As policymakers focus their inquiries into professional education and the training of teachers, a preliminary framework, based on five questions, can guide them. These are: (1) Do state policies on professional development recognize the complexity of improving student outcomes? (2) Are state professional development programs linked to student outcomes in coherent ways? (3) Is there evidence that professional development programs can influence student outcomes? (4) Does the state have a method of accounting for subsidies for professional development? and (5) Does the state have a method of linking the subsidies for professional development and improvements in student outcomes? The paper presents a framework for identifying the linkages between professional development programs and student outcomes. A case study of the professional development of Indiana and Ohio, and how this development compares to other states in the region and to the national average, shows how agencies already make a substantial development through embedded subsidies. The latest wave of reforms, by contrast, have focused on specifically directed subsidies, with relatively little attention being paid to account for these embedded subsidies. Five questions are posed in order to help states that want to develop well-designed statewide professional development programs. (Contains 30 references.) (SM)
STATE POLICY ON PROFESSIONAL DEVELOPMENT:
RETHINKING THE LINKAGES TO STUDENT OUTCOMES

NCREL
North Central Regional Educational Laboratory
"Applying Research and Technology to Learning"
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Executive Summary

As states have begun to consider requests to fund more extensive professional development opportunities for teachers, many state legislators have asked what returns they can expect from their increased investment. Frequently, these questions focus on how increased spending on programs supporting the professional education and training of teachers will improve student achievement. Unfortunately, this question has seldom been addressed in a systematic way.

This paper develops a preliminary framework (based on five questions) that can guide policymakers in focusing their inquiries.

1. Do state policies on professional development recognize the complexity of improving student outcomes? Professional development should not be limited to training, but rather should include an explicit focus on changing practices that can influence student outcomes. State policy on professional development should recognize the linkages between the professional development process and student outcomes.

2. Are state professional development programs linked to student outcomes in coherent ways? If the goal of state policy on professional development is to influence student achievement, then schools developing professional development plans should be encouraged to explicitly define the ways their interventions are likely to influence student outcomes.

3. Is there evidence that professional development programs have influenced student outcomes? The question that legislators keep coming back to is whether the investments they make in professional development and other forms of educational improvement actually result in improved outcomes. If the funded programs and projects have linkages to outcomes and if they are implemented well, then they should lead to improvements in student outcomes.

4. Does the state have a method of accounting for subsidies for professional development? If states seek formal mechanisms for tracking expenditures on professional development including both the subsidies embedded in the state and local funding formula and the specially directed subsidies included in categorical programs, then they will need methods of accounting for public expenditures on professional development.

5. Does the state have a method of linking the subsidies for professional development to improvements in student outcomes? States need a systematic way of linking subsidies for professional development to student outcomes if they intend to have measurable returns.

Establishing a way of assessing how increases in a state's investment in professional development links to improvement in student outcomes is not a simple matter. Not only are few professional development programs linked to student outcomes in discernable ways, but there is little shared understanding about how professional development should be linked to improvement in educational outcomes in ways that can be measured.

If the goal that new professional development initiatives affect student outcomes is to be realized, then the structure of state policies will need to be reexamined, if not radically restructured. The policy discourse needs to focus on the ways the knowledge and skills attained through formal and embedded professional development influence teaching practices and student learning outcomes.

State funding for professional development can take many forms, which complicates attempts to discern the amount of money states actually invest in professional develop-
Discerning the actual costs can be a problem because (1) it is difficult to estimate direct subsidies; (2) categorical programs often provide local discretion; (3) ambiguous linkages occur between professional development and school improvement; and (4) some professional development is embedded in educational practice.

MODELS FOR DEFINING LINKAGES

In order to move toward a framework that states can use to examine how their subsidies for professional development programs influence student outcomes, it is first necessary to understand how professional development practices are likely to influence student outcomes. Two contrasting conceptual models address this issue. Guskey and Sparks (1997) link quality professional development to improvement in educational outcomes through its influence on teacher knowledge and their practices. St. John, Bardzell, Michael, Hall, Manoil, Asker, and Clements (1998), on the other hand, postulate that professional development influences the implemented philosophy in schools (i.e., the knowledge base teachers use in action), which in turn influences the education practices (i.e., classroom instruction, organizational processes, and parent involvement) that have a direct influence on student outcomes.

ESTIMATING GOVERNMENT SUBSIDIES FOR PROFESSIONAL DEVELOPMENT

Before states can develop a common systematic approach for assessing the returns on their investments in professional development, they need to have a common systematic approach to estimating the costs of professional development. As a starting point in accounting for professional development costs, it is important to distinguish between two types of government subsidies: embedded subsidies and specially directed subsidies. It also is important to recognize how local and state policy influence expenditure patterns.

At a minimum, it is important to:

- Specify the learning outcomes the professional development interventions are intended to influence.
- Identify how the professional development process will influence educational practices and how these practices link to outcomes (the linking structure).
- Assess the costs associated with the professional development intervention.

AN ANALYSIS OF PROFESSIONAL DEVELOPMENT IN TWO STATES

Case studies were developed using two states in the North Central Region to illustrate how the framework could inform the refinement of state policy. (See the Appendix for detailed descriptions.) We examined how professional development in Indiana and Ohio compares to other states in the region and to the national average for all states. The two states are similar with respect to the locus of decisions about professional development, but they differ substantially in the ways professional development is supported. Indiana makes greater use of release time for teachers and less use of tuition subsidies and professional credits, while Ohio provided somewhat more support for tuition and also supported professional development credits at a level close to the national average.

These comparisons of Ohio and Indiana with other North Central states and with national averages reveal that state and local educational agencies already make a substantial investment in professional development through embedded subsidies. Interestingly, as the case studies illustrate, the latest wave of reforms in professional development focuses on specifically directed subsidies for intervention programs, but relatively little attention is paid to accounting for these embedded subsidies.
**RESHAPING STATE POLICY**

Some state legislators and other public officials are asking whether spending on—or rather investments in—the professional development of teachers will lead to improvement in student outcomes. We suggest a specific set of questions that state officials can ask in their efforts to develop refined approaches to planning, implementing, and assessing statewide professional development programs:

1. Does the professional development program encourage educators to assess the locally situated learning needs of students?
2. Are the funded professional development activities linked in discernable ways to the learning needs of students in the schools where teachers work?
3. Does the professional development activity use a research-based or inquiry-based approach?
4. Does the state have an established method of accounting for public subsidies to professional development?

**CONCLUSIONS**

This study was initiated in response to requests for information from state officials. There is substantial interest among educators in many states in promoting statewide professional development programs. However, the state officials confronted by these requests lack a capacity to assess their relative merits. This paper has suggested a preliminary framework for reshaping these linkages, but there are a number of unanswered questions. In this paper we have suggested a set of questions that can be used to guide conversations in states that might lead to the development of well-designed statewide professional development programs.
State Policy on Professional Development:
Rethinking the Linkages to Student Outcomes

As states have begun to consider requests to fund more extensive professional development opportunities for teachers, many state legislators have asked what returns they can expect from their increased investment. Frequently, these questions focus on how increased spending on programs supporting the professional education and training of teachers will improve student achievement. Unfortunately, this question has seldom been addressed in a systematic way.

This paper develops a preliminary framework for reshaping the linkages between state policy on professional development and student outcomes. We first review the changing policy context for state policy on professional development in education. Then, we propose a framework that identifies possible ways of linking professional development to student outcomes. Next, we examine case studies of two states to illustrate how the framework might be used to inform state policy development. Finally, we identify a set of policy issues that merit more careful exploration in states’ efforts to reshape their policies on teacher professional development.

Changing Policy Context

A number of recent policy reports have focused specifically on how state investments in professional development link to improvement in student outcomes (e.g., Bull & Buechler, 1996; The Finance Project, 1998; Choy & Ross, 1998). However, establishing such a linkage—a way of assessing how increases in a state’s investment in professional development links to improvement in student outcomes—is not a simple matter. Not only are few professional development programs linked to student outcomes in discernable ways, but there is little shared understanding about how professional development should be linked to improvement in educational outcomes in ways that can be measured. Few states have professional development programs that require schools to make these linkages in specific ways when they propose major new funding for professional development.

States implement their professional development policies within a context that includes many potentially conflicting mandates. Indeed, after four decades of federal, state, and local efforts aimed at improving student outcomes, it is difficult to discern how any particular intervention influenced them. Even when professional development has been implemented on a broad scale in a state (Cody & Guskey, 1997) and there has been discernable improvement in student outcomes (Petrosko, 1997), it has not been possible to establish a causal linkage. Without well-defined programs and systematic assessments, it simply is not possible to untangle the influence of professional development from the influence of many other policies, mandates, and practices. This paper takes an initial step in this direction by suggesting an approach to guide future policy discussions and research.

Reframing State Policies on Professional Development

While the idea of treating state spending on professional development as an investment with a direct link to student outcomes is a new notion in many states, it is the natural outgrowth of nearly 20 years of policy focusing on educational improvement.

Historically, states and local boards shared responsibility for funding education. However, there was great variability in the level of
funding and quality of education across and within school districts and states. In the 1960s, the federal government got involved in funding special programs aimed at equalizing educational opportunities. State and local support for the ongoing professional development of teachers was embedded within this structure of public funding.

This pattern of public support evolved through the early 1980s with a primary focus of policy on equalizing both financial resources and the opportunity to attain a quality education. About the time of the publication of A Nation at Risk, policy researchers were beginning to define the linkage between public policy and improvement in teaching (Shulman & Sykes, 1983; Sykes, 1979). For example, Sykes (1983) identified the problems with the supply of high-quality teaching professionals and outlined ways states could focus on rethinking teaching preparation and licensure, such as pay incentives, ongoing professional development, funding teacher-initiated projects, and engaging teachers in curriculum reform.

Early in the reform movement, states began to focus on student outcomes without giving adequate consideration to the need to promote improvement in teaching and teacher development. Initially, federal policymakers began to argue that state and federal policy should focus on outcomes, such as student achievement, rather than inputs (Finn, 1990). State policymakers soon began to adopt this emphasis, linking their funding to outcomes through an emphasis on accountability (Choy & Ross, 1998; Massell & Fuhrman, 1994). Indeed, state adoption of these outcomes-oriented policies was often required to secure funding in federal programs. States encouraged schools to develop plans for school improvement, and federal and state monies were often provided for these efforts through federal (e.g., Title I) and state programs. However, the success of most of these broad-scale improvement efforts was mixed at best.

In the past few years, the idea of specifically linking professional development to educational outcomes has emerged from these reform efforts because teachers are thought to be at the heart of educational improvement. The American Federation of Teachers (1995), the U.S. Department of Education (1996), and the North Central Regional Educational Laboratory have convened groups to focus on developing guidelines for linking professional development to educational improvement. These efforts tend to reach similar conclusions about the new principles for professional development. According to Choy and Ross (1998, p. 4), "a consensus seems to be emerging that effective professional development involves teachers in planning their professional development activities; that professional development for individual teachers needs to be linked to broader organizational goals of their schools, districts, and states; and that teachers need to work closely with other teachers inside and outside their schools to share ideas and coordinate activities."

Frankly, it is difficult not to view this consensus as a rehashing of the same set of conceptions that attempted to link site-based improvement to educational outcomes during most of the past decade. It brings teachers more directly into the formulation of the process, but it does not suggest how professional development relates to school activities or student outcomes.

The concept of professional development has traditionally included (1) the preservice education of teachers and (2) ongoing training aimed at retaining certification and gaining a higher job classification (and salary). The preservice education of teachers was generally thought to be a responsibility of universities. States set requirements for certification, usually in collaboration with university teacher educators. Further, boards with diverse representation of constituents were usually set up to establish requirements for recertification. This basic pattern is still evident in the way most states define professional development (Ward, St. John, & Laine, 1999). However, as a result of the education reform
movement, a new set of strategies evolved. These new strategies take at least two forms. First, systematic schoolwide restructuring has emerged as one form of educational improvement that had a tighter link between professional development and the school improvement process. Initially, schoolwide reform efforts were linked with nationally known professors, such as Robert Slavin and Ted Sizer. Some of their early efforts gained notice because of their success with improvement in student outcomes. Then in the early 1990s, the Title I program was modified to include a schoolwide option that included a focus on professional development for all teachers. More recently, the Comprehensive School Reform Demonstration (CSRD) program has created a recommended list of research-based programs that are eligible for relatively large grants that are intended to support professional development as a means of school improvement. Several states have also provided support for these comprehensive reform efforts through their own revenue sources. These comprehensive reforms are appropriately viewed as schoolwide professional development processes.

Second, a number of other reform programs have emerged in the past decade that emphasized systematic approaches for specific reforms. Many integrate specific approaches to staff development with tightly structured programs that focus on improvement in student outcomes. Some of these are costly but have been widely cited for their approaches to professional development. For example, the Reading Recovery program was praised by the National Research Council (Snow, Burns, & Griffin, 1998) for its approach to professional development, even though the Council thought the program did not have a sustained influence on reading. Many states have also invested in these programs or collaborated on their development with universities and states.

Thus, it is possible for states to begin to reexamine and reshape diverse policies that include aspects of systematic professional development. However, the historic structure of state policy on professional development—the certification and recertification of teachers—has at best a loose linkage to student outcomes.

If the goal that new professional development initiatives affect student outcomes is to be realized, then the structure of state policies will need to be reexamined, if not radically restructured. The old approach of requiring units for recertification did not identify adequately the types of knowledge and skills teachers would need in their efforts to improve student outcomes. The policy discourse needs to focus on the ways the knowledge and skills attained through formal and embedded professional development influence teaching practices and student learning outcomes.

STATE FUNDING FOR PROFESSIONAL DEVELOPMENT

State funding for professional development can take many forms, which complicates attempts to discern the amount of money states actually invest in professional development. Below we explore some of the reasons why it is difficult to discern the actual costs.

1. **It is difficult to estimate direct subsidies.**

The simplest and most direct approach to funding professional development is to subsidize teachers either for their time or their direct costs. To the extent that teachers use paid time for professional development, their schools incur costs for their salaries and/or for substitutes. Thus release time for teachers can be one of the largest costs of professional development programs. Similarly, schools can reimburse teachers for part of their educational costs (e.g., for travel, food, lodging, or tuition). States subsidize these costs to the extent that release days for training and professional development are embed-

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1 For example, Ohio’s Venture Capital Program funds comprehensive reforms as part of its statewide professional development program (Ohio NCTAF Task Force, 1997).
ded in their funding formulas. Subsidies for training also can be built into school grant proposals for programs that were formally intended for other purposes. In addition, professional development processes can be embedded into the daily activities of teachers.

The costs to states and local districts of the direct subsidies provided to teachers for their professional development can be very difficult to estimate. Schools usually do not routinely record and report on this type of support. Usually these costs must be estimated, even when a case study method is used (Education Commission of the States, 1997; Miller, Lord, & Dorney, 1994).

2. **Categorical programs often provide local discretion.**

Some state-administered categorical programs for other purposes either directly or indirectly support professional development. Sometimes states will require schools to include professional development for teachers as a part of their proposals and consider these plans in the proposal evaluation process. In addition, the federal government has a number of programs that provide money to support professional development in schools. These programs are also administered by states. In our survey of states, we found a great deal of variability in the number and types of programs that states reported and in whether they indicated a percentage of categorical program funds that were used to support professional development (Ward et al., 1999).

3. **Ambiguous linkages occur between professional development and school improvement.**

In some states, school improvement programs are specifically intended to be part of a professional development program. In some instances, they take the shape of supplemental state funding for school restructuring or for other types of interventions. For example, Ohio classifies its innovative Venture Capital Program, a comprehensive school improvement program, as a professional development program. In other states, school improvement programs may take the form of providing subsidies to schools to fund their local professional development plans (Ward et al., 1999).

There is, of course, the potential in all states to develop a policy that not only links these various forms of support for professional development into a cohesive state framework, but also provides a coherent way of tracking whether these programs actually influence improvement. To accomplish this goal, most states would have to substantially reshape state education policy.

4. **Some professional development is embedded in educational practice.**

As an integral part of their educational practice, teachers assess students' abilities and progress, plan for curriculum and instruction, conduct classes, evaluate student performance, and reflect on the efficacy of their instructional strategies. To the extent that these embedded professional development activities influence student outcomes, they must do so through these educational practices. However, the integration of professional development and educational practice has seldom been examined. Thus, a better understanding of role of professional development within educational practice is needed.

A Framework for Identifying the Linkages Between Professional Development Programs and Student Outcomes

Since measurable student outcomes are now of paramount concern to legislators and other policymakers who make funding decisions about education, it is necessary to link the new investments (i.e., funded professional development activities) to these outcomes. Unfortunately, the now-popular notion that investing in professional development leads to direct improvements in student outcomes poses problems for policy analysts who have to assess whether these investments have...
resulted in the intended effects. What they need is an appropriate and logical method—or framework—for assessing these linkages.

**MODELS FOR DEFINING LINKAGES**

In order to move toward a framework that states can use to examine how their subsidies for professional development programs influence student outcomes, it is first necessary to understand how professional development practices are likely to influence student outcomes. Two contrasting conceptual models address this issue. Guskey and Sparks (1997) link quality professional development to improvement in educational outcomes through its influence on teacher knowledge and their practices. St. John, Bardzell, Michael, Hall, Manoil, Asker, and Clements (1998), on the other hand, postulate that professional development influences the implemented philosophy in schools (i.e., the knowledge base teachers use in action), which in turn influences the education practices (i.e., classroom instruction, organizational processes, and parent involvement) that have a direct influence on student outcomes. The common aspects of these models are summarized below.

First, both models agree that professional development influences outcomes through changes in teacher knowledge and practices, but the links are indirect. Guskey and Sparks (1997) combine knowledge and practice into a single conceptual construct that, in turn, directly influences student outcomes. St. John et al. (1998) suggest that the shared understandings of teachers in schools (their implemented philosophy that is influenced by professional development) can directly influence instructional practices, parent involvement in learning, and organizational features of schools; and that changes in these features have a direct influence on student outcomes.

Second, both models suggest that a range of other variables influence achievement, some of which can be influenced by professional development. These other features include parent knowledge and practices, the school culture, and other school policies influencing curriculum and school organization (Guskey & Sparks, 1997; St. John et al., 1998).

While the two models vary in how they depict the ways in which these other variables might interact with the professional development process, both suggest a complex pattern. Therefore, it is important that state policies encourage schools to link their spending on professional development to student learning in cohesive ways.²

**CRITERIA FOR IDENTIFYING LINKAGES**

The next step in moving toward a framework is to examine the criteria for identifying linkages between professional development and student outcomes. These criteria offer two potential ways of informing state policy on professional development. First, by focusing on these criteria, it may be possible for states to evolve cohesive, learning-oriented approaches to supporting professional development. This involves more than describing how interventions link to outcomes. It also involves taking an inquiry-based approach to the ongoing development of state professional programs. The fact is that there simply is not a sufficient research base to develop workable approaches to professional development that ensure improvement in student learning outcomes. Therefore, states need to develop learning-oriented approaches that contribute to the development of the necessary research base. The three criteria are described below.

²The Guskey and Sparks (1997) model is more positivist, assuming “quality” staff development influences “improved student learning outcomes” (p. 35). In contrast, St. John et al. (1998) do not make positivist assumptions. Rather, they concentrate on the relationships among different types of features and student outcomes.
1. **Recognize the complexity of improving student outcomes**

A review of the two previous models shows a clear indication that professional development has an indirect influence on student outcomes. Further, different state-funded professional development programs may influence different types of outcomes. Some may focus on improving achievement, others on attainment (e.g., reducing dropout rates) or other outcomes (e.g., reducing drug use). Others are actually intended to influence multiple outcomes. Thus gains in achievement do not take place in isolation from other outcomes. State policies need to recognize this complexity by providing guidelines that inform the educators about strategies for improving student outcomes, rather than relying on overly simplistic general principles to guide development of local professional development programs. Specific steps include encouraging schools to:

- Assess the ways their professional development programs have influenced improvement in student outcomes.
- Use alternative methods of assessing achievement in addition to standardized test scores.
- Consider the ways their professional development policies might encourage improvement in other outcomes in addition to achievement.

2. **Encourage coherent approaches to professional development and educational improvement**

With the decentralization of professional development, school improvement puts more power into the hands of teachers. While this situation has merit, it further confuses the ways these processes actually link to student outcomes. Therefore, it is important that teachers focus on how their locally constructed school improvement and professional development processes provide coherent approaches that influence student outcomes. The newest approach—selecting from approved, research-based programs—appears to be cohesive, but may not adequately recognize the professional autonomy of teachers. An alternative approach is to encourage teachers to use an inquiry-based approach that focuses on improvement of student outcomes (St. John & Bardzell, 1999). In particular, research by Joyce and colleagues (1994) documents that conducting action research projects enables teachers to develop instructional strategies that actually improve student achievement. Some of the actions that might encourage schools to develop cohesive approaches to professional development might include:

- Developing plans to define explicitly how and why their professional development interventions will influence improvement in student learning outcomes.
- Seeking professional development opportunities for teachers to learn proven, research-based intervention methods and/or to seek inquiry-based approaches to professional development and school improvement.
- Systematically assessing the ways their professional development interventions have influenced improvement in outcomes that were their focus.

3. **Use an inquiry-based approach to inform the policy development process about ways of improving student outcomes through professional development**

The newest wave of education reform policies (e.g., the Reading Excellence Act) promotes local discretion over decisions about professional development and educational improvement (decentralization) while focusing on accountability for specific outcomes. Therefore, it is important that the processes used to implement these new federal programs include inquiry-based approaches that promote learning within schools as well as within policy bodies that fund them. Some of the actions that might encourage an inquiry-based approach include:

- Taking a research-based approach to ongoing development of state professional
development programs that use formative evaluations to refine the designs of the programs.

- Encouraging schools to take cohesive approaches that focus on improvement in student learning outcomes.

- Providing guidance for schools in planning for professional development that encourages schools to integrate inquiry into their site-based planning for professional development.

ESTIMATING GOVERNMENT SUBSIDIES FOR PROFESSIONAL DEVELOPMENT

Before states can develop a common systematic approach for assessing the returns on their investments in professional development, they need to have a common systematic approach to estimating the costs of professional development. As a starting point in accounting for professional development costs, it is important to distinguish between two types of government subsidies:

- **Embedded Subsidies.** The ongoing professional development costs incurred by schools when they provide release time for teachers or subsidize their training and education have seldom been fully estimated.

- **Specially Directed Subsidies.** Public subsidies for programs that are specifically directed toward professional development are easier to estimate if we identify categorical programs with this intent and the percentage of funds spent on professional development.³

It is also important to recognize how local and state policies influence expenditure patterns:

- **Local Practices in Using Subsidies.** Before the total cost of professional development can be estimated in any given state, it is necessary to know how local districts and schools combine the use of embedded and specially directed subsidies to support locally designed professional development plans and projects.

- **Unfunded Mandates.** Very often states will mandate that schools allow teachers to take time for professional development, but do not fund these mandates (Ward et al., 1999). These practices essentially encourage schools to use embedded funds in innovative ways (with local discretion).

- **Professional Development Embedded in Educational Practice.** Viable approaches to professional development involve collaborative planning for curriculum and instruction, reflecting on the ways assessment and evaluation practices promote student learning, and adapting curriculum and teaching practices to meet the learning needs of students who do not respond to the structure of classes. The time associated with this type of embedded activity is exceedingly difficult to discern.

Thus, the process of estimating local expenditures for professional development is exceedingly complex. The simplest way is to estimate (a) the number of professional development days teachers take and (b) the average cost of a professional development day, then multiply one number by the other (a x b). However, while this method of estimation provides an approximation of total expenditures, it provides little insight into the sources of funds, the role of local discretion, the influence of government mandates, or the extent of investment in embedded professional development.

While the ultimate goal of professional development may be to integrate inquiry-based approaches to curriculum development and adaptation into educational practice, it remains exceedingly difficult to discern the amount of time teachers spend on these embedded activities. Therefore, as states begin to develop more systematic methods

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³Ward, St. John, and Laine (1999) attempted to survey states about their professional development programs but found substantial variability in reporting.
for assessing time devoted to formal professional development, it is also important to consider whether and how these formal processes actually change as a result of increasing the state investment.

The models described here suggest an approach that state education officials can use to examine the linkage between funding for professional development and student learning outcomes. At a minimum, it is important to:

- Specify the learning outcomes the professional development interventions are intended to influence.
- Identify how the professional development process will influence educational practices and how these practices link to outcomes (the linking structure).
- Assess the costs associated with the professional development intervention.

**A Preliminary Framework**

Since there is no comprehensive framework available for assessing the effects of diverse types of professional development interventions on educational outcomes, it is not yet possible to specify linkage structures that researchers can use to evaluate these interventions. In this paper, we suggest a preliminary framework for assessing the linkages between professional development and student outcomes.

This framework offers a way of reshaping state policy on teacher professional development to promote improvement in student outcomes. It is based on five questions that can guide policymakers in focusing their inquiries. We used these questions to analyze two case studies of professional development, one in Ohio and the other in Indiana.

1. **Do state policies on professional development recognize the complexity of improving student outcomes?**

Professional development should not be limited to training, but rather should include an explicit focus on changing practices that can influence student outcomes. State policy on professional development should recognize the linkages between the professional development process and student outcomes. This means that the policies should provide opportunities, if not incentives, for teachers and schools to engage in professional development activities that have a high probability of improving student outcomes.

2. **Are state professional development programs linked to student outcomes in coherent ways?**

If the goal of state policy on professional development is to influence improvement in student outcomes, then schools developing professional development plans should be encouraged to explicitly define the ways their interventions are likely to influence student achievement. One approach that is now gaining wide endorsement is to have an approved list of programs that have a sound research base. Another approach involves encouraging schools to develop their own plans and activities that use an inquiry-based approach to assess student learning needs and to reorganize their practices to improve critical outcomes.

3. **Is there evidence that professional development programs have influenced student outcomes?**

The question that legislators keep coming back to is whether the investments they make in professional development and other forms of educational improvement actually result in improved outcomes. If the funded programs and projects have linkages to outcomes and if they are implemented well, then they should lead to improvements in student outcomes.

4. **Does the state have a method of accounting for subsidies for professional development?**

If states seek formal mechanisms for tracking expenditures on professional development, including both the subsidies embedded in the state and local funding formula and the specially directed subsidies included in categorical programs, then they will need methods of accounting for public expenditures on professional development.
5. Does the state have a method of linking the subsidies for professional development to improvements in student outcomes?

States need a systematic way of linking subsidies for professional development to student outcomes if they intend to have measurable returns. Other questions also merit consideration, but they are beyond our capacity to address from these exploratory case studies. A second set of questions can best be addressed through focused discussions among state officials, informed in part by researchers who are also concerned about these questions.

An Analysis of Professional Development in Two States

We chose two states (Ohio and Indiana) in the North Central Region for this study because they had taken recent steps to implement comprehensive approaches to professional development. This section examines recent developments in these states. We first describe our study method and then compare the data. Finally, we analyze the two cases using the research questions as a guide. Descriptions of the professional development programs can be found in the Appendix.

CASE STUDIES

In this section, we first set out the method we used to describe professional development programs in the Ohio and Indiana. Then, we compare the two states to other states nationally and in the North Central Region.

Case Methods

We developed two case studies illustrating how the framework could inform the refinement of state policy. First, we conducted a survey of professional development programs in states in the North Central Region (i.e., Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin) and nationally (Ward et al., 1999). Of the states in the region, Ohio and Indiana had done the most to develop state policy aimed at improving professional development.

Second, we reviewed documents on state professional development policies in the two states. A set of reports on Ohio's professional development programs and policies were provided in response to the survey. Based upon our review of these documents, we selected Ohio as a case study. In addition, we had access to several planning documents on professional development in Indiana, which we used as an integral part of our analysis.

Third, we met with policymakers in each state's department of education. Transcripts from the presentations and question-and-answer period were analyzed as part of the study.

Comparison to Other States

To help build an understanding of the two states, we first examine how professional development in Indiana and Ohio compares to other states in the region and to the national average for all states. Choy and Ross (1998) recently reported the results of the 1993-94 Schools and Staffing Survey. Below, we use their report to examine how the two states compared to national statistics on the process of decisions about professional development and types of support teachers received.

First, Indiana and Ohio, like most states in the North Central Region, can be characterized as being decentralized in the locus of decisions about professional development (Table 1). About 15 percent of the principals in both states indicated that state departments had a great deal of influence, compared to a national average of 21.3 percent. Also, a small percentage indicated that their school boards had a great deal of influence: 16.1 percent in Indiana and 14.2 percent in Ohio, compared to a national average of 20.5 percent. While a high percentage of principals in both states indicated that state departments had a great deal of influence, compared to a national average of 65.5% in Indiana and 63.1% in Indiana, a somewhat larger percentage nationally indicated that teachers had a great deal of influence (70.6%). In both states, most principals felt that they had a great deal of influence in the selection of con-
tent on professional development (69.9% in Indiana and 70.6% in Ohio), but again somewhat less than the national average (72.4%). All of the other states in the region were also lower than the national average in the percentage of principals who indicated that the state department and school district had a great deal of influence. However, all other states in the region were higher than the national average in the percentage who reported that principals, teachers, or both had a great deal of influence. Thus, not only are Indiana and Ohio relatively decentralized in their decisions about the content of professional development, but both states were not as clearly focused on principal and teacher decision making as other states in the region.

As for the second indicator, Indiana and Ohio have substantially different forms of public support for professional development (Table 2). The percentage of teachers in Indiana who indicated they received release time (57.9%) was substantially higher than the national average (48.2%) or any other state in the region. In contrast, compared to other states in the region, Ohio had the lowest percentage of teachers (45.1%) reporting they had release time. Indiana and Ohio were both substantially lower than the national average (40.0%) in the percentage of teachers reporting they had professional development time built into the schedule (Indiana, 30.9%; Ohio, 31.2%). Indiana had a higher percentage of teachers (27.1%) who reported they were compensated for travel expenses than either Ohio (22.7%) or the national average (23.6%). In contrast, Ohio had a slightly higher percentage of teachers reporting they had had tuition and fees paid (24.0%) than did Indiana (20.0%) or the nation as a whole (22.8%). Indiana had an extremely low percentage of teachers who reported they received professional development credits (9.9%), in contrast to Ohio (29.9%) and the national average (32.4%).

Thus, while Indiana and Ohio are similar with respect to the locus of decisions about professional development, they differ substantially in the ways professional development is supported. Indiana makes greater

<table>
<thead>
<tr>
<th>State</th>
<th>State Department</th>
<th>School District</th>
<th>School Board</th>
<th>Principal</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
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<td>20.5</td>
<td>72.4</td>
<td>70.6</td>
</tr>
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</tr>
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<td>69.9</td>
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</tr>
<tr>
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<td>78.1</td>
<td>79.1</td>
</tr>
<tr>
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<td>73.2</td>
<td>70.1</td>
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<td>14.5</td>
<td>73.7</td>
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<td>70.6</td>
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<td>19.2</td>
<td>71.5</td>
<td>77.4</td>
</tr>
</tbody>
</table>

Abstracted from Choy & Ross, 1998, p. 11
TABLE 2

Percentage of Public School Teachers Who Reported Receiving Various Types of Support for Inservice Education or Professional Development: National Average and North Central States

<table>
<thead>
<tr>
<th></th>
<th>Release Time</th>
<th>Time in Schedule</th>
<th>Travel Expenses</th>
<th>Tuition &amp; Fees</th>
<th>Professional Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nat'l Aver.age</td>
<td>48.2</td>
<td>40.0</td>
<td>23.6</td>
<td>22.8</td>
<td>32.4</td>
</tr>
<tr>
<td>Illinois</td>
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<td>35.7</td>
<td>27.7</td>
<td>26.9</td>
<td>20.6</td>
</tr>
<tr>
<td>Indiana</td>
<td>57.9</td>
<td>30.9</td>
<td>27.1</td>
<td>20.0</td>
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</tr>
<tr>
<td>Iowa</td>
<td>52.9</td>
<td>43.5</td>
<td>35.2</td>
<td>27.0</td>
<td>25.1</td>
</tr>
<tr>
<td>Michigan</td>
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<td>34.6</td>
<td>23.0</td>
<td>23.2</td>
<td>12.7</td>
</tr>
<tr>
<td>Minnesota</td>
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<td>38.0</td>
<td>27.7</td>
<td>24.4</td>
<td>46.5</td>
</tr>
<tr>
<td>Ohio</td>
<td>45.1</td>
<td>31.2</td>
<td>22.7</td>
<td>24.0</td>
<td>29.9</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>51.1</td>
<td>31.6</td>
<td>32.0</td>
<td>22.6</td>
<td>26.2</td>
</tr>
</tbody>
</table>

Abstracted from Choy & Ross, 1998, p. 74

use of release time for teachers and less use of tuition subsidies and professional credits, while Ohio provided somewhat more support for tuition and also supported professional development credits at a level close to the national average.

In both Indiana and Ohio, there have been substantial new developments in professional development activities since these surveys were administered. Ohio has taken a comprehensive approach to providing professional development opportunities and incentives for teachers and schools, while Indiana has taken an incremental approach to encouraging teachers to embed professional development in daily processes in schools.

These comparisons of Ohio and Indiana with other North Central states and with national averages reveal that state and local educational agencies already make a substantial investment in professional development through embedded subsidies. Interestingly, as the case studies illustrate, the latest wave of reforms in professional development focus on specifically directed subsidies for intervention programs, but relatively little attention is paid to accounting for these embedded subsidies.

ANALYSIS

The description of professional development programs and policies in the two case states shows that Ohio has a cohesive and comprehensive program, though evaluations are only now in progress. Indiana has taken a more incremental approach, which though initially disjointed appears to be coming together. With that understanding, we now apply the analytic questions introduced earlier to these two states' cases.

1. Do state policies on professional development recognize the complexity of improving student outcomes?

Both states have taken steps toward comprehensive policies on professional development. Recent developments in the states appear to recognize the complexity of the ways professional development links to student outcomes. Ohio has developed a comprehensive set of strategies that tightly link the efforts of
teachers, schools, regional consortia, schools of education, and the Ohio Department of Education in an effort to improve professional development. In Indiana, the components of professional development are still more loosely linked together, but there is now a concerted effort to embed ongoing professional development into educational practice. Further, the policies in these states encourage schools to consider student outcomes as a part of their professional development plans. Thus, the reforms in both states recognize the complexity of the professional development process, but the linkages to student outcomes are loose.

2. Are state professional development programs linked to student outcomes in discernable ways?

Both states have taken steps in the right direction. The approach taken in Indiana holds some promise for defining a strategy that has discernable linkages between professional development programs and student outcomes. As a part of the proposals schools write for grant funding for early literacy interventions and educational technology integration, the state could require schools to think through how their plans link with the specific outcomes they intend to promote. In Ohio's model, schools are encouraged to consider linkages to student achievement when developing improvement plans. However, the capacity to influence behavior in this way could be lost in a highly decentralized strategy of coordinating individual, school, and district-level improvement plans. Further, both states have developed specific strategies that provide financial incentives for schools to adopt coherent approaches to professional development. Ohio's Venture Capital Program encourages schools to adapt a research-based reform approach or to develop their own inquiry-based approach. Indiana's Early Literacy Intervention Grant Program encourages schools either to adapt a research-based intervention or to develop an inquiry-based approach of their own design. Both programs were implemented in advance of new federal initiatives such as the Comprehensive School Reform Demonstration Program or Reading Excellence Act. Clearly these states took initiatives prior to the new wave of federal reforms.

3. Is there evidence that professional development programs have influenced student outcomes?

The reforms in both states are too new to have comprehensive information available about their impact. However, since neither of the state policy frameworks identifies explicit linkages between program features and student outcomes, it may be difficult to assess what these new policies and programs actually contribute to student outcomes. Indeed, one of the challenges facing educational researchers and policymakers in these states is to discern how specific programs and policies influence the program features in schools that directly affect student learning.

If the goal of restructuring policy on professional development to improve student outcomes is to be realized, then state officials will need to work more directly with the educational research community to design projects that will more clearly test the ways professional development links to student outcomes. Using the framework outlined above, it may be possible to think through design strategies that can be empirically tested. For example, in the second year refinement of the Early Literacy Intervention Grant Program in Indiana, an effort was made to define these linkages more clearly and to use this information to inform the local design of interventions. However, this approach needs to be further tested, and it will take a few years to obtain empirical results.

4. Does the state have an established method of accounting for subsidies for professional development?

Neither state fully and routinely accounts for all state and local subsidies for professional development. Ohio maintains a list of professional development programs that it funds each year, while Indiana does not. However,
neither state accounts for the subsidies for professional development that are embedded in the state and federal funding formulas.

5. Does the state have a method for linking the subsidies for professional development to improvements in student outcomes?

No such accounting or analytic method currently exists in either state. In Indiana, a study is under way that will examine these linkages in one program area—interventions in early literacy acquisition. In Ohio, the state has begun to account for spending in specially directed programs. However, neither state has developed a systematic approach for accounting for embedded and specially directed subsidies for professional development, nor do they have well-defined and systematic methods of evaluating impact.

Reshaping State Policy

This examination of recent state policies on professional development reveals that some states have developed programs to improve student outcomes. Further, the comprehensive approach being used in Ohio and the incremental approach being used in Indiana include strategies that encourage schools to adapt cohesive approaches to professional development. Thus, both states provided guidelines for developing coherent programs, although the linkage between professional development projects and student outcomes could be better specified. However, these programs do not yet show evidence that they have had an influence on student outcomes. In our view, comprehensive professional development programs have merits in terms of teacher satisfaction and improvement in the quality of the teaching force, even if they do not result in measurable improvements in student outcomes.

Nevertheless, at least some state legislators and other public officials are asking questions about whether spending on—or rather investments in—the professional development of teachers will lead to improvement in student outcomes. One possibility is to follow the paths pioneered by these states, which is to design statewide strategies that recognize the complexity of the task of improving teacher quality. If this method is chosen, then we recommend that states design comprehensive strategies, then systematically assess results to see if there are discernable gains in student outcomes. The alternative is to promote designs for professional development programs with discernable linkages to student outcomes, taking a more activist approach.

In this paper, we developed a preliminary framework, focusing on building linkages between professional development and education practices that can potentially improve student outcomes. However, these linkages need to be more systematically specified before the framework can be used as a basis for evaluation studies. Clearly the discourse must move beyond focusing on increases in the amount of time teachers receive for professional development, to encouraging teachers and schools to develop local strategies that address student outcomes that are important in the local school context. As a conclusion, we suggest a specific set of questions that state officials can ask in their efforts to develop refined approaches to planning, implementing, and assessing statewide professional development programs; then, we suggest steps that facilitating organizations, such as NCREL, might take to encourage these developments in states.

QUESTIONS TO GUIDE POLICY DEVELOPMENT

Some of the questions that could be asked to encourage education officials to address the linkages between professional development programs and student outcomes are outlined below.

1. Does the professional development program encourage educators to assess the locally situated learning needs of students?

If ongoing professional development is going to link directly to improvement in student
outcomes, then educators who are engaged in designing local interventions need to start by thinking through what challenges exist for their students. Some questions educators might ask themselves when they assess student learning needs are:

- What educational outcomes are of most critical concern to the school community?
- Are there problems with student retention, drop out, or special education referral that could be mitigated if new educational strategies were adopted?
- Which student achievement outcomes are of most concern in the school? Are students in some grades doing better than students in other grades on math and reading achievement tests?
- Are the developmental issues facing students appropriately addressed in the curriculum or other school programs? Are students assigned work that is appropriate for their development? Are interventions needed to encourage student development? Are families adequately involved?
- Are students learning how to use the new technologies? Do students use technology to complete assignments? Are students encouraged to use computers and the Internet in assignments that involve critical thinking? Are there discernable and appropriate linkages to employment in middle and senior schools?

2. Are the funded professional development activities linked in discernable ways to the learning needs of students in the schools where teachers work?

This question is perhaps the most critical for policymakers to ask educators who make proposals for investment in ongoing professional development. There is certainly a value in investing in professional development for the benefit of teachers. However, if the intent of new investment in professional development is to improve student outcomes, then it is important to make sure there are linkages between the funded activities and learning needs of students. Legislators reviewing proposals for new programs may want to ask those proposing the programs whether their proposals include these direct links. As we have seen from the reviews and case studies above, these linkages usually are not well specified. Educators planning for professional development activities in schools should address some specific questions:

- Does the professional development plan address critical student outcomes in the school (defined by a site-based assessment of student outcomes)?
- How will the ongoing professional development program include exposure to new and best practices (related to the instructional, organizational, and parental involvement program features) that could logically lead to improvement in desired outcomes?
- How does the proposed professional development activity relate to the professional development needs of the teacher?
- How will the experiences gained through professional development influence the ongoing practices and activities in the school?

3. Does the professional development activity use a research-based or inquiry-based approach?

It is important that the research base be used to inform educational decisions, not only at the global design level but, more important, at the level of teacher action. It is important that the plans not only specify what outcomes are linked to the proposed professional development process, but also how teachers will assess and communicate the improvements in student outcomes that result from the professional development process. These activities would "close the loop" between the intent of the policy and the method of evaluation. Locally designed professional development programs can be directly linked to a research base by:

- Choosing professional development strategies with a sound research base.
• Designing new interventions (and professional development activities) that are informed by relevant research literature.

• Designing interventions with tight linkages to student outcomes (through program activities that are related to the outcomes of most central concern) and monitoring progress.

• Integrating sound site-based evaluation designs into the professional development project, thereby encouraging teachers to take an inquiry-based approach.

• Collecting, reviewing, and analyzing site-based evaluations.

• Conducting independent evaluations of the professional development programs.

4. Does the state have an established method of accounting for public subsidies to professional development?

Currently states lack any systematic method of accounting for the direct and indirect subsidies for professional development. Clearly, if such systems are developed it is important to avoid extensive new system development costs. However, it is appropriate for state legislatures to ask questions relative to subsidies provided for professional development. Some possible questions include:

• What categorical programs have a professional development component (the first component of specially directed subsidies)?

• What portion of funds for professional development programs subsidized ongoing professional development (the second component of specially directed subsidies)?

• How many professional development days are subsidized through the state funding formula (the first component of estimating embedded subsidies)?

• What is the average daily subsidy (e.g., release time, substitutes, etc.) for professional development (the second component of estimating embedded subsidies)?

• How do local districts use specially directed and embedded funds to support professional development (a missing component of most attempts to estimate total subsidies for professional development)?

• How do state mandates for professional development influence local expenditures on professional development (another missing component of most attempts to estimate the total subsidies for professional development programs)?

Conclusions

This study was initiated in response to requests for information from state officials. There is a substantial interest among educators in many states in promoting statewide professional development programs. However, the state officials confronted by these requests lack a capacity to assess their relative merits. This paper has suggested a preliminary framework for reshaping these linkages, but there are a number of unanswered questions. Indeed, as part of our conclusion, we have suggested a set of questions that can be used to guide conversations in states that might lead to the development of well-designed statewide professional development programs.
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Appendix

Professional Development Programs in Ohio and Indiana

Ohio’s Comprehensive Approach

The state of Ohio initiated a comprehensive approach to professional development during the 1990s. It included an integrated approach to teacher education and licensure standards, a regional approach to the delivery of professional development, and a comprehensive set of professional development opportunities for teachers and schools. Ohio’s comprehensive professional development approach developed as a result of leadership by the Ohio Department of Education. It provides opportunities for schools to develop local approaches to professional development. We summarize these features of the new approach in Ohio, then briefly consider the results of initial evaluations.

Comprehensive Design

Perhaps the centerpiece of the professional development strategy implemented in Ohio is a comprehensive approach to teacher education and professional development standards. Indeed, the state has collaborated with university schools of education, businesses, and educators to develop a coordinated and cohesive approach to teacher professional development. A state publication describes this new strategy as follows:

The State Board of Education initiated a new era of professional development with the 1996 adoption of Ohio’s Teacher Education and Licensure Standards. These standards, effective January 1, 1998, are based on the belief that educators must continue to learn, grow, and develop throughout their careers. The foundation of the new standards is a professional development continuum spanning recruitment through retirement. At each phase, accountability for performance is emphasized. (Ohio Department of Education, n.d., p. 1)

The continuum for professional development processes that are coordinated through state policy include:

- Recruitment
- Teacher Education Program
- Paper-and-Pencil Test Over Content and Pedagogy
- Provisional License
- Entry-Year and Performance Assessment
- Professional License
- Ongoing Professional Development
- Voluntary National Board Certification

Each school district in Ohio establishes a “Local Professional Development Committee.” These committees are responsible for developing a plan that identifies professional development opportunities within and outside of the district that are aligned with the district’s “Continuous Improvement Plan.” The state’s goal for this process of linking local planning and professional development is to achieve a tighter linkage between professional development activities and student achievement.

The local professional development committees also are responsible for coordinating individual planning for professional development. The committees establish procedures for “Individual Professional Development Plans” by educators in the district or school, review these plans, and develop a format for using them to secure licensure. Individual educators must follow the process to renew their licenses. Thus, the professional development planning process formally links the professional development activities of teachers both to the licensure renewal process and...
to planning for educational improvement in school districts.

Another feature of this comprehensive approach to professional development has involved transformations in the teacher preparation curriculum. For example, the new process requires that prospective elementary teachers take coursework on phonics, consistent with the new, balanced approach to literacy instruction that is emerging across the states. It changes the master’s degree requirements for educators, placing more emphasis on subject matter related to the courses teachers actually teach. In the wake of these new developments, schools of education across the state are reviewing and revising their undergraduate and graduate curricula.

Networking

The state of Ohio has invested in building a series of professional networks that support a regional approach to professional development. The state has six major professional development providers that emphasize the regional approach. These include:

- **Regional Professional Development Centers (RPDCs)**—The 12 RPDCs serve as brokers in providing long-term, ongoing, meaningful professional development for educators and school support staff. The RPDCs provide professional development to implement Ohio’s curriculum models, network through technology, and provide assistance to schools moving toward site-based management.

- **Special Education Regional Resource Centers (SERRCs)**—The 16 SERRCs provide services to all school districts, county boards of mental retardation and developmental disabilities, and institutions in Ohio. Each SERRC has the following four components: Identification and Program Development, Educational Assessment Project, Instructional Resource Center, and Early Childhood Services Project.

- **Regional Professional Development Centers**—The five Professional Development Centers prepare teachers recruited from business and industry, provide inservice to educate and upgrade all vocational education teachers, and conduct research.

- **County Educational Service Centers**—Ohio has 80 county educational service centers that provide professional development, planning, purchasing, and coordination of effort. The service centers provide a wide range of services from assistance with new technology to instructional support.

- **SchoolNet**—Ohio provides training in the use of new technologies through 12 SchoolNet regions. The training focuses on using technology tools, developing lesson labs, and accessing and using Netscape.

- **North Central Regional Education Laboratory**—this research and development group enhances teaching and learning through the use of technology.

(BEST, 1997, p. 20)

Thus, the state of Ohio has pulled together a comprehensive network of regional resources to support teachers, schools, and school districts in pursuit of their individualized plans. This approach puts the means to acquire professional development opportunities closer to those who are attempting to navigate a course toward their own professional development goals. However, there was limited information available on the relative effectiveness of the different types of professional development service providers in the state.

**Direct Funding for Professional Development**

Ohio puts substantial funding behind its commitment to professional development in the state. A list of state programs that are focused on professional development is provided in Table 3. Not only are the regional professional development centers funded at more than $6.7 million, but a set of urban centers are funded at $6 million. Further,
there are two programs funded at even higher levels: a local professional development block grant program (funded at $8.6 million) and the Venture Capital grants (funded at $15.5 million).

The Venture Capital grants provide opportunities to schools to initiate multiyear restructuring processes. Schools receive five-year grants (funded at $25,000 per year for five years) aimed at supporting a school-based restructuring process. Schools can choose from an approved list of professional development processes or develop their own plans. In fact, the Venture Capital program, which has been in effect for more than five years, has many features similar to the new Comprehensive School Reform Demonstration program now being implemented nationally.

Finally, many of these developments are too new to have been comprehensively evaluated. However, an evaluation of the regional professional development centers was inconclusive. In addition, there are a couple of studies on the Venture Capital Program. The first evaluation of the Venture Capital program did not find any discernable effects on student test scores (Nussbaum, 1999). However, a second qualitative study is being conducted by Michael Fullan.

**INDIANA'S INCREMENTAL APPROACH**

Indiana's approach to professional development has been characterized as incremental (Usher, 1999). It also remains somewhat disjointed because of the division of responsibilities between the Indiana Department of Education and the Indiana Professional Standards Board. The incremental aspect can best be portrayed by the ongoing efforts to embed ongoing professional development into schools through systematic planning and funding processes. The disjointed aspect is

<table>
<thead>
<tr>
<th>Program Title</th>
<th>% of Total Award Allowable for PD</th>
<th>Total Award in Ohio</th>
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</thead>
<tbody>
<tr>
<td>Local PD Block Grants</td>
<td>100</td>
<td>$8,559,713</td>
</tr>
<tr>
<td>Regional PD Centers</td>
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<td>$6,675,077</td>
</tr>
<tr>
<td>Urban PD Centers</td>
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</tr>
<tr>
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<td>School Improvement Models (Venture Capital)</td>
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<tr>
<td>Peer Review</td>
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<tr>
<td>Entry-Year Program</td>
<td>100</td>
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<tr>
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<td>Financial Literacy</td>
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<td>$850,000</td>
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*Source: Ohio Department of Education*
due to the multiple agendas being pursued within the state, which are not highly coordinated. However, there is an underlying rationale in the ongoing professional development efforts being coordinated by the Department of Education that merit attention. In this review, we examine three aspects of professional development in Indiana:

- Efforts to secure support for teacher release time for professional development
- Efforts to develop a coordinated, incremental approach to ongoing professional development
- Efforts to transform teacher preparation and licensure

**Release Time for Teachers**

First, the Indiana Department of Education (IDOE) and the Board of Education have pursued the goal of securing release time for teachers through the 1990s. IDOE asked the Indiana Education Policy Center to study this in the early 1990s (Bull, 1999). In response, the Policy Center examined a range of issues related to state-level policy development in Indiana and selected other states (Bull, Buechler, Didley, & Krehiel, 1994). The recommendations of this initial study for a systematic approach to professional development included the following features:

- A mandate that schools allocate a specific number of personal days each year per FTE teacher for school-oriented professional development, perhaps five days for schools in their Performance-Based Accreditation (PBA) year or on probation, and three days for other schools
- State-dedicated funding to fully support this mandate, calculated perhaps as a multiple of the average daily salary of teachers in the state
- A requirement that schools in their PBA school improvement plan develop a written five-year strategic plan for professional development that involves teacher participation; focuses teacher time on projects that meet the school's highest priorities for improvement; schedules time for professional development to permit effective teamwork on those projects and to maintain instructional continuity for students; provides sustained and supportive training to involved teachers; modifies projects on the basis of their effects on student learning; and explains how other resources to support the effective use of teacher time will be obtained
- Submission of brief annual fiscal and performance reports, as part of the state-mandated report card, accounting for the use of state funds and the extent and purpose of professional development time utilized in each school year
- The provision of state start-up assistance to schools and the maintenance of state infrastructure services to support the effective use of teacher time
- The provision of state as well as local funding to help individual schools obtain specific additional resources needed for staff development

(Bull et al., 1994, p. 67)

The cornerstone of this proposed comprehensive system of professional development was the securing of mandated release time for teachers. Based on a review of this and related documents, the IDOE recommended and the State Board of Education approved a plan for five days of release time for teachers, a mandate that would have an estimated annual cost of $100 million. This proposal has been put forward to the legislature annually for the past three years. Efforts to secure funds for this comprehensive and systematic approach to professional development in Indiana have not been successful. However, recent legislation requires schools to develop site-based plans that could coordinate site-based planning with professional development.
Incremental Approach to Policy Development

Second, the IDOE has pursued an incremental approach to promoting professional development in spite of the lack of funding. In subsequent years, the Indiana Education Policy Center conducted a set of studies (Bull & Buechler, 1996, 1998) for the IDOE that identified a set of principles to guide the development of state policy on professional development. Based on a review of research on professional development, a set of five principles was identified. The research base suggests that successful professional development is:

- School-based, that is, focused on particular problems of each school and selected by the teachers and principal to help address those problems.
- Followed up in teachers' classrooms by such means as peer coaching or school-based research and evaluation teams.
- Collaborative, so that groups of professionals at schools can work together to solve the school problems most critical to student learning.
- Embedded in the daily lives of teachers, so that they undertake continual professional growth as a central responsibility of teaching.
- Focused on student learning, so that teams of teachers at the school attend to the actual effects of professional development on the performance of the students for whom they are responsible.

(Bull & Buechler, 1998, p. 5)

The IDOE has worked to embed these principles into the practices and processes used in schools, in spite of the delays in the funding proposals. The major report promoting this principle-based approach to ongoing professional development, Learning Together: Professional Development for Better Schools, was widely disseminated in Indiana schools and is being marketed nationally by the Association for Supervision and Curriculum Development.

The IDOE has taken steps during the past two years to encourage schools to develop an ongoing approach to professional development (Usher, 1999). Using their federal and state grant resources for professional development, the IDOE has encouraged schools to develop plans that are coordinated with the school development process. Further, in their review of proposals for state and federal programs, they look for evidence of ongoing professional development. Two of the state programs with this emphasis merit special attention:

- **Technology**—Indiana uses its revenue from the state lottery to support technology integration in the schools. The IDOE requires schools to devote at least 30 percent of their revenue for professional development. This program is funded at about $4.5 million annually.

- **Early Literacy**—The Early Literacy Intervention Grant Program has funded professional development aimed at improving early literacy. This program was funded at $3.9 million.

Currently, there is an evaluation study under way of the Early Literacy Intervention program. The first-year study indicates that projects do include an extensive emphasis on professional development and most schools have selected a research-based approach (St. John et al., 1998). However, most schools did not have an adequate site-based evaluation, which is an integral part of the professional development process outlined above. Therefore, it is unclear from this initial review how well the principles of ongoing professional development were implemented. However, the second-year study is using a version of the framework outlined earlier to assess whether the interventions have had an influence on improvements in early literacy.

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*The program was funded late in the legislative session in 1997. Therefore, there was not ample time to develop a set of funding criteria that was tightly linked to the principles of professional development. This may explain the loose linkages to these principles noted above.*
Teacher Preparation and Licensure

Third, there is an effort under way in Indiana to develop a new set of professional standards. In addition, the Indiana Advisory Council for the National Commission on Teaching & America's Future (1999) issued a report in June 1999 and is holding hearings on the proposed recommendations. The five areas of recommendations include:

- **Getting serious about standards for students, teachers, administrators, and school services personnel.** Following a four-year process that involved more than 2,000 practicing K-12 teachers and representatives from higher education and the Indiana Department of Education, the Indiana Professional Standards Board approved 17 sets of performance-based standards for Indiana educators in August 1998. The recommended strategies include an emphasis on student proficiencies aligned with student and teaching standards, a threetiered licensing and assessment system for teachers, and using the National Board standards in teaching.

- **Reinventing teacher preparation and professional development.** Recommendations focused on strategies for organizing teacher education and professional development around the new standards for students and teachers; strengthening the first two years of the teacher internship process; creating stable and high-quality sources of professional development; and securing funding for these developments.

- **Overhauling teacher recruitment and putting qualified teachers in every classroom.** Recommendations focused on recruiting the best and brightest teachers, building a sufficient supply of qualified teachers, and increasing the number and percentages of minorities and high-need populations entering the teaching profession.

- **Encouraging and rewarding knowledge and skill in teaching.** Recommendations focused on encouraging teachers and administrators to improve their knowledge and skills, as well as on developing a teacher continuum linked to compensation.

- **Organizing schools for teacher and student success.** Recommendations focused on encouraging the restructuring of schools, engaging families and communities as active participants in student learning, and using professional development processes to promote high-performance schools.

These plans set up a new blueprint in Indiana—one that has many of the same features as the comprehensive approach recently implemented in Ohio. In Indiana, however, the efforts to promote this new comprehensive approach are not yet closely linked to other professional development initiatives in the state.
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