencies recorded in progress reports.	Reported through follow-up data.	Yes	LEAs conduct follow-up one year after graduation.	Annual assessment of completers' employment status. State surveys a sample of employers.	Used for state and federal requirements.	State anticipates expansion of current effort in response to Perkins reauthorization. Working towards a standard definition of program completer.
Wisconsin	Annual enrollment by ethnicity, gender, and grade. Course offerings every four years.	No	No	No	No	Districts send surveys, contact completers. Data reported to state.	Data collected only on districts participating in Perkins. VEDS system still used for enrollment & annual follow-up.	Entitlements.	Some discussion about including data on all voc students, not just those enrolled in schools receiving Perkins funds.
Wyoming	None	None	No	No	One-time collection, not publicly reported.	None	—		No

[1] No data are collected specifically on secondary students enrolled in vocational programs. Data on student academic job skill performance, program completion rates, and student placement are collected from all students.

Table 2.7

CURRENT AND EMERGING POLICY ISSUES IN SECONDARY GENERAL EDUCATION AND WORK-RELATED EDUCATION

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Alabama	Academic credit awarded for some voc ed courses. Voc ed competency testing grades 10–12.	Increased certification requirements for T&I and health occupations teachers. Required work experience prior to teaching.
Alaska	1) Competency-based requirements initiated.[1] 2) Specific course requirements adopted to ensure curriculum standards and create uniformity between general and voc ed. 3) Required report card for local schools to measure progress of general ed students.	None.
Arkansas	Course content guides required in all secondary courses. Minimum performance tests grades 3, 6, 8. New graduation requirements. 38-course curriculum required.	Certification Office moved back into SDE. Pilot program for alternative certification for those with no education coursework. Teacher testing requirement. 2.5 GPA required.
California	1) SB813 increased high school grad requirements for all students. 2) Allin Bill supports development of model curriculum standards for voc ed courses.[2]	All teachers are required by SB813 to pass a standardized assessment instrument (CBEST exam). The bill requires teacher applicants to show proficiency in a content area test.
Colorado	Common outcome-based competencies for all voc ed programs.	New certification standards to be based on child needs rather than child age.
Connecticut	Increased graduation requirements.	1) Teacher certification was revamped from a two-tiered system to a three-tiered system with no permanent certification. 2) The 1986 Enhancement Act provided additional state funds for teacher salary increase.[1] The act also increased certification standards for all teachers.

Table 2.7 (continued)

State	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Delaware	Testing grades 3, 6, 8, 11. Full-time voc centers integrate voc and general education.	Statewide teacher assessment and professional development program. Restructured salary scale.
Florida	1) A 70% placement requirement for voc ed students. 2) Graduation requirements have been increased to 24 credits.[3] 3) Testing of program completers.	Subject area requirements expanded to 30 credits in a specialization. Teachers must have at least a 2.5 GPA and must also pass a subject area test.
Georgia	The Comprehensive Quality Basic Education Act (QBE) established competencies for students and adopted a uniformly sequenced core curriculum.[1]	The Comprehensive Quality Basic Education Act established higher standards for teacher training and certification.[1]
Hawaii	No major initiatives.	As of 1986, all new teachers are required to take the NTE. Voc ed teachers are allowed to repeat the test, but lose priority on jobs until they pass it.
Idaho	Increased graduation requirements. C average required in core courses/testing option. Reduced student/teacher ratio. Some academic credit for voc ed courses. Upgraded voc ed programs.	NTE required for certification. More rigorous training requirements. Alternative teacher certification process underway. Professional Development Program.
Illinois	1) Education For Employment initiative to encourage a coordinated curriculum centered around genuine labor market needs. 2) Testing for minimum competencies in grades 3, 6, 8, and 11. 3) Tech Prep.	Testing for certification became mandatory. Prospective teachers are required to pass a basic skills and an appropriate subject area test before they can be certified.[1] Biannual evaluations of all teachers.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Indiana	In 1987 the Vocational Educational Bill reorganized the structure of voc ed statewide, created the Commission on Voc/Tech, and initiated "Tech Prep" pilot programs.	1) The Occupational Specialist License Program for new secondary teachers at area voc schools, who teach "trades" such as nursing and auto mechanics, will have new certification regulations beginning in 1991. The minimum requirements are a GED and five years of recent relevant experience. 2) In 1987, the legislature required districts to institute staff evaluations as part of the state's performanced-based accreditation.
Iowa	1) Voc ed restructured into a training program. 2) Excellence in Education Act increases funds to districts that implement performance-based competency curriculum or a comprehensive school based restructure. 3) Increased curriculum standards for voc ed. 4) Excellence in Education emphasized competency-based curriculum and outcomes for voc ed.	1) 1987 Excellence in Education Act includes certification ladder change and strengthened pre-teaching requirements. 2) Base salary increase for beginning teachers. 1987 Excellence in Education Act. 3) Student teaching increased to 12 weeks. Professional ed and academic training courses have been expanded. 4) New Board of Educational Examiners governs the licensing and discipline of teachers. 5) Permanent certificates dropped.
Kansas	Courses in applied areas will grant academic course credit to all students.	Currently reviewing certification requirements and updating standards for voc ed teachers.
Kentucky	Site-based decision-making, including curriculum. Outcome-based assessment system being developed. Tests to be given in grades 4, 8, 12.	New Professional Standards Board certifies all school personnel. increased state role in termination procedures. Testing program for all secondary teachers. Alternative certification program.
Louisiana	Changes in core curriculum requirements led to substitution of voc ed courses for general ed courses. Graduation exam initiated.	1) Incoming teachers are required to pass the NTE. 2) 7% salary increase will go into effect over the next 3 years. 3) The "Children First Act" calls for salary increases linked to teacher accountability and certification.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Maine	Testing in grades 4, 8, 11—reported by school statewide. Upgraded student coursework standards. Increased graduation requirements. At-risk student initiative. Statewide efforts to develop competency-based curricula for all programs by June 1992.	Support System Structure to devise and monitor plan for new teachers. Veteran teachers must develop own action plan. NTE passage required of all new teachers.
Maryland	Identification of program completers. Criterion-referenced tests in grades 3, 5, 8.	Reviews of teacher preparation programs and strengthening of academic requirements for T&I teachers.
Massachusetts	State graduation guidelines adopted at local discretion. Basic skills testing in grades 3, 6, 9. Involved in consortium developing applied academic curricula for competency-based education. Learning guides developed in 17 occupational areas.	
Michigan	The State Aid Act Section 19 establishes a core curriculum, mandates the development of school improvement plans, employability skills assessments, and the publication of an annual educational report for all districts. Compliance is required to remain accredited. HB4009 required that students take an employability skills assessment test as a means of upgrading coursework standards and improving core curriculum. Schools are also required to submit an annual education report as a monitoring device. SB830 provides cash incentives to schools that show improvement in quality and increase the number of high school graduates. Public Act 25 emphasizes an interdisciplinary approach to integrating academics with voc ed. The SBE is required to provide a model core curriculum containing interdisciplinary outcomes for voc ed.	A new state law requires the testing of all secondary and elementary school teachers for certification.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Minnesota	Outcome-based education was introduced in 1987 and reinforced in 1990, when the SBE ruled that learner outcomes should be measured. In 1985, the Choice Program gave students more options in their choice of schools to increase retention rate.[4] In 1987, a restructuring bill was passed to integrate voc ed with general ed so that they are no longer considered separate entities.[5]	A 1989 law requires the Department of Education to provide an alternative route to licensure for both general and vocational teachers. In 1989, the Board of Education's authority to license voc ed teachers was transferred to the Board of Teaching.
Mississippi	Better Education for Success Tomorrow (BEST) provides: — mandated voc ed course offerings — outcome-based school assessments — unified voc ed system, grades 7–14 Voc Ed Reform Act created voc ed priority categories.	Large salary increase. Performance-based certification program. Alternative certification procedures for both noneducators and T&I instructors. Changes to teacher training programs. Required state assessment program.
Missouri	Increased graduation requirements. Required statewide testing using criterion-referenced tests.	Replacement of the lifetime credential with a 4-level certification program. Establishment of minimum teacher salary level.
Montana	Under Project Excellence, a curriculum assessment plan is required for each school.	Revised accreditation standards.
Nebraska	None.	Salary enhancement legislation. Increase in credit-hour requirements for endorsements. Required testing prior to admittance to teacher training program.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Nevada	In 1989, the State Board restructured curriculum and adopted a new course of study which raised course requirements for graduation. SB74 mandated that schools report on general ed student progress and levels of achievement.	In 1987, new licensing requirements established a course in cooperative occupational education in order to link classroom studies with on-the-job training. In 1988, a licensing regulation was instituted which established requirements for licensing teachers.[1] SB74 mandated that schools report on teacher qualifications as part of a general progress report.
New Hampshire	None.	None.
New Jersey	High school graduation requirements increased for general ed.[6] Report cards for all schools. High School Proficiency Test administered in grade 9. Language and math assessments in grade 11.	1) Education courses in teacher preparation programs limited to 30 credits; expanded general ed courses. 2) Alternate-route certification to expand teacher supply. 3) Salary increase for beginning teachers.
New Mexico	1) Voc ed courses no longer required for graduation. 2) Required competencies for all secondary education programs will ultimately be measured through testing.[7] 3) High school students who take courses in postsecondary institutions can now be counted for postsecondary funding and will receive both high school and college credit. 4) Considering weighting of voc ed students in state-aid formula.	In 1985 the SBE established a revised system for licensing teachers, based on competencies and a professional development plan.
New York	A restructuring process begun in 1981 produced a revised curriculum including clusters, core competencies and applied academics. "A New Concept for Learning" is directed toward revising student outcomes and assessments. Board of Regents has adopted a policy that secondary students will be prepared for employment and/or postsecondary education.	New teachers will be required to pass exams in liberal arts, pedagogy, and technical skills.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
North Carolina	1) Senate Bill 2 requires schools to follow the state handbook regarding competency. Schools can use the Vocational Competency Achievement Tracking System to measure competency-based instruction. 2) The state is currently implementing the Basic Education Program (BEP), an educational reform package. BEP sets a standard course of study in all areas, sets course parameters and provides funding to enable poor school systems to expand their course offerings.	In 1990, SB2 provided for differentiated pay for teachers based on the overall achievement of the school system, as measured by student achievement.
North Dakota	Performance-based outcomes proposed. Planning grants to secondary schools for restructuring. Updated voc ed curricula.	Preapproval process for teacher preparation programs instituted. Strengthened teacher ed programs, including minimum GPA, lengthened student-teaching period.
Ohio	New graduation requirements. Differentiated diplomas based on test performance. Required school-level MIS systems. Open enrollment policy. Assessment in grades 4, 6, 8, 10. Implementation of plan to modernize voc ed.	Professional standards board to be created to oversee certification. Mentor programs for beginning teachers. Increased coursework and testing for certification.
Oklahoma	1) HB1017 requires adoption of a single curriculum for state performance outcomes. 2) SB183 requires that general education high school students pass competency exams before they can receive their diplomas. 3) New maximum class size limits.	1) Major changes in certification standards were enacted about 5 years ago to upgrade the professional education of teachers. 2) HB1017 contains salary increases for general ed teachers.[8] 3) New teacher evaluation procedures.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Oregon	1) SBE initiative to revise student curriculum and set common curriculum goals. 2) Workforce 2000 directly ties voc ed with economic development in the state. Its objective is to coordinate the education of workers with the needs of industries and occupations in Oregon.[9] 3) Increased high school graduation requirements. 4) Pending legislation would implement recommendations from Americans' Choice: High Skills or Low Wages.	Change from an input-based to a competency-based certification process.
Pennsylvania	SBE raised course requirements for graduation and initiated state-wide student testing.[10]	Teacher testing was adopted in 1987. All teachers applying for their initial certificate have to pass the state test.
Rhode Island	Development of competency-based voc/tech curricula. Integration of voc ed and academic courses.	NTE required; cut-off scores set. Increased units (from 18 to 30) in major field.
South Carolina	The Education Improvement Act of 1984 specified promotion and graduation were to be skill-based. Increased academic course requirements.	All new teachers must complete a state board–approved training program to become certified.
South Dakota	Equivalency credit plan gives academic credit for voc ed courses. Increased graduation requirements. Voc ed courses became competency-based.	Teacher salary increase. Revised certification requirements for T&I and health teachers—may teach without degree. Must take courses to retain certification.
Tennessee	Increased graduation requirements. Voc ed program restructuring. Exit exam covering work readiness. Mandated curriculum guides.	Career ladder performance-based pay system. Increased minimum salaries. Change to competency-based programs.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
Texas	1) Updated voc ed courses. 2) Mandated state curriculum. 3) Voc Ed Master Plan revised all traditional voc ed classes. 4) Occupation-specific training restricted to 11–12th grades.	Career ladder system for teachers, Texas Appraisal System and the Alternative Teacher Certification process for general education teachers instituted. New certification requirements, including advanced academic training and testing. Limitations on education coursework.
Utah	Implementation of 18-credit core curriculum. Competency testing in grades 5, 8, 11 in core curriculum areas. Voc ed course a graduation requirement.	Career ladder program provides extra income for outstanding teachers. New teachers must have 2 years probation before standard certificate.
Vermont	Increased graduation requirements. Pilot test of "assessment through portfolios" grades 4 and 8. Secondary vocational centers opened to adults. Business advisory groups creating competency task lists for voc ed programs.	Revised teacher education programs.
Virginia	1) Revised standards for accrediting schools, with more emphasis on accountability. 2) New initiatives include secondary/postsecondary articulation, business/industry/education partnerships, and the integration of general and voc ed, particularly in basic skills.	Under Beginning Teacher Assistance Program 14 different teaching competencies must be demonstrated to receive a 2-year teaching certificate. NTE exam required of beginning general ed teachers. Increased teacher salaries.
Washington	Choice Program.[11]	New certification requirements specify that all teachers have a bachelor's degree for initial certification and have 7 years to earn a master's degree in order to receive permanent certification. Minimum statewide salary schedule set.

Table 2.7 (continued)

	Recent Major Initiatives on Secondary General or Voc Ed Curriculum, Student Standards or Assessment	Recent Major Initiatives on Secondary General or Voc Ed Teacher Training, Credentialing and Salaries
West Virginia	The Education Reform Act of 1988 (SB14) defines what accountability should be, mandates testing, and requires the development of competencies for each area. The Higher Education Reform Act of 1989 (SB420) created the Joint Commission for Vocational-Technical-Occupational Education (JCVTOE), which consists of representatives from business, industry, vocational education, etc. The Commission has broad supervisory responsibilities with major emphasis on articulation between secondary and postsecondary programs.	New certification requirements specify that all teachers must pass a basic skills test and a competency test in their field of instruction.
Wisconsin	1) Voc ed courses must be provided from grades 9–12 on an elective basis. (Wisconsin's high schools have no vocational track.) 2) All schools required to have a sequential plan written for all subject areas.[12]	None.
Wyoming	School credits will change from seat hours of contact to outcomes based on competencies. All school districts are required to issue report cards to their communities.	None currently, but by 1992 standards for teacher training programs will be established to be used in the approval process. State is considering implementing a more rigorous teacher ed program, increasing requirements from a 4-year program to a 5-year program to receive certification.

[1] Applies to vocational and general education.

[2] Designed to combat declining voc ed enrollments caused by tightened graduation requirements.

[3] 15 of the 24 credits are for specific courses, while the remaining 9 are elective courses.

[4] The Choice program allows for complete open enrollment within the public school system and gives high school juniors and seniors the option to attend public or private colleges at government expense. Additionally, competency-based education and curriculum integration are central to the Choice program.

[5] Four changes were introduced to promote integration. First, classes in career explorations were offered to expose students to general and vocational education options. The curriculum was highly integrated. Second, a work-readiness course was offered. Third, the teaching of a specific curriculum dealing with vocational education was provided. Fourth, articulation agreements between secondary and postsecondary vocational education were established so that high school courses could meet postsecondary vocational education requirements.

[6] High school graduation requirements will increase in the areas of social science, science, and math.

[7] The state competency exam tests reading, math, English, science, and social science. Students must pass it in order to receive their diplomas. Students who fail receive high school certificates.

[8] HB1017 was enacted in April 1990. The state raised taxes to cover its costs, but the bill has confronted widespread opposition, and may be repealed pending a statewide referendum. One of the objectives of HB1017 is to move toward the deregulation of schools. Another is the establishment of a statewide core curriculum geared toward preparing students to attain and demonstrate competencies and outcomes. The bill calls for all schools to meet North Central Accreditation standards to ensure accountability, and for reductions in class size.

[9] The Workforce 2000 Act was passed by the legislature in 1989. The bill consists of several different programs aimed at training, retraining, and providing work experience for workers in Oregon. It is also intended to adopt Oregon programs to the new Federal JOBS Welfare bill. 2+2 programs, customized training, and welfare-to-work training programs are included in Workforce 2000. The governor has required that all state government agencies include in their budgets their contribution to workforce development.

[10] Statewide testing (TELS) determines the allocation of state compensatory education funds.

[11] The Choice Program was created to give parents options over where to send their children to school, providing there are openings. Eleventh and twelfth graders also have the option of taking their courses at a community college or voc/tech institute.

[12] The sequential plan must include what is to be taught in each area, including daily learning at each grade level, specific objectives, resources, evaluation method including monitoring, and allocation of teacher time by week, semester, and term. These plans are reviewed every 5 years.

3. POSTSECONDARY VOCATIONAL EDUCATION

From a state policy perspective, postsecondary vocational education differs from its secondary counterpart in two important ways. First, postsecondary education is characterized by more varied types of state governing boards than secondary education. While the state board of education is the dominant model for governance of secondary systems, a variety of boards and commissions are responsible for postsecondary education across the fifty states. Second, in contrast to their role in secondary education, state governments typically impose far fewer policy directives on postsecondary institutions delivering vocational education. These institutions, which offer programs of two years' duration or less, are treated more like four-year colleges and universities. State-level boards and legislatures generally take a "hands-off" attitude towards them and leave their direction to local governing boards. State policies are typically confined to several well-defined areas: the types of institutions funded to provide postsecondary vocational education, the mechanisms and conditions under which they are funded, and prior approval of new programs offered by local institutions.

Like secondary vocational education, however, postsecondary offerings are concentrated primarily in one type of institution. Just as most students who take secondary vocational education courses do so in comprehensive high schools, most postsecondary students receive their training in community colleges. However, as with secondary programs, a variety of other institutions offer postsecondary course work. State policy at the postsecondary level is also similar to its secondary analog in that, despite less state direction, it too is increasingly aimed at specifying the competencies that students should acquire, strengthening the links between secondary and postsecondary vocational education, and improving student retention.

In this section, we explore these major dimensions of postsecondary vocational education by focusing our discussion on five topics: the types of institutions delivering postsecondary instruction, the different ways that states govern postsecondary education and the extent of state influence over local institutions, financing mechanisms and allocation formulas, the type of performance data collected by states, and recent policy changes in postsecondary work-related education.

TYPES OF POSTSECONDARY VOCATIONAL EDUCATION INSTITUTIONS

As Table 3.1 indicates, the majority of states offer postsecondary vocational education in community colleges. But there are notable exceptions: Georgia, Maine, New Hampshire, South Carolina, South Dakota, and Wisconsin either do not have community colleges or do not offer vocational courses in those institutions. These states provide postsecondary instruction through technical institutes or colleges.

Thirty-four states offer publicly funded postsecondary programs in more than one kind of institution. In addition to community colleges and technical institutes, vocational programs are offered in regional vocational-technical institutions, occupational centers, and four-year colleges and universities. States that offer postsecondary programs in more than one type of institution report that differences among institutions center more on program offerings than on either the types of students served, links to labor markets, or governance arrangements. A typical distinction between vocational-technical centers and community colleges is that the former offer shorter programs (either open-entry/open-exit or ones of 6 to 14 months duration) which do not lead to degrees, while the latter provide longer-term programs leading to degrees or certificates. This distinction, for example, characterizes institutions in Alaska, Minnesota, Missouri, Utah, and Washington. The community colleges also tend to include more academic content in their programs.

In some cases, different types of postsecondary institutions within a state have different governance arrangements. For example, in Georgia, the technical institutes are under strict state control in terms of their curriculum and hiring practices, while the state exerts very little influence over the junior colleges. In Minnesota, the vocational-technical colleges are under the jurisdiction of local school districts, which decide what programs to offer and faculty to hire, while the administration of community colleges is completely controlled by the state. In New Jersey, the eight state colleges offering adult and certificate vocational programs are governed by the state, while the community colleges are governed locally. The one technical institute in Texas is a state institution designed to provide high technology courses to students who come from all over the state, while the community colleges serve local areas.

Most respondents reported little difference in terms of the socioeconomic status and abilities of students attending various kinds of institutions in their states. However, a number reported that community college students tend to be older than those attending regional facilities, technical institutes, or four-year colleges. Although a few states, such as Georgia, reported systematic differences among types of institutions in their links to local labor markets, most indicated that the strength of these connections is a function of how

individual institutions approach the task, rather than any systematic difference based on their mission.

STATE GOVERNANCE AND INFLUENCE OVER LOCAL INSTITUTIONS

The information in Table 3.2 shows that although the responsibilities of governing boards are roughly similar across the fifty states, types of state boards and their jurisdiction vary considerably. In 13 states, postsecondary vocational education is governed by the state board of education, which also has jurisdiction over secondary education; in nine states, the community college board has authority over postsecondary education. Seven states vest authority in a board of regents or a board of higher education; three use higher education commissions or coordinating boards. Seven states have boards specifically focused on vocational and technical education, and eight have two boards sharing authority. In states with dual boards, the division of responsibility may vary by program (e.g., whether degree-granting or not) or by function (e.g., long-range planning vs. accreditation). Just as the states have a range of governing boards, they also differ in the types of agencies with administrative responsibility for postsecondary vocational education. These include: state departments of education, departments of higher education, community college chancellors' offices, departments of technical and adult education, and several other variants.

Although specific responsibilities vary from state to state, the governing boards' prerogatives typically include policy development, planning, establishing program standards, program review and approval, and oversight. But the extent to which the exercise of these responsibilities actually influences or constrains local operations is usually quite limited. Most state governing boards confine their activities to setting broad policy directions for postsecondary vocational education and approving new programs, but avoid either intervention in the day-to-day affairs of local institutions or shaping the range and content of the programs they offer. Even in those states where state government has established competencies that must be taught in approved programs, local institutions have considerable discretion in deciding which programs to offer and how to spend state funds.

There are some notable exceptions to this general pattern, however. For example, as part of its comprehensive educational reform legislation, passed in 1985, Georgia shifted responsibility for its 32 postsecondary technical institutes from local to state control. The state Department of Technical and Adult Education is now responsible for establishing and enforcing uniform curricula, hiring practices, and evaluation systems. Florida influences local vocational offerings by combining a funding mechanism with state regulation over how local institutions can label courses. The legislature wanted to distinguish among secondary,

postsecondary vocational (PSV), and postsecondary adult vocational (PSAV) curricula. PSV courses belong to college credit programs that require longer training and are more cognitively oriented, while PSAV courses offer no credit and involve more hands-on, manipulative skills. Through its uniform system of course labeling, the state required local institutions to "level down" a number of PSV courses to PSAV status, and reimburses those courses at a lower rate. However, despite a strong state role in ensuring uniform course standards, local communities in Florida also have a voice in key decisions because new-program approval is the responsibility of 28 regional coordinating councils.

The last column in Table 3.2 displays respondents' assessment of the extent of state influence over postsecondary vocational education. We also collected other measures of state direction by asking whether a state had policies related to several major dimensions of vocational education. Those responses are shown in Table 3.3. Unlike secondary education, where teacher certification is a state prerogative, only a minority have certification requirements for postsecondary instructors. Similarly, only a minority of states have graduation or program completion requirements. Those states that have established requirements tend to limit them to the total number of credits required for a degree, and to the proportion of coursework that must be taken in academic subjects as compared with occupational ones. They have not required specific numbers of courses in the way typical of secondary education. For example, Illinois requires that for an associate degree, a student must complete at least 60 credit hours, one quarter of which must be in general education. Wisconsin's requirements for an associate degree are slightly more specific: 32 credits in an occupational area; 11 credits in general education, including at least one course in communications, behavioral science, and social science; and six elective courses. In addition to course requirements, Texas requires that students maintain a C average and pass a state standardized test in English, mathematics, science, reading, and social studies.

Most states do not have postsecondary vocational policies regarding either course credit transfer or remedial education. Those states that do have course transfer policies tend to frame them as requirements that individual campuses establish articulation agreements between two- and four-year institutions. As a variant on that strategy, the Montana Board of Regents recently issued a directive for each four-year institution to develop a core curriculum for those vocational-technical students who intend to transfer. Utah and West Virginia, on the other hand, have policies stating that students in two-year institutions must be allowed to transfer to four-year or to other two-year institutions. Massachusetts has a transfer compact that requires four-year institutions to accept 35 credit hours in general education from students who begin a course of study in a community college and who do not change

majors, and to require no more than 68 additional credit hours for the student to complete a bachelor's degree. The intent of the compact is to treat students transferring from community colleges the same as those who begin in the four-year system.

State policies on remedial or basic education typically require that institutions offer such courses and, increasingly, that they test students to determine whether they need such assistance. Only four states, Georgia, Kentucky, Louisiana, and North Carolina, have policies that influence the mix of resources local institutions devote to vocational education. North Carolina, for example, requires that no community college can have more than 15 percent of its students enrolled in college transfer programs, thus ensuring that these institutions promote vocational education as their dominant mission.

Next to funding, program approval is the major way that states influence the direction of local institutions. Consequently, we asked respondents to describe the program review process and the major factors considered in decisions about whether or not to approve new programs. As shown in Table 3.4, the majority of states require that new programs be approved before local institutions can offer them. Most of the emphasis is on ensuring that demand exists for them and that resources are sufficient, rather than on shaping their content. The majority of states that require the approval of new programs consider curriculum content (e.g., by requiring that local institutions submit course syllabi for review as part of their application). To the extent that states reported denying approval to new programs, however, it was because of insufficient labor market demand, duplication with an existing program in the area, or because an institution lacked the necessary fiscal resources, personnel, or facilities. Problems with curriculum were either not an issue, or were remedied through technical assistance and the revision of applications. State administrators also reported that, in reviewing applications for new programs, they rely heavily on the recommendations of local industry advisory committees.[1]

[1]This study did not collect local data on institutional responses to state policies. However, the conclusions of another NCRVE project that conducted case studies in eight local communities in California, Florida, Iowa, and Pennsylvania suggest that state approval processes work only informally and indirectly in preventing program duplication and competition among local institutions. Local administrators uniformly reported that state approval processes are ineffective because state enforcement is lax, or because state officials lack the information to judge what really happens locally. At the same time, local schools and colleges typically will not propose new programs that compete with other institutions if they know they have to justify their actions in a state forum. Grubb and McDonnell (1991) conclude that states can prevent the most overt forms of competition from taking place, but they have neither the information nor the enforcement power to influence routine skirmishes among local educational institutions.

THE FINANCING OF POSTSECONDARY VOCATIONAL EDUCATION

A major difference between secondary and postsecondary vocational education is their financing mechanisms. Although 13 states use a funding formula based on the number of students enrolled in a postsecondary program (calculated in terms of full-time equivalents), Table 3.5 indicates that the majority of states either base their funding on program costs or do not use a formula and treat postsecondary institutions as direct budgetary appropriations. Although formulas based on program costs take into account enrollment levels, they are primarily based on the costs of providing a particular type of instruction (faculty salaries, equipment, etc.). In contrast, student characteristics and the level of resources available in a given community drive funding formulas in secondary education.

Consistent with a less active state role in postsecondary vocational education, only eight states place any kind of restrictions on the use of state general-aid funds. For example, Idaho and South Dakota require that state funds be spent only on approved programs. Missouri limits the use of its aid to equipment and salaries, and Nebraska only to salaries.

As in secondary education, the federal contribution to postsecondary education is small in most states, with the proportion typically below 10 percent. In fact, eighteen states report a federal contribution of 5 percent or less. Half the states allocate 35 percent or less of their Perkins funds to postsecondary vocational education, while eight (Colorado, Georgia, Iowa, Kansas, Minnesota, New Mexico, New York, and Wisconsin) allocate over 50 percent to postsecondary activities.

A major difference among states is the proportion of postsecondary costs borne by the state government as compared with either local government or student tuition. Slightly more than half the states (26) report state contributions of 50 percent or more of total funding. Seven of these states (Alaska, Hawaii, Idaho, Louisiana, North Carolina, Washington, and West Virginia) report contributions in excess of 85 percent. In most states, tuition accounts for a modest proportion of the funding (typically 15 percent or less). However, in seven states (Indiana, Iowa, Kansas, Michigan, Oregon, Pennsylvania, and Vermont) student tuition represents 30 percent or more of total costs.

PERFORMANCE INDICATORS IN POSTSECONDARY VOCATIONAL EDUCATION

One of the major trends in education policy over the past decade has been a growing emphasis on ensuring greater accountability through the public reporting of educational performance indicators. Most efforts have focused on elementary and secondary education and on academic subjects. However, policymakers are increasingly turning their attention to work-related education and to schooling at the postsecondary level. One example is the

recent reauthorization of the Carl Perkins Vocational and Applied Technology Education Act. The act directs states to develop performance standards that measure students' basic skills gains and occupational competency levels, and their post-training employment or educational attainment.

We asked state officials what kinds of data are currently being collected on the condition of postsecondary vocational education in order to ascertain how much states will need to expand their indicator systems in response to the Perkins legislation and similar policy trends. Table 3.6 shows the types of data currently collected by states on postsecondary students. Several conclusions emerge from this table. First, unlike elementary and secondary education, where the overwhelming majority of states now collect some type of standardized student achievement data, very few currently collect such information on postsecondary students. The few that do report ACT or SAT scores, and several such as Florida and New Jersey have student scores on basic skills tests. Second, most states have some information about completion rates for different institutions, but little is known about the job-skill performance of program graduates. Except for the results of licensing examinations, states do not routinely assess completers' occupational competency. A minority of states (13) survey employers to check graduates' job skills and technical knowledge. The remainder of states that conduct follow-ups on completers do so only through surveys of graduates, the majority of which are conducted by local institutions.

Third, the data that are collected are typically used to meet federal reporting requirements and for state-level policy and planning purposes. They are not widely publishedm as K–12 test scores and drop-out rates often are; nor are they used as the basis of policies to reward, punish, or assist local institutions in the way that indicator data are increasingly employed in the elementary and secondary system. A notable exception is Florida, which requires local programs to maintain a job placement rate of at least 70 percent of those completing training. Programs falling below that placement rate for three consecutive years are ineligible for state funding.[2] Idaho has a similar policy, making

[2]Even in Florida, with what appears to be strict regulation of vocational education outcomes, a lack of clarity in defining terms such as "program completer" and "related employment" and the need to rely until recently on local data collection have made implementation of this mandate difficult. Florida is currently attempting to move to a statewide system for tracking those who complete vocational education programs. Former students' social security numbers will be used as a link to a variety of data bases, including national military records, the state's postsecondary enrollment file, and the unemployment insurance system. Once the data are collected, however, the information will be returned to local jurisdictions, which will determine whether or not student placements are in areas related to training.

programs subject to termination if they fall below a 75 percent placement rate for two consecutive years.

Finally, 30 states reported plans to expand or upgrade their data-collection efforts over the next few years. A few said that new efforts would depend on the Perkins requirements, but most of the others described plans to improve the monitoring of student outcomes (e.g., Indiana, Maryland, Michigan, and Utah). Several states, including Florida, Georgia, and Oregon, indicated that they would be implementing or piloting automated systems for tracking students.

At this time, then, most of the data that states collect on postsecondary vocational education focus on the numbers and types of students enrolled—their ethnicity, gender, and special needs status. A majority of states collect at least limited information on program completion, with a growing number paying increased attention to measuring the quality of student outcomes. However, consistent with a less directive approach to the governance of postsecondary education, states have not moved to assess overall program quality at this level in the way that they do in K–12. For example, they do not plan to monitor instructor qualifications or curricular quality, as is increasingly the case at the secondary level.

RECENT POLICY CHANGES AND EMERGING ISSUES

Although the level of recent policy activity in postsecondary vocational education is considerably less than for secondary schooling, a significant number of states report changes that extend state direction over local institutions. Table 3.7 lists major policies for those states that reported recent changes. Curriculum has been a major thrust in several states. In some instances, this has meant efforts to infuse more academic content into vocational programs (California); while in others, it has involved greater standardization across the state (Georgia, Minnesota) or the implementation of a competency-based curriculum (Iowa, Louisiana). Improving student retention through basic skills testing and remediation has been the focus of recent policy in California, Florida, New York, and Texas—states with large numbers of students at risk of not completing the vocational programs in which they initially enroll. Several states such as Indiana, Oregon, and Virginia are currently funding pilot projects to strengthen the links between secondary and postsecondary programs. Recent legislation in Iowa established regional boards whose responsibility is to help secondary and postsecondary programs coordinate their curricula.

Three states (Connecticut, Georgia, and Montana) have either changed their governance structures or the responsibilities of those bodies. Connecticut combined its community and technical colleges under a single governing board, while Georgia placed all

its technical institutes under state control. Montana has moved the governance of its vocational technical centers from the State Board of Education and local school districts to the Board of Regents. Although the specific strategy varies by state, each of these reorganizations was designed to enhance state direction over postsecondary vocational education.

Articulation between secondary and postsecondary institutions and improved curriculum also emerged as major issues when state officials were asked about areas of concern to their states over the next two to three years. Although the specific issues vary from state to state, these two themes were reflected in a number of responses. For example:

> The activity for the future is to coordinate the area vocational schools and the community colleges so that they do not duplicate programs, but build on one another. The area vocational schools should have the beginning programs—level zero—and the community colleges should start where the area vocational schools leave off and then go beyond what they offer now. This process is just starting through articulation. (Missouri)

> In the coming years, the state will have two major concerns regarding postsecondary vocational education curriculum. Nevada needs to work on the development of articulation courses from community colleges to four-year universities. The second concern involves the development of a comprehensive articulation program from high school to community college to the postsecondary level.

> Insisting that all courses, including those in vocational education, include college-level critical thinking components will be a continuing effort on the part of the state. (California)

> In order to develop curriculum and plan programs, the DTAE must be able to predict what skills and competencies will be needed as new production techniques evolve. This will require the cooperation of industry, but competition between companies is a barrier to the sharing of information. Staying current and up to date is the major concern. (Georgia)

> There are two issues regarding the vocational education curriculum which are interrelated. The first is the continued effort to integrate academic and vocational curriculum. This has been mandated by the Higher Education Commission, but the form it will take is still developing. The second issue is the tension between centralized and decentralized control. There seems to be a move for the state to play a more prominent role in the standardization of the curriculum, but there is a lot of resistance in this historically, locally controlled state. (Maryland)

Remaining responsive to the skill demands of business and industry is another theme that states report will shape their upcoming policy agenda. For states such as Connecticut, Florida, Hawaii, Iowa, and Washington, it is reflected in concern about adequate funding for

programs with expensive equipment requirements and for updating faculty skills. For other states such as North Carolina, responsiveness means maintaining the traditional trades areas (e.g., automotive, air conditioning/heating) in the face of more glamorous, high-technology options now attracting student interest. In other states such as Connecticut and California, responsiveness means expanding access to technical education through employer-based training and an increase in technology programs for adults.

Expanding the clientele for postsecondary vocational education has other variants as well. One is indicated in the growing number of policies to complement broadened student access with efforts to retain them in academic and vocational programs. It is also reflected in the movement of traditional postsecondary vocational institutions, such as community colleges and vocational-technical facilities, into providing training programs specifically for economically disadvantaged individuals. In Sections 4 and 5 we examine two of the largest of these programs, JTPA and JOBS.

Table 3.1

TYPE AND NUMBER OF PUBLIC INSTITUTIONS PROVIDING POSTSECONDARY VOCATIONAL EDUCATION

	Community Colleges	Technical Institutes or Colleges	Regional or Area Voc/Tech Centers[1]	Other Public Institutions
Alabama	13	16	—	—
Alaska	10	—	2	—
Arizona	16	—	—	Two-year tribal college offers vocational courses.
Arkansas	6	2	24	2 universities offer some vocational courses.
California	107	—	—	—
Colorado	15	—	7	—
Connecticut	12	5	—	—
Delaware	1 with 4 campuses.	—	—	—
Florida	28	—	33	Some adult centers.
Georgia	—	32 technical institutes, 12 junior colleges.	—	3 two-year and 1 four-year college with occupational divisions.
Hawaii	7	—	—	
Idaho	2	1	—	2 four-year universities, 1 four-year college.
Illinois	50	—	—	Small number of universities offer vocational courses.

Table 3.1 (continued)

	Community Colleges	Technical Institutes or Colleges	Regional or Area Voc/Tech Centers[1]	Other Public Institutions
Indiana	1 community/residential college focuses on occupation-specific trades.	1 with 26 campuses.	7	5 universities offer occupation-specific programs.
Iowa	15	1 community college, still considered a technical college.	—	—
Kansas	19	1	14	
Kentucky	15	—	17 voc-tech schools, 5 health centers, 1 advanced technology center.	
Louisiana	2	49	—	—
Maine	—	6	—	—
Maryland	17	—	—	—
Massachusetts				
Michigan	29	—	—	4 four-year universities offer occupational programs.
Minnesota	19	—	34 regional technical colleges.	—

Table 3.1 (continued)

	Community Colleges	Technical Institutes or Colleges	Regional or Area Voc/Tech Centers[1]	Other Public Institutions
Mississippi	15	—	—	—
Missouri	13 districts with 19 campuses.	1 voc/tech school considered an institute.	58	—
Montana	3	5	—	1 four-year college.
Nebraska	6 with 14 campuses.	—	—	1 two-year agricultural school managed by the University of Nebraska.
Nevada	4	—	—	2 occupational centers.
New Hampshire	—	7	—	—
New Jersey	19	—	—	8 state colleges offer noncredit adult and credit-bearing certificate programs.
New Mexico	17	—	—	—
New York	40	6	41	3 four-year colleges.
North Carolina	58	—		
North Dakota	5	—	—	5 tribally controlled community colleges offer vocational programs.
Ohio	10	13	49	30 regional campuses.
Oklahoma		2	48	2 school centers run by the state.
Oregon	16	—	—	—

Table 3.1 (continued)

	Community Colleges	Technical Institutes or Colleges	Regional or Area Voc/Tech Centers[1]	Other Public Institutions
Pennsylvania	13	—	—	11 four-year colleges, 1 two-year college.
Rhode Island	1 with 2 locations.	—	—	—
South Carolina	—	16	—	—
South Dakota	—	4	—	—
Tennessee	9	2	27	3 technical community colleges.
Texas	49 districts with 72 campuses.	1 with 4 campuses and 3 extensions.	—	1 university with 3 two-year branches.
Utah	5	—	5	4 universities.
Vermont	1 with 12 branches offering limited voc ed programs.	1	—	3 practical nursing schools.
Virginia	23	—	—	2 universities.
Washington	27 (5 with satellite campuses).	5	—	1 tribally controlled community college.
West Virginia	2			1 university, 2 branch campuses, 7 state colleges.
Wisconsin	—	16 districts with 45 technical college campuses.	—	—
Wyoming	7	—	—	—

[1]These do not include regional vocational-technical centers that are part of the secondary education system, but that also offer courses to adults.

Table 3.2

STATE GOVERNANCE OF POSTSECONDARY VOCATIONAL EDUCATION

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Alabama	State Board of Education (both secondary and postsecondary education)	Oversees operations of colleges; sets policy for programs, curriculum, personnel, finances and the appointment of college presidents.	Department of Postsecondary Education	Significant influence over funding decisions because no local tax base. Strong role in curriculum change, but decisions about what courses and programs to offer left to individual colleges.
Alaska	State Board for Voc Ed and Board of Regents	Voc Ed Board responsible for adult voc ed, including certificate and credential programs, and also secondary programs. Board of Regents governs all associate degree programs.	Department of Education	High degree of state influence over local decisions because funds come from the state. Content and direction of programs determined by the state, as well as program approval.
Arizona	State Community College Board	Sets program standards, approves curriculum offerings, responsible for oversight.	Community College Board	Little direct state influence over how local institutions spend funds. Program content established at the local level, with state course approval focusing more on the planning process used in developing programs.
Arkansas	State Board of Education (both secondary and postsecondary education)	Establishes policy directions; responsible for long-range planning; standard-setting and oversight, including program evaluation and performance reporting	Department of Education	Full control over funding. The state also certifies programs and instructors.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
California	Board of Governors of the California Community Colleges	Establishes systematic procedures for reviewing, approving, and evaluating vocational programs; not involved in the day-to-day operations of the system.	Chancellor's office	Significant state influence through program approval. Each new program reviewed against state-developed criteria (e.g., that reasoning skills are included in courses). But substantial local discretion over how state funds are spent.
Colorado	State Board for Community Colleges and Occupational Education (responsible for both secondary and postsecondary vocational education)	Responsible for establishing policy directions, long-range planning, program review, and approval and oversight.	Community Colleges and Occupational Education System	Considerable control through the program approval process. Without approval, institutions receive no state or federal funding.
Connecticut	Board of Trustees of Community/Technical Colleges Board of Governors for Higher Education	Board of Trustees establishes five-year plan and makes policy decisions on tuition. Board of Governors for Higher Ed responsible for licensure and accreditation.	State Department of Higher Education	Very little influence over local institutions and programs. State does not influence colleges' use of funds.
Delaware	Board of Trustees, DelTech Community College	Program review and approval, standard setting, and oversight for the single public post-secondary voc ed institution in state.		

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Florida	State Board for Vocational Education	Responsible for both post-secondary and secondary vocational education. Responsible for program reviews, standard setting, and evaluation system, both final policy approval and long-range planning.	Department of Education—Division of Community Colleges and Division of Vocational, Adult, and Community Education	Balance between local control and state coordination and funding. Course standards set at the state level and designed to be uniform across the state, but program approval is the responsibility of 28 regional coordinating councils.
Georgia	State Board for Technical and Adult Education	Responsible for policy development, long-range planning, program development, and evaluation for postsecondary technical education, economic development services, and adult literacy services.	Department of Technical and Adult Education	State largely determines how state funds are spent in local institutions.
Hawaii	University Board of Regents (postsecondary only), State Board for Vocational Education (both secondary and post-secondary)	State Board for Voc Ed responsible for policy development, long-range planning, approval of state plan, budget, and reporting requirements.	Interface between Office of the State Director of Voc Ed and Office of the Chancellor for Community Colleges.	State has a high degree of influence over community colleges, which are centrally funded with a statewide administration.
Idaho	State Board of Vocational Education (both secondary and postsecondary vocational education)	Approves all programs, degrees, and certificates; allocates funds to individual institutions.	State Division of Vocational Education	Considerable influence through state policies, including funding decisions and program approval.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Illinois	Illinois Community College Board	Program review and approval, some standard setting. Allocates state funds to individual institutions.	Community College Board	Governance very decentralized: local institutions determine how funds are spent and have considerable discretion to modify programs once they have state approval.
Indiana	Commission for Higher Education	Establish policy direction, long-range planning, program review and approval, standard setting.	Commission for Vocational and Technical Education.	Funding decentralized with legislative allocations to each local institution. Some state influence over course and program offerings.
Iowa	State Board of Education	Both secondary and post-secondary program approval, and approval of state plan.	State Department of Education	State is beginning to change to a system of greater state influence over program planning. Currently, state does not influence local spending decisions and has limited authority over program offerings.
Kansas	State Board of Education (both secondary and postsecondary education)	Establishes policy directions; approves all new programs; responsible for oversight.		Limited influence over funding. State Board looks closely at course offerings, but tends only to make recommendations about program offerings to individual campuses.
Kentucky	State Board for Adult and Technical Education [SBATE] (responsible for all nondegree programs) Council for Higher Education [CHE] (associate degree programs)	SBATE responsible for developing and establishing policy. Program approval shared with CHE.	Department of Adult and Technical Education	SBATE influence is greater than that of CHE because the nondegree institutions are run by the state. Both SBATE and CHE influence program content.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Louisiana	State Board of Elementary and Secondary Education	Sets policies on standards, curriculum, and teacher certification. Appoints directors of the postsecondary technical institutes.	Louisiana State Department of Education	State runs all aspects of the technical institutes.
Maine	Board of Trustees for the Maine Technical Colleges	Board has complete authority for the administration, budget development, fiscal management, and personnel policies of the system. The Board also reviews and approves all programs.	Maine Technical College System (MTCS)	Significant influence over spending; less over program content and direction.
Maryland	State Board of Education	Responsible for both secondary and postsecondary vocational education. Ensures that state spending in compliance with Perkins requirements. No involvement in standard-setting, performance reporting, or program evaluation beyond what is federally required.	State Board of Community Colleges	Minimal state influence over how funds are spent and over program offerings. No state program oversight or review, only minimum course requirements.
Massachusetts	Board of Regents (for degree-granting programs) State Board of Education (all nondegree postsecondary and secondary programs)	The Board of Regents does not establish policy direction or engage in long-range planning. It is responsible for review and approval of new programs.	State Department of Education	Essentially no control over how state funds are spent. Board of Regents establishes program standards, but does not influence course content.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Michigan	State Board of Education	Final authority for program review and approval, standards, and program evaluation, but most responsibility left to the SDE staff and an advisory board, the State Board for Community Colleges.	State Department of Education	Minimal state influence over funding decisions and program content.
Minnesota	State Board of Vocational/Technical Education	Final decisions about program approval, standard-setting, and oversight.	State Board of Vocational/Technical Education	State has some control over funding and program content. Local districts make final decision about what courses are offered.
Mississippi	State Board of Education (responsible for both secondary and postsecondary education)	The SBE sets standards and has limited responsibility for program review and approval through the funding process.	State Department of Education	Strong influence over funding through reimbursement process designated for specific items. Beginning in 1991, 75 percent of course content will be state-specified, with the remainder left to local discretion.
Missouri	State Board of Education	Responsible for both secondary and postsecondary education.	Coordinating Board for Higher Education	State approves new programs.
Montana	Montana Board of Regents	Policy direction, program review, and approval for vocational funding.	Commissioner of Higher Education approves state funding.	State gives final approval for programs and budgets.
Nebraska	Postsecondary Education Coordinating Board in implementation stage.	—	None —each college responsible for its own administration.	Little state influence. Legislature can regulate, but tends to leave decisions to individual campuses. This will change with new Commission as of 1/1/92.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Nevada	Board of Regents	Establishes policy direction and long-range planning. Sets program standards and gives final program approval.	Board of Regents delegates administration to college presidents.	State influence over funding decisions (especially when federal money involved) and program content.
New Hampshire	Board of Governors	Major responsibilities directed at oversight and policy-making. Also sets administrative standards which affect tuition and institutional rules. Reviews and gives final approval for programs.	Department of Postsecondary Technical Education	Direct control over how state funds are spent. Approves new programs and deletes old ones; course offerings are locally controlled.
New Jersey	Board of Higher Education	Policy and long-range planning, program review and approval of degree and certificate programs, program oversight, annual budget recommendation to the governor on operating aid.	State Department of Higher Education	Spending decisions left to local institutions, limited state influence over program content, through approval of degree programs.
New Mexico	State Board of Education	Secondary and postsecondary, policy direction and long-range planning, and broad standards for programs.	State Department of Education	Limited influence over spending. No state program review or approval.
New York	Board of Regents	Sets overall policy, planning for new programs, and standard setting.	Office of Higher and Continuing Education Service, Office of Education Academic Review	All programs leading to a degree must be approved by the state. Registration (accreditation) by the state also determines student eligibility for state-based financial aid.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
North Carolina	State Board of Community Colleges	Broad policy and regulatory authority. Program approval and review, setting of program standards, and oversight through approval of an annual performance report.	Department of Community Colleges	State exerts broad influence, but local institutions determine both program content and spending.
North Dakota	Board for Higher Education (for all degree-granting institutions) Board for Vocational Education (both secondary and postsecondary vocational education)	Higher education board conducts general program reviews to ensure that process standards are met. Vocational education board handles oversight for how program funds are spent.	Board for Higher Education	State does not influence either the content or direction of vocational programs. Vocational education board influences how federal and state funds are spent.
Ohio	State Board of Education (for nondegree programs; also responsible for secondary vocational education) Board of Regents (for degree programs)	SBE sets the general policy direction and establishes an operational philosophy. Responsible for program review and approval; sets standards.	Department of Education	Significant influence over funds allocation and program content. But allowance for local adaptation to state criteria.
Oklahoma	State Board of Vocational Technical Education (responsible for secondary and postsecondary vocational education)	Establishes policy directions based on state demand data. Sets standards and reviews and approves programs.	Department of Vocational/Technical Education	Minimal influence over how funds are spent and over program content.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Oregon	Board of Education	Responsible for both secondary and postsecondary. Board establishes community college districts and decides how federal funds are used. Approves new programs.	State Department of Education	State determines general allocation of funds, minimal influence over course and program offerings through approval process.
Pennsylvania	State Board of Education	Overall policymaking for higher education. No state program review or approval.	Department of Education	State plays no role in how state funds are spent, nor in governing local institutions.
Rhode Island	Board of Governors for Higher Education	Establishes policy directions; reviews and approves programs, sets standards, and conducts oversight.	Office of Higher Education	Board offers guidance, but course and program offerings are determined at the campus level.
South Carolina	State Board for Technical and Comprehensive Education	Establishes overall policy for system. Approves programs; sets policy on state funds distribution and personnel.		State publishes core curriculum requirements for each program and a catalogue of approved courses.
South Dakota	State Board of Education	Secondary and postsecondary education. Sets policies on program standards and administration, funds distribution, and teacher certification requirements.	Office of Vocational Technical Education	State only reimburses for approved programs, but does not track local use of funds. Approves course content and establishes required course hours.

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Tennessee	Board of Regents	Authority over policy and budget approval. Selects college presidents and prescribes curricula and degree requirements.	Board of Regents staff	Once funds are allocated, local colleges have discretion over their spending. Moderate influence over program content and direction. Board primarily concerned with program offerings and avoiding duplication.
Texas	Texas Higher Education Coordinating Board (not a governing board)	Works with TEA on master plan for secondary and postsecondary education. Program review and approval.	Division of Community Colleges and Technical Institutes	State coordination role.
Utah	Board of Regents for the community colleges and State Board for Vocational Education for applied technology centers	Master plan for vocational education approved by both agencies. Both agencies also approve programs and set standards jointly.	Board of Regents for colleges and universities. State Board for Vocational Education for applied technology centers and federal vocational funds.	State has some influence over overall budget; indirect influence over content and direction of voc ed program through required program advisory committees. Committees review programs and curricula. State has program approval and accreditation responsibilities.
Vermont	State College Board		None	No state influence except for overall budget levels.
Virginia	State Board for Community Colleges	Community colleges part of a statewide system. Approval of all degree programs, policy direction, and long-range planning.	State Board of Community Colleges	Sets overall policy for funding and program requirements (e.g., through broad distribution requirements for degree and certificate programs).

Table 3.2 (continued)

	State Governing Board	Governing Board's Responsibilities	State Agency with Administrative Responsibility	Extent of State Influence over Local Institutions
Washington	State Board for Community and Technical Colleges	Establishes funding policies and tuition rates; approves degree programs. Performs evaluations and performance reviews; sets policy direction and conducts long-range planning.	None	Sets overall funding policy and expenditure parameters; little influence on funds after they have been allocated. Minimal influence over course and program offerings, but standards set at state level.
West Virginia	Board of Directors for the State College System	Sets overall policies for program approval, tuition, program evaluation.		Minimal state influence, as long as local institutions comply with federal guidelines.
Wisconsin	Wisconsin Board of Vocational Technical and Adult Education	Responsible for administering Perkins funds, program approval, standard setting, course requirements.	Wisconsin Board of Vocational, Technical, and Adult Education	State does not direct how local districts spend state funds. Significant state influence over the content and direction of voc ed programs through standard setting and oversight.
Wyoming	Community College Commission	Program approval and review, master plan.	None	State has little influence over local colleges.

Table 3.3

EXTENT OF STATE INVOLVEMENT IN POSTSECONDARY VOCATIONAL EDUCATION

State	State Certification Requirements for Post-secondary Voc Ed Instructors	State Policies on:			
		Graduation or Program Completion	Course Credit Transfer	Remedial and AdultBasic Education	Program Mix and Use of Resources
Alabama	Yes	Yes	Yes	Yes	No
Alaska	No	No	No	No	No
Arizona	Yes	Yes	Yes	Yes	No
Arkansas	Yes, for the vocational technical schools	Yes	No	Yes	No
California	Yes	No	No	Yes	No
Colorado	Yes	No	Yes	Yes	No
Connecticut	No	No	Yes	Yes	No
Delaware	No	No	No	No	No
Florida	No	Yes	Yes	Yes	No
Georgia	No	Yes	No	Yes	Yes
Hawaii	No	No	No	No	No
Idaho	Yes	Yes	Yes	No	No
Illinois	No	Yes	No	Yes	No
Indiana	No	No	Yes	No	No
Iowa	Yes	No	Yes	No	No
Kansas	No	Yes	No	Yes	No
Kentucky	Yes, for the state-operated vocational schools	Yes	Yes	Yes	Yes
Louisiana	Yes	Yes	Yes	Yes	Yes
Maine	No				No
Maryland	No	No	No	Yes	No

Table 3.3 (continued)

State	State Certification Requirements for Post-secondary Voc Ed Instructors	State Policies on:			
		Graduation or Program Completion	Course Credit Transfer	Remedial and AdultBasic Education	Program Mix and Use of Resources
Massachusetts	No	Yes	Yes	Yes	No
Michigan	No	No	No	No	No
Minnesota	Yes, in technical institutes only	No	No	No	No
Mississippi	Yes	Yes	No		No
Missouri	Yes	No	No	No	No
Montana	No	No	Yes	No	No
Nebraska	No	No	No	No	No
Nevada	No	No	No	No	No
New Hampshire	No	Yes	No	No	No
New Jersey	No	Yes	Yes	Yes	No
New Mexico	No	No	No	Yes	No
New York	No	No	No	Yes	No
North Carolina	No	Yes	No	Yes	Yes
North Dakota	No	No	Yes	No	No
Ohio	No	No	No	No	No
Oklahoma	No	No	Yes		No
Oregon	No	No	Yes	Yes	No
Pennsylvania	No	No	No		No
Rhode Island	No	No	Yes	No	No
South Carolina	No	Yes	Yes	Yes	No
South Dakota	Yes	Yes	No	No	No
Tennessee	No	No	No	Yes	No
Texas	No	Yes	Yes	Yes	No

Table 3.3 (continued)

State	State Certification Requirements for Post-secondary Voc Ed Instructors	State Policies on:			
		Graduation or Program Completion	Course Credit Transfer	Remedial and AdultBasic Education	Program Mix and Use of Resources
Utah	No	Yes	Yes	Yes	No
Vermont	No	No	No	Yes	No
Virginia	No	No	No	Yes	No
Washington	Yes	No	Yes	Yes	No
West Virginia	No	No	Yes		No
Wisconsin	Yes	Yes	No	No - intrasystem Yes - intersystem	No
Wyoming	No	No	No	No	No

Table 3.4

ELEMENTS OF STATE PROGRAM APPROVAL: POSTSECONDARY VOCATIONAL EDUCATION

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
Alabama	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Alaska	No	—	—	—	—	—	—	Board of Regents reviews and approves postsecondary programs; it is not considered a state agency.
Arizona	Yes	Yes	Yes	Yes	No	No	No	The state has 13 standards which are used to determine the necessary competencies for new programs.
Arkansas	Yes					Yes	Yes	
California	Yes	Yes	Yes	Yes	Yes	No	No	
Colorado	Yes	Yes	Yes	Yes	No	No	Yes	
Connecticut	Yes	No	No	No	Yes	No	No	Only degree programs require approval; other programs and individual courses do not.
Delaware	No	—	—	—	—	—	—	

Table 3.4 (continued)

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
Florida	No	No	No	No	Yes	No	Yes	The state is only involved in the start-up of new programs when state licensure is required. Otherwise, new programs are started at local discretion. However, the state specifies detailed course content guidelines, required contact hours, and student competencies that must be met.
Georgia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Hawaii	Yes	Yes	Yes	Yes	No	No	No	
Idaho	Yes	Yes	Yes	Yes	Yes	Yes	Yes	State Board of Vocational Education through Academic Affairs Committee; process is coordinated with all of higher education.
Illinois	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Approval of new programs only. Single courses require only that paperwork be submitted.
Indiana	Yes	Yes	No	No	No	No	Yes	Programs of 1 year or longer require approval.
Iowa	Yes	Yes	Yes	No	Yes	Yes	Yes	Once program is operational, qualified teaching staff required.

Table 3.4 (continued)

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
Kansas	Yes	Yes			Yes	Yes	Yes	
Kentucky	Yes	Yes	No	Yes	No	Yes	Yes	The use of state-generated task lists and curriculum guides is voluntary. However, because mandatory testing is based on the task lists, most institutions use them.
Louisiana	Yes				Yes	Yes	Yes	
Maine	Yes	Yes	No	No	Yes	No	No	
Maryland	Yes	Yes	No	No	Yes	Yes	Yes	
Massachusetts	Yes	Yes	Yes	Yes	Yes			The Board of Regents approves all new programs, but not tracks or concentrations (amounting to < 12 credit hours) within existing programs.
Michigan	Yes	Yes	No	No	No	No	Yes	Process applies only to licensed occupations (e.g., nursing, law enforcement).
Minnesota	Yes	Yes	No	No	No	No	Yes	
Mississippi	Yes	Yes	Yes	Yes				State is now working on curriculum objectives and course sequencing.

Table 3.4 (continued)

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
Missouri	Yes	Yes	Yes	Yes	No	No	Yes	
Montana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Nebraska (as of 1/1/92)	Yes	—	—	—	—	—	—	
Nevada	No	—	—	—	—	—	—	Curriculum for customized training and contract education must be approved by the Board of Regents.
New Hampshire	Yes	Yes	Yes	Yes	No	No	No	
New Jersey	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Review process applies only to degree programs.
New Mexico	No							State evaluates programs for accreditation reviews to monitor quality and requires performance indicators.
New York	Yes	Yes	Yes	Yes	Yes	No	No	State "registers" curricula; required for local degree-granting authority and state-based financial aid.
North Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Table 3.4 (continued)

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
North Dakota	Yes	Yes						
Ohio	Yes	Yes		Yes				
Oklahoma	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Oregon	Yes	Yes			Yes	No	No	
Pennsylvania	No	—	—	—	—	—	—	
Rhode Island	Yes				No	No	No	
South Carolina	Yes	Yes	Yes	Yes	Yes	No	No	
South Dakota	Yes	Yes	No	Yes	Yes	Yes	No	
Tennessee	Yes	Yes	Yes		No	No	No	
Texas	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Utah	Yes	Yes	Yes	Yes	Yes	Yes	Yes	The Board of Regents provides only general guidelines about content and sequencing.
Virginia	Yes	Yes			Yes	Yes	Yes	Single courses do not have to be approved, but programs do.
Vermont	No	—	—	—	—	—	—	Only degree programs require approval.

Table 3.4 (continued)

	Whether State Must Approve New Programs	Elements Included in Program Approval: Demonstrated Labor Market Need	Evidence of Adequate Facilities	Evidence of Qualified Teaching Personnel	Required Number of Class Hours	Course or Topic Sequencing	Program Content	Notes
Washington	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
West Virginia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Single courses do not require approval.
Wisconsin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Wyoming	Yes				No	No	No	Courses usually require approval from the community college commission.

Table 3.5

FUNDING MECHANISMS AND SOURCES FOR POSTSECONDARY VOCATIONAL EDUCATION

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Alabama	(e)[2]	Only health occupations and flight instruction programs.	None	Federal 7.8% State 78% Local[3] 0% Tuition 14–15%	21% in FY89 and 90
Alaska	No state aid formula.	NA	None	Federal 10% State 90%	45% in FY89 and 90
Arizona	(d). Unit rate funding formula based on FTE enrollment.	None	None	Federal 5% State 20% Local 46% Tuition 12% Other 17%	20% in FY89 19% in FY90
Arkansas	(b)	None	None	Federal 13% State 71% Tuition 16%	50% in FY89 and 90
California	(d). Unit rate funding formula based on average daily attendance (ADA). Annual growth capped through state formula.	None	None	Federal 4% State 61.5% Local 34.5%	46–48% in FY89 and 90
Colorado	(a)		None		60% FY89 and 90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources		Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Connecticut	(a)	None	For target groups: handicapped, economically disadvantaged, academically and economically disadvantaged, and LEP.			Community colleges and technical colleges receive 11 to 14% of Perkins funds. Adult ed and technical high schools receive 6 to 9%.
Delaware	No formula; legislative budget appropriation.	—	None	Federal State Tuition	10% 75% 15%	Approximately 30% in FY89 and 90
Florida	(a)	State reimbursement based on weighted FTE enrollments. Weights are established by type of vocational program.				50%
Georgia	(c). Appropriation: unit rate formula, Allocation: negotiation.	None	Only as prescribed by the Perkins legislation.	Federal State Local Tuition	9% 83% 6% 2%	53% in FY90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Hawaii	Direct appropriation	None	None	Federal 12% State 88% Local 0% Tuition: 10–12%, which is returned to the state general funds.	47% in FY89 and 90
Idaho	(a)	None	Funds may be spent only for approved programs.	Federal 3% State 97% Local 0% Tuition: variable[4] Other: variable[5]	36% in FY90
Illinois	(e)	Reimbursement based on credit hours. Different course offerings funded at different levels. Some districts receive equalization funding based on property value.	None on credit hour grants. Districts also receive advanced technology grants, economic development grants, and special population grants, which must be expended on those purposes.	Federal 5% State 37% Local and tuition 58%	Approximately 30%

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Indiana	(a)	None	None	Federal 5% State 54% Tuition 40%	28% in FY90
Iowa	(f)	None	None	Federal 4% State[6] 50% Local 10% Tuition 31% Sales, services and other 3%	72% in FY91
Kansas	(d). Unit rate funding formula based on a credit hour rate per student and a formula which provides aid based on per-student property tax valuation and median college size.		None	Federal 5% State 50% Local 30% Tuition 15%	70% in FY89; 60% in FY90
Kentucky	(a)	NA	None	Federal 18% State 59% Tuition 23%	57% in FY89 and 90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Louisiana	(d). Unit rate funding formula based on enrollment (80%) and estimate and costs for utilities and operation and maintenance functions (20%).	None	Used for salaries, supplies, equipment, or other capital outlay.	Federal 10% State 90% Local 0% Tuition[7] 2% Other[8] 5%	33% in FY90
Maine		None	None	Federal 15% State 58% Tuition 14% Other (grants and gifts) 13%	35–40% in FY89 and 90
Maryland	(e)	None	None		20% in FY89 and 90
Massachusetts		Yes, 2.0			
Michigan	(e)	NA	None	Federal[9] 5% State 39% Local 26% Tuition 30%	33% in FY90 and 91
Minnesota		None	None	Federal 2–4% State 70% Tuition 28%	85% in FY90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Mississippi	(c). Appropriation: negotiation; Allocation: unit-rate formula		None	Federal 7% State 45% Local 46% Tuition $690 (per student, which is returned to the institution)	11% in FY89 (but only 5.5% used and the rest was carried over to FY90); 11% in FY90
Missouri	(f)	None	Equipment and salaries only.		30%
Montana	(f)	None	None	Federal 7% State 70% Local 5% Tuition 18%	41% in FY89 38% in FY90
Nebraska	(e)	Light vocational programs 1.50 Heavy vocational programs 1.75 Academic programs 1.0	Only on salary budget.	State 37% Local 41% Tuition 16% Other 6% (includes Perkins and private contracts)	
Nevada	(b)		None for general aid. There are also specific grants for designated target groups (handicapped, disadvantaged minorities, etc.)		41% in FY90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
New Hampshire	No state aid formula.	—	None	Federal 5% State 70% Tuition 25%	28% in FY90 27% in FY89
New Jersey	(f)	Different types of enrollment (e.g., liberal arts, light technology, high technology) generate different amounts of money. Remedial programs also receive more money.	None	Approximately $30 million is allocated for vocational education through the state allocation formula.	13%
New Mexico	(d). Unit rate funding formula based on FTE enrollment with adjustments for increases or decreases in enrollment, and an adjustment for cost factors.	Weights attached for different cost factors.	None	For 2/3 of post-secondary institutions, 100% of funding is through the state allocation formula. For the remaining 1/3, a base level of funding comes from the state, but funding comes primarily from local sources. Revenue breakdown by source not compiled.	100%

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
New York	(d). Unit rate funding formula based on FTE enrollment.	None	None	Federal 1.7% (no further breakdown available)	54% for postsecondary and adult
North Carolina	(d). Unit rate funding formula based on FTE enrollment.	None	None	Federal 2% State 86% Local 9–10% Tuition 2%	33%
North Dakota					25–30% in FY89 and 90
Ohio	(f)	None	State funds can only be used for existing services and programs, not for new programs.	Federal 6% State 50% Local 44% (at area voc/tech colleges)	33% in FY89 and 90
Oklahoma	(f)	None	None	Federal 10% State 40% Local 45% Tuition and other 5%	40% in FY89 and 90
Oregon	(b)	None	None	Federal 10% State 30% Local 30% Tuition 30%	50%

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Pennsylvania	(f)	Yes, general occupational programs in community colleges receive an additional $500 per FTE; advanced technology programs are reimbursed at an additional $1100/FTE; and statewide occupational programs receive an additional $1000/FTE.	Funds must be used for the specific purpose for which they were received.	State 33% Local 33% Tuition 33%	18%
Rhode Island	(a)	NA	None	Federal 5% State 70% Tuition 25%	10% in FY89; 11% in FY90
South Carolina	(b)		None	88% of state funding through the state allocation formula.	15% in FY89 and 90
South Dakota		None	Must be spent on approved programs/	Federal 25% State 65% Local 0% Tuition 10%	44% in FY89 and 90
Tennessee	(f)	None	None		11% in FY89 and 90

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Texas	(f)	None	None	State contribution now less than 50%. Balance through local sources and tuition and fees.	42%
Utah		Weight factor in institutions run by the Board of Regents on new students only. For those institutions run by the SBE (applied technology centers), the weight depends on the intensiveness of equipment and laboratories used in the program. Weights vary from 1.3 to 2.0.	Maintenance of effort policy requires accountability for new vocational student weighted dollars received by each higher education institution.	Federal 2% State 73% Local 0% Tuition 25%	50% for postsecondary, including applied technology centers.
Vermont		None	None	Federal 1.4% State 50% Tuition 40% Other 8.6%	17% in FY90
Virginia	(a)	None	None	Federal 3–4% State 76% Local 0% Tuition 20%	10%

Table 3.5 (continued)

	State Aid Formula[1]	Student Weight Factor in State Aid Formula	Restrictions on the Use of State Funds	Funding Sources	Percent of Perkins Funds Allocated to Postsecondary Vocational Education
Washington	Allocation: negotiated cost-to-continue (see footnote 2, formula a); Allocation: cost driven formula.	None	None	Federal 5% State 95% Local 0% Tuition 18% (which is returned to state for reappropriation)	48% in FY89 and FY90
West Virginia	(a)	None	None	Federal 5% State 90% Tuition 5%	22%
Wisconsin	(f)	None	None	Federal ≤ 10% State 25% Local 50% Tuition 13% Other 2%	55%
Wyoming	(a)		None		35%

[1] Information on the state aid formula is from James L. Wattenbarger and Sherry L. Mercer, *Financing Community Colleges, 1988*, Washington D.C.: American Association of Community and Junior Colleges, 1988 (ED 292 533). All other information was obtained through the NCRVE fifty-state survey.

[2] Letter entries represent the following types of state aid formulas:

a) Negotiation-Cost to Continue Plus: Under this financing mechanism, a base year and a base level of funding are established. Annual changes are negotiated on a program cost basis. This compensates for inflation and enrollment fluctuations. Base years and the related base funding amount are determined on an infrequent basis.

b) Negotiation-Formula Plus Funding: This dual system relies on a rate per unit (e.g. FTE enrollments or some other measure) to fund a portion of community college needs, with additional requirements negotiated annually between the state and the district. No base is established. Instead, a formula funds a portion of the district's needs, and the balance is negotiated.

c) Negotiation-Dual System Appropriation Allocation: One of two options. Either the state system appropriates funds through negotiated methods and allocates funds to colleges by formula, or vice versa.

d) Formula-Unit Rate Formula Funding: Community college funding is determined on the basis of a unit rate formula.

e) Formula-Grant Plus Funding: This formula uses a basic grant and a formula to allocate funds above the grant. The grant may be based on a uniform amount for each institution, or may be based on a variable amount grant, depending on the size ranges of institutions.

f) Formula-Cost Based Funding: Allocation of state funds is based on multiple cost centers, detailed instructional discipline categories, program functions, or budgeted object of expenditures. Cost studies at the state or college level are often an integral part of the funding system. Funding is related to actual costs, which are assumed to vary with program and institutional factors.

[3] Two or three colleges have some local funding because the counties in which they are located have levied taxes for that purpose.

[4] For one voc/tech institute, $150,000 in tuition goes directly to vocational education. For the other colleges, student tuition is returned to support the college, and there is no way to determine what proportion supports vocational education improvements.

[5] Industry subsidizes some programs; $216,000 was expected from this source in FY90.

[6] 50–55 percent of state funding is allocated through the general aid formula.

[7] Tuition was first charged two years ago. In the first year, the money was returned to the general fund, but last year each institution was allowed to keep a portion.

[8] Interest from special trust account.

[9] Breakdown on funding sources is for all community college programs; no separate data are available on vocational programs.

Table 3.6

POSTSECONDARY VOCATIONAL EDUCATION DATA COLLECTED BY STATES

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Alabama	Enrollment by ethnicity, and gender. Course enrollments by instructor.	Yes	Yes	No	No	No	Quarterly census.	Systemwide and individual college reports.	None
Alaska	Nonchangeable information such as birthdate, gender, ethnicity collected by local institutions at time of student registration.			No	No	No	N/A	N/A	Over next three years, plan to begin collecting data on student outcomes. In process of major administrative restructuring.
Arizona	Enrollment by ethnicity and gender.	No	No	No	About 1/3 of local institutions collect reliable data.	About 1/3 of the colleges conduct follow-up surveys.	Annual census.		Plan to include course offerings and enrollments in the future. Also, because of Perkins and accrediting agency requirements, will need to collect student performance and follow-up data.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Arkansas	Enrollment by ethnicity, gender, and course.		Yes		Yes				Expect to collect additional data on academic performance.
California	All state-level data collection stems from the requirements of different funding sources. No single data collection system.	No	No	No	Yes, reported annually, for all those completing a planned sequence of courses.	None by state; some local institutions send out a post-graduation survey.	Annually through VEDs reports by local institutions.		Planned new system to measure program effectiveness and collect more comparable data.
Colorado	Enrollment by ethnicity and gender.	No	No	No	Yes	Yes, beginning to track through the unemployment insurance system.	Annually by program. Local institutions report data.		Plan to continue to build longitudinal data base and to expand data on non-completers for comparison purposes.
Connecticut	Enrollment by ethnicity and gender. Course offerings.		No	No	Yes	No	Annually by program. Local institutions report data.	Reports sent to federal govt., Board of Governors, and legislature. Used for policy recommendations.	None

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Delaware	Enrollment by ethnicity and gender.	Completions by degree awarded.	State does not collect data specifically on post-secondary students enrolled in voc ed.	N/A	N/A	Local institutions conduct annual survey of graduate placements in field.	N/A	N/A	None
Florida	Comprehensive automated system includes enrollment and demographic data. (ethnicity, gender, health, disadvantaged status).	Test scores.	Basic skills test after 450 hours.	Placement as indicator.	Yes	Yes, employment in related field, further education, military service.	Enrollment and follow-up data collected yearly.	Data used to measure placement rate. 70% required for state funds.	Automated system implemented this year. Expect further modifications, including tracking students by social security number.
Georgia	Enrollment by ethnicity and gender. Course offerings.	MAPP, SAT and ACT scores.	No	No	State collects data on graduates, dropouts, and completers.	Local institutions required to track students who leave (drop out or graduate) for 3–6 months. Survey sent both to graduates and employers. Response rate 50%.	Survey	Shares reports with local institutions.	State moving towards fully automated system to track students.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Idaho	Enrollment by ethnicity and gender. Course offerings by institution.	ASSET test scores required to facilitate remediation.		Measured at program level. All programs must be competency-based.	Yes	Yes, statewide and institutional data collected on an annual basis.	Annual mail survey with telephone follow-up. Data collected at institution level.	Annual performance reports for the SBE. Programs subject to termination if placement rate drops below 75% for two consecutive years.	Now requesting that local institutions collect data on those who leave before completing a program.
Illinois	Enrollment by gender, age, ethnicity, and major. Instructor qualifications. Course offerings.	High school graduation date, degrees granted, cumulative GPA.	Cumulative GPA.	Advisory groups' employer follow-up (local level).	Yes	Yes	Survey employment tracking system.	Program evaluation, state reports, IPEDS.	
Indiana	Enrollment by ethnicity, age, gender.	High school graduation date, degrees granted.	No	No	Yes	No. State does not collect data specifically on voc ed students but completion rates can be determined by disaggregating.	Census reports by individual institutions.		Considering plans to track students after graduation.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Iowa	Enrollment by ethnicity and gender.	Number of completers and degrees awarded.	No	No	No	No. Most local institutions collect data on job placements and job skill performance, but do not turn it in to the state.	Annual census.	Reports to federal, state, and local governments.	
Kansas	Ethnicity, age.	Level of education reached.		Follow-up with employer to rate job skills.	Yes	Job placement and employer satisfaction.	Annual census. Employer survey with telephone follow-up interview.	IPEDS data reported to NCES, state legislature, and SDE.	Examining what kinds of data to collect in light of Perkins reauthorization.
Kentucky	Enrollment by ethnicity and gender.	No	Written exit competency exam is required for all post-secondary students in state operated technical schools.		Yes	Yes, collected six months after program completion.			Plans to report on academic progress of those at state-operated schools will likely require a pre- and post-test.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Louisiana	Enrollment by gender, race, age, class schedule, high school grad year, and parish of residence.	No	No	By employer follow-up.	Yes	Yes	Annual IPEDS.	Executive summary for formula allocation report to Board of Regents.	None
Maine	Enrollment by ethnicity and gender.	No	No	No	No	Some local institutions collect these data.	Annual IPEDS.		Plan to develop a state management information system.
Maryland	No specific course enrollments. Traditional demographic data.	No	No	By employer follow-up.	Yes	Yes, annual and biannual class completion surveys.	Annual survey.		State plans to be able to do longitudinal tracking. Also to be able to distinguish serious students from not-so-serious ones.
Massachusetts	Enrollment by ethnicity, gender, class year, and course.	No	No	No	No	Done by local institutions at their discretion; data not reported to the state.	Annual census.		Looking into a student tracking system which would follow students' progress, including transfer to a four-year institution.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Michigan	Enrollment by ethnic and gender composition. Course offerings.	No	No	By follow-up surveys of completers.	Yes	Yes	Annual census.	Reported to federal government.	State plans to concentrate more heavily on outcome measures.
Minnesota	Enrollment by ethnicity & gender. Course offerings.	No	No	No		Survey of program graduates by telephone questionnaire.	Annual follow-up survey and student records.	Disseminated to budget office, curriculum specialists, and student services.	None
Mississippi	Enrollment by gender, ethnicity, and place of residence.				Yes	Yes	Institutions do follow up one year later.	Data used to rate programs. Lowest 8% receive on-site technical assistance; top 10% examined to use as models.	No
Missouri	Enrollment by gender, ethnicity, and geographic origin.	No	No	No	Yes, on exiters, whether they completed a program or not.	Yes	Annual census and mail survey.	Report to legislature, governor, and local institution.	None

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Montana	Enrollment, financial aid data.	ACT scores.	No	No	Yes	Data collected on graduates' placement and student satisfaction.	Quarterly or semester survey.	Summary report to Commission of Higher Education.	None
Nebraska	Enrollments by ethnicity, gender, and course.	No	No	No	Yes, collected by local institutions, but not reported to the state.	No	Collected yearly.	To generate funding by formula, including course weights.	None
Nevada	Enrollment by ethnicity and gender.	No	Yes, at local level.	Yes, at local level.	Yes	Yes, follow-up surveys.	Annual census and sample.	Data reported to Department of Education and federal government.	
New Hampshire	Enrollment by gender and ethnicity. Instructor qualifications.	No	No	No	Yes	Each local institution uses its own procedures for follow-up data.	Census every two years.		Planning a centralized computer data system to collect more data on a statewide basis. Once the new system is implemented, information on student test scores and grades will be collected.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
New Jersey	Enrollment by ethnicity, age, and gender composition.	Student test scores on Basic Skills Test (at entry).	GPA, credit completion, retention.	No	Number of degrees and certificates awarded each semester. Program completion rates.	No	Census each fall semester.		State in process of implementing a unified system for collecting data and tracking students.
New Mexico	Enrollment by ethnicity, age, course area.	No	No	Yes	Yes	Includes placement and job skill performance from employer survey.	Annual census. Survey with telephone follow-up.		State may collect additional data, depending on Perkins reauthorization.
New York	Enrollment by race, ethnicity, gender, student aid.	No	No	No	Yes , by degrees conferred.	Some local follow-up.	Annual census.	Policy analysis and research.	No plans.
North Carolina	Enrollment by ethnicity, age, and sex. Course offerings.	No	No	Some competency tests, and licensing also a criterion for relevant occupations.	Yes	Yes, job placement in related jobs.	Annual census. Follow-up survey of completers at 20% of all institutions and a sample of employers.	FTE computation reported to community college also curriculum planning.	Student progress monitoring system in design. Institution "critical success factors" in pilot.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
North Dakota	Enrollment by ethnicity, gender, geographic origin, and course.		Yes		Yes	Over half the local institutions conduct follow-up surveys.	All data collected by local institutions.	Primarily for funding purposes.	No
Ohio	Enrollment by ethnicity, and gender. Instructor qualifications.		No	No	Yes	Yes, collected 9–12 months after graduation, through a locally administered survey.	Census 3 times a year for enrollment data.		None
Oklahoma	Enrollment by ethnic and gender composition. Course offerings.	ACT scores.	Yes, student grades.	No	Yes	Informal, usually through alumni associations. Considerable variation across institutions.	Census twice a year.	Reports to federal government, state legislature, and state regents.	No plans at this time.
Oregon	Enrollment by race and gender composition, geographic distribution. Course offerings.	Only GED scores.	Yes, by local colleges.	No	No, but plan to do so in the near future.	In the near future for all institutions; 1/3 currently do so.	Census twice a year.	Primarily for funding purposes.	Oregon Automatic Follow-up System currently being tested.
Pennsylvania	Enrollment by gender and ethnic composition Program offerings.	No	No	No	Some local collection.				May change the biannual report to an annual collection.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Rhode Island	Enrollment by ethnicity, and gender.		Yes	Yes	Yes	Yes, telephone survey of graduates (90% response rate).	Annually	Reports and presentations to the Board of Higher Education.	Yes, because new Perkins legislation requires more information on student placement.
South Carolina	Enrollment by age, race, gender, county of residence, social security number, grades, graduation status, course offerings.	Yes	Yes, grade profile.	Yes	Yes	Student placement in related jobs.	Quarterly census.	For funding purposes, program evaluation, and comparison with other states in SREB.	Plans to extend student evaluation beyond testing of academic skills, to include motivation and leadership qualities.
South Dakota	Enrollment by gender and ethnicity.	No	No	No	Yes	Yes, student placement in related field, work in unrelated field, military or unemployed.		Federal reports, state planning, and justification of funding increases.	State possibly planning to collect data on starting salaries and place of employment.
Tennessee	Enrollment by gender, ethnicity, and number of courses taken. Instructor qualifications.	ACT scores.	Local institutions collect data on grades from transcripts.		Yes	Yes	Annual census	Used for budgeting purposes.	None

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Texas	Enrollment by section.	No	No	No	Yes	Some local data on student placement.	Quarterly census.	Reported to financial division for staff use.	Developing system to measure student outcomes.
Utah	Enrollment by ethnicity and gender.	No	Local institutions collect data on grades from transcripts.	Yes	Yes	Local efforts to survey grads and their employers.	Local surveys of graduates and their employers, not data limited to voc ed students.	Federal funding and institutional planning.	State working on a new plan to collect data on program graduates and number of students placed by programs.
Vermont	Enrollment by gender, ethnicity, and program.	No	No	No	Yes	Yes, including placement, wage, or additional schooling.	Annually		None
Virginia	Enrollment by ethnic and gender composition. Course offerings.	No	No	No		Some local colleges collect data; nothing done centrally.	Census every semester.		

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Washington	Enrollment by ethnicity and gender. Course offerings.	Yes, basic skills test required at entry.	Yes	Yes	Yes	Includes job placement, wage, level of student satisfaction, level of employer satisfaction.	Yearly follow-up survey (80% response rate). Track through social security numbers using wage file at Employment Security Deparment.	Summary reports to state voc ed board, legislature, federal government, internal management, research. Internal evaluation.	Expand current efforts.
West Virginia	Enrollment by gender and ethnic composition. Course offerings.	No	To determine academic disadvantage for remediation.	Yes	Yes, inferred from completer's data.	Includes job placement, wage, student satisfaction, license, exam results.	Census each semester. Mail or telephone survey of completers.	Summary reports on follow-up.	Upgrade current efforts.
Wisconsin	Enrollment by race, gender, course offerings, home school.	No	No	Yes, through employer assessments of skill levels, technical knowledge.	Infer from data on graduates.	Includes job placement, job skills, student satisfaction; student and employer surveys.	Annual survey sent to large sample for follow-up.	To determine whether additional studies needed, enrollment stats by Feds for IPEDS report.	Additional data for financial aid purposes.

Table 3.6 (continued)

	Data on all Types of Postsecondary Students		Outcome Data on Postsecondary Students Enrolled in Vocational Education						
	Enrollment, Demographic Composition, Course Offerings	Student Achievement & Attainment	Academic Performance	Job Skill Performance	Program Completion Rates	Follow-up on Completers	Frequency/ Method of Collection	Use of Data	Plans to Collect Additional Data
Wyoming	Enrollments by age, ethnicity, gender composition, numbers of hours taken, part/ full-time, major.	No	No	No	No	No	Varies annually, depending on need.		Plan to collect data on number of course offerings.

Table 3.7

RECENT POLICY CHANGES IN POSTSECONDARY WORK-RELATED EDUCATION

Alabama	Changing technical colleges from strictly vocational to more academically oriented institutions, thus allowing them to be accredited by the same agency as the community colleges. The technical colleges are now required to include academic courses in their degree programs. Certification changed from an institutional-level process to a state-level one, with the academic requirements increased for technical institute instructors.
Alaska	In the process of requiring additional training of postsecondary instructors—they will be required to have an endorsement in their subject area.
Arizona	To remedy a shortage of occupational instructors, the state established a district-specific certificate that allows individual community colleges discretion in hiring individuals who may lack either the required education or relevant experience.
Arkansas	The legislature mandated that all vocational-technical schools in the state implement standardized course syllabi, and that the SBE develop standards for course content. All vocational students will be administered competency-based tests within each occupational area.
California	State regulations to increase the academic content of community college course offerings, but specific definition left to local institutions. Matriculation legislation requires colleges to define skills that students must demonstrate before enrolling in courses. State funds for testing and developing a data base.
Connecticut	Combined community colleges and technical colleges. Technical education coordination council created to ensure that colleges are meeting the needs of business and industry. State technical schools expected to expand their offerings to include more mid-level technology courses.
Florida	Any student enrolled in a voc ed program of 450 hours or longer must be tested in basic math and language skills. Remediation must be provided, and a certificate cannot be awarded unless basic skills standards are met. State requires that 20% of all enrollees complete a program and that 70% of program completers find appropriate employment if a local institution is to retain its funding.
Georgia	Responsibility shifted from local institutions to the state by establishing the Department of Technical and Adult Education (DTAE). Curricula now standardized across the state. Established work-based diploma in Applied Manufacturing Technology. DTAE guarantees that if any technical institute graduate cannot perform the competencies included in the state curriculum, the individual will be retrained at no cost to himself or his employer.

Table 3.7 (continued)

Hawaii	State provided funds to address a nursing shortage through increased student enrollment and faculty hiring at one four-year program and in the state's community colleges.
Idaho	State Board approved bachelor's degrees (BAT and BAS) at two universities which articulate with vocational two-year AAS degrees.
Indiana	Five secondary pilot sites for tech-prep curriculum expected to expand to affect the postsecondary curriculum. By 1994–95, all postsecondary vocational programs must be competency-based.
Iowa	Accreditation standards to be established for community colleges. Regional boards created to assist coordination of secondary and postsecondary programs. Competency-based curriculum to be developed for secondary vocational education and articulated with postsecondary vocational education in the community colleges.
Kansas	Funding increased for state training programs intended to attract new industries, and delivered through the community colleges and voc ed schools.
Kentucky	The SBE mandated testing for all diploma-level courses offered in the state's vocational schools and provided recommended task lists that emphasize the competencies to be tested.
Louisiana	Technical institutes to be evaluated on several performance indicators and institutional report cards issued. With business and industry input, state has developed instructional guides for 67 occupational areas that include requirements and competencies.
Maryland	Academic requirements raised for vocational education degrees. New monitoring system reports performance indicators (e.g., student retention) by campus and program. State targeting challenge grant aid to programs where employment demand high.
Massachusetts	Requirement that all candidates for an AA degree complete a minimum of 60 credit hours, 16 of which must be in general subject matter courses. Following admission, institutions are required to test each student in basic skills, and to place those failing to meet standards in developmental coursework.
Minnesota	State developing voluntary curriculum guides to provide greater consistency in programs across the state and to update program content.
Montana	Governance of voc/tech centers transferred from the SBE to the Board of Regents. Centers no longer administered by local school districts.
Nevada	State appropriated funds to construct new occupational education buildings at all community colleges. As a result, occupational education course offerings have increased.

Table 3.7 (continued)

New Hampshire	Board of Governors established credit requirements for the associate degree.
New Jersey	State Employment and Training Commission established, with broad charge to improve work-related education.
New Mexico	High school students who take courses in a postsecondary institution can be counted for postsecondary funding, as high schools transfer reimbursement for those students to the postsecondary institutions. These students receive both high school and college credit for the courses.
New York	Beginning a review of two-year colleges to ensure that all provide remedial support to students who come under the open admissions policy.
North Carolina	State Board set standards for the length of courses and for the distribution of credits to be applied towards a degree.
Ohio	Secondary students permitted to attend postsecondary institutions at public expense if they are able to meet the entrance criteria.
Oklahoma	The Board of Regents upgraded admission standards and is currently reviewing the mission and function of their institutions in an effort to eliminate duplication.
Oregon	State lottery funds being used to establish 2+2 programs. Regional planning between high schools and community colleges also beginning. Work Force 2000 Act funds several employment training and retraining programs.
Pennsylvania	AVTSs are encouraged to expand in areas with no community college or Penn State campus to offer postsecondary technical training.
South Carolina	Procedures established for assessing programs and student outcomes at postsecondary institutions.
South Dakota	Legislature enacted a bill allowing the four postsecondary vocational-technical institutes to offer Associate of Applied Science degrees.
Tennessee	Developing a statewide automotive curriculum so that local programs can be nationally certified.
Texas	The Texas Academic Skills Program (TASP) requires every public college student to pass a standardized test in English, math, and reading before completing 60 semester hours. If a student fails any portion, remedial classes must be taken in that subject. Regional Quality Workforce Planning adopted in 24 planning regions to meet statewide needs for education and training.
Virginia	State funding articulation projects between secondary and postsecondary institutions.

4. JOB TRAINING PARTNERSHIP ACT (JTPA)

The JTPA program differs from vocational education in four major ways. First, JTPA is much smaller than vocational education. In contrast to the majority of secondary students who enroll in at least one vocational course, JTPA is targeted to specific categories of disadvantaged individuals, with funding sufficient to serve only about 6 percent of the eligible population (U.S. General Accounting Office, 1989). Second, JTPA training and support services are typically shorter in duration and more directly linked to immediate employment than vocational education programs. Third, JTPA is essentially a federal program, with that level of government acting as the prime funder and definer of program performance standards. Fourth, a significant proportion of JTPA services are delivered through institutions—such as community-based organizations (CBOs), proprietary schools, firms, and labor unions—that are outside the public secondary and postsecondary education system.

Despite these differences between JTPA and vocational education, the two programs share several notable characteristics. Some JTPA programs are administered through public education institutions, so that JTPA clients may be enrolled in the same courses as vocational students in community colleges, area vocational schools, and technical institutes. Although the approximately $3 billion a year that represents JTPA's direct funding comes entirely from the federal government, the program also receives state and local support indirectly, since JTPA clients enrolled in public institutions are typically counted in calculating an institution's level of general aid. Finally, the federal JTPA legislation allows a role for state policy. Although their authority may be more circumscribed than it is for vocational education, states designate local service delivery areas (SDAs), and they can establish priorities for how SDAs use a portion of the federal grant.

In this section, we examine JTPA from the perspective of state government and summarize how different states have chosen to implement this federal job training program.

THE ROLE OF STATE GOVERNMENT

Even though the JTPA legislation affords states an opportunity to shape local programs, the majority simply serve as funding conduits and administrators of federal policy. Very few states impose additional performance standards on SDAs, and most use the federal adjustment model in modifying local performance targets. Many states also collect no data on the array of local program services and providers. Nevertheless, a number of states have

decided to use JTPA funds and the service delivery network the program has created to promote state priorities consistent with JTPA goals.

State JTPA administrators were asked about the extent to which the state's governor is involved in JTPA policy decisions as a way of furthering the state's own policy goals. Of the 46 states for which responses are available, 21 reported that their governor is involved in establishing funding priorities, and another 7 said that while the governor was not directly involved, members of his immediate staff were. In the remaining 18, state administrators reported that the governor does not actively participate in establishing state JTPA policies, except to appoint members to the federally mandated State Job Training Coordinating Council. The major ways that active governors influence JTPA is by setting priorities for the 8 percent coordination funds (discussed below) or by requiring that JTPA be coordinated with other job training activities.

A number of states view JTPA as an economic development tool and link it with efforts to attract and retain industry. For example, Georgia allows eligible JTPA clients to be simultaneously enrolled in the state-funded job training program, Quickstart. Through co-enrollment, trainees receive additional support services from JTPA, thus further reducing a firm's training costs and allowing the state to offer a more attractive economic development package. Similarly, because of the governor's action in Oregon, JTPA was moved into the Economic Development Department as a way to highlight workforce issues as a key to economic development.

Other governors have used JTPA as part of an overall welfare reform strategy. For example, in Pennsylvania, one of the governor's priorities is workforce development for those with multiple barriers to employment. Given severe limits on the availability of new funding, he is also concerned about using existing funds cost efficiently and not duplicating programs or service delivery structures. As a result, the governor designated the state's SDAs as the lead local agencies in implementing the state's demonstration welfare-to-work program. In order to encourage SDAs to provide longer-term, more expensive training to those who lack both academic and job skills, the state has also removed all cost standards from the required eight JTPA performance standards.[1] In addition, the state is combining

[1]The JTPA legislation and program regulations mandate that SDAs receiving JTPA funds meet specific performance standards. The federal government has identified twelve standards, from which states select eight that SDAs must meet. For program years 1988 and 1989, the eight adult standards (for the Title II-A program) included the following: percent of participants placed in jobs (68 percent); average hourly wage at job placement ($4.95); average cost of placement ($4500); percent of welfare recipients placed (56 percent); percent of participants employed at 13-week follow-up (50 percent); number of weeks worked at follow-up (8); and weekly earnings at follow-up ($177). The four youth

JTPA, welfare, and state-customized job training funds to support joint projects for welfare recipients. Another example of a state in which the governor has linked JTPA and welfare-to-work programs is Iowa, where the state has required the PROMISE/JOBS program to be delivered locally through the SDAs.

In other states such as Maine, Maryland, Minnesota, New Jersey, and West Virginia, the governor has involved JTPA in initiatives to integrate the state's entire employment and training system. Maryland is an example of a state that has a variety of cross-agency and cross-program activities that support literacy education, job training, and drop-out prevention. JTPA participates in these statewide efforts, and 42.5 percent of its six percent incentive funds are used to reward SDAs that exceed state coordination standards through joint funding and programming at the local level.

As these examples illustrate, activist governors can use the JTPA program to further state priorities and still ensure that federal targeting and performance mandates are met. Nevertheless, about 40 percent of the nation's governors have chosen not to employ JTPA as an explicit state policy tool.

JTPA SERVICES AND LOCAL PROVIDERS

The federal JTPA legislation specifies, through its targeting requirements, who can be served with program funds, and through its performance standards, the types of outcomes that should be produced. But it leaves to states and localities control over decisions about what services should be provided (within some general parameters) and which institutions should provide those services. The states, in turn, have left decisions about services and providers to the discretion of SDAs.[2] As a result, only a minority of states even collect data from local SDAs on the range of services they provide or on which institutions they contract with to provide those services.

Tables 4.1 and 4.2 display data on the distribution of services and providers for those states that collect such information. Table 4.1 indicates that patterns of service provision vary considerably from state to state. With the exception of customized and pre-employment training, all of the 28 states that collect data provide at least some services from each of the

---

standards (for the Title II-B program) include the positive termination rate, cost per positive termination, entered employment rate, and employability enhancement rate.

[2]The major reason that states have left these decisions to SDAs is historical. The Comprehensive Employment and Training Act (CETA), the predecessor program to JTPA, had a minimal role for state governments and gave local administrative units control over service provision. Although JTPA expanded the scope of state action and brought private industry representatives into the local governance of the program through the Private Industry Councils (PICs), relationships among local providers established during CETA have largely been allowed to remain intact.

four remaining categories, and most tend to concentrate their funds in two categories. The single largest category for about half of these states is classroom-based vocational training, while a few states such as Iowa, Oklahoma, and Utah report that large proportions of clients receive training from several different categories.

Even fewer states collect data on the distribution of local providers. SDAs in most of these states appear to use a range of service providers, but in a majority of those that collect data, the single largest category of providers are CBOs. However, several states such as Utah, North Dakota, and South Carolina rely heavily on community colleges and technical institutes, and in Nevada and Michigan, the SDAs themselves provide the bulk of JTPA services. South Carolina uses state agencies and county government, and Wyoming allocates most of its services through the Job Service.

Because of the paucity of state-level data on JTPA services and providers, we have a very limited picture of how local communities are organized to deliver program services.[3] However, our data do suggest that no single service category dominates the JTPA portfolio, although classroom-based vocational training, OJT, and pre-employment training are the most preferred. In addition, with few exceptions, CBOs are the most prevalent service provider, though most of the states reporting data use a variety of providers.

THE SIX PERCENT INCENTIVE FUNDS

States are allowed to allocate up to six percent of their state grants as rewards to SDAs that exceed the performance standards. A majority of states reported using a portion of their six percent funds for technical assistance and the remainder for incentive awards. The proportion that states use for technical assistance ranges from 3 to 60 percent.

About 40 percent of the states specify priorities for either the allocation or use of six percent funds. In Pennsylvania, for example, the six percent funds awarded to SDAs must be spent on welfare clients, high school drop-outs, and other at-risk youth. Seven states (Arkansas, Georgia, Iowa, New York, South Dakota, Virginia, and Wisconsin) require that at least a portion of the six percent funds be spent on various hard-to-serve groups, such as the long-term unemployed, those reading below the sixth grade level, and the limited English proficient. Similarly, Idaho requires that the funds awarded to SDAs for exceeding the performance standards be used on services for youth. In New Jersey, a third of the funds

[3]Other NCRVE reports have examined local implementation of JTPA through in-depth case studies. For an analysis of the different ways that JTPA services are delivered in local communities and the program's relationship to other work-related education and training institutions, see Grubb and McDonnell, 1991. For cases studies of coordination between JTPA and vocational education, see Grubb et al. (1989, 1990).

available as incentives to SDAs are awarded to those that provide higher than expected levels of service to hard-to-serve populations.

THE EIGHT PERCENT COORDINATION FUNDS

As the number of federally funded programs to prepare individuals for employment has increased over the past three decades, Congress has grown concerned about the potential for inefficient duplication and the need to coordinate activities across programs. In an attempt to enhance coordination between JTPA and vocational education, Congress authorized the eight percent funds as a set-aside from each state's allotment that may be used to establish cooperative programs between JTPA and education agencies.

In contrast to the six percent funds, Table 4.3 indicates that the overwhelming majority of states (80 percent) have established priorities for the use of the eight percent funds. In seven states, priorities stem directly from gubernatorial policy objectives. In some states, the priorities are defined as specific activities, most notably drop-out prevention and adult literacy (e.g., Kentucky, Massachusetts, Mississippi, and New York). In other cases, priorities are established in terms of particular client populations such as welfare-to-work clients (California), the economically disadvantaged (Indiana), and inmates of correctional institutions (Oklahoma).

The most common method for allocating eight percent funds is through requests for proposals (RFPs) that are administered through the state department of education, with the grantees typically local educational institutions. However, a number of states use formulas that allocate funds to SDAs, other state agencies, or local vocational training institutions. Maryland spends the bulk of its eight percent funds on a single drop-out prevention program run by Johns Hopkins University and operating in 75 of the state's high schools. A number of states use a combination of allocation mechanisms—e.g., of the portion of eight percent funds that Minnesota allots for direct services to clients, three-quarters is given to SDAs, which must spend half for public assistance recipients; the remainder is allocated through RFPs for programs serving special-needs groups.

Two-thirds of the states use eight percent–funded projects as demonstration projects or model sites. The JTPA administrator in Colorado noted that the eight percent funds are viewed as venture capital that gives people an opportunity to do something innovative for several years; South Dakota funds pilot alternative schools with the expectation that local districts will assume the cost after three years and that the programs can be transferred to other districts. Illinois is planning to fund a demonstration technical preparation program involving high schools and community colleges with some of its eight percent funds. Texas is

funding an interagency effort involving nine demonstration sites that are developing a market-driven training process and implementation guides to make the program available to other institutions across the state.

Half the states also report state-initiated coordination efforts that extend beyond the federal JTPA requirements. Some of the more far-reaching ones include developing quantifiable coordination standards for SDAs with rewards for exceeding those standards (Maryland), granting regional employment boards the authority to approve all publicly funded job training activity in an SDA area (Massachusetts), a single test and application process for all adult literacy services (Mississippi), and the use of job centers that provide "one stop shopping" for employment and training services by coordinating local access to programs administered by eight different agencies (Wisconsin).

Our data do not provide any information either on how these coordination efforts operate in local communities or on the effectiveness of state action.[4]

But the description of state approaches to the use of eight percent funds and overall coordination of education and training services suggests that at least half have concentrated their eight percent funds in areas of importance to the state, and that these funds are one tool in growing efforts to link education and training activities more effectively across state agencies and local institutions. Still, JTPA remains essentially a federal program through its client eligibility requirements and performance standards.

In the next section, we examine joint federal-state efforts to prepare welfare recipients for employment.

---

[4]For case studies of some exemplary state and local coordination efforts using the eight percent funds, see Grubb et al. (1989, 1990). The 1990 report also discusses state use of eight percent funds that meet JTPA client eligibility requirements but do not directly enhance JTPA-vocational education coordination. For example, in 1987, Kentucky spent the bulk of its eight percent funds (77 percent) to provide training in a manufacturing plant established by Toyota, as part of a promise by the governor to attract the firm to the state.

Table 4.1

DISTRIBUTION OF JTPA FUNDS OR CLIENTS BY TYPES OF SERVICE
(PROPORTION OF STATE'S JTPA FUNDS OR JTPA CLIENTS ALLOCATED TO SERVICE[1])

	Remedial/Basic Education	Pre-employment or Motivational/ Work Maturity Training	Classroom-Based Vocational Training	On-the-Job Training	Customized Training	Work Experience or Trial Employment
Alabama	11% of total funds.	13%	15%	13%	< 1%	22%
Alaska	1% of total funds.	25%	50%	20%	4%	2%
Arkansas[2]	22% of funds.[3]			20%		12%
Colorado	15% of clients.	11%	26%	6%	0	42%
Connecticut	50% of total funds.	10%	Included in remedial/ basic education category.	5%		5%
Iowa	10–15% of clients.	30%	35–40%	25%	1-2%	5%
Kansas	8% of total funds.	6%	37%	20%	1%	3%
Kentucky[4]						
Maine	11% of clients.	51%	23%	7%	0.6%	7%
Maryland	35%	20%	35%	5%		5%
Minnesota	3% of clients.		20%	11%		
Mississippi	25% of clients.	27%	23%	23%	1%	1%
Missouri	10% of clients.	31%	19%	25%	12%	2%

Table 4.1 (continued)

	Remedial/Basic Education	Pre-employment or Motivational/ Work Maturity Training	Classroom-Based Vocational Training	On-the-Job Training	Customized Training	Work Experience or Trial Employment
Montana	5% of adult clients. 6% of youth clients.	19% of adults. 22% of youth.	30% of adults. 18% of youth .	25% of adults. 38% of youth.	NA	7% of adults. 20% of youth.
Nevada	Funds allocated on an "as available" basis.	As available.	35%	45%	As available.	As available.
New Jersey	10%		65%	12%		1%
North Carolina	7% of total funds.	42%	18%	31%	NA	3%
North Dakota	12%	12%	50%	23%	0	4%
Ohio[5]	9% of Title IIA funds.	20%	24%	13%		12%
Oklahoma	9% of clients.	20%	45%	37%	8%	4%
Oregon	14% of clients.	27%	13%	14%	17%	27%
Rhode Island	2% of total funds.	29%	43%	19%	3%	4%
South Carolina[6]	16%	11%	25%	11%	7%	10%
Tennessee[7]	35% of clients.	34%	19%	9%	12%	< 1%
Utah	57% of clients.	18%	20%	5%	5%	0
Virginia[8]	—		60%	40%		
West Virginia	10% of clients.	—	40%[9]	10%	30%	10%

Table 4.1 (continued)

	Remedial/Basic Education	Pre-employment or Motivational/ Work Maturity Training	Classroom-Based Vocational Training	On-the-Job Training	Customized Training	Work Experience or Trial Employment
Wisconsin	9% of clients.	5%	56%	19%	1%	14%
Wyoming	1–2%	—	20%	70%	10%	5%

[1]Percentages for some states sum to less than or more than 100%. In some cases, this is due to estimation error or incomplete data. In other states, clients receive more than one type of service, thus producing totals in excess of 100 percent.

[2] These percentages apply to Title IIA funds. The remaining distribution of funds includes 13% for administration, 18% for specific youth programs, and 4% for supportive services.

[3] This category includes classroom-based vocational training, in addition to remedial and basic education.

[4] Although Kentucky does not collect data broken down by type of service provided, the state administrator reported that most JTPA funds for adult programs are spent on classroom-based vocational training and OJT. Money allocated for youth, amounting to approximately 50% of total SDA expenditures, is primarily directed towards remedial and basic education programs.

[5] 14% of Ohio's IIA funds are used for assessment.

[6] South Carolina includes an "other" category, which covers individualized employment and transportation needs based on payment stipends; 20% is allocated to this category.

[7] Excludes Title II-B clients.

[8] In Virginia, all clients begin in remedial/basic education and progress to training after they have been assessed. The data to break down classroom-based vocational training and OJT into customized training or trial employment are unavailable.

[9] This category includes both classroom-based vocational training and pre-employment training.

Table 4.2

DISTRIBUTION OF JTPA FUNDS BY TYPES OF PROVIDERS

	CBOs	CCs and Technical Institutes	High Schools	Area Vocational Schools	Proprietary Vocational Schools	Private Firms	Labor Unions	Other
Alabama	3%	6%	17%	6%	0	28%	1%	39% other government agencies
Colorado	8%	18%[1]	< 1%	—	0	1%	16%	15% state agencies 20% nonprofits 22% SDAs, county govt's and universities
Connecticut	30%	15%	10% (8 percent funds)	20%	3%	Minimal amount	20%	—
Delaware	42%	28%	5%	15%	—	9%	—	2%
Florida	17%	18%[2]	—	—	0	13%	0%	51% other government agencies 49% other nonprofits[3]
Indiana	30%	22%	24%[4]	24%				
Iowa[5]	—	—	—	—	—	—	—	—
Kansas	10%	12%	5%	21%	6%	—	—	—
Kentucky[6]	—	—	—	—	—	—	—	—
Maryland[7]	—	—	—	—	—	—	—	—
Michigan	10%	10%	0–1%	10%	5%	2%	15%	50%[8]
Mississippi	14% of all participants.	16%	6%	5%	0	7%	0	52% (includes state agencies)

Table 4.2 (continued)

	CBOs	CCs and Technical Institutes	High Schools	Area Vocational Schools	Proprietary Vocational Schools	Private Firms	Labor Unions	Other
Montana	45%	2% (or less)	0	3–4%	NA	25% (OJT)	5%	—
Nevada[9]								
New Jersey	10% of all participants.	15%	11% by local education agencies.	9%	32%	14%	—	4% SDAs 4% other
North Dakota	0	50%	10%	20%	0	20%	0	
Oklahoma	15%	5%		35%	Minimal portion of 35% for area vocational schools.	37% (OJT)		
Pennsylvania[10]								
South Carolina	31%	24%	3%	2%	0	17%	0	23% (includes state agencies and county government)
Tennessee	15%	30%	20%	15%	5%	5%	5%	
Utah	25%	40%	5%	15%		15%	5%	
Virginia	29% of funds available to SDAs for services and training.	18%	12%	Included in high school category.	Included in high school category.	40% (OJT)	NA	

Table 4.2 (continued)

	CBOs	CCs and Technical Institutes	High Schools	Area Vocational Schools	Proprietary Vocational Schools	Private Firms	Labor Unions	Other
West Virginia[11]								
Wyoming	6%	10%	See note 12		1–2%		12%	70% (Job Service)

[1] This category also includes area vocational schools.

[2] Community colleges, high schools, and area vocational schools together receive 18% of Florida's JTPA funds.

[3] Florida reports providers in overlapping categories, thus the percentages sum to more than 100.

[4] Included in this category with comprehensive high schools are area vocational cooperatives.

[5] Nine grantees are community colleges. Iowa does not track service providers.

[6] Although Kentucky does not collect data broken down by type of service provided, the state administrator reported that all SDAs use high schools as service providers. Community colleges and area vocational schools are also extensively used. Most SDAs use CBOs, and a few use private proprietary schools as service deliverers.

[7] Specific breakdowns are unavailable, but it is estimated that high schools, followed by community colleges and proprietary vocational schools are the service providers most often used.

[8] The remaining 50% is used by SDAs that provide services directly; some of these also contract with the service providers listed.

[9] In Nevada, 75% of the state's funds remain in-house in the SDAs. Nevada has its own training program that provides OJT and individual training, and the state does not contract with outside providers. The remaining 25% is spent on individual referrals (e.g., for someone who wants to attend a community college or a private postsecondary school).

[10] Information on the distribution of providers is not compiled. However, the common perception is that SDAs prefer voc/tech facilities and community colleges because they cost less. Where there is no voc/tech facility, SDAs will use proprietary schools for specialized occupations. Most SDAs use a variety of providers, including CBOs because it is politically advantageous to do so.

[11] Information about the amount of JTPA funds allocated to various categories of service providers is unavailable, but of the 61 institutions receiving JTPA funds, 25 (41%) are community-based organizations, 7 (11%) are community colleges, 20 (33%) are high schools or area vocational schools, 5 (8%) are private firms, and 2 (3%) are labor unions.

[12] School districts receive about 8% of the eight percent funds available from Title IIA.

Table 4.3

STATE USE OF JTPA EIGHT PERCENT FUNDS

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Alabama	Funds contracted to the Departments of Education and Postsecondary Education through cooperative agreements.	Funds used almost exclusively for remedial education, vocational training, and drop-out prevention programs in high schools and individual referrals to occupational skills programs in postsecondary institutions.	Yes	Yes
Alaska	RFPs (no eligibility restrictions), through the SDE.	Yes. Priorities are mainly directed at Alaska Youth Ready for Work, a private sector group, comprised of PICs interested in providing training programs to students.	No	No
Arizona	RFPs through the SDE.	Yes: adjudicated youth, at-risk youth, entrepreneurship training, and industry-specific training.	Yes	No
Arkansas	50% allocated by formula to SDAs; the remainder by RFPs through the SDE.	No	Yes	Yes, through JOBS coordination, local multiagency planning with the State Policy Academy for Family and Children at Risk, and jointly-funded human services staff training through JTPA, voc ed, and the Department of Human Services.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
California	50% allocated by formula.[1] 30% distributed on an RFP basis.[2] 11% funds staffing for administrative positions. 9% funds statewide priority projects.	Yes. The SJTCC earmarks half of the 8 percent funds for basic education services to GAIN clients and has also established dropout prevention and youth literacy as priorities for the 30% RFP funds. Additional state priorities are assessment centers and workplace learning.	Yes	The Employment Development Department has negotiated 11 non-financial agreements with education and training institutions to articulate coordination arrangements with JTPA programs.
Colorado	Kept at the executive agency level and allocated through RFPs to link state agencies.	Yes: to drive the governor's agenda as well as target hard-to-serve groups such as the homeless, handicapped, and welfare recipients.	Yes	No funding proposal accepted unless evidence that all partners have bought into it.
Connecticut	RFPs through the SDE. Eligibility is limited to LEAs, voc/tech schools, RESCs, and 2-year state colleges. (Other organizations may subcontract with eligible recipients.)	Yes. The governor established at-risk youth as the first priority, followed by out-of-school youth.	Yes	No[3]
Delaware	RFPs through the PIC.	No.	No	Yes. Survey of all education and remediation services, and joint funding of school-to-work transition with state-funded job training program.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Florida	20% for coordination; 80% for programs, typically allocated to LEAs, health and rehabilitative agencies, economic development, and agencies dealing with offenders.	Yes. The governor established three JTPA goals directed at youth: addressing basic skills deficiencies, youth competencies, and youth competencies for AFDC youth.	No	Yes. Various agreements have been formulated—e.g., Florida and Georgia have one on serving clients in cross border areas.
Georgia	RFP through the SDE. About 60% goes to the Department of Technical and Adult Education's technical institutes.[4]	Yes. Remediation is a main priority.	Yes	The state has mechanisms in place to ensure that there are no conflicts in the requirements of different programs.
Hawaii	Formula. The funds are spent by IIA program formula by the four SDAs, with allocations to educational agencies, many of them community colleges.	No	No	No
Idaho	RFPs through the SDE.	Yes: programs that cannot be funded through SDA programs and IIA funds, particularly those for the hard-to-serve such as the institutionalized and chronically unemployed.	No	JTPA works with statewide higher education consortium to provide basic skills and occupational training to those without high school diplomas.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Illinois	Formula. 75% to the State Board of Education and 25% to the Community College Board.	Yes. In conjunction with the State Board and the Community College Board and approved by the State Council, priorities are established annually. Priorities have included services to offenders, school-to-work transition, and tech-prep model programs.	Yes	Yes. Local JTPA offices have referral mechanisms to inform clients about other education and training programs.
Indiana	Formula. 80% provides services for eligible participants, 20% for coordination.	Yes. Not less than 75% of the 80% allocation must be used for economically disadvantaged clients and up to 25% may be used for the non-economically disadvantaged.	No	No
Iowa	RFPs through the SDE. Community colleges, SDA grantees, community action agencies, and education agencies submit proposals.	Yes: school to work transition programs; groups identified under 6 percent funds; offenders; special efforts with the SDE for a literacy council and a local planning council to ensure coordination between education and business councils.	No	No
Kansas	RFPs through the SDE.	Yes: at-risk youth.	Yes	Yes: several employers and training agencies involved in a pilot project to design an assessment system for individualized work skills.
Kentucky	Services contracted for through the SDE.	Yes: dropout prevention and adult basic education.	Yes	JTPA funds a state-level staff position to assist local coordination efforts.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Louisiana	Formula. 80% goes to the SDE for cooperative agreements with local SDAs. 20% is divided between the Department of Employment and Training and the SDE for coordination programs.	Yes: education and training services, literacy training for adults and youth, dropout prevention programs, school-to-work transition services, and skill training.	Yes	The state encourages coordination by maintaining a JTPA representative on the local education councils.
Maine	Formula. Typical recipients are SDEs, technical colleges, and the adult basic education system.	Yes: school-to-work transition and vocational training in the technical colleges.	Yes	Yes
Maryland	Formula. 80% goes to the SDE for direct services, out of which 90% goes to MD's Tomorrow, a drop-out prevention program administered by Johns Hopkins, serving 75 high schools. The other 10% goes to augment special projects (e.g., literacy) in conjunction with the local school system, the PIC, and the Department of Economic and Employment Development. 15% goes to the SDE for administration. 15% stays with the DEED.	Yes, the drop-out prevention is a priority of the governor and his Employment and Training Council.	Yes	Yes. Developing coordination standards that are quantifiable and include operations coordination has produced a reward system (using 42.5% of the 6% funds) which is now in place.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Massachusetts	Administered through the SDE. Up to 20% to coordinate education and training activities through cooperative agreements with other state agencides. The remainder funds projects in priority areas with 1:1 non-JTPA match required (in-kind or cash).	Yes: adult literacy and dropout prevention.	No	PICs changed to Regional Employment Boards with authority to review *all* training provided in an SDA area, so JTPA is linked to other institutions.
Michigan	Combination. 80% for drop-outs, handicapped, and the hard-to-serve.	Yes: drop-outs, the handicapped, and the hard-to-serve.	Yes	Yes. The state has established core groups to enhance coordination among all involved in employment and training.
Minnesota	Combination. Of the 80% that goes to participants, 60% is divided by formula among SDAs. 20% is allocated through RFPs for programs serving special needs groups.[5]	Yes	Yes	No
Mississippi	RFPs through the Governor's Office for Literacy and the SDE.	Adult literacy is the governor's priority.	Yes	Yes. All eligibility criteria agencies for adult literacy are using a single test and application.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Missouri	Combination. Usually through formula, unless the recipient is not a government agency. In that case, it is by RFP.[6]	Yes	Yes	Yes, the state establishes coordination criteria that SDAs must meet.
Montana	Combination of formula and RFP. The funds are divided among the state's 6 population centers, with a single proposal from each area.[7]	Yes: adult and youth basic education; and job-seeking skills, including the "World of Work" program.	No	No
Nebraska	Allocation to SDEs and RFPs through the SDE to community colleges and some public schools.	No	No	No
Nevada	RFPs through the SDE.	Yes. As of FY89, only programs operated by at least two organizations are funded.	No	The Governor's Coordination and Special Service Plan requires memoranda of understanding. Regularly scheduled meetings bring contractors together to discuss program coordination.
New Hampshire	RFPs	No	Yes	No
New Jersey	80% are distributed by formula to all SDAs. 20% are allocated for coordination.	No	No	No

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
New Mexico	Eighty percent of the funds are allocated through a sole source procurement to 15 postsecondary institutions, two 4-year institutions, 1 alternative high school, a state-wide literacy program, 2 SDAs, and 3 CBOs; 20% of the funds are used by the Department of Labor for coordination activities.	Yes: the Department of Labor has established assessment and testing for each potential JTPA participant as a priority.	Yes	Yes
New York	The State Education Department allocates 80% for literacy training or educational services.[8] 20% is used to coordinate education and training services.	Yes. The governor has established literacy programs for adults and drop-outs or potential drop-outs as priorities.	Yes	No
North Carolina	The SDE and the Department of Community Colleges allocate 80% for programs and 20% for coordination.	No	No	No
North Dakota	Used by Dept. of Public Instruction to support 8 adult learning centers and by voc ed for various projects.	No	Yes	No

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Ohio	RFPs; only educational institutions and SDAs approved by PICs eligible to apply.	No	Yes	Yes, through incentive funds for coordination, model sites, and interagency task forces.
Oklahoma	All is given to the State Department of Voc/Tech Education for classroom training and learning labs. The bulk of the funds is for correctional institutions for inmate training programs conducted by state Voc Tech.	Yes. Inmate training is the priority established by the governor.	No, model sites were funded in the past, but a lack of funding prevents that now.	Yes. The state interagency task force on JOBS has helped integrate the state education and training system, facilitating greater coordination and more leverage of funds.
Oregon	Combination of formula and RFP. Eligibility for formula funds is limited to SDAs. Any publicly recognized body dealing with children is eligible for the RFP funds.	Yes: welfare recipients and at-risk youths.	No	Eight percent funds were used in a multi-funded, collaborative effort to serve youth at risk of dropping out of school. Projects were funded using state monies, federal support through drug and alcohol, juvenile services, Perkins, and JTPA funds.
Pennsylvania	Formula used to allocate funds to SDAs.	Yes. Funds are used primarily for literacy and basic skills training and drop-out prevention.	No	Yes. Through Pennsylvania's Joint Jobs Initiative, education is coordinated with the JOBS and JTPA programs.
Rhode Island	Formula used to allocate funds to SDAs.	Yes: literacy and at-risk youth.	No	Yes. RI Workforce 2000 is a state policy to integrate and coordinate all education and training agencies in the state.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
South Carolina	RFP[9]	Yes: through the Governor's Work Force Initiative Program.	No	No
South Dakota	RFP through the SDE and the Department of Corrections with the latter receiving the larger portion.[10] Technically, eligibility is open.	Yes. The governor selected adults in correctional facilities and at-risk youth in school as state priorities.	Yes	The School Transition to Employment Partnership (STEP) program has encouraged local education and training groups to apply as one group and to coordinate facilities and services. The alternative school programs have also promoted coordination.
Tennessee	Through formula to SDAs.	Yes: literacy training in non-institutional settings and tuition and support services for participants in community colleges. Because the JOBS program is run through the JTPA system, these clients are the primary target group.	No	JTPA has strong ties to the JOBS, TAA, Adult Basic Education, and various apprenticeship programs.
Texas	20% for development and capacity-building, (e.g., after-school child care, at-risk youth, or human services.) 80% to SDAs by formula with a set minimum and maximum allocation.	Yes: at-risk youth and hard-to-serve adults. All eight percent funds are set aside for these priorities.	Yes	Yes. The alternative school programs and the interagency quality workforce program involve close coordination among the local SDAs, school districts, colleges, and other training providers.

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
Utah	State and local set-asides: 13% is allocated to the State Office of Education and the Office of Job Training, 7% to SDAs, 12% as a state set-aside for training programs, and the remaining 68% to local areas by formula.	Yes: literacy training, drop-out prevention, school-to-work transition, and any combination of these areas.	No	Yes
Vermont	Closed RFP process primarily between the SDE and the Department of Employment and Training.	Yes: Adult Diploma Program, Jobs for Vermont Graduates, and the Futures Program.	No	Yes, the state has tried to create regional groups of education and training providers to develop their own priorities.
Virginia	State-local agreements. Funds go through the SDE, where the employment and training division works directly with SDAs and school systems.	No, but some priorities under consideration.	No	Yes. From 1987–1988, the state sponsored numerous coordi ion workshops to promote interagency communication, for the purpose of sharing resources, including a common referral base, and to avoid duplication. Participating agencies included Labor and Industry, Economic Development, and the regional offices of Human Resources.
Washington	Allocation to SDAs by formula and statewide RFPs through the state Board for Vocational Education.	Yes. Workplace literacy is the top priority.	No	Yes

Table 4.3 (continued)

	Allocation Mechanism	Whether State Priorities Established	Whether 8% Funded Projects Serve as Demonstration Projects or Model Sites	Whether State Coordination Efforts Extend Beyond Federal Requirements
West Virginia	RFP basis. Any educational entity in either the Board of Regents or State Department of Education system is eligible to apply.	No	No, but this may change in the coming year.	Yes. The Joint Commission on Vocational-Technical-Occupational Education (JCVTOE) was established to facilitate coordination and avoid duplication of effort between education and training institutions. It maintains broad supervisory authority over work-related training efforts.
Wisconsin	Approximately half of the funds goes to the Department of Public Instruction (K–12) and the other half to the State Board of Vocational, Technical, and Adult Education.	Yes: improve functional literacy levels, retain at-risk youth in school, re-enroll drop-outs, coordinate education and training for targeted groups.	Yes	Wisconsin is expanding the Job Centers statewide in order to encourage coordination between local education and training institutions. An effort is also being made to encourage joint planning. This will involve Vocational Rehabilitation and the JOBS program.
Wyoming	RFP. The funds are generally allocated to school districts, but community colleges and CBOs are also eligible.	Yes: drop-out prevention.	Yes	No

[1] This money is distributed on a formula basis, according to the number of GAIN participants on a county-by-county basis. The receiving agency may be either the county welfare office, the SDA or the PIC, or the county department of education.

[2] These funds are distributed on an RFP basis to local education agencies in cooperation with the local PIC. Each request must not exceed $50,000.

[3] The lack of funds has prevented the state from implementing a network of communications and common procedures. The planned system, the Connecticut Initiative, would link together 14 agencies for the purpose of providing services and training.

[4] Local education agencies, including state-run technical institutes and junior colleges, can apply for funding to the SDE, which usually funds only those projects approved by the local PIC.

[5] Special needs groups include minorities, the handicapped, displaced homemakers, LEP, single parents, ex-offenders, public assistance recipients, farmers in crisis, at-risk youth, and those reading below the 7th grade level. Members of any of these groups are eligible to apply.

[6] The Department of Elementary and Secondary Education (DESE), the University of Missouri, and the veterans agency receive the eight percent funds.

[7] This describes Montana's new system, implemented June 30, 1990; prior to that time, funds were allocated by RFP. To counteract demographic inequities in the old system, the new method will ensure that every large city in the state gets some money through a combined formula and RFP.

[8] The funds in the 80% category are allocated to local SDAs; 10% for innovative programs and 90% for regular SDA programs. The State Education Department manages the fund allocations, while the Department of Labor oversees the use of the funds by the SDAs.

[9] The following groups are eligible to apply: 16 technical institutes in cooperation with the Work Force Initiative Program (which coordinates special training programs at tech institutes with the needs of local businesses and industries statewide), the Department of Education, the Department of Corrections, state colleges, career colleges, SC Literacy Association, College of Charleston, and the University of South Carolina.

[10] These funds are used for adult offenders in medium-secure facilities. The SDE uses its portion to fund the STEP program and to provide in-service for teachers, teacher training programs, evaluation of programs, evaluation of the alternative schools under STEP, and training for those teaching in alternative schools.

5. STATE WELFARE-TO-WORK POLICIES

INTRODUCTION

Welfare-to-work policies and programs are relatively new. They represent the latest evolution of welfare policies, which themselves have a fairly short history.

The most significant assistance program serving poor families has been the Aid to Families with Dependent Children (AFDC) program, part of the Social Security Act of 1935. Under the Act, states were required to develop and administer their own public assistance programs under federal regulations in exchange for federal matching grants.

For at least 30 years, the AFDC program provided cash grants and limited social services to people deemed unemployable (Sanger, 1990). The unemployable generally fell into two categories: those who were ill or disabled, and those—by far the larger number—who could not work because they were caring for very young children (Law, 1983).

Over time, societal views of women's relationships to wage work have evolved, fueled in large part by the behavior of middle-class women. As growing numbers of women, particularly married, middle-class women with young children, have entered the work force, women's economic roles have changed and expanded (e.g., National Commission on Children, 1989; Couch et al., 1988). These changes have been most dramatic with regard to mothers of young children: recent data indicate that the majority of women with children under six are currently working.

These demographic changes have altered our earlier notion that caretakers of very young children were unemployable. Growing concerns about sex equity in school and training programs and evidence of the high cost of providing welfare benefits through the AFDC program (e.g., Hayes, 1987) have combined with these new notions concerning women and wage work to create programs to encourage welfare recipients to forsake welfare for employment. (See Handler, 1987, for a description of these programs.)

The first of these programs were small and voluntary. In 1962, the Community Work and Training (CWT) Program was established. CWT provided funds from the Department of Labor to local welfare programs to use for work-related training for welfare recipients. The Economic Opportunity Act of 1964 included the Work Experience and Training program, another effort designed to encourage work. In 1967, the Work Incentive (WIN) program was established through amendments to the Social Security Act. Although WIN was made mandatory in 1971, limited funding did not allow for coerced participation (McDonnell and Grubb, 1991).

In 1981, the Reagan Administration, building on a history of welfare-to-work programs that forced welfare recipients to work in exchange for support, institutionalized its dislike for welfare through initiatives that allowed states to develop their own programs for getting welfare recipients to work. The state programs that were developed varied considerably; they were similar, however, in providing virtually no job skills training or remedial education. Most relied heavily on job search and on work experience to achieve their goals. (See McDonnell and Grubb (1991) for further discussion of these programs.)

The Family Support Act of 1988 (FSA), P.L. 100–485, is the latest in a series of amendments to the AFDC program designed to replace welfare benefits with employment. The FSA required each state to set up JOBS (Job Opportunities and Basic Skills)[1] programs by October 1, 1990, and to have them available throughout the state by October 1, 1992; it provided federal matching funds to do so. In theory, states will be able to use JOBS to increase resources available for job-related education and training. In practice, job search and work experience programs are likely to dominate JOBS (McDonnell and Grubb, 1991).

In the new JOBS program, registration for the program is mandatory for all welfare recipients with children under age three (or, at state discretion, under age one). (See Zellman, Feifer, and Hirsch (1992) for detailed discussion of JOBS.) Mandatory participants are required to enroll in JOBS as a condition of retaining their welfare grants.[2] Failure to participate without "good cause" results in the loss of the individual's share of the welfare grant.[3]

Target Groups. Under the FSA, states must give priority to four target groups:

- Parents under 24 who have not completed high school and are not enrolled in high school or its equivalent;
- Recipients who have gotten AFDC for at least 36 months during the last 60 months;
- Parents under 24 with little or no recent work history;

[1]Although the new federal name for the AFDC employment and training program is JOBS, most states have given their programs different names.

[2]AFDC grant levels vary from state to state, although no state has a benefit level that meets the federal poverty guidelines. In 1987, benefits ranged from 13 percent to 79 percent of the federal poverty guidelines (Axinn and Stern, 1987). As of 1987, 35 states paid less than 50 percent of the federal poverty line (VandeVeer, 1987).

[3]The sanction for failure to participate in the JOBS program is loss of that individual's share of the grant. Assume (using Pennsylvania's grant levels) a parent receives benefits for herself and for one child. A grant for two persons is $316/month. If the parent is sanctioned, the grant is reduced to $205/month, the amount of the grant for the child only. Similarly, if there were three persons on the grant and one were sanctioned, the grant would be reduced from $403 to $316/month.

- Members of a family in which the youngest child is within two years of becoming ineligible for AFDC because of age (16 or 17, depending on whether the state ends AFDC eligibility at 18 or 19).

Employment and Training Components. Each state is required to include certain components in its JOBS program: high school education or high school equivalency education; basic literacy education; education in English as a second language; job skills training; job readiness activities; and job development and job placement activities. In addition, each state must have at least two of the following: job search (with clients required to bring in weekly proof of a specified number of job-seeking contacts with businesses); on-the-job training; work supplementation (subsidized jobs in which the state pays all or part of the wages); and community work experience (work relief in which clients are required to work off their grants, dividing the amount of the grant by the minimum wage and requiring that number of unpaid hours of work for a public or nonprofit agency). The state may also offer vocational or technical school, or college.

Obviously there are vastly different costs involved in implementing each component, and in assigning different numbers of recipients to each one. There is no requirement, however, that any particular component be available to all JOBS participants, or to any specific percentage of them. A state has enormous leeway in determining the availability (and therefore the cost) of any JOBS component.

States are also required to consult and coordinate their JOBS activities with the state agencies responsible for JTPA, with the state employment service, with adult education/vocational education, and with child care and public housing. The state and local welfare agencies must also consult with the Private Industry Councils (PICs) established under JTPA concerning the types of jobs available, or likely to become available, in the area, and on the development of arrangements and contracts for JOBS programs.

Supportive Services. The supportive services mandated by the Act are in some ways its most important feature, as they recognize that training and eventual employment often hinge on child care, transportation, and other services. JOBS requires states to "guarantee" child care and transportation for any participant in JOBS, whether voluntary or mandatory. While the state is "not required to provide child care directly or to otherwise create child care services," it cannot require an individual to participate in JOBS if necessary child care is not available.[4] In many states, this requirement has led to the exclusion of specified groups from JOBS.

[4]Federal Register 42217 (October 13, 1989).

RESEARCH OBJECTIVES

The FSA and its goals were not new to many states. Prior to the FSA, more than half had a program in place for helping welfare recipients prepare for employment that included substantial state funding and that went beyond the requirements of the Work Incentive (WIN) program, the federal welfare-to-work program that preceded FSA.

We collected data about these major welfare-to-work initiatives in order to provide a context for understanding the implementation of JOBS programs and their effects on states and on program participants. These data would serve as a baseline for making later comparisons between welfare-to-work policies and programs before and after JOBS. They would also permit inferences about JOBS's likely implementation, services, delivery systems, and outcomes.

Pre-JOBS Programs

Prior to JOBS, 31 states had major welfare-to-work initiatives that relied heavily on state funding. These programs, which went by a variety of names, served AFDC recipients either on a voluntary basis, e.g., Hawaii and Oklahoma, or on a mandatory basis, e.g., Florida. Most states combined the two; requiring the participation of some people, e.g., those with no children under six (Connecticut, Georgia), or those who were under 21 and without a high school diploma or GED (Minnesota), while allowing others, e.g., those with children under six (Maine, New York) or any food stamp or Medicaid recipient (Hawaii) to volunteer.

Participants. Often, states specified target groups for participation, such as long-term welfare recipients, e.g., Connecticut and Delaware; clients under 21 who had not completed high school, e.g., Minnesota; those with multiple barriers, i.e., less than a high school education and two or more years of welfare dependence, e.g., Pennsylvania. In Minnesota, the state PATHS program had changed its target groups to be the same as those included in the FSA legislation (described above).

In virtually every state, the program included both voluntary and mandatory participants. Since only a small percentage of participants could actually receive services, services were provided first to volunteers in a number of states, e.g., California, Kentucky, and Maine.

Services Provided. The 31 pre-JOBS programs provided a range of services, as shown in column 3 of Table 5.1. Consistent with their welfare-to-work emphasis, all provided or contracted for job training and vocational education. A number offered on-the-job training, job readiness training, and job search activities as well, e.g., Maine, Florida, and Minnesota.

Nearly all also provided educational services. These services in most cases were focused on remediation (e.g., attaining 9th grade reading level in Oregon; 8th grade level in South Carolina). In a few programs, e.g., Minnesota and Vermont, educational preparation could extend as far as a four-year college education.

Twelve state programs indicated that they engaged in formal assessment activities. The other programs did not indicate that formal assessment occurred, but it is clear that decisions about service use and sequencing (e.g., education prior to job skills? is the participant currently employable?) in many other programs were based on some assessment efforts, although these assessments may have been informal.

All programs provided child care support. In most cases, programs limited support to payments to institutional providers, e.g., centers and family day care homes, as in Hawaii. In a few programs, e.g., Illinois and New Jersey, care payments could be made to relatives or friends providing unlicensed care in their own homes.

Transportation was provided in virtually all pre-JOBS programs. In most cases, this involved a stipend, e.g., $25 a month in Kansas. In one program (New Jersey's REACH), van transportation was available. Another program (Connecticut's JOB Connection) provided up to $400 for car insurance, but that benefit was terminated in favor of a transportation stipend.

Eighteen states provided support for incidental expenses to support employability or employment. Typically, these expenses included clothing, tools, and uniforms. A few programs helped with car repairs; some provided eyeglasses and dental exams if they were needed to support employment or employability. A few states also provided an allowance or stipend for program participation; in Ohio the stipend was $25 a month; in Oklahoma full-time participants received $6 a day.

Costs and Funding Levels. The 31 pre-JOBS programs had widely different yearly funding levels, from $1.1 million in Hawaii and $2.75 million in Delaware to $362.6 million in California. Obviously, the differences are due, at least in part, to different numbers of participants; a more comparable figure would be the average cost per participant. Unfortunately, these latter figures were more difficult to obtain. Only 14 programs could provide data on per capita expenditures, as shown in column 4 of Table 5.1. But even these data are not entirely comparable: Georgia, for example, calculated costs per placement ($1651), while Minnesota provided cost per year per participant ($1000, for case management only). Nevertheless, some comparisons may be instructive.

In those states that provided data on costs per participant, these costs range broadly, from Oregon's $4000 per participant to $400 per participant in Virginia. Such substantial

cost differences reflect different decisions that states made about emphasis, target groups, and service providers. These decisions include whether to offer expensive private vocational skills training, or to emphasize far cheaper job search; whether to focus on groups likely to move quickly into jobs, or on those who need extra support to do so; and who will provide services to program participants.[5] These figures also reflect fiscal constraints in some cases.

In every state for which we have data, except Hawaii, federal funds were the major funding source for pre-JOBS programs. In eight states, federal funds covered 50–55 percent of costs; in the remaining 18, federal funds covered more than 55 percent of program expenses. In nearly all states, the share not covered by federal funds was picked up by the state; in only six states did the program tap local funding sources. In four of these latter states, the local share was 10 percent or less. California was a notable exception to this pattern: only 36 percent of funding to the GAIN program was federal, 30 percent was contributed by the state, and 34 percent of funding was borne by local sources.

Anticipated Effects of JOBS

In those states with pre-JOBS programs, we asked respondents to describe or anticipate changes to these programs likely to occur as a result of JOBS. Virtually all respondents anticipated that the JOBS legislation would change their pre-JOBS program in some way, although these changes were expected to be small. The most often cited change (13 states) concerned participant categories. Several respondents noted that they would focus more intensely on hard-to-serve groups under JOBS, a priority group in the FSA. Some, e.g., Georgia, also noted that the FSA created a new group of eligibles that they expected to serve: those with youngest children three to six years old. Two states (Virginia and Washington) expected to serve fewer clients under JOBS; in Virginia these smaller numbers of participants would receive more services. In Pennsylvania, more people would be served under JOBS as JOINT JOBS was expanded to statewide operation.

Greenberg's (1992) data collected in September 1991 reveal that most JOBS participants are members of the federal "target groups." Using data from required state reports, he calculated that nationwide, 63 percent of families in JOBS in September 1991 were members of these groups.

Respondents in five states reported that they anticipated changes in accounting, data collection, or management as a consequence of JOBS. These changes were generally seen as benign, and were not viewed as creating unreasonable burdens on states.

[5]Many programs are in effect subsidized because participants receive education and job training services from the public adult education system or from JTPA.

In four states, the basis of participant involvement would change under JOBS. In Illinois, for example, participation in Project Chance was mandatory for all AFDC and GA (general assistance) recipients with children over six. Under JOBS, the program is offered on a voluntary basis. In contrast, Maryland's program was initially voluntary, but under JOBS, participation is required of most AFDC recipients.

Respondents in five states expected that JOBS requirements would increase client services. Respondents noted the increased educational emphasis of JOBS, especially for teen parents, and the support for case management and more holistic, family-oriented services and the emphasis on job retention as reasons for these changes.

Respondents in three states (Ohio, Massachusetts, and Texas) anticipated that JOBS would result in closer coordination among state agencies and among the program and local service providers. Increased coordination was expected because of a more coordinated planning process, and more contracts with local providers.

The relatively low level of anticipated changes described by our respondents was borne out in data on ten states collected in 1990 (Hagen and Lurie, 1992). These researchers found that overall, changes in welfare program operations have been small, both in states with pre-JOBS initiatives and those without, although for different reasons. In the former group of states, JOBS required minor modifications and "fine-tuning" to comply with the federal legislation. The latter group of states, those without a significant pre-JOBS initiative, have been hampered by limited resources in their efforts to effect change.

Nevertheless, more recent data direct from states' September 1991 reports to the federal government reveal that there has been a significant shift towards education, and particularly basic education, under JOBS (Greenberg, 1992).[6] Greenberg reports that nationwide, 32 percent of those in a JOBS component were in basic education, compared to only about 3.2 percent of those in WIN demonstration programs in 1985. This shift has been facilitated by the relatively low cost to the JOBS program of education programs, which are largely being provided on a nonreimbursible basis, i.e., through JTPA. Indeed, Greenberg's (1992) analysis reveals that job search activities, generally viewed as a lower-cost option, have been costing state JOBS programs more than education ones. About 15 percent of JOBS participants were in job search activities in 1991.[7]

---

[6]Greenberg forcefully and repeatedly warns his readers of the many limitations of these data, including varying definitions, inconsistent targets (e.g., families or individuals), and the possibility that some receiving services and thus included in state totals are not getting them from JOBS. (See Greenberg (1992) for more details.) Readers of this paper should consider these data as suggestive at best.

[7]Greenberg notes that continued expansion of the educational component of JOBS would likely revise these relative costs. At some point, JOBS would be forced to provide or purchase additional

DELIVERY SYSTEMS FOR STATE JOBS PROGRAMS

Many of those involved with welfare reform believe that close integration of employment services and income maintenance, and good management that ensures that people receive the services they need to meet their responsibilities, are crucial to the success of reform efforts (Sanger, 1990). The FSA attempts to improve management by requiring states to consult with and coordinate their JOBS activities with the state agencies responsible for JTPA, the state employment service, and adult education/vocational education. State and local welfare agencies must also consult with the Private Industry Councils (PICs) established under JTPA concerning the types of jobs available or likely to become available in the area, and on the development of arrangements and contracts for JOBS programs (Zellman et al., 1992).

Because management and administration are so important, we surveyed states—both those we had interviewed about their pre-JOBS program and those we had not—about the systems that they had in place or would develop for administering JOBS and coordinating JOBS with other programs.

As shown in column 2 of Table 5.2, nearly all have chosen a single state agency to administer JOBS. In most cases, this is the Department of Human or Social Services, or another department responsible for welfare programs. Two states, Vermont and South Dakota, have designated more than one department to administer JOBS. In South Dakota, the Department of Social Services collaborates with the Department of Labor in running JOBS; in Vermont, JOBS is jointly administered by the Social Welfare and Employment and Training Departments.

As shown in column 4 of Table 5.2, virtually all states have set up some mechanism for coordination between the administering agency and other agencies involved in administering or providing similar services to a similar (or, in some cases, the same) clientele. These mechanisms vary substantially in formality and form. A few states limit coordination efforts to the local level. In Mississippi, for example, local agreements between local Human Resources Departments and the SDAs are designed to promote service coordination and use of the same assessment test. In New Jersey, county-level planning involves the local human service advisory council and the PIC, which together develop an agreement defining the responsibilities of the various agencies.

Most states coordinate at the state level. Eighteen states depend upon a state-level task force, commission, or committee to coordinate the JOBS program with other service

---

educational services, raising the cost to JOBS of these programs and lowering the relative cost of job search activities.

providers and programs, such as JTPA. In Maryland, for example, the state's JOBS program, Project Independence, is part of the Maryland Workforce Investment System. Along with other member programs, Project Independence must submit an annual coordination plan to the Governor's Employment and Training Council. In Oklahoma, the JOBS program is coordinated with the JTPA program through the State Inter-Agency Task Force on JOBS. This task force is comprised of all the agencies involved in the implementation of the JOBS program.

In 16 states, coordination occurs at the state level through meetings, agreements, contracts, or joint funding with other agencies, but without a superagency, such as a commission, involved. In Washington, for example, informal networking between JOBS and JTPA staff has occurred through planning meetings. In Georgia, articulation and coordination agreements between the Department of Labor and the Department of Human Resources for the JTPA and JOBS programs respectively specify which program will service which groups, and include agreements on the part of JTPA to maintain the same level of services provided before JOBS. In Missouri, JTPA provides job training to JOBS participants, a common role for JTPA in JOBS. Finally, in Minnesota, one of the key features of the Omnibus JOBS Bill was language to ensure that the JOBS program (Project STRIDE) would be coordinated with JTPA.

Greenberg's data suggest that coordination between welfare and education agencies has improved substantially under JOBS. Indeed, this coordination has encouraged the posing of a range of questions about what adult education for employability should look like.

Respondents in 46 states were able to tell us whether or not the state was currently providing sufficient funds to the JOBS program to qualify for the maximum federal match. As shown in column 5 of Table 5.1, 24 qualified for the maximum federal match, while 23 did not.

Greenberg (1992) found that on the basis of preliminary data for the fiscal year ending September 30, 1991, states were in fact able to draw approximately 60 percent of the available $1 billion in federal matching funds.[8] Twelve states drew down 95–100 percent of their allocation. In contrast, five states drew down less than 30 percent.

CONCLUSIONS

While the FSA provides states increased funds and new requirements, states have tremendous leeway in implementing the FSA. States can emphasize voluntary participation

[8]Greenberg notes that these data are preliminary because in many cases they reflect funds "obligated" that may or may not ultimately be expended.

or can maximize sanctions. States can choose to emphasize voluntary participation by making the program attractive to participants, by conducting outreach to encourage participation, and by focusing on services and opportunities. Such states can offer large numbers of educational slots, ranging from basic literacy to college programs. Or, states can choose to maximize sanctions by emphasizing the punitive aspects of the program, relying on sanctions to coerce participation. Or, states can limit program costs by decreasing the numbers of welfare recipients. These latter states are likely to focus their programs around components, like job search, that are perceived to be less expensive, rather than on more expensive skills training, and are likely to refer large numbers of participants to GED programs (Greenberg, 1988).

Similarly, the FSA has the potential to vastly increase work-related services such as licensed high-quality child care, which will benefit children as well as parents (e.g., Clarke-Stewart and Fein, 1983; Bryant and Ramey, 1987; Darlington et al., 1980; Lazar et al., 1982). But again, states have the option of simply declaring parents of young children ineligible for JOBS, thus obviating the need to expand child care availability.

Available data suggest that limiting JOBS participation is a common response to the need for child care (Hagen and Lurie, 1992; Greenberg, 1992). The high cost of providing or funding care has led many states to declare those who need child care to be ineligible for JOBS participation.

Thus, the long-term effects of JOBS are not clear. Our data, which we collected as a baseline for making inferences about JOBS' likely implementation and impacts may, however, provide some clues.

Only a few states had begun to come to terms with the hard choices required under JOBS, e.g., whether to serve fewer participants intensively or provide more participants with fewer services (Greenberg, 1988). Consistent with JOBS, many respondents anticipated involving more hard-to-serve groups, and expanding services to mothers of very young children who had not been served before. Indeed, the change that was most often anticipated under JOBS in states with substantial pre-JOBS programs was the adoption of the FSA target groups. These target groups reflect the FSA emphasis on those with the highest probability of long-term dependency. Such participants—teen mothers, high school dropouts, long-term welfare recipients—are likely to require intensive educational and job training services if they are to qualify for, find, and keep jobs with wage rates that lift their families out of poverty (Nightingale, 1987). These intensive services are very expensive, which explains in part why they have not been offered to large numbers of participants in state programs in the past (Sanger, 1990).

Greenberg's (1992) data indicate that to some degree JOBS has begun to address these goals. Most JOBS participants are drawn from the federal target groups (63 percent of families in JOBS). A large percentage (32 percent) of JOBS participants are in a basic education activity. Seventy-three percent of JOBS participants nationwide were in a "human capital" component, e.g., education, skills training, postsecondary education, or a self-initiated component.

However, resource constraints may limit this movement. In most states, only a small percentage of those eligible are participating in JOBS because of limited program funding. Nationwide, about 10 percent of AFDC families are participating in JOBS. Limited funds have particularly reduced participation in some states of those needing child care. In addition, very limited use of transitional child care and high initial attrition from jobs paying poverty-level wages suggest that JOBS cannot realize its ultimate goals of client self-sufficiency without additional support to clients, at least during the transition period (Greenberg, 1992).

Respondents in five states expected that JOBS requirements, particularly the increased emphasis on schooling for teen mothers, would increase client services. But other data (e.g., Zellman et al., 1992) suggest that such educational services often offer little more than re-enrollment in educational programs that former students found unworkable and dropped out of in the past.

Coordination among welfare, social services, and job training agencies is critical to ensuring optimal outcomes. Our data indicate that virtually all states have established some mechanism for coordination between the administering agency for JOBS and other agencies involved in administering or providing services to JOBS participants. Greenberg's data indicate that coordination has in fact improved.

According to our respondents, most interagency coordination represented little or no change in current practice. The FSA required that an agency be designated as the coordinating agency; in nearly every case a single state agency experienced in the administration of welfare programs was named. The few states that anticipated changes in coordination and administration as a result of JOBS saw these changes as fairly insignificant. Most involved changes in accounting, data collection, or management that were not seen as imposing undue burdens.

It is clear in our data that only a few states had begun to consider the need to coordinate the provision and delivery of child care to JOBS participants. This service—crucial to the participation of mothers of young children, who are targeted in the FSA—may

present supply problems in some cases, and integration and financial challenges in every case (Sanger, 1990).

Overall, our respondents anticipated few changes in their pre-JOBS programs as a result of JOBS. But this did not mean that respondents were blasé about JOBS. Many viewed new JOBS funds and requirements as an opportunity to provide better, more intensive services to those who need them most. Limited program data suggest that JOBS has resulted in increased involvement of federal target groups and a greater focus on human capital development. But the ultimate effects of these changes remain to be seen.

Table 5.1

STATES WITH PRE-JOBS WELFARE-TO-WORK PROGRAMS[1]

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Arkansas	Project Success	AFDC recipients. Mandatory if youngest child aged 1 or oler, others may volunteer.	Adult basic education; GED, vocational and postsecondary training; work experience; assessment; job development and placement; counseling; case management; transportation; child care; transitional benefits.	FY91 $5.5 million FY92 $6.2 million	Federal: 61% State: 39%	Additional supportive services. Transitional funds for medical and child care.
California	Greater Avenue for Independence (GAIN)	AFDC recipients. Participation can be deferred for temporary situations.	Education; job training; employment services; referral to personal counseling; child care; transportation; ancilliary expenses.	$362.6 million $1000/participant	Federal: 36% State: 30% Local: 34%	JOBS legislation did not change the types of services provided, but changed the categories of program participants.
Connecticut	Job Connection	AFDC recipients . Participation is voluntary if youngest child is less than 3, mandatory if older than 3.	Education; job training; employment services; child care; transportation; clothing and equipment; fees and certain medical expenses.	$21.9 million	Federal: 50% State: 50%	Daily participation allowance has been eliminated under JOBS.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Delaware	First Step	Long-term welfare recipients.	Education; job training; stipend for child care; health services.	$2.75 million	Federal: 55% State: 45%	More through assessments, more emphasis on the hard to serve.
Florida	Project Independence	AFDC recipients; program is mandatory.	Vocational training; OJT; work supplementation; adult education and testing; employment skills; day care; transportation; tools; uniforms; job club; group orientation.	$30 million $800/participant		Reduced flexibility and increased data collection pressure since JOBS.
Georgia	Positive Employment and Community Help (PEACH)	AFDC recipients with children over the age of six required to participate; under six is voluntary.	Initial assessment; education, job training; job search; work experience; child care; meals and transportation; assessment.	$12 million $1651 per placement	Federal: 60% State: 40%	New categories of recipients are required to participate under JOBS. Now mandatory for parents of children over three years instead of six years of age.
Hawaii	Project Success	Any welfare recipient of AFDC or General Assistance; voluntary participation.	Training expenses; education; 12 month transitional program; child care; transportation; clothing and tools; Medicaid.	$1.1 million yearly	State: 100%	Changes to the format of services provided: motivational training program set up; in-depth preliminary assessment; career path employability planning series; strong emphasis on education.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Illinois	Project Chance	AFDC recipients; mandatory for beneficiaries with children over the age of three. Volunteers served first.	Adult education; GED evaluations; college program; work experience; job search and employ-ability; child care; Medicaid; tools and clothing; transportation; literacy testing; case management; mentorship.	FY91: $38.1 million for direct services.	Federal: 90% direct services (up to $6.2 million) 60% direct services 50% support services State: 10% direct services (up to $6.2 million) 40% direct services 50% support services	Current program takes volunteers first, whereas prior program was primarily mandatory; new job retention component; movement toward greater use of case management; literary test and employability; plan drawn up for new entrants to program.
Kansas	KANWORK	AFDC recipients; mandatory if child over 3. Youth over 16 not in school or job training.	Training and tuition; assessment; family mentor program; life skills; buddy/mentor; child care; transportation; eyeglasses; tools; work related expenses.	$23 million $2000/participant	Federal: 60% State: 40%	Changes in reporting regulations and paperwork requirements.
Kentucky	Jobs for Education and Training	AFDC recipients required to participate; exempt if child under six.	Education and job training; job search; health care; child care; transportation; living allowances; work-related expenses; transitional child care and health care benefits.			Case management responsibilities shift from Department of Employment Services to Department of Social Insurance.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Maine	Welfare Employment Education and Training (WEET)	AFDC recipients with children over six. Volunteers served first.	Education; job training; job search; job readiness; child care; health; transportation; case management; clothing.		Federal: 50% State: 50%	More formal program orientation. Better match rate.
Maryland	Investment of Job Opportunities (IJO)	AFDC recipients, some areas mandatory, while others voluntary participation.	Initial assessment; remediation; English second language; Adult Basic Education; job skills training; job readiness; job search; OJT; child care; transportation; clothing.	$19 million $1500/participant	Federal: 63% State: 37%	Slight modification of target population. Slight changes in assessment procedures/ reporting forms. Formerly voluntary, now mandatory for most AFDC recipients.
Massachusetts	Employment and Training Choices	AFDC general relief and food stamp recipients. Volunteers enrolled first.	Education; vocational skills training; job readiness; job search; supported work; case management; education, career planning; child care; health care; transportation; transitional health and child care.	FY 89: $86 million	Federal: >50% State: <50%	Some mandatory participation. Stronger interagency coordination, priority to JOBS target populations.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Michigan	MOST program	AFDC families, general assistance recipients, refugees, food stamp recipients, migrants. Participation mandatory if children over 6 months.	Assessment, general education, job training; job search, OJT; advanced education; client relocation; living allowances through AFDC only; child care; health benefits; transportation, miscellaneous job-related expenses such as car repair and clothing.	$42.5 million	Federal: 62% State: 38%	Changes in categories of program participants with greater emphasis on hard-to-serve clients. Addition of job readiness component.
Minnesota	PATHS program	Clients under 21 years without high school diploma, AFDC recipients 24 out of 36 months, caretakers under 21 without GED or diploma.	Assessment, education and job training; resume writing; job search; case management; academic and vocational education; child care, transportation.	$19 million $1000 per year/participant (case management only)		Change to federal target groups, stricter sanctions, expanded mandatory school attendance among those less than 20.
New Hampshire	Access to Career and Training	All AFDC and food stamp recipients. Mandatory participation.	Case management; education and job training services; job search; child care subsidies; health benefits; transportation expenses.	$2.3 million $131 per participant per month	Federal: 60% State: 40%	Substantial change. Expanded services to include job readiness, job search, OJT, education, transportation, additional (2 years postsecondary) child care, tuition.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
New Jersey	REACH program	AFDC parents with children over 2 years.	Educational services; literacy education; ESL; GED prep; adult basic education; college tuition; job search; assessment and evaluation; job training and OJT; counseling; travel expenses; child care.	$56 million	Federal: 50% State: 50%	No significant changes, except change in responsibility for orientation process.
New York	Comprehensive Employment Program	AFDC recipients with children over 6; mandatory participation.	Assessment; employability planning; job search; work experience; training incentive money.	$66.7 million	Federal: 60% State: 25% Local 15%	Greater emphasis on basic education, job training and postsecondary education.
North Carolina	The AFDC Employment Program	AFDC recipients; mandatory participation with certain exemptions.	Education and job training; academic assistance; job readiness; job search; personal and family counseling; child care; health support services; transportation; supportive housing; clothing.	$4.7 million	CWEP: Federal: 50% State: 25% County: 25% WIN: Federal: 90% State: — County: 10%	Greater emphasis on job retention; greater emphasis on correcting basic life skill deficiencies; approach more holistic under JOBS, includes family assessment and total need focus. Greater participation under JOBS.
Ohio	Fair Work Program	Welfare recipients. Participation mandatory if children over 3.	Education; training; allowance; child care; transportation; health benefits.	$345/fiscal year	Federal: 55% State: 45% Local: <1%	More contracts with local providers, more intra-state agency involvement.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Oregon	NEW JOBS	Mandatory participation for AFDC recipients with children over 3 and recipient not disabled, but program targeted to volunteers.	Vocational evaluation and training; life skills services such as weight loss, self-esteem workshops, drug and alcohol rehab with counseling; support services: day care, transportation, car repairs or purchase, clothes, medical services, transitional services.	$8.4 million $4000/participant	Federal: 50% State: 50%	Greater targeting of specific client groups. Greater focus on outcomes. Attempts to shorten training time.
Pennsylvania	JOINT JOBS initiative: Single Point of Contract (SPOC) and Traditionally Needy (TN) (New Directions)	AFDC and General Assistance clients; mandatory participation.	Education and training; job search; vocational assessment; medical services; day care; transportation; including car repairs.	SPOC: $21 million $4000/enrollee New Directions: $16 million $200–300/client	SPOC: Federal: 63% State: 36% TN: Federal: 61% State: 39% New Directions: Federal: 50% State: 50%	JOINT JOBS expanded to state-wide basis. Greater and more delineation of state's expectations regarding SDA performance.
Rhode Island	Pathways to Independence	AFDC recipients, teen parents and unemployed parents mandatory.	Education and training; job readiness/search; child care; clothing, transportation; medical and other supportive services.	$3000-$4000 per person	Federal: 60% State: 40%	Greater focus on the hard to serve. More education for teen parents.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
South Carolina	Work Support Program	All AFDC mothers with children 6 years or older.	Education and training; job readiness/job search; vocational assessment; work support; child care; transportation.	$7 million $777/placement	Federal: 71% State: 29%	Custodial parents with child less than 6 years exempt unless they qualify because aged 16–19 without high school diploma.
Texas	Employment Services and Food Stamp Employment and Training	Exempt and non-exempt AFDC recipients and mandatory and voluntary food stamp recipients.	Case management; assessment; education; job skills training; job readiness; job development; job placement; job search; OJT; transportation; work-related expenses.	State FY 1990: AFDC : $3.7M FS E&T: $10.2M	AFDC: Federal: 60% State: 40% FS E&T: Federal: 81% State: 19%	Greater monitoring and tracking of clients. Automated data collection system. Greater coordination of planning process among state and local agencies.
Utah	Self Sufficiency Program	AFDC recipients; mandatory if children over 3 years of age.	Case management; self-directed job search groups; self-esteem groups; child care; one-to-one counseling.	$5.6 million	Federal: 76% State: 24% and small amount of money for job training only	Slightly different population served. Greater restrictions on expenditures. Greater tracking and accountability of client compliance with the contract.
Vermont	Reach Up	AFDC recipients; voluntary participation; federal target groups.	Case management; education and training; child care; health; transportation; community work experience; job search; OJT.	$6.4 million $1650/person annually	Federal: $2.43M State: $1.75M JTPA: $2.0M	Greater focus on hard to serve. Reduced postsecondary time allowed.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Virginia	Employment Services Program	AFDC and general relief recipients; mandatory if children over age 6.	Community work experience; job search; educational services; academic linkages; child care; transportation; clothing.	$8 million $400/participant	Federal: 60% State: 40% Small amount of local money	Fewer clients served, but those served will be receiving greater intensity of services.
Washington	Family Independence Program (FIP)	AFDC recipients; mandatory for new applicants to AFDC (replaces AFDC). Employment and training services voluntary	Education and training; job search; college tuition; case coordination; day care; transition benefits; medical coverage; transportation; clothing.	State FY 1991: $10.8 million	Federal: 50% State: 50%	Adoption of JOBS reporting requirements and target groups.
Wisconsin	Work Experience and Job Training Program (WEJT)	AFDC recipients; mandatory participation.	Employment skills assessment; job search; employment training plan; remedial education; vocational education; transportation; day care; medical assistance extended.	$40 million $1200/participant	Federal: 57.5% State: 37.5% Local: 5%	Greater targeting of current client groups.

Table 5.1 (continued)

	Name of Program	Recipients	Services Provided	Funding Level and Avg. Cost Per Recipient	Funding Sources	Changes in Programs as a Result of JOBS
Wyoming	Wyoming Opportunities for Work	Unemployed parents of AFDC families; participation mandatory.	Case management; job clubs; job readiness; child care; transportation; clothing.	$3.8 million (New JOBS program)	Federal: 67% State: 33%	Extended client groups beyond unemployed parent recipients. Stopped "pay for performance" requirement. Greater prioritization of client groups. Inclusion of "self-initiative" group that sets up own program.

[1]To be included in this table a state had to have implemented a program prior to JOBS designed to help welfare recipients prepare for employment that included substantial state funding and went beyond the WIN program requirements.

Table 5.2

STATE JOBS FUNDING AND DELIVERY SYSTEMS

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Alabama	No	Department of Human Resources	JTPA; Adult Education; community colleges and Employment Security Agency.	Jointly funded project with Department of Youth Services. SDAs required to serve a specified percentage of JOBS clients. Department of Human Resources sits on State Job Training Coordinating Council.
Alaska	Yes. Funding level will follow federal guidelines.	Division of Public Assistance	Adult Education Center; local high schools; private contractors.	Steering committee to administer 8 percent funds consisting of university system, Department of Education, SDAs, and OAVE. Also some planned linkages with JTPA and Department of Labor and Education; also local agreements among JTPA, Education, and JOBS to assure nonduplication of services.
Arizona	Yes. The federal match will be $3,868,500.	Department of Economic Security	JTPA; schools; community-based organizations.	
Arkansas	Yes	Department of Human Services	Vocational Education; Employment Security Department; Literacy Councils; community colleges; public schools.	State level: ESD, Higher Education, Vocational Education, Department of Health, Industrial Development Corporation. Local level: Local planning groups, which include business community, client, and agency representatives.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
California	No[1]	Department of Social Services	County welfare departments; local EDD offices; JTPA SDAs; community colleges; adult education schools; some community-based organizations.	Designation of portion of 8 percent funds to be set aside for GAIN participants. Conforming legislation enacted to allow "refugee" money to be linked with both JTPA and the GAIN program.
Colorado	No	Department of Social Services	JTPA; Labor and Employment; community colleges; public schools.	Coordination between JTPA and Department of Social Services through "Memorandum of Understanding." Funds linkages common, e.g., with Education, Voc Rehab.
Connecticut	Yes	Department of Income Maintenance	Department of Labor; private and public institutions; PICs; community and technical colleges; Department of Human Resources; Department of Education–Department of Higher Education.	Connecticut Employment and Training Commission coordinates JOBS with JTPA.
Delaware	No	Department of Health and Human Services	Community-based "community action" agencies.	Memo of agreement with JTPA.
Florida	Yes (Except for child care, for which there is no cap.)	State Human Services Agency	JTPA; community colleges and local school districts; Job Training Coordination Council.	Joint planning between JOBS and SDAs.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Georgia	Yes (This is debatable, given the information in the UCB coordination report.)	Family and Children Services	Insufficient information.	Articulation and coordination agreements between the Department of Labor and the Department of Human Resources.
Hawaii	Yes	Department of Human Services	Community colleges; private community counseling; adult education programs; four-year universities; JTPA; public & private literacy programs.	Task force put together by the Department of Human Services includes JTPA administrators, DOE, community colleges, employment services, child care, and other private agencies.
Idaho	Yes	Department of Health and Welfare	Local community colleges; Department of Employment and Security; Centers for New Direction; Idaho Migrant Council; community-based organizations.	Food Stamp ENT Program; SDAs and local human development offices develop contracts.
Illinois	No[2]	Department of Public Aid	Departments of Children and Family Services, Rehabilitation Services, Employment and Security; JTPA; Illinois Community College Board; State Board of Education; Secretary of State.	The governor's task force on welfare reform includes JTPA members, State Board of Education, Community College Board, Department of Child and Family Services, Department of Commerce and Community Affairs.
Indiana	Yes	State Welfare Department	Department of Employment and Training; JTPA.	Coordinated with the Department of Agriculture for receipt of federal funds through food stamps.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Iowa	No. FY90 funding was $3,103,543 from state and $5,816,848 from the federal government.	Department of Human Services	Employment Services; JTPA.	Interagency group including Department of Human Services, Employment Services, Economic Development, Education, Management of Human Rights.
Kansas	No[3]	Department of Social and Rehabilitation Services (Welfare Agency)	Job service staff; JTPA; State Department of Education; Voc Ed Department; community literacy groups; nonprofit and private day care; community volunteers.	With JTPA through special projects and contracts.
Kentucky	Yes	Department of Social Insurance	JTPA; Department of Education; Workforce Development Cabinet; Kentucky Literacy Commission; Department for Employment Services; Department for Social Services; nonprofit and private day care.	JOBS planning councils established by Area Development Districts include, at minimum, representatives from: Department for Social Services, Department for Employment Services, Literacy Commission, local secondary schools, higher education, voc ed, adult ed, community action, Head Start and other child care providers, Private Industry Council, transportation providers, housing authority, clients/advocates.
Louisiana	Yes	Office of Family Support	Local school systems; JTPA; vocational/technical schools; Department of Employment and Training; private providers.	Governor's task force on decisionmaking for implementation of JOBS included all related state departments (Education, Labor, Economic Development), client groups, and child care and community action agencies.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Maine	Yes	Department of Human Services	JTPA, Department of Labor; local child care providers; Displaced Homemakers; other private agencies.	Governor's Human Resource Development Commission.
Maryland	Yes	Department of Human Resources	Department of Economic and Employment Development; Department of Education; Department of Health and Mental Hygiene; community colleges, and community based organizations.	Maryland Workforce Investment System links all state and federal programs providing education and training, including JTPA. Project Independence management team includes governor's office, department heads and local representatives.
Massachusetts	Yes	Department of Public Welfare	Department of Employment and Training; JTPA; community colleges; Department of Education; community-based organizations.	Coordination through Regional Employment Boards, Massachusetts JOBS Council, and interagency work groups.
Michigan	No[4]	Department of Social Services	Community agencies; schools and other training institutions.	Michigan Job Opportunities Bank coordinates with JTPA, also SDA core groups coordinate efforts.
Minnesota	No[5]	Department of Human Services	JTPA providers; community groups; vocational colleges; Job Service Offices.	Contacts between JTPA and JOBS. Links with DSS, the grant diversion program, State Job Service, and Department of Education.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Mississippi	Yes. State funding is $1.8 million.	Department of Human Services	Department of Education; JTPA; Employment Security Commission; Governor's Office of Literacy; local community-based organizations.	Local services coordination agreements between local Human Resources Departments and SDAs.
Missouri		Division of Social Services	Division of Family Services (child care and transportation); Employment Security Agency; JTPA; Department of Education (adult basic education, GED, ESL)	Linkage of JTPA and JOBS; JOBS as case manager, JTPA provides job training.
Montana	No. Montana will be able to provide three quarters of what is required.	County director in each of Montana's 56 counties will run program. Department of Social Services will provide funds and guidelines.		
Nebraska	No	Department of Social Services	JTPA; Goodwill; Indian Center.	No formal policies.
Nevada	Yes. Nevada will provide $994,405 for FY91.			Partnership programs with JTPA.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
New Hampshire	Yes. New Hampshire is providing $756,000.	Department of Health and Human Services, Division of Social Services	Division of Human Services; Employment Security; Job Training Council; Department of Education (ABE); vocational rehabilitation.	Coordination with JTPA, Perkins, DOE, Employment Services. Employment training and welfare (ETW) Task Force initiative coordinates JOBS plans.
New Jersey	Yes	Department of Human Services	County colleges; JTPA and local SDAs; private proprietary schools; Department of Community Affairs; Employment Services offices.	Local human service advisory council and PIC jointly plan the program and develop an agreement defining the responsibilities of the various agencies that support the program.
New Mexico	No	Department of Human Services, Income Support Division	Department of Labor; JTPA; Department of Education; postsecondary schools, housing authority; Job Corps.	Written agreement for coordinating JOBS with JTPA and Job Corps.
New York	No[6]	Department of Social Services, Bureau of Employment Programs (within DSS)	JTPA; community colleges; local school districts; adult training schools (BOCES); community agencies.	Formal coordination agreements required with JTPA agencies, adult and voc ed agencies, and state economic development zone program.
North Carolina	Yes	Division of Social Services	Employment security commission; community colleges; public and proprietary schools; JTPA; housing authority.	Informal linkages of JOBS with Perkins funds programs, state and federal programs, and the interagencies coordinating committee; coordination of JOBS and JTPA through Department of Human Resources.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
North Dakota	No	Department of Human Services	Job service, public schools; community colleges; JTPA; private providers; vocational education.	Co-enrollments and joint funding by JTPA and Voc Ed; much informal coordination.
Ohio	Yes	Department of Human Services	Community colleges; Department of Education, Adult and Community Education; voc ed; JTPA; OBES; drug and alcohol; Board of Regents.	Inter-Agency Task Force; Governor's Coordinating Council
Oklahoma	Yes. Oklahoma provides 66%.	IVA Agency, Department of Human Services or Welfare	Vocational/technical training and general education; community college; Job Corps Centers, JTPA, and SDAs.	State interagency task force on JOBS coordinators program with JTPA. Also non-financial cooperative agreements with JTPA, community colleges.
Oregon	Yes ($4.2 million for the period 7/1/89–10/1/90.)	Adult and Family Services	Staff at Adult and Family Services; Goodwill; state Employment Division; community colleges; mental health institutions; JTPA.	JOBS linked to the Economic Development Department; cooperative agreements between the Office of Community Colleges, Office of Adult and Family Services, and JOBS.
Pennsylvania	No[7]	Department of Public Welfare	JTPA; community college; secondary schools; area voc/tech schools.	Mandated local joint management committees, which include the welfare office, JOB service, local school districts, and the SDAs.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Rhode Island	No	Department of Human Services	Department of Education; Department of Employment and Training; Community College of Rhode Island.	Contracts between departments of Employment and Training and Human Services. Coordination with Workforce 2000, JTPA, voc ed, Head Start, and community-based organizations.
South Carolina	No[8]	Department of Social Services (State Welfare Agency)	Department of Education; local school districts; Literacy Association and literacy councils; Department of Mental Health; alcohol and substance abuse councils; employment services commission; JTPA and JTPA providers; PICs.	Coordination with JTPA, PICs, employment security. OJT with local businesses and industry. Governor's coordination and special services plan for JTPA, Office of Adult Education, Departments of Vocational Rehabilitation and Health, Commission on Alcohol and Drug Abuse.
South Dakota		Department of Social Services, Division of Economic Assistance's Family Independence Program, with collaboration of the Department of Labor	Department of Labor, JOB Service Division; JTPA; educational institutions.	Same staff at DOL handle the JTPA and JOBS services programs.
Tennessee	No	Department of Human Services	Contracts with Department of Labor and JTPA; adult basic education; educational institutions; Perkins programs; and community-based organizations.	Fourteen Family Support Councils coordinate with JTPA, Education, Board of Regents, schools, and other agencies.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
Texas	No	Department of Human Services	Direct services by department case managers; contracts with the Texas Employment Commission; Service Delivery Areas; and other private agencies.	Standing Interagency Planning Committee comprised of representatives from other state agencies and organizations serving AFDC and food stamp recipients.
Utah	Yes	Office of Family Support	JTPA; community colleges; rehabilitation services; vocational education and others.	Coordinating meeting with JTPA, DSS, and Office of Family Support every two months.
Vermont	No	Social Welfare and Employment and Training departments	Department of Education, Mental Health and Community Service Programs.	Service delivery and funding coordination with education and JTPA.
Virginia	No[9]	Department of Social Services, local departments	Local social service agencies; secondary schools; community colleges; private tutors; trade schools; JTPA; CAP agencies.	Local coordination with JTPA. Adult education, Headstart, voc ed, Literacy Foundation, gender equity projects.
Washington	No	Social and Health Services Department	Employment Security Department; proprietary schools; private industry councils; private nonprofit corporations; local businesses.	State-level planning meetings with JTPA; local coordination with college financial aid officers, community-based organizations.

Table 5.2 (continued)

	State Match Met for Maximum Federal Funding under JOBS	Administering Agency for JOBS Programs	Agencies Delivering Services to JOBS Clients	Coordination with Other Programs
West Virginia		Department of Health and Human Resources, Bureau of Income Assistance, Office of Work and Training	Service contracts with providers.	Articulation agreements with DOES and JTPA. Job Training Coordinating Council has both the Commissioner of Employment Security and the Commissioner of Income Assistance.
Wisconsin	No[10]	Department of Health and Human Services	Postsecondary vocational system; community education support agencies; JTPA; employment services; community action agencies.	Wisconsin Job Council coordinates link with JTPA and JOBS.
Wyoming	Yes. The state pays $1,163,110 and the federal government $2,617,990.	Department of Family and Social Services	Community colleges; secondary institutions; private colleges; JTPA; Job Service; Vocational Rehabilitation.	Informal linkage with JTPA. Common Employability Plan for JOBS and JTPA clients. Meetings as needed of JTPA and JOBS staff.

[1] The maximum amount of Title IV-F funds California could receive for the 1990–91 year is $149.7 million. Currently the state receives $118 million of these funds.

[2] FY91 federal maximum is $53.5 million. State estimates receipt of $19.8 million for direct and indirect services through Title IV-E.

[3] No information on state funds given. The JOBS program has been on hold.

[4] The federal maximum is $54 million. Michigan is receiving about $27 million.

[5] Federal maximum unknown.

[6] Federal funds available for FY90 were $89 million. Anticipated federal and state expenditures for state FY 91–92 are $50.2 million federal, $19.6 million state.

[7] Pennsylvania is at about half the cap for its match, and can draw $47 million from the federal government.

[8] The federal maximum is estimated to be about $9.5 million. The state is currently receiving about $6 million.

[9]For FY 90–91, Virginia will be eligible for $13 million, but will not have match for total amount.

[10]The state provides about $18,000,000 to the program. The federal maximum is $22,000,000.

6. STATE-FUNDED JOB TRAINING PROGRAMS

State-funded job training programs, in contrast to those described in the two previous sections, receive no federal financial support and are shaped not by federal directives, but by state-specific political and economic factors. Although these programs take a variety of different forms, they share a common objective of providing short-term training customized to the needs of individual firms. Because they are designed as economic development tools, their primary purpose is to attract new industries to a state or retain those already there. Consequently, unlike JTPA or JOBS, the primary client for most state-funded programs is not the individual worker who receives the training, but the firm that defines the training needs and receives the economic benefits of a more skilled work force.

At the time of our survey, 47 states had some kind of state-funded program, while several had more than one program operating. A few states, primarily in the South, established their job training programs in the 1960s; many more were created in the 1980s, and the most recent ones are only two or three years old.

The policy problem that all state policymakers reported addressing with these programs was the need to stimulate economic development. However, definitions of the problem have shifted over time as programs have evolved and economic conditions have changed. When state job training programs were first started thirty years ago, they were designed largely to influence the locational decisions of firms. Most of the original programs were started as a way to attract industrial firms and allow states in the Deep South to shift away from what were essentially rural economies. As more states developed programs and as the states' industrial bases shifted, "smokestack chasing" became a less effective strategy. Therefore, states have increasingly redirected at least part of their efforts towards a job retention strategy that helps firms upgrade so that they can remain economically competitive. Although the need to attract new firms (particularly foreign ones) remains a priority in most states, program goals have expanded over time (Osborne, 1988; Fosler, 1988; Ganzglass and Heidkamp, n.d.).

These programs are often quite visible in states and local communities and are viewed as exemplars of state policy innovation. Nevertheless, as the information in Table 6.1 indicates, most programs are small. Only eight states fund their programs at more than $10 million a year, with six providing less than $1 million a year and almost half (22) funding them at between $2 million and $6 million annually. As a result, these programs serve only a limited number of firms and workers, and their budgets are dwarfed by those for vocational

education, JTPA, and JOBS. State-funded job training programs may be important primarily for the flexibility they provide, for their facility in responding to the needs of particular employers in ways that other education and training programs cannot, or perhaps just for the symbolic value of mounting a training program clearly linked to economic development. Despite their high profile in many states, however, these programs do not represent a major portion of the resources available for education and training.

This section presents a brief overview of state-funded job training programs, focusing on the kinds of recipients served, funding arrangements, and the types of institutions used to deliver training. What emerges is a picture of substantial variation from state to state within a common framework of short-term training, customized to the needs of specific firms.

RECIPIENTS AND SERVICES

As the second column in Table 6.1 indicates, one source of variation among states is how they define eligible recipients. The majority place some restrictions on the kind of firms that may apply for services, with the most common being that a firm must be new to the state or expanding its work force. About 30 percent of states with programs either require or prefer that participating firms be manufacturers. A few states have more specific requirements. For example, Iowa does not support health, retail, or professional establishments; Virginia funds training for manufacturing and service firms, but not agricultural or retail employment; and in Kansas, retail establishments are not eligible for support. These restrictions are intended to limit program support to those sectors that are most mobile, and therefore most likely to respond to training incentives. In addition to limiting the types of firms eligible for services, states may also decide to concentrate their funds on particular firms or industries. For example, in the late 1980s, Alabama's largest project was training a work force for a space lab Boeing was operating in the state; Alaska's new program was concentrating on the construction industry and on firms focusing on new applications of over-the-horizon radar.

The decision to make firms, rather than the individual worker, the primary target represented a major change in how publicly funded job training programs had been designed historically. With this demand-side approach, individual workers benefit from job training only if they are current or prospective employees of firms receiving program services. However, some more recently established programs have taken a multipronged approach to the problem of economic development. For example, Illinois has three state-funded job training programs targeted at very different groups. The High Impact Training Services Program provides training for firms that are planning to locate in Illinois or to expand their

operations. A second program, the Industrial Training Program, is designed to assist firms whose production is expanding. A third state initiative, Prairie State 2000, has two component programs. The first, the Individual Training Assistance Program, provides training vouchers to persons who are unemployed or in danger of being laid off. The second, the Employer Training Assistance Program, is designed to provide training services to firms that are either unprofitable or whose investment in capital equipment has left them with insufficient resources for training. Like Illinois' individual assistance component, Michigan's program targets workers who have been laid off or are in danger of losing their jobs.

The Bay State Skills Corporation (BSSC) in Massachusetts is another example of a state entity, initially designed to promote economic development by brokering training for firms, that has expanded its mission to include training services for target groups. It runs a Displaced Homemakers program, which operates as a system of networks providing job training, counseling, and referrals. BSSC also provides employment training services to those participating in Massachusetts' welfare reform program, ET Choices.

State-funded job training programs tend to be the shortest in length and the narrowest in focus of those examined in this survey. Training typically lasts from one to four months and focuses on job skills specific to a particular firm (e.g., fabricating, finishing, and assembling wooden store fixtures; offset film layout, development, and production). State funding usually covers training costs, including instructors' salaries, equipment, facilities, and supplies. Some states fund other related services such as curriculum development (Nebraska), trainee recruitment (South Carolina), and child care (New Hampshire). Most training is provided either in the classroom, on the job, or in a combination of the two settings.

State-funded training programs are also characterized by significant flexibility and adaptation to an individual firm's needs. State-level respondents reported that this flexibility is key to convincing businesses, traditionally suspicious of governmental job training efforts, to view these programs as incentives for locating in the state or for upgrading their existing operations. As a result, the major criterion—and often the only one—for judging program effectiveness has been whether or not there is employer demand for the program's services. However, some analysts have suggested that because these programs typically do not collect information about trainee characteristics and outcomes, they are held less accountable for the expenditure of public funds (Stevens, 1986) than JTPA with its mandated performance standards.[1]

[1]The Employment Training Panel (ETP) in California was designed to address this accountability problem, at least partially. The program is based on fixed-price performance contracts:

FUNDING

As shown in the fourth and fifth columns in Table 6.1, states vary in their decisions about who will bear the cost of these programs and how they are financed. Eighteen states require that participating firms bear some of the training costs, usually in the form of a one-to-one match, though program administrators report that firms often spend more. The assumption is that through targeting and the matching requirement, state funds will be leveraged to produce effects greater than actual state expenditures.

States can also manipulate the program costs they reimburse as a way of encouraging firms to target their training activities. For example, Pennsylvania's Customized Job Training Program provides an incentive for firms to include new hires who are unemployed or disadvantaged or to locate in an economically distressed community by paying 100 percent of the training costs, instead of the 80 percent usually funded by the state.

A major variation in the funding of these programs comes in the way some are financed. The majority receive their funding in annual appropriations from the state legislature. However, three states—California, Delaware, and Rhode Island—are funded through taxes specifically earmarked for the training program. Because federal law prohibits using unemployment tax revenues for job training, that tax in all three states was reduced by 0.1 percent and a new tax was imposed at the same rate. This arrangement provides California with the best-funded program of any state and generates for the small states of Delaware and Rhode Island funding equal to or greater than that of some larger states that must depend on annual legislative appropriations. Perhaps the most unique arrangement is the mechanism that Iowa uses to fund its New Jobs Training Program. Community colleges are able to issue up to $18 million a year in tax-exempt bonds to fund training costs. These are then repaid through incremental property taxes (on new equipment, added building value) accrued from businesses where new jobs have been created and through a corporate income tax. The repayment of training costs can take up to ten

---

training institutions are not reimbursed until a trainee has been employed for at least 90 days in a job that utilizes the skills learned.

Although this mechanism means that trainee outcomes are taken into account, it has raised a different set of issues related to the allocation of public funds. Because of the uncertainty about whether or not they will be reimbursed, training institutions prefer to take contracts where the ability to meet the 90-day requirement is high—namely, retraining those already employed by a client firm. Of the 3923 people who received ETP training through 1985, 40 percent were current employees of firms requesting training services. Analysis of the impact of completing ETP training on post-training earnings shows a significant effect of between $3000 and $4000 for new hires, but a statistically nonsignificant difference for those being retrained (Moore et al., 1988). Some respondents in our survey argued that by encouraging an emphasis on retraining (as opposed to creating new jobs), ETP was making it easier for firms to request state funds to pay for upgrade training that they might otherwise fund themselves.

years, and participating firms' taxes are not increased above what they would pay otherwise. Their incremental taxes are simply diverted from the state's general funds to pay for the training costs.

DELIVERY SYSTEMS

Another factor that distinguishes among state programs is whether a state has decided to establish a new institution to administer the training services, or whether it relies on existing ones. Although the overwhelming majority of states involve schools or community colleges in delivering such services, several—California, Kentucky, Massachusetts, Minnesota, and Rhode Island—have established quasi-independent boards whose members are appointed by the governor and who run the program outside of traditional executive agencies. Policymakers assumed that because these programs would not be bound by the norms and procedures of existing bureaucratic agencies, they could be more flexible in marketing and providing firm-specific training.

Other states, however, have used traditional state agencies to administer their programs. In Pennsylvania, for example, the program is administered by the state department of education, and firms applying for customized job training must submit their application through a local education agency (school district, area vocational-technical school, community college, state college, or university). In this way, the state guarantees that even if educational institutions do not directly deliver training services, they are involved in designing and monitoring them.

As part of their economic development programs, most states provide training directly or reimburse for training provided by others. However, as noted above, Illinois offers vouchers of up to $2000 to unemployed individuals and ones worth up to $1000 to those in danger of being laid off without retraining. These vouchers can be used at public and private-sector training institutions to cover such expenses as tuition, fees, and supplies.

Regardless of how state programs are administered, most rely on a variety of institutions to provide the actual training. Probably the most common service-delivery model across all states with programs is a community college or vocational-technical institute working directly with the client firm in designing and delivering the training. Variants on that may include training provided by labor unions (Alaska), private vendors (Michigan), colleges and universities (New Hampshire, Pennsylvania, Utah, and Washington), and local PIC-SDAs (Delaware, Maryland, North Dakota, and West Virginia).

State economic development training programs interact in very different ways with JTPA and Perkins-funded programs. Program administrators in several states noted that

the state programs were designed as alternatives to the "red tape" and "strings" associated with JTPA and the earlier CETA program. Respondents also talked of the need for their programs to overcome the negative images of government training programs that members of the business community hold, based on their perceptions of federally-funded programs. For example, one administrator explained why her program has no formal links with JTPA:

> Most firms have not dealt with state government before. Employers associate JTPA with welfare and unemployment, and they think that [the] unemployed are lazy.

However, a number of states maintain a variety of formal and informal links with the federally funded programs. For example, Idaho reports using Perkins and JTPA funds wherever possible to make state funds extend further. Illinois requires that applicants to the Industrial Training Program use federal funds first and outline in a letter the extent of cooperation with JTPA. Indiana targets its program on firms employing at least 25 persons, and encourages smaller firms to use JTPA. Delaware administers 75 percent of its Blue Collar Jobs program through the PIC, which also administers JTPA and a variety of other federal programs. That state sees the purpose of its program as filling the gaps left by JTPA.

CONCLUSION

The expansion of state-funded job training programs over the past decade is the most recent example of the diversification of education and training policy. Although several state programs, particularly in the Midwest, have targeted the training of dislocated workers and those not served by JTPA, the primary client of these programs remains the firm and the overriding objective is still state economic development. With a few notable exceptions, these programs are small and most report being unable to fund all eligible firms requesting assistance. Nevertheless, despite their small size and limited scope, state job training programs are viewed as a critical component in state attempts to fashion a coherent industrial policy.

Table 6.1

STATE APPROACHES TO JOB TRAINING FOR ECONOMIC DEVELOPMENT

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Alabama	Alabama Industrial Development Training Institute	Manufacturers	Recruitment; management; training; upgrade; consultation. Focus is on employed workers.	1988 $6,000,000	100% legislative appropriation	Department of Education. Mobile units are used for training. Companies recruited by Alabama Development Office; administered by governor's office.
Alaska	1) State Training Employment Program 2) Business Incentive Training Program	Small firms, new businesses; construction and technology firms.	Training for employment and "allowable costs" such as childcare, uniforms, tools, emergency medical and dental.		State's unemployment trust fund	Jointly administered by the Department of Labor and the Community and Regional Affairs Agency. Training can be delivered through an established training agency, college, voc/tech center, union training program, professional development provided by an industry.
Arkansas	Arkansas Industry Training Program (AITP)	Any firm with more than 20 employees.	Pre-employment and OJT. All residents eligible.	FY90 $2,000,000	100% legislative appropriation	Vocational education. AITP designs program in firm's local area. No money allocated to firms except for instruction.
California	California Employment Training Panel	Firms	Fund training programs; consultation[3]	1988 $55,000,000	Unemployment insurance (UI) tax substitute[4]	Administered by a 7 member panel appointed by governor. Panel helps firms to design programs, but does not operate actual program. Firms free to select facility.[5]
Colorado	1) Colorado First Customized Training Program	New or expanding companies.	Training costs, including instructors' salaries, equipment, facilities, and supplies.	FY90 $1,400,000	Legislative appropriation	Jointly administered by the Governor's Office of Economic Development and the Community College and Occupational Education System.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Colorado (continued)	2) Existing Industrial Program	Expanding companies undergoing technological change.	Training costs, including instructors' salaries, equipment, facilities, and supplies.	FY90 $300,000	UI funds	Jointly administered by the Governor's Office of Economic Development and the Community College and Occupational Education System.
Connecticut	Customized Job Training	New and expanding firms, typically small and medium-sized manufacturing businesses. Firms adopting new technologies.	OJT and classroom training mostly: technical, occupational, and basic skill training, customized for the employer and delivered in the workplaces.	FY89 $3,143,000 2:1 firm match necessary.	100% legislative appropriation	Administered by the Department of Labor; services delivered through firms' own personnel or public institutions, especially community colleges and technical schools.
Delaware	Blue Collar Jobs Act: 1) Delaware Development Office 2) Private Industry Council	1) Start-up and expansion companies 2) Workers	1) Entry-level and upgrade retraining through OJT. 2) Focus is on workers who are underemployed or who have previously participated in JTPA.	FY89 $1,600,000 1:1 match can be waived.	0.1% assessment on UI tax.	1) 25% administered through Delaware Development Office. Employer submits proposal and is then linked with local institutions or trainers. 2) 75% administered by PIC to cover areas not covered by JTPA.
Florida	Sunshine State Skills Act	Any company is eligible.	OJT classroom training. All residents eligible.	FY89 $3,965,000	100% legislative appropriation	State Board of Colleges. Funds allocated to community colleges to provide training. Initial contact can be made by either business or college.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Georgia	Quick Start	New and expanding Georgia companies (creation of new jobs).	Pre-employment training, customized job-specific training, and productivity enhancement training.	FY90 $5,200,000	100% legislative appropriation	Administered by the State Department of Technical and Adult Education Services; services delivered through statewide system of technical institutes. Department of Labor involved in pre-program design, trainee recruitment.
Idaho	New Industry Training	Any firm that is creating a job is eligible.	Classroom only.	1988 $100,000	100% state voc ed set-aside. At least 1:1 match.	Vocational education/funding proposal process conducted through schools.
Illinois	1) Industrial Training Program	Any firm with $1M investment or 100 new jobs eligible.	OJT: reimbursement. Program pays 50% of wages; all residents eligible.	FY89[6] $32,600,000	100% legislative appropriation	Department of Commerce. Department of Education has indirect role. Some firms use community colleges for training.
	2) Illinois high-impact Training Services (HITS)	Prefer manufacturing workers.	Classroom and OJT. Any resident eligible.	FY89 $1,300,000	100% legislative appropriation	Firms and educational institution write joint proposal. Grant allocated to school to pay instructor or reimburse firm for training costs.
	3) Prairie State 2000	Firms	50% of training cost.	FY89 $3,000,000	100% legislative appropriation	Two programs: 1) Individual voucher for upgrade/retraining; employed/unemployed eligible. 2) Grant/loan to firms that could not otherwise provide training.[7]

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Indiana	1) Basic Industry Training Program (BIRT)	Firms with new capital investment, retraining current employees. Focus on manufacturing employers.	Reimburse costs of instructors and training materials.	1990 $5,100,000	100% legislative appropriation	Dept. of Commerce reviews and approves program. Funding administered through the Indiana Vocational Technical College which also assists firms in program design.
	2) Training for Profit (TIP)	Same as above.	Same as above.	1990 $6,000,000	Same as above.	Same as above.
	3) Strategic Development Fund (SDF)	Group of firms in a specific industry working on cooperative development projects including joint training programs.	Same as above.	1990 $1,500,000 Grant and loan program; 50% match required; maximum grant is $250,000; maximum loan is $500,000	Same as above.	Dept. of Commerce reviews and approves program. Funding is administered through a city, town, county or not-for profit group whose primary purpose is to promote industrial or business development.
Iowa	Iowa New Jobs Training Program	Firms, health, retail, and professional firms ineligible.	Pre-employment testing; classroom; OJT; instructor salary. Any resident is eligible.	FY88 $17,000,000	Incremental property and withholding tax[8]	Department of Economic Development. Community colleges assist in program design and project approval; Economic Development Department provides technical assistance.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Kansas	Kansas Industrial Training Program	Basic industry firms creating at least 10 new jobs.	Pre-employment; OJT; classroom. Any resident is eligible.	FY89 $1,900,000 1:1 match required in retraining programs only.	78% legislative appropriation; 22% Perkins	Department of Commerce. Recruitment done by Department of Human Services. Voc Tech assists Department of Commerce in program design. Majority of training performed at work site, with small amount performed at community colleges and voc tech centers.
Kentucky	Bluegrass State Skills Corporation (BSSC)	Private firms and nonprofit hospitals.	Pre-employment training; OJT; classroom; trainer training. Any worker is eligible.	FY89–90 $2,900,000 1:1 match	100% legislative appropriation	Quasi-independent agency connected to Department of Economic Development. Consisting of representatives from business and government. BSSC works with community colleges, voc ed schools, and universities to encourage joint programs. Applications are submitted by schools.
Louisiana	Customized Industrial Training	Prefer manufacturers; must create 10 new jobs.	Pre-employment for entry level; some OJT. Any resident eligible.	FY88–89 $150,000	100% legislative appropriation	Department of Economic Development. Recruiting performed by Office of Employment Security. Training usually performed by a company supervisor, using voc tech facilities.
Maine	Governor's Training Fund[9]	New and expanding firms that will create new jobs.		FY89 $1,000,000	100% legislative appropriation	Jointly administered by the departments of Labor and Economic and Community Development; all services delivered through public institutions.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Maryland	Maryland Industrial Training Program	Prefer manufacturing firms.	Program does not provide training directly. Develops and brokers training and conducts business assessments. Focus is on welfare recipients and "hard to serve."	FY89 $790,000	100% legislative appropriation	All training needs referred to voc tech and community colleges. Service needs referred to SDAs.[10]
Massachusetts	Bay State Skills Corporation[11]	Firms; any firm eligible.	Brokering services; job training; counseling; referrals. All residents eligible.	FY89 $5,600,000 1:1 match for 50/50 program.	100% legislative appropriation	Quasi-public board appointed by governor. 50/50 programs designed jointly by private sector and education. Firms must be included in proposal.
Michigan	Michigan Job Opportunity Bank (MJOB)--Retrain	Workers. Any firm is eligible.	Mostly classroom. Focus is on laid-off employees and those facing layoff.	FY89 $2,000,000	100% legislative appropriation	Governor's office. Workers apply through schools. Approval by Office of Job Training; payment based upon completion of training and hire. Colleges consult with local business to design programs.
	Michigan Job Opportunity Bank (MJOB)--Upgrade	Manufacturing firms with less than 500 employees; workers.	Training grants to firms for employers costs. Focus is on workers facing layoff.	1988 $2,000,000	100% legislative appropriation	Employees design training program using voc tech centers, community colleges, and vendors. Firms reimbursed based upon number of employees trained.
Minnesota	Job Skills Partnership (JSP)	Any firm is eligible.	Retraining; entry-level and advanced. Portion of instructor costs, equipment, supplies, etc.	1988 $500,000	100% legislative appropriation	Board of Directors appointed by governor. Direct funding to educational institution. JSP directs firms to local schools; firms and schools work together to design program.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Mississippi	Industrial Training Program	98% to manufacturing firms, remainder for special circumstances.	Most training done through the community colleges; state reimburses for instructors' salaries and supplies.		100% legislative appropriation .	Administered by the SDE. Funds allocated to community college on a "first-come, first-served" basis. They contact industries and jointly develop training.
Missouri	Customized Industrial Training	Prefer manufacturers, also assist expanding companies.	Classroom training; OJT; trainers' fees. Any resident eligible.	1987 $10,500,000 1:-1 match in effect due to 50% payment.	14% JTPA 48% State development fund 38% SDE	Division of Job Development and Training. Recruiting performed by Department of Economic Development. Community colleges and voc centers administer classroom training funds.
Nebraska	Skilled Training and Employment Training (STEP)	New or expanding firms.	Pre-employment screening and assessment. OJT, skill upgrade training and services such as physical exams. Curriculum development.	1989 $1,275,000 ($700,000 to match with Perkins funds)	100% legislative appropriation (firm pays 50% of OJT salaries)	Department of Economic Development issues contracts to firms; some pre-employment training done at community colleges.
Nevada	Nevada Quick Start Job Training Program	New firms relocating to state and in-state expanding firms.	Skills training for blue collar occupations.	FY90 $150,000	100% legislative appropriation	State Commission on Economic Development, community colleges, State Job Training Office, State Employment Security Office.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
New Hampshire	Governor's Task Force for Economic Development	New firms coming into the state that adhere to environmental standards.	Training and support services (e.g., childcare).	1990[12] $550,000 1:1 match		Task force coordinates services; firms apply through PIC; training delivered by private colleges, voc techs, and high schools.
New Jersey	New Jersey Job Training Program	Prefer small to medium firms.	OJT; classroom training; outreach job search; any resident eligible.	1988 $4,000,000 1:1 match can be waived.	100% legislative appropriation	Department of Labor, overseen by Governor's Commission. Classroom training by schools or employer.
New Mexico	Industrial Development Training	Prefer manufacturers.	OJT: classroom training. Any resident who is a U.S. citizen is eligible.	FY90 $3,500,000 1:1 match	100% legislative appropriation	Department of Economic Development and Tourism, and the Department of Education. 3-member board representing Department of Labor. Education, Economic Development and Tourism departments assist firms to develop proposals; Board reviews. Department of Education administers program.
New York	Employer Specific Training Program	1/2 mature industry 1/2 small, woman- and minority-owned businesses.	Focus on unemployed and dislocated workers.	FY89 $13,000,000	22% federal 23% JTPA 18% voc ed 30% state	Education Department. 10 regional offices assist schools and firms to design programs. Grant requests from schools, to regional office, to state, then back to schools.
North Carolina	Training for New and Expanding Industry	New or expanding manufacturing and service firms.	OJT. Classroom training and materials development.	FY90 $8,000,000	100% legislative appropriation	Department of Community College System. College and firm design program together.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
North Dakota	Specialized Job Training for new and expanding businesses.	Firms.	Skills and upgrade training; state funds instructor salaries, materials, curriculum development.	1990 $100,000	50% federal 50% state	State Board for Vocational Education administers training provided by schools, JTPA, Jobs Service.
Ohio	Ohio Industry Training Program	Manufacturing businesses; outreach to minority- and woman-owned firms.	OJT. Classroom training, 50% of costs.	FY89 $11,000,000 1:1 match in effect due to 50% payment.	100% legislative appropriation	Department of Development. 19 local districts. Proposals to state through districts. Funding to local educational institutions, which serve as fiscal agents. Companies reimbursed for training costs.
Oklahoma	Industrial Training and Development	Prefer manufacturers.	Classroom only, any resident eligible.	FY89 $2,000,000	100% legislative appropriation	Department of Voc Ed Services, delivered through 48 schools. Recruitment by Department of Commerce.
Oregon	1) Targeted Training Program	New or expanding businesses.	Specific job skill training for particular occupations.	FY89–91 $1,100,000 Minimum 51% match.	100% legislative appropriation from lottery funds.	Economic Development Department administers training provided by community colleges.
	2) Key Industry Training	Two or more businesses in an industry association, or profession.	Skills and literacy training common to industry.	FY89-91 $550,000 1:1 match.	Same as above.	Same as above.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Pennsylvania	Customized Job Training Program	All firms eligible, except retail and health care.	Entry level; upgrade training, classroom training; OJT.[13]	FY89 $15,500,000	100% legislative appropriation	Under Department of Voc Ed. There is also a task force representing each involved agency. Task force reviews applications, sends to departments of Commerce and Education. Education disburses to voc tech institutions, community colleges, universities, and private schools for delivery.
Rhode Island	Workforce 2000	All firms eligible; prefer small ones.	Funds skills and educational training programs and labor market research. Emphasizes employment of underutilized segments of the population.	FY89 $4,000,000 1:1 match sought.	0.1% business tax	36-member council of government, business/industry, education, labor, and social service representatives.
South Carolina	Special Schools Program	50% new business 50% expanding businesses.	Training and equipment, pre-employment training services, which include trainee recruitment and curriculum development.	FY90 $6,500,000	100% legislative appropriation	State Board for Technical and Comprehensive Education administers program. Sixteen technical colleges provide instructors, facilities, and equipment; high school vocational centers provide facilities and instructors.
South Dakota	Adult Business and Industry Training Program	New or expanding businesses.	Vocational skills training.	FY90 $470,000 1:1 match.	53% state funds[14] 47% federal Perkins funds	Administered by Adult Vocational Technical Education. Training delivered by vocational institutes or at work-sites.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Tennessee	Industrial Training Services	New and expanding firms.	Pre-employment training, OJT; program covers tuition, materials, instructional costs.	FY90 $2,500,000 1:1 match only required for existing firms doing new technology training.		Department of Economic and Community Development. Firms primarily use own staff and are reimbursed; postsecondary institutions are also involved.
Texas	Industrial Start-Up Training Program	Prefer manufacturers.	OJT; classroom. Trainers' wages. Any resident eligible.	FY89 $900,000	100% legislative appropriation	Department of Commerce. Community colleges disburse funds to schools. Schools and firms design programs. Schools disburse to firm for on-site training.
Utah	1) Custom Training for Economic Growth (CTEG)	New or expanding firms. Trains for entry level jobs.	Classroom training and OJT reimbursed at $1.50/hr/trainee up to 100 hours classroom and 180 hours OJT. Short-term classroom training (<11 weeks); open-entry, competency-based.	Approximately $1,500,000	100% legislative appropriation	SDE administers; local CTEG directors are hired by local colleges and universities and applied technology centers to work with firms; training done in-house by firms and by educational institutions.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Utah (continued)	2) Short Term Intensive Training Program (STIT)	Trains for several companies in a specific job market.	Classroom training.	1990 $485,000 ($85,000 from tuition); Colleges match funds; no firm match required.		Board of Regents administers, funds allocated to 5 community colleges and 2 universities.
Vermont	1) Vermont Employee Training	Prefer manufacturers.	OJT; classroom. Any resident eligible.	FY87 $500,000	100% legislative appropriation	Department of Development and Consumer Affairs. OJT funding direct to businesses, which design OJT program. Classroom funds direct to schools; business and schools design classroom training.
	2) Lifetime Improvement through Training (LIFT)	Firms/workers.	Upgrade training.	FY89 $100,000	50% legislative appropriation 50% Perkins	Jointly administered by departments of Economic Development and Education. Proposals from voc ed centers are signed by both departments. Recruitment by Department of Employment and Training. Firms interview and commit to hire; voc ed provides training site.
Virginia	Industrial Training Program	New and expanding firms.	Recruit workers for firms; pre-employment training; instructor training; OJT. Focus is on workers.	FY89 $6,500,000 40-60% match by firms.	100% legislative appropriation	Department of Economic Development. Department helps firms to design programs. Voc tech centers and community colleges used as training sites.

Table 6.1 (continued)

	Program	Recipients[1]	Services Provided	Funding[2] Level	Funding Source	Delivery System
Washington	Job Skills Program	New and expanding firms; typically 80-85% are manufacturing businesses, the rest in the service sector.	Customized basic and technical skill training. Curriculum development, instructor training. Equipment, training costs.	FY90 $1,500,000 1:1 match.	100% legislative appropriation	State Board of Vocational Education works with community colleges (for 80–85% of contracts), vocational/technical institutes, and some universities and private nonsectarian schools. Applications submitted by eligible institution on behalf of a business.
West Virginia	Governor's Guaranteed Work Force Program (GGWFP)	All new or expanding businesses; typically manufacturing firms.	Vestibule/classroom training, curriculum development. Services provided directly or purchased. Program pays up to $1000 per trainee.	FY90 $2,500,000	100% legislative appropriation	SDE with adult vocational ed centers and community colleges; state and federal programs (i.e., JTPA) used where appropriate. Program is employer-driven, with a single application for multiple training resources.
Wisconsin	Customized Labor Training Fund	Primarily manufacturers employing new technologies, though no restrictions on eligibility.	Training costs. Program pays half the cost to provide unique and customized training not available from other sources.		100% legislative appropriation	Department of Development administers; postsecondary vocational schools and specialty contractors provide training.
Wyoming	Customized Training Program	Expanding businesses.	Resources and logistics; contracts out for necessary services.	FY90 $200,000 1:1 match.	100% legislative appropriation	Economic Stabilization Board and community colleges, occasionally private trade schools by contract.

[1]"Workers" indicates that the program includes specific target groups or is directly accessible to individuals.

[2]This category applies only to state funding for the particular programs listed. In addition to these specific programs, states may also fund other training activities. For example, in addition to the $5.6 million that it spends for Bay State Skills Corporation, Massachusetts spent an additional $25 million on nonwelfare training programs in FY89.

[3] Unemployment insurance (UI) regulations restrict eligible firms to full profit and nonprofit taxed at full rate. Workers are eligible if they are receiving UI benefits, have exhausted their benefits within the past year, or may be displaced from their current jobs.

[4] Because federal law prohibits using the UI tax for job training, it was reduced by 0.1% a year and replaced by an employment training tax at exactly the same rate.

[5] Contracts are performance based. Firms are not reimbursed for training costs until trainees have been employed for 90 days.

[6] Of $32.6M: $8.2M = basic training; $7.6M = mature industries (new technology for large firms); $12.8 = Diamond Star (Mitsubishi/Chrysler $40M multiyear commitment); $1.5M = farmers and disabled workers (supplement for JTPA); $2M = Belvedere/Chrysler project; and $.5M = prior year costs.

[7] Prairie State 2000 programs pay one-half up front and the remainder after 90 days of employment.

[8] Funding level is determined by incremental property and withholding tax. New and expanding businesses pay part of these taxes into a special fund. Based on this fund, community colleges are able to issue up to $18M of tax exempt bonds per year to fund upfront training costs. Firms participating in the program pay into the fund for 10 years. If more than $18M is needed, a combination of taxable and tax exempt bonds are issued. ($100M cap on aggregate bonds.) Participating firms' taxes are not increased above what they would be otherwise; their incremental tax is delivered to the training program.

[9] In addition to the Governor's Training Fund, Maine funds three other job training programs to promote state economic development: Strategic Training for Accelerated Reemployment (STAR), Maine Training Initiative (MTI), and Health Occupations Training (HOT).

[10] Maryland Industrial Training Program links to other state programs at the SDA level: Human Services, departments of Education and Economic Development. All channel funds through SDAs.

[11] Bay State Skills Corporation comprises 3 programs: 50/50 program, which provides firms one-half funding for training programs ($1.8M); employment service program for welfare recipients ($2M); and counseling, training, and referral program for displaced homemakers ($1.8M).

[12] These funds are set aside to fill training gaps: $350,000 for group training, $200,000 for OJT. Program costs are augmented with Pell grants, Perkins funds, and firms' own investments.

[13] State pays 80% or less of training costs unless 30% of the new hires are unemployed, on public assistance, displaced homemakers, or dislocated workers—in which case, the state pays 100% of costs.

[14] State funds can only be used to create new jobs.

7. EDUCATION AND TRAINING POLICY IN TRANSITION

The information on state policies summarized in this compendium was collected at a time when the work-related education and training system appeared to be at a crossroads. At the federal level, the Perkins Act was being reauthorized to target funds more precisely on students with the greatest need and to encourage a more coherent vocational curriculum that integrates the teaching of academic and occupational skills. Changes in JTPA were being considered in Congress that would increase the program's accountability requirements and mandate greater coordination with other federally funded education and training programs. At the state level, the JOBS program was being implemented, and many states were continuing their education reform initiatives, some focused explicitly on ensuring that students are adequately prepared for employment.

All these activities have been occurring in a climate that has emphasized the need for fundamental changes in the content of work-related education and training, and in the design of policies to facilitate the delivery of that schooling. Although the national reform reports issued over the past several years (e.g., U.S. Department of Labor, 1991; The White House, 1991; National Governors' Association, 1990) have differed in their recommendations, they reflect common themes in their advocacy of:

- Greater attention to preparing American students, particularly those who will not attend college, for a job market demanding higher skill levels.
- Preparation that minimizes the traditional distinction between academic and vocational training so that all students can obtain the intellectual resources necessary for mastering new workplace skills throughout their careers.
- Closer links between education and industry to ensure that schooling better reflects the needs of the workplace, education and training services are delivered more effectively, and students can see a clear relationship between greater effort in school and higher wages.
- More effective coordination among education and training institutions so that limited public sector resources are used more cost efficiently.

State governments are truly at a crossroads. They can respond to these recommendations in nominal, incremental ways or they can effect fundamental changes in their education and training policies and in the institutions that implement those policies.

In this last section we look across the five policy areas to identify some dominant patterns in how states are responding to the education and training demands they face. We consider the current status of those policies, and what state policymakers and program administrators see as the major economic development and training issues their states will face over the next several years. Because our data are limited, providing only a state-level snapshot at one point in time, we cannot reliably predict how most states will proceed, how local communities will respond, or whether the effectiveness of publicly funded education and training will increase. However, it seems reasonable to conclude from our data that state governments are paying greater attention to work-related education and training and that at least modest attempts are being made to change both the content and the delivery system.

THE CURRENT STATUS OF STATE POLICIES

Despite differences in funding arrangements, target groups, and types of services, the programs examined in this survey have several characteristics in common. First, they are all aimed primarily at training for jobs that do not require a bachelor's degree. However, within this general category, program participants are prepared for jobs that range from relatively low-skilled ones in the service sector to highly skilled positions in health care and manufacturing, from jobs paying minimum wage or less to jobs paying several times the national average. Second, all these policies are designed as inducements to encourage local education and training institutions to provide specific services, often to particular target groups such as those most at risk of not completing high school, dislocated workers, or the chronically unemployed. The assumption is that training of a particular type or for a particular group is not being provided on the scale that policymakers consider necessary, and that additional, targeted resources will motivate local institutions to provide those services.

A third similarity across the five policy areas is that in a majority of states, multiple institutions have responsibility for delivering program services. For example, in postsecondary vocational education, the overwhelming majority of states (68 percent) rely on more than one institution; in fifteen states, vocational education is delivered in three or more different kinds of institutions. Similarly, in secondary vocational education, only nine states use just the comprehensive high school as the service delivery site. JTPA, JOBS, and state job training programs use an even more diverse range of local institutions, including community-based organizations, labor unions, and private-sector firms, in addition to schools, colleges, and technical institutes. In other NCRVE reports (Grubb and McDonnell, 1991; McDonnell and Grubb, 1991), we have argued that the term *system* should be used advisedly in describing the configuration of education and training programs and their

related institutions. There is no single, integrated system for work-related training, either nationally or in individual states. Nevertheless, the policies described in this compendium not only exhibit important similarities, but in some instances share clients and, in a growing number of states and local communities, rely on exactly the same institutions to implement their programs.

But major differences also remain among the five policy areas and across the fifty states. One area where there are striking contrasts across programs is the issue of costs and which level of government should bear them. The proportion of program funding borne by the federal government ranges from zero, in the case of state job training programs, to the dominant role in JTPA, which is essentially a federal program. (Although states and even localities do bear some JTPA costs when program participants are placed in public institutions such as community colleges.) Similarly, the relative influence of state and local governments differs considerably among programs. The state plays a very limited role in JTPA and postsecondary vocational education, whereas in the other three programs, it often determines which services are provided and what outcomes are produced.

Although patterns may differ across local communities, our data also suggest that state governments expect a rough stratification of programs, with divisions among institutions based primarily on types of programs and secondarily on types of clients. Vocational offerings in most comprehensive high schools typically consist of a few typing and other business-oriented classes, some home economics, agriculture in rural schools, and perhaps one or two courses in industrial arts or technology. Comprehensive high schools are less likely than area vocational schools to offer a coherent sequence of courses in a range of occupational areas. Community colleges, on the other hand, provide the most sophisticated vocational programs, including two-year associate degree programs and certificate programs that may last up to two semesters.

Adult schools and area vocational schools provide shorter, more intensive, entry-level skill training, open to all students, including JTPA and welfare clients. Community-based organizations provide similar vocational programs, but usually for specific groups of JTPA clients rather than the public at large. Those private-sector firms, receiving public training funds from JTPA or individual state governments, provide short-term on-the-job training in skills specific to their own needs, using methods quite different from those used in classroom vocational training. Community colleges provide some customized training for firms and other employers, but this too is quite different in purpose from other kinds of training. Although data on whether state expectations are actually borne out in local practice are limited (see Grubb and McDonnell, 1991), there is evidence to suggest that such stratification

is common. To the extent that an institutional division of labor does exist, it minimizes wasteful duplication and can serve as a basis for the kind of coordination reformers advocate.

A final difference among the five policy areas has implications for how well the education and training system can respond to increased demands for greater effectiveness and accountability. Each has taken a different approach to ensuring that funds are well spent and program goals adequately met. Vocational education has relied on the collection of performance data, with a traditional emphasis on input statistics—namely, the types of students enrolled, course offerings, and funding allocations. The last few years have seen a greater concern for outcome measures, such as program completion rates and employment status. However, as Sections 2 and 3 indicated, the definition of "program completion" differs considerably from state to state, and in a majority of the states that collect data on program completers, the collection is done by local institutions through self-reports of former students. In only a minority of states are either employers contacted or students systematically tracked through the use of universal data bases such as social security or unemployment insurance. Furthermore, little is known about the job skill performance of program completers.

JTPA, on the other hand, has emphasized outcomes by requiring that SDAs meet specific performance standards, which include job placement rates, average hourly wages at placement, and the average cost of placement. However, in contrast to vocational education, where states have taken an increasing interest in the process and content of instruction through the program approval process, the JTPA program gives local SDAs considerable discretion in determining what services are provided and who provides them. Because the JOBS program is new, no national performance standards will be established until 1995. A debate continues over whether "good performance" should be defined as the speed with which states and local institutions can move welfare recipients into employment, even if those jobs do not lift them out of poverty, or whether the standard should be longer-term, higher-paying employment that keeps participants from falling back into welfare. Unlike the other four programs, state job training programs have been less concerned about an outcome-based accountability standard. Program quality in most states has been judged informally on the basis of private-sector demand for services. If sufficient numbers of firms apply for training subsidies, then these programs are deemed successful, regardless of actual employment or economic development outcomes.

Accountability is a multifaceted concept, and differences in accountability strategies among the five programs suggest that each has something to offer the others. Vocational education has paid greater attention to program quality than the other programs, but it now needs to consider how to measure outcomes in a meaningful and comparable way. JTPA has

well-defined outcome measures. But in emphasizing those outcomes it may have biased local choices of clients and services in favor of ones most likely to meet federal standards (U.S. General Accounting Office, 1989) and away from potential clients most in need, and away from training that prepares participants for jobs requiring higher skill levels. Providing appropriate services and meeting specified outcomes are two important dimensions of accountability, but so is client responsiveness. In this area, state job training programs provide a model for the other programs. Our data suggest that while these programs are all paying greater attention to accountability strategies than they had in the past, none has yet met the expectations underlying recent reform recommendations.

Two major differences across the fifty states, both within each of the five programs and across the programs, are important for understanding likely state responses to the education and training demands they face. The first is the extent of state influence over local education and training activities. Based on respondents' perceptions of the scope of state influence, measures derived from the extent of state authority over such functions as teacher certification and program approval, and the proportion of program funding provided by the state, we found that states vary considerably in their influence over local operations. For example, in secondary vocational education, about half the states exert a significant amount of influence over local institutions, and the remaining half are divided almost evenly between those exerting moderate direction and those with quite limited influence. In postsecondary vocational education, the distribution is somewhat different, with about half of the states exerting a moderate influence, 20 percent a significant influence, and the remainder having only limited authority. This difference between secondary and postsecondary education is largely due to the historical autonomy that has been accorded all public postsecondary institutions by state governments. But it is interesting to note that six of the nine states that exert a significant influence in postsecondary education also play such a role in secondary vocational education, and that all these states are located in the South.

The patterns observed in our survey are reflective of the larger political culture in which state governments operate. Political culture is a set of enduring public attitudes about such issues as support for public education, the legitimacy of state policy action in local communities, and government initiatives to promote social equity. States have distinct political cultures that shape the behavior of their political and administrative institutions, giving some state governments the legitimacy to take activist policy roles and constraining others. Although the trend over the past decade in all areas of education has been for states to exert greater influence over the operations of local institutions, differences in state

political culture are likely to persist, resulting in considerable variation in the degree to which state governments can move their education and training systems in new directions.

A second difference among the states is the extent to which education and training activities are coordinated through state initiatives. The trend generally is towards greater coordination, to some degree because of federal JTPA and JOBS provisions that require at least information sharing and some joint planning across programs. But states have also taken action on their own in the face of fiscal constraints and reform recommendations that vocational curricula be better articulated across levels and institutions. Despite this general trend, however, states do differ in the extent of their program coordination. For example, as noted in Section 4, only half the states engage in coordination efforts that extend beyond the federal JTPA requirements. And within the group involved in greater coordination, activities may range from simply ensuring that program regulations do not conflict with one another to the joint funding and delivery of services. Coordination efforts across programs are likely to increase, particularly between secondary and postsecondary vocational education and between JTPA and JOBS. But the extent to which states respond actively and positively to calls for more effective coordination is likely to vary considerably.

The picture that surfaces from an examination of the current status of education and training policies is that of a system with striking similarities, but also considerable diversity across policies and states. Consequently, there is no uniform answer to the question of how much states will change in the face of new education and training challenges. The direction they are moving is consistent with reform recommendations, but the speed at which movement will occur and the degree of change is likely to vary significantly.

EMERGING ISSUES

Past and current policies constitute one source of clues about how state governments will act in the future. A second source is what state policymakers themselves view as the economic development challenges and resulting education and training issues they will face over the next three to five years. We asked that question of state legislators and their staffs, staff in governors' offices, and the top leadership of state departments of education.

State-level respondents tend to think about economic development and job training issues in terms of the specifics of their own state. In a number of states such as Alaska, Iowa, and Oklahoma, that means moving the state's economy away from an almost sole dependence on one or two industries to greater diversification, or in the case of Kansas and Montana, keeping workers trained in the state from leaving for other areas.

At the same time, state respondents also discussed future training needs within a broader framework, and in doing so, echoed sentiments similar to those expressed in national reform reports. For example, policymakers in several states mentioned the need to move away from job-specific training to the teaching of generic skills that will allow students to master a wide range of work environments. Respondents talked of the need for a common curriculum in high schools that minimizes differences between what vocational students and other students study, for a better integration of academic and vocational education, and for articulation of coursework across schooling levels. One governor's education aide summarized these concerns in the following way:

> Vocational education must respond to the higher levels of skills needed in the workplace. With the integration of academic and vocational programs, the curriculum for vocational programs will obviously change. There is a need to upgrade the mathematics and science skills . . . of program graduates.
>
> The idea that education is a lifelong process, that skills must be continually updated and refined, must be reinforced in both secondary and postsecondary vocational programs. Community colleges and universities offering job training programs must have an affirmative obligation towards recruitment. Instead of waiting for students to come to them, they must tell people why they are there and communicate the reality that new jobs will require more skills, which means more education.

Respondents also expressed concern that vocational education has continued to train large numbers of students for low-demand occupations. One economic development official asked, only somewhat rhetorically, "How many cosmetologists does Michigan need?" At the same time, state officials recognize that modernizing the vocational curriculum requires up-to-date equipment and teaching personnel, resources that are often in short supply.

Respondents in some of the largest states, such as California, Illinois, and Texas, spoke about the growing diversity of their workforces and the state's traditional failure to prepare minority students adequately for employment. Specific aspects of that challenge, according to respondents, include the need: to engage in more aggressive outreach to those who may be unaware of training opportunities; to ensure that effective training is available for the large numbers of students who drop out of school and then attempt to enter the workforce; to prepare workers for jobs paying above the minimum wage through such mechanisms as apprenticeships; and to assist displaced workers who now face a radically different work environment than the one for which they were trained.

Like the national reform advocates, state respondents argued for stronger links between education and industry. They contended that local education and training

institutions have to become more responsive to the needs of local labor markets, even if that means changing well-established curricula and becoming less responsive to individual student preferences. But a number of state officials argued that closer ties between education and industry also means that business has to assume greater responsibility for creating a better-prepared work force. A state department of education official in Illinois explained it in this way:

> The business community wants education to train smarter workers, yet they are unwilling to reward these workers. Students who are trained in the best vocational programs receive the same jobs at the same pay as a person with no training. Over time, it is hoped that competence will take precedence, but it is still a problem which has to be addressed. These people have to be rewarded by better jobs and better pay.
>
> The message overall is that there must be a tighter connection between what is being done in the schools and what is happening in the business place.

This summary of policymakers' assessments of their states' future education and training needs shows that they recognize the need for change, and that they see the direction of such change in ways consistent with national reform rhetoric. What did not emerge from our interview data was any sense that state officials envision coherent strategies for changing education and training institutions in fundamental ways. Proposals for change tended to be framed as marginal improvements in existing policies and institutions, and not as systemic reforms.

CONCLUSIONS

This compendium was designed to introduce readers to a unique data base and to present a broad, descriptive overview of how five major education and training policy areas operate in the fifty states. It provides no basis for judging the performance of state systems, and the data can generate only clues about the likely directions that states will take as they face the twin demands of a changing labor market and a more diverse workforce. Nevertheless, these data do illustrate both the depth and complexity of state systems, and they depict the diversity of the political and organizational cultures in which state policies are embedded. They also show the critical role that state governments play in maintaining the current system and their potential for innovation, as evidenced by states' own education and training programs and the ways they have adapted federal policies.

It is our hope that this compendium will open the door to further examinations of the state role in work-related education and training. The next step is to use these data as a

starting point for more in-depth investigations of such topics as measuring the effectiveness of state and local education and training systems, designing meaningful accountability strategies, using policy to promote the delivery of more integrated curriculum, and the building of productive collaborations among various components of the education and training system.

REFERENCES

Axinn, J., and Stern, M. (1987). "Women and the Postindustrial Welfare State." *Social Work*, Vol. 32, pp. 282–285.

Bryant, D. M., and Ramey, C. T. (1987). "An analysis of the Effectiveness of Early Intervention Programs for High-risk Children." In M. Guralnick and C. Bennett (eds.), *The Effectiveness of Early Intervention for At-risk Handicapped Children*. New York: Academic Press.

Clarke-Stewart, K. A., and Fein, G. G. (1983). "Early Childhood Programs." In P. H. Mussen (ed.), *Handbook of Child Psychology*, Vol. 2. New York: Wiley.

Clune, W. (1989). *The Implementation and Effects of High School Graduation Requirements: First Steps Toward Curriculum Reform*. New Brunswick, NJ: Rutgers University, Center for Policy Research in Education.

———, and White, P. (1992). "Education Reform in the Trenches: Increased Academic Course Taking in High Schools with Lower Achieving Students in States with Higher Graduation Requirements." *Educational Evaluation and Policy Analysis*, Vol. 14, pp. 2–20.

Couch, A. S., Felstehausen, G., Glosson, L., and Fuller, J. C. (1988). "Challenges of Work/Family Research." *Journal of Vocational Home Economics Education*, Vol. 6, No. 1, pp. 78–86.

Darling-Hammond, L., and Berry, S. (1988). *The Evolution of Teacher Policy*. Santa Monica, CA: RAND/CPRE.

Darlington, R. B., Royce, J. M., Snipper, A. S., Murray, H. W., and Lazar, I. (1980). "Preschool Programs and the Later School Competence of Children from Low-income Families." *Science*, Vol. 208, pp. 202–204.

Elmore, R., and McLaughlin, M. (1988). *Steady Work*. Santa Monica, CA: RAND.

Fosler, R. S. (ed.). (1988). *The New Economic Role of American States: Strategies in a Competitive World Economy*. New York: Oxford University Press.

Ganzglass, E., and Heidkamp, M. (n.d.). *State Strategies to Train a Competitive Workforce: The Emerging Role of State-funded Job Training Programs*. Washington, D.C.: National Governors' Association.

Greenberg, M. (1988). *Family Support Act of 1988: JOBS Program and Related Amendments, Requirements, Issues and Options*. Washington, D.C.: Center for Law and Social Policy.

Greenberg, M. (1992). *Welfare Reform on a Budget: What's Happening in JOBS*. Washington, D.C.: Center for Law and Social Policy.

Grubb, W. N., Brown, C., Kaufman, P., and Lederer, J. (1989). *Innovation Versus Turf: Coordination Between Vocational Education and Job Training Partnership Act Programs*. Berkeley, CA: National Center for Research in Vocational Education.

———. (1990). *Order Amidst Complexity: The Status of Coordination Among Vocational Education, Job Training Partnership Act, and Welfare-to-Work Programs*. Report to the U.S. Congress, the Secretary of Education, and the Secretary of Labor. Berkeley, CA: National Center for Research in Vocational Education.

Grubb, W. N., Davis, G., Lum, J., Plihal, J., and Morgaine, C. (1991). *The Cunning Hand, the Cultured Mind: Models for Integrating Vocational and Academic Education*. Berkeley, CA: National Center for Research in Vocational Education.

Grubb, W. N., and McDonnell, L. M. (1991). *Work-related Education and Training in Local Communities: Diversity, Interdependence, and Effectiveness*. National Center for Research in Vocational Education. Santa Monica, CA: RAND.

Guthrie, J., Kirst, M., Hayward, G., Odden, A., Adams, J., Caganipang, H., Emmett, T., Evans, J., Geranios, J., an Merchant, B. (1990). *Conditions of Education in California: 1990*. Berkeley, CA: University of California, Policy Analysis for California Education (PACE).

Hagen, J., and Lurie, J. (1992). *Implementing JOBS: Initial State Choices: Summary Report*. Albany, NY: State University of New York.

Handler, J. F. (1987). "The Transformation of Aid to Families with Dependent Children: The Family Support Act in Historical Context." *Review of Law and Social Change*, Vol. 16, p. 457.

Hanson, T. L. (1989). *Curricular Change in Dade County, 1982–83 to 1989–87: A Replication of the PACE Study*. New Brunswick, NJ: Rutgers University, Center for Policy Research in Education.

Hayes, C. D. (ed.). (1987). *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing*. Washington, D.C.: National Academy Press.

Law, S. A. (1983). "Women, Work, Welfare, and the Preservation of Patriarchy." *University of Pennsylvania Law Review*, Vol. 131, No. 6, pp. 1249–1339.

Lazar, I., Darlington, R. B., Murray, H., Royce, J., and Snipper, A. (1982). "Lasting Effects of Early Education: A Report of the Consortium for Longitudinal Studies." *Monographs of the Society for Research in Child Development*, Vol. 47 (2–3, serial no. 195).

McDonnell, L. M., and Grubb, W. N. (1991). *Education and Training for Work: The Policy Instruments and the Institutions*. National Center for Research in Vocational Education. Santa Monica, CA: RAND.

McLaughlin, M. (1990). "The RAND Change Agent Study Revisited: Macro Perspectives and Micro Realities." *Educational Researcher*, Vol. 19, pp. 11–16.

McLaughlin, M. (1987). "Learning from Experience: Lessons from Policy Implementation." *Educational Evaluation and Policy Analysis,* Vol. 9, No. 2, pp. 171–178.

Moore, R. W., Wilms, W. W., and Bolus, R. E. (1988). *Training for Change: An Analysis of the Outcomes of California Employment Training Panel Programs.* Sacramento, CA: Employment Training Panel.

National Commission on Children. (1989). *Enhancing School Readiness: Support for Early Childhood Development.* Washington, D.C.: National Commission on Children.

National Governors' Association. (1990). *Educating America: State Strategies for Achieving the National Education Goals.* Washington, D.C.: Report of the Task Force on Education.

Nightingale, D. (1987). *Employment Opportunities for Welfare Recipients*. Paper prepared for the Association for Public Policy Analysis and Management Research Conference, October 1987.

Osborne, D. (1988). *Laboratories of Democracy.* Boston: Harvard Business School Press.

Raizen, S. (1989). *Reforming Education for Work: A Cognitive Science Perspective.* Berkeley, CA: National Center for Research in Vocational Education.

Sanger, M. B. (1990). "The Inherent Contradiction of Welfare Reform." *Policy Studies Journal,* Vol. 18, No. 3.

Selvin, M., Oakes, J., Hare, S., Ramsey, K., and Schoeff, D. (1990). *Who Gets What and Why: Curriculum Decisionmaking at Three Comprehensive High Schools.* Berkeley, CA: National Center for Research in Vocational Education.

Stern, D. (1990). *Combining School and Work Options in High Schools and Two-year Colleges.* Paper prepared for the Office of Vocational and Adult Education, U.S. Department of Education.

Stevens, D. W. (1986). *State Industry-specific Training Programs: 1986.* Columbia, MO: University of Missouri.

U.S. Department of Labor. (1991). *What Work Requires of Schools: A SCANS Report for America 2000.* Washington, D.C.: The Secretary's Commission on Achieving Necessary Skills.

U.S. General Accounting Office (GAO). (1989). *Job Training Partnership Act: Services and Outcomes for Participants with Differing Needs.* Washington, D.C.: GAO.

VandeVeer, L. (1987). "Adequacy of Current AFDC Need and Payment Standards." *Clearinghouse Review*, Vol. 21, pp. 141–142.

The White House. (1991). *America 2000: The President's Education Strategy: Fact Sheet.* Office of the Press Secretary.

Zellman, G. L., Feifer, C., and Hirsch, A. E. (1992). *Access to and Use of Vocational Education in Teen Parent Programs.* RAND, R-4170-NCRVE/UCB.