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ABSTRACT

This report raises questions for policymakers to consider in designing and funding professional development activities. The study used 1995-1996 data to examine how much money states and districts spent on professional development and what that money bought, investigating connections between state and district expenditures on teacher professional development and results of those spending patterns on teaching and learning. Data came from over 60 districts in 11 states. The study created a district expenditure model that organized teacher professional development spending into seven categories and 17 subcategories. The model linked expenditures to specific professional development activities. A separate model for state expenditures organized state support for teacher development activities into five categories. Of the participating districts, only 16 furnished the required expenditure data. None linked professional development purchases to specific outcomes. Collecting state and district spending information proved difficult, and making connections between the expenditures and any results related to teaching and learning was impossible. The report discusses policy issues suggested by the spending patterns and teacher professional development activities, focusing on: linking spending to results; letting schools choose; cutting administrative costs; paying for continuing education; defining the state's role; balancing needs and resources; rethinking sabbaticals; organizing information; and using data to inform decisions. (SM)

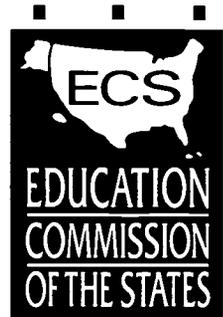
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# INVESTING IN TEACHER PROFESSIONAL DEVELOPMENT

*A look at  
16 school  
districts*

NOVEMBER 1997



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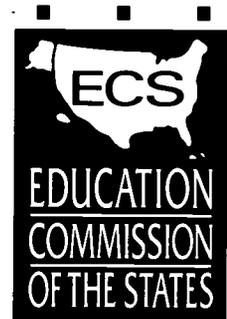
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Teacher professional development is a critical component of the nation's effort to improve school quality and student achievement.<sup>1</sup> Changes in technology and the workplace, the establishment of higher academic standards and the growing diversity of the student population all require varied and ongoing opportunities for teachers to develop and enhance their skills and knowledge.<sup>2</sup>

Unfortunately, there is a gap between knowledge about effective teacher professional development activities and the form and content of the programs that states and districts fund. Teachers have few high-quality opportunities during their career to strengthen and enhance their knowledge and skills. Much of what passes for professional development is only marginally related to what is known about improving student learning.

If states and districts intend to improve public education, they must invest in those professional development activities that provide the greatest return. To do so, they need to know how much they spend, for what and with what results. Without this information, states and districts cannot judge the effectiveness of their investments, let alone redirect funds into higher-quality programs and activities.

Good decisions require good information. With the exception of a few limited studies,<sup>3</sup> however, very little is known about the financing of professional development in public education. For example, Judith Warren Little and colleagues examined a random sample of 30 California school districts in 1986. They concluded that, on average, districts spent approximately 2% of their budgets on staff development for teachers and administrators. In a 1992 study, other researchers looked at teacher professional development expenditures in four districts. Organizing expenditures by funding source – for example, general funds, grants and teachers' personal funds – they found that these districts spent from 1.8% to 2.8% of their operating budgets on teacher training.

This study, conducted by the Education Commission of the States (ECS) with support from the John D. and Catherine T. MacArthur Foundation, represents an attempt to increase the knowledge base about state and district spending on teacher professional development<sup>4</sup> by answering these questions:

- How much money are states and districts spending on professional development, and what is this money buying?
- To what extent are current investments in professional development connected to increases in student learning?
- To what extent can the current investment return be improved by reallocating resources to other types of teacher professional development and training?

To answer these questions, a district expenditure model was created that organizes teacher professional development spending into seven categories or “functions” and 17 subcategories or “subfunctions.” This model, unlike most state and district accounting systems, links expenditures to specific professional development activities such as district conferences and sabbaticals – a necessary first step in assessing efficiency and effectiveness. A separate model for state expenditures was created that organizes state support for teacher development activities into five categories. Both models are described in detail in a separate section of this report for those who may want to replicate this analysis.

Identifying state and district spending proved a daunting task, and allocating expenditures into the models’ categories was, in many cases, impossible. Education dollars typically are tracked by a rigid accounting system that identifies only: (1) where the money comes from and (2) what it buys, for example, Title I money spent on teacher salaries. These systems are excellent tools for labeling inputs and proving compliance, but they lack the flexibility to answer many of today’s investment questions.

Of the more than 60 districts contacted for this study, only 16 were able to furnish the required expenditure data.<sup>5</sup> None was able to link its professional development purchases to any specific outcomes. Consequently, this report contains information in response to the first question – how much money is spent, and for what – and no information in response to the other two questions. Further, the states, districts and schools surveyed for this study do not represent a random sample, and the results, therefore, *cannot* and *should not* be generalized.

Still, this study is significant for several reasons. First, it includes more districts from more states than any previous research. Second, the districts included represent more diversity in terms of size, location and student characteristics than in similar studies. Third, the fiscal data are comparable and organized in categories that provide the first detailed look at how a number of very different districts and states spend their money to improve the quality of teaching in their schools. Fourth, the findings from these case studies raise some interesting and important questions for policymakers about the design and funding of teacher professional development activities.

The structure and content of this report is designed to help policymakers shift from *spending* money on professional development to *investing* it in high-quality experiences that yield tangible improvements in student learning. In the following section, the study findings and their implications are discussed. Next, information is presented on how a few schools noted for their emphasis on teacher professional development spend their money and use technology. Lastly, a summary of the report’s key observations is followed by reference materials, including endnotes, tables and a detailed description of the expenditure models.

## CHARACTERISTICS

This study relies on 1995-96 data provided by 16 school districts in 11 states.<sup>6</sup> The districts vary in size (ranging from 1,100 students to more than 300,000 students), location (urban, suburban and rural) and student characteristics (ranging, for example, from 0.3% minority enrollment to 89% minority enrollment). Here is a brief demographic profile of the districts:

- Average enrollment: 36,967 students<sup>7</sup>
- Average percent of students in poverty: 33%
- Average percent of minority students: 17%
- Average percent of special education students: 12%
- Average years of teacher experience: 13 years
- Average percent of revenues coming from:
  - Federal sources: 5.7%
  - State sources: 45.9%
  - Local sources: 47.8%

As shown in Table 1 (see pages 19 - 25 for tables), the sample districts tend to be large, to enroll more poor and special education students and to be more dependent on local revenues than the 1996 average for all 50 states. Conversely, the districts tend to have fewer minority students, to employ slightly less experienced teachers and to be less dependent on federal and state revenues.

## EXPENDITURES

District expenditures for teacher professional development were organized into seven major budgetary functions (see Glossary for definitions). Here are the average expenditures<sup>8</sup> for the districts organized by function, ranked from highest to lowest, and presented as a percent of the total amount districts spent on teacher professional development:

- Inservice training days: 41.4%
- Nondistrict conferences/workshops: 20.5%
- District conferences/workshops: 16.9%
- University/college coursework: 9.3%
- District professional development offices: 6.9%
- Temporary reassignments: 3.7%
- Sabbaticals: 1.3%

Table 2 lists these figures for each of the study districts. Not all districts offer all of the professional development activities categorized in the model. For example, while all districts spent money on inservice training days in 1995-96, only 10 districts offered teacher sabbaticals.

Table 3 details spending by subfunction (see Glossary for definitions) as a percent of total expenditures for the respective function. For example, of the money the Kenley district spent to support its professional development office, 87.2% went to staff salaries and 12.8% to office materials and supplies. This is a typical pattern, as the vast majority of expenditures across functions were for salaries, rather than overhead or support costs such as travel.

Table 4 shows total district expenditures for teacher professional development activities in 1995-96. These expenditures are reported as: (1) a percent of the district's net operating expenditures<sup>9</sup> and (2) as a percent of the average teacher salary and benefits. On average, 3.6% of the study districts' net operating expenditures supported teacher professional development activities, with a range of 1.7% to 7.6%. As a percent of average teacher salary and benefits, districts spent on average 6.8% per teacher, ranging from a low of 3.7% to a high of 15.6%. In other words, a district paying teachers an average of \$50,000 (salary and benefits) in 1995-96 spent approximately \$3,385 per teacher on professional development programs and services.

## CHARACTERISTICS

States, independent of districts, design, fund and implement teacher professional development activities and programs. Four states were surveyed to determine how much they spend on these activities, for what and with what results. These four states are among the 11 states in which sample districts are located. They are similar in many ways, varying most dramatically by population with two states more than twice the national average and the other two about half the national average. Only one state is east of the Mississippi River. As shown in Table 5, the study states tend to have older populations with a smaller percent of their citizens of school age, tend to devote more of their total state expenditures to public schools, and tend to rely more heavily on local sources for this support than most states on average.

At the same time, these states tend to have fewer minority and special education students, less experienced teachers and rely less heavily on state and federal funds to support their schools than do the majority of states.

The following is a brief demographic profile of the four states. Table 5 lists the demographics for each state.

- Average percent of population enrolled in K-12: 19.3%
- Average percent of students in poverty: 16.5%
- Average percent of minority students: 26.5%
- Average percent of special education students: 8%
- Average years of teacher experience: 14 years
- Average percent of state expenditures devoted to public education: 46%
- Average percent of education revenues coming from:
  - Federal: 6.8%
  - State: 46.2%
  - Local: 47%

## EXPENDITURES

A second expenditure model was designed to reflect the state's financial participation in teacher professional development. As expected, the model differs substantially from that used to collect information on district expenditures. A discussion of these differences is presented in the "Expenditure Models" section of this report (see page 26). Below are the average expenditures by function<sup>10</sup> measured as a percent of total state expenditures for teacher professional development<sup>11</sup>:

- University subsidies for graduate programs in education: 36.1%
- State-administered special programs: 25.7%
- Regional service centers: 22.6%
- State department professional development office: 13.7%
- Other state-affiliated providers: 1.9%

## DISCUSSION

This section highlights some of the policy issues suggested by the spending patterns and teacher professional development activities of the 16 sample districts and four states discussed in this report. The following is in no way intended to imply that the study districts or states are representative of the majority of districts or states in the country. If, however, the decisions they made about funding teacher professional development activities in 1995-96 are in any way typical, the following observations are important for state and district policymakers interested in improving the public's investment in these activities.

DISCUSSION

**Issue #1- Linking spending to results** On average, the states surveyed for this study spent 1.3% of their total K-12 expenditures on teacher professional development services and support. The sample districts spent, on average, 3.6% of their net operating budget. To some readers, these percentages may be surprisingly low, and to others, higher than expected. Either way, knowing the amount of money spent on teacher training is only part of the information needed to leverage these investments into higher student achievement. It is also necessary to know the effectiveness of the training programs purchased.

Unfortunately, few of the study districts or states routinely evaluate the connection between the dollars they spend, the programs they purchase and results they get. This is not to suggest that they are lax in their responsibilities.

A number of states and districts reported that program evaluations are a normal part of doing business. Generally, though, these evaluations focus on compliance rather than on effectiveness. In other words, districts knew, for example, that a two-day seminar on classroom management was held in October for 3rd-grade teachers at a cost of \$25,000. They did not know, however, if 3rd-grade classrooms were managed any differently or if children learned more as a result of this seminar.

**Issue #2 - Letting schools choose** For the sample districts, decentralization often meant that certain types of information were no longer available. For example, as districts devolved funding authority for teacher professional development to schools, few required schools to account for their use of these monies in any consistent or detailed way – perhaps out of concern that they would be perceived as trying to exert old-style control. This was particularly true for teacher professional development activities offered during inservice training days – those days during the school year when students do not come to school and teachers participate in professional development activities. On average, the districts in this study devoted nearly half of their teacher training dollars to these days. Yet, central office personnel reported knowing little about their inservice programs, in terms of content and quality. Schools were not required to share their agendas, particularly in the larger districts.

The lack of information about the structure, content and cost of inservice activities was described by some as a natural consequence of devolving authority to schools and the accompanying commitment by districts not to micromange school sites. But, the devolution of authority somehow became synonymous with the abdication of responsibility in some of these districts. Other central offices, in the same situation, defined a new role for themselves – one focused primarily on providing assistance and advice while identifying opportunities for improved quality, coordination and efficiency.

*Implication: For policymakers to make informed investment decisions, evaluations of educational programs, including teacher professional development activities, must be routine and go beyond assessments of compliance to include rigorous analyses of effectiveness.*

*Implication: As responsibility for teacher professional development shifts to the school level, districts can improve the return on their substantial investment in these activities, particularly inservice days, by holding schools accountable for district learning goals while helping them to secure those resources and programs most likely to lead to the efficient achievement of these goals.*

DISCUSSION

**Issue #3 - Cutting administrative costs** District professional development offices are not a big budget item in the sample districts. In 1995-96, the average percent of total professional development spending devoted to supporting these offices was 7.9%, with a range from 0% to just under 23%. The

*Implication: For some states and districts, greater efficiency and effectiveness may be achieved by improving the capacity of their central offices to facilitate school-level professional development activities rather than by reducing or eliminating this central office support function.*

highest spending district (Charing) also spent the least proportionately on nondistrict conferences, suggesting that costs for having an in-house professional staff were offset by the savings on travel and registration fees for out-of-district conferences. Four other districts (Chelsea, Farnborough, Heathside and Kenley), however, also spent less than 5% of their total expenditures on nondistrict conferences, yet managed to keep cost of their professional development offices under 15%. Three districts (Hammersmith,

Shoreham and Oxford) did not support a permanent professional development office. Two of these districts, Hammersmith and Oxford, used lead teachers to organize districtwide activities as needed, and the other district, Shoreham, relied on its assistant superintendent to arrange these programs.

In the four states surveyed, the percentage of resources devoted to state professional development offices was also relatively small. Two of the states spent less than 4% on these offices, and one did not have any state personnel assigned to these activities. These three states tended to spend the largest percentage of their teacher professional dollars on regional service centers or other, more locally based service providers. The fourth state spent more than 48% of its professional development money on a state-level professional development office. This state, however, participated in only two expenditure categories: the state professional development office and university subsidies.

**Issue #4 - Paying for continuing education** District expenditures associated with teachers' enrollment in graduate programs were not, on average, as large as anticipated. On average, costs for "University/College Coursework" (which included tuition and related salary incentives) were 9.3% of

*Implication: Districts and states can improve their investment in teacher professional development activities by aligning their requirements for continuing education at higher education institutions, especially those tied to teacher salary incentives, with district and state learning goals.*

the total expenditures for teacher professional development. The majority of district money went to salary incentives – increasing a teacher's salary because he/she earned a graduate degree or completed a certain number of college units – rather than to college-tuition reimbursements. In contrast, the single largest expenditure category for states was university subsidies for teacher education programs.

District expenditures in this category, however, may prove to be the most expensive budgetary item. Salary incentives, unlike the other professional development activities included in the district

## DISCUSSION

expenditure model, become fixed, long-term obligations – paid from the day a teacher earns the college credit to the day he or she retires and possibly beyond, as pensions are computed as a percent of salary. Over time, this category becomes an unalterable, expensive professional development activity. Whether these investments in college/university courses prove worthwhile is questionable. A number of those persons interviewed were skeptical about the link between courses taken by teachers and the educational needs and goals of their district and/or state.

One innovative sample district revamped its approach to salary incentives for professional development activities. Rather than rewarding teachers for taking college courses, the district identified a package of training courses and experiences aligned with the district's academic mission and goals. Teachers are expected to accumulate 12 units of training each year. In return, they receive a \$300-a-year increase on the salary schedule and, at the end of five years, an \$800-a-year increase. If the teacher fails to achieve a total 60 units of work within five years, his/her salary is frozen at its current level. The district had a large percentage of teachers who had not taken a single professional development course of any kind since their first year of teaching. But significantly, at the end of the first five-year cycle, not one teacher's salary was frozen.

**Issue #5 - Defining the state's role** In this study, the more dependent a district was on state funding, the more of its operating budget it spent on teacher training.<sup>12</sup> Conversely, the more reliant a district was on local revenues, the less money it devoted to teacher professional development. This relationship may reflect the professional development requirements and funding attached to a variety of state programs. Many of these programs support educational activities for special categories of students who are found in greater proportion in large urban districts. Curiously, though, the sample districts most reliant on state funding were not particularly large districts, nor did they enroll relatively large numbers of poor, minority or special education students, respectively.<sup>13</sup>

*Implication: If the study districts are typical, the creation of teacher professional development programs locally may depend heavily on the degree to which the state makes these activities a priority and the level to which it provides financial support to ensure their implementation.*

Another possible explanation for this association between state revenues and teacher professional development spending may be found in state funding formulas. Most states attempt to equalize the differences in local tax bases by distributing more state funds to property-poor districts (property wealth is the most common tax base for local education revenues) than they do to richer districts. The relatively large amount of unrestricted, operating dollars these property-poor districts receive from the state – \$3,092 per student versus \$1,897 per student for the richer districts in this study – may give them the luxury of devoting more resources to teacher professional development than districts with fewer discretionary funds.

There is, however, a problem with this supposition. Sample districts receiving more of their money from the state had on average fewer total dollars per student to spend (\$4,622) than did districts more

DISCUSSION

dependent on local sources (\$6,940 per student). Because the local revenues reported in this study exclude monies raised for debt service and capital projects, these local funds are most likely discretionary, intended for general operating needs. In short, sample districts overly dependent on local sources probably have more discretionary dollars per student (and teacher) to spend than those districts heavily reliant on state funds. Yet, the poorer districts spent more of their operating budgets on teacher professional development. It is possible that this association is spurious given the nature of the sample. Still, the strength of the relationship between state revenues and local spending on teacher training in this study suggests that in the area of professional development state funding policies influence local decisions.

**Issue #6 - Balancing needs and resources** Other than their reliance on state funding, only two demographic measures – district size and faculty experience – were related to the sample districts’ spending on teacher professional development activities.<sup>14</sup> Specifically, the larger the school district – as measured

*Implication: Policymakers should consider the relationship between need and access to teacher professional development experiences when allocating resources, especially in districts where teachers face particularly challenging situations and have had few opportunities to improve their skills through development programs.*

by enrollment, district population and number of schools – the smaller the percentage of its operating budget it devoted to teacher professional development activities. For example, of the two largest districts in the sample, Chelsea spent only 2.7% and Heathside spent 1.7% of net operating expenses on staff development, while the average for all districts in the study was 3.6%. It is unlikely that an “ideal” ratio exists between professional development and operating expenditures or that how much a district spends is less important than how it spends it. Still, this finding is worth considering

as larger districts tend to be located in urban settings where students’ educational needs are often the most challenging and teachers the least experienced.

Also, in the sample districts, almost no relationship existed between a teaching staff’s years of service and the amount of money a district spent on training and improving its workforce.<sup>15</sup> These districts do not appear hesitant to provide learning opportunities for seasoned teachers. This good news may be an overstatement, however, since the majority of teachers in this study were very experienced, limiting the distinction between an experienced and an inexperienced teaching staff.

DISCUSSION

**Issue #7 - Rethinking sabbaticals** Teacher sabbaticals are becoming less common, if other districts are experiencing the same changes found in the study districts. Of the 16 districts studied, six had eliminated these programs, and, of the 10 that still offered them, only six had teachers on professional leave in 1995-96. In several districts, persons interviewed said job security was becoming more important, and, in some cases, unions had traded sabbaticals for job-protection guarantees. Two districts were experimenting with alternative approaches, including mini-sabbaticals and other forms of unpaid leave. If the study districts are at all typical, sabbaticals as a form of teacher professional development may soon be a thing of the past.

*Implication: Districts and states should consider reallocating sabbatical resources into potentially more productive professional leave programs, such as those specifically designed to help accomplish state and district educational goals.*

**Issue #8 - Organizing information** This study was designed to answer questions regarding the effective and efficient use of money spent on teacher professional development activities. A number of research questions remain unanswered because of a lack of data or, more specifically, a lack of accessible data. The problem is not that no one knows where education dollars are going; the problem is that state and district accounting systems are not set up to answer the kinds of questions this study asked – namely, how much money is spent to support a single, specific activity (in this case, teacher professional development); how that money is allocated; and to what effect.

*Implication: Any district or state interested in answering questions about the effectiveness of its investments in education must begin by considering the cost, convenience and usefulness of the way it collects and organizes data.*

District systems identify purchases by revenue source and broad categories – such as Title I money spent on teacher salaries. Typically, these input- and compliance-based systems are not flexible enough to provide the data needed to answer questions about education investments and consequences. All financial transactions are coded according to the state’s accounting system, which, in turn, is influenced by the rigid categories of *Handbook II*, in which the U.S. Department of Education prescribes accounting standards for school districts. It is very difficult, short a full-blown financial audit, to re-sort these individual transactions into different categories. Yet, re-sorting these transactions – money received and money spent – is exactly what this study tried to do and what is necessary if many of the questions policymakers are asking about how money is spent in public education are to be answered.

Finding the data was no easier at the state level. Most state department and agency budgets list line-item appropriations by program with no reference to functions, activities or expected results. The situation is further complicated because teacher professional development activities are funded by myriad programs. It is not uncommon for state personnel in charge of one program, such as special education, to be

## FINDINGS

## DISCUSSION

unaware of other training activities, such as for bilingual teachers, administered by other programs right in their own agency. For this study, it was necessary to work with more than 55 people across four states to collect the data reported here. As with districts, a state's ability to answer questions about the effectiveness and efficiency of its use of public funds is inextricably linked to its method of collecting and organizing data.

**Issue #9 - Using data to inform decisions** Many of the district and state administrators involved in this study viewed the collection of data as an end unto itself, rather than as a means to an end. This perspective is a function of their training, both formal and informal, which focused on the use of data

*Implication: States and districts interested in using data and technology to improve their investments in education should not overlook the importance of training their personnel in the collection and use of data for decisionmaking.*

to prove compliance with state and federal regulations, and often ignored the important role data collection plays in making wise education investments.

Based on the comments and practices of those persons interviewed, it is unlikely that the current enthusiasm for technology will change this situation.

For several districts in this study, the introduction of computerized accounting systems simply meant that what was once done manually – the tracking

of data for compliance reasons – is now done online. In contrast, other less sophisticated districts routinely used data to guide and support their investment decisions. Why the difference? In those districts using data as a means to making better decisions, business managers tended to come from traditions outside education, such as accounting or business.

This study was designed to answer questions about the effectiveness and efficiency of state and district spending for teacher professional development activities. Consequently, the primary source of data was state and district budgets. The weakness in this approach is that it potentially obscures differences related to some of the organizational innovations going on in schools across the country.

To solve this problem, six "innovative" schools that make teacher professional development a central tenet of their operating philosophy were surveyed. These "model" schools include several belonging to reform networks such as New American Schools and the Coalition of Essential Schools. The sample schools varied considerably in terms of location and student characteristics. The intent was to determine if spending patterns and their associated effects differ in educational settings intentionally designed with a focus on professional development activities.

Unfortunately, data collection proved as much of a problem at the school level as at the district and state levels. For example, even these "innovative" schools did not collect or compute average teacher salary information, and many principals did not even know the total costs of running their school. This was the same in the 16 study districts which, like most districts in the country, collect and report information for the district as a whole, not for each school. Lack of school-level data limited the type and quality of information available to approximations and "best guesses." With this caveat, the following observations are offered:

- None of the innovative schools reported spending more than 3% of total operating expenditures on professional development activities.
- Grants played a significant role in the funding of professional development activities.
- Without exception, the schools reported having complete control over funds available for teacher professional development activities, as well as the authority to organize, provide and participate in teacher professional development activities as needed.
- Staff-identified needs and requests formed the primary basis for deciding which professional development activities to offer.

Many people believe technology also has the potential to change the efficiency and effectiveness of the educational enterprise. In 1996-97, America's schools spent an estimated \$4.3 billion on technology, or roughly 1.2% of total K-12 expenditures. That number is expected to rise to \$5.2 billion in 1997-98.<sup>16</sup> Increasingly, educational technology is a top budget priority for states, districts and schools. ECS surveyed the 16 sample districts and the six "model" schools to determine: (1) the extent to which technology was being used to provide teacher professional development and (2) if there was any evidence that this method of instructional delivery resulted in improved efficiency and/or effectiveness.

A surprisingly large number of school, district and even state personnel spoke in detail on the advantages of using technology to deliver teacher professional development. In practice, however, the majority of technology was purchased for student use and only a few rural districts were using their systems to enhance employees' skills. For example, one small, rural district used \$3 million in grants to develop a distance-learning system to support its vocational and adult education programs, and then hired university professors and consultants to train its teachers via satellite. As a result of one of these programs, which linked district teachers with master teachers throughout the state, the district now is able to offer Advanced Placement courses to its high school students. In another isolated district, teachers used their satellite system to collaborate with colleagues in a large metropolitan district and with science professors at a major university on the redesign of the district's K-12 science curriculum.

Some of the persons interviewed also pointed out the usefulness of a number of Internet sites that allow teachers to use planning periods or after-school time to communicate with other teachers about lesson plans, classroom resources and other topics. For example, *Mathline*, an initiative of the Public Broadcasting Service, disseminates effective practices in mathematics education, as defined by the National Council of Teachers of Mathematics. This interactive, "just-in-time" way to share ideas and experiences is convenient and efficient, particularly in the case of teachers whose access to new information and new ways of doing things is limited.

While technology offers an attractive alternative to traditional staff development, several issues and potential problems were raised by persons interviewed. First, teachers need time, resources and training to use technology effectively. Second, adequate funds must be provided for the inevitable need to upgrade equipment and software. Third, information about technology-based professional development must be readily available, and programs must be affordable. Finally, technology should not become a substitute for face-to-face experiences.

The question remains, however, "Does all of this result in improved student learning?" In the schools surveyed, it was clear that teacher professional development is important and that teacher expertise is valued. Teacher input was included – if not used exclusively – in constructing the professional development agenda, and these schools seemed confident in their ability to recognize and provide for their professional development needs. As with the districts surveyed, however, these schools did not formally evaluate results of their professional development programs, making it impossible to compare the relative merits of the training activities they purchased.

Technology posed a different set of problems. Typically, "technology" purchases are not made at one point in time, for a single user and a specific purpose. Technology is generally purchased to serve a variety of purposes – curriculum delivery, professional development, administrative – and multiple

users – students, teachers, secretaries. Consequently, districts and schools found it difficult, for example, to prorate their Internet costs accurately by program and/or user. Without this information, it is impossible to evaluate the effects of this technology investment.

ECS' survey of the "innovative" schools did little to increase knowledge about spending on teacher professional development. Hindered by a lack of usable data, conclusions on the effectiveness of these programs as developed and implemented in "model" schools are based primarily on anecdotal comments and individual observations.

ECS' attempt to evaluate the use and potential of technology to improve the efficiency and effectiveness of teacher professional development programs also suffered from a lack of data. Until policymakers begin to insist that the results of their investments in teacher professional development and other education programs be evaluated as a matter of course, the effectiveness of much of the spending on these programs will remain open to speculation and "best guesses."

The purpose of this study was to identify connections between state and district expenditures on teacher professional development and the results of these spending patterns on teaching and student learning. Collecting state and district spending information proved to be a difficult task; making connections between these expenditures and any results related to teaching and student learning was impossible.

While it is incorrect to generalize the findings of this collection of case studies, several observations based on this work should be of interest to policymakers trying to improve the public's investment in public education.

First, it is very difficult to answer many of the questions policymakers are asking about the effectiveness, and efficiency of educational programs. One problem is that most state and district accounting systems are input- and compliance-based systems, too rigidly designed in form and process to provide the data needed to answer questions about education investments or consequences. Any policymaker interested in improving the efficiency and effectiveness of public education must consider the cost, convenience and usefulness of his or her state's data-collection system.

Second, there is also a paucity of data on the usefulness of many of the educational services and programs purchased by district and states. One of the problems is that evaluations, like accounting systems, tend to focus on inputs and process, rather than on results. Educators interviewed for this study knew how money was spent and if professional development activities were implemented as intended. Few, however, could say whether the programs or resources purchased had the intended effect – that is, did they positively affect teaching or student learning? It is unlikely that this very necessary information will be available until policymakers insist that evaluations of educational programs go beyond assessments of compliance to include rigorous analysis of their results.

Lastly, based on the limited sample of districts in this study, there appears to be a troublesome disconnection between teacher professional development activities and state or district goals for educational improvement. Inservice training days, especially in less centralized systems, and the coursework requirements for salary increases were programs of particular concern in this study. This observation, of course, relies heavily on anecdotal evidence, but, if true, is of such consequence that policymakers are well-advised to consider this connection when evaluating existing teacher training programs or designing new ones.

<sup>1</sup> "Teacher education and professional development" was added to the original six National Education Goals in 1994.

<sup>2</sup> National Commission on Teaching and America's Future. *What Matters Most: Teaching for America's Future*. New York, NY: National Commission, 1996.

<sup>3</sup> Little, J.W., W.H. Gerritz, D.S. Stern, J.W. Guthrie, M.W. Kirst, D.D. Marsh. *Staff Development in California*. Berkeley, CA: PACE and Far West Laboratory for Educational Research and Development, 1987; B. Miller, B. Lord and L. Dorney. *Staff Development for Teachers: A Study of Configurations and Costs in Four Districts*. Newtonville, MA: Education Development Center, 1994.

<sup>4</sup> Based on discussions with subject-matter experts, practitioners and members of the advisory committee for this project, the following definition of teacher professional development expenditures was used to guide this study: *Costs associated with a set of experiences for teachers that enhances their knowledge, skills and motivation to improve learning for all students.*

<sup>5</sup> The 61 districts contacted for this study were recommended as: (1) interested or currently involved in costing-out teacher professional development activities, and/or (2) using innovative, flexible accounting systems. Of the 45 districts unable to provide the required data, two did not have the capacity to do the work; the remaining 43 could not identify and/or categorize their expenditures according to the study's model.

<sup>6</sup> In exchange for financial information, several districts requested anonymity. It was granted and extended to all schools, districts and states participating in this study. Hence, all names are fictitious, and every attempt is made to obscure specific information about them without distorting the data.

<sup>7</sup> The average enrollment is overstated. When districts at the high and low ends of the range are omitted, the average enrollment for the remaining 14 districts is 13,738 students.

<sup>8</sup> The averages are misleading in some categories because they were computed across all districts. In fact, not all districts offered all of the professional development activities listed in the model. The following breakdown shows the adjustments in the affected categories when averages are calculated only for those districts offering the activity:

- District professional development offices: 7.9%
- Temporary reassignments: 8.4%
- Sabbaticals: 2.1%

<sup>9</sup> Net operating expenditures are calculated as total district expenditures from all sources, less the sum of debt service, capital outlays and transportation costs.

<sup>10</sup> In four out of five categories, the averages are understated because they are computed as if all states participated in or offered these activities and services. Recalculated using only those states that do, the averages for these four categories are:

- State-administered special programs: 51.4%
- Regional service centers: 30.2%
- State department professional development office: 18.3%
- Other state-affiliated providers: 3.7%

<sup>11</sup> Total state expenditures for professional development include only expenditures made exclusively by the state for state activities. Local funds, federal money not retained and spent by the state, and general funds allocated through the state's school funding formula which might be used for local professional development activities are excluded.

<sup>12</sup> The correlation between dependency on state revenues and the percent of net operation funds spent on teacher professional development is  $R = .41$  for the sample districts. Also, based on information in Tables 1 and 4, sample districts more dependent on state revenues than is typical spent 4.6% of their operating budgets on teacher training, while those districts less dependent spent only 2.9%.

<sup>13</sup> The correlation between dependence on state funding and district size is  $R = -.13$ , and the association between state funding and the number of poor, minority and special education students are:  $R = -.12$ ,  $R = -.34$  and  $R = -.59$ , respectively.

<sup>14</sup> For the study sample, the strongest relationships (correlations) between the demographic variables and the percent of net operating funds devoted to teacher professional development were: dependency on state revenues,  $R = .41$ ; reliance on local revenues,  $R = -.4$ ; enrollment,  $R = -.27$ ; district population,  $R = -.26$ ; number of schools,  $R = -.26$ .

<sup>15</sup> The correlation between district spending on teacher professional development and the experience of its teaching staff is  $R = .12$ .

<sup>16</sup> Quality Education Data (QED). *1997-98 Technology Purchasing Forecast*. Denver: QED, 1997.

**TABLE 1**

**1995-96 Demographics: Study Districts Compared to 50-State Averages**

	Poverty	Minority	Special Education	Teacher Experience	Federal Revenues	State Revenues	Local Revenues
50-State Average	17.4%	27.1%	8.42%	14.9 yrs	7.4%	49.4%	43.2%
<i>Enrollment/District</i>							
<i>Over 50,000</i>							
Chelsea <sup>1</sup>	+ <sup>2</sup>	-	+	-	-	+	-
Heathside	+	+	+	-	+	-	+
<i>Between 10,000 &amp; 49,999</i>							
Charing	+	+	+	-	-	+	-
Farnborough	+	-	+	-	-	+	-
Howardshire	-	-	+	-	-	+	-
Kenley	+	+	+	-	+	-	+
<i>Between 1,500 &amp; 9,999</i>							
Addington	-	-	+	+	-	-	+
Dartford	+	-	+	+	-	-	+
Hammersmith	+	-	+	-	-	+	-
Hampstead	+	-	+	+	-	-	+
Oxford	-	-	+	-	-	-	+
Redbridge	+	-	-	-	-	+	-
Shoreham	-	-	+	-	-	-	+
Wickham	+	-	+	-	-	-	+
Woodford	-	-	+	-	-	-	+
<i>Less than 1,500</i>							
Sutton	+	-	+	-	-	+	-

<sup>1</sup> District names are fictitious.

<sup>2</sup> "+" denotes above state average, "-" below.

**TABLE 2**

**1995-96 Teacher Professional Development Expenditures by Function as a Percent of Total Spending on Teacher Professional Development**

	Professional Development Office	District Conferences/ Workshops	Nondistrict Conferences/ Workshops	Inservice Training Days	University/ College Coursework	Sabbaticals	Temporary Reassignments
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Addington <sup>1</sup>	8.2	9.0	46.5	19.1	5.7	3.9	7.6
Charing	22.7	19.9	2.6	38.8	1.3	n/a <sup>2</sup>	14.7
Chelsea	13.3	27.8	4.9	24.7	28.4	0.9	n/a <sup>2</sup>
Dartford	8.8	32.0	23.1	20.1	16.0	n/a <sup>2</sup>	n/a <sup>2</sup>
Farnborough	10.5	25.0	4.9	35.7	11.3	10.3	2.3
Hammersmith	n/a <sup>2</sup>	0.0	26.6	69.2	4.2	0.0	n/a <sup>2</sup>
Hampstead	9.3	4.5	9.2	68.9	8.1	n/a <sup>2</sup>	n/a <sup>2</sup>
Heathside	8.4	26.5	3.9	56.8	2.7	0.6	1.1
Howardshire	4.8	38.4	11.6	21.9	7.4	4.4	11.5
Kenley	7.9	36.1	3.4	47.7	3.8	1.1	n/a <sup>2</sup>
Redbridge	1.1	8.8	58.0	31.3	0.8	n/a <sup>2</sup>	n/a <sup>2</sup>
Shoreham	n/a <sup>2</sup>	1.3	16.4	58.9	23.3	0.0	n/a <sup>2</sup>
Sutton	2.6	4.7	41.6	41.2	9.9	n/a <sup>2</sup>	n/a <sup>2</sup>
Wickham	4.3	4.2	11.5	53.0	8.3	0.0	18.7
Woodford	8.2	18.3	17.0	51.1	2.8	n/a <sup>2</sup>	2.6
Oxford	n/a <sup>2</sup>	13.4	47.4	24.3	14.9	0.0	n/a <sup>2</sup>

<sup>1</sup>District names are fictitious.

<sup>2</sup>n/a = district does not offer/have this activity.

**TABLE 3**

**1995-96 Teacher Professional Development Expenditures: Subfunction Expenditures as a Percent of Total Function Expenditures**

Function Subfunction	Professional	Development Office	District Conferences / Workshops			
	Salaries	Materials	Salaries	Travel	Contracted Services	Substitute Salaries
	(%)	(%)	(%)	(%)	(%)	(%)
Addington <sup>1</sup>	96.5	3.5	80.0	0.0	0.0	20.0
Charing	88.4	11.6	77.0	0.0	1.0	22.0
Chelsea	100.0	0.0	56.1	0.0	29.2	14.7
Dartford	94.6	5.4	75.9	0.0	0.0	24.1
Farnborough	66.6	33.4	67.3	1.6	1.8	29.3
Hammersmith	n/a <sup>2</sup>	n/a <sup>2</sup>	0.0	0.0	0.0	0.0
Hampstead	100.0	0.0	29.5	0.0	64.2	6.3
Heathside	35.3	64.7	59.5	4.5	25.7	10.3
Howardshire	99.1	0.9	93.5	0.0	5.5	1.0
Kenley	87.2	12.8	49.9	0.0	37.7	12.4
Redbridge	100.0	0.0	57.1	21.0	21.9	0.0
Shoreham	100.0	0.0	72.5	0.0	0.0	27.5
Sutton	76.4	23.6	65.0	2.6	19.5	12.9
Wickham	94.2	5.8	66.2	4.6	15.4	13.8
Woodford	86.4	13.6	73.4	0.0	0.0	26.6
Oxford	n/a <sup>2</sup>	n/a <sup>2</sup>	86.5	0.0	0.0	13.5

<sup>1</sup> District names are fictitious.

<sup>2</sup> n/a = district does not offer/have this activity.

**TABLE 3**  
CONTINUED

**1995-96 Teacher Professional Development Expenditures: Subfunction Expenditures as a Percent of Total Function Expenditures**

Function Subfunction	Nondistrict Conference/Workshop			Inservice Training Days		University/College Coursework	
	Salaries	Travel	Substitute Salaries	Salaries	Contracted Services	Reimbursement	Salaries
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Addington <sup>1</sup>	63.2	22.9	13.9	100.0	0.0	n/a <sup>2</sup>	100.0
Charing	45.3	41.7	13.0	95.6	4.4	100.0	n/a <sup>2</sup>
Chelsea	78.8	0.0	21.2	100.0	0.0	n/a <sup>2</sup>	100.0
Dartford	38.9	44.9	16.2	94.7	5.3	16.8	83.2
Farnborough	37.9	45.4	16.7	100.0	0.0	n/a <sup>2</sup>	100.0
Hammersmith	52.5	37.1	10.4	100.0	0.0	47.1	52.9
Hampstead	28.6	65.3	6.1	100.0	0.0	55.2	44.8
Heathside	71.7	25.7	2.6	99.8	0.2	n/a <sup>2</sup>	100.0
Howardshire	77.7	17.3	5.0	97.3	2.7	1.1	98.9
Kenley	49.4	35.9	14.7	100.0	0.0	1.8	98.2
Redbridge	70.7	15.7	13.6	98.7	1.3	n/a <sup>2</sup>	100.0
Shoreham	61.0	15.9	23.1	100.0	0.0	n/a <sup>2</sup>	100.0
Sutton	65.0	22.1	12.9	100.0	0.0	23.9	76.1
Wickham	52.2	32.6	15.2	100.0	0.0	n/a <sup>2</sup>	100.0
Woodford	32.3	56.6	11.1	100.0	0.0	n/a <sup>2</sup>	100.0
Oxford	81.3	5.1	13.6	100.0	0.0	n/a <sup>2</sup>	100.0

<sup>1</sup> District names are fictitious.

<sup>2</sup> n/a = district does not offer/have this activity.

**1995-96 Teacher Professional Development Expenditures: Subfunction Expenditures as a Percent of Total Function Expenditures**

Function Subfunction	Sabbaticals		Temporary Reassignments	
	Salaries (%)	Substitute Salaries (%)	Salaries (%)	Substitute Salaries (%)
Addington <sup>1</sup>	100.0	0.0	52.8	47.2
Charing	n/a <sup>2</sup>	n/a <sup>2</sup>	100.0	0.0
Chelsea	81.2	18.8	n/a <sup>2</sup>	n/a <sup>2</sup>
Dartford	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>
Farnborough	n/a <sup>2</sup>	100.0	100.0	n/a <sup>2</sup>
Hammersmith	0.0	0.0	n/a <sup>2</sup>	n/a <sup>2</sup>
Hampstead	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>
Heathside	73.4	26.6	68.4	31.6
Howardshire	65.5	34.5	100.0	0.0
Kenley	82.5	17.5	n/a <sup>2</sup>	n/a <sup>2</sup>
Redbridge	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>
Shoreham	0.0	0.0	n/a <sup>2</sup>	n/a <sup>2</sup>
Sutton	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>	n/a <sup>2</sup>
Wickham	0.0	0.0	76.5	23.5
Woodford	n/a <sup>2</sup>	n/a <sup>2</sup>	100.0	0.0
Oxford	0.0	0.0	n/a <sup>2</sup>	n/a <sup>2</sup>

<sup>1</sup> District names are fictitious.

<sup>2</sup> n/a = district does not offer/have this activity.

**TABLE 4**

**1995-96 Teacher Professional Development Expenditures as a Percent of Net Operating Expenditures <sup>1</sup>**

District	% of Net Operating Expenditures	% of Average Teacher Salary and Benefits
Addington <sup>2</sup>	2.1	5.6
Charing	2.5	6.4
Chelsea	2.7	6.5
Dartford	3.4	5.6
Farnborough	7.2	15.6
Hammersmith	3.2	4.7
Hampstead	3.5	9.3
Heathside	1.7	4.2
Howardshire	7.6	10.1
Kenley	5.3	7.8
Redbridge	4.0	5.8
Shoreham	2.3	3.7
Sutton	4.9	8.8
Wickham	2.3	4.1
Woodford	3.1	6.0
Oxford	2.5	4.5
<i>Average</i>	3.6	6.8

<sup>1</sup> Net operating expenditures equal total expenditures less debt service, capital outlays and transportation costs.

<sup>2</sup> District names are fictitious.

1995-96 Demographics: Study States Compared to 50-State Averages

Demographics	50-State Average	Alpha State	Beta State	Delta State	Epsilon State
Percent of Population Enrolled in K-12	19.9%	- <sup>1</sup>	-	-	+
Percent of Students in Poverty	17.4%	-	+	+	-
Percent of Minority Students	27.1%	-	-	+	-
Percent of Special Education Students	8.4%	-	-	+	-
Years of Teacher Experience	14.9	-	+	-	-
Percent of Total State Expenditures Devoted to Public Education	36.7%	+	+	+	+
Percent of Education Revenue From					
Federal	7.4%	-	-	+	-
State	49.4%	-	-	-	+
Local	43.2%	+	+	+	-

<sup>1</sup>"+" denotes above state average, "-" below.

This study was designed to collect information about how districts and states spend money on teacher professional development programs. The intent was to make some connections between spending patterns and results achieved in order to improve the investment return on these activities with respect to student achievement. With the help of an advisory board composed of academics and practitioners with expertise in school finance and/or teacher training, a protocol was designed to collect and organize spending information. This protocol became known as the "expenditure model."

The design of the district expenditure model represents a compromise between how financial information is coded and categorized in most school districts and what policymakers said they would like to know about teacher professional development spending. Persons consulted on the protocol design preferred that expenditures be identified by the form and content of the training experience. For example, policymakers wanted to know how much was spent on one-day seminars versus year-long, one-on-one mentoring programs versus teacher conferences offered outside the district. They also wanted spending in these categories broken down by program – special education, bilingual, gifted and talented and so on – by subject matter – math, English, science and so on – by grade level and by a variety of other discriminating factors. The desire was to organize spending information consistent with those factors known to be important to the effective delivery of professional development – the form and content of these activities – and in a way that would help policymakers identify spending discrepancies and potential areas of improvement – by program, subject and grade-level detail.

One exception to this "activity" focus in the design of the district expenditure model was the inclusion of the district professional development offices. While the staffs in these offices design and conduct a variety of professional development programs, policymakers wanted these "overhead" costs identified separately rather than prorated across the various activities the district offices provided. This is a reflection of the continuing concern about "administrative bloat" in the public sector and in public education in particular.

Another exception to the focus on training activities is the "salary incentives" subfunction under "University/College Coursework." The inclusion of these expenditures in the data is based on the contention that offering salary increases for the completion of graduate coursework is one way districts encourage teachers to improve their skills. In other words, districts attempt to increase the number of teachers involved in ongoing professional development by offering salary increases for coursework completed. This is not to suggest, however, that teacher salaries would be significantly lower if these incentives were abandoned. It is simply to argue that the intent of these incentives is to encourage and support ongoing professional development experiences, and, as such, these salary costs should be evaluated along with the other model functions in terms of their value in improving teaching and learning.

The district expenditure model is not a good tool for collecting data on how states fund teacher professional development activities. Another model was created for this purpose; it focuses on who provides the training rather than on the type of activity offered. This design reflects (1) the differences between the services offered and purchased by districts and those that states provide – for example, it makes little sense to try to categorize state activities in terms of "district" and "nondistrict" conferences – and (2) the realities of state accounting systems.

Actually, the design of both models is a concession to the realities of education budgeting and accounting systems. For example, experience indicated it would be easier to collect and organize state spending data by provider rather than by the type of service offered. This assumption proved correct. Still, it was very difficult to collect information by subfunction. For example, the study states were unable to provide details about the use of money allocated to regional service centers. How these providers specifically spent their money was, perhaps, only known to them. Contacting each center individually required more resources than were available. Consequently, there is no subfunction data available for this category from the sample states.

Similarly, the district model does not include much of the information policymakers hoped to have. For example, the data are not reported by program, subject or grade level. District accounting systems typically are not designed to categorize information at this level of detail. In order to get comparable and consistent data across districts, it was necessary to describe professional development activities more broadly. Still, supplying even this level of detail proved impossible for most of the districts contacted.

The expenditure models and a glossary of terms are provided on the following two pages. In both models, the expenditures in dollars for each function and subfunction are recorded in the second column of the worksheet. Next, the ratio of the function expenditure to the total professional development spending is computed. In the last column, the cost of each subfunction is calculated as a percent of its respective function. At the bottom of the district worksheet, the total professional development costs and the net operating expenses in dollars are recorded, and the ratio of these expenditures to the expenses is entered in the last row of the worksheet.

For the state model, the expenditures on teacher professional development and for all state-funded, K-12 programs, services and activities are entered at the bottom of the worksheet. The ratio between total state expenditures and costs in support of teacher training is entered in the last row.

# DISTRICT MODEL

## District Professional Development Expenditure Model

Function Subfunction	\$	% of Total Professional Development	% of Function
<b>PROFESSIONAL DEVELOPMENT OFFICE</b>			
Staff salaries/benefits			
Materials, supplies, etc.			
<b>DISTRICT CONFERENCE/WORKSHOP</b>			
Participants' salaries/benefits			
Participants' travel, fees, materials, supplies, etc.			
Contracted services			
Substitutes' salaries/benefits			
<b>NONDISTRICT CONFERENCE/WORKSHOP</b>			
Participants' salaries/benefits			
Participants' travel, fees, materials, supplies, etc.			
Substitutes' salaries/benefits			
<b>INSERVICE TRAINING DAYS</b>			
Participants' salaries/benefits			
Contracted services			
<b>UNIVERSITY/COLLEGE COURSEWORK</b>			
Reimbursed tuition/fees/books			
Salary incentives			
<b>SABBATICALS</b>			
Participants' salaries/benefits			
Substitutes' salaries/benefits			
<b>TEMPORARY REASSIGNMENTS</b>			
Participants' salaries/benefits			
Substitutes' salaries/benefits			
<b>TOTAL PROFESSIONAL DEVELOPMENT (\$)</b>			
<b>NET OPERATING EXPENSES (\$)<sup>1</sup></b>			
<b>TOTAL PROFESSIONAL DEVELOPMENT DIVIDED BY NET OPERATING EXPENSES (%)</b>			

<sup>1</sup> Total expenditures minus debt service, capital outlays and transportation.

State Professional Development Expenditure Model

Function Subfunction	\$	% of Total Professional Development	% of Function
PROFESSIONAL DEVELOPMENT OFFICE			
Staff salaries/benefits			
Materials, supplies, etc.			
REGIONAL SERVICE CENTERS			
Staff salaries/benefits			
Materials, supplies, etc.			
Contracted services			
OTHER STATE-AFFILIATED PROVIDERS			
Staff salaries/benefits			
Materials, supplies, etc.			
Contracted services			
UNIVERSITY SUBSIDIES FOR GRADUATE PROGRAMS IN EDUCATION			
STATE-ADMINISTERED SPECIAL PROGRAMS			
Staff salaries/benefits			
Materials, supplies, etc.			
Travel			
Contracted services			
TOTAL PROFESSIONAL DEVELOPMENT (\$)			
TOTAL K-12 EXPENDITURES (\$)			
TOTAL PROFESSIONAL DEVELOPMENT DIVIDED BY TOTAL K-12 EXPENDITURES (%)			

## D I S T R I C T . E X P E N D I T U R E M O D E L

- Professional Development Office: total district expenditures for maintaining a centralized staff of teacher professional development specialists.

*Staff salaries/ benefits*: salary and benefits paid to temporary and permanent teacher professional development personnel who work for the district.

*Materials, supplies, etc.*: office operating costs (copying, phones, duplicating paper), excluding major equipment and prorated capital expenditures.

- District Conferences/ Workshops: total district expenditures for teacher professional development conferences/workshops conducted in the district, by district personnel (central office or school) and on days when students attend class.

*Participants' salaries/ benefits*: salary and benefits paid to teachers attending conferences.

*Participants' travel, fees, materials, supplies, etc.*: cost of transporting teachers to conferences and/or providing them with conference materials.

*Contracted services*: cost of professional services (speakers, consultants, etc.) used to produce conferences.

*Substitutes' salaries/ benefits*: salary and benefits paid to substitute teachers covering the classes of teachers attending conferences.

- Nondistrict Conferences/ Workshops: total district expenditures for teacher professional development conferences/workshops conducted by nondistrict personnel at locations outside the district and on days when students attend class.

*Participants' salary/ benefits*: salary and benefits paid to teachers attending conferences.

*Participants' travel, fees, materials, supplies, etc.*: cost of transporting teachers to conferences and/or providing them with conference materials.

*Substitutes' salaries/ benefits*: salary and benefits paid to substitute teachers covering the classes of teachers attending conferences.

- Inservice Training Days: total district expenditures for teacher professional development conferences/workshops conducted in the district (centrally or at the school site) on days when teachers work (contract days) but students do not attend school.

*Participants' salary/ benefits*: salary and benefits paid to teachers attending in-service activities.

*Contracted services*: cost of professional services (speakers, consultants, etc.) used at in-service activities.

- University/ College Coursework: total district expenditures for (1) reimbursements to teachers for courses they take and (2) salary increases given to teachers because they have taken additional courses and/or earned an advanced degree.

*Reimbursed tuition, fees and books*: cost of reimbursing teachers for the courses they take.

*Salary incentives*: increased annual cost in teachers' salaries and benefits due solely to additional courses taken and/or advanced degrees earned by the teachers in the previous school year.

- Sabbaticals: total district expenditures attributable to sabbaticals taken by classroom teachers.

*Participants' salaries/ benefits*: salary and benefits paid to teachers on sabbatical.

*Substitutes' salaries/ benefits*: salary and benefits paid to substitutes covering classes for teachers on sabbatical.

- Temporary Reassignments: total district expenditures for temporarily reassigning teachers to positions that will enhance their subject-matter knowledge and/or their teaching skills; for example, teachers reassigned for the school year to write curriculum frameworks for the district.

*Participants' salaries/ benefits*: salary and benefits of reassigned teachers.

*Substitutes' salaries/ benefits*: salary and benefits of substitutes covering classes for reassigned teachers.

## S T A T E   E X P E N D I T U R E   M O D E L

- ***Professional Development Office:*** total state expenditures for maintaining a centralized staff of teacher professional development specialists.

*Staff salaries / benefits:* salary and benefits paid to temporary and permanent professional development personnel assigned to state central office.

*Materials, supplies, etc.:* office operating costs (copying, phones, duplicating paper), excluding major equipment and prorated capital expenditures.

- ***Regional Service Centers:*** total state expenditures for teacher professional development services and activities provided by state regional service centers, excluding those services and activities paid for with district funds.

*Staff salaries / benefits:* salary and benefits paid to temporary and permanent regional service center personnel for their work on state-funded teacher professional development programs and activities.

*Materials, supplies, etc.:* office operating costs (copying, phones, duplicating paper), excluding major equipment and prorated capital expenditures, attributable to providing state-supported teacher professional development activities.

*Contracted services:* cost of professional services (speakers, consultants, etc.) hired by regional service centers to work on state-funded teacher professional development activities.

- ***Other State-Affiliated Providers:*** total state expenditures allocated to professional development specialists for providing state-funded programs and activities public school teachers. Examples include Texas' Center for Professional Development to Technology, and Utah's Learning Resources.

*Staff salaries / benefits:* salary and benefits paid to temporary and permanent personnel in state-affiliated organizations to provide state-funded teacher professional development activities.

*Materials, supplies, etc.:* office operating costs (copying, phones, duplicating paper), excluding major equipment and prorated capital expenditures, attributable to providing state-supported teacher professional development activities.

*Contracted services:* cost of professional services (speakers, consultants, etc.) hired by state-affiliated service providers to work on state-funded teacher professional development activities.

- ***University Subsidies for Graduate Programs in Education:*** state funds allocated to support the provision of graduate programs in education.

- ***State-administered Special Programs:*** temporary, short-term, special projects administered by the state which include a funding allocation for teacher professional development. Examples in some states include Venture Capital Grant programs, Goals 2000 projects, school-to-work programs and initiatives, and many technology programs.

*Staff salaries / benefits:* salary and benefits paid to temporary and permanent personnel assigned to special programs for their work on teacher professional development activities.

*Materials, supplies, etc.:* office operating costs (copying, phones, duplicating paper), excluding major equipment and prorated capital expenditures, attributable to providing state-supported teacher professional development activities.

*Travel:* travel costs associated with providing teacher professional development activities for state-administered special programs.

*Contracted services:* cost of professional services (speakers, consultants, etc.) hired to provide teacher professional development activities in association with state-administered special programs.



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