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Research-based Lessons from Title I Implementation: Examining Different Strategies for Improving Student Outcomes

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This issue of the *CEIC Review* reports the research findings and recommendations of a national invitational conference on the impact of Title I schoolwide programs and whole school reform that was held on October 31 – November 1, 2000 in Washington DC. The conference, sponsored by the Laboratory for Student Success, brought together leading researchers, policymakers, and practitioners to continue and broaden the work begun in May 1999 at the previous Title I conference.

Participants discussed the Year 2 findings of the National Study of Effective Title I Schoolwide Programs and the Whole School Initiative Study and examined the effects of federally endorsed and state/district-initiated comprehensive reform models in high poverty schools. The focus of this conference was particularly timely in view of the upcoming reauthorization of the Elementary and Secondary Education Act (ESEA) and funding allocation for Title I schoolwide programs.

Following the recommendations of last year's conference, this year's meeting expanded the discussion to

include topics affecting poor schools, such as race, language, and mobility. A particular area of concern was the availability of services to English language learners in Title I schoolwide programs. Participants also addressed such cross-cutting issues as the role of the state in strengthening Title I programs, teacher quality, standards-based assessment, investment in technology, and parental involvement that are an important part of the national education reform agenda. The conference provided a forum for practitioners to discuss how schoolwide programs and whole school reform can be effective in improving teaching quality and student performance and gave the participants an opportunity to build and expand upon professional networks that have fostered a wider adoption of effective strategies in challenging urban and rural settings.

The commissioned papers summarized in this *CEIC Review* offer an overview of the research base, the patterns of organizational and governance reform, and the development of accountability standards and practices that lead to effective

implementation of Title I schoolwide programs and state/district-initiated whole school reforms. Following discussions of these findings in the plenary sessions, participants broke into workgroups to discuss schoolwide program implementation and make recommendations on how to increase the effectiveness of this Title I reform effort.

Creating Effective Schoolwide Programs: Next Step Recommendations

What ingredients go into the creation of successful schoolwide programs? Conference participants reflected on their own experiences in Title I programs and identified strategies relating to resource allocation, hiring practices, parental involvement, early intervention programs, and curricular innovations that have led to more effective schoolwide programs. They also contemplated the effects that portable entitlements might have on the future of Title I schools.

RESOURCE ALLOCATION

Much of the discussion on how to create effective schoolwide



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programs dealt with resource allocation. Schoolwide programs must make innovative use of staff, resources, and programs if they are to be successful. Often, resources are spread so thin that they are not used as effectively as they could be. Successful schoolwide programs use money creatively and aggressively seek partnerships with outside organizations to stretch their resources. The following strategies were identified as means of overcoming fiscal constraints:

- Schools should be allowed to craft their own programs by blending monies and developing creative approaches to program involvement.
- Principals need to become skillful financial managers to make the most of the various resources available to the school.
- The central district office must be lobbied to become an enthusiastic supporter of the school's reform efforts.

One key "resource" often overlooked in developing effective Title I programs is school morale. High school morale can cushion a school struggling against the inevitable fiscal and organizational problems encountered in implementing a schoolwide program. Schools can increase morale by taking an active role in encouraging the staff, parents, and the larger community to buy into the reform program. In particular, teacher morale can be improved by:

- increasing administrative support for teachers by compiling a cumulative database of the student body so that teachers can identify particular needs of the students at the beginning of the year,
- offering professional development opportunities to ensure that the reform effort is sus-

tained and not watered down over time, and

- providing mentors for new teachers.

Teaching colleges also have a role in preparing their students to implement reform programs effectively by:

- providing teaching candidates with exposure to real-life situations,
- teaching students effective parental involvement strategies, and
- doing more to keep abreast of what schools need and becoming knowledgeable about their reform initiatives.

THE CHALLENGE OF FINDING QUALITY TEACHERS

The problem of teacher shortages and its relationship to the issue of teacher quality was an area of intense debate, and participants cited many factors that they believed were serious obstacles facing poor districts in the effort to provide their schools with high-quality teachers:

- Large, wealthier districts are able to pay higher salaries than small or poor urban districts.
- The burden of meeting Title I accountability requirements is a disincentive when hiring teachers in poorer schools.
- Even when qualified candidates are available, they often face obstacles to employment. Teachers who are older or have advanced degrees have a hard time getting hired because they cost too much.
- Often, school boards dictate salaries and hiring decisions and principals don't get a chance to interview the candidates, so their input regarding appropriate personnel is missing from the process.
- The district places too much confidence in the entrance exams, but they don't measure the ability of individuals to teach in front of the class.

- Teachers from small schools come unequipped to deal effectively with inner-city students.
- The tenure system prevents schools from making necessary changes in their staffs and hiring procedures.

It was roundly agreed that these structural problems must be faced at the district and state level in order for reform programs to meet their potential.

PARENTAL INVOLVEMENT

Participants readily agreed that parental involvement is crucial for the success of schoolwide programs and that the lack of involvement has been an obstacle in many reform efforts. They placed particular emphasis on the need for schools to take the initiative in cultivating better relations with parents and to extend these efforts to broader community outreach, especially in ethnically diverse neighborhoods where residents often do not feel welcome at the schools. There was also the recognition that schools need to improve their communication with parents to show that the school values their involvement and to explain clearly to parents how they can assist the school in furthering their children's education.

The following suggestions were made concerning steps schools could take to improve their relations with parents:

- The staff needs to understand their role as ambassadors to the parents; hence, the front desk must present a welcoming atmosphere.
- Language barriers should be recognized and efforts should be undertaken to teach prominent community foreign languages to teachers and office personnel.
- Parents should be encouraged through newsletters, websites, and home visits to be more involved in their children's schooling.

- Parents should be given significant roles in the school to implement the reform agenda.

A number of specific recommendations were made to foster effective parent–school partnerships:

- Develop specific guidelines to delineate parental responsibilities to advance student success.
- Offer parent workshops to encourage parents’ support of their children’s learning.
- Conduct parent academies to teach parents literacy and reading strategies.
- Tailor parent–school compacts to fit the unique needs of the school and involve the children.
- Acquaint parents with learning technologies by offering computer workshops and giving stipends to parents who participate in such workshops.
- Target parent events to particular grade levels and bolster support for these events.
- Open a district-wide resource center for parents and the community.

Community outreach is equally essential and can be pursued through efforts to involve local businesses, churches, and community centers in educational activities that support the school’s programs. Ideas for community outreach include the following:

- Develop school and community cohesiveness by encouraging parents to “adopt” other parents who are unable to come to school, thereby increasing the number of parents involved in the school.
- Network with hospitals and pediatricians to furnish reading material to parents, especially first-time parents and English language learners.
- Work with the larger community to raise funds for afterschool clubs and athletic activities for children.

EARLY INTERVENTION PROGRAMS

Efforts to promote reading are at the heart of early intervention programs. Participants concurred that it is important to ensure that all children can read on grade level by 3rd or 4th grade. Particular programs such as Reading Recovery, Assure Readiness for Learning, and Reading Academy were recommended to promote reading. Specific suggestions to address reading deficiencies include:

- Align the curriculum and reading program.
- Blend whole language and basal instruction.
- Use integrative computerized programs.
- Use flexible grouping with whole-group instruction.
- Alternate reading classes and set aside blocks of time for reading and writing.
- Reduce class size by using internship programs (e.g., The Balanced Literacy Program in Philadelphia).
- Try “looping,” in which teachers have the same children for two years.
- Start a “Bags of Books” program in which books go home with information about the 100 Book Challenge program.
- Conduct tutoring with Big Brother/Big Sister Programs.
- Include all childcare providers on committees to ensure coordination of services.
- Encourage parents to use technology at home to assist their children in reading comprehension.

SUBJECT MATTER PRIORITIES

Education critics have sometimes complained that there is an overemphasis on literacy and math to the exclusion of other subjects such as science. Besides the priority given to mastering reading and math skills, schools often have weak science programs because of the

increased difficulty of attracting competent science teachers. Hence, class sizes in science tend to be larger than in other disciplines. Among the suggestions made to improve science instruction were to:

- provide a balance of subject exposure through cross-curricular programming,
- integrate math and science so that the disciplines aren’t seen as separate,
- increase professional development opportunities for science teachers, and
- seek partnership programs with outside organizations to enrich the science curriculum.

PORTABLE ENTITLEMENTS

Many critics of Title I programs view portable entitlements as a means of rescuing students from failing schools. Under such proposals, funds would follow the student into alternative public or private school programs. Conference participants voiced concerns about the possible consequences for Title I schools affected by students departing for alternative programs. In addition to the loss of vital funding, participants feared that portability would increase the already high rates of student mobility and destroy a school’s consistency in operating and implementing reform programs. They agreed that more research is needed on how student transience affects the teaching staff and the school’s reform efforts.

A second concern focused on accountability standards for alternative programs. Successive waves of legislation have endeavored to raise accountability standards for Title I programs; therefore, alternative programs must be held to similar standards to ensure that public and nonpublic schools are on an “even playing field” in evaluating their academic effectiveness. ☞

Using Standards-based Assessment for Title I Accountability and Program Improvement

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Since the Hawkins-Stafford reauthorization of 1988, testing in Title I has served to hold schools accountable for students' academic outcomes, indicate which schools are in need of improvement, and monitor school progress during the program improvement process. The 1994 Improving America's Schools Act (IASA) led to a number of Title I testing regulation changes. Testing shifted from a reliance on conventional norm-referenced tests to standards-based tests developed by states. Schools no longer were required to test in nearly every grade, as was the case prior to IASA. Nonetheless, the multiple and often conflicting purposes for testing remain.

As has been the case with achievement testing throughout the history of American schooling, Title I testing serves as a tool to fulfill both the political and professional models of reform. The political reform model is predicated on the belief that schools function to foster citizenship and, thus, should be scrutinized and held accountable by the public. Tests serve to produce school, teacher, and student performances that can be publicly reviewed and judged. The goal of testing is to yield results that can be used to compare schools, teachers, and students to their respective peers or against an arbitrary standard. Test contents must be understood and valued by the public. Thus, under the political reform model, tests are more for public consumption than teacher use.

Title I Program Evaluation

Title I of the Elementary and Secondary Education Act (ESEA) of 1965 required school districts that received program funds to test

participating students at least annually to evaluate the effectiveness of the programs. The evaluation requirements were added to the law to ensure that schools would be accountable to parents. By 1974, it became evident that the results of various tests used by school districts were not comparable. The reauthorization of that year created a more uniform testing system and required districts to employ one of three evaluation design—a control-group comparison study, a regression discontinuity study, or a norm-referenced achievement gain model based on norm-curve equivalents (NCEs)—to determine adequate yearly progress (AYP). The evaluation system was more fully implemented due to the Title I Evaluation and Reporting System (TIERS), which was an outgrowth of the 1979 reauthorization. Due to the difficulty of conducting the comparison-group and regression-discontinuity designs, the NCE model became the design of choice. Title I evaluation based on NCE scores from conventional standardized achievement tests remained in effect until the mid-1990s.

The function of testing was broadened in 1974. Schools were encouraged to use their test results to improve their programs. This use of testing was established more firmly in the 1988 Hawkins-Stafford amendments, which required participating schools that did not demonstrate AYP to develop a Program Improvement Plan (PIP). Based on the logic of the equipercentile assumption, schools were placed in program improvement (PI) if their students, on average, had a yearly gain of less than zero.

Perhaps the most significant Title I testing changes occurred in

1994 with the passing of IASA, which required states to either develop or implement standards-based assessments. These tests were to reflect state standards in at least mathematics and reading, and had to yield scores that indicated students' level of performance on the standards. At least three levels of student performance were required: partially proficient, proficient, and advanced. Furthermore, states had to set their own AYP indicators based on the performance levels, which was a departure from the national AYP criterion of "at least a mean NCE gain of zero."

State Plans for Title I Testing and Program Improvement

To allow schools adequate time to create their new testing and AYP systems, the IASA testing policies have only recently been enforced. The United States Department of Education currently is collecting and reviewing states' assessment and AYP plans. A majority of the states have elected to construct their own standards-based assessments. The new legislation requires that the assessments be administered in at least one grade in each of the following levels: 3–5, 6–9, and 10–12. Approximately 36 states plan to administer or are currently administering the standards-based assessments in this manner, while approximately eight states plan to administer or are currently administering the assessments in all grades.

Many states are looking at increases in performance in only the highest levels of proficiency. In order to make AYP in approximately 21 states, increases in performance only need to occur at the upper end of the spectrum.

However, approximately 12 states recognize the need to move the lower achieving students out of the bottom categories and require movement from the lowest categories as well as movement into the highest categories. Clearly, state testing and accountability models vary considerably.

Recommendations

It is far too early to judge if changes in the testing and accountability regulations embodied in the IASA represent an improvement over prior Title I procedures. Nonetheless, testing still is expected to serve both the political and professional models of reform in Title I, and it is quite evident that testing changes occurred in 1994 without consideration of how to develop tests so that teachers can use the results more effectively. True Title I reform likely will not result until new testing and PI regulations and guidelines consider the vital role of teachers in curricular and instructional decision making. Therefore, testing and PI guidelines should be written based on the following considerations:

- *Accessibility and Awareness.* Rather than merely informing the principals, states should be required to notify all teachers and staff that their school has been identified for PI and explain why their school did not make AYP.
- *Buy in.* Many of the teachers interviewed did not think that standards-based tests were developed with their interests, knowledge, and concerns taken into consideration. Many teachers believe that the standards movement is a mechanism designed to make them look bad and hold them solely accountable for student learning.
- *Clarity.* Teachers find it difficult to understand how much

improvement their students must make for the school to be removed from PI. Title I regulations should be amended to require states to provide teachers and staff with this information as well.

- *Consequences.* Many teachers in PI schools do not know about the potential consequences that might ensue if their schools do not get off PI or do not believe consequences will occur if they fail to improve. Along with providing a list of possible consequences for continued failure, states should also be required to choose a minor consequence for schools that are making some insufficient gain and a major consequence for schools making no improvement.
- *Direction.* Teachers need to know which specific objectives students must attain to move to the next performance level. States should be required to provide teachers in PI schools detailed information about the structure of test content. Guidelines should be included that encourage schools to develop their own internal assessment systems that mirror the state standards but that can be administered in little time and with little cost.
- *Equity.* Teachers in PI schools often suspect that the tests do not accurately measure their students' academic skills and are beset with racial and socioeconomic biases. Teachers are also aware that subsequent cohorts of students at tested grades (such as 3, 5, and 8) might fluctuate demographically across years, which would make it impossible to isolate school effects as indicated by test scores. Regulations should be added that stipulate uniform

standard-setting procedures and require states to provide schools PI identification exemptions if their student bodies change dramatically within one or two years.

- *Feasibility:* In many states, AYP may be set at a rather unrealistic level, which has led many teachers to wonder if their students will ever be able to reach it. States can be encouraged, through new guidelines, to check the difficulty levels of their performance standards and AYP criteria to ensure that goals are reasonable and attainable within a four- or five-year period.

Increasing Title I testing and PI guidelines places the federal government in a precarious situation. The 1994 changes shifted responsibility to the states to promote a greater sense of local control, so adding more federal guidelines would be a shift back toward more national uniformity and less state control. Additional guidelines should be added to Title I law to offer states more structure in how to develop comparable and just testing and accountability procedures. The question of how to motivate teachers to improve must also be addressed if PI is to be an effective conduit for constructive school change. ☞

In the next
CEIC Review

**“Closing the Achievement Gap:
Success Strategies”**

Implementation In New American Schools: A Longitudinal Analysis

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Spurred by the piecemeal approach to school reform that had produced little change in the nation's test scores, New American Schools (NAS), a private nonprofit organization, launched its efforts in 1991 to partner with jurisdictions that would commit to five-year partnerships with NAS design teams to implement schoolwide reform programs. The participating schools were required to have their students assessed against district- and state-mandated tests.

While each NAS design has unique features, the designs tend to emphasize school change in the following areas: organization and governance, teacher professional development, content and performance standards, curriculum and instructional strategies, and parent and community involvement.

All of the school sites have been implementing the designs for two years, and many have been implementing for three or more years. A survey of teachers and principals in the NAS schools was conducted in 1997 and 1998, the second and third year of NAS's scale-up phase, to assess their progress.

The Analysis Sample

This study includes all schools that began implementation of a NAS design during the school year 1995–1996 or 1996–1997 in the seven jurisdictions with which NAS partnered at the beginning of the scale-up phase: Cincinnati, OH; Miami-Dade County, FL; Memphis, TN; Philadelphia, PA; San Antonio, TX; and the states of Kentucky and Washington. The analysis was limited to a sample of 104 schools that were

implementing designs in both 1997 and 1998 and that had complete data from teachers and principals in both years. The teacher sample consisted of 2,100 teachers.

Overall, the NAS schools in the analysis sample were predominantly high-poverty, high-minority, large, elementary schools located in low-performing, urban school districts. The teachers in the sample were mostly middle-aged, white females with Master's degrees.

The early years of implementation saw many changes in both the designs and the assistance provided as the teams and the schools gained experience. Implementation appears to have increased across the NAS schools between the first and second year, but not between the second and subsequent years. The lack of consistent increases in the implementation index over time is troubling. It may point to problems with keeping the level of design-based assistance and support from tapering off beyond the second year, maintaining a stable and supportive school and district environment that would allow implementation to deepen, or implementing a complex design not well suited to the school's needs.

Findings and Policy Implications

Implementation of NAS designs vary. Implementation is affected by a myriad of social, economic, and political factors. The process of changing entire schools to improve educational opportunities is complex because so many actors are involved and so many factors have to be aligned to support change.

Teachers' perceptions matter. Teachers' attitudes and perceptions about students' readiness and

ability to learn are critical for implementation. Teachers who report that students' lack of basic skills and inadequate support of parents are not obstacles to learning also report higher levels of implementation. Individual characteristics of teachers are not associated with implementation once other factors have been taken into account, although African American teachers tend to report higher levels of implementation when compared to non-Hispanic White teachers.

The size, level, and leadership of schools affect implementation. Implementation levels were higher in smaller schools and elementary schools when compared to large or secondary schools, which are more likely to resist organizational change. Schools with strong principal leaders also had higher levels of implementation than those schools that did not. Schools that face challenges in terms of poverty, which is often highly correlated with a disproportionate number of minority students, may inhibit restructuring efforts such as whole-school designs. Yet, because federal funding such as Title I is oriented towards disadvantaged students and schools, the effects of socioeconomic and minority composition are likely to be mediated.

Clear communication by the design teams and teacher support is necessary. Clear communication by design teams to schools was positively related to implementation and teachers' judgments about the effects of the designs on student achievement. Findings also show that the greater the teacher support for the design in their school, the higher the level of implementation. Most of the NAS designs required

75–80% of the teachers to vote in favor of the design.

District support is critical. Research underscores the importance of the external environment, especially district support and stability of leadership, in the process of change. The district can facilitate and foster change by providing resources for the school and for professional staff development and by showing active support for schools implementing designs. Among the jurisdictions studied, there was a great deal of variation in implementation. Kentucky and Memphis tended to rank higher on all the implementation indicators, whereas San Antonio and Philadelphia consistently rank near the bottom on most of the indicators. Kentucky, during the scale-up phase, was implementing a design that closely fits the demands of state reform legislation.

A great deal of attention has been paid to Memphis City Schools because of the strides made there in implementation and performance. Key aspects of Memphis support for scaling up NAS and NAS-like designs include the stability of the district leadership, the centrality of the NAS effort there amidst other possible reforms, the lack of a severe crisis (e.g., budgetary or union strikes), and the district focus on professional development and performance results.

San Antonio, while experiencing dramatic test score increases over the past few years, ranked low on the NAS implementation indicators. During the scale-up phase, not only was San Antonio scaling up NAS designs, but the district was also implementing rigid district-mandated curricular and instructional programs that conflicted with NAS design team activities.

Although there has been a broad diffusion of designs since

1995, pursuing effective district partnerships remains a key component of NAS strategy. However, district office authorities have posed frustrating challenges to NAS in establishing effective partnerships with districts. Particularly in low-performing districts in high stakes accountability systems, the centrality of the NAS initiative vis-à-vis other programs is dependent on district leadership and is often fragile.

Based on these findings, it is clear that reforms of a similar nature, such as the Comprehensive School Reform Demonstration program and other schoolwide Title I programs, can be implemented and come to fruition *only* with significant changes in district-level policy and support. The federal government will need to take an active role in encouraging districts to support school-wide programs. To that end, the federal government must clarify what constitutes comprehensive school reform, evaluate the efficacy of the approach, and document the need for a supporting infrastructure to ensure implementation.

Appropriate allocation of critical resources is important for successful implementation. This study found that greater resource availability—materials to support instruction, professional development, time for planning and collaboration, consultants to advise and provide support, and funding—was related to higher levels of implementation. Resource availability is largely an issue of resource allocation. Districts and schools control many resources that can supplement the federal funds, so it is important for program schools and districts to rethink existing funding streams to support schoolwide reform.

Variation in implementation can be largely ascribed to a variety of

district, school, teacher, and design team factors. An important issue that could not be addressed with the survey data was whether the variation in implementation was due to certain inherent characteristics of the design itself that made it more difficult to implement.

More research is needed to determine how the implementation of a NAS design becomes a *schoolwide* reform effort. This analysis shows that many of the differences among teachers occur within rather than between schools, at least when considering implementation and teacher-reported effects of the designs on student achievement. As the designs continue to provide assistance and as teachers continue to become more familiar with the design team activities in their schools, there should be increases in implementation levels and agreement among teachers within schools. However, the data between 1997 and 1998 reveal that the levels of implementation did not increase much, if at all, and the variation within schools did not decrease.

The question remains as to how the designs can become school-wide. A danger in educational reform initiatives—especially those within urban settings with many complex economic, political, and social challenges—is that the NAS designs may be another program that is turned on and off at selected times during the school day, week, or year. As time goes on, the designs may be at risk of being turned off altogether, especially if districts and schools lose their focus on schoolwide programs such as NAS and turn to some other reform effort. The role of the district—and state—is critical in fostering an environment in which these whole-school reforms can succeed. ☞

Teacher Quality and Educational Inequality: The Case of Title 1 Schools

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Few educational problems have received more attention in recent times than the failure to ensure that elementary and secondary classrooms are all staffed with qualified teachers. This is especially true for Title I schools that serve predominantly disadvantaged, poor and minority students. Critics have argued that students in these kinds of schools—the most needy students in the United States—are most likely to be taught by the least qualified teachers. Unable to match the salaries, benefits, and resources offered by more affluent schools, these critics hold, disadvantaged schools are not able to compete for the available supply of qualified candidates. As a result, these schools have unequal access to qualified teachers and, hence, to quality teaching, which is one of the key reasons for unequal results in student educational and, ultimately, occupational outcomes.

In response, numerous reforms have been enacted over the past decade to upgrade the quality and quantity of the teaching force teaching, especially in schools serving Title I and disadvantaged students. Reformers in many states have pushed for tougher teacher training and certification standards, and a host of initiatives and programs have sprung up that are designed to recruit new candidates into teaching, especially in disadvantaged schools.

This study examines the extent to which students, especially those in Title I and disadvantaged schools, have less access to qualified teachers than do other students. Like most previous empirical research on this problem, this study focuses on cross-school variation in standard indicators of teacher qualifications, such as teachers' degrees, teaching certifi-

ates, and experience. Although a college degree or a teaching certificate does not guarantee that someone is a quality, or even a qualified, teacher, it is a valuable resource and a necessary minimum prerequisite. Unlike most previous research, however, this study empirically explores the reasons *why* particular kinds of schools have less qualified teachers.

The assumption underlying this study is that understanding the problem of unqualified teachers requires not only examining the quantity and quality of the teaching force, but also examining the administration and management of the schools that employ teachers. From this perspective, the manner in which teachers are employed and utilized can account for as much of the problem of underqualified teaching as do inadequacies in teacher training or the supply of teachers. More specifically, this study focuses on a little recognized but important cause of underqualified teaching: the problem of out-of-field teaching—teachers assigned to teach subjects that do not match their training or education. This is a crucial issue because highly qualified teachers may actually become highly unqualified if they are assigned to teach subjects for which they have little training or education. This problem has been little recognized, however, largely because of an absence of accurate data—a situation remedied with the release, beginning in the early 1990s, of the Schools and Staffing Survey (SASS), a major new survey of the nation's elementary and secondary schools and teachers conducted by the National Center for Education Statistics. The present study, based on seven years of research with

this survey, profiles the qualifications of the nation's elementary and secondary teachers, examines the problem of out-of-field teaching, and identifies the levels and the sources of underqualified teachers.

Research Findings

LEVELS OF TEACHER QUALIFICATIONS

The data show that most public elementary and secondary teachers in the United States have basic education and training. Ninety-nine percent of all public school teachers hold a bachelor's degree, almost half have obtained master's degrees, and 94% have regular or full state-approved teaching certificates. The data also show that students in disadvantaged and Title I schools often have less access to qualified teachers. For instance, in disadvantaged schools, twice as many teachers are beginners, and beginning teachers in these schools are less likely to have regular teaching certificates.

However, the data show that the most prominent source of unequal access to qualified teachers is not a lack of education or training of teachers but a lack of fit between the preparation of teachers and their course assignments. Especially in disadvantaged schools, a significant proportion of qualified teachers are assigned to teach in fields for which they have little formal education or training. For instance, at the secondary level, in advantaged schools almost 90% of classes are taught by teachers with at least an undergraduate or graduate minor in the subject taught, but in disadvantaged schools this is true for only about three quarters of the classes. These disparities hold across different fields. A third of secondary-level English students in

high-poverty schools, as opposed to 16% in low-poverty schools, are taught by teachers who do not have at least a minor in English, or a related field such as English education, language arts, literature, reading, communication, or journalism. A quarter of secondary social studies teachers in high-poverty schools, as opposed to 16% in low-poverty schools, do not have at least a minor in social studies, history, or one of the social sciences. Hence, the key question is why so many otherwise qualified teachers are assigned to teach out of their fields, especially in disadvantaged schools.

THE SOURCES OF OUT-OF-FIELD TEACHING

Contrary to conventional wisdom, the data show that teacher shortages do not account for most out-of-field teaching. Shortages cannot explain the high levels of out-of-field teaching in fields such as English and social studies, which have long been known to have surpluses. Furthermore, out-of-field teaching often takes place in schools that do not have difficulties finding qualified candidates to fill their teaching openings. For example, just under one tenth of secondary schools had difficulty filling their openings for English teachers in 1993–1994, but almost a quarter of all public secondary-school English teachers were uncertified in English in that same year. Likewise, in that year about one sixth of secondary schools reported problems filling their openings for math teachers, but a third of all math teachers had neither a major or minor in math.

The data also show that, while out-of-field teaching is widespread, districts and schools differ greatly in the extent to which they have this problem. This study focused on the SASS data of the secondary-school level, Grades 7–12, to as-

certain what characteristics of the districts and schools could account for these large differences in levels of out-of-field teaching. The data show that—after controlling for the characteristics of the students, such as the student poverty level, and also for the characteristics of teachers—several characteristics had a pronounced impact on levels of out-of-field teaching.

School districts vary in the extent to which they impose standards on the teacher hiring process. The data show that schools in districts that have formal regulations concerning minimal training requirements for new hires (e.g., require new hires to hold a major or minor in the field to be taught) have less out-of-field teaching. The data also show that an additional factor that is strongly associated with the degree of out of-field teaching in a school is the leadership and effectiveness of the principal. Schools with highly rated principals have less out-of-field teaching. Moreover, how school administrators chose to cope with difficulties in obtaining suitable candidates is important. In the face of trouble filling a teaching position, school administrators have a range of options and often face difficult trade-offs. For example, some administrators resort to hiring underqualified teachers or reassigning teachers trained in another field to teach in the understaffed area, resulting in more out-of-field teaching. In contrast, other administrators opt to expand class sizes or cancel classes in order to cope with staffing difficulties, resulting in larger class sizes but less out-of-field teaching.

Implications for School Reform

The research shows that most of the current teacher quality reforms, while worthwhile, will not solve the problem of underqualified teachers because they do not

address the issue of out-of-field teaching. Recruiting more teachers or mandating more rigorous certification requirements will help little if large numbers of these teachers are assigned to teach subjects other than those for which they were educated or certified. Solving this problem will require an understanding of how the management of teachers once on the job as well as the organization of the school affects the quality of teachers. ❧

The CEIC REVIEW

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Effective Implementation of Title I Schoolwide Programs: Developing Procedural Knowledge in Policy and Practice

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The 1994 Improving America's Schools Act (IASA) established an ambitious agenda for systemic improvement in schools with a high concentration of students from at-risk backgrounds. The legislation promotes the schoolwide program as a way to reduce curricular fragmentation and enhance instructional effectiveness for the school as a whole.

While the schoolwide approach to reform is clearly at the forefront of the national agenda to improve schooling quality for children who are at risk of academic failure, the research base is sorely lacking. Since the inception of the Elementary and Secondary Education Act (ESEA), the results of Title I/Chapter 1 schoolwide program implementation have been mixed. Preliminary findings suggest that, as a group, Title I students in schoolwide program schools perform better than their peers in more traditionally organized services, such as pull-out programs. Nevertheless, nationwide evaluations suggest that schoolwide projects have continued to encounter a wide range of implementation difficulties.

The National Study of Effective Title I Schoolwide Programs

The National Study of Effective Title I Schoolwide Programs was initiated to fill the research gap on how schoolwide programs affect teaching, learning, and student outcomes as well as provide assistance to schools, districts, and states in their efforts to implement and maintain schoolwide programs. This study is a collaborative project of the Laboratory for Student Success (LSS) and four other Regional Educational Laboratories: Appalachia Educational Laboratory, North Central Regional Educational Laboratory, Northwest Regional Educational

Laboratory, and Southeastern Regional Vision for Education.

Two provisions of the IASA have significant implications for schooling opportunities. The first mandates that district-wide performance standards must apply to all students, including recipients of Title I services, and indicates that Title I, bilingual education and dozens of other federal programs must become integral to, not separate from, state and community education reforms that center on high standards. The second provision promotes a schoolwide initiative in Title I schools in which at least 50% of the students are low-income.

The National Study of Effective Title I Schoolwide Programs is designed to contribute to the research base on effective policy and practices for achieving student success in Title I schoolwide project schools. The goal was to identify Title I schoolwide program schools with comparable demographic characteristics in school districts that were interested in participating in the study across varied geographic regions. The core database used to determine site selection included the school-by-school data on achievement test scores, percent of students qualified for free and reduced-price lunch, enrollment, racial characteristics, and grade levels of the schools. "More effective" and "less effective" schools were identified by the data from the participating school districts with statistical modeling of the expected academic performance of the schools, controlling for the income level. In addition to using the demographic and achievement data routinely collected by the school and district, the study collected additional data using multiple methods, including observation of classroom practice, interviews

with school staff, and surveys of school staff and parents.

During the 1997–98 academic year (Year 1), researchers from the collaborating Regional Educational Laboratories gathered data from 32 schools in 9 urban districts and 3 countywide districts. Sixteen were identified as more effective schools and 14 were identified as less effective schools. Data collection during Year 2 was less extensive. The study collected surveys from 9 principals, 250 teachers, and 484 parents.

Highlights of Findings from Year 1 and Year 2 Data

1. *Some Title I schoolwide schools show higher performance.* More effective Title I schoolwide program schools across the geographically dispersed study sites showed a greater mean achievement level than expected, given the schools' socioeconomic characteristics.

2. *The district plays a key role in raising academic standards for schoolwide program schools as a whole.* Schoolwide programs are more integrated with the district-wide vision of educational accountability and are no longer at the margin of system-wide reform. Several districts in the sample have developed strategies that facilitate scaling-up efforts for schoolwide reform, using such reform initiatives as the *Children Achieving Reform* (Philadelphia, PA), *Success for Every Student* (Montgomery County, MD), and *Essential Learnings* (Tacoma, WA).

3. *Federal dollars are critical, but state funding can be substantial.* Federal revenues make up about 10% of the total school funding in the big-city systems. In Chicago, federal funds accounted for 13.4% of the total revenues in 1995–96 whereas, in Montgomery County,

MD, federal dollars comprised only 3% of the total spending. The importance of state support varies among the districts in the study. Detroit and Trenton were heavily dependent on state dollars, which accounted for over 70% of the total school funding. In contrast, Montgomery County, MD, Denver, CO, and Atlanta, GA relied more on local funds. In the case of Title I schoolwide programs, schools enjoy substantial discretion in using the supplemental funds to purchase curricular models that they see useful to meet their students' academic needs.

4. *The more effective Title I schoolwide programs are more ready to meet the IASA legislative expectations.* More effective schoolwide programs show stronger components in their implementation of student performance goals, academic standards and assessment, enriched curriculum, student-centered instruction, evaluation, availability and usefulness of professional development, resource allocation and availability, accountability, and parent involvement. Teachers from more effective schools rate teacher-student relationships, colleague relationships, low school problems, and student attitudes toward schooling significantly higher than teachers from less effective schools.

Teacher reports supported the finding that the more effective Title I schools participating in this study chose to actively evaluate student performance rather than passively conform to less stringent standards. Also, these teachers pointed out that the district has been supportive of them in meeting the legislative expectations pertaining to professional development, technical support, and academic initiatives.

5. *Discretion in resource allocation and curricular focus at the site level.* Schoolwide program sites tend to adopt a distinct curricular focus in their implementation. Such schools were likely to combine federal and local/state revenues to

hire specialized staff to meet particular curricular needs or enhance professional development. Teachers in effective schools commented on the importance of matching instruction to assessment and using a variety of assessment tools, such as daily observations, journals, writing folders, teacher-made tests, standardized tests, and projects.

6. *Whole-class instruction is prevailing.* Teachers in schoolwide programs spent over 60% of their time using whole class instruction rather than the more student-focused approaches such as providing instruction in small groups or working with individual students. Students from more effective schools spent more time working independently than those from less effective schools. While whole-class instruction may continue as the dominant mode of teaching, interview data suggest that teachers recognize the importance of working with students individually or in small groups.

Less effective schools had a greater number of special intervention programs and projects than did their more effective counterparts. While they may create new opportunities for teaching and learning, schools that manage too many special programs can encounter organizational fragmentation and disjointed programming

7. *Greater efforts should be made to engage parents, especially non-native English-speaking parents.* Year 1 findings show that parents who are bilingual or speak a different language at home were much less satisfied with student performance goals, parent involvement, teacher-student relationships, principal leadership, school problems, and satisfaction toward school. In particular, nonnative English-speaking parents from less effective schools tended to be most dissatisfied with the school climate.

Schools generally recognize the importance of parent involvement and are making serious efforts to

encourage parents to participate in school activities such as workshops, PTA meetings, and family entertainment nights. However, parents' attendance rates at these events are relatively low. Further, many schools have not been able to actively mobilize parents in support of student learning activities, such as homework assistance and other literacy projects. Parents were also not well aware of their roles in Title I schoolwide programs, particularly with regard to decision making.

Statistical analysis of parent survey data further supports the finding that the more effective schools are more likely to adopt the IASA legislative expectations. The results suggest that more effective schoolwide programs show stronger components in their implementation of parent involvement.

8. *Programmatic fragmentation remains at some schools.* There is a lack of collaboration and communication among classroom teachers and additional staff such as Title I coordinators, which can cause confusion among teachers and students. Lack of staff stability and high student mobility were found to be barriers to effective program implementation. Another condition that may contribute to programmatic fragmentation is a lack of coordination between districts and schools in the scheduling of professional development activities and the provision of funding for Title I schoolwide programs.

The schools in this study indicate that they emphasize the use of technology to meet an objective of Goals 2000; however, teachers and parents expressed concern that this focus on technology not replace the priority of mastering basic skills such as reading and math.

9. *There is a need to monitor the extent to which a "within school" performance gap persists.* Although it is clear that schools in the study are moving toward adopting more

inclusive practices, evidence suggests that some programs are being used for targeted children or targeted grade levels. There is a need to monitor the extent to which a “within school” performance gap persists among different socioeconomic and racial or ethnic groups. For instance, the proficiency percentages for the Montgomery County, MD district and schools disaggregated by race and ethnic group show a large gap between White and African American and Latino students. In most cases, the district-wide gap is smaller than the school-wide gap (34 and 39 percentage points in reading and 33 and 44 in math, respectively), but it is still large and remains relatively the same for the three years of the study. Interestingly, some schools are experimenting with mixed-ability groupings as a way of solving this problem.

10. There is an ongoing need to improve the quality of teaching. There appears to be a gap in the content, opportunity, and delivery of professional development that address schoolwide implementation. There is a lack of consistent Title I schoolwide funding to plan and implement the programs, and teachers and principals are concerned about frequent changes that cause a discrepancy between school planning and delivery.

Policy Implications and Recommendations

Findings on the implementation of schoolwide programs suggest that Title I can be a part of national efforts toward systemic improvement. Several districts in this study have developed aspects of an academic accountability framework, whereby academic standards are defined that apply to all schools, including Title I schoolwide programs. As urban districts raise the accountability standards, they must provide additional resources and professional development in order to maintain an infrastructure of support for schoolwide programs.

Drawing from this study, the following recommendations seek to improve accountability at the district and school level:

- *Strengthen the Accountability Functions of the District.* Title I program services need to be aligned with the state and district content. The schoolwide program design offers a built-in organizational mechanism through which the Title I legislative expectations can be linked with the ongoing standards-based reform efforts of the school, school district, and state. Simultaneously, schoolwide programs also create a context in which the roles of principals and district staff can be reevaluated.
- *Establish a District-wide Assessment-Centered Evaluation and Monitoring Framework.* Educators and policymakers at all levels need to work together to raise the expectations of schoolwide programs for all students. To this end, districts can design and implement strategic plans aimed at narrowing the “within school” learning gap among racial, ethnic, and income groups.
- *Build a Knowledge Base on Procedural Knowledge.* District and school professionals need to collaborate on building a procedural knowledge base on ways to achieve a high degree of program implementation of Title I schoolwide programs in varied settings across the district and state.
- *Create Incentives for Schoolwide Programs to Adopt Comprehensive Reform Models.* There is a need for more training in accountability, assessment, and instructional strategies as well as greater effort to facilitate whole-school reform in Title I schoolwide schools. These measures will reduce the programmatic fragmen-

tation experienced at some schools.

- *Improve the Quality of Teaching.* There appears to be a great deal of unevenness in the content, opportunity, and delivery of professional development among schoolwide programs, and there is a lack of funding allocated to improve program planning and evaluation.
- *Create Incentives for Schoolwide Programs to Select Professional Development that Meets Their Particular Needs.* Strategic partnerships between schoolwide schools and research and development organizations should be explored and nurtured.
- *Increase Efforts to Engage Parents.* In particular, there is a need for schools with limited English proficient (LEP) parents to develop strategies to encourage parents to get involved in school activities more often and to feel comfortable visiting school. Implementation of parental engagement efforts should be an integral part of whole-school reform.

To ensure that schoolwide programs in high-poverty neighborhoods have the capacity to meet these legislative goals, an infrastructure of federal support and federal assessment of student performance should be developed. The federal role needs to evolve from a watchdog perspective—primarily focused on regulatory compliance—to that of a more active, supportive partner, providing funding and technical assistance for professional development.

Closer links are needed between the federal government and school districts in helping schoolwide programs develop coherent instructional strategies in Title I schoolwide policy. Procedural accountability is a useful way to measure the extent to which knowledge is used effectively to meet the legislative expectations of Title I programs. ❧

Sustaining Investments In Technology: Strategies to Close the Digital Divide

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For most of the past two decades, schools have endeavored to incorporate computer technology into their instructional programs. Although the vast majority of this effort has been devoted to building the hardware infrastructure of computers, peripherals, and network connections, there has been a growing awareness that the quality of the technological implementations is more critical than the quantity. The conventional wisdom in education now acknowledges that *how* students use the technology—the context for using technology—is much more important than how much.

The variation in the quality of contextual support for technology in schools may be responsible for the deepest digital divide in education. Although compensatory programs like Title I have ensured that poorer American schools have almost as many computers per student as the wealthier ones, other indicators of technology penetration and utilization reveal the persistence of a digital divide due to socioeconomic disparities. This report documents some of the gaps in U.S. education with respect to the quality of support, organizational climate, and other elements of the critical context for implementing educational improvements with the help of technology.

Technology Study

This study is based on data from “Teaching, Learning, Computing: 1998” (TLC), a national survey of more than 4,000 teachers and 800 technology coordinators in 1,100 U.S. schools. Roughly 75% of the schools sampled chose to participate in the study, and the teacher, technology coordinator, and principal response rates averaged about 70%.

It can be estimated that the total technology expenditures in FY98 for the K–12 system nationwide were

about \$7.2 billion, which is about 2.7% of the total expenditures for that year. The average school spent \$113 per year per student on technology, with only \$22.50 of that for teacher support services, about \$8 for software, and the remainder for hardware. An average of 74% of the technology budget was spent on hardware; however, when questioned about their preferred distribution of spending, technology coordinators thought that only about 40% of the budget should be spent on hardware while the relative amount spent on software and support should be much greater.

Forty-six percent of the funds for school technology (including hardware, software, and support) were from the district budgets while 54% were spent out of the school budgets. It is notable that districts are more likely to be the source of funding for hardware, whereas schools are more likely to be the source of funds for software and support services.

Although some schools have a technology budget for which they have sole discretionary authority, a majority (54%) did not have their own budget for technology. Those schools having their own technology budget spent 50% more on technology overall during the previous five years.

THE DIGITAL DIVIDE IN SPENDING

The highest 40% of the schools in terms of community income levels spent well over twice as much as the lowest 10%. While big differences in computer density do not exist in schools across income groups, the higher spending patterns of the wealthier schools will yield future inequities due to the greater current spending.

A somewhat similar pattern was found by comparing schools that

differ on the percentage of students eligible for Title I support. The quartile of schools with the fewest eligible students spent twice as much as the quartile with the most eligible, and those schools having the largest number of students eligible for Title I funding spent on average only \$4 per student on support—about one fifth of that spent on support by the schools with the fewest students below the poverty line.

However, when looking at the expenditures over the previous five years rather than the last year, the differences across the schools depending upon their Title I eligibility were not great. Title I and other compensatory funding programs over the longer run have tended to equalize the technology resource base or infrastructure across richer and poorer schools. But these programs have not closed the digital divide in spending for leading-edge technologies such as high-speed Internet access and multimedia components.

TECHNOLOGY SPENDING AND TEACHING PRACTICES

Spending on software and support services tended to be significantly correlated with indicators of teacher utilization of technology for instructional improvement. The effect of spending is not likely to affect outcomes directly so much as it is likely to help build the support structures and leadership that make the effects possible.

Technology Leadership

Everyone associated with a school is a potential technology leader, but the principal stakeholders are the administrators and teachers. Technology leaders who view their school as a learning organization will attend not only to setting goals and coordinating activities, but also to designing and participating in

learning processes for themselves as well as all others in the school.

Data from this study was used to develop a taxonomy of educational technology leadership decisions that distinguishes decisions pertaining primarily to the infrastructure from those that deal primarily with the instructional processes, although many decisions apply to both. The taxonomy divides decisions into six functions:

- Strategic Planning and Goal-Setting,
- Budgeting and Spending,
- Organization,
- Curriculum,
- Evaluation, and
- External Relations.

Each of these decisions identified as characteristic of technology leadership may have a measurable outcome in terms of the degree of technology integration in the school.

LEADERSHIP IN TECHNOLOGY INTEGRATION

While the technology infrastructure is important, administrative leadership and decision making is equally important in maintaining a successful technology program. To become an effective “technology learning organization,” it is essential to create a school environment in which administrators, teachers, students, and parents together work to devise strategies on how best to adapt new technologies to the improvement of learning.

Quality technology support entails both instructional and technical content. The former is concerned with pedagogies, instructional strategies, and implementation of different teaching methods while the latter encompasses all aspects of the technology, such as the operation and troubleshooting of hardware and software. Another dimension of technology support concerns the methods used to deliver technology support services, including not only facilities and support staff but also professional development, one-on-one consulting, and incentives.

VARIATIONS IN QUALITY OF TECHNOLOGY SUPPORT

The availability of technology support has a significant impact on teachers’ uses of technology. The quality of technology support was based on measures including availability of individualized help, widespread teacher participation in professional technology development programs, and the access and skills of teachers to evaluate and use appropriate technology resources.

Schools were compared across age levels, school control, and socio-economic status (SES) categories. Elementary-school teachers reported lower levels of support in place than their colleagues working in middle schools and high schools. Only 13% of teachers are at schools having high levels of support. The most striking finding is that teachers in schools located in high SES areas have significantly higher quality technology support than those in average SES and low SES areas. Teachers in schools with high-quality technology support use technology more frequently and in a variety of ways.

Implications for Technological Development in Schools

Technology support in America’s schools typically comprises access to equipment, dedicated staff, and professional development programming. Data from the 1998 TLC survey indicate that teachers’ use of technology is positively related to the quantity and quality of such support.

When technology support is designed with the instructional needs of teachers in mind, the effect on use is pronounced. This underscores the need for a systematic approach to creating support. Support is multifaceted, comprising elements as general as routine maintenance and as specific as individualized training. Technology leaders must recognize that technology support is not simply technical support but also covers the instructional domains

of support. Each of these domains helps to facilitate the integration of technology into the classroom.

Technology support programs are more effective when directed by well-trained technology coordinators. Technology coordinators must be trained to bridge technical ability with classroom teaching experience. Their leadership and administrative capacities as well as their aptitude for instructional design should be developed. Technology leaders must provide teachers with convenient access to educational technology resources and unfailing support for their use.

High-quality technology support is comprehensive, entails extensive coordination of resources, and encompasses both technical and instructional aid. Teachers report that they do not receive adequate instructional support. To increase the integration of technology into the classroom, technology leaders will need to create professional development opportunities and learning environments that emphasize the instructional uses of educational technology.

Overall Conclusions

Title I programs have made a large difference in the past few years in helping many schools build their technology programs. But with respect to *new* technologies, the digital divide continues to widen. Since technology rapidly becomes obsolete, the most effective investments will be in developing an ongoing, stable organization around technology.

Although this research does not show a direct effect of spending on instructional reform, the results suggest that spending is effective only if there is quality technology leadership, including broad support for teachers in their use of technology. Along with increased funding for resources, technology leadership will also be crucial in any effort to close the digital divide. ☞

The Use and Effectiveness of School-Parent Compacts, and Implications for Comprehensive School Reform

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Thirty years of research have shown that family involvement in education is one of the most powerful predictors of student success in school. Yet many high-poverty schools still have low levels of parent involvement and experience little success in their efforts to increase it. Students from high-poverty families are also less likely to spend time at home on learning-related activities that reinforce their schoolwork.

Federal Support for Parent Involvement

To address the less-than-optimal level of parent involvement, especially in high-poverty schools, federal legislation designed to support systemic and comprehensive reform efforts has included parent involvement strategies as a mechanism to increase the achievement of all students. Many states and districts have taken advantage of this support to build their parent involvement strategies.

Title I schoolwide reforms include parent and community involvement as a key component of efforts to increase student achievement. The federal government's 1997 Comprehensive School Reform Demonstration program requires the grantee to nurture meaningful parent and community involvement. The new regulations for Title I, the Goals 2000: Educate American Act as well as the School-to-Work Opportunities Act of 1994 delineate guidelines for states, district, and schools in developing parent involvement initiatives. The legislation supports multiyear funding for school-family-community partnerships that allows flexibility and time for implementation and encourages the coherence of parent involvement programs across groups of children.

Goals 2000 helps foster parental involvement by authorizing grants

to nonprofit organizations to develop and implement parent centers that provide information, training, and support to parents. According to a 1997 survey conducted by the Council of Chief State School Officers (CCSSO), 94% of the states use Goals 2000 funding to support their family involvement activities.

Parent Involvement That Effects High Student Achievement

Parent and community involvement sponsored by Goals 2000 has focused more on community inclusion than in developing partnerships with parents to aid in the child's learning. States have used their Goals 2000 funds to sponsor meetings, conferences, and discussion groups to increase the community's understanding of education reform and standards-based reform.

Since the 1960s, when parent involvement became the focus of efforts to increase the achievement of disadvantaged students, there has been a wide range of parent involvement initiatives advocated by schools, districts, states, and the federal government. These activities include participating in parent advisory roles, volunteering at school and in the classroom, providing learning activities to do with their child at home, attending parent training, and visiting resource centers.

Recent research has shown that the parent involvement strategies that have the strongest direct relationship with student success are ones in which the parents participate in learning activities in the home with their child; have a supportive, nurturing, authoritative parenting style; and have high expectations and aspirations for them. Several studies have shown that these parental practices are better predictors of student achievement than parents' socioeconomic status.

Using School-Parent Compacts to Foster Parent Involvement

Research has also shown that the school can play an important role in supporting parent involvement and in developing shared goals between the teacher and parent for the student by means of family-school compacts. Ideally, the compacts are written agreements specifying the shared responsibilities of families and schools to undertake together with the common aim of attaining high student achievement to high standards. Responsibilities focus on student learning and school quality and often include expectations about attendance, instruction at home and at school, communication between teacher and parent, monitoring of student progress, and parent volunteering. For these compacts to work, there must be mutual trust and respect between parents and schools, an ongoing exchange of information, agreement on goals and strategies, and a sharing of rights and responsibilities.

Title I legislation requires the use of school-parent compacts for learning. As of 1998, about 75% of Title I schools use school-parent compacts. A national survey found that schools with a high concentration of poverty and/or minority enrollments were much more likely to prepare compacts for all parents than were schools with lower concentrations of poverty. Of the schools that reported preparing voluntary written agreements for only some of their students, 45% prepared them for parents of Title I students and 80% prepared them for various other special-needs groups of students.

Most schools using compacts report that these arrangements positively influence parent involve-

ment and are related indirectly to higher student achievement. Research shows that parents in schools that implemented comprehensive parent involvement initiatives that included engaging parents in learning compacts, asking parents to sign homework completion sheets, encouraging parents to attend school and classroom open houses as well as parent-teacher conferences, and providing learning resources in the home, were more involved with their child's learning at home. Not all reports of the effects of parent compacts are positive. The compact may conflict with parents' support for their children in ways not defined by the compact. Therefore, it is important to ensure that the compact allows flexibility and responsiveness to a diversity of family cultures, values, and beliefs.

Compliance with the compacts can be used as a way of attracting only the most involved parents to charter schools, which may in turn be related to socioeconomic status, race, and ethnic background. One study indicated that charter schools with high-poverty, low-achieving students were more likely to have contracts with "fail-to-comply" clauses, indicating that the student could be transferred if the parent does not fulfill the contract. In some schools, the compacts represent a limited view of family-school relationships in that they view the compacts more as a vehicle for obtaining parental compliance rather than encouraging inclusion and shared goals.

The Implications of Compacts for Comprehensive School Reform Efforts

Nearly every comprehensive school model includes parent involvement as one of its components; however, the implementation research on comprehensive school reform generally does not pay much attention to the role of parents in model adoption and implementation. Research sug-

gests the following lessons regarding the use of parent compacts in comprehensive school reform efforts:

- Using the school-parent compact along with a set of comprehensive parent involvement strategies is effective in fostering parenting practices associated with increased student achievement.
- Compacts can serve as mechanisms to provide details about at-home learning activities for parents and can inform parents about how they can work with the school to meet the demands of a particular comprehensive reform effort.
- School-family compacts should be developed as a collaborative effort between parents and schools to foster a true partnership between school and family.
- Since active teacher involvement facilitates the effectiveness of the compacts, teachers need training to develop and implement these compacts effectively.
- Compacts can operate as a fundamental mechanism to change power relationships between parents, teachers, and administrators, which is at the heart of school reform efforts.

Challenges To Implementing Compacts

Efforts focused on using family involvement as a mechanism to improve student learning must acknowledge and address several challenges:

- Differences by race and class affect the development, implementation, and effects of compacts and other parent involvement initiatives.
- Local politics can affect the success of parent involvement efforts so it is vital to have strong parent and community support when implementing parent compact efforts.
- Parents and teachers are busy and it is often challenging to find time to engage in communication and

collaborative efforts. It is important to integrate parent involvement mechanisms into the operation of the school and prioritize them.

- Teachers, parents and principals sometimes lack the knowledge and support necessary to successfully implement compacts and other parent involvement strategies. The availability of information about how to use the compact correctly is helpful.

Future Research Directions

Much work needs to be done to increase our understanding of what mechanisms are most effective in fostering the type of parent-teacher collaboration that works to increase student achievement.

Rigorous research that investigates the effect of the compacts on parent involvement and student achievement, especially in low-income populations, would contribute greatly to our knowledge about how the compacts work. The federal government, states, and districts might encourage schools to institute more formal mechanisms for both implementation and evaluation of the school-parent compacts. Pre-service teacher education might focus more on how to develop and implement successful compacts and other mechanisms for fostering parent involvement in the student's learning. Finally, more research is needed on the features that make compacts effective, such as sequential activities linked to school lessons and activities that are slightly too complex for the child to accomplish without assistance from an adult, giving parents the opportunity to support and listen to the child. Studies of the effectiveness of the school-parent compacts for learning and their implementation would go a long way in helping us understand how the compacts operate as well as providing guidelines for teachers and parents who would like to work together to improve student achievement. ☞

Title I in California: A Focus on English-Language Learners

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Since 1965, Title I of the Elementary and Secondary Education Act has provided federal assistance to schools to meet the educational needs of disadvantaged students. In the 1994 reauthorization of the now \$8 billion program, Congress substantially overhauled the program by shifting from a focus on remediation to high standards and accountability for higher achievement. For the first time, the law spelled out requirements for full inclusion of students with limited English proficiency in Title I programs, assessments, and accountability systems. California is an especially important state with respect to Title I reforms because it receives substantially more Title I funding (\$829,978,270) than any other state. With 1,406,106 English Language Learners (ELLs), it enrolls 40% of the nation's students with limited English proficiency. Twenty-five percent of California's children fall below the federal poverty line, and the achievement of its students—especially its poor—African American, and Latino students, has lagged behind the rest of the country.

In 1997, the Citizens' Commission on Civil Rights initiated a project to monitor and assess the progress made by the federal government and by targeted states and school districts in carrying out the 1994 amendments to Title I. In prior studies, the Citizens' Commission reported that California's early implementation of Title I lacked coherence and failed to ensure high standards for all students. Recent legislative and executive branch policy initiatives, however, have sought to raise standards across the state, to hold educators accountable for improving student performance, and to increase state resources (in areas like class size) to schools. To examine the implementation of Title I, in 1999 the Citizens' Commission tracked

implementation of the new law from the federal government to the California Department of Education (CDE).

State Context

California is one of the most critical states in the nation for the standards-based reform movement but it has had an inconsistent record of addressing the needs of its students. State court rulings in the 1970s sought to level the playing field by equalizing per-pupil expenditures statewide, but Proposition 13 (property tax limitation) has led to the state's current ranking near the bottom of all states in the country in per-pupil expenditures for elementary and secondary education. However, California districts have seen an influx of new funding in the last several years. The state plans to hike general-fund spending on education for the fiscal 2000 budget by \$1.6 billion over the previous year to \$26.4 billion, a 6.6% increase. The average spending per pupil will rise to \$6,025, a figure still substantially below the national average of \$7,583.

To alleviate the large disparity between the resources afforded poor and affluent schools, \$96 million will be allocated to help 430 low-performing schools, an additional \$96 million will be used to reward schools that improve on state performance indicators, \$50 million will be spent to help districts raise the minimum teacher salary to \$32,000 for fully certified teachers, and \$50 million will be used to provide bonuses of up to \$25,000 per teacher at low-performing schools where students show academic improvement.

STUDENT OUTCOMES

California has consistently lagged behind the rest of the country in

student achievement. The state ranks near the bottom of states on the National Assessment of Educational Progress (NAEP). Only 20% of California's fourth-grade students were at or above proficient on NAEP in reading, and among poor and minority students only 7% of Black, 8% of Hispanic, and 7% of free/reduced price lunch-eligible students were at or above proficient. Moreover, the state's record on high school completion is poor. One third of its ninth graders in 1993 failed to graduate from high school four years later. The numbers for Black and Latino students are higher; 45% of Black and 46% of Hispanic ninth graders failed to graduate on time, or at all.

Results of statewide achievement testing in Spring 2000 indicate that California is doing an average job of educating fluent-English speaking students, but not nearly as well with the one million English language learners and 1.5 million low-income children. At the fifth grade level, only 9% of English-language learners were above the national average in reading. In math, 52% of all English-fluent eighth graders met or surpassed the national average compared with 15% of ELLs.

CLASS-SIZE REDUCTION AND ENGLISH-ONLY INSTRUCTION

In 1996 California implemented a class size reduction program, reducing class sizes from 30 to 20 in the kindergarten through third grade in public schools. Studies have found that third-grade students enrolled in reduced-size classes performed slightly better than those who were not and that the gains were found across all socioeconomic levels. There has been some criticism of the program, however, because the program prompted the rapid hiring of an additional 28,500 teach-

ers in California, many with little or no experience.

Proposition 227, a ballot measure passed in 1998, requires most bilingual education programs in California to be replaced with one-year English immersion programs. By the end of the first year of implementation, the percentage of ELLs in California schools that were enrolled in bilingual programs dropped from 29% to 12%. There is considerable controversy in the state regarding the outcomes of this legislation; proponents of English-only instruction attribute ELL students gains in some school districts to the legislation while proponents of bilingual education maintain that the gains are due more to reduced class sizes and greater accountability. Furthermore, a study by University of California researchers found that Proposition 227 resulted in many teachers teaching ELLs in English without requisite training and materials.

State Content and Performance Standards

As of 1999, the State Board had adopted state standards by grade-level for language arts, math, science, and history-social science. The state established the 50th percentile as its standard for grade-level performance on the Standardized Testing and Reporting (STAR) test for 1997–98.

School districts and individual schools are required by federal law to provide evaluation and accountability data that indicate specially funded students are learning the district's core curriculum. State laws and regulations also require that a district have results of an annual evaluation which demonstrates that each of its participating schools is implementing consolidated programs which are effective under criteria established by the local governing board. Furthermore, districts must also assemble individual and group data to show that ELLs are acquiring English proficiency and progressing in the district's core curriculum at a

rate that will enable them to meet grade level academic standards within a reasonable period of time.

The CDE also strongly encourages districts to establish a standards-based evaluation system. The state indicates that the standards adopted for ELLs and former ELLs and immigrant students in the core subjects should be the same standards as those required for mainstream students. ELLs are expected to receive English language development until they are redesignated as fluent in English.

Assessment

State legislation requiring mandatory assessment began in the 1998–99 school year. Districts are required to use the STAR test—Stanford-9, Form T—for state accountability purposes. Students in grades 2–8 must be tested in the basic skills of reading, spelling, written expression, and mathematics. Students in grades 9–11 must be tested in reading, writing, math, history, social science, and science.

The SAT-9 test has been augmented so that language arts and math items on each grade-level test are aligned with state standards. An assessment that requires each student to write on a specified topic will be administered in grades 4 and 7 in Spring 2001 as part of the California Standards Test (STAR augmentation). The California Standards Test in history/social science will be administered for the first time in Spring 2001 in grades 9 through 11. California Standards Tests in science in grades 9 and 11 will be administered for the first time in Spring 2001. In addition, all students will continue to take the Stanford 9 test in science appropriate to grade level enrollment.

Legislation passed in 1999 requires that the state implement a high school exit examination beginning in the 2000–2001 school year. Each pupil is required to take the high school exit exam in grade

10 beginning in the 2001–2002 school year and may take the examination during each subsequent administration, until each section has been passed.

The State Board of Education has approved a long-term plan for the state testing program that should lead to a more coordinated and efficient assessment system. The plan envisions a “completed” state assessment system by 2002–2003 and describes a timeline for the development of the system.

ENGLISH LANGUAGE LEARNERS

In addition to taking the designated test in English (the Stanford-9), ELLs who are enrolled in California public schools less than 12 months must also take a test in their primary language if one is available. The Department's Standards, Curriculum, and Assessment Division is in the process of responding to a recent California law that requires the identification or development of an English language development Standardized Testing and Reporting test to assess English learners' language proficiency in listening, reading, speaking, and writing.

The CDE guidance further suggests that, whenever possible, assessments of subject matter areas such as mathematics, science, social science, health, and other courses required for grade-level promotion should be administered to ELLs in the language in which they are best able to demonstrate their knowledge of the subject matter.

STATE VERSUS LOCAL ASSESSMENTS

For their local accountability system, districts are encouraged to use multiple measures in reading/language arts and in mathematics for all students. Thus, while state-level accountability for 1999–2000 was based on the SAT-9 only, the State Superintendent of Instruction strongly encourages districts to continue to develop and organize

local standards-based accountability systems.

The U.S. Department of Education has informed the CDE that the state's assessment program may not be in compliance with Title I requirements for final assessments. Key requirements in the federal law that must be met by California education officials by the 2000–2001 school year include uniform statewide policies to ensure full inclusion of all students in assessments, disaggregation of assessment results by major racial and ethnic groups as well as migrant status, and compliance with Title I's requirement for the use of multiple measures.

Accountability

The Public Schools Accountability Act (PSAA) of 1999 has three main components: the Academic Performance Index (API), the Immediate Intervention/Underperforming Schools Program (II/USP), and the Governor's Performance Award (GPA) program. The law requires that test results constitute at least 60% of the API.

Schools receiving an API score between 200 and 1000 are ranked in 10 categories of equal size (deciles) from one (lowest) to 10 (highest). A school's API score and ranking are compared to schools statewide and to schools with similar demographic characteristics. An API score of 800 will serve as the interim growth target for all schools until state performance standards are adopted. Growth targets are set for each significant ethnic subgroup and the school as a whole. The annual growth target for a school is 5% of the distance between a school's API and the interim statewide performance target of 800.

An intervention program was developed for the 430 schools scoring in the lower half of the statewide distribution in 1998 and 1999. Schools that meet or exceed growth targets will be eligible for monetary and non-monetary awards. For the 2000–2001

school year, \$21.5 million is available to support a second group of 430 schools that did not meet their 1999–2000 growth targets. Schools already in II/USP that continue to fall below their targets or do not show significant growth may be subject to local interventions or eventually to state sanctions.

ALIGNMENT WITH TITLE I ACCOUNTABILITY

The CDE reports it is working to align state and federal requirements into a single state accountability system. In general the state expects that a Program Improvement School will be a Title I school that is low-performing on the API. In the future, the state expects that the API will include multiple measures of student performance aligned with California's performance standards.

During the 1999–2000 cycle for identifying Program Improvement schools, Title I schools ranked in the lowest decile on the API were in Program Improvement. Title I schools in the second decile on the API were candidates for Program Improvement and might be subject to further review based on local accountability data. Beginning in 2000–2001, Title I schools will be identified for program improvement when they have failed to make adequate yearly progress for two consecutive years.

Conclusion

Notwithstanding recent progress, California still has a long way to go before it is in full compliance with federal requirements. The state has yet to:

- demonstrate that the statewide test (the SAT-9) is aligned with state content and performance standards. This is important because California has chosen to use a nationally norm-referenced multiple-choice test as the centerpiece of its new school accountability program.
- develop valid and reliable multiple measures of student perfor-

mance. The current statewide standards for determining "adequate yearly progress" are based solely on the schools' SAT-9 scores and do not yet incorporate multiple measures of student performance required by Title I.

- provide for appropriate inclusion of ELLs in the assessment and accountability program. At present, ELLs are assessed largely by the SAT-9 in English even though state law requires students to be tested in the language in which they are most likely to yield accurate and reliable information on their skills and knowledge.
- provide the resources, capacity-building, and other assistance to schools and districts to ensure that all students have the opportunity to learn and to achieve high standards. In particular, class size reduction reforms have left many children in high-poverty schools without fully qualified teachers or adequate classroom space.

California's plans for the final Title I assessments for accountability purposes are pending before the U.S. Department of Education for approval, conditional approval, or rejection. The law requires these measures to be in place in the current 2000–2001 school year and to apply to assessments administered in the spring of 2001. There is reason to doubt whether the corrections and improvements needed to come into compliance with federal law can be made in time to satisfy statutory deadlines. Both state and federal education officials are challenged to devise a compliance and implementation plan for California that will make good on the promise of the new Title I to ensure that all students reap the benefits of standards-based reform. ❧