DOCUMENT RESUME

ED 353 408 CE 062 817

AUTHOR Hill, Paul T.; And Others
TITLE Pandora's Box: Accountability and Performance Standards in Vocational Education.
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 V051A80004-91A
NOTE 58p.
AVAILABLE FROM NCRVE Materials Distribution Service, 46 Horrabin Hall, Western Illinois University, Macomb, IL 61455 (order no. MDS-288: $3.50).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Accountability; Educational Legislation; *Evaluation Criteria; Federal Legislation; *Federal Programs; *Performance; Postsecondary Education; Program Effectiveness; Program Evaluation; Program Implementation; Program Improvement; Secondary Education; Standards; *Vocational Education
IDENTIFIERS Carl D Perkins Voc and Appl Techn Educ Act 1990

ABSTRACT

This report explores educational accountability in the United States, specifically accountability in vocational education. Section 1 provides a brief overview of the history of evaluation activity in federal educational programs and sets the major accountability, evaluation, and performance provisions of the 1990 Perkins legislation in that context. Section 2 presents an analytical framework for understanding accountability and performance standards. It highlights the relationship between performance measures and educational accountability. Section 3 draws on interviews with state and local officials to describe how they understand the new requirements and to assess their organizational capacity to implement them. It identifies several impediments to effective state-local cooperation in developing systems of performance measurement: lack of resources and personnel; insufficient attention to program quality and relevance in some local education authorities; and possibilities of conflicts of interest among students, educators, and employers. Section 4 draws on interviews with federal officials, in Congress and the U.S. Department of Education, to explain their understanding of these new provisions. Section 5 summarizes the implications of this study for accountability in vocational education and recommends that federal and state accountability efforts focus on local program improvement, not on creation of a national database. The report includes 31 references. (YLB)

NCRVE

National Center for Research in Vocational Education

University of California, Berkeley

PANDORA'S BOX: ACCOUNTABILITY AND PERFORMANCE STANDARDS IN VOCATIONAL EDUCATION

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)

PANDORA'S BOX: ACCOUNTABILITY AND PERFORMANCE STANDARDS IN VOCATIONAL EDUCATION

Paul T. Hill
James Harvey
Amy Praskac

RAND
Santa Monica, California

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-288

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education
Grant Number:	V051A80004-91A
Act under which Funds Administered:	Carl D. Perkins Vocational Education A 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:	$5,918,000

PREFACE

This study, produced at the request of the National Center for Research on Vocational Education (NCRVE), explores education accountability in the United States. More specifically, its focus is accountability in vocational education. The study began as an examination of the potential uses for vocational education performance information by Federal and state officials, local educators, employers, parents, and students. It turned quickly, however, to an examination of two prior issues. First, it considers the way states and localities are coping with changes in state administration required by P. L. 101-392 (The Carl D. Perkins Vocational and Applied Technology Amendments of 1990), as well as their capabilities to advance accountability through performance standards. The second issue addressed concerns a question raised repeatedly during state and local interviews, asking whether the Perkins amendments imply the need to develop statewide aggregate measures of program performance and, ultimately, national aggregate measures of performance as the foundation of educational accountability.

SUMMARY

This Report is the result of a study of accountability in vocational education, conducted by RAND for the National Center for Research in Vocational Education (NCRVE). The study had two goals: First, to understand the intentions of the people who formulated and enacted the new requirements for vocational education performance standards and accountability continued in the Carl Perkins Act; second, to understand how those requirements would affect state and local accountability processes in vocational education. The study focused on the "to whom" side of accountability, trying to determine who needed evidence about the performance of vocational education and how they would use that evidence. NCRVE saw the project as a companion to other activities that examined the "for what" of vocational education accountability, considering the measurement implications of the Perkins Act requirements on performance standards and measures. The project consisted of a set of interviews and case studies at the Federal, state, and local levels about performance information on vocational education: who needs it, what should it look like, and how will it be used? Case study states included Maryland, Pennsylvania, California, Ohio, New York, Oklahoma, and Indiana.

The message that emerged from the research is that the main focus of accountability in vocational education is local, and that the Perkins Act requirements for new performance measures and standards are meant to strengthen local accountability, not to weaken it or to create new channels of reporting to the Federal government.

PURPOSE OF THE REQUIREMENTS

Interviews with Congressional staff members and lobbyists made it clear that no one intended to create a flow of information to Washington that would let Congress or anyone else micromanage vocational education. Nor did the drafters of the act hope to obtain a master data base from which they could derive an unambiguous assessment of vocational education nationwide, or in any state or locality.

It was clear, however, that members of Congress and senior committee staff were worried about the quality of local programs and were uncertain about whether they were being implemented with due concern for the needs of local students and employers. This concern was based on business leaders' complaints about the quality of high-school graduates (including, but not specific to, graduates of vocational programs), and on Congressional members' own fears that some local managers of vocational education had become bureaucratic, deadened by routine, and more concerned with protecting staff jobs than with meeting local labor market needs.

The Perkins Act requirements were meant to reassure critics that the legislative supporters of vocational education were serious about quality, and that lax or self-indulgent program administration would not be tolerated. But members of Congress did not want to set themselves up as the remote, ultimate judges of local processes. Instead, they wanted to create a framework of processes that would guarantee that quality issues received due attention at the local and state levels.

The drafters of the Perkins requirements have decades of experience with Title I/Chapter I. Thus, they did not intend to stimulate another futile search for a national bottom-line assessment of a program that is, by design, local in its goals, services, and outcomes. To the contrary, they intended to set up processes that would make local program performance manifest to local stakeholders.

EFFECTS ON STATE AND LOCAL ACCOUNTABILITY

Through case studies in seven states, including both urban and rural localities, local accountability processes were found to vary in quality. In some localities, the quality and relevance of vocational education programs is ensured through such processes as the following:

- Employer advisory committees
- Tracking of employer needs through student placement
- Attracting students via job placement success
- Employer certification of the need for new courses
- Eliminating or upgrading courses with low enrollment or poor placement records.

However, many local processes have serious weaknesses, including a "routine following" mentality among vocational education providers and lax tracking of student placement. Further faults include low expectations for student skill attainment and job placement, little capacity to project future labor force needs, and inattention to the needs of transient, low-income minority students.

There are also real conflicts of interest among local constituencies. In very simple communities with only a few employers, it is possible for healthy accountability processes to work in everyone's interests. The range of employment opportunities is finite and generally understandable, and all employers can take part in the normal processes of consultation. In larger communities, however, only a fraction of employers can be consulted directly. Larger and longer-established employers naturally are more likely to be consulted than very small or new employers. In some places this means that important employer interests—the small firms that normally employ new high school graduates and the newer firms that may rely on unfamiliar technologies and offer unconventional career opportunities—may be poorly represented.

Conflicts of interest among students and employers also may arise. Established employers may want students prepared for traditional low- and moderate-skilled jobs, which might block students from obtaining jobs with other employers, possibly in other localities.

These conflicts of interest justify oversight by state and federal governments. The state needs to protect its broader economic future against the narrow localism and short-time horizon that can dominate local accountability processes. The state and federal governments need to help disadvantaged groups that lack the leverage to protect themselves at the local level.

Local actors' horizons can be expanded in several ways. Information about future economic trends can help employers to anticipate their own needs. Information about the needs of broader regional, statewide, or national labor markets also can help educators and students

understand opportunities that might not be evident locally. Lists of competencies required by advanced employers—and testing systems to help students and educators assess their performance in light of those needs—can create demands for program improvement.

Competency-based systems such as those being built in Oklahoma can both raise standards and provide concrete guides to program improvement. Such systems derive from lists of needed competencies created by knowledgeable employers. When these lists are used as the basis for curriculum development, student testing, and certification, they guide the vocational education policy and build employers' competence, as well. Also, they provide external standards against which program quality and student access can be evaluated.

Based on our case studies, however, we concluded that hard outcomes data should supplement, not supplant, processes of consultation and monitoring and the use of managerial judgment.

All educational outcomes are products of multiple causation. Test scores, graduation rates, dropout rates, and student placement results can be affected strongly by other factors independent of the quality of training and instruction students have received. Students experiencing a given vocational program may have different change scores, depending on the quality of education they receive outside vocational education.

The outcomes of greatest interest in vocational education also are affected by local labor market conditions. Vocational education students' job placement rates, hours of work, income, and rates of career progression can be affected profoundly by the demand for particular kinds of labor, which, in turn, is determined by the current level and composition of local economic activity.

CONCLUSION ON NATIONAL DATA SYSTEMS AND ACCOUNTABILITY

These complications do not rule out the use of hard outcomes data. However, they do illustrate the many ways in which such data can foster misunderstanding of program performance. Outcomes data must be interpreted in light of other information about student characteristics and prior educational preparation, the quality of educational programs that supplement vocational education, and local labor market conditions. Without such contextual information, vocational educators are forced to do everything possible to raise their outcome scores. This promotes "gaming" to increase scores (e.g., by "creaming" the student population, or by finding ways to discount the outcomes of less able students). Also, it misleads policymakers, frequently causing them to castigate local providers whose programs are, in fact, performing reasonably well in light of local conditions.

During a period of fiscal stringency, many states are tempted to cut their staffs and to abandon direct oversight in favor of automated systems of measurement. These systems can provide clear comparative information about the priorities and average outcomes attained by different localities and programs. But, as suggested above, hard outcomes data alone can lead to false attributions of causality and can mislead policymakers. State and federal officials may overlook crucial local conditions and reward or punish programs whose outcomes are largely determined, for good or ill, by uncontrollable local circumstances.

When faced with complaints about system failure, top-level policymakers (Congress, state legislatures, presidents, governors) demand accountability. That is, they seek systems ac-

countability—not separate auditing of the effects of different programs. If the response to the call for accountability is to further separate educational programs from one another, system performance will continue to decline, with increasingly negative consequences for vocational education's reputation and public support.

The bottom line is that vocational education must become an integral part of the local educational system, and its accountability system must emphasize meeting local needs. Standardized outcome measures can strengthen the local accountability process if they give local parents, employers, and community leaders objective information about local program outcomes. However, if they are used in ways that weaken local accountability, standardized outcome measures ultimately can impair local program performance and damage further the local and national reputation of vocational education.

In general, accountability driven by a national data base on student outcomes does not solve the problems of ensuring equity and quality in vocational education or other federal programs. In addition, such accountability can threaten local performance. Efforts to automate accountability via a national data system are counter-productive. Federal and state officials should strengthen local accountability processes, not compete with them. The best way to avoid the negative consequences of a national performance data base is to abandon any effort to create a national data base on student performance.

ACKNOWLEDGMENTS

This Report was developed based on review of the literature on evaluation, interviews with eight Congressional and U.S. Department of Education staff members, and field work in seven state agencies (Ohio, New York, Maryland, Pennsylvania, California, Indiana, and Oklahoma) and nine local school districts in four of these states (Ohio, Pennsylvania, Oklahoma, and California). The authors are grateful to the Congressional and U.S. Department of Education staff members who answered our persistent questions. In addition, we thank the state legislators and state and local education officials who spoke with us in Ohio, New York, Maryland, Pennsylvania, California, Indiana, and Oklahoma.

Also, for their comments on earlier drafts we want to thank Thomas K. Glennan, Roger Benjamin, and Cathleen Stasz of RAND, David Boesel of the National Assessment of Vocational Education, Gary Hoachlander of MPR Associates, Jeannie Oakes of UCLA, and Charles Benson and Gerald Hayward of the NCRVE. As usual, we have not taken all their advice. Thus, responsibility for the results is ours.

CONTENTS

TABLE

1. PANDORA'S BOX

Senator Robert F. Kennedy was the father of program accountability in education. When, in 1965, he created a mysterious black box known as "Federal education evaluation," he could not have known that it quickly would take on a life of its own, growing beyond its creator's expectations and control. In fact, accountability schemes often have proved since to be more trouble than they were worth. But like Pandora's box, which unleashed misery on an unsuspecting world while continuing to shelter the virtue of hope, the black box of evaluation and accountability still holds some promise. The task of policymakers and analysts is to find ways of harvesting the power and potential of accountability, while stuffing its shortcomings and potential for mischief back into the box.

It is safe to say that Kennedy's idea that federal programs should be formally evaluated has helped to transform education administration and accountability in the United States. Until the mid-1960s, Federal oversight of American education consisted of little more than collecting data on enrollments and the number of diplomas and degrees awarded annually.[1] The idea that the Federal government would insist on monitoring program quality, institutional performance, or student achievement was virtually inconceivable.

But times have changed. Since 1965, the Federal government has mounted several evaluations of Chapter 1 of the Elementary and Secondary Education Act (formerly Title I), three separate assessments of the Carl D. Perkins Act (formerly the Vocational Education Act), and periodic assessments of the skills of 9-, 13-, and 17-year olds by the National Assessment of Educational Progress (NAEP), and has cooperated in supporting international assessments of student achievement. The Secretary of Labor's Commission on Achieving Necessary Skills (SCANS) reviewed the preparation of American youth and proposed a national agenda to ensure student workplace readiness; the President of the United States and the Secretary of Education call for "American Achievement Tests" in five key areas of curriculum; and Congressionally mandated panels on education indicators, and on education standards and testing, issue analyses calling, in effect, for a better national definition of education goals and more accurate assessments of their achievement.[2] In short, by 1991, the strong views of an earlier generation opposed to Federal assessment have been stood on their heads.

Against this backdrop, what, precisely, do the *new accountability provisions* in Perkins mean? That is, what does the term itself signify and what did the framers of the legislation hope for? How do vocational education administrators at the state and local levels understand these provisions and how well prepared are they to act on them? Finally, what would a reasonable breakdown of responsibilities among Federal, state, and local administrators look like in a useful performance-based system of accountability in vocational education?

Succeeding sections of this Report take up these questions. This section provides a brief overview of the history of evaluation activity in Federal education programs and sets the ma-

[1]Richard J. Murnane, "Improving Educational Indicators and Economic Indicators: The Same Problem," *Educational Evaluation and Policy Analysis* (Summer 1970).

[2]See, for example, *Education Counts: An Indicator System to Monitor the Nation's Educational Health* (Washington, D.C., National Center for Education Statistics, July 1991).

jor accountability, evaluation, and performance provisions of the 1990 Perkins legislation in that context. Section 2 presents an analytical framework for understanding accountability and performance standards. It aims to illuminate the relationship between performance measures (specific ways of registering the results of vocational education) and education accountability. It attempts to clarify the terms of the discussion in the belief that lack of clarity in the past has helped to confuse hopelessly the conversation among Federal, state, and local officials and the general public.

Section 3 draws on interviews with state and local officials to describe how they understand the new requirements and to assess their organizational capacity to implement them. It should come as no surprise to learn that state responses vary along several dimensions. Some states have almost no concern about the new requirements, believing that their own well-developed accountability schemes can respond to any new requirements from Washington. Others are desperately concerned that they lack the capabilities to respond. Some state officials, armed with the support of legislative allies, enjoy considerable discretionary funding to expand and modify their accountability mechanisms. But colleagues in other jurisdictions are scrambling with the administrative chaos of staff and budget reductions forced by state deficits and reductions in Federal support for state administration.

Conceptually, the greatest problem lies in radically different understandings at both the state and local levels about the meaning of "performance standards." Some officials are convinced performance standards imply pre- and posttesting of all vocational education students. Others hold strongly to the belief that such a view is a mistake and that the performance standards requirements are best understood as a mandate to enhance local program improvement efforts and local accountability to students, parents, and employers.

Section 4 draws on interviews with Federal officials, in Congress and the U.S. Department of Education, to explicate their understanding of these new provisions. Section 5 seeks to pull all of this together with a summary of the implications of this study for accountability in vocational education and a recommendation that federal and state accountability efforts focus on local program improvement, not on creation of a national data base. The Federal role in this scheme becomes one of encouraging states to take local needs into account; that is, the state role is one of monitoring local procedures and providing advice and technical assistance.

EDUCATION ACCOUNTABILITY AND THE PERKINS AMENDMENTS

What was Robert Kennedy trying to accomplish when he added an evaluation requirement to the legislation creating Title I of the Elementary and Secondary Education Act of 1965? When President Lyndon B. Johnson proposed the legislation, he demanded that Congress act on it promptly and without amendment. The bill swept through the House and Senate to Johnson's desk for signature in about 100 days. Kennedy's amendment, added on the Senate floor, was the only change to the President's original proposal, and it was adopted without committee hearings and with little consideration of its intent or its effects. The Senator's floor statement, therefore, essentially is the only legislative history available on his intent, and he made his objective quite clear.

Concerned that Federal education money would disappear without a trace into schools' general operating budgets, Kennedy proposed his amendment, as he explained, to ensure that local parents and citizens would know how well they were being served by Federal money.

The initial statute, and its regulations, imposed very few constraints on how schools used the Federal money. Since the funds were intended to benefit districts and schools with many low-income children, Kennedy was intent on making sure that low-income parents could protect their children's interests. Using the data provided by the evaluation requirements, parents could, if necessary, confront local educators and press for program improvements.

Almost immediately, the local focus of the evaluation requirements became obscured. Armed with data generated locally in response to the Kennedy amendment, the NAACP Legal Defense developed a national analysis of inappropriate use of the funds at the local level.[3] Replete with shocking stories of the use of Federal monies for local tax relief, for band uniforms, for racially segregated white schools, and for athletic equipment, the report had two effects. First, in extending the Elementary and Secondary Education Act (ESEA) in 1967, Congress began to limit school district flexibility in the use of Title I funds. The second effect was more significant in light of the current study: In order to fend off critics opposed to Title I, Congress asked the U.S. Office of Education (the precursor to the current U.S. Department of Education) for a nationwide evaluation of the effectiveness of Title I.

Title I, and federal education evaluation, spent 20 years recovering from the effects of that simple request. The request for an analysis of the educational effects of Federal spending was practically impossible to meet for two reasons. First, local programs were too variable in intent and design to be evaluated only via reading and mathematics tests. Second, the specific consequences of federal funds could not be disentangled from the results of a much larger state and local effort. Analysts turned to what appeared to be the most promising technology available to them—pre- and posttesting of Title I students—and aggregated the results to the national level. With the benefit of hindsight, the results were predictable: Researchers, try as they might, were unable to demonstrate any unambiguous educational effects for students participating in Title I programs. Although the same researchers protested that their findings did not prove the lack of educational effects (but simply that effects could not be validly measured with available methods), critics of the program took the results as evidence that Title I did not "work."

Subsequent analyses, in fact, demonstrated that Title I worked quite well on its own terms.[4] It "worked" in the ways that its framers had intended:

- It delivered funds to school districts with high proportions of children from low-income families.
- Within school districts, it delivered funds to schools with the highest proportion of low-income students.
- It purchased additional educational services for eligible children; in particular, it expanded the amount of time spent on such basics as reading and mathematics.
- Disadvantaged students who received these services (and benefited from the greater state and local attention to compensatory education stimulated by the federal requirements) made substantial achievement gains in the basic skills.

[3]NAACP Legal Defense Fund, ESEA Title I: *Is It Helping Poor Children?* (1972).

[4]See, for example, Evaluating Compensatory Education, Washington, D.C., 1976; Launor Carter, *The Sustaining Effects of Compensatory Education*, Systems Development Corporation, Santa Monica, California, 1978.

But the educational effects were demonstrable only after asking and answering a key sequence of questions grounded in the legislative intent of Title I: Does the money go where it is supposed to go? Is it properly and efficiently administered? Does it purchase additional educational services? Only after answering these questions affirmatively did the question asked first by most evaluators make sense: Do participating children show any gains?

As the capability to analyze the effectiveness of Federal program expenditures developed, the key realization was that the effort to aggregate achievement data across all participants was doomed to failure. Aggregate data concealed as much as they revealed for two reasons: first, they overlooked critical differences in local program goals and services; and second, they obscured the fact that some local programs were performing well and others were in grievous need of improvement.

ACCOUNTABILITY AND THE PERKINS ACT

It is against that background that the performance standards requirements of the 1990 Perkins vocational education amendments should be understood. The performance standards requirements are, in fact, one of several accountability provisions set forth in different sections of the statute. Congressional sophistication in matters of evaluation has grown enormously since 1965 and 1967, and the Title I mistake need not be repeated. That sophistication is demonstrated in the language of the recent statute, since different sections select various pieces of the accountability puzzle and request a distinctive response.[5] Taken together, the Perkins Act accountability requirements set up state and local processes focused on providing high-quality programs to meet distinctive local needs. They emphasize adaptability and sustained improvement efforts and call for a strong state role in assisting troubled programs. They de-emphasize the creation of standard data bases for national performance standards.

Since the late 1970s this logic has characterized the evaluation of major federal education programs. In each successive reauthorization of the Elementary and Secondary Education Act, the Vocational Education Act, and the Education for All Handicapped Children Act (PL 94-142), Congress has requested fiscal, administrative, and student outcome studies from multiple sources. It has displayed an increasingly sophisticated concern with the complex processes by which a federal grant program is translated into state and local administrative and program delivery, and, ultimately, into services and benefits for students.

As a longtime House staffer concerned with higher education told us, the Perkins accountability requirements were seen as the most sophisticated approach to evaluation ever taken by Congress. They require data and analysis on all aspects of vocational education implementation and they place responsibility for program improvements squarely in the laps of the states.

[5] *Conference Report* (to accompany H.R. 7), "The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990." Washington, D.C., House of Representatives, 101st Congress, 2nd Session, August 2, 1990, (Report 101-660).

National Assessment of Vocational Education

Section 403 of Perkins, as amended, requests a comprehensive assessment of vocational education programs. Significantly, the requirement is for an "assessment" of "vocational education programs assisted under this Act"—not for an "evaluation" of educational effects. Section 403 specifies ten areas of particular interest to the Congressional sponsors:

- Effects on administration, including state, tribal, and local administration of vocational education programs;
- Expenditures at the Federal, state, and local levels to address program improvement in vocational education;
- Teacher preparation and qualifications;
- Access of special populations to vocational education programs of high quality;
- Academic and employment outcomes, including the effects of the education reform movement on vocational education programs, integration of academic and vocational curricula, school-to-work transition, and the relationship of vocational training to subsequent employment;
- Employer involvement in, and satisfaction with, vocational programs;
- Effect of performance standards and other measures of accountability on the delivery of services;
- Effect of Federal requirements specifying criteria for services to special populations, participatory planning in states, and articulation between secondary and postsecondary programs;
- Coordination with the Job Training and Partnership Act (JTPA) and other Federal programs; and
- Involvement of minority students in vocational student organizations.

National Center on Vocational Education

Section 404 of Perkins; as amended, sketches the broad outlines of a vocational education research agenda for the National Center for Research in Vocational Education (NCRVE). Once again, the Act does not request an achievement/outcomes-oriented array of studies, but rather a variety of descriptive studies designed to provide information on how vocational education programs "look and feel" at the local level. In particular, the activities should include investigations of:

- Economic changes affecting the skills employers need and entrepreneurs seek;
- Integration of academic and vocational education;
- Methods for delivering vocational education;
- Articulation between school and college programs offering high-quality work experience;
- Recruitment, education, and enhancement of vocational teachers;
- Accountability processes, including identification and evaluation of performance standards for student, program, and state-level outcomes;

- Education in all aspects of the industry for which students are preparing;
- Provision of literacy and other communications skills for effective job performance;
- Identification of high-priority skills and "skill formation approaches" needed to maintain American competitiveness; and
- Approaches to developing entrepreneurial opportunities for minority-owned enterprises.

State Plans and Their Approval

Sections 113 and 114 of Perkins, as amended, govern the plans and approval criteria required of states seeking funds under the Act. In general, these provisions require states to show that they and their local agents have exercised due care in designing and implementing vocational education programs. State plans must include basic information across a wide spectrum of program activities, including: (1) provisions for needs assessment; (2) assurances that criteria for special populations will be met; (3) descriptions of funds allocation for basic programs and for special populations; (4) use of funds for occupationally specific training, including labor market analyses; (5) *the development of performance standards and performance measures* (emphasis added); (6) assurances that relevant training and education will be provided to men and women in nontraditional fields; and (7) *use of performance evaluations with eligible recipients* (emphasis added).

State and Local Standards and Measures

Section 115 addresses the performance standards that lie at the heart of this study. It stipulates that each state board must develop and implement a statewide system of "core standards and measures of performance" for secondary and postsecondary vocational education programs, developed in consultation with a broadly representative State Committee on Practitioners. The statewide system must include:

- Measures of learning and competency gains;
- One or more measures of performance chosen from competency attainment, job or work skill attainment, retention in school or completion of a diploma; and placement in additional training, military service, or employment;
- Incentives to encourage services to special populations; and
- Procedures for using existing resources and methods developed in other programs receiving Federal assistance.

In developing the system and working with the State Committee on Practitioners, each State Board is required to provide the committee with information on different types of standards and measures, including an analysis of the advantages and disadvantages of each type, and examples demonstrating when such standards and measures have been effective and ineffective.

Finally, the Secretary of Education is required to provide technical assistance to the states in developing these systems and to provide, in four years, a report to Congress which will include a detailed description of the status of each state's system, will assess the validity, pre-

dictiveness, and reliability of standards and measures, and will evaluate the comparability of state-developed performance standards across states to establish a "core of common indicators."

Assessment, Evaluation, and Improvement

Sections 116 and 117 round out this portfolio of accountability provisions by prescribing a broad general framework for state and local collaboration in program assessment and improvement. Section 116 amends Perkins to require state assessment of program quality. The criteria for assessment should be as broad as the goals of vocational education and should include such factors as (1) integration of academic and vocational curricula; (2) sequential course of study leading both to academic and occupational competencies; (3) increased student work skill attainment and job placement; (4) improved linkages between secondary and postsecondary educational institutions; (5) instruction and experience in all aspects of an industry; (6) ability of eligible recipients to meet the needs of special populations; (7) improving program quality in schools with high concentrations of poor and low-achieving students; and (8) program relevance to the workplace and to future labor market needs.

Section 117 addresses evaluation and improvement at the local service level (secondary, postsecondary, and adult education programs). Local programs are called upon to evaluate annually the effectiveness of their programs, assessed against the standards and measures developed by the state. After one year, if this evaluation indicates that local programs are not making substantial progress toward meeting the state's standards and performance measures, local administrators are directed to develop a plan in consultation with teachers, parents, and students to describe how the standards and measures can be met.

Failure at this second stage invites the state into the process. States are directed to work with localities (and their clients) to develop a plan for program improvement if, after one year, the locally developed plan has made insufficient progress. The state is to help develop a description of the technical assistance it will provide, a reasonable timetable to improve school performance, and a description of strategies to be employed. The state is directed to continue this effort in consecutive years until the local program attains the state and local standards and measures developed under Section 115.

These, then, are the major provisions relating to accountability, assessment, and performance standards in vocational education contained in the 1990 statute. They were accompanied by another change in the legislation that represents a significant reshaping of the Federal government's relationship with state and local vocational education administrators. In an effort to direct more funds to local programs, Perkins' allocations for state administrative expenses have been reduced significantly.

The sum of all these changes is a major shift in Federal thinking about the appropriate emphasis at the state and local levels. States, in effect, are being encouraged to refocus their activities *from* curriculum development and technical assistance to monitoring and improving local program quality through needs assessment, planning, setting performance standards, and evaluation. At the same time, state administrators are being asked to help local vocational program directors as they try to expand access of special populations to high-quality programs, to promote sex equity, to integrate academic and vocational curricula, to

expand efforts to educate students in "all aspects of industry," and to improve articulation between secondary and postsecondary programs.

CONCLUSIONS

As this brief overview of the history of Federal evaluation and the principal provisions of Perkins demonstrates, Congressional education experts have taken advantage of the experience gained in evaluating earlier Federal efforts by asking various agents to take responsibility for various aspects of the vocational education accountability puzzle. A National Assessment of Vocational Education is directed to provide an overview of program success by examining such issues as administration, expenditures, access, and academic and employment outcomes (including the effects of education reform). NCRVE has been asked to mount research on similar kinds of questions, including accountability processes and performance standards.[6] States are directed to develop and implement systems of standards and measures of performance and are offered several measures of performance from which to choose. Further, states are directed to assess local program quality, and local programs are required to evaluate the effectiveness of their programs annually against the standards and measures developed by the state.

Given these several different directives to different agents, Congress clearly is not interested in a single measure of program performance as a bottom-line summary of the effectiveness of vocational education. For its own purposes, it mandates a complex and careful national assessment. It tries to enhance state and local accountability processes, as well, and to establish a clear state responsibility for assistance to troubled vocational education programs. This demand for many complementary assessment and accountability processes indicates that Congress wants broadly available information about program outcomes and needs for use throughout the delivery system, particularly at the local and state levels.

By these actions, Congress has established a general framework for repacking Pandora's box. The following section sets forth an analytical framework for understanding accountability and performance standards in vocational education.

---

[6]This study is one part of NCRVE's response to that direction.

2. DIMENSIONS OF THE BOX: DEFINING ACCOUNTABILITY AND PERFORMANCE STANDARDS

As a professional activity, education evaluation is very young, still grappling—passionately, at times—with basic issues of definition. For the purposes of this Report, three definitions are critical:

- Accountability;
- Performance measures; and
- Performance standards.

ACCOUNTABILITY

Shorn of its technical language, accountability in vocational education is like accountability in any other public or private venture: It is a process to help people who expect specific benefits from a particular activity (and whose support for the effort is essential to its continuation) judge the degree to which the activity is working in their interests so that they might sustain it, modify it, or eliminate it. The preceding sentence describes the essence of the accountability process and, for the purposes of this Report, accountability really is that straightforward and that important. A more formal definition of accountability is drawn from a recent RAND Report:[1]

> Accountability is a relationship between two persons in which four conditions apply: first, one person expects the other to perform a service or accomplish a goal; second, the person performing the activity accepts the legitimacy of the other's expectation; third, the person performing the activity derives some benefits from the relationship; and fourth, the person for whom the activity is performed has some capacity to affect the other's benefits.
>
> An accountability process is a continuing exchange of information and benefits, such that both persons are able to adjust their actions to create greater mutual advantage. The goal of the process is to improve the performance of the party responsible to deliver the service; but the process can also lead to termination of the relationship, if either person concludes that the expected benefits are not forthcoming.

Under this definition, virtually any relationship between persons or legal entities (private contracts, public grants and contracts, and markets, for example) contains the seeds of an accountability process.

But the most significant feature of the definition is that it establishes not a hierarchical process, under which senior government officials assess performance in light of their expectations, but a much wider activity involving all the actors (public and private, funders and clients) who expect to derive benefits from the activity, and whose support or opposition can influence its future. The provider of a particular service is normally accountable not only to one person, but to several—perhaps to those who provide funding, establish the legal charter

[1]Paul T. Hill and Josephine J. Bonan, *Decentralization and Accountability in Public Education* (RAND, R-4066-MCF/IET, 1991).

for the service, and benefit directly from the service (e.g., students, parents, or employers), as well as to the broader community, including its elected representatives.

With respect to vocational education, many different people make judgments about its performance and possess the power to act on their conclusions. Members of Congress and state legislators, for example, may want vocational education programs to contribute to the economic development of their districts and may act on their hopes by changing statutory language, funding formulae, and budgets. Parents may care only that a particular program engages their children's interests or helps them find and hold a job. They can act by enrolling their children in one program or another, or by withdrawing them from programs. Local employers may be interested primarily in whether the local schools are producing the air brake mechanics, cosmetologists, or electronics technicians required in their firms, and they can act by joining school vocational advisory groups and by supporting (or criticizing) school administrators and public officials.

Because each of the actors involved—Federal and state officials, state legislators, local educators (including superintendents, program administrators, and school staff), parents, employers, and students—comes to the table with different interests, an accountability process suited ideally for one set of "stakeholders" may be almost entirely irrelevant to the others. In fact, as will be shown in Sections 4 and 5 below, a process suited to the need of the most powerful stakeholder (ie., the federal government) may so distort the program that it fails to meet the interests of the least powerful, ie., parents, students, and local employers.

For any stakeholder, the process of holding providers accountable involves both assessment and action. Performance is measured and compared to some standard, which is based on the expectations that both parties consider legitimate.[2] Action (e.g., program change, reconfirmation of commitments, rewards to providers, program termination) follows the assessment, and is dependent upon it. Performance data are not collected to satisfy idle curiosity, but to support effective change. As Levin noted:

> The perfectly accountable system is one that maximizes the utility or satisfaction of the relevant constituencies subject to resource (and possibly other) constraints. . . . Essentially, an accountability system is a closed loop reflecting a chain of responses to perceived needs or demands; an activity or set of activities that emerges to fill those demands; outcomes that result from those activities; and feedback on outcomes to the sources of the demands. . . . The result is that an accountability system is continuous and dynamic when the linkages are tight and information is generated and transmitted freely. It is much less responsive when these conditions are not met.[3]

Types of Accountability

The rhetoric of accountability often obscures crucial differences between hierarchical organizations, in which goals and methods are established clearly, and problem-solving organizations, in which both goals and methods are fluid. In the former case (e.g., organizations manufacturing standard items) methods can be designed centrally and goals set in light of a clear understanding of methods. In the latter case (e.g., professional or public service organi-

[2]An excellent source of definitions is Bruce L. R. Smith and D. C. Hague (eds.), *The Dilemma of Accountability in Modern Government: Independence Versus Control* (New York: St. Martin's Press, 1971).

[3]See Henry M. Levin, "A Conceptual Framework for Accountability in Education," *School Review*, Vol. 82, No. 3 (May 1974): pp. 363–392.

zations, which serve clients whose needs frequently change) goals and methods are under constant revision. Moreover, the goals change both in light of client needs and of the expected effectiveness of methods.

In truly hierarchical organizations, all that is required for accountability is a good management information system: Managers can monitor performance and intervene whenever it falls below set levels. Few organizations, however, are so fully automated that there is no need for initiative and problem solving by lower-level workers. In a problem-solving organization, however, accountability is much more complex: Inevitably, performance measurement involves judgments about what is needed and what is feasible under existing conditions.

Recent analyses distinguish among four kinds of accountability: performance reporting, technical accountability, institutional accountability, and political accountability.[4] The four differ on two dimensions: consensus on program goals and the process by which performance information is used.

Levin's framework for accountability in education distinguishes between programs in which goals are clear and widely accepted and programs in which goals are diverse and open to negotiation.

As Levin argues, accountability issues are especially complex for programs whose goals are in dispute. In such situations, accountability processes inevitably are political: Actors who seek different goals want different information and draw different conclusions about what should be done to improve program performance. They want different performance information and put service providers under conflicting pressures.

In vocational education, goals vary from place to place and from student to student. Moreover, there is some tension among program goals, as demonstrated by the fact that some local program operators emphasize job placement, while others concentrate on equity and access.[5] Differences in goal orientation such as these can be illuminated, but not resolved, by performance information. Equity, access, and completion and job placement rates are political in their very nature, and no system of performance information can resolve the tensions among the values underlying each.

PERFORMANCE MEASURES AND STANDARDS

In situations that Levin would define as political, different actors emphasize different goals and make their own judgments about performance. Performance information is useful to them only if it reflects the goals they value.

In the case of vocational education, interested parties can be divided into three groups: policymakers, producers, and consumers. Policymakers are legislators and high-level administrators at the Federal and state levels. They allocate funds and set the ground rules under

[4]Ibid.

[5]See Gareth E. Hoachlander, "Systems of Performance Standards and Accountability for Vocational Education: Guidelines for Development," (Berkeley, California: National Center for Research in Vocational Education, 1990); Norton W. Grubb and Lorraine McDonnell, *Local Systems of Vocational Education and Job Training, Diversity, Independence, and Effectiveness*, National Center for Research in Vocational Education, University of California, Berkeley, 1990.

which services are provided. Producers are the direct managers and suppliers of the services, and in this case would include school district administrators, heads of schools or postsecondary institutions, vocational education department heads, and teachers. For the purposes of this discussion, consumers can be thought of as two types, direct and indirect. Direct consumers are parents and students; indirect consumers include both employers and other community members who benefit from the services provided.

Working backward through this chain of interested parties, from the direct consumers to the policymakers, it is relatively easy to distinguish the different kinds of performance information each requires:

- Students and parents need basic information about programs, e.g., the skills taught, costs, time to complete program, and employment prospects.
- Employers need quite specific information about the skills of the people they are considering hiring. While information about the program from which a particular student is graduating may serve as a reasonable proxy, the employer also is quite likely to be interested in the level of competency of the particular student.
- Producers need information that helps them monitor and tailor their vocational offerings. Do graduates stay in this area or move elsewhere? What kinds of jobs exist in this community now, and what kinds are likely to be created in the near future? What proportion of our students, in different programs, are performing at an acceptable range according to local employers? Which programs are no longer needed, and what new services should be supplied?
- Federal and state policymakers need to know if services are provided equitably among different states and districts and within districts to different population groups. They will want to know if the services provided appear to match community needs, as well as the level of satisfaction that local consumers, both direct and indirect, appear to experience with local programs. Generally, the policymakers will want to make sure that some outreach and "sensing" mechanisms exist to determine local needs, and that local communities have some way of assessing their own performances.

The question remains, what are performance measures, and what standards can be applied to them? Hoachlander's guidelines in this respect are very useful.[6] He includes several criteria for performance measures: They should provide clear and precise definition; they should be quantifiable; they should be relatively easy and inexpensive to measure; they should be consistent across programs and institutions, timely, and consistent over time.

What Are Performance Measures and Standards?

A performance measure is a variable that tells us something about proficiency in accomplishing a specific task. A measure may be defined for students, courses, programs, institutions, districts, regions, or states. For example, a performance measure for students might be the time it takes to complete an overhaul of front disc brakes; for a program or institution, the number of students successfully completing an automotive program, or the number of stu-

[6] See Hoachlander, op. cit.

dents completing a planned sequence of vocational and academic courses. For a district or state, a performance measure might be the number or proportion of students completing specific programs who find employment, or who find employment in the area of their training.

Performance standards, by contrast, are specific values on a performance measure that indicate minimum, adequate, and high levels of performance. Using the measures discussed previously, a minimum student level of performance might be completing the front disk brake overhaul in two hours; adequate performance in 90 minutes; and superior performance in 45 minutes. For an institution, 90 percent of students completing the automotive program might represent superior performance; 80 percent, adequate performance; and 70 percent, minimally acceptable performance. And for a district, similar proportions of students finding employment might represent appropriate benchmarks. Additional standards readily can be imagined: For a student, acceptable performance can be demonstrating particular competencies, advancing to the next level of education or training, or obtaining a job related to training. For an institution, acceptable performance can be maintaining full enrollment in courses, graduating a set proportion of students, or placing a percentage of graduates in jobs.

An important function of a performance standard is to trigger remedial action. Congressional and state interest in performance standards rests on something more than a vague belief that they are good things to have. If a trustworthy system of performance measures and standards can be put in place, deficiencies can be illuminated, leading, ideally, to corrective action.

Need for Multiple Measures

Just as different actors have different information needs, so too different types of information must be available to serve those needs. Researchers appear to agree on the importance of three types of performance measures: learning measures, student labor market outcome measures, and measures of community-wide support.

Learning Measures. These measures concern the acquisition of academic and vocational skills. Student achievement on standardized academic tests and on competency-based tests; rates of course and program completion, degree or certificate attainment, and high-school graduation; and patterns of course taking (e.g., proportion of students pursuing a planned sequence of vocational and academic courses) all are examples of performance measures related to learning goals.

Labor Market Measures. These measures assess performance in the labor market after leaving vocational education programs. One obvious measure would be placement rates; another would be placement in work related specifically to the training provided. Other examples include the time needed to find and secure employment, placement in further education and training, opportunities in the armed services, time employed in the first job, employee and employer satisfaction, and various wage indices such as entry-level wages, quarterly earnings, or rate of increase in earnings.

Community-wide Measures. These outcomes are much more complicated to monitor. They might include such indicators as the economic opportunity structure in the area (i.e., skills and labor market outcomes for students who had been victims of discrimination); voca-

tional education responses to emerging business needs; and broader effects on the local economy, such as the health of local firms or increases in aggregate activity.

Part of the rationale for multiple performance measures is the "corruptibility" of individual measures.[7] Individual performance measures or indicators are corruptible if it is possible to affect the indicator outcome without any real change in the underlying behavior it is intended to measure. Thus, for example, students' average grades are relatively easy to corrupt, since they can be raised through a lowering of standards as readily as by an increase in student performance. To guard against the possibilities of corruption, most analysts recommend that important outcomes be measured in several independent ways and be continuously refined. Senior policymakers may think they want one kind of information, such as whether students are learning or getting jobs. But without contextual information about the manner in which programs work and the problems that must be overcome, officials are likely to misunderstand reported outcomes and take actions that might make programs less effective in the long run.

VOCATIONAL PROGRAMS: SPECIAL PROBLEMS

Based on this analysis, it is quite clear that accountability processes cannot be designed in the abstract. They must reflect the character of the services provided, the goals of the actors involved, and the abilities of providers to improve their own performance. The core argument of this paper is that the realities of vocational education frustrate any effort to build a hierarchical accountability relationship between Federal officials (members of Congress and executive branch administrators) and local program operators. This is so for two reasons. First, Federal officials' goals for vocational education are diverse and conditional: They want local service providers to serve local community needs, which may differ dramatically from one place to another. Second, the effects of Federal funds and regulations are not traceable to the local level, because there are no unequivocal differences among the types of vocational education supported by local, state, federal, and private sources. The confounded nature of vocational education programs defeats the effort to measure the effects of specific federal actions.

Diversity of Goals and Services

Vocational education is a general term—not simply a broad umbrella, but an enormous tent sheltering a remarkable variety of very different activities. Vocational education is delivered in public high schools, community colleges, proprietary secondary and postsecondary institutions, and community centers. It covers a range of technical and practical subjects, from avionics to cooking, and can impart highly refined skills in mathematics and science, or very basic ones in arithmetic, reading, and simple record keeping.

The goals of different vocational education programs vary from place to place and from student to student. Some vocational courses are integral parts of a program sequence leading directly to a highly skilled occupation (e.g., technician for small shops specializing in com-

[7] See William W. Cooley, "Educational Indicators within School Districts," in Ron Haskins and Duncan MacRae (eds.), *Policies for America's Public Schools: Teachers, Equity & Indicators* (Norwood, New Jersey: Ablex Publishing Corporation, 1988).

puter-assisted machining operations). Other courses (e.g., typing or homemaking) provide highly specific skills that may be as useful for university-bound students as for students who go directly to work in jobs requiring fewer skills. Because students in a single institution (e.g., a comprehensive high school) may take the same course for disparate reasons, there are no consistent relationships between the character of instruction provided a student and the intended outcomes of that instruction. Nor, for that matter, is there any necessary relationship between the kind of institution providing the instruction and the intended outcomes for the student.

In this environment, aggregate measures that ignore the diversity of places and programs cannot gauge accurately the performance of vocational education.

Ambiguity of Cause and Effect

Given that diverse goals and services complicate efforts at aggregate measurement, a second complication, possibly more compelling than the first, is that vocational programs receive support from many sources, making it impossible to identify any given program outcome with a specific funding source. Many different public and private entities fund and operate vocational education programs. There is no direct relationship between the identity of the funding source and the activities undertaken under the heading *vocational education.* Federal, state, and local funds are intermingled freely in supporting each of the types of institutions that deliver vocational education, and each type can cover nearly the complete range of subject matters and skill levels.

The outcomes of vocational education are measurable at the level of the individual student, or as averages representing central tendencies for programs, institutions, or geographic areas. However, it is very difficult to attribute any particular outcome, either at the student or institutional level, to the actions of one source of funding or authority. In this respect, the task of assigning outcomes to a specific funding source is immeasurably more complicated in vocational education than is the case in Chapter 1 of ESEA. Chapter 1 services and students are, by law, carefully kept separate from regular school services. But funding sources, services, and students in vocational education cannot be distinguished at the classroom level. Furthermore, when vocational outcome measures are aggregated, either across programs or across geographic areas, inevitably they confound the results of programs with different goals, funded by different sources.

Effects of Other Educational Opportunities. The attribution of outcomes in vocational education is further confused by the fact that vocational education students receive instruction from other sources, as well. Their intellectual skills and labor market outcomes cannot, therefore, be attributed solely to vocational education. Students learn to read, analyze, and compute throughout their school careers; their overall level of success and failure cannot, with integrity, be attributed solely to their experience in vocational education. They develop their understanding of what it is to work and how adults operate in organizations from observing their own teachers in elementary and secondary schools. These lessons can be well taught both in vocational and other school programs; they can be poorly taught in schools in which adults take little responsibility for the results of their work.[8]

[8]See Paul T Hill, Gail E. Foster, and Tamar Gendler, *High Schools With Character* (RAND, R-3944-RC, 1990).

Within a school, school system, or postsecondary institution, vocational education is part of a broad repertoire of programs. Managers of those institutions pursue the institution's overall goals, rather than the individual goals of outside funding sources. Though student assignment practices are not always enlightened, it is clear that many school heads consciously allocate students to programs to maximize student outcomes, not to maximize the apparent outcomes of particular programs. In such a case, the institution's goals can conflict with the goals of particular, externally funded programs: Students might be assigned to vocational education because they will do better in such programs than any others the institution has to offer. Those students, however, might not be the ones who would create the appearance of greatest success for the vocational education programs. In such a case, the institution may have met its own goals extremely well, and the vocational education program will have made a major contribution, but the vocational education program, in isolation, may not look highly successful.

Efforts on the parts of higher authorities and external funding sources to guarantee clear identifiability of the services they fund can distort institutions' program offerings by requiring special pullout programs for beneficiaries, for example, or by encouraging managers to "cream" the student population in order to inflate apparent outcomes. In general, pressures to maximize the apparent effectiveness of programs that, like vocational education, operate as integral parts of broader institutions frequently have perverse results.

CONCLUSIONS

Based on this analysis, the following appear to be the dimensions of a box that can contain performance standards for vocational education:

- Performance measures and standards are valuable only insofar as they inform judgments and focus action.
- Performance standards must be understood as part of an accountability process under which all the actors who expect specific benefits (and whose support for the effort is essential) can judge whether it is working in their interests and can make decisions about whether to sustain, modify, or eliminate it.
- The larger accountability model should recognize that programs serve diverse purposes, and that performance information will be used in varying ways by different groups, each guarding its preferences and its stakes in vocational education programs.
- Performance measures should be developed around at least three outcomes: learning, student success in labor markets, and community-wide support for vocational programs.
- Because the realities of vocational education frustrate any effort to build a hierarchical accountability relationship, performance standards should be designed to help local service providers serve local needs which may differ dramatically from place to place.

These dimensions represent a very large agenda, one oriented toward encouraging accountability for local performers to meet local needs. If that agenda is to be realized, the major onus will fall on states and localities. Immediately a question arises: Do they possess the capabilities to respond? As the next section makes clear, some states and localities do, while some do not. Most possess capabilities somewhere in between.

3. STATES AND LOCALITIES

As the Perkins amendments made their way through the legislative process to the President's desk, the economy was reaching the end of one of the longest peacetime expansions in American history. States and localities, flush with a decade-long expansion in tax revenues, were able to increase education funding dramatically in the 1980s. But as the Perkins amendments became the law of the land, the period of economic expansion ended, to be replaced with nationwide headlines about state and local budget deficits and their effects on non-entitlement spending: reductions in education funding; cutbacks in public assistance and aid for the homeless; layoffs and furloughs (forced, unpaid leave) for state and local government employees, including educators; rising tuitions accompanied by layoffs at public colleges and universities; and shelved plans for program and building expansion.

The Perkins amendments added to these difficulties for state education agencies. Prior to 1990, the Federal set-aside for vocational education administration at the state level was 7 percent of each state's basic grant. The 1990 legislation, intent on targeting the highest possible proportion of funds to the local level, reduced the set-aside for state administration to 5 percent of the basic grant. At the same time, the legislation clearly asked state education agencies to play a much more active role in developing performance standards. How do states and localities understand these new accountability requirements? How have they responded in the fiscal environment in which they find themselves? How nearly do existing state and local accountability processes come to fulfilling the Perkins requirements? What are states and localities doing to fulfill the requirements?

In order to explore these issues, state and local vocational education administrators in New York, Pennsylvania, Maryland, Ohio, Oklahoma, Indiana, and California were interviewed in late 1990 and early 1991. In addition, attempts to trace the effects of state actions were made via interviews in a small number of local education agencies. The interviews explored four broad questions:

1. Current efforts. What is the State Department of Education doing now to hold local vocational education providers accountable for program quality and student outcomes?
2. Client information. What information, if any, does the state now supply to local businesses, civic leaders, and parents about the performance of vocational education programs?
3. Plans. What does the State Department of Education plan to do in response to the Perkins Act performance standards and accountability requirements?
4. Trade-offs. What current state-level accountability or program improvement efforts are being abandoned, in response either to the Perkins requirements or to state budgetary limits?

The interviews elicited an amazing range of responses. Some states already were deeply engaged in an effort to "manage vocational education with data," keeping detailed accounts of program enrollments and outcomes, providing local administrators with information comparing their efforts with others across the state, and pressing for the elimination of programs with falling enrollments or lagging job placement rates. Others were limited by a pervasive

state culture of localism, unable to imagine that they could take aggressive regulatory actions or put local providers under pressure by publicizing results.

Some of the more aggressive respondents saw the Perkins requirements as opportunities to press reforms they had long favored. Testing advocates particularly were encouraged. As one said, "The requirement for gain scores can mean only one thing: fall and spring testing of every vocational education student." Another echoed, "This is the one chance to get true statewide testing for all vocational education. Without these federal requirements it would be much tougher to overcome local resistance."

Budgetary crises and strong traditions of localism made other respondents much less enthusiastic. As one state agency official said, "This state has been abandoning statewide tests and other expensive measurement as fast as it can. Nothing in the Perkins Act is going to change that." The vocational education director in another state said, "Every sort of educational funding is being cut back. The state office is the first thing to get cut, but that happened years ago. We are now cutting into the bone and muscle in the schools. This is no time for an expensive new testing program."

Others embraced the principle of state-level responsibility to ensure that local programs were monitored closely and held accountable, but they argued that states must have flexibility in devising responses. One state vocational administrator said, "The law [Perkins] can only mean for us to do what is possible. We can try out some testing and think about what a statewide set of records might be like. But we can't do it for the whole state now."

Another emphasized that states cannot fulfill all their responsibilities by measuring outcomes and publicizing results. As one state official responsible for program accreditation said, "It is good to have statewide indicators, the more varied the better. But they don't tell us how we should act toward any school or program. That takes a close look at the local conditions."

Despite these differences, vocational education officials in all states were concerned about program quality and determined to improve it. The results of interviews in the seven states are summarized below, highlighting circumstances in those states that appear best and least able to respond to the Perkins requirements. Because the detailed information is now more than a year old, extensive summaries of the other states are not included here.

Table 1 outlines the situation in the seven states with respect to each issue. The evidence from the states surveyed in this study reveals a remarkable array of ongoing and planned state activity. Many state and local vocational education programs were embedded in well-developed accountability systems, in which program quality assessment was valid and linked to plausible program component processes. Others have weak accountability processes. All such processes, strong or weak, are compromised severly by the financial condition of individual states and by state legislative support for education, generally, as well as for vocational education.

THE GOOD NEWS . . .

In some states, such as Indiana and Oklahoma, the state education agency has been able to maintain impressive, often elaborate, statewide accountability mechanisms in the face of

Table 1

State Summary

State	Current Effort	Client Information	Plans	Constraints
California	Annual survey	None currently	Add vocational programs to report card	State deficit
	Accreditation reviews	Report card will provide	Add academic content to vocational program	No effect on Perkins standards
Indiana	ISR (Indiana Student Reporting) system of student data	None currently	Possibly combine ISR system with VTECS to provide warranty of graduates	None expected
Maryland	13-point evaluation program. Profile on each graduate. SEA on-site visits	None currently	Add vocational education to school report card	State deficit
New York	Still supports VEDS	None currently	Task force on standards. May go to school report card system.	State deficit
Ohio	Still supports VEDS	Data on economic trends and job demand	Unresolved conflict over pre- and posttesting	State technical assistance reduced dramatically
	Consultants examine poor programs			
	Placement rates—84% candidates for closing		Strong compliance orientation	Central staff cut
Oklahoma	Elaborate accountability apparatus		170-plus detailed new curricula	
	Continued VEDS; added new surveys of students, graduates, and employers; complex accreditation review process	Surveys of student outcomes Accreditation visits State mandate for local industry advisory bodies	Competency tests for new curricula	None
Pennsylvania	Lost VEDS	Economic and labor demand projections	Task force considering Perkins requirements	
	Surveys localities on graduates' placement and earnings after 1 year	State-required local employer advisory group very effective in rural areas	Possible report card	
	5-year state review requirement a "paper exercise," except for reviews of 9 AVTSs	Keystone skills certificate testing program designed, but not in widespread use		State budget problems have eliminated state accountability mechanisms

cutbacks in Federal support for state agencies and Federal abandonment of the Vocational Education Data System (VEDS). These states consider their efforts to be independent of, and often to precede, Federal interest in performance standards. State officials generally are confident that their own plans for accountability and performance improvement easily will satisfy any Federal requirements.

Indiana and Oklahoma are states in which vocational education is run by a separate organization that is not subordinate to the state education agency. This means that the leaders of vocational education have direct access to the state legislature and can deal independently with local education agencies. Independent state vocational education agencies can develop their own strong relationships with universities that train teachers and develop curriculum, as well as with community colleges that deliver or supplement vocational education services.

In contrast, state vocational education offices that are subordinate parts of the state education agency must coordinate legislative advocacy and local oversight with other elementary and secondary education programs. At the state level they suffer from the same cuts in staff and funding as affect other education programs. In many states they also are under pressure from the governor and business community to adopt an assistance-oriented mission, abandoning the federal programs administration and compliance monitoring functions that have dominated state agency missions since the early 1970s. In Ohio this pressure has taken the form of a major report by the business community condemning the emphasis by the State Department of Education on administration of federal programs and demanding adoption instead of a totally different assistance-oriented mission (Ohio, 1991).

Oklahoma

Of all the states visited, Oklahoma has by far the largest and most elaborate state vocational education administrative apparatus. The state has more people working on curriculum development, alone, than any of the other states have for their entire vocational education office staff. The state's vocational education accountability apparatus, already complex, rapidly is becoming more so. Having had no difficulty continuing the VEDS system, the state has elaborated that system with a number of its own statewide surveys of students, graduates, and employers. It has an extensive statewide accreditation system, as well, under which teams of experts (including state officials, employers, academics, and professionals from other local vocational education programs) visit local programs for a week to review program quality.

Though all of these activities predate the Perkins requirements, state officials have no plans to abandon them. What is new since Perkins is a system of competency tests being developed for each of the more than 170 separate vocational education curricula that the state office has developed. The new curricula prescribe in detail the course content and instructional sequences to be followed in specific occupational areas (e.g., structural carpentry, concrete forms carpentry, and cabinetry). The state vocational education agency is developing component skills lists (based on industry advice) for each of these 170 areas. Then it plans to build a complete battery of competency tests for each group of skills lists. The tests include questions of fact, written scenarios testing inference and judgment, and live performance of critical tasks. The tests are being developed and calibrated by administering them to skilled journeymen in the occupations under assessment. The state then will establish a cutoff score

for successful completion of the tests; for example, a student must answer correctly 75% of all the items on a given test in order to be certified as competent.

These tests are under development still, and complete tests exist now only for about ten occupations; however, the task lists that will be used to generate test items are almost complete for all curricula. Ultimately, according to state officials, this testing program will be the main medium of accountability. The state will use the program to certify programs. Local education agencies will use it to determine whether to start or terminate programs, and employers will use it to make hiring decisions.

These plans for testing complement the existing accountability structure of student surveys and periodic accreditation visits. Also, the state requires localities to maintain industry advisory committees for every major program. Given the high level of staffing at the state office, the surveys and accreditation visits are particularly effective management tools: The state supports consultants who look closely at programs with poor results, and several (fewer than ten) are closed every year.

Because most vocational education programs are in rural areas and small towns, local advisory groups truly can be representative of local employers who are, therefore, highly influential. Some local Area Vocational Technical Schools (AVTSs) also are experimenting with skills certificates attached to a student's high-school diploma; these certificates describe in some detail the skills a student has mastered.

Oklahoma offers an impressive array of information services, mostly used by local vocational education programs, not by the clients of the local programs. The state supplies basic tabulations of its VEDS-like data to all local programs and maintains a hot line for special analyses (e.g., How does the placement rate for my auto mechanics program compare to the statewide average?). Most hot line questions come from local providers, not from employer or parent groups. In general, except for large cities, the employer advisory groups are influential because their members truly represent local employment opportunities for graduates and understand local job needs.

The state has no intention of abandoning any of these efforts. Although the state director complains about reductions in federal support for state-level operations, his access to the legislature has, to date, guaranteed ample funding. The costs of the testing program have not yet been fully realized. But now, with only a few tests completely developed and the entire scheme being pilot-tested in three schools, there is no talk about costs or burden as an impediment to the state's plans for performance standards.

. . . AND THE BAD

In other states the combination of Federal changes and statewide budget calamities have severely undercut state agency efforts to improve program performance. Both Ohio and Pennsylvania are struggling with the effects of budget shortfalls on statewide administration of vocational education.

Pennsylvania

Vocational education is healthy and vibrant in many Pennsylvania localities, but at the state level it is in bad shape. In some ways, Pennsylvania is the kind of state for which the new Perkins requirements were written—a state that has no real accountability or program improvement structure for local programs. Although the requirements have motivated state officials to think about what they will do, they have few assets. It might be a long time before they are able to create any real statewide effort. The state has been unable to maintain VEDS, and although the Governor and the Secretary of Education speak enthusiastically of requiring school report cards (which may or may not involve vocational programs), the truth is that state budget problems already have led to reduction in state staffing and funding for travel and consultants. The state's capacity to measure local performance, or to act on performance information once it is obtained, is very low. For example, state-mandated five-year reviews of vocational programs have, in the eyes of state administrators, been reduced to little more than paper exercises.

Like most other states, Pennsylvania assembled a task force in 1990 to consider ways to respond to the performance standards/measures requirements in Perkins. The task force had a daunting assignment, however, because the state had dropped its VEDs system in the early 1980s, as soon as the federal requirement was lifted. In general, according to the Pennsylvania vocational education director and senior staff, the state is strongly oriented toward local control. During recent state budget crises, that principle was used to rationalize dramatic reductions in state staff and activity. Although the state office still surveys local vocational programs about experience of graduates (i.e., placement and earnings) one year after completion, those data have not been used regularly to evaluate or to manage programs.

The task force has consulted with similar groups in Ohio and California, and its members are considering a possible competency testing system. There is serious doubt, however, that funding for such a system ever will be available. The legislature forced cancellation of two prior testing programs (due to budgetary considerations and pressure from local education agencies), and now the state has no statewide testing program. The governor is in favor of a report card system like California's or Maryland's, and the Secretary of Education strongly supports the concept. But if such a system is created, it will not address vocational education immediately, and it remains unclear whether there will be sufficient funds to include vocational programs at any time in the next several years.

The state office's job is complicated by the structure of vocational education in Pennsylvania. The office deals directly with 87 technical schools, 9 area vocational-technical schools (AVTSs), 87 vocational schools, 13 community colleges, and 501 local education agencies. In theory, every program, including every vocational education institution and comprehensive school offering vocational education, has a review every five years. The review should include an application, self-assessment, site visit, and feedback. Given the size of the state staff (fewer than twenty), however, the schedule is unrealistic. State staff members visit a few of the 1400 programs each year, but the five-year review has become, at best, a paper compliance effort headquartered in Harrisburg. The state provides economic and labor demand projections of a highly general sort, but it does not provide program comparisons or any standard outcome measures. That would be the purpose of the governor's report card scheme.

The state requires each vocational education program to have a local employers' advisory group, and these are active, especially in rural areas and for specialized vocational and technical schools. Employers' advisory groups suggest needs for new courses, advise on trade-offs between existing courses and potential new ones, and help develop curricula. Unlike Oklahoma, with its highly centralized system, curriculum development in Pennsylvania is a local activity. Such advisory groups are less active and influential for programs in comprehensive high schools, especially in the big cities. The state office has pushed the idea of competency certificates and has provided training materials on ways local programs can incorporate such certificates into diplomas and call employers' attention to them. The state office also has created a program called the *Keystone Skills Certificate*. This is a rigorous testing program designed to demonstrate students' attainment of very high degrees of technical skills in several fields, most related to electronics.

Testing in the Keystone Skills program is extremely demanding. Only students with advanced reading and thinking capabilities, as well as technical skills, can pass it. Although the state has paid for the design work, the local programs must pay for the tests, which are administered individually and take nearly four hours to complete. The Keystone program has not caught on, really. Only a few local programs are using it, and the state has no means of determining whether the certificate is helping graduates get jobs. Some state officials worry that the demandingly high standards can be met only by those students so capable, they will go straight to college or will be hired by employers immediately, with or without a certificate.

At the state level, Pennsylvania seems to have nothing left to lose with regard to the new Perkins requirements. Vocational education programs may be healthy at the local level, because of the structure of the Pennsylvania economy and the close-knit nature of the smaller communities, but the state no longer is able to promote improvements in local program quality. The governor's report card scheme is the only state-level performance measurement activity on the horizon, and it will not affect vocational programs for a long time, if ever.

MIXED REVIEWS

Most states appear to have neither the ambition and self-confidence of Oklahoma, nor the problems of Pennsylvania. They have some successes to report in the area of performance standards, as well as some failures. Some states have been able to maintain programs in the face of state and federal reductions, but were unable to mount new efforts. Others have salvaged some efforts, but have had to abandon others. Most other states visited had a far healthier system of state monitoring and accountability than Pennsylvania has been able to maintain, but had far fewer varied and ambitious systems than Oklahoma boasts. All but California had continued a VEDS-like program data system. Indiana also was developing a statewide system of computerized student records that could be used to track enrollments, student progress, and initial labor market success. Most had sustained the practice of periodic local self-analysis leading to external accreditation reviews. These reviews took place once every three years in Ohio and every five years in California; over time, state staff members have assumed a smaller role in these processes, as cutbacks depleted manpower.

Many state directors expected vocational education to be included in broader statewide testing programs and school report card systems. California and Maryland, for example, ex-

pected new statewide school report card systems eventually to include indicators of vocational education enrollment, completion of industry-focused training, and integration of academic and vocational training.

Vocational education directors and evaluation specialists in several states hoped to create competency testing systems like Oklahoma's, but none were confident that funds to develop such a system could be found. Some state officials, thinking that the Perkins Act language on student competency gains required fall and spring testing of all students, despaired of coming into compliance in time. Others understood that Congress had not intended to mandate a whole new testing system for any state. In general, most states maintained a combination of formal measurement systems and informal site visits to assess program quality, identify areas in need of improvement, and target assistance. The majority had experienced cutbacks in state agency funding, and thus were making do with fewer staff members, fewer consultants, and less money for travel. Some saw the movement toward testing as a way to substitute technology for people. But most senior state officials thought they had less information about local programs than in the past, and they could do less to help those in need.

VIEW FROM THE LOCAL LEVEL

In addition to the state level interviews, informal local site visits were conducted in Pennsylvania, Ohio, Oklahoma, California, and Indiana. In addition, school-level cases written for other RAND and NCRVE studies were analyzed in Ohio, New York, Virginia, Florida, Kentucky, California, and Oregon. The resulting data base covers rural, urban, and suburban areas, as well as specialized vocational education institutions and comprehensive high schools that provide some vocational programs. The goal was to understand the ways in which local programs are held accountable to employers, parents, students, and the local public education authorities.

Though data were collected at the LEA, school, and program levels, complete case studies of the larger and more complex systems could not be conducted. The result is a national sample of local programs and their accountability processes, rather than complete case studies of particular localities.

The overwhelming sense derived from local interviews was that in small, particularly rural, communities, accountability processes work reasonably well, but that they are much more problematic in larger, urban, areas. In very small communities with only a few employers, it is possible for healthy accountability processes to work in everyone's interests. As the head of a small-town vocational center said, "All the businessmen know one another and know the families of virtually all the kids going through the schools. It is easy for the business people to know whether the school programs are producing the workers they need, and it is easy for parents to know whether their kids are being prepared."

In a small town or rural area, the range of employment opportunities is finite and generally understandable, and almost all employers who care to can participate in the normal processes of consultation. Vocational education teachers know their communities, often taking the initiative to seek out employers to assess the quality and relevance of the teaching they provide. Vocational education administrators and teachers serve as placement agents both for students and employers. Performance feedback is quick and direct: Providers cannot hide behind bureaucratic routine-following. In larger communities, however, only a fraction

of employers can be consulted directly. Vocational education directors, like one in an Indiana city, must "work through formal meetings or advisory boards. No one could have direct contact with even 1% of the employers in an urban labor market." In big cities, larger and longer-established employers are easier to identify and to engage in collaboration. They are far more likely to be consulted than small or newer employers. In some places this means that important employer interests—the small firms that are the normal employers of new high-school graduates and the newer firms that may rely on unfamiliar technologies and offer unconventional career opportunities—may be poorly represented.

As vocational education administrators in several major urban areas told us, the work of teachers and administrators also is affected by their being parts of large, formally organized systems. They are assigned and evaluated according to formal procedures designed to limit individual discretion and to prevent "undue" outside influence in professional activities. The result is that providers often are insulated from employers and get little direct feedback about graduates' work experience.

The best local accountability processes ensure the quality and relevance of vocational education programs through a variety of mechanisms that rely, in the main, on the relevance of vocational program offerings to local job demand. To the extent that performance standards exist, they revolve around placement rates and employer satisfaction, not around proportions of students in various skill areas able to complete specific tasks. Mechanisms such as the following are common:

- Employer advisory committees are established, frequently to assist discrete programs, but often to provide advice on emerging needs virtually in every area of vocational offerings, as well as to school- and district-wide planning for vocational education.
- Some localities track employer needs routinely in their student placement efforts, as well as through follow-up surveys of graduates and of employers.
- Many vocational programs make their success placing graduates in jobs related to their training—a recruiting device to interest prospective new students and their parents.
- Some LEAs and postsecondary programs actively seek employer approval and certification of potential new course offerings, initiating, eliminating, or expanding courses based on student and employer demand.
- Schools that provide only vocational education depend on business sponsors for donations and support on local budget struggles and on the voluntary enrollment decisions of students and their parents. They often are quick to change programs that do not meet the needs of key local audiences.
- Some metropolitan area vocational education providers arrange cooperative work experiences for students and send teachers to work for key employers in the summer. This creates personal linkages even in areas too large to depend on routine personal contacts and friendships.

The negative side of this picture, however, is that many local processes, particularly, but not exclusively, in urban areas, have serious weaknesses. The weaknesses are due not so much to issues of lack of competency testing as they are to the almost complete lack of effort to understand local employers' needs or to adapt existing programs to job demand. For example:

- Tracking of student placement in many large communities at best is lax, and at worst is nonexistent. Urban area teachers and administrators who keep track of their vocational graduates are the exception. Those urban providers who try to follow students do so via formal surveys. Given urban students' high mobility, however, the surveys provide little useful information.
- Many localities, both large and small, lack the capabilities to project emerging labor force needs, nor do they have access to state or regional data to help in thinking about program implications of these needs. Again, providers in urban areas have especially severe problems, since the labor markets they serve often are much larger than the geographic area from which they draw students. Therefore, they cannot rely on their immediate local contacts for complete information.
- Attention to student needs in some communities is largely directed at the requirements of current students. Very little attention is given to the needs of transient students (e.g., children of migrant workers or of single parents who move frequently), or to the special needs of low-income minority students.

In such circumstances, vocational education teachers and administrators have only a dim appreciation of the economy they serve and the labor market into which they send students. As state administrators and local school superintendents in every state said, local providers easily can adopt the mentality of following an established routine, processing students through the systems and services already in place, and holding out very low expectations that students will attain skills or find jobs.

POTENTIAL CONFLICTS

A more subtle problem at the local level, even in those communities with ambitious efforts to stay in touch with employer needs, lies in the fact that the interests of students and parents easily can conflict with the interests of employers. As one state official explained, a well-established local employer may want students prepared for traditional low- and moderate-skilled jobs. A vocational education institution inclined to respond to the employer's needs may create programs that do not provide students with the skills they need to obtain employment with other employers, possibly in other localities. An additional possible conflict of interest may arise between students and educators. As Oakes (1986) has shown, some school systems emphasize college preparatory education for all but the lowest-achieving students, and others regard vocational education as the only appropriate placement for low-income minority students. In those cases, vocational education can gain a reputation for being, in Oakes' words, a "dumping ground" for students with poor academic preparation. In this situation, educators adopt low expectations for students and offer them unchallenging coursework that does not prepare them for rewarding careers. As McDonnell and Hill (1993) show, a similar sequence of events appears to be developing for immigrant students who come to the United States either unschooled, or years behind their U.S. peers. Older immigrant students also tend to be assigned to less challenging courses that prepare them only for low-skilled dead-end jobs.

CONCLUSIONS

Several impediments appear to block effective state-local cooperation in developing systems of performance measurement. One serious problem in several states is the lack of resources and personnel to support an effective performance measurement development effort. In this regard, the Federal government really is not entitled to have it both ways. It cannot reduce existing support for state administration, then, at the same time, require states to develop and administer a complex new accountability process. A second problem is insufficient attention to program quality and relevance in some LEAs. As the next section will show, this problem was a prime concern of members of Congress who initiated the Perkins Act performance standard requirements. Moreover, the possibilities for conflicts of interest among students, educators, and employers deserve closer attention in the development of performance measures.

4. VIEW FROM WASHINGTON

From the preceding section it is clear that states and localities differ widely in the quality of provisions made for accountability and performance improvement. State officials also differ in their views of what Perkins requires and the extent of the challenge its requirements pose. At one extreme are those who believe the Perkins amendments require states to build and maintain new and elaborate centrally administered performance-measurement systems that will be the basis for holding local programs accountable and, possibly, for funding decisions. Some truly embrace this view and are working hard to make it a reality. Others reject this view as unworkable under any circumstances and impractical under current budgetary constraints. At the other end of the spectrum are state and local officials who believe that the intent of the Perkins legislation was simply to encourage states to strengthen local accountability processes.

What, in fact, did those most closely associated with developing the performance standards provisions have in mind? The answer to that question was sought from Federal officials, both in Congress and in the U.S. Department of Education.

These interviews indicate that Federal officials were not trying to find a formula for determining effectiveness; rather, they were seeking levers to influence state and local activity. Senior Federal leaders lack the time, resources, or interest to monitor results. How, then, can they create a situation in which they can encourage program improvement without being required to make decisions about who will be rewarded or punished? The establishment of requirements for performance standards promises to solve this dilemma: Specifying the need for performance measures and standards forces implementers to live with the possibility of being closely observed and sanctioned.

Virtually all of these officials emphasize that federal money is a very small part of total spending on vocational education. "The awful truth of vocational evaluation," said one, "is that the reputation of the effectiveness of Federal expenditures cannot be separated from the effectiveness of vocational education as a whole. For that matter, vocational education's performance is tied to the overall performance of the entire educational system."

Under these circumstances, the Federal government has to rely on a carrot-and-stick approach to modify the operations of well-established state and local programs. The carrot of Federal money, for example, can encourage local programs to take the needs of special populations more seriously. The stick of disapproval of state applications establishes pressure to improve local performance. But Federal and state officials generally agree that although the Federal government talks loudly, the big stick it carries is not likely to be used. Withdrawal of support would, in fact, violate the existing statute, since, as one Congressional aide points out, the funds are awarded by formula—not on the basis of judgments about quality. Also, it would have the perverse effect of reducing support for programs in areas where students already are suffering from poor program quality.

Federal officials are acutely aware of the problem of the ambiguity of cause and effect in vocational education, as discussed in Section 2. Like state and local officials, Federal officials understand the operations of vocational education. At every turn they took the opportunity

to emphasize that there is no single national vocational education program, and that the vast preponderance of the money in vocational education is state and local in origin. The federal money is a marginal addition to a very large enterprise.

THE FEDERAL INTEREST

Despite their understanding of the modest role of Federal funding for vocational education, Federal officials have a substantial interest in using these funds to improve local programs. Congressional interest is rooted in several factors, according to the interviews: efficient use of public funds, legislative politics and the need to generate political support, concerns about the treatment of minorities and other special populations in vocational education, and the need to root out complacency in some local vocational education programs.

Efficient Use of Public Funds

The first factor in Congressional interest is found in the general accountability rhetoric surrounding education. As one senior Congressional staff member said, "In the early days of federal aid [to education] we took care of accountability through tight monitoring of spending and service delivery. Now, with the movement toward deregulation, the recipients of federal funds are accountable for results." Today, many business leaders are active in education and believe in accountability. As another aide said, "A solid-looking accountability scheme can generate business support . . . business is willing to support a bill that seems to ensure that the government will get a good deal."

According virtually to all the Federal officials interviewed, accountability is, in many ways, little more than a buzzword: Because public entities are receiving public money, they must be answerable for its proper use, even if the range of appropriate uses is very broad. In the early days of Federal aid, these officials point out, accountability was accomplished through tight regulation and close monitoring of spending and service delivery. Detailed process controls caused complaints and often affected program quality adversely. Officials now hope that recipients of federal funds can be held accountable through "performance standards."

The imposition of performance standards, however, goes beyond merely following the fashionable fad of the day. The new performance standards requirements in Perkins—in combination with studies from the General Accounting Office, the Office of Technology Assessment, and the National Assessment of Vocational Education—are meant to keep the pressure on, to insure that funds are used properly, and to improve the delivery of services to target populations. As a senior U.S. Department of Education staff member said, "Congress likes to keep the pressure on. [Congress] listens to anecdotes and complaints and gets worried that funds aren't being used well. They commission studies and assessments to keep the states under pressure."

Need to Generate Political Support

Because performance standards promise greater accountability, they also generate support for vocational education from many constituencies that might be inclined otherwise to oppose Federal expenditures on education. Performance standards gained support for Senators

Edward Kennedy and Dan Quayle as they advanced the Jobs Training Partnership Act (JTPA). Similarly, legislation in the area of employability training might also generate support as it promises greater accountability.

A solid-looking accountability scheme can generate support in the business community and among the fiscally conservative parts of Congress and the Office of Management and Budget (OMB). One aide pointed out that a jobs bill with performance standards prompted a letter of support from the U.S. Chamber of Commerce—a response that never had happened before regarding a piece of jobs-related legislation. The Perkins accountability requirements bring vocational education up-to-date with other training programs such as JTPA, whose requirements have attracted political support. As one Congressional aide said, "At the Federal level, vocational education has become a backwater, and funding has stagnated relative to other education programs." At the local level, a similar dynamic seems to be at work: Vocational education generally is left out of school reform efforts that focus on raising test scores in traditional academic areas and increasing college attendance rates. A realistic Federal commitment to goal setting and accountability may help Federal support for vocational programs to survive and grow.

Federal officials view business leaders as quite sophisticated consumers of performance information. "We idealize the business world, assuming that business people are closely evaluated according to results—profitability—and that consequences are swift and sure," said one Congressional aide. "But," he continued, "that is probably not entirely the case: Businesses have different expectations for different enterprises, even for similar operations in different places." Under this view, a requirement encouraging an open and ambitious process for setting local performance standards is likely to be perfectly acceptable to the business community.

Concerns for Minority Students

Despite the general popularity of accountability and performance standards, they are accompanied by some unwanted baggage, particularly the possibility that performance standards might damage programs serving minorities and other special needs populations.

Minority members of the House Committee on Education and Labor, including former chairman Augustus Hawkins of California, believe that JTPA's performance standards encouraged programs to "cream," that is, to choose those students who were most likely to get good jobs even before the training. In many instances, creaming led directly to discrimination against blacks and Hispanics. In addition, some majority members of the committee, including current chairman William Ford of Michigan, are suspicious of schemes that might punish those programs whose students have the worst problems.

This means, in effect, that as the performance standards requirements are implemented, vocational education administrators need to pay particular attention to the effectiveness of local programs in providing services to special populations. Surely, it is no accident that the accountability, evaluation, and performance standards provisions of the Perkins legislation (see Section 1) turn repeatedly to the issue of access of special populations to high-quality vocational education programs. State plans must consider this issue, the National Assessment of Vocational Education is to examine it, and the National Center for Research on Vocational Education is to conduct research on it. Finally, among the Perkins Act provisions for

performance standards, states are required to consider incentives to encourage services to special populations and to assess local programs, in part, on their ability to meet the needs of special populations. For their part, localities are to develop their performance measures in consultation with students with special needs and the parents or representatives of such students.

Attacking Complacency

At the Federal level, few supporters of vocational education are more staunch than the Congressional staff and Department of Education officials responsible for the Perkins Act. As a senior House staffer said, "Vocational programs are closely connected to local business needs, and everybody knows which programs are preparing effective workers for local jobs." Also, Congressional respondents noted that the situation is much more complicated in urban areas where the connections between schools and local business are less direct. As one respondent noted, in some cities vocational programs are large and bureaucratic. Students are not provided with the services so much as they are processed through a system, and many programs continue long after private sector demand for their skills has disappeared.

It is the view of these Federal officials that national and state leaders can see the effects of their investments in rural areas, but money disappears without a trace in many urban areas where too many programs are little more than holding patterns for students uninterested in any other aspect of high school. In these situations, nobody (students, teachers, parents, or administrators) really expects the students to learn enough to work in the area of their training. This state of affairs makes Congressional supporters of vocational education, particularly those from urban areas, defensive. Representatives from urban areas are not interested in embarrassing or negative information, but hope that the performance standards requirements can "light a match" under some fairly complacent, entrenched local administrators who never have had to defend the performance of their programs.

Performance Standards Versus Aggregated Data

The Congressional solution to the tension between integrated local programs and separate federal accountability was, in the words of a senior education committee staff member, "to require performance standards, but to separate them from funding decisions." Once standards are established, states have the responsibility to monitor the performance of local programs and to offer assistance to those doing poorly. There is a vague long-term possibility of adverse funding consequences, but the consequences are not spelled out.

Congressional supporters of performance standards believe that most vocational educators will have little trouble with the accountability requirements as they have been defined. As one respondent said, "Vocational educators are accustomed to having to demonstrate whether their students get work and to working with local employers who frequently have strong opinions about whether students are properly trained." Furthermore, the supporters argue that, compared to regular elementary and secondary education, the outcome measures for vocational education are more realistic and fair: Indeed, students' performance in the labor market is a better basis for accountability than scores on standardized tests.

Why, then, does the Federal government worry about performance standards if the states themselves care enough to spend a great deal of money on vocational education? In vocational education, as in other areas of federal aid to education, the federal government sometimes seeks to empower state and local officials who want to run their programs more rigorously, but need help to overcome entrenched provider groups. It is clear that Federal officials believe the standards keep performance pressure on the states. The thinking seems to be that it cannot do any harm to make the states expect scrutiny, to lead them through a search for appropriate standards and measures, and to make them contemplate the consequences of failure. Most states, of course, have some form of performance standards. But as a Congressional respondent said, "The Federal emphasis on 'standards and accountability' put the providers under new pressure to perform," regardless of whether top policymakers intend truly to mete out sanctions for poor performance.

It is clear from the RAND interviews that the Department of Education's preference is to leave discretion at the lowest possible level. Officials believe that performance standards can help enhance local accountability if states assume the responsibility to measure and report on effectiveness and to increase program quality. The federal obligation, under this approach, becomes one of keeping the issue before state leaders, many of whom have not, in the past, been consistently rigorous about enforcing standards.

PRACTICAL EFFECTS OF THE STANDARDS

How, as a practical matter, do Federal officials see these new performance requirements working? Given the great diversity of vocational education programs and the strong political motivation for providing grants to all localities, it is difficult to make a case for removing a program's funds based on the performance standards. In fact, as is clear from the comments of Congressional and U.S. Education Department respondents in the previous discussion, most Federal officials do not foresee such an outcome, at least in the short run. As one official said, "Congress did not want to be trapped into removing funds from localities that desperately need help just because their current programs are not as good as they should be." In the event of demonstrably poor performance, the Perkins provisions call for progressively more aggressive state technical assistance and program redesign.

Federal officials envision a fairly lengthy and complex process for implementation of standards. Once standards are set at the state level (a process that might take two or more years and will be complicated by the diversity of vocational programs), the legislation, in general, requires the following:

- Recipient local programs and institutions, e.g., local education agencies, area vocational-technical schools, and community colleges, conduct their own self-evaluations in light of the standards.
- Failure to meet the standards requires a locally developed plan to meet them.
- After two years of reported failure, the state education agency will work jointly with the recipient institution, teachers, and parents. The state will provide technical assistance and will facilitate planning to create improvement, with a timetable for re-assessment of progress.

- The state-managed technical assistance and planning process will continue in subsequent years until the performance standards are attained for more than one year.

Federal observers do not believe that these requirements impose an overly burdensome process on local recipient institutions. Most of the initial burden, they point out, will be on the states, at the front end, as they grapple with the difficult challenge of developing standards and assessment methods. States inevitably will have to face the problems of perverse incentives in any measurement scheme, ensuring both that programs show success and that they don't "cream" the eligible population in order to guarantee that they will look good. Although these considerations certainly are good news for local providers, they hardly can be encouraging to state agencies suffering through major staff reductions and coping with a general decline in the funding and capability of the entire state education agency.

CONCLUSIONS

Driven by four concerns grounded in legislative politics—a desire to ensure the efficient use of public funds, the need to generate political support, concerns about the treatment of minorities and other populations in vocational education, and apparent complacency in some local vocational education programs—Federal officials have imposed on states a requirement that they develop performance standards and measures against which the effectiveness of local programs will be assessed.

Based on the judgments of Federal officials responsible for vocational education, it appears clear that the two worst fears of some state and local administrators about these new requirements are groundless. The first fear was that the standards would be used to make funding decisions. But Federal officials indicate that the standards will be kept entirely separate from decisions about eligibility for funds and level of funding, which are determined by statutory formula, not discretion. Once the standards are established—a process that may well take several years—states will have the responsibility to monitor the performance of local programs and to offer assistance to those experiencing the greatest difficulty. There is, of course, some long-term possibility that sanctions could be put in place on the basis of the standards, but that is not spelled out and would, in any event, require statutory changes.

The second fear is that the standards are meant to create a nationwide system for aggregating performance information on vocational education to develop, in effect, shorthand indicators of program effectiveness. This question was seldom explicitly discussed during the Federal-level interviews. Indeed, it came up, for the most part, during conversations with state and local administrators. But, by inference, Federal officials cannot seriously be considering such a result. They demonstrate a firm grasp of the diversity of vocational education programs at the local level. Their reliance on periodic renewals of the National Assessment of Vocational Education and special studies by the NCRVE and other institutions reveals that Congress does not expect to evaluate its investment via a single national data system. It is hard to believe they envision a system in which information on the effectiveness of homemaking programs offered at a local high school would be combined with data on electronics training at the local community college to provide an aggregate picture of effectiveness.

Nevertheless, despite the support for improving program performance at the local level, members of Congress and senior committee staff are concerned about the quality of local programs and uncertain about whether local programs are implemented with due concern for the needs of local students and employers. This has become an issue based on business leaders' complaints about the quality of high-school graduates across the board and on Congressional staff members' perceptions that some local managers have become bureaucratic, deadened by routine and more concerned with protecting staff jobs than with meeting local labor market needs. These concerns are based on impressions and anecdotal evidence during testimony. Nobody knows exactly how widespread these problems really are, but Congressional supporters of vocational education have found themselves on the defensive, with no strong evidence to support their positions.

The Perkins Act requirements, in this sense, were meant to reassure critics that the legislative supporters of vocational education were serious about quality, and that lax or self-indulgent program administration would not be tolerated. But members of Congress did not want to establish themselves as remote, ultimate judges of local processes or local outcomes. They wanted, instead, to create a framework of processes that would guarantee that local quality issues received due attention at the local and state levels. "Program effectiveness has to be evaluated at the local level," said one Federal official. "Federal officials should not try to use a can opener to examine local programs." Or, put another way, neither analysts nor policymakers should be too quick to open the Pandora's box of accountability, based on a single national data system, unless they are relatively confident they will know what to do with whatever emerges.

Is there, then, any role for nationally aggregated data on the effectiveness of vocational education programs? We believe there is, and the following section addresses this topic.

5. IMPLICATIONS FOR ACCOUNTABILITY IN VOCATIONAL EDUCATION

Members of Congress and senior federal officials cannot make decisions about local program quality based on standard national data. Does this mean they can have no role in overseeing the performance of local vocational education programs? Based on our research, the answer is no. Clearly, members of Congress and senior federal officials have a stake in the performance of vocational education and the capability to influence performance. Their influence lies in the leverage implicit in legislative authority. This section explores the character of that leverage.

In our interviews with leaders of the Congressional staffs and federal officials responsible for vocational education, most were completely realistic about the relatively small size of the federal investment, and about the fact that federal, state, and local efforts are mixed differently in almost every school district. As a senior executive branch official said, "You have to understand that federal money is a very small part of total spending on vocational education. All the federal government can really do with its money is to tweak ongoing state and local programs, to move their objectives and performance toward national objectives. Federal money can influence local programs to take the needs of special populations more seriously. And, since some people in Congress think states and localities are too lax about quality, the feds can establish a process that puts pressure on and might lead to some improvement." From interviews at the state level, this reading of Congress and senior federal officials seems to apply with equal effect to state legislators, governors, and commissioners of education. Although members of Congress would like to know the precise effects of their actions, generally they do not expect to be able to micromanage vocational education or to get pure, unalloyed measures of the results of federal spending. They do, however, need some basis for confidence that the programs they support are creating definite benefits.

Congress, and often legislatures, are forums for the representation of the interests of discrete geographic areas. One of the major responsibilities of any legislator is the creation of benefits for the constituents in the district he or she represents. In assessing the benefits of a program or policy, therefore, legislators turn first to their own experience with the program at the local level, and to the opinions of key constituents, such as business and labor leaders, other public officials, and educators. If legislators believe a program is creating benefits for their constituents, they are less likely to worry about either ideological concerns or nationwide or statewide evaluation effects.[1] Similarly, if they believe a program is useless to their districts, they are unlikely to pay much attention to it, regardless of its apparent national benefits, and may, in fact, oppose it if they believe an alternative program will better serve their own constituents.

[1]A highly visible demonstration of this phenomenon at work was provided in 1973 by Gerald R. Ford, then Minority Leader of the U.S. House of Representatives. Throughout his career, Ford opposed Federal aid to the arts as an indulgence. He surprised the entire House by supporting a 1973 extension of the National Endowment for the Arts because, as he explained, he saw how a massive outdoor mobile commissioned by the Endowment helped restore business activity in his hometown, Grand Rapids.

Members of legislative committees assume obligations that differ from those of their colleagues. Committee members, ideally, become experts on the legislation under the jurisdiction of their committee; frequently they also become advocates for the legislation, and they go to great effort to make certain it provides the benefits it is intended to deliver, as effectively as possible, to as many recipients and districts as possible. In meeting these obligations, committee members must be responsive to the opinions of their colleagues about the value of the committee's programs. If sufficient non-committee legislators believe a program is creating important benefits for their own constituents, support for continuation and enhancement of the committee's legislation is that much easier to obtain. Conversely, the perception that a particular piece of legislation benefits only a few places makes finding a majority to support it that much more difficult.[2]

Evidence about program performance, therefore, becomes an important consideration for committee members. In asking for such evidence, committee leaders normally want information that will impress their colleagues. But the researchers and analysts to whom they turn for help often have very different views about what evidence is germane, and at what level of aggregation it is most useful. Committee leaders want information that will convince individual legislators that a program is valuable to their districts. Policy analysts and data experts, however, often develop information that is valid only if generalized to the nation as a whole, based on objective measurement, and free of opinion. Many legislative leaders do not consider such data good substitutes for local evidence, and they are no substitute at all for local opinion. In short, legislators are much more interested in the aggregation of support than in the aggregation of data.

In the case of the Perkins requirements on performance standards, Congress asked states to develop their own standards and to implement them such that local businesses, parents, and program operators could identify needs for improving their own programs. In many ways, the intent of the new 1990 performance standards restores the Federal interest in accountability to Senator Robert Kennedy's 1965 vision. According to interviews with Congressional staff, the legislative drafters obviously hoped that the data and subsequent improvement efforts would lead to greater satisfaction with vocational education. Ideally, more members of Congress would hear more positive things about vocational education; committee leaders, in consequence, would experience less difficulty garnering support in a time of both tight budgets and an apparent decline in Federal support for vocational education. Many researchers automatically interpreted the requirements, initially, as a demand for program operators in all localities to report standard information according to set formats. Those data would be aggregated and reduced to nationally representative statistics.

Legislative sponsors of vocational education are not entirely indifferent to such national aggregate data. A simple, clear statement of average national effects is reassuring to leaders who must endure criticism, and it is useful in dealing with journalists and policy analysts who deal in generalizations and coefficients. But national averages are no substitute for local performance. National averages can mask critical local differences: positive average re-

[2]In 1981, funding for Federal job training was cut almost in half when the existing Comprehensive Employment and Training Act (CETA) legislation was replaced by JTPA because, in part, many legislators had become convinced that large amounts of CETA money were misused at the local level. Likewise, catastrophic health coverage for the elderly was eliminated within six months of enactment in 1990 as a result of a nationwide barrage of complaints from the elderly about its costs.

sults can obscure local failures that threaten future support, and negative average results can embarrass legislators who would, on the basis of their own constituencies' experience, be strong supporters. The same is true of aggregate results that show no effects because they average out the effects of good and bad local programs. If such results are used to justify the program's elimination, they can harm all the intended beneficiaries. Services can be withdrawn from students who are benefiting, and students who experienced poor programs do not get the improved services they need.

POLITICAL ACCOUNTABILITY AND PROGRAM IMPROVEMENT

Legislators' preoccupation with the aggregation of support is not evidence of indifference to outcomes. Legislative leaders know that a program can get stable support only if it is doing something positive. Declines in support are political "market signals." Something needs to be done to change the program so that the local constituencies to which legislators respond (in the case of vocational education, parents, employers, students, and local government officials) will be more satisfied with it.

Legislative leaders typically assume that support for a program will be high if local constituencies have the evidence necessary to hold program operators accountable for meeting their needs.[3] The legislator's natural response to evidence of dwindling local support is to intervene in the local process to ensure that the needs of key constituencies are met. In some areas (e.g., the rights of the handicapped or of racial minorities) legislators intervene by exposing local officials to legal process or formal enforcement action. But for constituencies that can fend for themselves (e.g., employers), legislators typically intervene by providing information that stimulates local ferment.[4]

If information to help employers and parents assess the value of the training students receive is available at the local level, the accountability process is strengthened and the legislative process is made that much easier. Local educators cannot afford to be inattentive to changes in job requirements if local employers and parents have realistic information on both job change and the relevance of local program offerings.

For members of Congress, this reliance on local accountability processes is not naive, nor is it less honest or sophisticated than approaches that emphasize nationally representative statistics on standard outcome measures. In a system in which every local school system has its own distinctive institutional structure and its own approach to vocational education, aggregate indicators may create pressures for inappropriate regulation and standardization of practice. Falling national average performance can lead to efforts to design uniform national interventions, that is, standards, quotas, or mandates of one kind or another. These are seldom either sophisticated or effective. Systemwide solutions usually ignore the diversity of local goals, problems, and capabilities. They may or may not respond to local needs and may or may not affect the outcomes that most concern legislators—levels of local support for the program. In a diverse and decentralized nationwide system, legislators' reliance on local ac-

[3]This is the essence of the political accountability process defined by Henry Levin, op. cit.

[4]See, for example, Paul T. Hill, "Evaluating Education Programs for Federal Policymakers: Lessons from the NIE Compensatory Education Study," in John Pincus (ed.) *Educational Evaluation in the Public Policy Setting*, (RAND, R-2502-RC, 1980).

countability and program improvement processes not only is defensible, it may be the only approach that has any chance of working.

THE PLACE FOR AGGREGATE INFORMATION

Is there any need for broadly aggregated information? The answer is a definite yes. The most serious weakness of reliance on local accountability processes is that local employers, parents, and educators may not understand the demands that national or international competition soon will impose on the students in their own communities. They may not demand that local programs meet high enough standards, or they may not understand how much job skill requirements will change in the future. For these reasons, the local political process cannot rely entirely on local information. There is a need for broader projections of national and regional economic trends, and for some bases on which to compare local graduates' skills with those of students from other areas.

But to say that local people need national bases of comparison is not to conclude that there is a need for official national standards, or that such standards become the basis of nationally administered rewards and sanctions for local providers. To the contrary, as we have seen in general elementary and secondary education, centrally administered accountability processes can weaken the influence of local stakeholders, parents, employers, and students.[5] To the degree that educational administrators regard themselves as members of a hierarchical bureaucratic system that will reward and punish them according to fixed rules, they will focus on pleasing their organizational superiors.

The purpose of extra-local data, statewide or national comparisons, for example, must be to strengthen the local accountability process, not to replace it. Parents and employers need to be able to ask why local students do not meet national standards, or why local programs have not changed to accommodate changes in technology or manpower demand. Aggregate data should therefore be available, published in ways that local parents, employers, government officials, and citizens readily can use and that local educators cannot ignore. But comparative data must not be handled in ways that lead local stakeholders to believe that high officials—legislators, governors, state or federal administrators—have assumed responsibility for program improvement. To preserve the local accountability process—to ensure that the people with the greatest stakes in the performance of vocational education are well informed—aggregate data and national standards must be provided as a resource for local actors, not as an alternative to local action.

FEDERAL AND STATE ASSISTANCE

The foregoing does not mean to argue that the existing local accountability processes for vocational education are fully adequate. They need to be strengthened in the ways that the Perkins requirements prescribe. Though it is clear that many local vocational education institutions have close working relationships with parents, employers, and related higher-level institutions, many apparently do not. As some state and local administrators have told us, it still is possible for high schools to continue programs that have low enrollments and no con-

[5]See, for example, Hill and Bonan, op. cit.

nections to jobs, or for programs to prepare students for low-level jobs when better jobs are available. As some postsecondary education administrators have admitted, vocational education professors are as likely as other tenured faculty to teach from yellowed notes and to ignore important economic and technical developments. There is a need for stronger local accountability processes, with the characteristics described above in the section on performance standards and accountability.

The Federal and state governments can do a great deal to enable local educators, employers, and parents to create such processes. Higher-level governments can collect data for local jurisdictions and publish them at the local level for use by students, parents, and employers. They can sponsor development of technical standards for training in rapidly changing technical subjects, or in skills for which the labor market is national rather than local. National studies such as the National Assessment of Vocational Education and the NCRVE research program can help to clarify employers' expectations for workers in entry-level jobs and can help distinguish among the academic, technical, and attitudinal dimensions of work preparedness. Federal research institutions can provide examples of particularly effective methods for teaching especially difficult skills, or for teaching disadvantaged students. All those kinds of information help local educators, employers, students, and parents construct reasonable expectations for local program performance and increase performance pressure on local vocational education providers.

More general performance standards, such as student placement rates or average post-training wages, are more problematic. Taken out of the context of local economic conditions, such national standards and averages may be inappropriately rigorous or lax. A 70 percent placement rate for a vocational education program in a tight labor market may reflect very poor performance, while the same rate may be sensational in a depressed area. Even when such standards are adjusted for local conditions, they still concentrate local program operator's attention on satisfying external, not local constituencies.

IMPLICATIONS

This reasoning implies that: (1) data aggregated at the state and national levels on the performance of students in vocational education are inherently untrustworthy as guides to national action; (2) local program performance cannot be improved by such data; and (3) reliance on aggregate data as the sole accountability mechanism may dilute—even distort—promising local accountability procedures grounded in satisfying the immediate clients of vocational education, namely parents, students, and employers. Judiciously developed performance information on carefully selected samples and subsets of vocational education programs can serve as an indicator of the health of the national enterprise, but its implications for federal action are not direct or obvious. What Congress really needs to know is whether state and local providers have the resources and incentives necessary to solve local problems.

This argument does not pretend that local accountability processes in every locality are adequate, or that Federal and state supervision of program quality are unnecessary. On the contrary, in many local school districts, accountability procedures are fragmented, diffuse, and difficult to define; in every locality, oversight by Federal and state funding agencies is essential. But from on high, neither the states nor the Federal government can guarantee

program accountability to local needs. By definition, local accountability has to be put in place at the local level. The Federal role becomes one of encouraging procedures to take local needs into account; the state role is one of monitoring local procedures and providing advice and technical assistance as required.

In line with this general argument, we believe two additional caveats are in order:

- Local performance outcome data should supplement, not supplant, processes of consultation and the exercise of administrative judgment.
- Vocational administrators should not abandon traditional monitoring in favor of "automated" accountability processes.

Data Should Supplement Local Processes

All educational outcomes are products of multiple causation. Test scores, graduation rates, dropout rates, and student placement results obviously reflect on the quality of educational services. But they also can be strongly affected by other factors independent of the quality of training and instruction students have received.

The outcomes of greatest interest in vocational education are affected by local labor market conditions, as well. Vocational education students' job placement rates, hours of work, income, and rates of career progression can be affected profoundly by the demand for particular kinds of labor, which is determined in turn by the current level and composition of local economic activity.

These complications do not rule out the use of hard outcomes data. But they do illustrate the many ways in which such data can foster misunderstanding of program performance. Outcomes data are indispensable, but only when they can be interpreted in light of supplementary information about student characteristics and prior educational preparation, the quality of educational programs that complement vocational education, and local labor market conditions. In light of such contextual information, programs can be assessed fairly and performance deficiencies can be identified readily.

Without contextual information, vocational educators are forced to do everything possible to raise their outcome scores. This promotes "gaming" to increase scores (e.g., by creaming the student population or finding ways to discount the outcomes of less able students). It also misleads policymakers, frequently causing them to castigate local providers whose programs are, in fact, performing reasonably well in light of local conditions.

Monitoring Versus "Automated" Accountability

Testing and formal outcomes measurement are not cheap, but they are far less labor-intensive than direct program monitoring and careful accreditation of institutions. During a period of fiscal stringency, many states are tempted to cut their staffs and to abandon direct oversight in favor of automated systems of measurement.

These systems can be major assets, both for state and national officials responsible for vocational education, and for actors at the local level. Only such "hard" measures can provide clear comparative information about the priorities and average outcomes attained by differ-

ent localities and programs. But, as suggested above, hard outcomes data alone can lead to false attributions of causality and can mislead policymakers. State and federal officials may overlook crucial local conditions and reward or punish programs whose outcomes are largely determined, for good or ill, by uncontrollable local circumstances.

Assessment and reward systems that are insensitive to local conditions can distort local programming and practice. The long-run consequences can be extremely negative: Local providers of vocational education can come to de-emphasize the processes whereby they tailor vocational education to the needs of local students and employers. As we have seen in other major federal education programs, such as ESEA Chapter I, this leads providers to separate and distinguish the services they provide from services funded by other sources.

As state-funded or federally funded services become more distinctive and auditable, they also do less to complement and strengthen the basic educational programs provided at the local level. This process ultimately reduces the productivity of the educational system as a whole, because students' performance in any one area is affected by the quality of their preparation in all areas.

Because job competencies, placement rates, and other "hard" outcomes of vocational education are joint products of vocational and general education, vocational education cannot afford to employ an accountability system that ultimately weakens overall local educational performance. Vocational education cannot produce positive outcomes if students' general education preparation is abysmal. In education, a falling tide lowers all boats: local citizens, employers, and civic leaders faced with a poorly performing education system seldom make fine distinctions among programs. Similarly, national business leaders and others who decry the poor level of student preparation are not able to disentangle vocational from other forms of education: They know only that the system is failing them.

When faced with complaints about system failure, top-level policymakers (Congress, state legislatures, presidents, governors) demand accountability. But they mean systems accountability, not separate auditing of the effects of different programs. If the response to the call for accountability is to further separate educational programs from one another, system performance will continue to decline, with increasingly negative consequences for vocational education's reputation and public support.

The bottom line is that vocational education must become an integral part of the local educational system, and its accountability system must emphasize meeting local needs. Standardized outcome measures can strengthen the local accountability process if they give local parents, employers, and community leaders objective information about local program outcomes. But if they are used in ways that weaken local accountability, national data bases on local program outcome ultimately can impair local program performance and further damage the local and national reputation of vocational education.

To conclude, a national data base does not solve the problem of accountability in vocational education, and excessive reliance on it can threaten the performance of local programs. It is an example of a tool that determines its own use. In order to avoid the consequences of a national outcomes data base, false advertising about its value must be avoided. A national data base that is expected to be too much will be a Pandora's box. If built, someone surely will open it, and once opened, like every other Pandora's box, it will turn out to be not a gift, but a snare.

6. CONCLUSIONS

Some things can be put back into Pandora's box. Congress' need for assurance about the proper use of federal funds does not require a national data system based on uniform reporting of student outcomes. National concerns about program accountability need not force vocational educators to measure their results via a small standard set of student outcomes, or to make program initiation and termination decisions according to a limited set of uniform national criteria. The perverse effects suffered by other federal education programs—standardizing of services across localities with widely varying needs and encouraging localities to provide only those services and to serve only those students that make them look good on national evaluations—can be avoided. This message applies equally to Section I and to any other federal program that intends to assist an activity for which states and localities take primary responsibility.

But that does not mean that Congress or the national government should abstain from any effort to learn how federal funds are spent or whether states and localities are making conscientious efforts to use them well. Periodic national evaluations and special-purpose studies can both report on the breadth and diversity of vocational education services and call attention to areas in which programs are failing and new national priorities or incentives are needed. States and localities also have a part in reassuring Congress that it is investing in a serious and useful effort; they can do so by making explicit reports on their strategies for identifying troubled local programs and providing real assistance to them.

In any domestic program area, Congress opens the Pandora's box of national program evaluation because it has reason to doubt that recipients are taking serious account of the purposes for which federal funds were appropriated. In the nearly 30 years since enactment of the first major program of federal aid to education, Congress has become skeptical of programs that are routinized, comfortable, and bureaucratic. Its demands for accountability are efforts to ensure that federal funds are helping solve real problems. The challenge posed by congressional actions such as the Perkins Act performance standards and measures requirements is how Congress can get the assurance it seeks without distorting program activities and priorities.

Yet, the challenge posed by Congress is not well met by systems or regulation and measurement that impose new constraints on local problem solving. As the Department of Education has held since Perkins was enacted, the challenge can be met only by serious efforts to improve programs at the local level. Many states have maintained this capacity, and some are treating the Perkins Act requirements as an occasion to strengthen and renew their oversight and assistance relationships with local vocational education providers. Some, unfortunately, are going the other way, cutting their own capacities to visit local programs and provide advice and assistance when needed, and substituting cheaper testing programs. Such programs may be constructive parts of a more complete assessment and assistance strategy, but taken alone they can do little to improve programs and much to reduce local flexibility and problem-solving capability. Inevitably, they call attention to what is already well known—that vocational education (and, for that matter, education, in general) is not meeting

the needs of students and employers in most major metropolitan areas. This fact requires a serious improvement effort, not documentation.

Congress has a part to play in helping put the destructive aspects of accountability back into Pandora's box. It should match its reasonable position about measurement with a more realistic approach: support of state oversight to identify localities that are failing their students and investment to help (or shame) those localities toward more effective services. It should limit regulations that focus state education agency efforts on compliance and adopt policies that direct states toward helping schools and districts that lack the capacity or the will to serve students well. But the ultimate burden is on the states, which must decide how local vocational education programs can be made more responsive to the needs of students and the local and state economy. If states show that they are taking this challenge seriously, they will surely satisfy the need for reassurance that led Congress to enact the Perkins requirements.

BIBLIOGRAPHY

Apling, Richard N., "Vocational Education Performance Standards." Congressional Research Service, Washington, D.C., July 6, 1989.

Asche, Marion, with Don Cloud and Jeff Perry, "Standards and Measures of Performance: Indicators of Quality for Virginia Vocational Education Programs." Mimeo prepared for the teleconference "Preparing a Competent Work Force through Indicators of Quality for Vocational Education," 1990.

Butler, Erik Payne, "The Search for a Bottom Line in Vocational Training: What Lessons Are Offered by the Job Training Partnership Act?" Paper for the Conference on Outcome-Based Policy Options for Vocational Education, sponsored by the National Assessment of Vocational Education, June 1988.

Carter, Launor, *The Sustaining Effects of Compensatory Education,* Systems Development Corporation, Santa Monica, California, 1978.

Cooley, William W., "Educational Indicators within School Districts," in Ron Haskins and Duncan MacRae (eds.), *Policies for America's Public Schools: Teachers, Equity & Indicators,* Ablex Publishing Corporation, Norwood, New Jersey, 1988.

Copa, George H., and M. Nagi Salem, "Potential Vocational Education Indicators: Vital Statistics for Planning, Review and Public Information About Vocational Education." Minnesota Research and Development Center for Vocational Education, Department of Vocational and Technical Education, University of Minnesota, June 1982.

Grubb, W. Norton, and Lorraine M. McDonnell, *Local Systems of Vocational Education and Job Training: Diversity, Independence, and Effectiveness*, National Center for Research in Vocational Education, University of California, Berkeley, 1990.

Hill, Paul T., "Evaluating Education Programs for Federal Policymakers: Lessons from the NIE Compensatory Education Study," in John Pincus (ed.) *Educational Evaluation in the Public Policy Setting*, R-2502-RC, RAND, 1980.

Hill, Paul T., and Josephine J. Bonan, *Decentralization and Accountability in Public Education,* R-4066-MCF/IET, RAND, 1991.

Hill, Paul T., Gail E. Foster, and Tamar Gendler, *High Schools With Character,* R-3944-RC, RAND, 1990.

Hill, Paul T., and Ellen L. Marks, *Federal Influence Over State and Local Government: The Case of Nondiscrimination in Education*, R-2868-RC, RAND, 1982.

Hoachlander, E. Gareth, *Systems of Performance Standards and Accountability for Vocational Education: Guidelines for Development,* National Center for Research on Vocational Education, Berkeley, California, 1990.

Hoachlander, E. Gareth, Susan P. Choy, and Cynthia L. Brown, "Performance-Based Policies Options for Postsecondary Vocational Education: A Feasibility Study." Prepared for the

National Assessment of Vocational Education, MPR Associates, Inc., Berkeley, California, March 1989.

Kimbrough, Jackie, and Paul T. Hill, *The Aggregate Effects of Federal Education Programs,* RAND, R-2638-ED, 1981.

Levin, Henry M., "A Conceptual Framework for Accountability in Education," *School Review,* Vol. 82, No. 3, pp. 363–392, May 1974.

McClure, Phyllis, *ESEA Title I: Is It Helping Poor Children?* NAACP Legal Defense and Education Fund, 1972.

McDonnell, Lorraine M., and Paul T. Hill, *Newcomers in American Schools: Meeting the Needs of Immigrant Youth*, RAND, MR-103-AWM/IET, 1993.

McDonnell, Lorraine, and Jeannie Oakes, "Creating Responsible and Responsive Accountability Systems: Report of the OERI State Accountability Study Group," Office of Educational Research and Improvement, U.S. Department of Education, Washington, D.C., September 1988.

Murnane, Richard J., "Improving Educational Indications and Economic Indications: The Same Problem," Educational Evaluation and Policy Analysis, Summer 1990.

National Assessment of Vocational Education. *Summary of Findings and Recommendations*, Volume I, U.S. Department of Education, Washington, D.C., July 1989.

National Center for Education Statistics: Education Counts: Indication System to Measure the Nation's Educational Health, Washington, D.C., January 1992.

National Institute of Education, *Evaluating Compensatory Education,* Washington, D.C., 1976.

_____, *Compensatory Education Services,* Washington, D.C., 1977.

_____, *Title I Funds Allocation,* Washington, D.C., 1977.

_____, *Administration of Compensatory Education,* Washington, D.C., 1977.

_____, *Student Development,* Washington, D.C., 1977.

Oakes, Jeannie, "Educational Indicators: A Guide for Policymakers." Center for Policy Research in Education, Rutgers University, October 1986.

Office of Technology Assessment, "Performance Standards for Secondary School Vocational Education," U.S. Congress, Government Printing Office, Washington, D.C., April 1989.

Prince George's County Public Schools. "Guaranteed Employability Program Informational Packet," Prince George's County Public Schools, Upper Marlboro, Maryland, 1989.

Shavelson, Richard J., et al., *Indicator Systems for Monitoring Mathematics and Science Education,* R-3570-NSF, RAND, 1987.

Smith, Bruce L. R., and D. C. Hague, eds., *The Dilemma of Accountability in Modern Government: Independence Versus Control*, St. Martin's Press, New York, 1971.