DOCUMENT RESUME

ED 383 816 UD 030 488

TITLE	Chapter 1 Successful Schools. Pilot Project Report. 1993-94.
INSTITUTION	Florida State Dept. of Education, Tallahassee.
PUB DATE	94
NOTE	36p.; For related technical papers, see UD 030 487.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Academic Achievement; *Compensatory Education; *Cooperation; *Educationally Disadvantaged; Elementary Secondary Education; Federal Aid; Instructional Leadership; Low Income Groups; Parent Attitudes; *Pilot Projects; Poverty; Program Evaluation; School District Wealth; *School Effectiveness; School Safety
IDENTIFIERS	*Education Consolidation Improvement Act Chapter 1; *Florida

ABSTRACT

The Florida Successful Schools Project, a collaborative effort of the State Department of Education, school district Chapter 1 programs, and the Technical Assistance Centers in Atlanta, is designed to help the Florida schools that face the greatest challenges in helping students achieve in a safe and orderly environment. This report covers the first year of the project, which focused on three research perspectives: (1) a data base analysis of information about the schools; (2) staff and parent surveys based on effective school correlates; and (3) on-site observations and interviews. It found that schools with high concentrations of students from low-income families face tremendous challenges in meeting state educational goals for student performance, learning environment, and school safety. Nevertheless, some high poverty schools do better than state averages. These schools are characterized by higher student achievement, fewer minority students, more support staff, and lower suspension rates. The effective school correlates that provide the greatest contrasts between high and low achieving schools are safe and orderly learning environment, instructional leadership, and high expectations for students. Nineteen graphs and one figure present information about Florida schools. A separate document contains supporting technical papers. (Contains 22 references.) (SLD)

Chapter 1

Pilot Project Report

1993-94

Chapter 1

Successful Schools

Pilot Project Report

Executive Summary

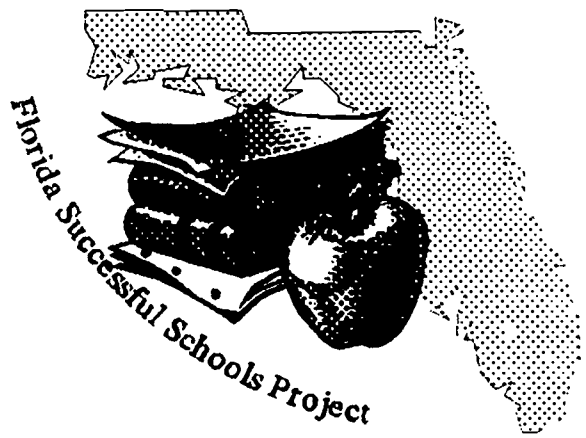
Part of the vision of Blueprint 2000 is that **all** schools will enable their students to achieve at the highest levels in a safe and orderly environment. The Florida Successful Schools project, a collaborative effort of staff from district Chapter 1 programs, the Department of Education, and the Technical Assistance Centers in Atlanta, is specifically designed for those schools that face the **greatest challenge** in realizing that vision.

The project began in September 1993, and is aimed at:

Identifying characteristics that distinguish schools that exceed state averages on a majority of reading, math and writing assessments and also have 65% or more of their students receiving Free or Reduced Price meals;

Sharing research findings that will support school improvement, especially in areas that have large numbers of children from low-income families; and

Developing training and technical assistance strategies for schools that are operating or plan to operate Chapter 1 Schoolwide projects.

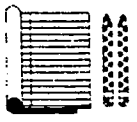


This report covers the first year of the project which focused on three research perspectives: a data base analysis, using Florida School Reports and related information; staff and parent surveys based on effective school correlates; and on-site observations and interviews. Highlights of the findings from these three areas are:

Schools with high concentrations of students from low-income families face tremendous challenges in meeting state education goals for student performance, learning environment, and school safety.

Despite the odds against them, some high poverty schools actually do better than state averages and even better than some low poverty schools.

Attributes such as promotion, attendance, Limited English Proficiency, mobility, class size, regular program expenditures, or teachers with advanced degrees do not distinguish successful high poverty schools from similar, but lower achieving schools.



The successful schools are distinguishable in terms of having higher student achievement, fewer minority students, more support staff, and lower suspension rates.

Staff surveys describe three effective school correlates that provide the greatest contrast between higher and lower achieving schools: Safe and Orderly Learning Environment, Instructional Leadership and High Expectations for students.

Results of parent surveys show that the only questions that clearly distinguish between higher and lower achieving schools have to do with safety and discipline.

On-site observations and interviews reveal only a few distinguishing features between higher and lower achieving schools primarily in leadership styles and focus of the school's mission.

The Florida Successful Schools study contributes to our existing knowledge base by confirming some relationships between positive school conditions and student achievement. However, what may work for successful, high poverty schools may not work for all high poverty schools. This preliminary study suggests that educators need to continue exploring methodologies and characteristics of successful schools that can be identified and transferred to other high poverty schools.

Successful Schools

Produced by
Chapter 1 Evaluation Advisory Panel and
Management and Evaluation Services Section

Overview

What is the Florida Successful Schools project?

The Successful Schools project is a research and development effort aimed at:

- Identifying characteristics that distinguish **successful,** ***high poverty***[1] elementary schools;
- Sharing research findings that will support school improvement, especially in areas that have large numbers of children from low-income families; and
- Developing training and technical assistance strategies for schools that are operating (or plan to operate) Chapter 1 Schoolwide projects.

How does the Successful Schools project fit in with Blueprint 2000?

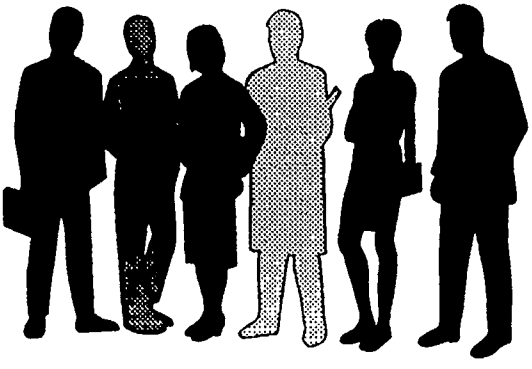
Part of the vision of Blueprint 2000 is that all schools will enable their students to achieve at the highest levels in a safe and orderly environment. The Successful Schools project is specifically designed for those schools that face the **greatest challenge** in realizing the vision of Blueprint 2000 and whose success is absolutely critical to statewide reform in Florida.

In support of Blueprint 2000, the Successful Schools project seeks to:

- Better utilize the vast information resources of the Florida education data base for research, needs assessment, planning and evaluation to assist school improvement activities and
- Facilitate technical assistance linkages between high achieving, high poverty schools and similar schools that want (or need) extra help in raising the achievement level of their students.

Who is involved in the Successful Schools project?

The Successful Schools project is a collaborative effort, consisting mainly of district Chapter 1 evaluators and program managers, Department of Education staff, and resource personnel from the Technical Assistance Centers in Atlanta, Georgia. At the present time there are about 40 people, representing over 20 Florida school districts, who are actively engaged in the research and development aspect of this project. They have contributed their time and expertise to get the project started. Expenses have been covered so far by existing budgets, mainly from Chapter 1 sources. Most of the 40 individuals involved in the Successful Schools project are part of an on-going Evaluation Advisory Panel for Chapter 1.



[1] **"Successful, high poverty schools" in this report refers to schools that exceed state averages on a majority of reading, and writing assessments and also have 65% or more of students receiving Free or Reduced Priced meals.**

How far along is the Successful Schools project?

This report covers the **initial pilot phase** of the Successful Schools project, which began in September, 1993. The specific objectives of the pilot included:

- Analyzing data from the 1992-93 Florida School Reports and related sources to understand the impact of poverty on elementary schools, as well as conditions associated with higher achievement in schools that serve large numbers of children from low-income families;

- Adapting and field testing staff and parent survey instruments that were based on previous, "effective" schools research; and

- Visiting a sample of high poverty schools to observe and interview staff to enrich self-reported paper and pencil survey data.

What are the results of the Successful Schools pilot project?

The data base analysis verifies what most people already know or suspect--that schools with high concentrations of students from low-income families struggle against nearly overwhelming odds. It also shows what many people do not know or recognize--that some high poverty schools actually do better than most schools, despite the odds.

The data base analysis looks first at the larger context of all 1,458 Florida elementary schools in 1992-93 for the purpose of examining the impact of poverty on student achievement, school learning environment, student characteristics, and school inputs in general. The results show that despite comparable resources, student achievement in high poverty schools lags far behind what is typical for low and medium poverty schools.

The focus then narrows to the 368 elementary schools that have the highest concentrations of children from low income families. Here, the purpose is to examine conditions that are related to higher achievement among high poverty schools. There is also a special section that features the 29 highest achieving schools in contrast with an equal number of the lowest achieving schools--all of which were high poverty. A major conclusion is that the Florida School Reports and the data bases upon which they are built can offer clues but cannot definitively point to solutions for raising student achievement. Areas that warrant further consideration are the role of support staff and better utilization of federal funds.

Results from the survey and on-site observation phases narrow the research focus down to the 16 schools that participated in the field-test of instruments and procedures. The purpose here was to determine the **feasibility** of using information in addition to the state data base to expand our knowledge of what works in Florida's high poverty schools.

Preliminary results from the staff surveys indicate that a valid, reliable, and much shorter instrument can be extracted from the original pool of 117 items, covering the seven correlates of "effective" schools (see page 16). Items related to Safe and Orderly climate revealed the greatest difference between high and low achieving schools. Instructional Leadership and High Expectations for student achievement also showed differences.

Parent surveys were also found to be reliable; however, the responses in general, did not clearly distinguish between high and low achieving schools. Rather, parent responses appear to be more related to learning environment. The results also reveal how often parents say they don't know about such important aspects of school reform as the school's purpose, sharing ideas for school improvement, or the activities of parent organizations.

The procedural aspects of on-site visits were analyzed and recommendations made for refinements. All visits were carried out by teams of four staff members, none of whom were from the district where the school was located. Under the leadership of a district person, each team spent one full day interviewing school personnel and casually observing the site.

Results from team debriefings at the end of each visit revealed that: teams describe discipline and leadership in a positive way more often in high achieving schools; staff development is not referred to in low achieving schools; but change is mentioned four times more frequently in low than in high achieving schools.

During the course of on-site visits, over 200 school personnel were interviewed and their comments recorded. Over 250 pages of transcribed notes were taken for later analysis using qualitative methods. Results indicate that overall responses to on-site interviews were not notably different between high and low achieving schools. There were, however, subtle differences detected with regard to Instructional Leadership, School Mission, and Safe and Orderly Environment.

As a result of the pilot project phase, the purpose and activities associated with on-site observations are being reconsidered. Perhaps it would be more profitable to follow up on such school conditions as the role and preparation of support staff, inservice training, resource utilization and student discipline.

The Impact of Poverty on Florida's Elementary Schools

Why look at school poverty?

From a national perspective, poverty remains a roadblock to educational excellence, despite years of concerted efforts to alleviate the effects of poverty and renewed efforts at school reform. A generation after the great "War on Poverty" was declared, the National Assessment of Chapter 1 (1992) indicated that conditions have not improved:

> As poverty among the elderly fell in the 1980's, children became the poorest of all Americans. In 1991, more than 13 million children in the United States--more than one in five--live in families with income below the poverty line (Committee on Ways and Means, 1992). In 1990, 8.6 million school-age children (ages 5-17) were living in poverty (U.S. Department of Labor, 1990).

Recent increases in the number of poor children in Florida were not as high as in many other states, but the overall poverty level remains slightly higher than the national average. According to Hodgkinson (1993):

> The number of children in Florida who are poor increased from 18.5 percent to 19.9 percent during the 1980's, while nationwide this figure increased from 16.0 percent to 19.5 percent.

Coming from a low income background is one thing; attending a high poverty school is quite another. Research studies point out that high concentrations of poor students in schools, not the poverty status of individual students, is the major problem.

How was school poverty determined?

Though far from perfect, one of the most common ways of looking at school poverty is in terms of the percent of students who receive Free or Reduced Priced Lunch. In 1992-93, the percent of elementary students receiving federally subsidized

meals in Florida schools ranged from zero to 99% with 46.7% being the median.

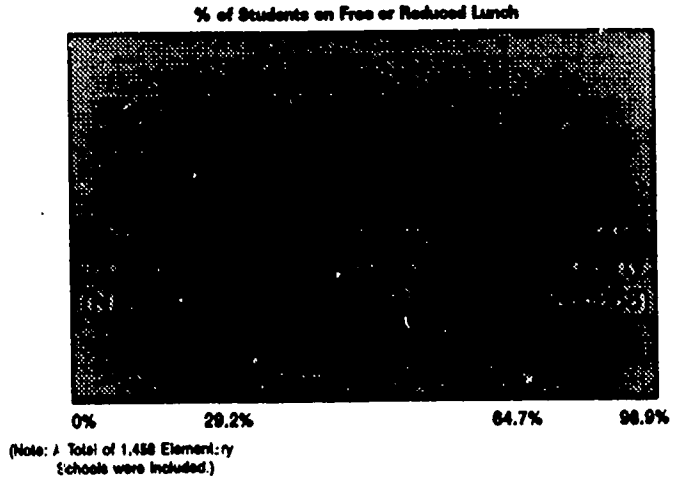
A benchmark study of school poverty (Kennedy, Jung, and Orland, 1986) divided a sample of the nation's schools into low, medium, and high poverty groups according to the percent of students on Free or Reduced Priced Lunch relative to the state average. The same procedure was used for Florida's elementary schools:

- **Low** poverty = schools with poverty concentrations in the lowest quartile in the state. This included the 353 schools that had zero to 29.2% of their students on Free or Reduced Priced Lunch;

- **Medium** poverty = schools with poverty concentrations in the middle two quartiles. There were 737 such schools and the percent of students on Free or Reduced Priced Lunch ranged from 29.3% to 64.7%.

- **High** poverty = schools with poverty concentrations in the upper quartile in the state. Some 368 schools were included in this group and the percent of students on Free or Reduced Priced Lunch ranged from 64.8% to 98.9%.

School Poverty Classification
by Quartile Group



What data were used and what were the sources?

Almost all of the data came directly from the 1992-93 Florida School Reports (Technical Version) that were disseminated to all elementary, middle and high schools in November, 1993. These reports represent school level aggregates from the Florida Department of Education's Student and Staff Data Bases. A total of 20 variables were examined for evidence of significant differences between low, medium and high poverty schools. These 20 variables were organized into four groups.

1. Student Achievement is Goal 3 under Blueprint 2000 and is prominent in the public perception of the quality of education. Though the choice of achievement measures continues to be hotly debated among the major stakeholders in educational reform, the 1992-93 Florida School Reports offered three--reading, math and writing--all of which were for fourth grade students.

2. Learning Environment addresses Blueprint 2000's Goals 4 and 5. Variables in this group reflect on the progress of students' education, opportunity to learn, and a safe and orderly school environment. Data on the following variables were for all students, not just fourth graders: promotion, attendance, and out-of-school suspension.

3. Student Characteristics are important to consider when identifying model programs or linking technical assistance providers. Schools that want or need extra help in their improvement efforts will be more receptive if the sources of model programs or technical assistance share similar features, such as: percent of minority students, percent of Limited English Proficient (LEP) students, and percent of students who change or re-enter a school (mobility rate).

4. School Inputs are the physical, financial and staff resources that schools have to accomplish the job of educating Florida's youth, including: school size, class size, support staff, "Regular" program expenditures (consisting of per pupil expenditures

from general fund sources, plus per pupil expenditures from federal sources), first year teachers, experienced teachers (those with 10 or more years in the profession), teachers with advanced degrees, average teacher salaries, and percent minority teachers.

What limitations apply to the data?

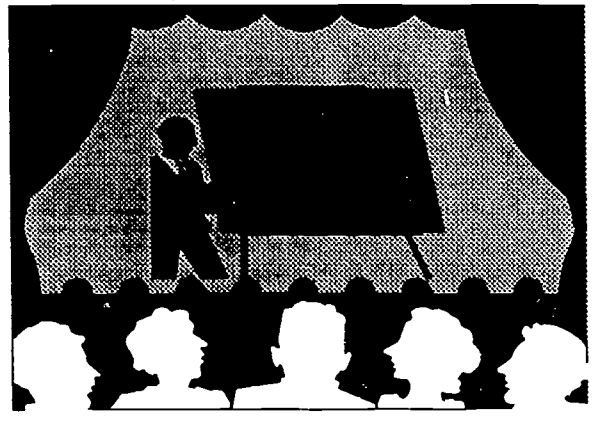
Unlike others, this study of the impact of poverty is not subject to any appreciable amount of sampling error, because all elementary schools in the state during 1992-93 were included. However, there are other limitations that should be considered. Despite extensive efforts to verify School Report data, inaccuracies may exist due to varying degrees of quality control at the state, district, and school levels. Also, not all variables were reported for all schools. Another set of limitations has to do with data definitions, calculation methods and the fact that some detail is lost when data are collapsed for reporting purposes. Further, conclusions are limited to elementary schools only.

What methods were used for analysis?

Most of the data in the Florida School Reports are percentages or rates (e.g., the percent of students scoring above the national median in reading or the school's attendance rate). Other data were converted to percentages for analysis purposes. To cover all 20 variables, the data were considered to be generally ordinal in nature. This means that figures for one school can be compared to another (ranked) in terms of being higher or lower, but the differences are not uniform. For this type of data, median values are probably the most appropriate for what is "average" or typical for all schools, as well as for groups of similar schools.

The impact of poverty on each variable was determined by analyzing the number of low, medium and high poverty schools that were above and below the overall state median. When results were considered statistically significant[2], the analysis went on to estimate practical significance for program managers, principals, teachers or anyone else trying to understand and reduce the impact of poverty on schools. The practical significance of relationships between poverty and school report variables was determined by calculating effect sizes which were in turn classified as small, medium or large in accordance with procedures described by Cohen (1988).

What were the results?



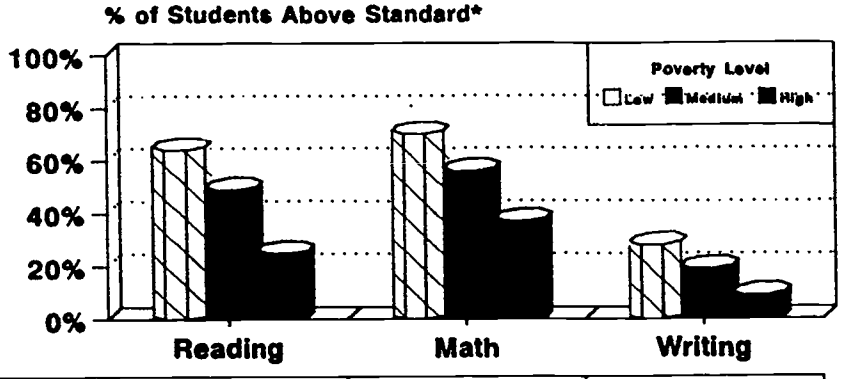
All 20 data base variables showed evidence of a significant relationship with increasing levels of school poverty. For 13 of the variables, the influence of poverty was shown to have considerable practical significance, as well. Effect sizes for five variables were classified as large, four were medium, and four were small. In the following discussion, symbols are used to help distinguish among variables with different effect sizes : ◆ for large, ❖ for medium, ✧ for small, and ▯ for marginal, but statistically significant.

[2]Probability of chance occurrence less than one in 100 ($p<.01$).

Student Achievement

As shown below, analysis of the impact of school poverty on student achievement shows a consistently large, negative relationship as the concentration of students from low-income families increases.

Impact of Poverty on Student Achievement



	Reading	Math	Writing
Low	64%	70%	28%
Medium	49%	56%	19%
High	25%	37%	9%

*Reading & Math: National Median %tile
Writing: 3 or above on *Florida Writes!*

◆ Reading achievement in high poverty schools tends to be far below the overall state median and even further below the performance level of students in low poverty schools. The percent of fourth graders scoring above the national median in high poverty schools was about two and a half times less than in low poverty schools.

◆ Math achievement was also dependent on the poverty level in schools. Students in high poverty schools tended to score lower than the median for the state and much lower than students in low poverty schools. The percent of fourth graders scoring above the national median in high poverty schools was about half that of low poverty schools.

◆ Unlike reading and math achievement that was measured on norm-referenced tests, writing proficiency was determined through an alternative assessment format. In the *Florida Writes!* program, trained raters judged the merits of student compositions against rubrics or standards with scores ranging from zero[3] to six. The percent of students in high poverty schools who scored at or above the midpoint (three[4] or better) was about one-half that of medium poverty and about one-third that of students in low poverty schools.

In summary, when uniform measures are used to gauge student achievement, it is clear that the lowest performing schools will most likely be those with the highest concentrations of students from low income families. Without careful attention to these schools, the influence of poverty may overwhelm the good intentions of school reform.

On the other hand, there were notable exceptions to the general trend of very low achievement among high poverty schools:

Sixty high poverty schools (or about 16%) had reading scores that were **above** the statewide median for all schools. Even more encouraging, 32 high poverty schools (9%) had reading scores above the median for **low** poverty schools.

There were 75 high poverty schools (20%) that had aggregate math scores at or **above** the statewide median; 34 (or 9%) had scores at or above the median for **low** poverty schools.

[3]A zero was assigned to compositions that were unscorable due to students' failure to respond, unintelligible responses, or being completely off the assigned topic.

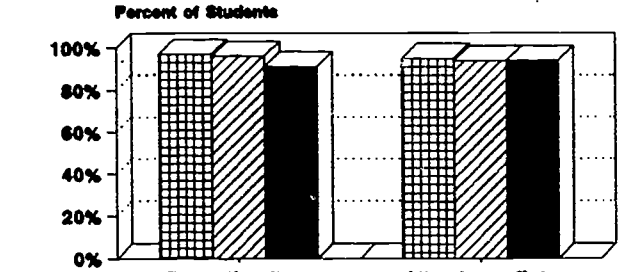
[4]A paper scored 3 generally focuses on the topic but may contain extraneous or loosely related information, exhibits some evidence of an organizational pattern, has little development of supporting ideas, and may contain some errors in spelling and punctuation conventions.

There were 41 high poverty schools (11%) in which writing performance was at or above the state median. Though rare, there were 6 high poverty schools (2%) whose writing scores were above the median for low poverty schools.

Learning Environment

The data below show relationships between poverty and selected indicators of a school's learning environment.

Impact of Poverty on Promotion and Attendance



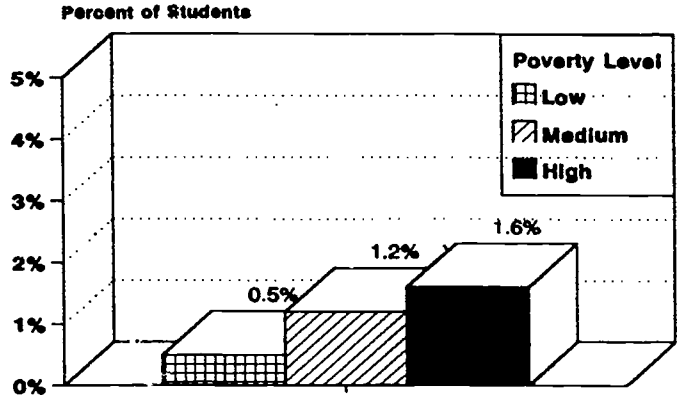
	Promotion Rate	Attendance Rate
Low	97%	95%
Medium	96%	94%
High	91%	94%

❖ As indicated by a medium effect size, a school's promotion rate is somewhat dependent on its poverty level. The median promotion rate in high poverty schools was about five percentage points less than in medium poverty schools and about six percentage points less than in low poverty schools. These results take on even more importance given the fact that fully *81% of all dropouts in 1992-93 were one or more years over age,* meaning they had likely been retained at least once.

❖ Despite extremely small differences in attendance rates[5] among low, medium and high poverty schools, the effect of increasing poverty level was sufficiently consistent to warrant a medium classification.

[5]The relative lack of differences in attendance rates may be a function of how they were calculated in the 1992-93 Florida School Reports. Attendance rates reflected the number of days present divided by the number of days present + number of days absent, regardless of the length of school enrollment.

Impact of Poverty on Suspension Rate



✧ In comparison to promotion and attendance, out-of-school suspension rates were relatively low and are displayed on a different scale so as not to diminish their importance. The data above show that out-of-school suspensions are at least partially dependent on school poverty level. In high poverty schools the median suspension rate was over three times higher than in low poverty schools.

While not as dramatic as student achievement, variables that reflect a school's learning environment do have a bearing on the quality of education available to students in Florida. Schools which serve a high proportion of poor students have lower promotion and higher out-of-school suspension rates. Attendance rates were also lower in high poverty schools, but differences were minimal.

Among high poverty schools there were notable exceptions to the general trend:

Seventy-two high poverty schools (20%) had promotion rates equal to or **higher** than the statewide median and 34 (or 9%) had promotion rates that were the same or better than in low poverty schools.

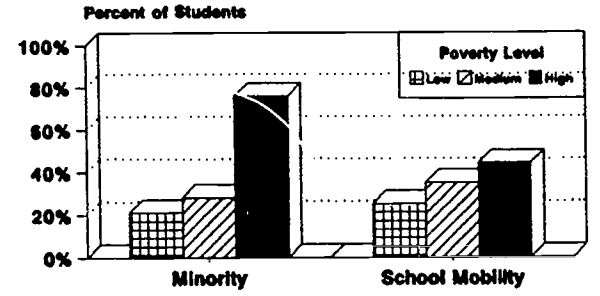
Many high poverty schools had relatively low suspension rates: 138 (or about 38%) had rates equal to or **lower** than the state median, and 96

(or 26%) had rates equal to or lower than the median for low poverty schools.

Student Characteristics

Student characteristics which are unique to high poverty schools need to be considered for at least two reasons. First, it is important to understand the school clientele who are affected in high poverty schools. Second, such knowledge can facilitate the establishment of viable technical assistance linkages between successful and lower achieving schools.

Impact of Poverty on Student Characteristics



	Minority	School Mobility
Low	21%	25%
Medium	28%	35%
High	76%	44%

◆ The data above reveal a very strong relationship between the proportion of minority[6] students in a school and its poverty level. While the percent of minority students across the state converts to about one in three students (31%), that ratio jumps to over three out of four in high poverty schools. This is in stark contrast to about one in five (21%) minority students in low poverty schools.

❖ The data above also indicate that student mobility[7] is somewhat dependent on school poverty level. The median mobility rate for high poverty schools was nine percentage points higher than for medium poverty schools and 19 percentage points higher than for low poverty schools.

▯ Though statistically significant, the relationship between the percent of Limited English Proficient (LEP) students in a school and its poverty level is weak. Regional differences probably account for more difference among schools than does poverty, hence its negligible effect size.

Analysis of relationships between school poverty levels and selected student characteristics yields mixed results. On the one hand, there is a very strong relationship between high poverty and high minority composition in schools. The relationship between poverty and student mobility was considerable, as well. On the other hand, a negligible effect size was found for the percent of Limited English Proficient students in low, medium and high poverty schools.

School Inputs

School inputs reflect the adequacy of physical, human and financial resources which schools have at their disposal to meet the high standards for student learning which are expected under Blueprint 2000.

▯ One of the most obvious features about schools is the number of students they serve. While high poverty schools actually tend to be smaller, the practical significance of this finding was minimal.

▯ Probably one of the hotter discussion topics among educators is the importance of smaller, more manageable class sizes[8]; however, only minimal

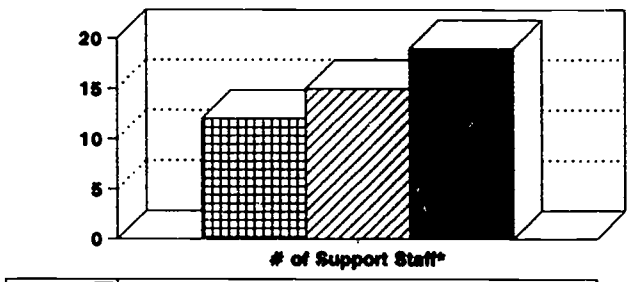
[6]Minority students include Black, Hispanic, Asian or Pacific Islander, and American Indian.

[7]Student mobility rates in the 1992-93 Florida School Reports were derived by comparing enrollment at the beginning of the school year with the combined total of enrollments, reentries and withdrawals occurring during the school year.

[8]In the 1992-93 Florida School Reports, class-size was determined by dividing the unduplicated count of students enrolled in specified courses by the unduplicated count of teachers in those same courses. Also, the following disclaimer appears in the Technical Version. "The average class-size may or may not reflect the actual number of students in a given class. However, this does represent an average number of students within the subject areas or grades indicated."

differences favoring **high**, instead of low or medium poverty schools were found.

Poverty & School Inputs
# of Support Staff



Low	12
Medium	15
High	19

(* per 500 Students)

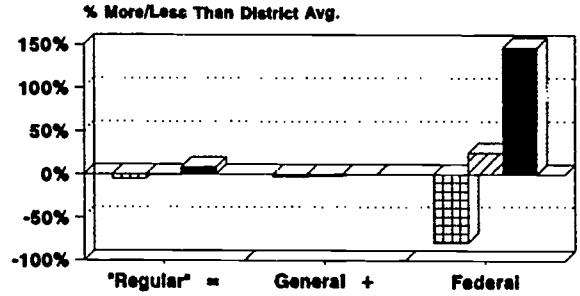
✧ In addition to teachers and administrators, an important ingredient of a school's human resources can be found in its support staff. Beyond a standard complement of clerical, food service, transportation and custodial staff, there can be teachers on special assignment, administrative assistants, health service providers, teacher aides, tutors, computer specialists, resource officers--and many others. The data above show a distinct advantage for high poverty schools in the number of support staff per 500 students. On average, high poverty schools had **four more** support staff than medium poverty schools and **seven more** than low poverty schools. Unfortunately, there was no way to differentiate types of support staff in the Florida School Reports. This is an area that warrants follow-up research in terms of the different kinds of support staff employed in high poverty schools and the extent and nature of their training.

Student Expenditures

Types and amounts of financial resources are among the most important school inputs that can be readily identified. Florida School Reports contain several indicators of resource availability with "Regular Program" expenditures[9] being perhaps the most relevant. Regular program expenditures include two major components: general funds (local and state general revenue) and federal funds (primarily Chapter 1 for elementary schools).

Unfortunately, expenditure data tend to be confounded by differences between school districts, primarily due to variation in local tax base and cost of living. In order to isolate the impact of poverty, the data base analysis looked at the percent more or less that schools spent in relation to their own district's average expenditures.

Poverty & School Inputs
Expenditure Differences



	"Regular" =	General +	Federal
Low	-5%	-3%	-79%
Medium	-1%	-2%	25%
High	8%	-1%	147%

✧ The data above suggest that "regular" expenditures contained in the Florida School Reports are at least somewhat related to the poverty level of schools, but not in the direction one might initially expect. High poverty schools spent about 8% **more** per pupil than their district average and about 13% more than low poverty schools. Thus, contrary to popular notion, insufficient resources do not necessarily characterize schools that serve large numbers of students from low income families. However, the whole story is not revealed by looking simply at "regular program" expenditures; the components need to be examined, as well.

□ Analysis of the general fund component of regular program expenditures indicated a statistically

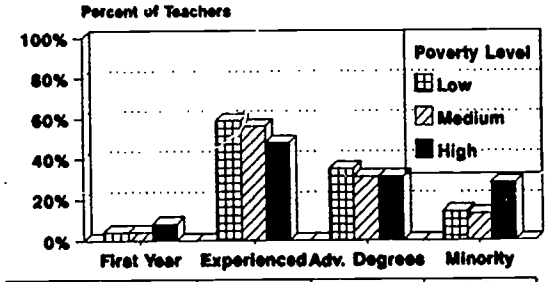
[9]Expenditures include: salaries + benefits + purchased services + materials and supplies + other direct expenses + capital outlay + school indirect cost + district indirect cost.

significant, but minimal relationship with school poverty. Again the data reflected that high poverty schools actually spent about the same as medium and low poverty schools.

◆ The graph on the previous page reveals relatively large differences in federal fund expenditures that favor high poverty schools by about one and one-half times their district average and about six times that of medium poverty schools. Low poverty schools spent about 80% less than their district average. This finding would suggest that Chapter 1 funds in Florida are generally concentrated where there are large numbers of children from low income families, as intended by federal legislation. The fact that a large effect size is associated with this variable is even more persuasive.

Teacher Characteristics

Poverty & School Inputs
Teacher Experience/Characteristics



Low	4%	59%	35%	14%
Medium	4%	56%	31%	13%
High	8%	48%	31%	28%

✧ The proportion of first year teachers in a school reflects the lowest level of instructional experience among a school's certified staff. The data above show a significant, but relatively small relationship between the percent of first year teachers and school poverty level. However, closer examination reveals that the median percent of first year teachers in high poverty schools was about **double** what was found in both low and medium poverty schools.

▯ The proportion of teachers in a school who have at least ten years' experience is another variable that can influence the quality of instruction available in a school. However, a statistically significant, but only minimal relationship between teacher experience and school poverty level was found. As expected, high poverty schools are in fact staffed by proportionately **fewer** experienced teachers, primarily because they have more first year teachers.

▯ The proportion of teachers with advanced degrees is indicative of the relative level of training that teachers have in a particular school. While the differences among high, medium, and low poverty schools were statistically significant, the effect size was marginal for this variable.

▯ Differences in teacher salaries among low, medium and high poverty schools can also be viewed as an indirect reflection of how resources are expended to provide the quality of instruction necessary for attainment of high student performance. However, when analyzed as a percent of average salaries within a district, differences between low, medium and high poverty schools were minimal.

❖ What about the characteristics of instructional staff? The data in the chart to the left show that the proportion of minority teachers in a school is somewhat dependent on its poverty level. It can be seen that the percent of minority teachers in high poverty schools was **much higher** than the state average and nearly double the figure for low poverty schools. As well, this variable had the second largest effect size of all twelve input variables examined. This finding is related to the fact that high poverty schools also tend to have large numbers of minority students.

What conclusions can be drawn about the impact of poverty on elementary schools?

Clearly, increasing levels of poverty extract the greatest toll on student achievement. In this study, all three indicators of aggregate school achievement (reading, math, and writing) showed evidence of a large, negative relationship as poverty levels increased.

To a lesser degree, school poverty also has a debilitating effect on a school's learning

environment--promotion rates in high poverty schools are lower and suspension rates are higher as compared to schools with moderate or low numbers of poor children in membership.

Schools that have high concentrations of students from low income families tend to have relatively high proportions of minority students. Their students also tend to change schools more frequently than others.

Contrary to what might be expected, high poverty schools actually have **more** money to spend on students than lower poverty schools in the same district. There is a slight advantage in favor of high poverty schools with regard to pupil expenditures from general fund sources and a huge advantage in federal funds.

While high poverty schools tend to have more support service personnel to help in the task of educating disadvantaged students, they also tend to have more inexperienced, first year teachers and correspondingly fewer experienced teachers. Just as high poverty schools tend to have more minority students, they also have more minority teachers.

Lest this summary of findings paint too dismal a portrait of high poverty schools, it needs to be re-emphasized that numerous exceptions were found: 16% of high poverty schools had reading scores **higher** than state averages; 20% had **higher** math scores; 11% had **better** writing scores; 20% had **better** promotion rates and 38% had **lower** suspension rates. These findings suggest that roughly one fifth of all high poverty schools actually did quite well despite the great challenges they faced.

Clearly, these exceptions suggest something good is happening in **some** high poverty schools. But what? Can the school reports or related data point the way to improved achievement?

CONDITIONS RELATED TO STUDENT ACHIEVEMENT IN HIGH POVERTY SCHOOLS

How is this part of the report different?

The purpose of this section of the report is to narrow the focus of research to those schools that are of greatest interest to Chapter 1 program managers and which probably represent the greatest challenge in realizing the goals of Blueprint 2000. Instead of looking at all 1,458 elementary schools in Florida, the research context was limited to the 368 schools classified as high poverty. Also, the study emphasis was shifted from the general impact of poverty to specific conditions that are related to student achievement.

Were different methods used?

The statistical methods were the same; however, the data were categorized in a different way. Since raising achievement was of greatest interest, reading, math and writing achievement for each of the 368 schools were categorized as being either above or below the median for all high poverty schools. Student characteristics and school inputs were also categorized as being above or below the median for high poverty schools[10]. The objective was to find conditions associated with higher achievement levels in hopes they would point to specific areas for improvement efforts.

As results are presented, the following symbols are used to designate large ◆ , medium ❖ , small ✧ , and marginal, but statistically significant effect sizes □.

[10]While raising the achievement level of high poverty schools above their group median may not represent a standard of excellence, it does represent a standard of progress. The objective was to find conditions associated with higher achievement in hopes of targeting specific areas for improvement efforts.

What were the results for reading?

The results from this part of the study indicate that the percent of schools whose students scored above the median reading level for all high poverty schools **increased** ⇧ when:

- ◆ The percent of minority students was lower ⇩
- ◆ The percent of students on Free or Reduced Priced Lunch was lower ⇩
- ❖ The percent of minority teachers in the school was lower ⇩
- ❖ Differences between school and district expenditures of federal (Chapter 1) funds were smaller ⇩
- ✧ The number of support staff (per 500 students) was higher ⇧
- ✧ The percent of Limited English Proficient students was lower ⇩

Relationships between reading achievement and the following conditions were also statistically significant; however, their effect sizes were marginal: promotion rate, percent of first year teachers, and number of students enrolled in the school.

It is also important to note that the following variables were **not** significantly related to reading achievement in high poverty schools: attendance rate, suspension rate, mobility, class size, "Regular" program expenditures and its general fund component, percent of experienced teachers in the school, percent of teachers with advanced degrees or average teacher salaries at the school.

What were the results for math achievement?

The results suggested that math achievement in high poverty schools increased ⇧ when:

- ❖ Differences between school and district expenditures of federal funds were smaller ⇩
- ✧ The percent of students on Free or Reduced Priced Lunch was lower ⇩
- ✧ The percent of minority students in the school was lower ⇩

The relationships between math achievement and the following conditions were statistically significant; however, their effect sizes were marginal: percent of minority teachers, differences in "Regular" program expenditures, and suspension rate. No other database variables were significantly related to math achievement.

What were the results for writing performance?

There were only two conditions that showed evidence of even a small effect. Writing performance increased ⇧ when:

- ✧ The percent of students on Free or Reduced Priced Lunch decreased ⇩
- ✧ Differences in federal expenditures were smaller ⇩

There were a few other variables which exhibited statistically significant, but very small effect sizes: average teacher salaries and the percent of minority students. No other data base variables exhibited significant relationships with writing achievement in high poverty schools.

Were there conditions that seem to affect learning environment in high poverty schools?

There were **no** variables examined that showed even a small effect on promotion, attendance or suspension rates among high poverty schools.

What conclusions can be drawn?

Looking at the relationship of data base variables across achievement measures, the percent of students on Free or Reduced Priced Lunch has one of the strongest set of relationships. This finding is particularly interesting since **all** of the schools in the analysis were already classified as high poverty. Yet when the percent of students on Free or Reduced

Priced Lunch was above the median (79%), achievement was lower. This suggests that the effect of increasing poverty concentration does not level out; it remains a potent influence even in "high poverty" schools. While program managers have little control over school poverty, it is something that should be brought to the attention of policy makers in charge of school zoning and transfers.

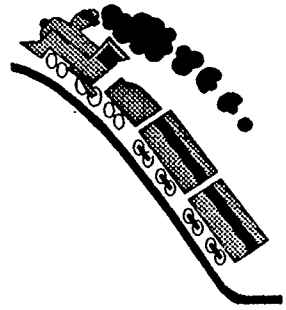
Federal expenditures is another variable that stands out from the list of conditions that are related to school achievement. This factor had a moderately strong relationship with reading and math and a smaller one with writing. However, the direction of the relationship is opposite of what one might wish. As the difference between a school's expenditure of federal funds versus the district average **increases**, reading, math and writing achievement appear to **decrease**. These data have implications for Chapter 1 Schoolwide projects, where extra resources are concentrated in high poverty schools. The pattern of negative returns argues that money alone cannot overcome obstacles to improved achievement associated with large numbers of students from low-income families. Further questions need to be addressed: How are Schoolwide Project funds coordinated with school improvement plans as required under Blueprint 2000? To what extent are these projects based on the specific **academic** needs of students?

The percent of minority students was strongly related to reading, but had a much smaller relationship with math. Also, the percent of minority teachers in a school exhibited a moderate relationship with reading. As previously noted, the percent of minority teachers tends to be directly related to the percent of minority students in schools.

The number of support staff per 500 students appears to have a positive, though small, influence on reading achievement. As mentioned before, this is a variable that warrants extended investigation, because it is not clear what kinds of support staff are involved in promoting achievement or how they are utilized.

From a different perspective, it is informative to examine which conditions **are not** related to achievement outcomes. Surprisingly, mobility was not significantly related to any of the three achievement measures, though it is often cited as a reason for poor achievement. It is also interesting that the general fund component of "Regular" program expenditures did not show evidence of a significant relationship with any of the three achievement measures. Just the opposite was true for federal expenditures.

AGAINST ALL ODDS: SUCCESSFUL, HIGH POVERTY SCHOOLS



This part of the report represents yet another narrowing of research perspective, down from all high poverty elementary schools (n=368) to a smaller subset of those same schools (n=58) that represents the extreme ends of an achievement continuum--the highest and lowest achieving. The purpose here is to capitalize on a spin-off of the research previously reported--that some high poverty schools actually did quite well, despite overwhelming odds.

What methods were used to identify and study "successful", high poverty schools?

High poverty schools which exceeded overall **state** medians in at least two out of three achievement areas (reading, math, or writing) were identified as successful. Included in this group were 29 schools, located in 20 of Florida's 67 districts, whose students did better than most other schools in the state, even though their high poverty status would predict the reverse. This was the "successful" schools group.

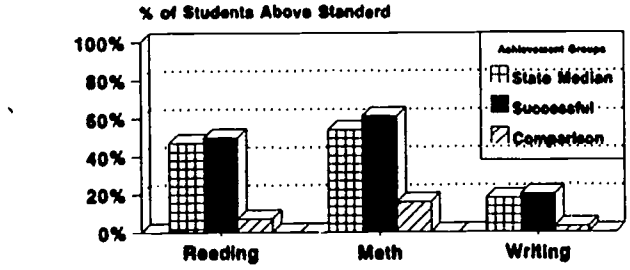
By way of contrast, lower achieving schools were defined as ones which fell below the median for high poverty schools on at least two out of three subject areas. On this basis, there was a total of 160 schools (43%) that needed extra assistance. In order to have equal size groups and to present the sharpest contrast against "successful" schools, 29 of the lowest achieving were subsequently identified. This was the "comparison" schools group.

Together, the two subgroups consisted of 58 out of 368 (or 16%) of those schools which had the highest concentrations of students from low income families. Combined, the median percent of students on Free or Reduced Priced Lunch was 80%, which is above the eligibility cutoff (75%) for Chapter 1 Schoolwide projects. Incidentally, seventeen of the 58 schools (35%) actually were operating Schoolwide projects at the time of the study; of these, only three were in the successful school group. There were fourteen Schoolwide Projects in the comparison group.

As results are presented, differences between successful and comparison schools are shown relative to medians for all elementary schools in the state (n=1,458). While exceeding the state averages may not represent the very highest of goals envisioned by Blueprint 2000, it is a remarkable accomplishment for high poverty schools.

What were the differences between "successful" and "comparison" schools?

Successful, High Poverty Schools
Student Achievement

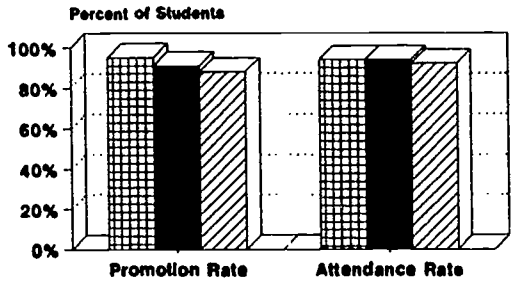


	Reading	Math	Writing
State Median	47%	54%	18%
Successful	50%	61%	20%
Comparison	7%	16%	3%

The preceding figure provides graphic evidence that the 29 successful and 29 comparison schools were worlds apart with regard to student achievement. Students in the successful schools group **scored higher** than statewide medians in all subject areas--reading, math, and writing. They also scored **dramatically higher** than students in comparison schools.

The figure below shows that differences on variables that reflect learning environment were not as pronounced as those that deal directly with achievement. In general, promotion and attendance rates in successful, high poverty schools were lower than overall state figures and higher than comparison schools.

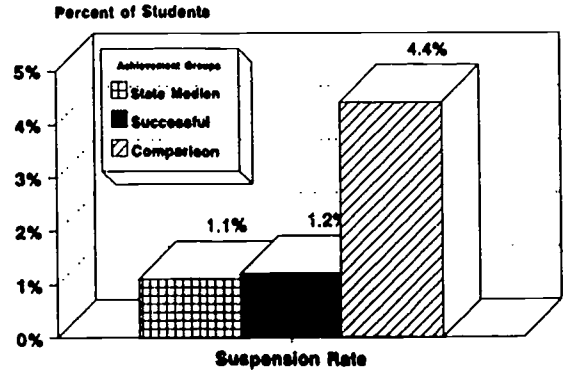
Successful, High Poverty Schools
Learning Environment



	Promotion Rate	Attendance Rate
State Median	95%	94%
Successful	91%	94%
Comparison	88%	92%

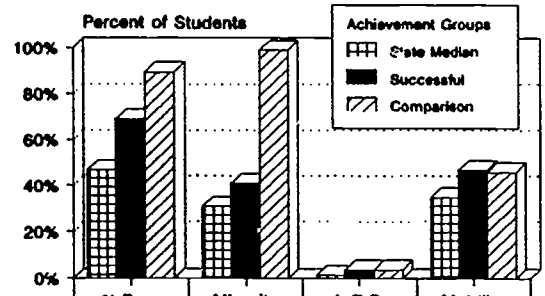
Using a different scale, the figure below shows that successful schools had a much lower out-of-school suspension rate than comparison schools.

Successful, High Poverty Schools
Suspensions



As shown below, high and low achieving schools varied somewhat on one key variable and greatly on another.

Successful, High Poverty Schools
Student Characteristics

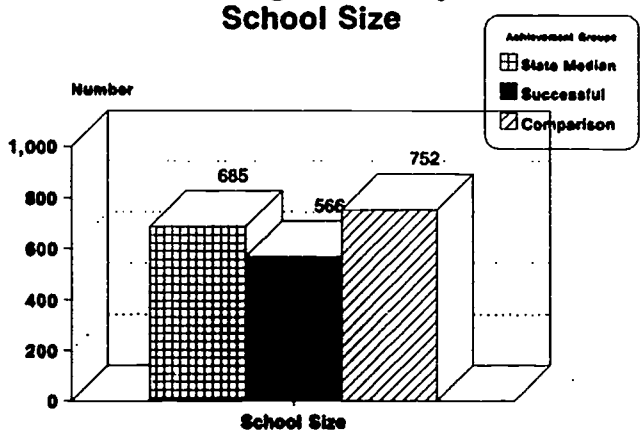


	% Poor	Minority	L.E.P.	Mobility
State Median	47%	31%	1.3%	35%
Successful	69%	41%	3.7%	47%
Comparison	89%	99%	3.7%	46%

Successful schools averaged about twelve percentage points lower than comparison schools on the number of students from low income families, but still about 20 percentage points more than the state median. Successful high poverty schools had more minority students than the statewide median, but fewer than their lower achieving counterparts. There was virtually no difference with regard to percent of LEP students or mobility rates.

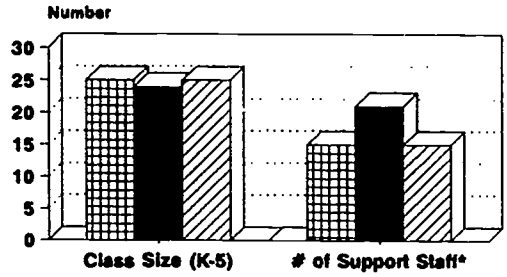
The following figures show information about school inputs in successful and lower achieving schools.

Successful, High Poverty Schools
School Size



Successful schools tended to be about 100 students **smaller** than the state median and almost 200 smaller than the median for low achieving schools.

Successful, High Poverty Schools
Staff Ratios

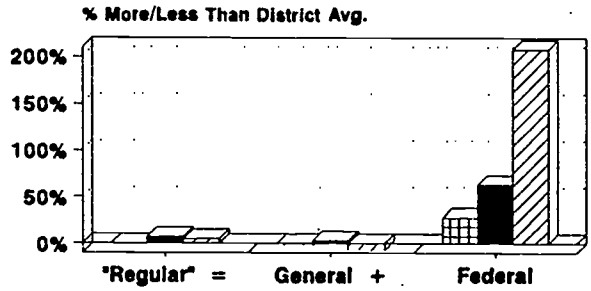


	Class Size (K-5)	# of Support Staff*
State Median	25	15
Successful	24	21
Comparison	25	15

(* per 500 Students)

Class-sizes in high achieving schools were slightly smaller than in the comparison schools, which had about the same as the statewide average. There was a big difference in relative numbers of support staff that favored high versus low achieving schools--about six staff members more per 500 students.

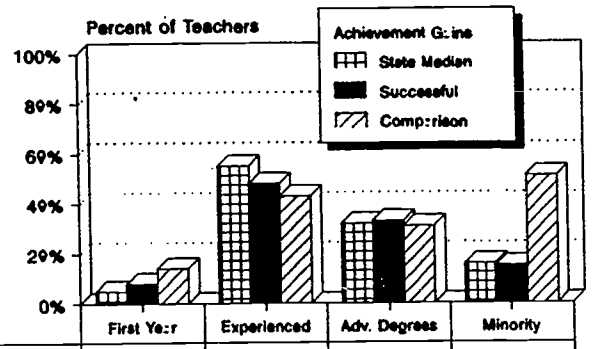
Successful, High Poverty Schools
Expenditure Differences



	"Regular" =	General +	Federal
State Median	0%	-2%	28%
Successful	7%	3%	63%
Comparison	5%	-7%	208%

The figure above shows the percent more or less that schools spent than their respective district averages. There was very little apparent difference in "regular" fund expenditures between successful and comparison schools, both spent a little more than their districts' average. However, when fund sources were broken out, it was found that successful schools spent about 10% **more** per pupil in general funds, but about one and half times **less** in federal funds.

Successful, High Poverty Schools
Teacher Experience/Characteristics



	First Year	Experienced	Adv. Degrees	Minority
State Median	5%	55%	32%	16%
Successful	8%	48%	33%	15%
Comparison	14%	43%	31%	51%

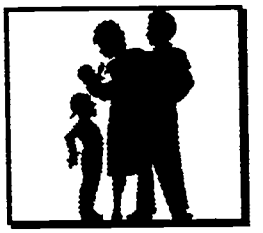
The preceding graph looks at differences in teacher experience and training: the percent of first year teachers in both groups was higher than the state average, but was most pronounced (almost double) among comparison schools. Successful schools had a larger percentage of experienced teachers than comparison schools, but both groups were considerably below the state median for all elementary schools. Similarly, the proportion of teachers with advanced degrees was a little higher in successful schools, even higher than the state median. Successful schools had about the same proportion of minority teachers as the state median, but **less than one-third** the proportion found in comparison schools.

What conclusions can be drawn from these comparisons of "successful" versus lower achieving schools?

First, there is compelling evidence in the Florida School Reports that some high poverty schools do extremely well at promoting high levels of student achievement. On the other hand there is a relatively large number of high poverty schools that are not doing well and some that are in dire need of improvement. However, successful and comparison school groups were not distinguishable on such measures as promotion and attendance rates, percent of LEP students, mobility, class size, "regular" program expenditures, or teachers with advanced degrees.

Successful schools were clearly distinguished from their lower achieving comparison group by having fewer minority students/fewer minority teachers, more support staff and lower suspension rates. Successful schools were somewhat distinguished from comparison schools by smaller numbers of students on Free or Reduced Priced Lunch, smaller total number of students, more general funds/fewer federal funds, fewer first year teachers/more experienced teachers, and slightly higher teacher salaries.

STAFF AND PARENT SURVEYS



So far, the emphasis has been on information available through the Florida School Reports, which has been shown to reflect conditions that exist in schools, but not where to target improvement efforts. The next phase of research explored staff and parent surveys as an alternative source of information.

How were the survey instruments developed?

The research team turned first to current literature on "effective" schools and located existing instruments that had been used in San Diego[11]. A great deal of effort was spent reviewing and adapting an instrument that would be suitable for Florida elementary schools, especially those serving large numbers of poor students. It was decided that the survey should ask about school conditions that can be tied directly to seven correlates of "effective" schools, as follows:

Clear School Mission: There is a clearly stated mission that focuses on academics.

[11]San Diego County Office of Education (September, 1989)

Frequent Monitoring: There are regular assessments of student progress and the effectiveness of school programs.

Safe and Orderly Learning Environment: The school is safe and the students conduct themselves in an orderly manner with all parties engaged in purposeful activities that are learning related.

High Expectations: The school operates on the belief that all students can learn the basic and higher order skills that are a part of the school curriculum.

Opportunity to Learn and Time on Task: The school regards learning time as a critical resource and manages it well through classroom procedures and interactive learning.

Instructional Leadership: Principals demonstrate strong leadership, especially in the areas of curriculum and instruction, and they are able to share leadership by involving other staff members in leadership activities and positions.

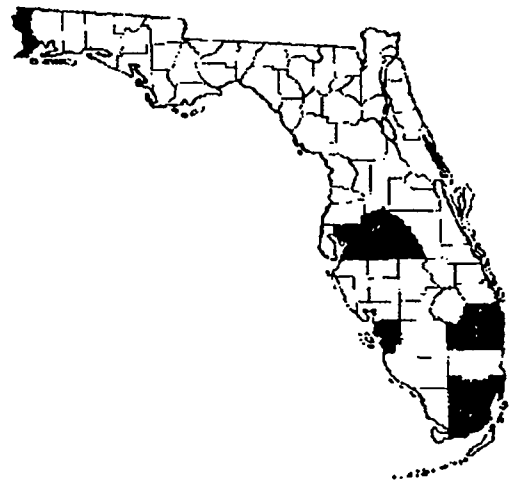
Home-School-Community Relations: Parents and the community understand and actively support the purpose of the school and are treated as partners in their children's education.

The field-test version of the staff survey had 117 questions aimed at teachers, principals and paraprofessionals. It was known in advance that fewer questions would make the survey easier to use and better received. Therefore, one goal of the field-test was to reduce the number of survey questions and maintain reliability.

A parent survey was also developed for field-testing. This was a 23 item survey that was based mainly on the Home-School-Community Relations correlate. Three versions of the survey were created--English, Spanish, and Haitian Creole--to accommodate cultural diversity. Most schools distributed the parent survey through a sample of students; some schools attempted a much broader distribution.

How many schools were involved in the survey field-test?

A total of 16 schools were involved in testing the survey instruments and on-site observation techniques. These 16 schools were located in six Florida school districts from the Panhandle to South Florida. Some of the pilot schools could be classified as urban, some rural, and others suburban.



All pilot schools had at least 75% of their students on Free or Reduced Priced Lunch and were therefore **eligible** for extra federal resources through Chapter 1 Schoolwide projects, although only seven were operating such projects at the time of the study. In the majority of pilot schools, at least half of their students were minorities. Some of the schools served large numbers of Limited English Proficient (LEP) and/or migrant students.

How were test sites selected?

A key feature of the research design was to contrast high **versus** low achieving schools in order to identify unique characteristics of success. Since the study was being conducted by Chapter 1 evaluators, they used that program's data base to make a preliminary determination of candidate schools. At first, more schools were identified than were needed. About half had some of the best reading gains in the state over the last two years; about half had some of the lowest gains.

Next, the list of potential schools was examined for characteristics that would be most appropriate for the pilot (e.g., continuity of administration, variety of student membership, geographical representation, etc.). Finally, the list was narrowed to 16 schools that were in the advisory panel's own districts in hopes of facilitating communication and participation. The original target number of pilot schools was 8-10; however, when the invitation to participate was extended, superintendents in all six districts accepted and all 16 schools participated.

Successful Schools Staff Survey

How were the surveys validated?

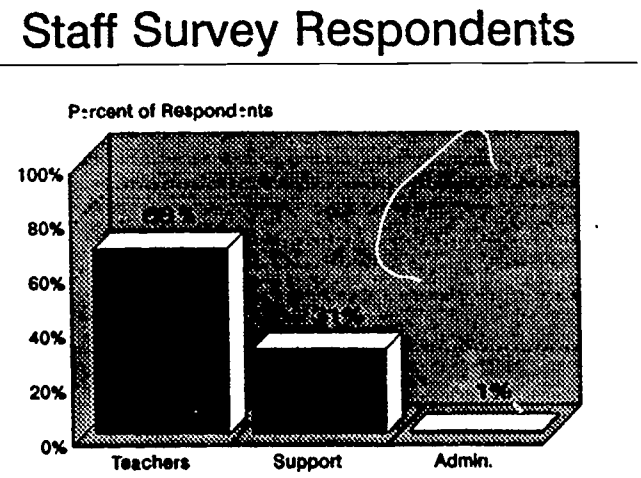
A key objective of the field-test of both staff and parent surveys was to determine the reliability and validity of the instruments. This was important both for analyzing results from the 16 pilot schools and for future use with a much broader sample of high poverty schools. The reliability[12] of the two instruments was determined on the basis of the internal consistency of items or groups of items in terms of measuring the same concepts--in this case correlates of effective schools. Face validity of the instruments was attained through professional consensus on the wording of each item in relation to the attributes of effective schools. Also, predictive validity[13] was determined by how well survey responses were related to student achievement (reading, math and writing scores) in the pilot schools.

Both reliability and predictive validity estimates were made by using data from the four highest achieving and four lowest achieving pilot schools. The idea was to calibrate the survey instruments to provide maximum distinction between groups of schools based on student achievement. Once the technical properties of the surveys were determined, then results could be analyzed for all pilot project schools in both higher and lower achieving groups.

The following format is used whenever overall results are presented: the eight higher achieving pilot schools are referred to as Group "A" and the eight lower achieving pilot schools are referred to as Group "B".

What were the results of the validation phase?

Chapter 1 evaluators in each participating district took the staff surveys to their respective school sites, monitored the administration procedures, and gathered all surveys upon completion. A total of 829 staff responses were eventually returned for analysis. The next figure shows who filled out the survey.



Of the total respondents, 560 (or 68%) were teachers, the vast majority of whom were assigned to regular classrooms. There were 258 support staff (or 31%), including aides, tutors, counselors and others. There were only 11 (or 1%) administrators. Clearly, teachers had the strongest voice in providing input on the staff survey.

Reducing the length of the original staff survey (117 items) was one of the first issues addressed. Items were eliminated from the survey based on a number of considerations, including the percent of missing or "Don't Know" responses, correlations with student achievement, and professional judgment. The end result was a 74 item staff survey that was

[12] Cronbach's alpha was used to estimate the statistical reliability of the surveys.

[13] Correlations were used to estimate predictive validity.

both reliable[14] and valid.[15] In its final form, the staff survey had seven subscales, each with five to thirteen items to represent correlates of effective schools.

What methods were used to compare higher and lower achieving pilot schools?

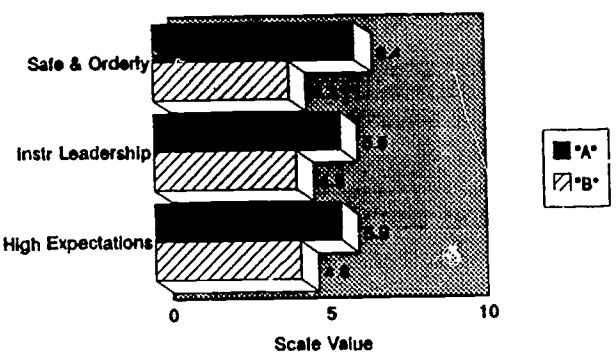
T-tests were used to determine how well the survey actually distinguished between higher achieving (Group "A") and lower achieving (Group "B") schools. Statistically significant differences were found for **all** subscales and the total; however, the practical significance of these differences varied somewhat. Appreciable effect sizes were found for five of the subscales plus the total score on the survey.

In the following discussion, symbols are used to help distinguish among variables with different effect sizes : ◆ for large, ❖ for medium, ✧ for small, and □ for marginal, but statistically significant. Also, the results from each section of the staff survey have been placed on a common scale that can be expected to range between one and ten with an average value of five and a standard deviation of two.[16] A common scale was needed to facilitate comparisons between correlates because each one had a different number of items. The total score for the staff survey was obtained by simply adding all seven subscales.

What were the results?

In general, the practical significance (effect size) of differences between higher and lower achieving schools on the staff survey was not as pronounced as some of the data base variables previously examined (e.g., poverty level, minority students). However, the sample was somewhat limited (16 schools in the pilot project) and the primary purpose was to **field-test** the instruments, not to make definitive statements about correlates of effective schools. Even so, the field-test results are instructive. They show that a paper and pencil survey can detect differences between higher and lower achieving schools, that all differences between groups of schools had statistical significance and that most had practical significance, as well. More than anything else, the results of the field-test offer encouragement for supporting, planning and improvement efforts based on the feedback of a school's most valuable resource--its staff.

Differences Between Pilot School Groups:
"Effective" School Correlates



Common scale: Average=5; Std Dev=2

As shown in the figure above, there were three parts of the staff survey that provided the greatest contrast between groups of higher and lower achieving schools.

❖ Nine items grouped into Safe and Orderly Environment had the highest correlation with student achievement, provided the sharpest contrast between higher and lower achieving schools, and had the largest effect size of all the correlates. The following are the two items found to be the most strongly related to achievement:

Staff members are treated respectfully by students.

Vandalism or destruction of school property by students is *not* a problem.

[14] Reliability estimates (alpha) ranged from .98 for the Total score to .84 for the Monitoring subscale. A rule of thumb used for "adequate" reliability was .75 or higher.

[15] Correlations with student achievement ranged from .55 for the Safe and Orderly subscale to .32 for the Home School Relations subscale. Correlations of .30 and above are considered to have at least medium effect sizes.

[16] Scaling formula: ((raw score – subscale mean) / (subscale standard deviation/2)) + 5.

✧ The eleven items within the Instructional Leadership subscale had a moderate correlation with achievement and resulted in a substantial, but small effect size for differences between Group "A" versus Group "B" schools. The two items most strongly related to achievement were:

The principal is highly visible, making frequent informal contact with students and teachers.

The principal is accessible to discuss matters dealing with instruction.

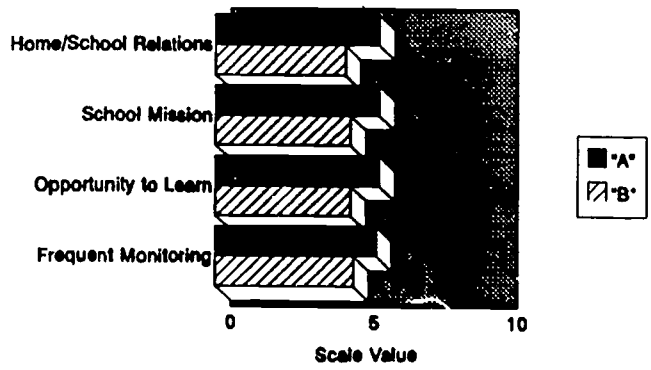
✧ The subscale dealing with High Expectations contained eleven items and also had a moderate correlation with achievement. The effect size for differences between higher and lower achieving schools was also substantial, but slightly smaller. The two items most strongly related to achievement were:

There is a positive school spirit.

Students try to succeed in their classes.

The figure below provides graphic information about the remainder of the staff survey. While differences between higher and lower achieving schools were not as pronounced as with the previous three correlates, all proved to be statistically significant and most had appreciable practical significance, as well.

Differences Between Pilot School Groups:
"Effective" School Correlates



Common scale: Average=5; Std Dev=2

✧ Home-School Relations consisted of thirteen items that were somewhat related to achievement. The practical significance estimated for this correlate was substantial, but relatively small. Top items in this area included:

Most Parents rate this school as superior.

Communication with parents is clear, effective, and frequent.

✧ The extent to which staff perceived their school as having a Clear Mission showed an appreciable, but relatively small, difference between Groups "A" and "B". Items most closely related to student achievement included:

The school's mission statement is known and communicated clearly.

The written statement of purpose defines academic goals that focus on student learning and achievement as this school's major responsibilities.

▯ Opportunity to Learn had 12 items which were moderately correlated with student achievement, but the effect size just missed the cutoff for practical significance. This finding does not diminish the importance of this area; rather, it suggests that other correlates reveal more of a difference. Items that did have the strongest relationship with achievement were:

Students are engaged in learning activities from the beginning until the end of the instructional period.

The time set aside for instruction is free from interruptions (e.g., intercom, messages, assemblies, mowing the lawn).

▯ Frequent Monitoring of Student Progress consisted of five items which were moderately correlated with achievement, but had the lowest effect size of any subscale. Again, the statistical findings do not suggest that this correlate is unimportant, rather that differences among groups of

pilot schools were less distinct. Top items in this category included:

> Teachers apply consistent criteria to assigning grades.
>
> The results of in-class assessments are used to examine students' strengths and weaknesses and to give feedback to students.

✧ Last, but certainly not least, the combination of all items produced an overall snapshot of staff perceptions that came the closest to Safe and Orderly Environment in terms of distinguishing between groups of schools. This finding suggests that the overall assessment of a school on the basis of all seven effective school correlates may be as valuable as any of its individual parts.

What conclusions can be drawn from the survey field-test?

The "Successful Schools" staff survey was found to be quite reliable in terms of its internal consistency and at least moderately effective in differentiating between higher and lower achieving schools. It has the potential for supporting staff development, needs assessment, planning and evaluation functions associated with both Chapter 1 Schoolwide Projects and the larger set of activities associated with local school improvement efforts.

Results from the field-test administration confirm that violence and disruptive student behavior have become major concerns among school staff, in this case those working with children from low income families. This finding affirms the most recent Gallup Poll of the Public's Attitudes Toward Public Schools (Elam, Rose, and Gallup, 1994) where:

> For the first time ever, the category "fighting, violence, and gangs" shares the number-one position with "lack of discipline" as the biggest problem confronting local public schools.

Instructional Leadership and High Expectations round out the trio of effective school correlates for which there was the sharpest distinction between higher and lower achieving schools. The other parts of the survey, as well as the total score, also provide important information.

Successful Schools Parent Survey

Since the constructive involvement of parents is a key ingredient in making schools successful, it was only natural that the research team would want to include them in the development and field-testing of survey instruments. Using the Home-School Relations section of the staff survey as a foundation, the team modified certain items and added others in hopes of gaining the insight of parents.

How was the parent survey validated?

The Successful Schools parent survey consisted of 23 items plus several questions about the person filling out the form. The survey was distributed via students at the same 16 pilot project schools where the staff survey was field-tested. Despite the fact that each school did not receive the same number of surveys and that they were distributed at different times, a total of 2,382 responses were eventually collected for analysis. Based on the number of students at each school, it was estimated that the return rate ranged between 1% and 66% and was about 20% overall.

Similar procedures for determining the reliability and validity of the staff survey were applied to the parent version, but with quite different results. Based on data from the four highest achieving and four lowest achieving schools, it was found that the reliability (internal consistency) of the parent survey was quite adequate[17]. However, there was little indication of predictive validity in terms of the survey's relationship to either student achievement (reading, math and writing scores) or learning environment conditions (promotion, attendance and suspension rates) at the pilot project schools. This led to the conclusion that the parent survey, while

[17] Reliability was estimated at .92, using Cronbach's alpha.

reliable, was actually measuring something different than originally intended.

How well were individual schools represented in the survey data?

Early on in the analysis, it was discovered that parents at some schools were much better represented than others. In fact, one school turned in so many surveys (836 or 35% of the total) that they tended to dominate all the others. Without some adjustment, this would have distorted the overall results and made comparisons between higher and lower achieving schools misleading.

A decision was made to draw a random sample from the school that turned in so many parent surveys, so as to smooth out the representation of each school in the total data. The original number of 836 was reduced to 175, which still left that school in the position of having the most surveys in its group, but not to the point of dominating all others.

What did parents say (or not say) about their schools?

Having reconciled the proportionate number of surveys from each school as best as possible, the data were analyzed so that results of the field-test could be shared. One of the first things that became clear was that parents were often reluctant to answer many of the survey items.

It was found that about 20% of the time, parents of students at the 16 pilot sites either did not respond or answered "Don't Know," even to factual statements such as the existence of a written discipline policy, a statement of purpose for the school, or an active parent group. There were five items for which one third or more of the parents at half or more of the pilot schools either did not respond or answered "Don't Know":

> A written statement of purpose exists for this school.
>
> Parents are encouraged to share ideas for school improvement with administration and staff in this school.
>
> The parent organization of this school is considered important by the administration and teachers.
>
> My child's teachers spend more time communicating with me about the good things my child does than the bad.
>
> There is an active parent group at this school.

Items for which there were large numbers of missing or "Don't Know" responses point to three areas of parental involvement with a low level of awareness or a general reluctance to respond. These items also had some of the lowest rates of agreement by parents who did respond.

1. School mission or purpose
2. Status of the local parent organization
3. Positive feedback from/input to school improvement

On the other hand, there was an equal number of items about which parents were not reluctant to respond and also had a high rate of agreement. The following are five items which had a relatively low incidence of missing or "Don't Know" responses (10% or fewer in two-thirds or more of the schools):

> I feel free to initiate contact with my child's teacher.
>
> I make an effort to be informed about my child's educational program.
>
> I cooperate with my child's teacher to see that homework is completed.
>
> My child completes assigned homework before going to school.
>
> I support the school homework policy.

Items for which there were relatively low numbers of missing or "Don't Know" responses point to two

areas of parental involvement where there appears to be a high level of awareness/understanding or a general willingness to respond, as well as a high level of general agreement. Incidentally, many of these represent things that parents are supposed to do.

1. Communication with their child's teacher and awareness of their child's educational program
2. Support of homework policy

With few exceptions, when parents did respond, they tended to agree with almost every item on the survey. These results reflect well the public attitudes captured in recent years through the Annual Phi Delta Kappa Gallup Poll[18].

- People gave the school attended by their eldest child good grades -- 70% gave it an A or a B, and 92% gave it a passing grade. But they continue to give the nation's schools considerably lower grades: only 22% award the nation's schools an A or a B, while 49% give them a C.

The parent survey data bear a striking resemblance to the poll. When asked whether they agreed or disagreed with the statement--"I would rate this school as superior"--parents in **both** higher and lower achieving schools responded affirmatively; 76% in Group "A" and 72% in Group "B".

Were there <u>any</u> items that distinguished between higher and lower achieving schools?

While parents were overwhelmingly positive when they did respond, there was one item that showed a difference of at least 10% between parent responses in higher versus lower achieving schools:

I am aware of a written discipline policy.

It is important to note that the one item that most distinguished between higher and lower achieving schools dealt with discipline. This finding very strongly reinforces the fact that the Safe and Orderly correlate on the **staff** survey was the area that provided the greatest distinction between higher and lower achieving schools.

<u>Parent Comments</u>

In addition to the 23 survey items, parents were afforded the opportunity to make written comments in three areas:

1. What is the school doing that is most helpful for your child?

2. Please tell us what the school could do to help your child.

3. Please provide other comments.

Over 1,200 written comments were received in the first area, over 1,000 in the second, and about 600 in the third. It should be noted that this count is for **comments**, since the same individual often provided multiple responses. Comments were coded as they related to the seven correlates of effective schools, then the data were analyzed by higher versus lower achieving groups of pilot project schools.

What did parents say was most helpful for their children?

Like their responses to the survey items, parents in both high and low achieving schools were generally positive about the help provided to their children. Almost two-thirds of the parents in both groups indicated that providing an Opportunity to Learn was most helpful for their children and that effective teachers and teaching strategies were the keys. A significantly higher percentage of parents in higher performing schools indicated that special programs (such as Chapter 1) were helpful to their children.

[18]Elam, Rose and Gallup (1994)

What did parents say schools could do to help their children?

Parents at lower performing schools were significantly[19] more likely to indicate that the school should provide a Safe and Orderly environment for their child than parents at higher performing schools. The comments indicated a need for more effective discipline, safer facilities, respect for all students, and improved student behavior. Also, a significantly greater percentage of parents at lower performing schools indicated that more homework should be assigned or that the homework policy should be improved.

Were there other comments?

On their own, parents in lower performing schools were significantly more likely to comment negatively on safety and orderliness at their schools. Comments like the following reflected a general call for more discipline: "Teachers are handcuffed when dealing with discipline. Rules need to be enforced." Also, a significantly greater proportion of parents commented positively about teachers and teaching strategies at higher performing schools (19%) than at lower performing schools (8%).

What conclusions can be drawn from the parent surveys?

The 23 item parent survey was found to be reliable, but of very limited use for distinguishing between higher and lower achieving schools. The responses obtained in the pilot project field-test were characterized by a relatively high proportion of missing and "Don't Know" answers, especially to items that asked about their school's written statement of purpose, the status of the local parent group, and the school's receptivity to ideas for school improvement.

When parents did respond, they tended to be in general agreement with most items. Like the results from the most recent Gallup poll on public attitudes, parents gave high ratings to the school their child attended, regardless of its achievement level. The only item that showed a clear distinction between high and low achieving groups of schools had to do with parents' awareness of a written discipline policy. This finding lends support to the importance of the Safe and Orderly correlate of effective schools.

Analysis of written comments confirmed parents' tendency to be generally positive and appreciative of the teaching staff. Their recommendations, especially at lower performing schools, called for improved safety and better discipline among students. This finding also reinforces the Safe and Orderly aspect of schools as having an important bearing on student achievement.

ON-SITE OBSERVATIONS AND INTERVIEWS

The last section of this report deals with the site visits that were conducted at each of the 16 pilot project schools. During their short stay on the campus of each school, teams of four professional educators spent most of their time interviewing the principal, a number of classroom teachers, various support staff, and parents. The teams also collected resource documents, took photographs, and made general observations about physical conditions at the school. An important activity of the teams was to summarize their visit and general impressions.

What was the composition and structure of the on-site teams?

In May of 1994, each of the 16 pilot project schools was visited by a four member team which spent one full day on campus. None of the team members were employed by or directly involved with the district in which their assigned schools were located. A total of 29 different people participated as on-site team members, including 15 school district personnel, eight from the State Department of Education, four from the Department's regional

[19] Z-test for the difference between two population proportions (Hinkle, Wiersma, and Jurs, 1979)

offices, and two from the Technical Assistance Center in Atlanta. One person at the state level put together all the visiting teams, was in charge of scheduling, and was on call to resolve any questions or changes. Each team had a designated leader, who was a Chapter 1 evaluator or coordinator from a different school district, and who took charge of local arrangements, team orientation, and the completion/return of data collection forms.

What was done during the on-site visits?

The major activity of the on-site teams was to accomplish a rigorous interview schedule which included the principal, about six classroom teachers, two instructional aides, the guidance counselor, the head custodian, and two parents. Persons to be interviewed were identified by the school principal, which had both advantages and disadvantages. On the one hand, allowing the principal to designate respondents helped minimize the intrusive nature of the visits and any resemblance to a compliance audit, which was not the purpose. On the other hand, the teachers and parents chosen to be interviewed were likely hand picked to reflect the most positive aspects of the school.

The average length of time for these interviews was about 45 minutes, except for the district Chapter 1 coordinator who was interviewed separately by the team leader for a considerably longer period of time.

Interview questions were developed in advance of the school visits and were tailored for each type of respondent. In general, the questions were framed around the seven correlates of effective schools and were intended to gather more in-depth information than was available through the staff and parent surveys. There was, however, one unique question that was asked at the end of each interview: Would you want your child to attend this school?

Interview questions were preprinted on different color forms with a purposefully limited writing space (about 3") provided after each question. The interview procedure called for the on-site teams to split into pairs so that they could alternate asking a question, maintaining eye contact, listening, probing, etc. while their team member concentrated on recording and summarizing the responses. The two people conducting the interviews switched roles as each question was completed. When all interviews had been completed, the teams reassembled for a wrap-up session to share and summarize their impressions.

Did the general impressions of the on-site teams reveal differences between schools?

By design, the on-site teams typically visited one higher achieving and one lower achieving school in a district. Team members who visited both types of schools were in near universal accord that the differences were obvious and detectable after just a short time on campus, though they were not advised beforehand. The following are some of the major differences as captured in the summaries written by on-site teams:

- They described discipline in a positive way for higher achieving schools more often than for lower achieving schools.

- They discussed the principal's leadership in a positive way more often for higher achieving schools.

- They discussed staff development activities in high achieving schools, but not in low achieving schools.

- They discussed "change" four times as often in low achieving schools.

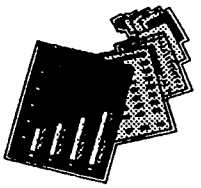
- Teams frequently described high achieving schools as having a unified staff.

How were the interview responses analyzed?

When all 16 pilot project schools had been visited, more than 200 interview forms had been completed, which resulted

in over 250 pages of transcribed notes. Given such a volume, qualitative analysis on this kind of open-ended data represented a huge challenge. A computer program[20] that could help analyze the text from the interviews was purchased; however, each recorded comment still had to be coded and grouped by hand. Whenever possible, interview questions were grouped to match appropriate effective school correlates.

What conclusions were drawn from the interviews?



Despite the huge volume of information that was gathered during the interview process, interview responses in general were not notably different in high versus low achieving schools. There were, however, subtle differences that did emerge.

Instructional Leadership styles differed in the very highest and very lowest achieving schools. Principals in the first group apparently embraced shared decision-making, valued their teachers' input and also encouraged risk-taking and creativity. Principals at the lower achieving school asked for teacher input by and large after curriculum decisions had been made.

Lower achieving schools articulated their school mission differently than higher achieving schools. The latter focused on their students as the main reason for existence. In lower achieving schools, there was no common thread as to the school's mission.

In the area of Safe and Orderly environment, there was little difference among personnel who were interviewed. However, both groups identified students with severe emotional and/or family problems as those who presented the most discipline problems.

What could be done differently during the on-site visitation phase?

For all the expense, data collection activity, and analysis, the on-site visitation phase of the Successful Schools project did not yield a comparable amount of information. While team members were unanimous as to the value of the on-site visits, it would appear that different activities should be involved.

Instead of conducting numerous interviews based on questions that can be more economically collected via staff surveys, perhaps there are more productive avenues of inquiry. It would be instructive to follow-up on several areas of the data base analysis where more information would help clarify significant, but incomplete findings.

For example, among high poverty schools, it was found that higher achieving ones have more support staff per 500 students than do lower achieving schools. On-site visits might probe more deeply to learn what kinds of support staff are involved, how their activities support instruction and/or student learning, and what kinds of qualifications and training activities distinguish support staff in higher versus lower achieving schools.

Members of on-site observation teams might also examine the issue of teacher turn-over in high poverty schools as well as probe into differences in the planning, organization and application of staff development activities. Since high poverty schools have more first year teachers, there may be circumstances or personal characteristics which predispose some to have better experiences (and contribute more) than others.

Given the results of the staff and parent surveys, it would seem natural that part of the on-site visits should focus on student discipline and safety. How are discipline policies developed, implemented and supported? Are there notable strategies for promoting a safe and orderly environment in schools that would otherwise be considered high risk?

[20] QUALPRO, a text-data base manager was used to analyze interview notes that were transcribed to WordPerfect files.

What do principals do that make them instructional leaders in the eyes of teachers, parents and students? How do district policies affecting accountability and assignment affect the placement of principals at high poverty schools?

Analysis of financial data suggest that the availability of more money, especially through Chapter 1 Schoolwide Projects, does not necessarily result in higher achieving schools. How do successful Schoolwide Projects spend their extra resources? How do they maintain their focus on the academic needs of their students? How are successful Schoolwide Projects coordinated with school improvement plans?

In addition to these follow-up topics, the on-site visits might also explore curriculum and instructional aspects of successful schools. Are there specific instructional strategies that are used in higher versus lower achieving schools? Does the arrangement of instruction have common features in high achieving schools? What about materials and/or equipment? How do differences in school facilities (design and condition) contribute to student achievement?

The Chapter 1 Successful Schools study consisted of three distinct research perspectives:

- Data base analysis, using Florida School Reports and related information,
- Staff and parent surveys based on effective school correlates, and
- On-site observations and interviews.

All activities were ultimately directed at answering the same fundamental question: What distinguishes successful, high poverty schools from similar but lower achieving schools?

Data Base Analysis. The first section on the impact of poverty clearly showed that schools with high concentrations of students from low income families are likely to be low achieving schools which also have lower promotion and higher suspension rates. High poverty schools typically serve considerably more minority students and experience more student turnover than medium or low poverty schools. Contrary to popular notions, high poverty schools (at least in Florida) have more money to spend on students than lower poverty schools in the same district. High poverty schools typically have more than their share of first year teachers and fewer experienced teachers, but also tend to have considerably more support personnel.

Analysis of conditions associated with higher achievement pointed to few things that can be readily altered. The relative concentration of poor students, even among high poverty schools, emerged as the strongest predictor--the more students from low income families, the lower the school's achievement level. The fact that higher levels of Federal expenditures were not associated with higher achievement raised questions about the effective use of extra resources available though Chapter 1 Schoolwide Projects. The positive relationship between more support staff and higher reading achievement is encouraging, but not well enough defined to suggest what action should be taken.

The most encouragement came from the section on "successful," high poverty schools. Despite the tremendous odds against them, some high poverty schools actually do better than state averages and even better than some low poverty schools. Twenty-nine of the highest achieving schools were compared with an equal number of the lowest achieving schools--all of which were high poverty. While achievement differences were dramatic, the two groups of schools were not distinguishable in a number of areas: promotion, attendance, LEP, mobility, class size, regular program expenditures,

or teachers with advanced degrees. The successful group of schools was distinguishable in terms of having fewer minority students, more support staff and lower suspension rates. What may work for successful, high poverty schools may not work for all high poverty, high minority schools. This preliminary study suggests that educators need to explore methodologies more clearly attuned to specific student populations.

Some high poverty, high minority schools in this pilot study have, in fact, been successful despite student population characteristics which otherwise have shown low achievement. Further study is required to determine if the methodologies and characteristics of these successful schools can be identified and transferred to other high poverty, high minority schools.

Staff and Parent Surveys. This section of the report concentrated on a relatively small number of high poverty schools in order to field-test survey instruments based on "effective" school correlates. Instruments used with school staff members were shown to be reliable and valid and the preliminary results pointed to significant differences between higher versus lower achieving schools. Of the seven characteristics of effective schools that were used in the staff survey, three areas emerged as being the most prominent: Safe and Orderly Learning Environment, Instructional Leadership and High Expectations for students.

Results from the parent survey were quite different. While the instrument itself proved reliable, there was little distinction between the responses of parents whose children attended higher versus lower achieving schools--both groups were very positive. Also many parents often did not respond or answered "Don't Know" to many of the survey items, leaving some doubt as to the preliminary results. On the other hand, it was quite interesting that the only question that clearly distinguished between higher and lower achieving schools had to do with discipline.

Comments which parents wrote down added another dimension to the survey results. While they were generally positive overall, parents' recommendations called for improved safety and better student discipline, especially at lower achieving schools.

On-Site Observations and Interviews. The final phase of the Successful Schools pilot project culminated with site visits at the same 16 schools where staff and parent surveys were administered. While all team members who participated strongly endorsed the concept of site visits, the types of activities will likely change in the future. For all the data collected, only a few distinguishing features between higher and lower achieving schools were discovered, primarily subtle differences in leadership styles and focus of the school's mission.

Instead of interviewing staff and parents using questions similar to the survey instruments, future on-site visits will likely concentrate on following up on some of the research findings that need further clarification, such as contribution of support staff, strategic use of federal funds, better understanding of effective programs to ensure school safety and discipline, and exploration of curriculum/instruction issues.

Like all good research activities, the Chapter 1 Successful Schools Study contributes to our existing knowledge base by confirming some relationships between school conditions and student achievement, challenging others, and raising even more questions to be addressed.

Bibliography

Blackman, B. I. (1993). *QUALPRO: User's manual.* Tallahassee, Fl.: Impulse Development Company.

Chambers, J., Parrish, T., Goertz, M., Marder, C., and Padilla, C. (1993). *Translating dollars into services: Chapter 1 resources in the context of state and local resources for education.* Palo Alto, California: American Institutes for Research.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.

Dunthorn, L.A. (1992). *Florida writes! Report on the 1992 sample assessment*. Tallahassee: Florida Department of Education.

de Kanter, A. (1992). *National assessment of the Chapter 1 program: The interim report*. Washington, DC: U.S. Department of Education.

Elam, S.M, Rose, L.C., and Gallup, A.M. (1994). The 26th annual gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan* 76, 41-56.

Guilford, J.P. (1954). *Psychometric methods*. New York: McGraw-Hill.

Hinkle, D.E., Wiersma, W., and Jurs, S.G. (1979). *Applied statistics for the behavioral sciences*. Boston: Houghton Mifflin.

Hodgkinson, H. (1993). *Southern crossroads: A demographic look at the Southeast*. Greensboro, North Carolina: SouthEastern Regional Vision for Education.

Kennedy, M.M., Jung, R.K., Orland, M.E. (1986). *Poverty, achievement and the distribution of compensatory education services*. Washington, DC: Office of Educational Research and Improvement.

McLoyd, V.C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61, 311-346.

Morra, L.G. (1994). *Elementary school children: Many change schools frequently*, harming their education. Washington, DC: U.S. General Accounting Office.

Norusis, M. (1992). *SPSSPC+ Base system user's guide - Version 5.0*. Chicago: SPSS Inc.

Pollack, S., Chrispeels, J., Watson, D., Brice, R., and McCormack, S. (April, 1988). A description of district factors that assist in the development of equity schools. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Reed, S. and Sautter, R.C. (1990). Children of poverty: The status of 12 million young americans. *Phi Delta Kappan*, 71 (10), K1-K12.

Richardson, G.L. (April, 1993). High risk students in Chapter 1 Schoolwide Projects. Paper presented at the annual meeting of the American Educational Research Association, Atlanta.

_____ (November, 1993). Poverty and writing performance. Paper presented at the annual meeting of the Florida Educational Research Association, Destin, FL.

_____ (January, 1994). Successful high risk schools: Looking for gold in unlikely places. Paper presented at the annual meeting of the Southeastern Evaluation Association, Tallahassee, FL.

Rubin, P. (1994). Issue paper: Who is teaching our children: A look at the use of aides in Chapter 1. Washington, DC: International Reading Association.

San Diego County Office of Education (1989). Effective schools correlates: Definition of terms and importance to school improvement.

Siegel, S. (1959). Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill.

Snyder, P. and Lawson, S. (April, 1992). Evaluating statistical significance using corrected and uncorrected magnitude of effect size estimates. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

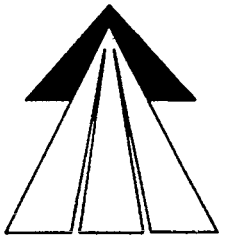
1993-94 Chapter 1 Advisory Panel Members

Behrokh Ahmadhi	Pinellas	*Jerry Levitt	Dade
*Trudy Bacon	RTAC	Alice Lindsay	Manatee
*Barbara Bass	Collier	*Elspeth A. Lloyd	Escambia
*Elizabeth Bright	Pasco	Doris Lugo-Schelmety	Orange
*Dianne Buhr	Area II Office	Linda Maddox	Okaloosa
Judy Busonic	SCC/DOE	*Carlos Martinez	Hillsborough
*Christian Cherau	Lee	Vincent "Bud" Mazzota	Palm Beach
Holly Craven	Area III Office	Rolland Mielke	Broward
Robert Evans	Palm Beach	Gail Ogawa	Leon
*John Evers	TAC	Britt Poulson	Taylor
Linda Fleming	DOE	*Linda G. Rhea	DOE
Kay Fordham	Brevard	*Gerry Richardson	DOE
*Lynn Grady	Polk	Terry Schamberger	Sarasota
*Wayne Gwaltney	Area IV Office	*John Shreve	Volusia
Jane W. Harper	Lake	*Marie Snow	Collier
Frank Herrington	Duval	Nada Stauffer	DOE
Betty Hurlbut	Highlands	Mary Alice Stewart	Martin
*Vance Jones	Area V Office	*George Suarez	DOE
Barry P. Lait	St. Lucie	Grace Thomas	Putnam

*Successful Schools Steering Committee

DOE School Improvement facilitators:
Rosezetta Bobo
Barbara Shapley
Sandy Dilger

The Chapter 1 Evaluation Advisory Panel gratefully acknowledges the cooperation of the district and school personnel who participated in the pilot study.



Tallahassee, Florida
Doug Jamerson, Commissioner
Affirmative Action/Equal Opportunity Employer