We begin this chapter with brief summaries of the status and most salient elements of each state’s implementation of Perkins II. It is impossible to convey the full complexity of each state’s system in such short summaries; however, we have tried to provide enough information to help the reader distinguish among the states and to introduce distinct characteristics of each state’s approach.

Following that, we summarize the overall progress these states made in implementing statewide systems of performance measures and standards and compare some of their choices. We also found considerable variation in the way the four states responded to the Perkins II mandates—they followed different procedures, selected different measures and standards, and implemented their systems in different ways—and this variation is discussed next. The section concludes with observations about how much remains to be done, even in these four selected states.

STATE SUMMARIES

We refer to the four states by the pseudonyms Alcorn, Columbia, Erie, and Piedmont. This convention serves both to protect the anonymity of our sources and to preclude interpretations based on existing attitudes toward particular jurisdictions. Most states created two distinct systems—one at the secondary level and another at the postsecondary level—so summaries differentiate between secondary and postsecondary vocational institutions.
Alcorn

Alcorn is a predominantly urban state with a large agricultural sector. It has a major metropolitan area that dominates the economy of the state. At the secondary level, there is an extensive accountability system that includes academic skill exams, a performance-based quality review process on the academic side, and schoolwide report cards. The state hopes to incorporate performance measures and standards into this “academic” accountability system.

Alcorn is in the process of creating a workforce preparation system that will include ten measures and standards at both the secondary and postsecondary levels. This system includes piloting of workplace readiness instruments and the development of industry skill standards and certification. The primary goal of performance measures and standards in Alcorn is to produce high-quality data that can be used to compare the progress of programs across the state. The state made early strides in meeting this goal because of its existing computing capacity and centralized approach. There was evidence of interagency coordination to obtain access to new outcomes data and devotion of staff time to develop a strong data system. However, the complexity and centralized nature of the state’s data system have resulted in the delayed dissemination of data to districts. Little attention has been paid to local implementation, particularly how instructors might use the data to improve programs.

At the postsecondary level, the regional accreditation body leads the main accountability initiative. This accreditation effort is moving toward requiring postsecondary institutions to include outcome-based measures. Several other initiatives are pushing community colleges in this direction. Alcorn proposes to establish an “institutional guarantee” in which postsecondary institutions guarantee employers that students have acquired certain occupational skills. The state would like to develop a system that will link accreditation, the state-led program review, and performance measures and standards while also using work-readiness assessment instruments and industry skill standards.

As with the secondary level, however, there has been little evidence that Perkins II performance data have been used by deans and in-
structors for program improvement purposes. Both deans and regional directors reported that the scope of the data they received was overwhelming and that a strategic targeting of the most relevant data would be necessary to make it useful for improving programs.

Columbia

Columbia is a historically agricultural state with a growing industrial base and expanding school system. Educational accountability has been a major concern of the state legislature for the past decade. Annual school report cards that focus on outcomes are issued for each district and postsecondary institution. Poor performance affects a small part of the pool of funds available for teacher salaries. This accountability system put the state a step ahead in terms of implementing Perkins II measures and standards.

At the secondary level, Columbia has a strong central educational bureaucracy. Schools report data to the state at the student level, which the state analyzes and uses to produce required reports. After reviewing existing data-collection efforts, Columbia adopted eight centralized measures; data for three of the measures were already being collected. The vocational education coordinator is an effective leader who involved staff across the state and created a vision for program improvement. Under her direction, the state moved aggressively to expand a computerized test bank and instructional management system to cover all its vocational courses. This system was developed in anticipation of changes in federal vocational education, and funds from Perkins II were used to transform it into a testing system to provide required occupational measures.

Postsecondary education in Columbia is more decentralized, with institutions retaining considerable autonomy. For example, although they have to produce report cards, each institution collects and analyzes its own data. The vocational education coordinator respects this autonomy and tries to shield the institutions by reducing the “burden” of federal requirements. The state relied on existing measures to form the backbone of its postsecondary Perkins II statewide system.
Erie

Erie is primarily a rural state with a growing student and minority population. Elementary and secondary enrollments increased over 10 percent from 1980 to 1992, and postsecondary enrollments grew over 25 percent from 1987 to 1991. Accountability is important in Erie—recent state legislation requires standardized assessment in several grades. At the same time, school districts have a long history of autonomy and retain a great deal of independence. Coordinating state and federal legislation, in conjunction with wide local discretion, has been difficult for the state in its efforts to implement the Perkins II measures and standards. Additionally, unclear communication at the local level has confused local agencies about performance measures and standards.

Having a single state department that is responsible for both secondary and postsecondary occupational education eased the process of selecting measures and standards for Erie. The state adopted a total of nine measures—six based on data that the state was already collecting. The other three were defined conceptually by the state but were passed to the local agencies to operationalize and implement. These three are to be measures of academic and occupational achievement—perhaps the most difficult to operationalize and implement with local resources.

Staffing changes at the state level also resulted in a short hiatus in contact between the state and local agencies. As a result, the local secondary and postsecondary agencies we interviewed have largely ignored the six measures and standards the state was already collecting and have been perplexed with the three that they were given to operationalize. The state and local agencies could be best described as "regrouping" in their efforts to implement the measures and standards. The state is reconsidering the set of measures and standards it selected, and local secondary and postsecondary agencies are beginning to struggle with operationalizing and implementing the three measures and standards that are their responsibility.

Piedmont

Piedmont is a predominantly urban state with a growing and increasingly diverse population. Its major metropolitan area has
What We Found

grown dramatically in the last decade and has become the regional
hub for business and financial services. Perkins performance
measures and standards represent the main accountability initiative
for vocational education in Piedmont at the secondary level.
Traditionally, local agencies have enjoyed autonomy, with the state's
role primarily limited to compliance monitoring. However, with the
implementation of performance measures and standards, the state's
role has dramatically shifted from monitoring compliance to
providing technical assistance to foster program improvement. The
state adopted four outcome areas and standards; each district chose
or developed its own assessment instruments to evaluate students in
these areas. Vocational teachers have played an active role in
developing pre- and post-tests to measure related academic gain and
competency attainment. This has encouraged vocational teachers to
think about the academic skills related to the occupational
competencies they teach. The state developed an extensive technical
assistance program for local districts, including a detailed guide to
collecting Perkins-related data and a series of regional workshops for
vocational education directors.

At the postsecondary level, Piedmont is even more decentralized,
with each institution having considerable autonomy. The vocational
education coordinator respects the autonomy of each institution and
in general has tried to minimize the data burden on vocational deans
and instructors. At the postsecondary level Piedmont adopted a
scaled-down version of the secondary performance measures and
standards—most of the system to be phased in slowly. The main ac-
countability initiative at this level has not come from the state but
from the regional accreditation body. To minimize the data-gather-
ing burden, the state originally decided to use the same cohort of
students that the federal student right-to-know legislation requires.¹
However, this cohort proved to be too limited and not useful for the
purpose of improving programs. The vocational deans plan to ex-
pand the cohort this year. Because of the limited cohort and the im-
portance placed on the accreditation system, there has been little ev-

¹The Student Right-to-Know and Campus Security Act, P.L. 101-542, November 8,
1990, requires postsecondary institutions to collect and publish data on the comple-
tion or graduation rate of certificate or degree-seeking full-time students. Regulations
implementing this act were still pending in 1994.
idence that performance measures and standards have been widely adopted and used for program improvement purposes. There is a perception among some faculty members that performance measures and standards represent another superfluous federal “add-on” program.

IMPLEMENTATION PROGRESS TO DATE

We selected these four states for this study, because they were among the “early adopters” of measures and standards and had made considerable progress in implementing their statewide systems at the time of the study. The committees of practitioners in all four states had formally adopted the measures and standards; to the best of our knowledge, all four states were in compliance with the Perkins II regulations. On average, these states had adopted seven outcomes at the secondary level and nine outcomes at the postsecondary level. Table 3.1 shows the breadth of the measures adopted at the secondary level. All four states adopted measures of academic skills, specific occupational competencies, and labor-market outcomes. Most also had measures of general job or work skills and of program retention and/or completion. The pattern was similar at the secondary level. Table 3.2 shows that three of the four states adopted postsecondary measures in the majority of these major outcome areas.

Some of the states were phasing in one or more elements of their systems over a one- or two-year period, but the vast majority of the components were fully operational in the 1993–94 school year. Data were collected during that year for most measures, although analysis and reporting of these data will not occur until the 1994–95 school year in many cases.

In addition to the measures described in Tables 3.1 and 3.2, all four states either had or were actively developing the necessary information infrastructure to support standards-based accountability. Columbia and Erie have computerized student recordkeeping systems in place that could be used for analyzing and reporting progress toward state standards and functioning paper-based data systems for collecting most of the remainder of the statewide measures. Alcorn was expanding its existing centralized data-collection and analysis system to accommodate newly adopted measures, while Piedmont
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Alcorn</th>
<th>Columbia</th>
<th>Erie</th>
<th>Piedmont</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic skills</td>
<td>Attainment on state test of academic skills</td>
<td>Gains$^a$ on state test of literacy$^b$</td>
<td>Attainment on locally selected tests of foundation skills$^b$</td>
<td>Gains$^a$ on locally selected tests of academic skills</td>
</tr>
<tr>
<td>Specific occupational competencies</td>
<td>Attainment on state test of technical skills and applied academics$^b$</td>
<td>Attainment and gains$^a$ on test of core occupational competencies</td>
<td>Attainment on locally selected measures of occupational competencies$^b$</td>
<td>Attainment of locally selected course competencies</td>
</tr>
<tr>
<td>General job or work skills</td>
<td>Attainment on state test of workplace skills$^b$</td>
<td>Attainment and gains$^a$ on test of work skills</td>
<td>Attainment of workplace competencies$^b$</td>
<td>N/A$^c$</td>
</tr>
<tr>
<td>Retention or completion</td>
<td>Percentage of students completing program and graduating</td>
<td>N/A$^c$</td>
<td>Increase in program completion and graduation</td>
<td>School completion rate of enrolled students</td>
</tr>
<tr>
<td>Labor market</td>
<td>Percentage of completers employed in related field or in further education or training</td>
<td>Percentage of completers employed in related fields or in further education or training</td>
<td>Increase in percentage of completers employed in related fields or in further education or training</td>
<td>Percentage of completers employed in related field or in further education or training</td>
</tr>
<tr>
<td>Other</td>
<td>Employment retention</td>
<td>Comparison to county unemployment rate; career development planning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$ Measured as the difference between posttest and pretest scores.
$^b$ Under development.
$^c$ N/A reflects an outcome not chosen by the state.
### Table 3.2
**Postsecondary Measures in Four States**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Alcorn</th>
<th>Columbia</th>
<th>Erie</th>
<th>Piedmont</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic skills</strong></td>
<td>Completion of remedial courses</td>
<td>Completion of general education, related and remedial courses</td>
<td>Attainment on locally selected tests of foundation skills&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Completion of academic courses</td>
</tr>
<tr>
<td><strong>Specific occupational competencies</strong></td>
<td>Attainment on state test of technical skills and applied academics&lt;sup&gt;a&lt;/sup&gt;</td>
<td>N/A&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Attainment on locally selected measures of occupational competencies&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Completion of occupational programs</td>
</tr>
<tr>
<td><strong>General job or work skills</strong></td>
<td>Attainment on state test of workplace skills&lt;sup&gt;a&lt;/sup&gt;</td>
<td>N/A&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Attainment of workplace competencies&lt;sup&gt;a&lt;/sup&gt;</td>
<td>N/A&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Retention or completion</strong></td>
<td>Percentage of students completing program</td>
<td>Percentage of required credit hours completed, course sequence completed, reenrollment rate</td>
<td>Increase in program completion and persistence</td>
<td>N/A&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Labor market</strong></td>
<td>Percentage of completers employed in related field or in further education or training</td>
<td>N/A&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Increase in percentage of completers employed in related field or in further education or training</td>
<td>Percentage of completers employed in related field or in further education or training</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Employment retention</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Under development.  
<sup>b</sup>N/A reflects an outcome not chosen by the state.
was devoting considerable resources to developing local capacity for data collection and analysis consistent with its decentralized approach to measures and standards.

All four states made efforts to coordinate the implementation of their systems of measures and standards with other state and federal occupational training and economic development programs, as required by the Perkins II guidelines. Unfortunately, the states found very little common ground between the measures and standards developed by vocational educators in response to Perkins II and the data systems in use by other agencies. Although all four states attempted to coordinate data elements among their diverse economic development efforts, none had great success in this effort. Many states were working toward using unemployment insurance wage records as placement data across agencies.

Finally, all four states had begun to prepare local educational agencies for their roles in the standards-based accountability system. A few of the local school or college staff people we interviewed were involved directly in the selection or adoption of measures or standards; they were familiar with the requirements from the outset. The remainder of the local staff had learned about the new requirements subsequently. Almost everyone we spoke to was aware of the measures and standards in general terms if not in specific detail. Three of the four states informed local programs about the data demands and the accountability standards in fairly traditional ways, assigning dissemination and training responsibility to existing state program or area staff, distributing written information, presenting regional workshops, etc. Efforts in the fourth state went well beyond those in the others, perhaps because local programs were responsible for selecting the measurement tools to be used to assess outcomes. In this state, the number of workshops and the amount of contact with local program staff were considerably greater than in the others.

**VARIATIONS IN IMPLEMENTATION**

One of the most striking findings from our interviews and observations was the large degree of variation in the way each of the four states implemented Perkins II requirements. States’ approaches to Perkins II measures and standards differed in almost every respect,
including who participated in the process, how the process was managed, what resources were devoted to it, how the regulations were interpreted, and how the system was integrated with existing state and local initiatives.

The inherent “flexible” nature of the directive in Perkins II to develop and implement a system of performance measures and standards encouraged states to customize their systems to meet local needs. Moreover, states interpreted the law in different ways, which led to further variation in implementation. For example, states had different interpretations of the requirement to measure learning and competency gains. Some felt that the measurement of “gain” requires pre- and posttest scores; others chose to use course completion as a proxy for improvement. In the absence of strong federal control over interpretation, states acted in the spirit of “flexibility,” creating their own interpretations. In the next chapter, we attempt to describe some of the factors that affected states’ interpretations and responses to Perkins II.

Implementation at the postsecondary level is moving more slowly and is more varied than at the secondary level. This difference in implementation is due largely to the historical autonomy granted to postsecondary institutions. The movement toward educational accountability has only recently come to the postsecondary level, and there it faces unique challenges. For example, except for the purposes of initial placement, postsecondary institutions do not use assessment systems to test the achievement of students. Lacking basic achievement measures, it is almost impossible to measure learning “gain.” A second factor in slowing the implementation of Perkins II at the postsecondary level is the diversity of student purposes that postsecondary institutions must serve. It is difficult to establish a system to track the progress of community college students with different purposes for attending schools. An “entering” class will include eighteen year olds out of high school, adult workers who need one course to upgrade their skills, and unemployed people who need retraining.

**ROOM FOR IMPROVEMENT**

Although these four states were among the leaders in implementing Perkins II measures and standards, their systems were only partially
complete at the time of this study. No state had yet completed a full cycle of data collection, analysis, and reporting on all adopted measures, and no local program had yet examined its own performance in light of statewide standards as a guide to program improvement.

Additionally, many states still had proposed measurement tools under development. Columbia proposed to measure literacy in terms of pretest to posttest gains, but had not yet taken any steps to develop a literacy assessment instrument. Common unresolved testing or assessment problems included the measurement of academic and occupational skills and difficulty setting up systems to monitor the performance of special populations.

Most states’ efforts were focused on creating statewide systems that would be in compliance with the federal regulations; much less thought had been given to the use of the data the system produced for program improvement. Moreover, both state and local agencies had done little to translate information on program status into actions for program improvement. We saw only one or two instances in which thought had been given to converting standards-based reports into action plans.

Finally, with the exception of one highly decentralized state, most state departments of education were only beginning to provide extensive information and training to local program staff. By the spring of 1994, states had disseminated to local districts the new rules and data requirements introduced by the statewide system. States were just beginning to confront the need for more local staff development, for greater contact with programs as they prepared new annual applications, and for linking accountability with program improvement.

The states in our study have made a good start in implementing their systems of measures and standards, as envisioned in Perkins II. However, conditions at all levels of government have resulted in some states making greater progress than others. In the next chapter, we attempt to explain why variations in progress have occurred.