We identified a number of factors that contributed to the observed similarities and differences in states’ implementation of Perkins II systems of measures and standards. Some of these explanatory factors are within the sphere of influence of federal policy; others are within the domains of states and local agencies. In Chapter Five, we will draw upon the federal factors we discuss in this chapter to make recommendations for changes in federal policy to improve the implementation of Perkins II.

**FACTORS SUBJECT TO FEDERAL INFLUENCE**

The first set of factors we identified includes elements of the 1990 Perkins legislation and other conditions that may be directly influenced by federal policy. These factors include the following:

- Flexibility provided to the states in the law itself
- Unclear integration and coordination of Perkins II provisions
- Lack of models or incentives for state and local implementation
- Limited expertise and resources at the state level
- Mandated measurement of learning outcomes.

Modifying these features through legislative or administrative means may enhance future implementation of Perkins II measures and standards in the states. We discuss each of these factors in greater detail below.
Flexibility Provided to the States in the Law

The framers of the legislation sought to impose a common outcome-oriented program-improvement framework. They also wanted to enact policy that was sensitive to state differences and that permitted local adaptation, which research suggests should foster implementation (Berman and McLaughlin, 1978). As a result, Perkins II gave states considerable latitude in choosing measures, setting standards, deciding how much responsibility to delegate to local districts and institutions, and designing program-improvement interventions. This flexibility permitted states to create systems that were responsive to local conditions but also increased the influence of contextual factors, which had both positive and negative effects.

On the positive side, the flexible mandate engaged states actively in developing their systems of measures and standards, gave states the opportunity to develop a sense of ownership, and enabled states to adapt the accountability system to their existing program review and monitoring efforts, potentially reducing costly duplication of effort. Furthermore, Perkins II gave states complete control over the nature of state assistance to failing programs, so these efforts could be aligned with ongoing program review and improvement activities. On the negative side, flexibility has increased the influence of local context on the structure of the accountability system, reducing the comparability of state systems and program results. The act provided little guidance about the nature of the relationship that state agencies and local programs were to have in these new systems or about the state’s role in providing technical assistance to local programs. Some states have done little or nothing to elaborate this relationship or build effective technical assistance procedures. In these cases, state discretion led to decisions that might not be considered to be in the spirit of the legislation or in the best interests of program improvement.

The overall result of the legislative flexibility is mixed. In 1994, we found little evidence that states had created a dynamic program-improvement culture based on outcome data, which many believe to be the intent of Perkins II. Furthermore, it appears to us that openness in the law, combined with strong state contextual factors, has lengthened substantially the timeframe for development and implementa-
tation. Even states that are moving in the right direction are moving more slowly than envisioned in the legislation.

**Unclear Integration and Coordination of Perkins II Provisions**

Although Perkins II appears to emphasize measures and standards, service to special populations, integrating academic and vocational curricula, and tech-prep education\(^1\) equally, state agencies treated these as separate requirements and assigned them different priorities. The four states we visited differed in the emphasis they placed on developing and implementing performance measures and standards relative to the other Perkins II initiatives. These differences in state priorities accounted for some of the differences we observed in progress toward systems of measures and standards.

Similarly, Perkins II is unclear about how performance measures and standards are to be used to evaluate its other new priorities—service to special populations, tech-prep education, and the integration of academic and vocational education. Perkins II offers little guidance about how any of these activities are to be coordinated. Furthermore, by giving states nearly two years to develop their performance measures and standards systems, Perkins II makes coordination more difficult.\(^2\) While state administrators were developing systems of measures and standards, state and local administrators were beginning to implement tech-prep education programs and integration strategies. The two-year development phase for performance measures and standards inhibited the use of these systems as evaluation tools for the other Perkins initiatives.

\(^1\)"The term ‘tech-prep education program’ means a combined secondary and post-secondary program which leads to an associate degree or 2-year certificate; provides technical preparation in at least 1 field of engineering technology, applied science, mechanical, industrial, or practical art or trade, or agriculture, health, or business; builds student competence in mathematics, science, and communications (including through applied academics) through a sequential course of study; and leads to placement in employment."  (The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990.  P.L. 101–392; Part E, Sec. 347.)

\(^2\)According to Rahn and Alt (1994), 45 states reported an increase in the amount of time spent developing performance measures and standards from 1990 to 1993 at the secondary education level. At the postsecondary level, 41 states reported an increase in time spent in this area.
Ideally, each state’s system of performance measures and standards would be used to assess the effectiveness of vocational programs, including the performance of special populations, tech-prep education students, and students in programs with integrated academic and vocational curricula. In fact, Erie included specific language in its measures and standards to require their application to special populations. One can imagine an ideal accountability system that provides information on the performance of tech-prep education students, youth apprenticeship students, and each special subpopulation in a program. With such data, a local administrator would be able to compare the performance of subpopulations within a program, compare vocational programs within a school, and compare a particular program to overall school performance. Moreover, this system would facilitate coordination between academic and vocational teachers, by providing measures of relevant academic and vocational skills on each student. Most importantly, comparative program information would allow administrators and instructors to target program-improvement strategies. For example, if the tech-prep education program consistently exceeded all standards, an administrator might try to transform more vocational programs into tech-prep education programs.

Unfortunately, the Perkins II priorities—measures and standards, service to special populations, integrating academic and vocational curricula, tech-prep education—are treated like disjointed programs, uncoordinated and at a different stage of implementation. In most states, Perkins II priorities are not part of a coordinated system at either the state or the local level, and performance measures and standards are not being used comprehensively to evaluate the other Perkins II initiatives.

Lack of Models or Incentives for State and Local Implementation

There is a major gap between development of measures and standards (which usually occurred at the state level) and implementation of standards-based program-improvement systems (which must occur at the local level). Development dominated state agency efforts in the four states we visited. Certainly, it is necessary to select measures and standards and to create data systems to support them be-
fore these systems can be implemented. However, some state agencies had devoted so much attention to development that they had barely thought about subsequent stages of reform, such as how local administrators and instructors would use performance measures and standards to improve programs.

The situation in one state reminded a researcher of the void that occurred following the birth of his first child. All of his and his wife’s attention had been focused on the delivery (for instance, on childbirth classes and exercises) with little or no thought to what would come after. Once the child was born, it came as a sudden shock to the parents that they now had to care for the child on a daily basis. It appeared that some states were in a similar position vis-à-vis Perkins II performance measures and standards. They focused extensively on the “birth” of measures and standards, but they devoted little time to thinking about implementing them or using them once they were created. States were unprepared for the next step, because the demands of the development stage overshadowed concerns about implementation.

This shortsightedness may have occurred because Perkins II modeled a two-stage reform but did not provide two stages of incentives. The Office of Vocational and Adult Education monitored the submission of state plans and the adoption of measures and standards, but there were no incentives for ensuring that performance measures and standards would be used at the local level to improve programs. Furthermore, while programs that did not make substantial progress toward the state standards for two years were required to develop a local improvement plan in conjunction with the state, there were no other explicit mechanisms in the law for monitoring local use of the measures and standards.

For example, Erie adopted nine measures and standards (six of which were based on data that were already being collected). Local agencies were required to select or develop measurement tools for the three new outcome areas. However, local administrators received no training in how to select appropriate instruments and have had very little contact from the state to see whether they were taking appropriate actions. Furthermore, the state has shown no interest in knowing whether they were using the measures and standards for program improvement. One postsecondary site responded by
initiating a campuswide effort to develop new measures, but another did almost nothing. With very little guidance from the state, local implementation depended almost entirely on individual initiative at the local level.

Despite the lack of models or incentives provided in the legislation, one state agency succeeded in promoting the use of performance measures and standards at the local level, in part because the state administrator believed in the usefulness of performance data for local program improvement and seized the opportunity to implement such a system. The secondary vocational education agency in Piedmont adopted an approach in which local programs chose measures from among several outcome areas and selected their own specific measurement tools. Furthermore, the state agency provided training, developed guidebooks and report formats, and took other steps to make the local programs feel that their participation was important. Although the state agency did not offer rewards or levy penalties, it created an atmosphere that fostered local participation and, ultimately, implementation.

**Limited Expertise and Resources at the State Level**

The Perkins II performance measures and standards mandate created new responsibilities for state staff, requiring them to develop expertise in new and often unfamiliar areas. At the same time, the act also reduced the set-aside for state administration, to put more resources into direct services. This left some states in a bind: They lacked both the expertise to address new demands and the resources needed to develop it.

Vocational education agencies in these four states differed in the numbers of staff members; the sizes of their administrative budgets; the levels of expertise in the areas of psychometrics, statistics, and labor-market economics; and their capacities to implement local reforms. In Erie, a single individual was responsible for statewide implementation at the secondary and postsecondary levels, in addition to other duties. This severely limited the time and energy that could be devoted to performance measures and standards. In other cases, staff did not possess the expertise needed to develop a program-improvement system based on outcome data. For example, one state director commented, “My staff are in over their heads. There is not
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Some state agencies made performance measures and standards a high enough priority to allocate staff and funds to the effort; others devoted only limited resources to this area. Moreover, most states focused the bulk of their resources on developing their systems of measures and standards. Staff in some state education agencies complained about not having enough funds to provide the technical assistance necessary to implement performance measures and standards effectively. Our site visits revealed a continuing need for additional staff training in using outcome data for program improvement and a growing demand for technical assistance in this area.

Mandated Measurement of Learning Outcomes

Perkins II requires states to measure academic learning gain and suggests that states adopt measures of job or work skill and competency attainment as well. The scarcity of valid assessment tools in these areas led states to adopt alternatives that were less than optimal. For example, some states delayed or phased in their performance measures and standards, because these states lacked measurement tools in some areas. All four states we visited lacked one or more measurement tools needed to complete their systems. Some states assumed the responsibility for developing new instruments, while other states selected from among measurement tools that were available. All were deficient in some manner. Still other states chose from among available instruments but recognized their shortcomings and planned to revisit the choices in the future. In addition, the act does not include definitions for key terms, such as “basic” and “more advanced” academic skills, which has led to widely varying interpretations and approaches. As one state director put it, the performance measures and standards mandate is “putting the cart before the horse.” He would prefer developing industry skill standards first, then appropriate assessments, and only last a system of measures and standards.

Alcorn and Columbia used standardized tests of academic achievement at the secondary level to measure basic academic skills. These tests have been criticized, because they do not measure the aca-
demic skills for which vocational programs should be held accountable and do not measure these skills in a manner suitable for vocational students. To address some of these concerns, one state was developing an academic assessment instrument specifically designed for vocational students.

In Erie and Piedmont, state agencies delegated to local agencies the responsibility for selecting and/or developing academic assessments. This decentralized approach defers difficult decisions to local programs, which are less likely to have the expertise required to tackle difficult measurement problems. This strategy raises concerns about the appropriateness of locally selected tests and the technical quality of locally developed measures. Decentralization of measurement choices also precludes the direct comparison of program performance.

None of the states in our study possessed statewide academic tests at the postsecondary level. The only postsecondary academic tests in these states were those used to place students into appropriate English and math courses at the time of enrollment. Piedmont and Erie delegated responsibility for selecting or developing measures of postsecondary academic skills to local institutions. The remaining two states used remedial course completion as a proxy for basic academic gain. One used general education and related academic course completion as a proxy for advanced academic gain. In both cases, it was assumed that students who received a passing grade in a course had gained the skills and knowledge covered by the course.3

Course completion has been criticized as a measure of academic gains, because it does not directly compare student achievement between separate times. Furthermore, institutions usually define “successful course completion” as receiving a final grade of D or better. None of the instructors interviewed believed that a student who received a D could have mastered the body of knowledge contained in a course. Another criticism of measures of course completion relates to remedial courses. Some instructors felt it was inappropriate to hold vocational programs accountable for student gains.

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3In a nationwide survey, more than one-third of all states at the postsecondary level reported using course completion as a proxy for academic gain (Rahn, Hoachlander, and Levesque, 1993).
in preprogram, remedial courses, while others noted that it was wrong to credit vocational programs for academic gains that occur in these courses prior to enrollment in a vocational program.

**FACTORS SUBJECT TO STATE AND LOCAL INFLUENCE**

The second set of factors affecting successful implementation of the Perkins II system of measures and standards flows from the contexts of individual states and localities. As a result, these factors are primarily responsive to state or local action. Without state or local action, the following factors may continue to exercise a dampening effect on the results of federal policy:

- Choice between central and local implementation strategies
- Existence of centralized data systems
- Availability of state-level assessment tools
- Ongoing educational accountability and program review mechanisms
- Historical relationships among agencies
- Efforts to reduce burdens on local program staff
- Influence of key administrators.

State responses to the Perkins II accountability initiatives have been influenced by local factors; some of these advanced the development and/or implementation of state performance measures and standards systems and others impeded it.

**Choice Between Central and Local Implementation Strategy**

A key factor that contributed to differences in state implementation is the division of responsibility between state and local agencies for developing and implementing measures and standards. Centralized approaches tended to be more efficient in the short term, but decentralized ones may have greater long-term potential for local program improvement.
In this study, state vocational education agencies with a history of centralized decisionmaking selected outcome areas, stipulated specific measurement tools, set standards, and identified criteria that would trigger local improvement plans. In contrast, states with a history of strong local control tended to confine their roles to selecting general measurement areas and defining broad standards. Local educational agencies and postsecondary institutions were given responsibility for selecting specific measurement instruments and for deciding whether their institution was making sufficient progress toward meeting state standards. In some cases, the approach to performance measures and standards differed at the secondary and postsecondary levels in the same state.

To illustrate, in Alcorn, the state staff (with input from the committee of practitioners) selected measurement areas, developed instruments, and established overall state standards and aggregate performance goals for the whole system. For example, academic achievement at the secondary level was to be measured using a standardized statewide test, and employment outcomes at both the secondary and postsecondary levels were to be measured using state unemployment insurance data during particular quarters following program completion. In a similar vein, Columbia required local recipients either to use state-developed measurement tools or to use state-defined methods of calculating performance on locally chosen measures.

In contrast, Piedmont and Erie, with stronger traditions of local control, delegated responsibility for developing or selecting some or all measurement instruments to local recipients. (Standards were set centrally in these two states.) In Piedmont, local school districts were allowed to develop their own academic and occupational competencies and measurement instruments or to adopt state-developed ones, while districts were required to administer their own program follow-up surveys. In the four states we examined, where local agencies were responsible for development and/or implementation of some measures and standards, more delays, confusion, and technical problems occurred than in states where these decisions were made centrally.

Although systems with increased local responsibility faced early difficulties, one state may be poised to achieve greater success because
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of the investments the state made in local expertise. In contrast, the early successes of systems with more centralized control may diminish if steps are not taken to engage local administrators in the program improvement process. For example, the data generated by the centralized performance measures and standards system in Alcorn were rarely being used by instructors to improve their course offerings. Although some district and institution administrators were using the data to identify broad problem areas, instructors stated that the data were too voluminous, complicated, and general to provide them with the information they needed and desired to improve their programs. Rather than numerous pages of tabular data, instructors preferred a simplified presentation format, and rather than an overall employment rate for program completers, they desired information on the specific employers who had hired their completers, on the specific jobs those completers had taken, and on the skills they were using or needed in those jobs. Furthermore, several administrators had not yet passed the performance measures and standards data on to their instructors, believing the instructors would be overwhelmed, and some spoke candidly that they did not expect their instructors ever to use the data.

In contrast, at the secondary level in Piedmont, the highly decentralized performance measures and standards system led to widespread use by instructors of related academic assessments and the performance data generated by them. Because these assessments had been developed locally with support and encouragement from the state, instructors found them relevant for assessing student outcomes and improving programs. Furthermore, instructors and administrators found the performance report formats supplied by the state useful and understandable.

These examples illustrate strong differences in local use of performance measures and standards related to the degree of centralized or decentralized development, but the differences are not always so great. A centralized approach may be more efficient, may lead to more elaborate and well-organized data, and may provide greater interprogram comparability. A decentralized approach may help ensure that performance measures and standards are relevant locally and may lead to greater local participation in and commitment to the program review and improvement process.
Existence of Centralized Data Systems

Statewide student databases and data-processing capabilities affected state responses to Perkins II performance measures and standards initiatives. Agencies with centralized data systems were more likely to assume a strong role in collecting and reporting performance measures and standards than those without such systems. Although this is not always true, states with more centralized record-keeping experience and the computer capacity to maintain and analyze large-scale databases were more likely to construct centralized data systems in response to Perkins II.

For example, in Alcorn and Columbia, the state vocational education agencies obtained data for some performance measures from other educational departments or state agencies, compiled those data, and reported them to local school districts and community colleges. For other measurement areas, local administrators reported data to the state vocational education agency, which then summarized performance on the measures and standards and returned the data to their originators in a revised form. In both cases, the state vocational education agencies played an important role in either collecting or reporting the data. As a consequence, even though many of the data were locally generated, administrators and instructors in these states viewed performance measures and standards data as belonging to the state. One postsecondary dean said, “The data don’t match ours, but this lets us know how the state views us.”

In contrast, at the secondary level in Piedmont, the state vocational education agency played only a minimal role in data collection and reporting. Local school districts compiled their own data, tallied the appropriate statistics, and reported them to the state agency on standard report forms that had been supplied by the state. Local administrators and instructors we interviewed in this state were more knowledgeable about and interested in the performance measures and standards than local staff in other states.

A second consequence of a centralized data system is that it contributed to states focusing on the data more than how the data could be used. For example, Alcorn’s data-computing capacity led state-level vocational education staff and the committee of practitioners to envision a sophisticated system of performance measures and stan-
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Standards that would provide local school districts and community colleges with a broad range of outcome data at many levels of aggregation, including district, school or institution, program, and special populations’ status. However, while devoting substantial time to developing this data system, state staff spent less time thinking through how the data would be used at the local level to improve programs. As one state-level administrator stated, “We’ve provided them with all the data; now all they need to do is use it.” Although the system succeeded in generating hundreds of pages of data per school or community college district, there was little evidence that the data were being used at the local level, particularly by instructors. At the end of the second year of implementation of performance measures and standards, state-level staff still placed a higher priority on improving data quality than on improving local use for program evaluation and improvement.

In contrast, secondary-level state staff in Piedmont had minimal capacity to collect and manipulate data. They devoted their time to developing guidelines for local agencies to follow and to providing other technical assistance to support local development efforts.

**Availability of State-Level Assessment Tools**

As noted above, certain provisions of Perkins II create assessment problems for all states—for example, the requirement that state systems include measures of academic learning gains has been a universal stumbling block—and it is appropriate for the federal government to take steps to address these concerns. However, other aspects of assessment affect the implementation of measures and standards at the state and local levels in ways that may not be addressed best by federal action. In particular, the interplay between a state’s choice of measures and standards and the state’s existing testing system affects the implementation of the measures and standards. Furthermore, states that delegated decisions about vocational measures to local agencies added another layer of sensitivity to state and local assessment experience and practice.

States’ actions in implementing measures and standards were affected by the prior existence of relevant state assessment tools. Where such measurement tools existed, states generally incorporated them into their performance measures and standards systems,
although the use of existing measures had mixed results. For example, Columbia and Alcorn relied on existing statewide standardized tests of academic achievement to satisfy the requirement to measure “learning and competency gains, including student progress in the achievement of basic and more advanced academic skills” at the secondary level. These existing academic tests served as readily available measures, but they also had several limitations. For one, tests in both states assessed academic attainment in early high school—neither test had the capacity to measure the gains students achieved throughout their high school years. Both state agencies planned to phase in an additional test to measure gains, but neither had yet done so. Second, these standardized academic tests were not designed to measure academic skills specifically related to occupational competencies, which many vocational educators have argued should be the focus of Perkins II performance measures and standards. Third, instructors do not always find results relevant to their courses. Currently, neither state plans to develop tests of occupationally related academic skills.

In contrast, Piedmont’s secondary-level state staff focused on helping instructors develop measures of the relevant academic skills and occupational competencies appropriate for specific local programs. The state also sponsored the development of statewide prototype tests that instructors could choose to implement in lieu of developing their own local tests. Although developing these tests took substantial time and staff resources and although questions of test validity and reliability remain to be addressed, Piedmont’s vocational educators were able to produce tests that measured both student gains and related academic skills.

No statewide measure of academic performance existed in Erie, so state staff required local recipients at both the secondary and postsecondary levels to choose or develop appropriate measures of academic and occupational skill gains. Although state staff identified the skills that should be measured in general terms, they provided little assistance to local agencies in selecting appropriate assessments. Some staff questioned whether the instruments that had been selected by some local agencies would adequately assess the intended skills.
At the postsecondary level, none of the states in our study possessed a statewide measure of academic skills. Although Erie required local recipients to seek or develop an appropriate measure, the other three states measured academic gains through course completion. For example, states counted successful completion of developmental or remedial courses or of general education or related academic courses as academic gains. However, state-level staff in Alcorn were developing tests of basic reading and mathematics skills at the postsecondary level.

The lack of relevant instruments for measuring academic and occupational competency led states to adopt alternative strategies for measuring learning outcomes. These alternatives often were not the most appropriate. Furthermore, difficulties in measuring academic and occupational skills forced states to slow implementation of this portion of the Perkins II mandate. In a few cases, Perkins II requirements spurred states to develop their own instruments, which appeared to be suitable at first glance.

**Ongoing Educational Accountability and Program Review Mechanisms**

States’ reactions to Perkins II were strongly influenced by the educational accountability context that existed within the states. Some states had strong accountability mechanisms that attached incentives or sanctions to educational performance, although weaker accountability systems were more common. All states had program review and accreditation procedures designed to monitor and/or certify educational quality. Perkins II measures and standards served a similar purpose, and some states tried to consolidate Perkins II accountability with existing efforts. However, this was not always the case, and it is interesting to explore the degree to which states tried to integrate these activities.

Erie had established an accountability system based on student outcomes for both secondary and postsecondary vocational education several years prior to passage of the act in 1990. In response to Perkins II performance measures and standards requirements, the state added three new measures to the six they had already been collecting. By folding performance measures and standards into an
existing accountability system, the state was able to respond quickly to the Perkins II mandates. It is also possible that by attaching Perkins-specific measures to an established system, local vocational administrators and instructors would be more likely to incorporate them into their local accountability processes. However, there was little evidence that the existing accountability system was being transformed into the program improvement process envisioned by Perkins.4

Alcorn already had several components of an accountability system for elementary and secondary education in place prior to Perkins II. Specifically, the state had been issuing school report cards for a number of years and had recently initiated a review process whereby schools regularly evaluated their performance in state-specified areas based on locally selected measures. However, neither the report cards nor the review process incorporated outcome measures relevant to vocational education. While state vocational education staff members have begun a dialogue with general education staff to bring Perkins II efforts closer to other strictly academic accountability efforts, by 1994, performance measures and standards had been developed and implemented largely in isolation from the general accountability initiatives.

Previous experience with statewide school report cards had both positive and negative effects on the development of Perkins II measures and standards in Alcorn. On one hand, state and local administrators, instructors, and members of the committee of practitioners were already familiar with the idea of using outcome data to evaluate institutional performance, which may have facilitated development of a system of performance measures and standards. On the other hand, this same experience may have led state staff to ignore how the data would realistically be used locally to improve programs. As an accountability tool, the school report card was used largely by school administrators as “a public relations piece,” in the words of one superintendent, primarily in discussions with school

4Early evidence indicated that, without follow-through and assistance from state staff, local programs were largely ignoring the requirement for new measures. Because the state had been responsible for collecting the six extant measures and had done little to encourage use of the data, local administrators were paying scant attention to the measures as well.
boards and parents. Instructors paid little attention to these data, because they were not provided in a form useful to them and because they were used to make comparisons between districts the instructors felt were unfair. As with the school report cards, state-level staff passed the performance measures and standards reports down through the secondary and postsecondary education hierarchies, expecting them to reach instructors who would then use the information to improve programs. However, by the end of the second year of implementation of performance measures and standards, few instructors had ever seen the data, and there was widespread skepticism among local administrators that instructors would ever use them.

In addition to these accountability initiatives, states also had other evaluation and program review systems in place prior to Perkins II. Most state vocational education agencies followed a multiyear cyclical program review process at both the secondary and postsecondary levels. State-level vocational education staff indicated that performance measures and standards data would likely be incorporated into the multiyear program review process.

Additionally, all postsecondary institutions were subject to periodic reviews by independent regional accreditation agencies. While the cyclical program reviews traditionally focused on process measures, such as vocational enrollments and sex-equity issues, the regional postsecondary accreditation agencies have recently begun moving toward outcome-based evaluations. Evidence in several states indicated that Perkins II performance measures and standards were taking a back seat to the accreditation process at the postsecondary level, particularly in those institutions that recently went through the new outcome-based accreditation process. In part because accreditation is crucial to the viability of an institution, accreditation requirements were receiving greater attention than Perkins II. Furthermore, the accreditation process is generally well regarded by postsecondary institutions, because it permits them to evaluate themselves in terms of their own goals. In contrast, some feel that Perkins II performance measures and standards are centrally dictated without appropriate institutional contribution. However, since accreditation reviews sometimes occur as infrequently as once every ten years, the annual Perkins requirements may gain in importance over time.
Other federal accountability requirements also influenced states’ responses to Perkins II. For example, recent federal student right-to-know legislation requires that postsecondary institutions receiving federal financial aid track the educational experiences of a cohort of full-time students. At least one state in our sample tried to consolidate requirements by using this same cohort in its Perkins II performance measures and standards system. However, because first-time, full-time students are often a minority at community colleges, instructors generally found the performance data they received useless for program improvement. For example, one Piedmont instructor had only three students in the selected cohort (and one of these had been sent to prison). The instructor did not believe that the resulting 33 percent incarcerated outcome rate accurately reflected his program performance and did not find that it provided him with useful information for improving his program.

In summary, the relationship between existing accountability initiatives and development of Perkins II performance measures and standards was complex. Combining these various efforts may ultimately bolster them all. However, Perkins II emphasizes program improvement, while many of the other initiatives do not. This emphasis may be lost if Perkins II accountability is joined with systems that use performance data for other purposes. Furthermore, where federal regulatory demands are in conflict, practical constraints may force states to satisfy one requirement at the expense of another.

**Historical Relationships Among Agencies**

Existing governance structures and collaboration patterns among state agencies affected states’ responses to Perkins II requirements. For example, unified secondary and postsecondary vocational education agencies or agencies that were housed in the same state office produced coordinated Perkins II efforts: Erie agencies adopted a single set of performance measures and standards for both levels of education, while Alcorn agencies adopted parallel sets of measures and standards and worked together to develop new outcome data. In contrast, Columbia secondary and postsecondary vocational education agencies historically acted separately, and they developed wholly different and separate performance measures and standards systems. In Piedmont, the secondary vocational education agency
took the lead in developing its performance measures and standards system, after which the postsecondary agency scaled down the secondary system for its own implementation.

In addition to historical relationships between secondary and postsecondary vocational education agencies, responses to Perkins II requirements were also affected by existing relationships between these agencies and those responsible for general education, the Job Training Partnership Act (JTPA), and other workforce programs. For example, the Alcorn state vocational education agency operated largely separately from the elementary and secondary education agency and the community college board. They had to establish formal links to obtain data from these agencies, a process that was facilitated because of historically good relations among them. In some cases, the federal performance measures and standards initiative provoked new inter-agency collaboration. For example, the Perkins emphasis on placement outcomes spurred the Alcorn vocational education agency to collaborate with the state’s JTPA agency, which had substantial experience using state unemployment insurance data for obtaining employment and earnings outcomes.

**Efforts to Reduce Burden on Local Administrators**

Reducing the data-collection and reporting burden on local administrators was foremost in the minds of many state vocational education agencies when they designed their systems of measures and standards. This approach appeared to expedite the selection of performance measures and standards and the collection and reporting of data and to increase initial acceptance of performance measures and standards by local administrators. However, efforts to reduce the burden of measures and standards may also reduce the effectiveness of the system in the long run by limiting local familiarity and “buy-in.” Moreover, the focus on burden reflects a narrow perception of the system of measures and standards as a reporting exercise, not as an essential core activity in a meaningful program management and improvement system.

Three of the four states we visited attempted to design their measures and standards to minimize data-collection demands on local institutions. In Columbia, state staff at the postsecondary level “made every effort” to adopt measures for which data were already
being collected by local institutions. In Erie, six of nine measures adopted were already being collected. Similarly, Alcorn, adopted measures for which local schools already collected data or measures that could be satisfied by data obtained through another state agency. All were proud of these actions, and felt they expedited the process of developing their state systems of measures and standards.

On the other hand, reducing the burden of data collection and reporting also reduced local awareness of the reforms, particularly for instructors. Well into the second year of implementation of Perkins II measures and standards, few instructors in Columbia, Erie, and Alcorn had either heard of performance measures and standards or understood what their role was to be in using them. Furthermore, in at least one case in which performance measures and standards data had been fed back to administrators or instructors, few found the data relevant or felt committed to using them.

In sharp contrast, high school instructors in the sites we visited in Piedmont responded well to the “burden” that was placed on them to develop and implement local assessments of related academic skills and occupational competencies. While some local personnel initially resisted the new requirements, most became more positive with time and with continued encouragement and support from the state. In this case, local educators who were invited to participate in the process and now have greater ownership over the results responded well to the additional responsibilities placed on them by federal or state mandates. Furthermore, local educators who were involved in data definition, instrument development, and the like were in a better position to use the data when they were produced. Protecting local educators from the burden of developing a new system may ultimately lessen their capabilities and incentives to use them.

**Influence of Key Administrators**

The presence or absence of strong leadership affected the nature of states’ responses to Perkins II and the progress states made in developing and implementing performance measures and standards. In most of the states, a single individual had primary responsibility for the implementation of performance measures and standards at the secondary or postsecondary level (or both). The commitment of and
approach used by this key administrator largely determined the progress made by the state. At one extreme, some key state vocational education staff acted decisively to develop expanded systems. For example, a key administrator in Columbia took advantage of Perkins II mandates to promote reforms she had long wanted to implement. At the other extreme, some key administrators took only those few steps that were necessary for compliance with the law.

These four states revealed dramatic contrasts in the speed and effectiveness with which administrators implemented their statewide systems. Sometimes, secondary and postsecondary systems within the same state varied dramatically. For example, the primary state-level administrator for secondary vocational education in one state was an active and effective change agent who seized upon the Perkins II mandate as an opportunity to promote greater local accountability, a cause in which he believed strongly. He supplied a vision of how the reform would work, rallied enthusiasm for it, and provided support to those who were responsible for enacting the changes. In contrast, the administrator for postsecondary vocational education in the same state did very little to encourage local implementation, stating candidly that he expected the performance measures and standards requirements to go the way of many national initiatives and be forgotten within a few years.

In another state, the vocational coordinator took the performance measures and standards mandate seriously, but kept his role to a minimum. This key administrator communicated with local staff about Perkins II requirements primarily in writing, assuming that school-level staff would take his general guidelines and use their own initiative to select and implement several new performance measures. However, since the state devoted minimum attention to training and support, few schools took steps to implement the new measures. Some local administrators called colleagues to find out what they were doing in response to the state guidelines. When they learned that others were waiting for further direction before acting, they held up their own actions, effectively putting the entire initiative on hold.

Although leadership styles varied widely, most of the administrators we interviewed actively promoted the implementation of performance measures and standards. However, the power of individuals
to influence the development and implementation of these systems in both positive and negative ways was demonstrated repeatedly.

**FUTURE CONCERNS**

Our ability to predict is limited, but some potential problems already seem likely. The following issues and events are likely to have a major impact on statewide systems of measures and standards in the near future. They deserve careful consideration in federal and state vocational education planning.

**Skills Standards and Curriculum Standards**

The Departments of Education and Labor are funding the development of industry skill standards in more than 20 occupational areas and curriculum standards in six educational fields. What will these efforts mean for statewide systems of measures and standards? Certainly, valid national standards deserve consideration by states. They might provide invaluable common criteria for occupational preparation. However, no one knows how best to accommodate such standards in systems of measures and standards, or how difficult (or expensive) such coordination might be. What supplemental work will be required to integrate industry standards and curriculum standards with state systems (e.g., connection between state occupational task lists and industry standards)? How will this work be supported?

Not only will the development of industry skill standards have an effect on statewide systems of measures and standards, but the organizations developing the industry standards need to be informed about the Perkins II measures and standards systems used in vocational education. The key question is, what effect should states’ systems of measures and standards have on the structure of the industry skill standards? It is important that those developing the industry standards be aware of the accountability mechanisms states have been creating under Perkins II.
Data Quality

From 1991 to 1994, states devoted most of their energies to selecting and adopting measures and standards and developing data systems to support them. As yet, little attention has been paid to the quality of the measures and standards. As soon as statewide systems become operational and programs are required to judge their performance against state standards, questions of reliability and validity will become more important. In states that adopt high stakes for performance (as in the case of Columbia), potential data quality problems will be exacerbated, because high stakes are known to corrupt the interpretation of educational data. The need for evaluations of data quality will increase once systems are fully implemented. However, states are unlikely to have the resources or expertise necessary to conduct these investigations. If these issues are not resolved, the whole enterprise may suffer, so it is important for the federal government to develop mechanisms to facilitate assessment of the quality of measures and standards.

Integration of Academic and Vocational Education

Potentially the most far-reaching reform embodied in Perkins II is the integration of academic and vocational education. This movement raises several problems for defining, measuring, and attributing outcomes and therefore threatens the validity of existing systems of measures and standards. First, states are unlikely to have included integrated outcomes in their current systems, so major changes will be required. Second, the development of measurement tools for integrated outcomes will probably lag behind the development of curriculum. Third, the conception of a vocational program will have to be changed to include academic components. Fourth, it will be difficult to attribute outcomes to specific courses and to use outcome data for program improvement. Although fully integrated programs are many years away, many states already have begun implementing some integrated academic curricula, and these states are already facing problems defining and measuring outcomes. Early attention

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5This is one of the questions being addressed by the Batelle study of Perkins II. However, that study relies on data collected in 1993, before most state systems were operating on a regular basis.
to the questions raised by integrated academic and vocational education is warranted.

**Consistency in Federal Vocational Education Policy**

Some state vocational educators explained their less-than-enthusiastic response to Perkins II by saying, “It’s going to go away.” They believe new laws will supplant many of the initiatives contained in Perkins II. When implementers believe mandates are only temporary, they reduce their efforts and adopt a mind-set of minimum compliance rather than commitment. Unfortunately, the volatility of federal vocational education policy discourages rapid and effective response to federal initiatives. Long-term change is unlikely under these circumstances.

Perkins II measures and standards embody a radically different approach to accountability. It may take five years of implementation for a fair test of this initiative. However, there already is talk within the states that drastic changes in the regulations are imminent. As a result, some administrators are curbing their efforts; many are proceeding with caution. To promote effective implementation of measures and standards, the federal government must make it clear that it intends to stay the course. Further, it must give vocational educators ample time to develop, implement, and fine-tune the system before making judgments about its efficacy. A minimum of five years is required to see whether outcome-based local program improvement in the Perkins II model will work or not.