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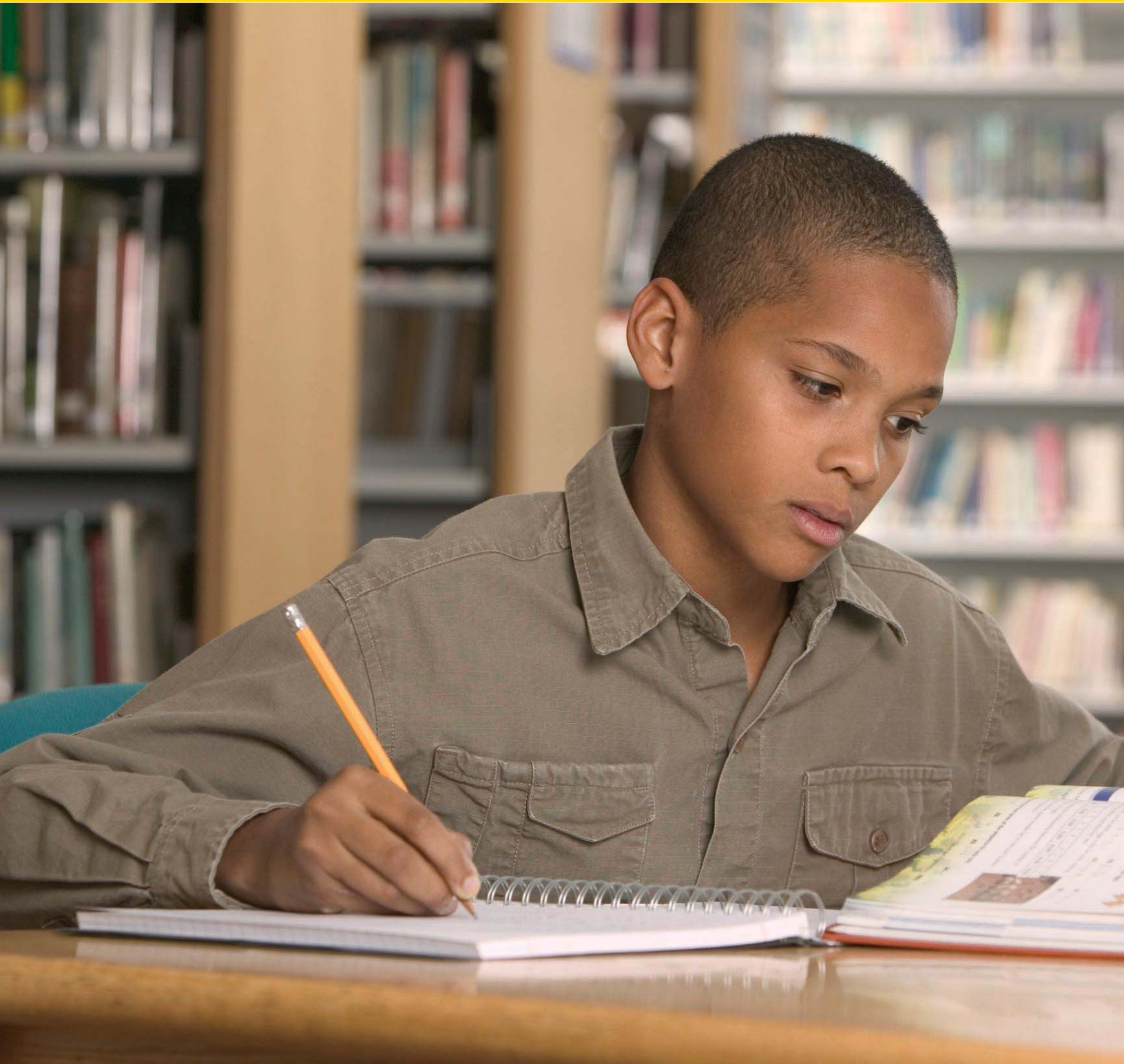
Second Evaluation of the Improving Literacy Through School Libraries Program



Second Evaluation of the Improving Literacy Through School Libraries Program

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Executive Summary

The Improving Literacy Through School Libraries (LSL) program was established under Title I, Part B, Subpart 4 of the *Elementary and Secondary Education Act* (*ESEA*) by the *No Child Left Behind Act of 2001* (*NCLB*). The purpose of the program is to improve the literacy skills and academic achievement of students by providing them with increased access to up-to-date school library materials; a well-equipped, technologically advanced school library media center; and well-trained, professionally certified school library media specialists.

Included in the legislation was a requirement for an evaluation of the program to be conducted no later than three years after the enactment of *NCLB* and biennially after that. This report provides findings from the second evaluation of the LSL program. It contains new survey data on the 2005–06 school year and an analysis of the relationship between student test scores and the receipt of LSL grants in 2003–04.

Key Findings

- Districts often reported selecting schools to participate in the grant based on various kinds of disadvantages at those schools such as lack of library resources, poverty level, and those identified for improvement under *NCLB*.
- Grantees roughly tripled their expenditures on books and subscriptions as well as computer hardware, while nongrantees showed little change.
- Before the grant, significantly fewer grantees considered their reading/English materials to be adequate or excellent compared with nongrantees. In contrast, during the grant year, significantly more of the grantees considered their overall reading/English literature, print materials, and computer software to be adequate or excellent compared with nongrantees.
- To the extent that libraries increased the hours they were open, one might expect that student use of the libraries would increase, for example, in the number of students using the libraries in a typical week or in the number of materials that were checked out. However, as in the first evaluation, grantees showed an increase in student usage of the libraries per week but no significant change in number of materials checked out.
- Grantees were more likely than nongrantees to report establishing new programs or expanding existing programs that involved collaboration between school library media specialists, teachers and administrators.
- No definitive statement can be made based on these data as to whether LSL was associated with improved test scores.

Characteristics of the Improving Literacy Through School Libraries Program

The LSL program is a competitive grant award program with two eligibility requirements: (1) an applicant must be a local educational agency (LEA) (which in some instances may include a charter school, regional service agency, or state-administered school designated as an LEA),[1] and (2) at least 20 percent of the students in the LEA must be from families with incomes below the poverty line. There are no specific eligibility criteria for the schools in which grant recipients use the LSL funds.

[1] In the rest of the report, the term *district* will be used rather than LEA because most grant recipients are public school districts.

Districts may use program funds to do the following:

- Acquire up-to-date school library media resources, including books;
- Acquire and use advanced technology, incorporated into the curricula of the school, to develop and enhance the information literacy, information retrieval and critical thinking skills of students;
- Facilitate Internet links and other resource-sharing networks among schools, school library media centers and public and academic libraries, where possible;
- Provide professional development for school library media specialists and activities that foster increased collaboration between school library media specialists, teachers and administrators; and
- Provide students with access to school libraries during nonschool hours, including the hours before and after school, during weekends and during summer vacation periods.

Grants for the LSL program are for one year, although many projects in the early years of the program have received time extensions. Beginning with the 2005 cohort, time extensions have not generally been given.

Overview of the Evaluation

The key evaluation questions were as follows:

- How do districts allocate grant funds and are they targeted to schools with the greatest need for improved library resources?
- How are funds used (e.g., to buy books, improve technology, increase library hours, or provide professional development for library and reading staff, etc.)?
- What is the relationship between participation in this program and staff collaboration and coordination?
- How do reading achievement scores vary in schools that received grants for 1, 2 or 3 years compared with matched comparison schools that have not received grants?

The following four data sources were used in the evaluation.

- **A survey of school libraries.** The survey was sent in fall 2006 to a sample of 400 school libraries served by the grant in 2005–06 (grantees) and to a comparison sample of 400 schools matched on a variety of district and school characteristics[2] in districts that were eligible for the grant in that year (nongrantees).

[2] The district characteristics used for matching were region, district poverty status, school district type, urbanicity, and district enrollment size. The school-level characteristics included instructional level, school type, enrollment size, type of locale, percentage of students belonging to racial/ethnic minorities, and the percentage receiving free lunches. The comparison sample was not matched on prior achievement, which was not available at the time of sampling.

- **The district performance reports.** Each grant recipient must submit a report to the U.S. Department of Education, components of which include a description of the project; highlights of key accomplishments; a report on how the district met each of its project objectives; a project evaluation; and information on expenditures, schools served and professional development. Performance reports from districts receiving the grant in 2004–05 and 2005–06 were analyzed for this evaluation.

- **Case study site visit reports.** Site visits were made to nine school districts, including one or two schools within the districts visited. The visits focused on promising school library practices in districts that had received LSL grants in 2003 through 2005. Site selection was based on performance and demographic data. Site visits were conducted either by one person or by two-person teams between November 2006 and January 2007.

- **Test scores.** Annual school-level test score data on students' proficiency in reading/language arts were obtained from the National Longitudinal School-Level State Assessment Database. This database is a compilation of test results from each state's proficiency exams. *NCLB* uses these results for accountability purposes. The most recent test score data available at the time of this report were for 2005, which was before receipt of the LSL grants by the grantees surveyed in this evaluation. Therefore, the test score data were merged with the survey data from the first LSL evaluation to measure whether changes in school libraries were associated with changes in student test scores. Of the 701 respondents to the 2004 survey, test scores were available for 553 schools (79 percent). Baseline data from the year before these grants (2002–03) were available for only 40 percent of the sample.

Results and Conclusions

The results address each of the key evaluation questions.

Targeting of Program Funds

- Generally, the approaches used by districts to select schools for participation in the grant have been the same each year between 2003–04 and 2005–06. Districts often reported selecting schools to participate in the grant based on various kinds of disadvantages at those schools: 36 percent chose schools based on a lack of library resources, 22 percent based on the poverty level, and 20 percent based on those identified for improvement under *NCLB*.

- The survey of library media centers confirmed that, on many characteristics, the grantee schools started with a relative disadvantage as compared with nongrantee schools.
  - Among those districts conducting needs assessments, grantees were significantly more likely than nongrantees to identify needs for more library staff (55 percent versus 33 percent), more up-to-date materials (95 percent versus 85 percent), and more space (51 percent versus 33 percent). It should be noted that funding for more space is not covered by LSL. Additional needs identified more frequently by grantees were more hours when the library was open (75 percent versus 41 percent), more time for planning with teachers (64 percent versus 40 percent), and more professional development (75 percent versus 57 percent) (Exhibit 1). Overall, the percentage of grantees and nongrantees identifying various needs was about the same in the first and second evaluations.

Exhibit 1
Percentage of Grantee and Nongrantee School Libraries Identifying Various Needs Through a Needs Assessment, Fall 2006

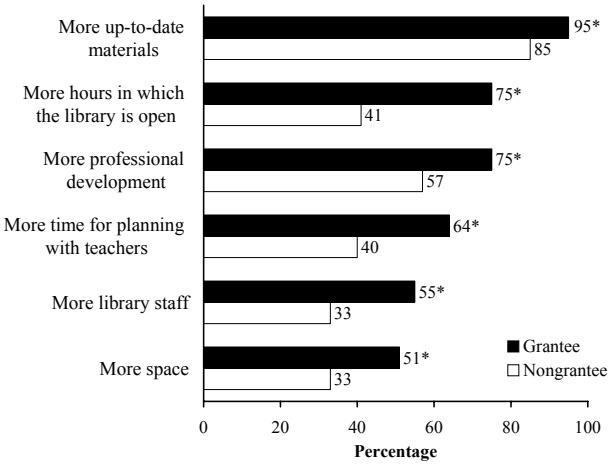

Exhibit reads: Ninety-five percent of the grantees identified a need for more up-to-date materials, compared with 85 percent of the nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percents are based on school libraries that had done a needs assessment.

Source: Second evaluation, school library media center survey question 40.

  - Before the grant, grantees were more likely than nongrantees to report that their holdings were inadequate in all four general areas examined in the survey: the overall reading/English collection (34 percent versus 22 percent), print materials (35 percent versus 23 percent), video/ audiovisual materials (52 percent versus 37 percent), and computer software (57 percent versus 44 percent).

Use of Program Funds

The grantees made a large number of improvements during the 2005–06 school year, when they received the grant, while relatively little change occurred among the nongrantees. Following are some of the major changes:

Exhibit 2
Mean Expenditures on Materials by School Libraries, by Grantee Status, 2004–05 and 2005–06 School Years

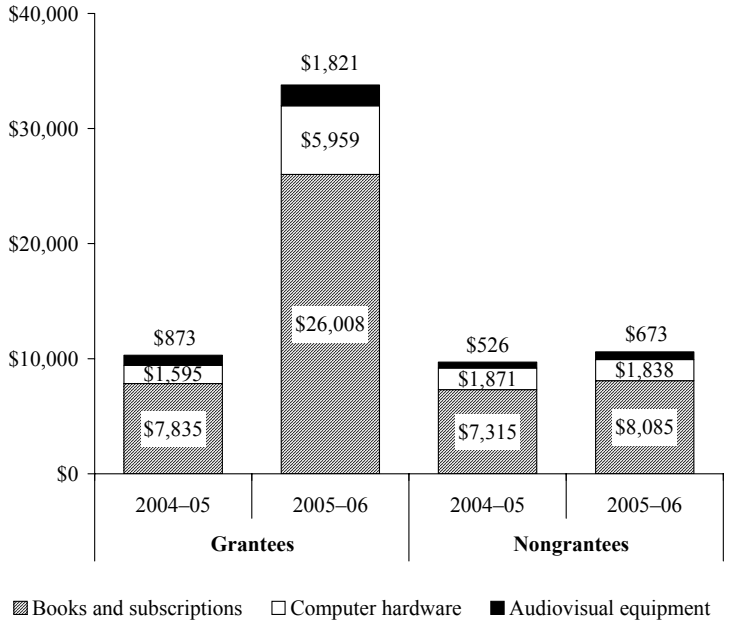

Exhibit reads: In the 2004–05 school year, grantees spent an average of $7,835 on books and subscriptions, $1,595 on computer hardware, and $873 on audiovisual equipment.

Source: Second evaluation, school library media center survey questions 33, 34, and 35.

- Grantees roughly tripled their expenditures on books and subscriptions as well as computer hardware, while nongrantees showed little change (Exhibit 2).
- Of those that conducted needs assessments, the grantees were often more likely to make changes, including getting more up-to-date materials (92 percent versus 78 percent), increasing professional development (68 percent versus 41 percent), increasing the number of hours the library was open (62 percent versus 24 percent) and providing more time for planning with teachers (39 percent versus 21 percent). Overall, the percentage of grantees and nongrantees making changes to address needs was about the same in the first and second evaluations.

- The first evaluation found that overall, the grants seemed to compensate for grantees' earlier disadvantages and bring them to rough equality with the nongrantees whereas the second evaluation found that the grants enabled the grantees to surpass the nongrantees. In spring 2005, before the grant, significantly fewer grantees considered their reading/English materials to be adequate or excellent compared with nongrantees for all types of materials, namely, overall reading/English literature, print materials, video/audiovisual materials, and computer software. In contrast, in spring 2006, during the grant year, significantly more of the grantees considered their overall reading/English literature, print materials and computer software to be adequate or excellent compared with nongrantees.
- In both the first and second evaluations, grantees often were more likely to provide new or expanded programs than nongrantees. In the second evaluation, these programs included providing instruction on information skills (52 percent versus 36 percent), working with classroom teachers on selecting reading or English resources (49 percent versus 33 percent), holding family literacy nights (38 percent versus 13 percent), and holding after-school programs offering an orientation to the library (34 percent versus 8 percent).

- Grantees increased access to libraries in several ways. During the school year, 39 percent of grantees provided access during nonschool hours in 2005, and 72 percent in 2006. Among nongrantees, the statistics were 54 percent in 2005 and 56 percent in 2006 (Exhibit 3). Grantees increased the number of days the library was open during the summer from a mean of 2.9 days in 2005 to 7.7 days in 2006, compared with no significant change among nongrantees in the amount of summer access. In the first evaluation, grantees showed a significant increase in the days that the libraries were open in the summer, while the grantees showed no significant change.

Exhibit 3
Provision of Access During Nonschool Hours, by Grantee Status, Spring 2006 and 2005

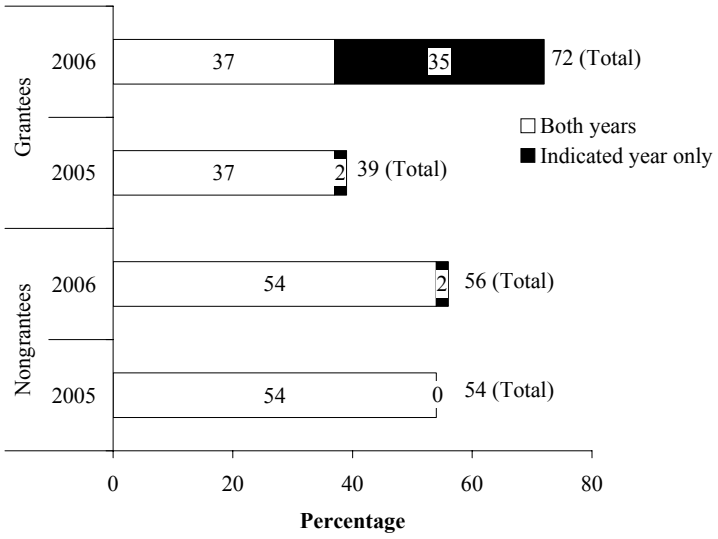

Exhibit reads: In 2006, 37 percent of the grantees that were open during nonschool hours in the previous year continued to be open and an additional 35 percent began offering this service. A total of 72 percent of grantees were open during nonschool hours in 2006. In 2005, 37 percent of the grantees provided access during nonschool hours and continued to be open in 2006. An additional 2 percent provided access in 2005 but not in 2006. Altogether, 39 percent of the grantees provided access during 2005.

Source: Second evaluation, school library media center survey question 5.

- To the extent that libraries increased the hours they were open, one might expect that student usage of the libraries would increase—for example, in the number of students using the libraries in a typical week or in the number of materials that were checked out. As in the first evaluation, grantees showed an increase in usage per week but no significant change in number of materials checked out.

Relationship Between Participation in the Program and Staff Collaboration and Coordination

- Grantees were more likely than nongrantees to report establishing new programs or expanding existing programs that involved collaboration. Specifically, these programs include programs to have library media staff members assist teachers in designing, implementing and evaluating research projects for students (42 percent versus 24 percent), coordinate training programs about integrating educational technology into the curriculum for teachers and other staff members (42 percent versus 22 percent), work with the principal and/or teachers on curriculum issues (40 percent versus 23 percent), and participate in team meetings (36 percent versus 23 percent). In the first evaluation, grantees were also more likely than nongrantees to have increased services involving collaboration.

Relationship Between Participation in the Program and Reading Achievement Scores

- No definitive statement can be made based on these data on whether LSL was associated with improved test scores.
- One of the primary features of the LSL program—increasing the size of the book collections—was significantly related to increased test scores. On average, each additional book per student that libraries obtained was associated with an increase of 0.44 percentage points in student test scores. LSL participation was associated with purchasing 1,250 additional books in 2004–05 (520 more than nongrantees), or about 2.9 additional books per student (1.5 more than among nongrantees). Based on these statistics, the expected total improvement associated with the book-purchasing component of the LSL program would be an increase of 1.3 percentage points, and the expected improvement with relation to nongrantees would be an increase of 0.7 percentage points.

The findings from the analyses of student reading achievement should be interpreted with considerable caution. The LSL and non-LSL schools were not randomly assigned to treatment and control groups. Although the LSL and non-LSL schools are similar on the demographic variables available to the study, achievement data were not available for matching at the time of sampling. Later analyses showed only small differences, but we were unable to verify baseline equivalence on achievement because of missing baseline data for 60 percent of the respondents. Therefore, we cannot assume that the two groups of schools are equivalent except for the fact that one group received LSL funds while the other did not. Thus, the findings cannot support causal inferences that attribute observed differences in student reading achievement between LSL and non-LSL schools to the LSL program.[3]

[3] Additional limitations to the analysis of student reading achievement are presented in Chapter 5.

Chapter 1
Introduction

The Improving Literacy Through School Libraries (LSL) program was established under Title I, Part B, Subpart 4 of the *Elementary and Secondary Education Act* (*ESEA*) by the *No Child Left Behind Act of 2001* (*NCLB*). The purpose of the program is to improve the literacy skills and academic achievement of students by providing them with increased access to up-to-date school library materials; a well-equipped, technologically advanced school library media center; and well-trained, professionally certified school library media specialists. Included in the legislation was a requirement for an evaluation of the program to be conducted no later than three years after the enactment of NCLB and biennially after that. This report provides findings from the first biennial evaluation, referenced as the second evaluation in the report.

The first chapter of this report contains a description of the LSL program and an overview of the evaluation. Because the LSL program infers a linkage between school libraries and literacy, a brief overview of the research on this topic is presented in the second chapter of this report. Evaluation results on the implementation of the program are shown in the third chapter, which examines how districts allocate program funds to schools, how schools allocate library funds, and how other outside support is found for literacy and libraries. The fourth chapter discusses what school-level changes were associated with participation in the LSL program. The evaluation explored many dimensions of a school library that might change through participation in the program, including resources available, extended hours, services offered, staffing, professional development, and collaboration with teachers. The fifth chapter provides the results of an analysis of the relationship of certain library characteristics and student test scores. The conclusions of the evaluation are contained in the sixth chapter of this report.

Characteristics of the Program

The LSL program is one of several programs in the current *ESEA* designed to improve students' reading skills. It is a competitive grant award program with two eligibility requirements. The first requirement is that the applicant must be a local educational agency (LEA) (which in some instances may include a charter school, regional service agency, or a state-administered school designated as an LEA).[4] The second eligibility requirement is that at least 20 percent of the students in the LEA must be from families with incomes below the poverty line. The poverty rate is based on data from the U.S. Census Bureau and is a stricter measure than the free and reduced-price lunch statistic. There are no specific eligibility criteria for the schools in which districts use the LSL funds; it is up to the district to determine which schools receive the funding.

Districts may use program funds to do the following:

- Acquire up-to-date school library media resources, including books;
- Acquire and use advanced technology, incorporated into the curricula of the school, to develop and enhance information literacy, to assist in information retrieval, and to develop critical thinking skills of students;
- Facilitate Internet links and other resource-sharing networks among schools, school library media centers, and public and academic libraries, where possible;

[4] In the rest of the report, the term *district* will be used rather than LEA because most grant recipients are public school districts.

- Provide professional development for school library media specialists and activities that foster increased collaboration between school library media specialists, teachers and administrators; and

- Provide students with access to school libraries during nonschool hours, including the hours before and after school, during weekends and during summer vacation periods.

Grants for the LSL program are for one year, although many projects in the early years of the program received time extensions. Beginning with the 2005 cohort, time extensions have not generally been given. Thus far, the program has had five award cycles, and grants for the sixth cycle were awarded in June 2007 and began on September 1, 2007. (Exhibit 1-1).

Exhibit 1-1
Improving Literacy Through School Libraries Program Grant Awards, by Award Cycle, 2002–2007

Award cycle	Total amount available for award (in $ millions)	Number of awards	Average award	Smallest award	Largest award
2002	$12.4	94	$130,000	$24,000	$350,000
2003	$12.5	73	$165,000	$20,000	$335,000
2004	$19.8	92	$212,000	$30,000	$399,000
2005	$19.7	85	$225,000	$26,000	$350,000
2006	$19.5	78	$250,000	$30,000	$300,000
2007	$18.9	78	$240,000	$61,000	$399,000

Exhibit reads: In 2002, the total funds available for LSL grants was $12.4 million. There were 94 grant awards with an average amount of $130,000. The smallest award was $24,000 and the largest was $350,000.

Source: Improving Literacy Through School Libraries program Web site, www.ed.gov/programs/lstl/index.html.

The legislation that established the LSL program specified that applications to the program must

- Contain a needs assessment relating to the need for school library media improvement;

- Describe how the funds would be used;

- Tell how school library media specialists, teachers, administrators and parents would be involved in the project activities;

- Show how the programs and materials used in the project are grounded in scientifically based research;

- Describe how the funds and project activities will be coordinated with other federal, state and local funds for literacy, school libraries, technology and professional development; and

- Show how the district will collect and analyze data on the quality and effect of project activities.

The LSL Web site contains a guidebook for assisting districts in preparing their applications. The site also provides poverty information so school districts can determine whether they are eligible to apply.

A group of districts may submit a joint application to the program, but all districts must be individually eligible for it.

Overview of the Evaluation

The legislation establishing the LSL program required that an evaluation be conducted no later than three years after the enactment of *NCLB*. The first such evaluation covered school libraries served by grants in 2003–04 and included a sample of comparable nongrantees to better understand how the LSL program was associated with different school library practices and student outcomes. This report is based on data covering the 2005–06 school year and contains comparisons with data from the first evaluation. In addition, student test scores for 2003–05 were analyzed for 2003–04 grantees.

The key evaluation questions for the second evaluation are shown below. The first three questions were also addressed in the first evaluation, but the final question is new to the second evaluation.

- How do districts allocate grant funds and are they targeted to schools with the greatest need for improved library resources?
- How are funds used (e.g., to buy books, improve technology, increase library hours, or provide professional development for library and reading staff, etc.)?
- What is the relationship between participation in this program and staff collaboration and coordination?
- How do reading achievement scores vary in schools that received grants for 1, 2 or 3 years compared with matched comparison schools that have not received grants?

Four data sources were used in the evaluation. Two of them, the survey of school libraries and the district performance reports, were updates of data sources used in the first evaluation. New sources for the second evaluation were the case study site visit reports and analysis of extant student achievement data. These data sources are described below:

- **A survey of school libraries.** The survey was sent in fall 2006 to a sample of 400 school libraries served by the grant in 2005–06 (grantees) and to a comparison sample of 400 schools matched on a variety of district and school characteristics in districts that were eligible for the grant in that year (nongrantees). The district-level characteristics that were used in the matching process included region, district poverty status, school district type, urbanicity, and district enrollment size. The school-level characteristics that were used in the matching process included instructional level, school type, enrollment size, type of locale, percentage of students belonging to racial or ethnic minorities, and percentage receiving free or reduced-price lunches.[5] Special attention was given to identifying similar comparison schools for those few grantee schools with unusual characteristics (charter school districts or single-school districts). The response rate was 88 percent for the grantees, 83 percent for the nongrantees, and 85 percent overall. Detailed survey results are shown in Appendix A. Details about the methodology are shown in Appendix B, and a copy of the school library survey is shown in Appendix C. Survey results covering the 2005–06 school year were compared with results from the first evaluation, which examined the 2003–04 school year.

[5] The comparison sample was not matched on prior achievement, which was not available at the time of sampling.

- **The district performance reports.** Each grant recipient must submit a report to the U.S. Department of Education within 90 days of the end of the grant period. Components of these reports include a description of the project; highlights of key accomplishments; a report on how the district met each of its project objectives; a project evaluation; and information on expenditures, schools served and professional development. A copy of the report format is shown in Appendix D. Performance reports from districts receiving the grant in 2004–05 and 2005–06 were analyzed for this evaluation. Performance report data from 2003–04 grantees, which were analyzed in the first evaluation, were compared with the data from more recent grantees.

- **Case study site visit reports.** Site visits were made to nine school districts to provide more detailed information about school library programs than would be available from survey data. The visits focused on promising school library practices in districts that had received LSL grants in 2003 through 2005. Thus, the selected sites were not representative of all districts receiving LSL grants. Criteria for selecting sites included whether the districts and schools had met adequate yearly progress,[6] whether there was some indication that promising practices were occurring in the district, whether most of the key staff members were still working in the district, and whether as a whole the nine sites reflected diversity on various demographic variables. During the site visits, interviews were conducted with the program administrator at the district level, principals, school librarians and classroom teachers. In addition, observations were made of activities connected to the LSL grant that were continuing to be implemented in the districts. Protocols used in the case studies are shown in Appendix E, and case study summaries are shown in Appendix F. Site visits were conducted either by one person or by two-person teams between November 2006 and January 2007; each person or team visited one or two schools.

- **Test scores.** Annual test score data on students' proficiency in reading/language arts were obtained from the National Longitudinal School-Level State Assessment Database. The same test results are used for accountability purposes under *NCLB*. These data are available for almost all states for multiple years and consist of school-level state assessment results for the tested grades. The exact contents of these files vary from one state to another, particularly in terms of which grade levels were tested, the number and nature of the tests used, the format of the test scores, and the years and subgroups for which summary scores were available. The most recent test score data available at the time of this report were for 2005. The data were therefore merged with the previous LSL evaluation to measure whether changes in school libraries were associated with changes in student test scores. Of the 701 respondents to the 2004 survey, test scores were available for 553 schools. Baseline data from the year before these grants (2002–03) were available for only 40 percent of the respondents.

The evaluation focused on the projects that received their grants in 2005, the fourth cohort of grantees. These grants were implemented in the 2005–06 school year. Of the 85 grants awarded in the target year, seven went to consortia of more than one district, and nine went to districts that also had received an LSL grant in at least one prior year.

In 2005–06, approximately 450 schools participated in the program. The characteristics of these schools differed from schools in all districts that were eligible for the program in that year and from U.S.

[6] Adequate yearly progress is an individual state's measure of progress toward the goal of 100 percent of students achieving proficiency on state academic standards by 2014 in at least reading/language arts and math. It sets the minimum level of proficiency that the state, its school districts, and schools must achieve each year on annual tests and related academic indicators.

schools overall (Exhibit 1-2). The proportion of small schools in the grantee schools (39 percent) was somewhat larger than the proportion among all schools in eligible districts (34 percent) and all U.S. schools (28 percent). Grantee schools also were somewhat more likely to be elementary schools (72 percent) than were all schools in eligible districts (55 percent) or, to a lesser degree, all U.S. schools (61 percent). A greater proportion of the grantee schools (37 percent) were located in cities compared with all U.S. schools (25 percent), though roughly the same proportion of grantee schools were located in cities (37 percent) as all schools in eligible districts (36 percent). Because of the eligibility requirement that 20 percent or more families in the LEA be below the poverty line, many suburban districts are not eligible for LSL grants. A greater proportion of grantee schools were located in the Northeast and Central regions of the country (33 percent and 13 percent respectively) as were all schools in eligible districts (8 percent and 9 percent respectively).

In this report, all differences discussed in the text are statistically significant unless noted otherwise. For the reader's convenience, results of statistical testing on differences between grantees and nongrantees are shown in the exhibits, except in several of the more complicated exhibits where multiple tests might be of interest. District-level data were based on a census; consequently, tests of statistical significance were not necessary.

Exhibit 1-2
Percentage of Schools With Selected Characteristics, by Participation Status, 2005–06 School Year

School Characteristic	Participating Schools in Grantee Districts	All Schools in Eligible Districts	All U.S. Schools
Enrollment size			
1–299	39	34	28
300–599	44	36	40
600 or more	16	30	32
School level			
Elementary	72	55	61
Middle/junior high	10	16	18
High school/combined/other	17	29	21
Urbanicity			
City	37	36	25
Urban fringe	15	16	33
Town	14	16	10
Rural	35	33	32
Region			
Northeast	33	8	18
Southeast	20	27	21
Central	13	9	28
West	33	57	32

Exhibit reads: In the 2005–06 school year, 39 percent of the schools participating in the LSL program had enrollments of between 1 and 299 students. Thirty-four percent of all schools in districts eligible to participate in the LSL program and 28 percent of all U.S. schools had enrollments of between 1 and 299 students.

Note: Percentages may not add to 100 because of rounding.

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2003–04. Eligibility file supplied by the U.S. Census Bureau; Grantee file supplied by the Improving Literacy Through School Libraries Program.

Chapter 2
Research on School Libraries and Literacy

A number of state-level studies have found an association of certain school library characteristics with increased student achievement. This section provides a brief summary of the studies, focusing on general evidence of the association of school libraries with student test scores and on characteristics of school libraries that are associated with higher student test scores. The analysis of such associations is complicated, however, by some methodological issues that arise. These issues are discussed before the research findings are presented.

One fundamental question concerning the validity of the research findings is the question of whether a strong library support system is the source of strong academic achievement or whether it is the concurrent result of other factors that are also related to high student achievement. For example, many studies (including many of the library studies listed below) have found an association between poverty and student test scores. Poverty also tends to be interrelated with the level of resources at the school (including library resources), making it difficult to separate such socioeconomic variables from school variables; that is, it is difficult to know whether higher test scores in a school are attributed to students' socioeconomic background, the level of resources generally available at the school, or the specific level of library resources at the school.

Thus, the library studies mentioned below typically have attempted to statistically adjust for school and student characteristics such as school district expenditures per pupil, teacher-pupil ratio, the average years of experience of classroom teachers, average teacher salaries, adult educational attainment, children in poverty, and racial or ethnic demographics. Relationships between library characteristics and improved test scores continued to hold after making such adjustments (Burgin and Bracy 2003). The study reports varied in the extent to which they provided information on the statistical methodology that was used, but at a minimum, adjustments for poverty levels and other school or community characteristics were included in studies in the following eight states: Alaska, Pennsylvania, Colorado (two studies), Oregon, Iowa, New Mexico, North Carolina and Texas.

The analysis of achievement in this report has a particular strength because of the capacity to examine changes in library resources over time, while the socioeconomic characteristics are generally less subject to changes over time. Even the general level of resources at the school is likely to change less dramatically than the library resources because of the comparative size of the grants with respect to school libraries' typical budgets.

Some studies have differentiated between direct and indirect relationships with test scores. For example, Oregon found that information resources and technology and library media center usage all showed direct relationships with student test scores, while library media staffing levels, staff activities and library media expenditures showed indirect relationships.

Association of School Libraries With Student Test Scores

General results of state-level studies showing positive relationships between library characteristics and student test scores are presented below. The specific factors that were associated with improved test scores are discussed later in this chapter.

Alaska. Test scores on the California Achievement Tests tended to be higher if schools had librarians (especially full-time librarians) and, regardless of staffing, if schools had higher amounts of

staff time devoted to delivering library and information literacy instruction to students and providing in-service training to teachers and other staff members (Burgin and Bracy 2003).

Colorado. Keith Curry Lance's first Colorado study found that the size of the library (i.e., the number of staff members and the size of the collection) explains between 5 percent and 15 percent of the variation in reading scores (Lance, Welborn and Hamilton-Pennell 1992). In a second study, he found increases in Colorado Student Assessment Program reading scores of up to 18 percent in the fourth grade and up to 10 percent to 15 percent in the seventh grade (Lance, Rodney and Hamilton-Pennell 2000a).

Florida. Test scores were "more than 20 percent higher in elementary schools where library media staffing is at 80 hours per week or more than in schools with less than 60 hours per week" (Baumbach 2002, 4).

Illinois. Higher achievement on the state reading test was associated with more hours of flexible library scheduling, higher library staffing levels, more weekly hours of librarian staffing, more time spent on selected library activities, larger and more current library collections, more library computers connected to the Internet, more money spent on libraries, and higher student usage of the library (Illinois School Library Media Association 2005).

Indiana. Scores on the Indiana Statewide Testing for Educational Progress were associated with the presence of a full-time library media specialist who had been at the school for at least three years and who excelled at information access and administrative services (Scholastic Library Publishing 2008).

Iowa. Reading scores were higher at schools with strong library media centers at all three levels (elementary, middle school and high school) (Scholastic Library Publishing 2008).

Massachusetts. Massachusetts Comprehensive Assessment System scores tended to be higher in schools with school library programs at all grade levels (Scholastic Library Publishing 2008).

Michigan. Reading scores on the Michigan Educational Assessment Program were related to the presence of a qualified school librarian and use of a flexible schedule (Rodney, Lance and Hamilton-Pennell 2003).

Minnesota. Scores on the Minnesota Comprehensive Assessment were related to the library budget for books and materials and to the presence of a full-time media specialist (Baxter and Smalley 2003).

Missouri. Scores on the Missouri Assessment Program were positively associated with the availability of school library program services (Scholastic Library Publishing 2008).

New Mexico. Achievement scores were positively associated with school library programs (Lance, Rodney and Hamilton-Pennell 2002).

North Carolina. Standardized reading and English scores tended to be higher if school libraries were staffed and open more hours, had newer books, spent more per 100 students on books and electronic access to information, and subscribed to CD-ROM and online periodical services (Burgin and Bracy 2003).

Oregon. Test scores on the Oregon state reading test tended to be higher in grades 5, 8, and 10 if school libraries had characteristics such as large print collections, more visits by students, and more staff members (Burgin and Bracy 2003).

Pennsylvania. Using bivariate and partial correlations, Pennsylvania System of School Assessment reading scores tended to increase as library staffing increased, even after adjusting for school conditions such as per pupil expenditures and the teacher-pupil ratio or for community conditions such as poverty and low educational attainment (Lance, Rodney and Hamilton-Pennell 2000b).

Texas. Texas Assessment of Academic Skills scores were higher in schools with librarians and were related to library staffing levels, collection sizes, librarian interaction with teachers and students, and technology levels (Scholastic Library Publishing 2008).

Wisconsin. Student academic performance was positively associated with staffing the school library with full-time certified library media specialists and aides (Smith 2006).

Characteristics That Are Associated With Higher Student Test Scores

Many factors have been specifically associated with improved student test scores (Exhibit 2-1). The exhibit below includes the factors that were mentioned in multiple studies.

These individual factors may not be sufficient by themselves but, rather, may need to be part of a larger package to influence student achievement. For example, a study in Pennsylvania found that having a large collection was important only when also combined with a schoolwide initiative to integrate information literacy into the school's approach to standards and curricula (Lance, Rodney and Hamilton-Pennell 2000b, 45). School characteristics also were interrelated with differences in the relationship between school libraries and student test scores. Lonsdale notes that "some research suggests that the impact of the school library diminishes as students move through high school" (Lonsdale 2003, 26).

Exhibit 2-1
Library Services and Characteristics Positively Associated With Student Test Scores

Library Service/Characteristic	State
Staffing/availability	
Number of hours of staffing at library	Colorado, Florida, Illinois, Indiana, Iowa, Massachusetts, North Carolina, Oregon, Pennsylvania
Having a full-time librarian	Alaska, Indiana, Massachusetts, Minnesota, Texas, Wisconsin
Scheduling to make libraries available	Colorado, Illinois, Iowa, Michigan, North Carolina
Having a certified school library media specialist	Florida, Michigan, Wisconsin
Professional development/training	
Instruction to students and teachers	Alaska, Massachusetts, Oregon, Pennsylvania
Collaboration/cooperation	
Cooperative relationships with public libraries	Alaska
Collaboration between library media specialists and teachers	Colorado, Iowa, Oregon
Electronic linkages and technology	
Facilities that reach the Internet	Alaska, Florida
Networked linkages with classrooms and other instructional sites	Colorado, Illinois, Oregon, Pennsylvania
Automated collections	Massachusetts
Collections and resources	
Print volumes per student	Colorado, Florida, Illinois, Iowa, Massachusetts, Oregon, Pennsylvania, Texas
Periodical subscriptions per 100 students	Colorado, Oregon, Texas
Video collections per 100 students	Iowa, Texas
Audio materials	Iowa
Electronic reference titles per 100 students	Colorado
Library media expenditures per student	Colorado, Massachusetts, North Carolina, Oregon, Pennsylvania, Texas
Recency of copyright dates	Iowa, North Carolina
Usage	
Usage of library (as measured by the number of visits to the library media center or by a high number of books checked out per student)	Colorado, Florida, Illinois, Massachusetts, Oregon

Exhibit reads: The number of hours of staffing at the library was positively associated with student test scores in Colorado, Florida, Illinois, Indiana, Iowa, Massachusetts, North Carolina, Oregon and Pennsylvania.

Note: This exhibit is a synthesis of all the state-level studies discussed in this chapter. Citations are shown in the references on p.79.

Chapter 3
Program Implementation

Key Findings

- Districts often reported selecting schools to participate in the grant based on various kinds of disadvantages at those schools such as lack of library resources, poverty level and those identified for improvement under *No Child Left Behind*.
- Participation in the school selection process had increased for most staff members and had decreased for district school library coordinators since the first LSL evaluation.
- In 2005–06, more than half (57 percent) of the program funds were spent on resources, including books. This level was a decrease from 2003–04 when 68 percent of the funds were spent on resources.
- After receiving the LSL grants, the grantees roughly tripled their expenditures for books and subscriptions as well as for computer hardware. By contrast, nongrantees showed little change in these categories.

The LSL program provides competitive grant awards to school districts. In the 2004–05 and 2005–06 school years, about half of the districts receiving LSL awards had enrollments of 2,000 or more students, and almost half received grants of more than $200,000 (Exhibit 3-1). About half of the districts were located in rural areas, and most of the other districts were in cities or towns.

Districts determine which schools will participate in the grant. This chapter describes the basis used to make these decisions and the personnel involved in making them. It also discusses the approach used to distribute grant money to the schools and the personnel involved in that decision. In addition, it describes how the grant money was spent, other outside support for literacy and libraries, and how schools allocate library funds.

Exhibit 3-1
Characteristics of Districts Receiving LSL Grants, 2004–05 and 2005–06 School Years

District Characteristic	2004–05		2005–06	
	Number	Percentage	Number	Percentage
Total	92	100	85	100
District enrollment size				
Fewer than 500	20	22	15	18
500–1,999	25	27	25	29
2,000 or more	47	51	45	53
Urbanicity				
City	22	24	18	21
Urban fringe	6	7	10	12
Town	19	21	16	19
Rural	45	49	41	48
Region				
Northeast	12	13	19	22
Southeast	27	29	20	24
Central	11	12	12	14
West	42	46	34	40
Amount of grant				
Up to $100,000	19	21	13	15
$101,000–$200,000	31	34	28	33
More than $200,000	42	46	44	52

Exhibit reads: In the 2004–05 school year, 20 districts receiving LSL grants had a district enrollment of fewer than 500 students. Districts of this size represented 22 percent of all districts receiving an LSL grant that year.

Note: Percentages may not add to 100 because of rounding.

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2003–04. Grantee data file supplied by the Improving Literacy Through School Libraries Program.

How Districts Allocate Program Funds

Although the grants for the LSL program were awarded to districts, most of the activities funded by the grants occurred at the school level. Most districts indicated which schools they planned to serve as a part of their grant applications, but they could make changes after the grant was awarded.

Exhibit 3-2
Methods Districts Use to Select Schools for Participation in the LSL Grant During the 2005–06, 2004–05, and 2003–04 School Years

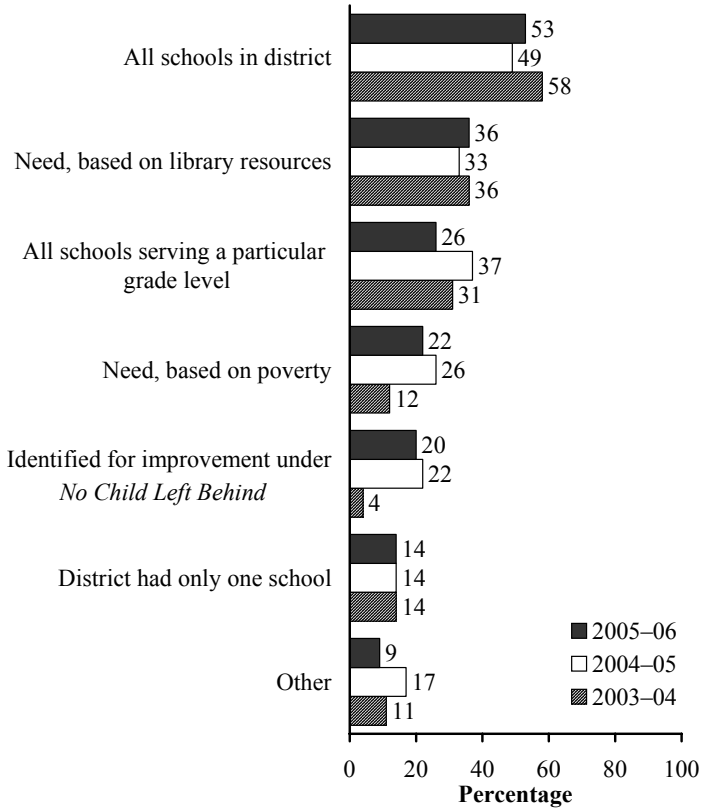

Exhibit reads: Selecting all schools in the district for participation in the LSL grant was a selection method used by 53 percent of the grantee districts in 2005–06, 49 percent in 2004–05, and 58 percent in 2003–04.

Note: Districts could use more than one method to select schools for participation.

Source: First and second evaluations, district performance report question 1.

Generally, the approaches used by districts to select schools for participation in the grant have been about the same each year between 2003–04 and 2005–06 (Exhibits 3-2 and A-1). About half of the districts served all schools in the district, an approach used by 84 percent of the districts with enrollments of less than 500 students. Only high-poverty districts can participate in the LSL program, but needs differ within districts. About a third of the districts selected the neediest schools based on the lack of library resources. One change since 2003–04 is that more districts have selected schools that are considered needy on the basis of the poverty or were identified for improvement under *No Child Left Behind*. Forty-two percent of school districts in urban areas used this last approach compared with less than one-fifth of districts in other types of communities. In all three years examined, 14 percent of the districts receiving grant awards contained only one school; consequently, they did not need to make any school selection decisions.

Exhibit 3-3
Methods Used to Distribute Grant Money to Schools, 2005–06 School Year

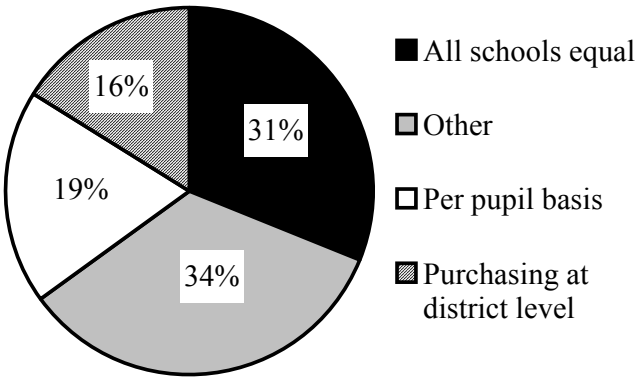

Exhibit reads: Nineteen percent of grantee districts distributed grant money to schools on a per pupil basis.

Source: Second evaluation, district performance report question 14.

Exhibit 3-4
Percentage of Districts Using Various Methods to Distribute Grant Money to Schools, 2005–06, 2004–05, and 2003–04 School Years

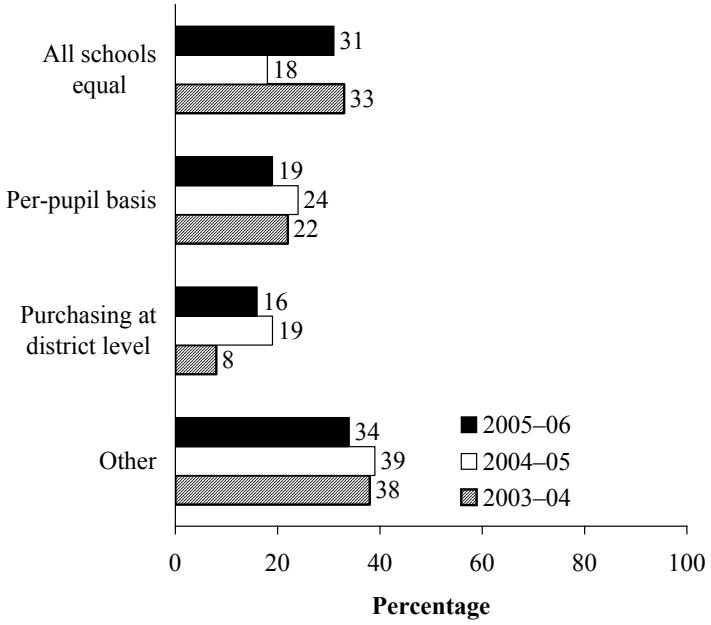

Exhibit reads: Distributing grant money to all schools equally was the method used by 31 percent of the grantee districts in 2005–06, 18 percent in 2004–05 and 33 percent in 2003–04.

Source: First and second evaluations, district performance report question 14.

Methods used by districts to distribute grant money to schools, have been about the same with minor variations from year to year. For example, in 2003–04 and 2005–06, about a third of the districts gave all schools an equal amount of grant funds, but only 18 percent of the districts used this approach in 2004–05 (Exhibits 3-3, 3-4, and A-1). In 2003–04, 8 percent of the districts did the purchasing at the district level, while 16 percent used this approach in 2005–06.

Participation in the school selection process had increased for most staff members and decreased for district school library coordinators since the first LSL evaluation (Exhibits 3-5, A-2, A-3, and A-4). School librarians were involved in the school selection decision in most districts (84 percent), although the percentage had declined. Virtually all (95 percent) of the districts involved school librarians in the decisions for spending grant money, as had also been the case in the first evaluation. Participation by reading specialists in spending decisions increased from 45 percent to 60 percent of the districts. Participation in the spending decisions also increased for reading curriculum coordinators and parents, but decreased for district school library coordinators and classroom teachers.

Exhibit 3-5
Percentage of Districts Using Various Personnel to Decide Which Schools to Serve and How Grant Funds Should Be Spent, 2005–06 and 2003–04 School Years

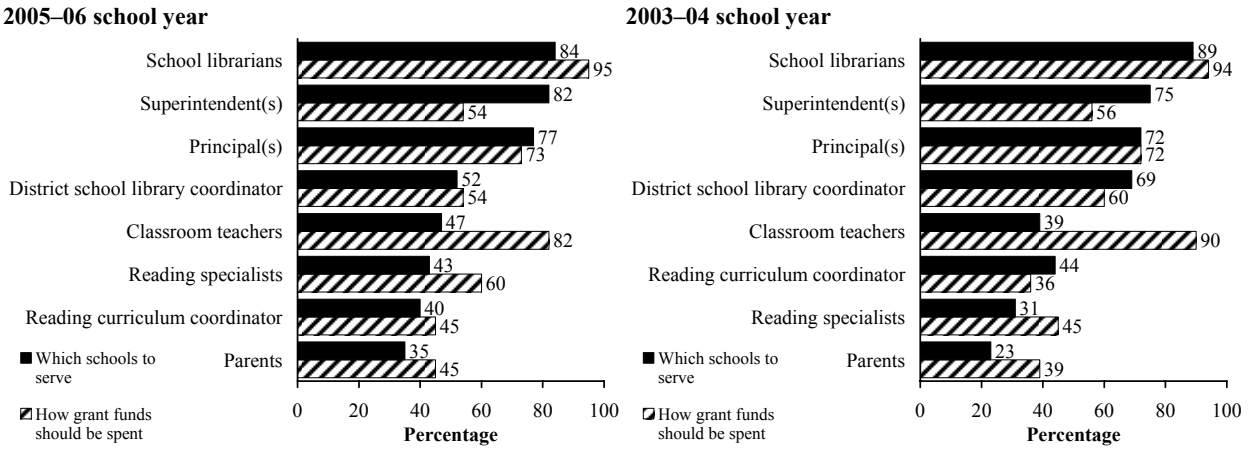

Exhibit reads: In the 2005–06 school year, school librarians were involved in the decision with respect to which schools to serve in 84 percent of the districts. School librarians were involved in deciding how grant funds should be spent in 95 percent of the districts.

Source: First and second evaluations, district performance report questions 2 and 13.

Exhibit 3-6
Percentage of Grant Funding Spent by Category, 2005–06 School Year

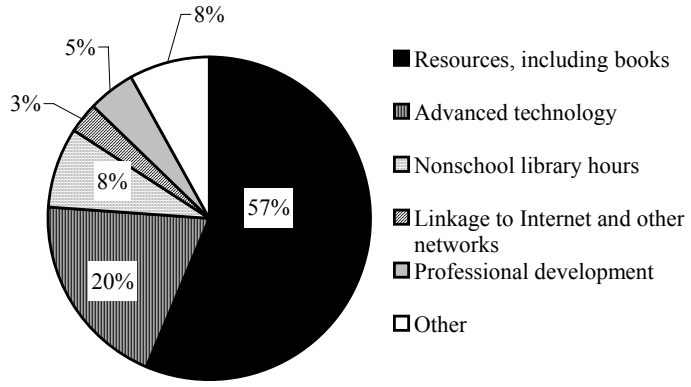

Exhibit reads: Fifty-seven percent of grant funds was spent on resources, including books.

Note: Percentages may not add to 100 because of rounding.

Source: Second evaluation, district performance report question 12.

Five types of activities can be funded under the LSL program. In 2005–06, more than half (57 percent) of the program funds were spent on resources, including books. This level of funding was a decrease from 2003–04 when 68 percent of the funds were spent on resources (Exhibits 3-6, A-5, and A-6). Spending on advanced technology grew from 11 percent in 2003–04 to 20 percent in 2005–06. Perhaps one reason for this change is that in the earlier year, the LSL program cut technology purchases from the budgets of many applications because other funding sources were available, but that was not the case in the later year.

Other Outside Support for Literacy and Libraries

Funding for literacy programs in high-poverty districts is provided by several other federal programs in addition to LSL. Some school libraries also receive funding from nonfederal sources. In the evaluation, we compared the extent to which grantees and nongrantees used these outside funding sources.

Exhibit 3-7
Percentage of School Libraries Receiving Funding From Various Federal Education Programs, by Grantee Status, 2005–06 School Year

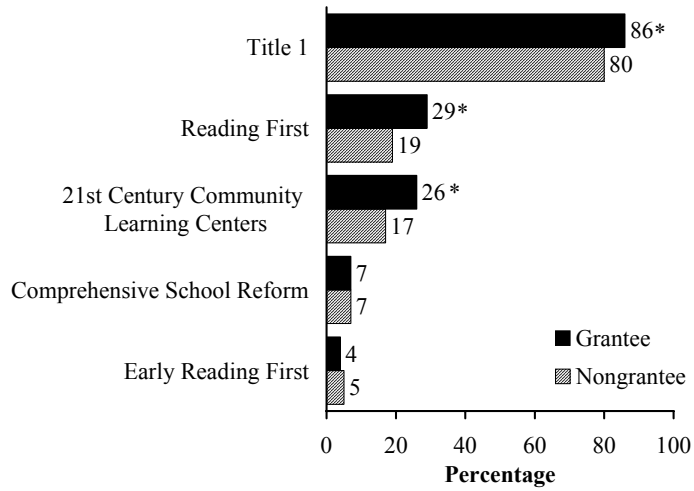

Exhibit reads: Eighty-six percent of the grantees received Title I funding, compared with 80 percent of the nongrantees. The difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 43.

Significantly more LSL grantees than nongrantees participated in the programs of Title I (86 percent versus 80 percent), Reading First (29 percent versus 19 percent), and 21st Century Community Learning Centers (26 percent versus 17 percent) (Exhibit 3-7). There was also an increase in LSL grantees participating in Reading First, from 15 percent in 2003–04 to 29 percent in 2005–06. Less than 10 percent of the LSL grantees participated in Comprehensive School Reform or Early Reading First.

Exhibit 3-8
Percentage of School Libraries Receiving Funding From Various Outside Sources During the 2005–06 School Year, by Grantee Status

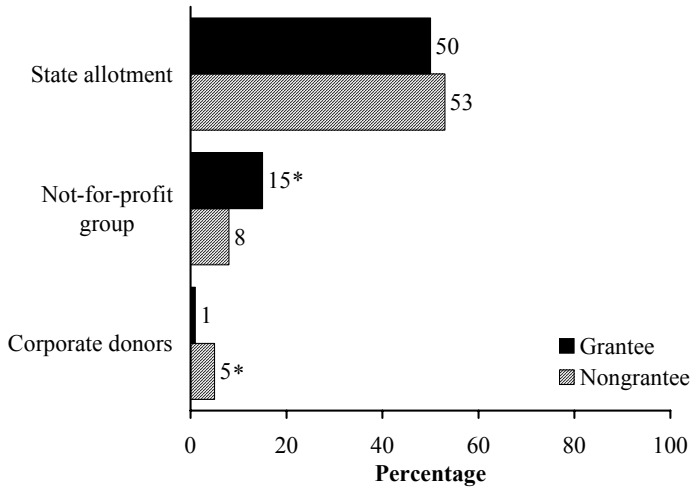

Exhibit reads: Fifty percent of grantees received state allotment funding, compared with 53 percent of nongrantees. The difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 44.

Other possible sources of funding for school libraries include a state allotment, not-for-profit groups and corporate donors. About half of the grantees (50 percent) and nongrantees (53 percent) received funding from a state allotment (Exhibit 3-7). Significantly more grantees (15 percent) than nongrantees (8 percent) received funding from a not-for-profit group, while significantly fewer grantees (1 percent) than nongrantees (5 percent) received funding from corporate donors.

How Schools Allocate Funds

LSL school districts distributed $18.1 million in grant funding in both 2004–05 and 2005–06. Roughly three-fourths of the funds were used to acquire resources, including not only advanced technology such as new computers and interactive whiteboards (20 percent in 2005–06) but also books and other resources (57 percent in 2005–06) (Exhibits 3-9 and A-6). In both years, the percentage spent on advanced technology was well above that for 2003–04 (20–23 percent versus 11 percent). The remaining funds were used for operating a library media center in nonschool hours (8 percent–9 percent in both years), professional development (4 percent–5 percent), linkage to the Internet and other networks (2 percent–3 percent), and other uses (8 percent–12 percent). Urban school districts had a somewhat different pattern from other districts, putting less into advanced technology (6 percent versus 20 percent–25 percent among all other districts) and more into the acquisition of other resources (73 percent versus 49 percent–52 percent in towns and rural areas) (Exhibit A-5).

Exhibit 3-9
Percentage of LSL Funds Spent by Districts, 2005–06, 2004–05 and 2003–04 School Years

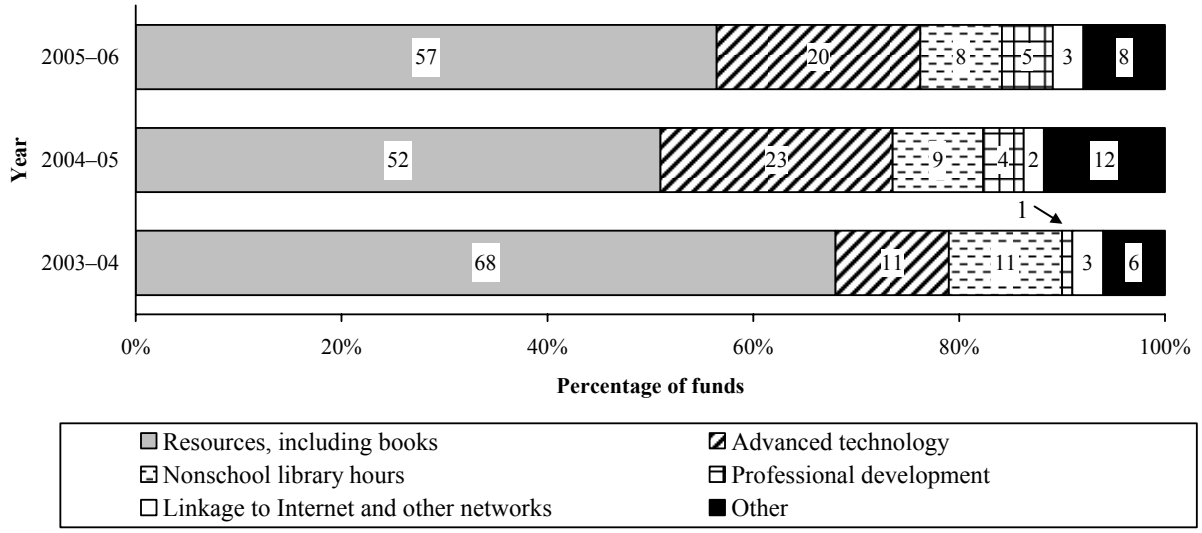

Exhibit reads: In the 2005–06 school year, districts spent 57 percent of their LSL funds on resources, including books; 20 percent on advanced technology; 8 percent on nonschool library hours; 5 percent on professional development; 3 percent on linkage to Internet and other networks; and 8 percent on other categories.

Note: Percentages may not add to 100 because of rounding.

Source: First and second evaluations, district performance report question 12.

Exhibit 3-10
Mean Expenditures on Materials by School Libraries, by Grantee Status, 2004–05 and 2005–06 School Years

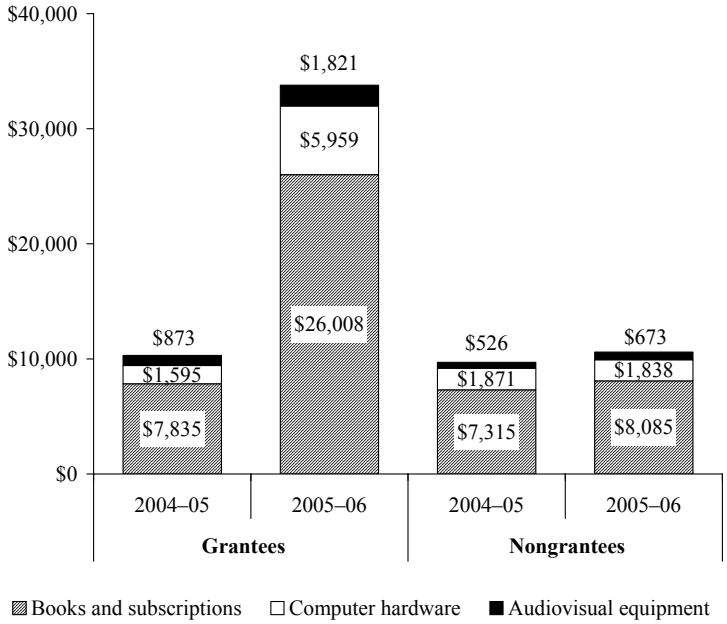

Exhibit reads: In the 2004–05 school year, grantees spent an average of $7,835 on books and subscriptions, $1,595 on computer hardware, and $873 on audiovisual equipment.

Source: Second evaluation, school library media center survey questions 33, 34, and 35.

Looking only at acquisitions, school libraries tended to allocate the greatest amount of their funds to materials such as books and subscriptions and the next most to computer hardware (Exhibits 3-10 and A-7). After receiving the LSL grants, the grantees roughly tripled the amounts for books and subscriptions and for computer hardware. By contrast, nongrantees showed little change in these categories. Among the grantees, some of the greatest changes were among (a) small schools (which quadrupled expenditures on books and subscriptions and made an almost six-fold increase in computer hardware expenditures), (b) rural schools (which almost quadrupled expenditures for books and subscriptions and made a sevenfold increase in computer hardware expenditures), and (c) schools with $12 or less in expenditures per student (which made an almost tenfold increase for books and subscriptions and a tenfold increase on computer

hardware). In the first evaluation, when grants were smaller, grantees roughly doubled their expenditures on books and subscriptions and on computer hardware. In both evaluations, about 75 percent of grantees' expenditures on materials were on books and 18 percent were on computer hardware.

Exhibit 3-11
Mean Expenditures by School Libraries on Selected Materials, by Grantee Status, 2005–06 School Year

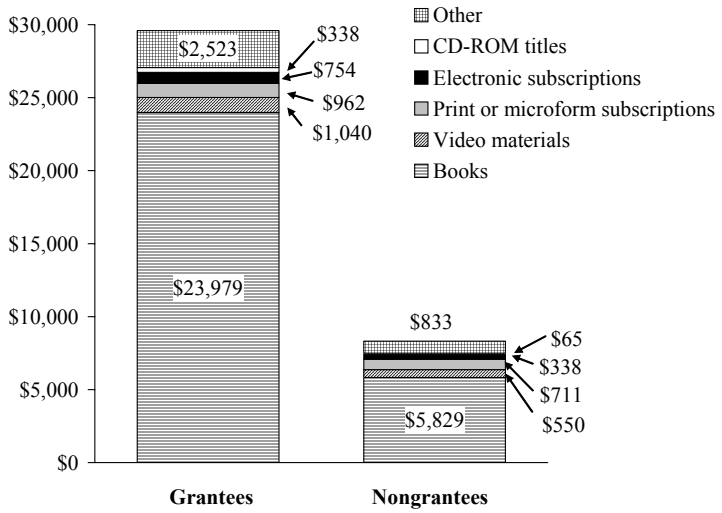

Exhibit reads: Grantees spent an average of $23,979 on books and $1,040 on video materials.
Source: Second evaluation, school library media center survey questions 32 and 33.

In 2005–06, library media centers devoted the major part of their expenditures for materials to getting books: 80 percent of grantees' expenditures and 69 percent of nongrantees' expenditures were for books (Exhibits 3-11 and A-8). Because grantees also spent more total funds than nongrantees, the difference between grantees and nongrantees was larger in dollar terms, with grantees spending an average of $24,000 on books compared with $5,800 among nongrantees. Among the grantees, rural schools spent the lowest proportion on books (71 percent versus 82 to 87 percent among other districts).

In summary, since the first evaluation, the methods used by districts to select schools for LSL grant participation and distribute grant money to them have shown little change. Participation in the school selection process had increased for most staffing categories but had decreased for district school library coordinators, while participation by reading specialists in spending decisions had increased.

Districts spent a smaller proportion of grant funds on resources, including books and a greater proportion on advanced technology, since the first evaluation. After receiving the LSL grants, the grantees roughly tripled the amount of expenditures for books and subscriptions and for computer hardware. By contrast, nongrantees showed little change in these categories.

Significantly more grantees than nongrantees received funding from not-for-profit groups and participated in the Title I, Reading First, and 21st Century Community Learning Centers programs.

Chapter 4
School-Level Changes Associated With the Program

Key Findings

- Among those districts conducting needs assessments, grantees identified significantly more needs compared with nongrantees, and they were more apt to make changes as a result.
- Before the grant, significantly fewer grantees than nongrantees considered their reading/English materials to be adequate or excellent. In contrast, during the grant year, significantly more grantees than nongrantees considered their overall reading/English literature, print materials and computer software to be adequate or excellent. The first evaluation found that overall, the grants seemed to compensate for grantees' earlier disadvantages and bring them to rough equality with the nongrantees whereas the second evaluation found that the grants enabled the grantees to surpass the nongrantees.
- Before receiving the LSL grants, the grantees provided significantly fewer nonschool hours of access than nongrantees, but this difference was eliminated after receiving the grants.
- Overall, grantees were more likely than nongrantees to have increased services by establishing new programs or expanding existing programs. Many of the increased services involved collaboration between library media staff members and classroom teachers and other school staff members.
- In the first evaluation, school libraries receiving two successive LSL grants tended to be more disadvantaged than those receiving grants only in 2003–04. In contrast, in the second evaluation, the repeat grantees appear to have started in 2004–05 with fewer disadvantages than the other grantees. Despite being more advantaged than those receiving grants only in 2003–04, the repeat grantees were still disadvantaged compared with the nongrantees on some measures.

This chapter examines many aspects of a school library that might be influenced by the program, including the conducting of a needs assessment, resources available, extended hours, services offered, staffing professional development, and collaboration with teachers.

Needs Assessment

The LSL legislation states that district applications must contain

> a needs assessment relating to the need for school library media improvement, based on the age and condition of school library media resources, including book collections, access of school library media centers to advanced technology, and the availability of well-trained, professionally certified school library media specialists, in schools served.[7]

About half (51 percent) of the grantees and a third (34 percent) of the nongrantees conducted a needs assessment within the last two years, a significant difference (Exhibit A-9). These results were the same as those found in the first LSL evaluation.

[7] Section 1251(f)(2)(A) of the *ESEA*.

Grantee school libraries that conducted needs assessments within the last two years identified significantly greater needs than nongrantees in two of the five resource-related areas (Exhibits 4-1, A-9 and A-10). Virtually all (95 percent) of the grantees identified the need for more-up-to date materials compared with 85 percent of the nongrantees, a significant difference. Significantly more grantees (92 percent) than nongrantees (78 percent) made changes to increase the availability of up-to-date materials in response to the needs assessment. More computer equipment was the second most common resource-related need, but the apparent differences between grantees and nongrantees are not significant. Although more space was identified by significantly more grantees (51 percent) than nongrantees (33 percent), the same percentage (13 percent) made changes to address this need. Overall, the percentage of grantees and nongrantees identifying various needs and making changes as a result was about the same in the first and second evaluations.

Exhibit 4-1
Percentage of School Libraries Identifying Various Resource-Related Needs Through a Needs Assessment, and the Percentage That Made Changes, by Grantee Status, Fall 2006

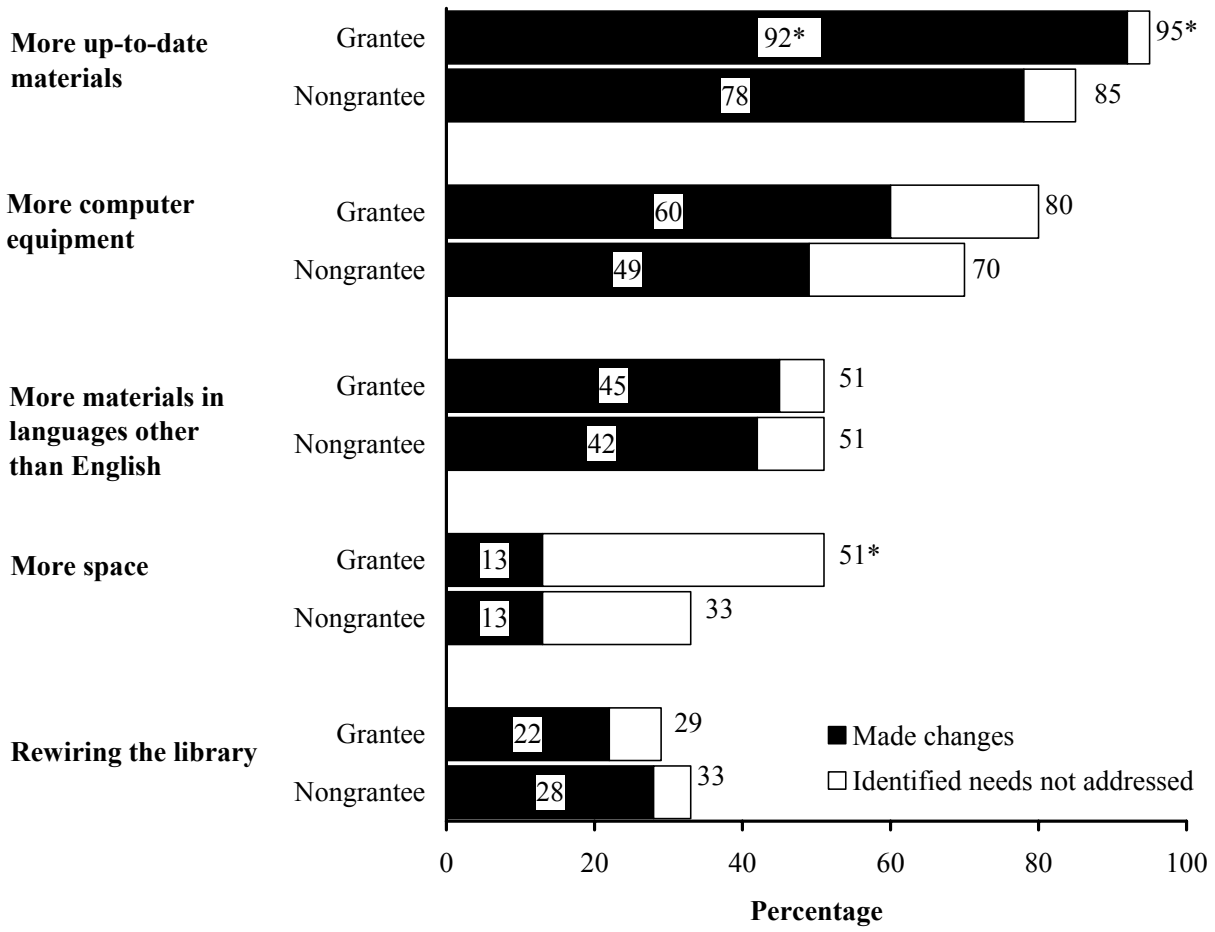

Exhibit reads: Ninety-five percent of the grantees identified a need for more up-to-date materials compared with 85 percent of the nongrantees. Ninety-two percent of the grantees made changes to address this need compared with 78 percent of the nongrantees. Both differences are statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages are based on school libraries that had done a needs assessment.

Source: Second evaluation, school library media center survey question 40.

Grantees were more likely than nongrantees to identify staffing-related needs and to make necessary changes. For example, three-fourths (75 percent) of the grantees identified the need for more hours in which the library is open while about two-fifths (41 percent) of the nongrantees identified this need, a significant difference (Exhibits 4-2, A-9 and A-10). Significantly more grantees (62 percent) than nongrantees (24 percent) made a change to address this need. A similar pattern was found for the need for more professional development and for more time for planning with teachers. Overall, the data from the first and second evaluations were similar, with grantees identifying greater staffing-related needs and making changes to address the needs. However, for grantees, the need for more professional development was significantly greater in the second evaluation (75 percent) compared with the first (60 percent).

Exhibit 4-2
Percentage of School Libraries Identifying Various Staffing-Related Needs Through a Needs Assessment, and the Percentage That Made Changes, by Grantee Status, Fall 2006

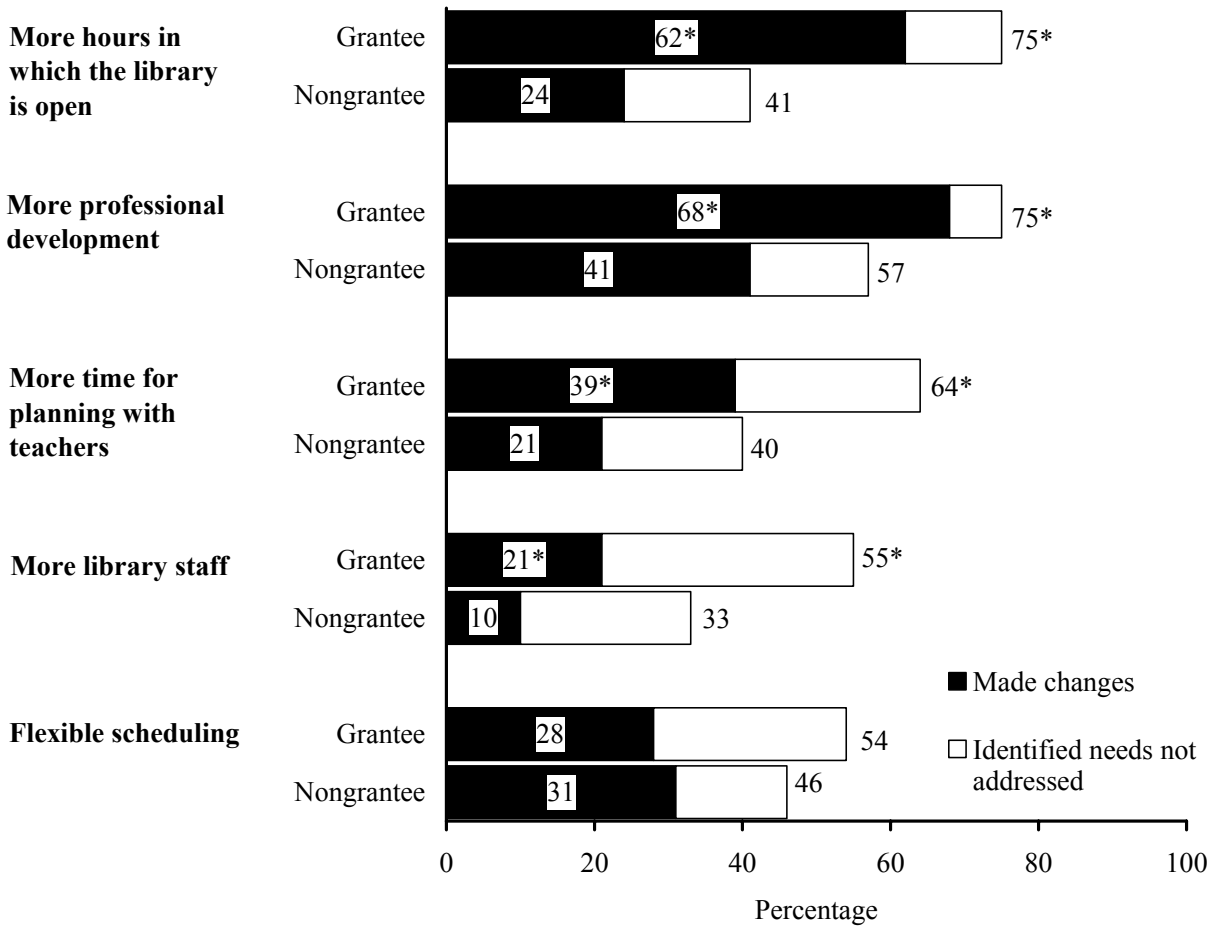

Exhibit reads: Seventy-five percent of the grantees identified a need for more hours in which the library is open compared with 41 percent of the nongrantees. Sixty-two percent of the grantees made a change to address this need compared with 24 percent of the nongrantees. Both differences are statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages are based on school libraries that had done a needs assessment.

Source: Second evaluation, school library media center survey question 40.

Examples of Needs Assessments, Drawn From the Case Studies

Several approaches used to determine needs

A rural district in an Eastern state used several approaches to determine library needs, which included reviewing student test score data, interviewing teachers, assessing library circulation rates, and reviewing inventories to find possible gaps in the resources. They found that 60 percent of the library collection had an average copyright date before 1993, and approximately 50 percent was in poor condition. Gaps identified included books for nonreaders and emergent readers as well as science and social studies resources.

A very outdated library

In a small Eastern town, a very experienced librarian who was new to the district was assigned to an extremely outdated library containing four computers, a magazine collection beginning in the 1970s, and at least one book suggesting that people may travel to the moon some time in the future. This discovery became the impetus for her to take a leading role in applying for an LSL grant.

Resources

Upgrading the resources in school libraries is a major purpose of the LSL program. The types of resources that can be acquired under the program include books and advanced technology. In addition, the program facilitates linkages through the Internet and other resource-sharing networks with other libraries. Because most LSL program funds have been spent on resources, this evaluation compared grantee and nongrantee school libraries with respect to the adequacy of their collections, recency of holdings, kinds of equipment located in the school library, availability of electronic services, computer access to catalogs of other libraries, and cooperative activities with local public libraries. Some comparisons were made between resources during the grant year (2005–06) and the year before the grant (2004–05) as well as between the first and second evaluations.

Collection

The first evaluation found that overall, the grants seemed to compensate for grantees' earlier disadvantages and bring them to rough equality with the nongrantees whereas the second evaluation found that the grants enabled the grantees to surpass the nongrantees. In spring 2005, before the grant, significantly fewer grantees considered their materials to be adequate or excellent compared with nongrantees for all types of materials, namely, overall reading/English literature, print materials, video/audiovisual materials and computer software (Exhibits 4-3, A-11, and A-12). In contrast, in spring 2006, during the grant year, significantly more of the grantees considered their overall reading/English literature, print materials and computer software to be adequate or excellent compared with nongrantees.

Exhibit 4-3
Percentage of School Libraries Reporting That Their Holdings Were Excellent or Adequate in Supporting the Instructional Program in English, by Type of Material and Grantee Status, Spring 2005 and 2006

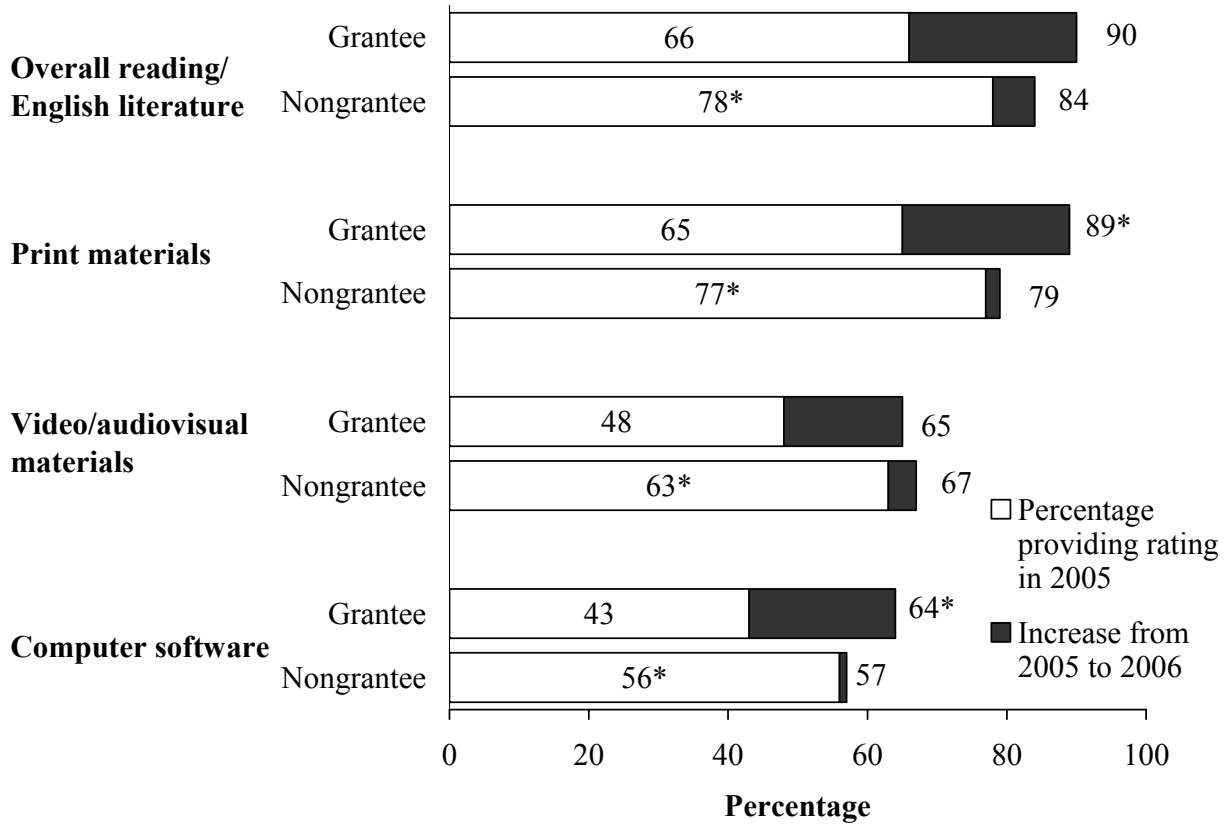

Exhibit reads: In 2005, 66 percent of the grantees reported that their overall reading/English literature holdings were excellent or adequate compared with 78 percent of the nongrantees. This difference is statistically significant ($p \leq .05$). In 2006, 90 percent of the grantees reported that their overall reading/English literature holdings were excellent or adequate compared with 84 percent of the nongrantees. This difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 20.

Significantly more grantees considered their resources such as materials with high interest and low vocabulary or multicultural materials to be adequate or excellent in spring 2006, the grant year, compared with their responses for spring 2005, the year before the grant (Exhibits 4-4, A-13, and A-14). In contrast, there were no significant differences between the grant year and the year before the grant for the nongrantees. (Further details about the responses can be found in Exhibit A-13.)

Exhibit 4-4
Percentage of School Libraries Reporting That Their Resources Were Excellent or Adequate in the Grant Year and the Year Before the Grant Year, by Type of Resource and Grantee Status, Spring 2006 and 2005

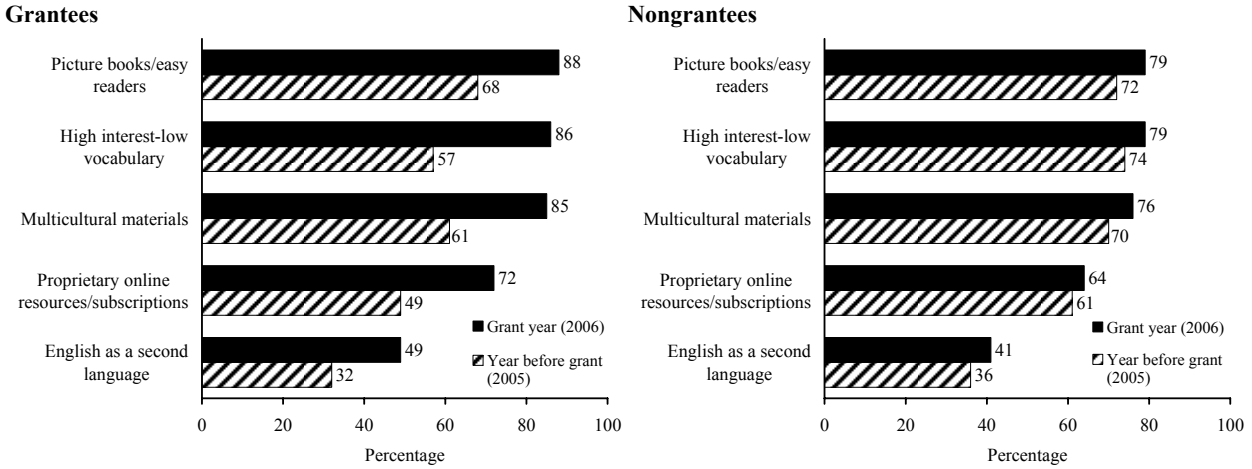

Exhibit reads: In the grant year, 88 percent of the grantees reported that their resources of picture books/easy readers were excellent or adequate. In the year before the grant, 68 percent of the grantees reported that these resources were excellent or adequate.

Source: Second evaluation, school library media center survey question 21.

Grantees reported purchasing more than double the number of books and video materials that nongrantees purchased, both of which are significant differences (Exhibit 4-5). Holdings at the end of the grant year also differed for grantees and nongrantees after receipt of the grant. Grantees had significantly fewer books and video materials than the nongrantees (9,451 versus 11,892 for books) and (290 versus 392 for video materials), even though these figures represented areas in which they had made significantly more acquisitions than the nongrantees. In contrast, in the first LSL evaluation, the holdings of the grantees and nongrantees were similar at the end of the grant year.

Exhibit 4-5
Mean Acquisitions and Holdings of Grantee and Nongrantee School Libraries, by Type of Material, 2005–06 School Year

Type of Material	Acquired During 2005–06		Total Number Held at the End of 2005–06	
	Grantee	Nongrantee	Grantee	Nongrantee
Books (all copies)	1,611*	784	9,451	11,892*
Video materials (titles)	107*	32	290	392*
CD-ROM titles	10*	2	36*	22
Print or microform periodical subscriptions	10	10	17	24
Electronic subscriptions	1	2	1	3*

Exhibit reads: The average number of books acquired by grantees was 1,611 compared with 784 by nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 32.

Copyright year was used as an indication of the recency of the materials in the school library. In fall 2006, after the grant had been implemented, the average copyright year for the nonfiction collection was 1993 for grantees and 1992 for nongrantees, a statistically significant difference (Exhibit A-15). For fiction, the average copyright year was 1992 for both grantees and nongrantees. This finding contrasts with the findings of the first evaluation in which the nongrantees had a more recent fiction collection and the average copyright year of the nonfiction collection was the same for grantees and nongrantees.

The age of atlases in both grantee and nongrantee school libraries was similar in fall 2006, after the grant had been implemented (Exhibit A-15). However, grantees had significantly more recent general encyclopedias compared with nongrantees (Exhibits 4-6 and A-15). This finding contrasts with the results of the first evaluation in which no differences were found between grantees and nongrantees with respect to the age of their most recent encyclopedia.

Exhibit 4-6
Copyright Date of School Libraries' Most Recent General Encyclopedia, by Grantee Status, Fall 2006

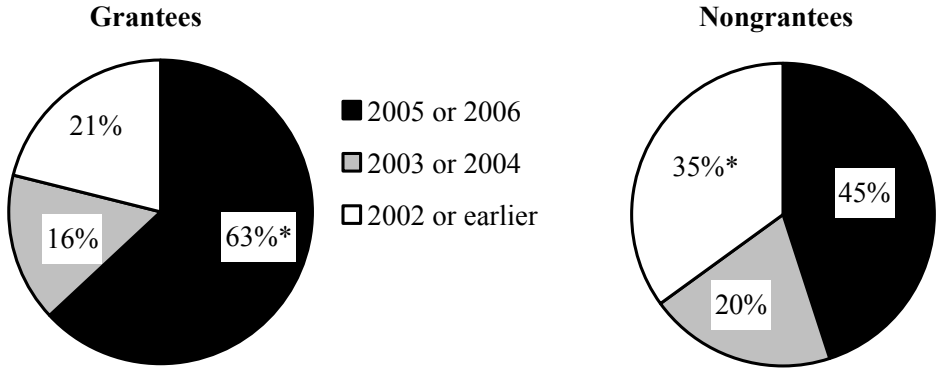

Exhibit reads: For 63 percent of the grantees, 2005 or 2006 was the copyright date of their most recent general encyclopedia, compared with 45 percent of the nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 23.

The importance of various factors in selecting books to add to the library's collection was generally quite similar to those in the first LSL evaluation. In both evaluations significantly more grantees than nongrantees (63 percent versus 52 percent in 2006) considered consultation with a reading specialist to be very or somewhat important (Exhibits 4-7, A-16, and A-17). Factors that were mentioned by at least 90 percent of the respondents as being very or somewhat important were that books were chosen to strengthen a particular subject, that they were selected in consultation with classroom teachers, and that they won awards.

Exhibit 4-7
Percentage of School Libraries Indicating That Various Factors Were Very or Somewhat Important in Selecting Books to Add to Their Collection, by Grantee Status, Fall 2006

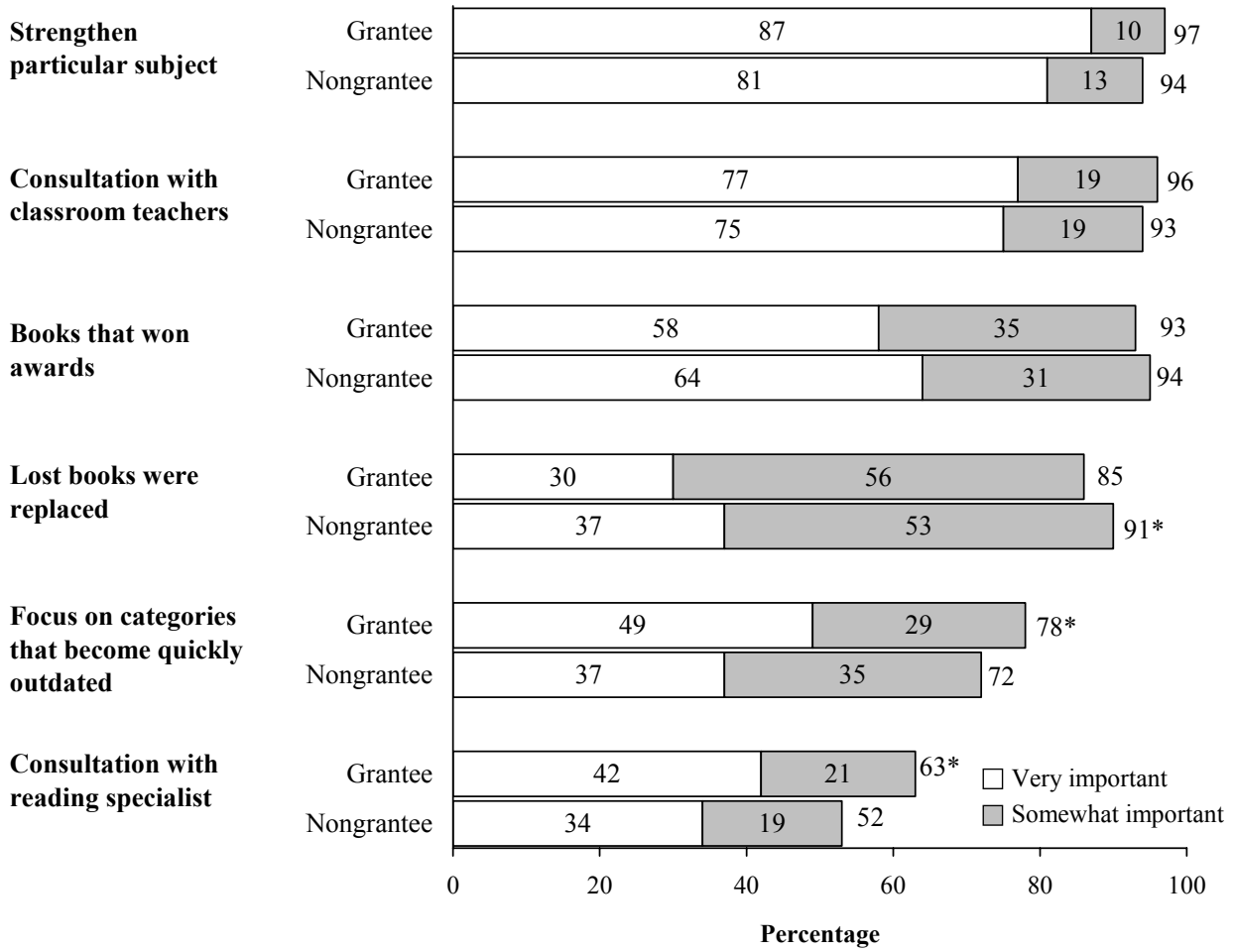

Exhibit reads: Ninety-seven percent of grantees indicated that strengthening a particular subject was a very (87 percent) or somewhat (10 percent) important factor in selecting books to add to their collection compared with 94 percent of nongrantees. This difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Details may not add to total because of rounding.

Source: Second evaluation, school library media center survey question 25.

Examples of Materials Purchased With Grant Money, Drawn From the Case Studies

Large quantity of books purchased

The purchase of a substantial number of books and other resources was mentioned as a grant-related activity during all site visits. One district in a small Southern town hired two paraprofessionals to help with processing the 12,000 books funded by the grant, an average of four books per student.

Books aligned with state standards

Selecting books that align with new state standards in English language arts, science, and social studies was a component of one LSL project in a small Southern town. For example, a new standard involves acquiring knowledge of state authors and significant text created by them. Therefore, some biographies were purchased. Also, the primary school (grades pre-K–2) does not have textbooks for science or social studies. Under the LSL grant, the library purchased six-packs of books that cover the standards in these subjects and are used in guided reading lessons. The high school also targeted science and social studies as areas needing updating.

Family literacy kits

In a very high-poverty district located on the fringe of a midsize city along the U.S.-Mexican border, a majority of the parents are first-generation Americans, have limited English proficiency, and come from cultures in which parents do not generally participate in the education process. Family literacy kits were purchased through the grant for each school so parents could improve their literacy skills along with their children. A two-day program was also provided for parents to give them an overview of library resources, demonstrate how to obtain Internet access, and provide suggestions to them for reading to their children.

Materials targeted to a particular content area

Strengthening reading literacy through the science curriculum was an objective of a high school LSL grant program in a mid-size city in the south central part of the United States. In addition to new science materials, the district purchased science fiction novels to support a project activity of having students read both a fiction and a nonfiction book on a particular topic and compare them. Also as part of the grant, the district purchased a magazine subscription service and database that contains full text magazine articles, including medical articles. Before the grant, the science teachers were unaware of these resources and were pleased to be able to access current information.

Software programs

A Northeastern cooperative* with six rural districts participating in the LSL program purchased a variety of software programs under the grant. They included interactive books that can read words from the pages to the reader when the word is touched with a stylus. Drawings in the background are also interactive when touched with the stylus.

*A cooperative is a voluntary association of school districts who work together across a geographic area to provide educational services more economically than any district could offer by itself.

Technology and Internal and External Linkages

The kinds of services school libraries can provide are affected by the types of technological equipment available to them. There were no significant differences between grantees and nongrantees in the availability of various kinds of equipment. More than 90 percent of the school libraries had an automated circulation system. About 80 percent had video laser disk or DVDs, a significant increase from about 60 percent for both grantees and nongrantees found in the first evaluation.

Example of Technological Equipment Purchased With Grant Money, Drawn From the Case Studies

A cooperative in a rural area of the Northeast purchased a sizable amount of technological equipment under the LSL grant. All six participating elementary schools, which were up to 100 miles apart, received the same equipment, including video-conferencing equipment. This equipment has enabled the students to conduct virtual field trips and do book studies together, although they are located far apart. Before the LSL grant, the cooperative had done a broadband project, so a connection was already in place.

Exhibit 4-8
Percentage of School Libraries in Which Various Electronic Services Were Not Available, by Grantee Status, Fall 2006

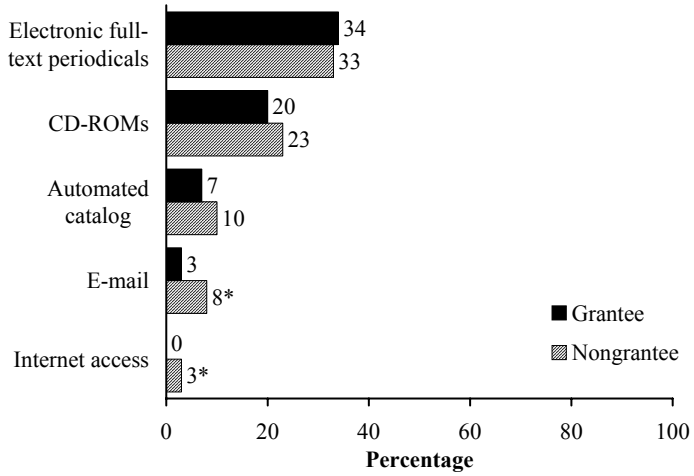

Exhibit reads: Electronic full-text periodicals were not available in 34 percent of grantee school libraries, compared with 33 percent of nongrantee school libraries. This difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 27.

The percentages of grantees and nongrantees that do not have automated catalog, electronic full-text periodicals, and CD-ROMs were about the same and changed little from the first evaluation (Exhibit 4-8 and A-18). For both grantees and nongrantees, fewer than 10 percent of school libraries do not have e-mail access and Internet access.

Exhibit 4-9
Percent of School Libraries Reporting That Various Electronic Services Were Networked to Locations Outside of the Library, by Grantee Status, Fall 2006

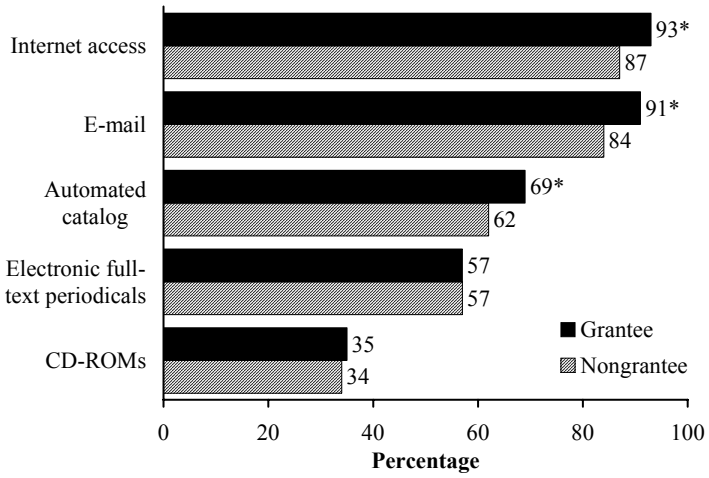

Exhibit reads: For 93 percent of grantees, Internet access was networked to locations outside of the library, compared with 87 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 27.

Significantly more grantees than nongrantees provided Internet access, e-mail and automated catalog services through a network outside of the library by means of a buildingwide LAN or a district WAN (Exhibits 4-9, 4-10, A-18 and A-19). The provision of automated catalog services and CD-ROMs through networks involving locations outside the library had significantly increased for grantees, but not for nongrantees since the first evaluation. More than 80 percent of grantees and nongrantees provide Internet access and e-mail through outside networks.

Exhibit 4-10
Most Frequent Approach Used by Grantee and Nongrantee Schools to Provide Various Electronic Services, by Type of Service, Fall 2006

Electronic Service	Most Frequent Approach[a] Used to Provide the Service	Percentage of Schools Using the Approach	
		Grantee	Nongrantee
E-mail	District WAN	83*	76
Internet access	District WAN	81*	73
Electronic full-text periodicals	District WAN	49	50
CD-ROMs	Stand-alone computer	43*	35
Automated catalogs	District WAN	46	40

Exhibit reads: District WAN was used by 83 percent of grantees, compared with 76 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. WAN = wide area network.

[a]The most frequent approach was the same for grantee and nongrantee schools.

Source: Second evaluation, school library media center survey question 27.

Exhibit 4-11
Percentage of School Libraries With Computer Access to the Catalogs of Other Libraries, by Grantee Status, Fall 2006

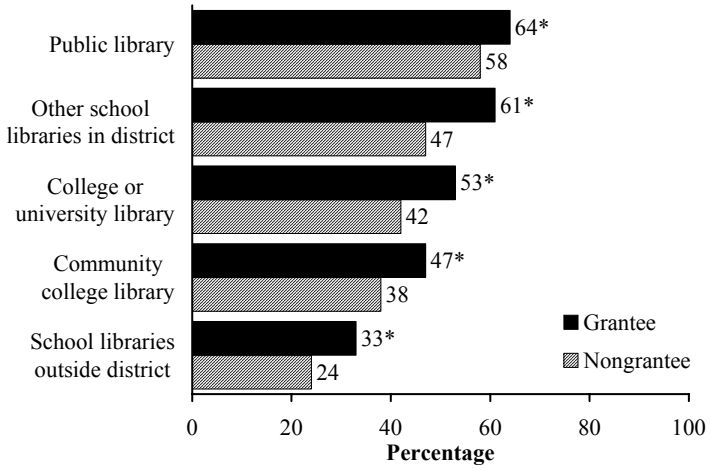

Exhibit reads: Sixty-four percent of grantees have computer access to the catalog of a public library, compared with 58 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 28.

One way in which school libraries can be linked to other resources is by computer access to the catalogs of other libraries. In fall 2006, after the grant had been implemented, significantly more grantee than nongrantee school libraries had computer access to the catalogs of all other types of libraries (Exhibits 4-11 and A-20). The percentage of grantees with computer access to the public library showed a significant decrease from the first evaluation (from 73 percent to 64 percent).

School libraries are also linked to public libraries through the conducting of cooperative activities. In fall 2006, 59 percent of the grantee school libraries had participated in some cooperative activity with the local public library (Exhibit A-21), but that was a significant decrease from the first evaluation in which 68 percent of the grantees were engaged in these activities. However, as in the first evaluation, grantees were more significantly likely than nongrantee to participate (59 percent versus 51 percent).

Example of Linkages Established, Drawn From the Case Studies

Twelve Internet-connected desktop computers for use by students and teachers were installed as part of the LSL grant in a small Eastern town. Additional computers have been purchased since completion of the grant. Each library now has about 25 Internet-connected units, so an entire class can work on them at the same time. Also under the grant, the middle-school card catalogs were put online and links were established to the local public library and the state university library.

The percentages of grantee and nongrantee school libraries engaging in various types of cooperative activities were about the same, and they were generally the same as the first evaluation (Exhibits 4-12 and A-21). The exceptions were the significant decline (from 56 to 47 percent) in the percentage of grantees informing the public library of curriculum or upcoming homework needs and the decline (from 53 to 39 percent) in the percentage of grantees working with the public library to plan a summer reading program.

Exhibit 4-12
Percentage of School Libraries That Participated in Various Cooperative Activities With Local Public Libraries, by Grantee Status, Fall 2006 and 2004

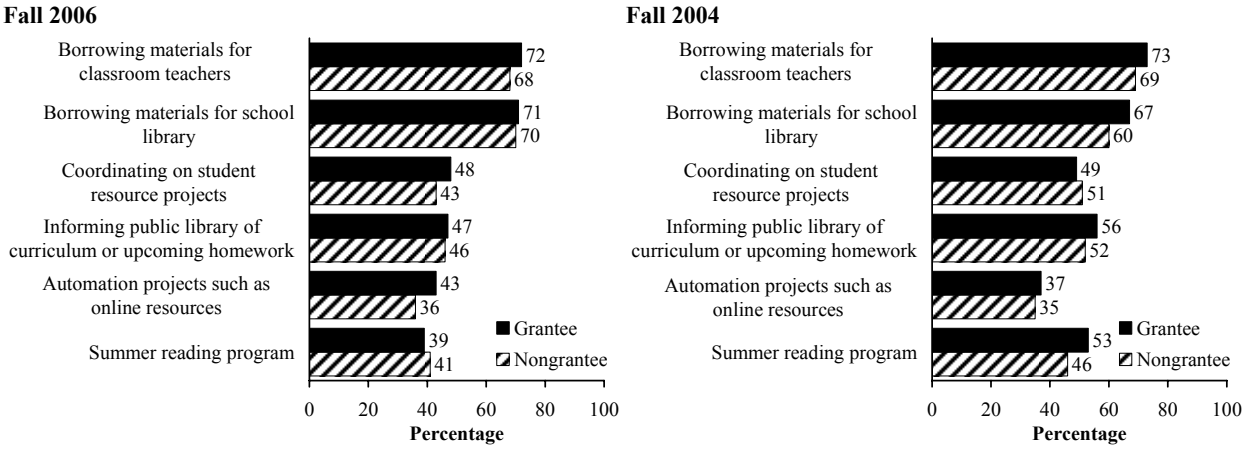

Exhibit reads: Seventy-two percent of grantee school libraries borrowed materials for classroom teachers from the local public library compared with 68 percent of nongrantee school libraries. This difference is not statistically significant.

Source: First evaluation, school library media center survey questions 29 and 30; second evaluation, school library media center survey questions 30 and 31

Involvement of Students

Exhibit 4-13
Number of Hours That School Libraries Were Open During a Typical Full Week, by Grantee Status, 2006 and 2005

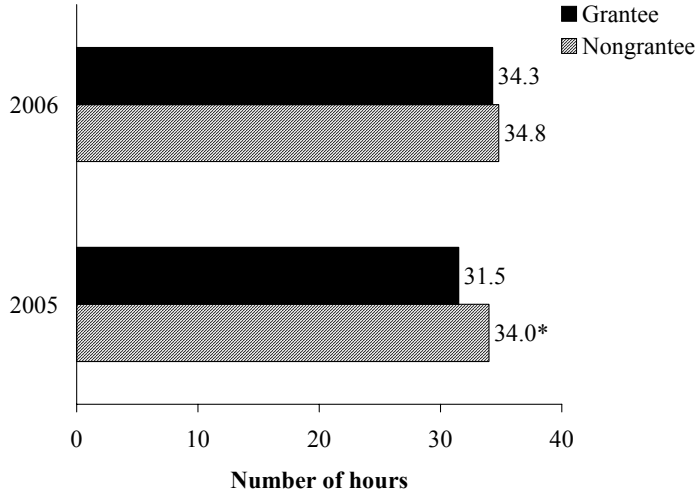

Exhibit reads: In 2005, grantee school libraries were open for an average of 31.5 hours during a typical full week, compared with 34.0 hours for nongrantee school libraries. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 4.

One of the primary emphases of the LSL grants is to increase the number of hours in which school libraries are open, with the intention of increasing access to the libraries. Before receiving the grants, the LSL grantees on average were open for fewer hours during a typical full week than nongrantees (31.5 versus 34.0), but this difference was largely eliminated after receiving the grants (34.3 versus 34.8) (Exhibits 4-13 and A-22). After receiving the grant, grantees offered significantly more days of summer access (7.7 versus 6.4) compared with nongrantees, a reversal from the relationship before receiving LSL funding (2.9 versus 6.8) (Exhibit 4-14). Among the grantees, the mean number of hours was lower if the schools spent $12 or less per student on libraries and if the libraries had 1.25 FTE staff members or fewer, both before and after receiving the grants. Findings from the first evaluation were similar to these results.

Exhibit 4-14
Number of Days That School Libraries Were Open During the Summer, by Grantee Status, 2006 and 2005

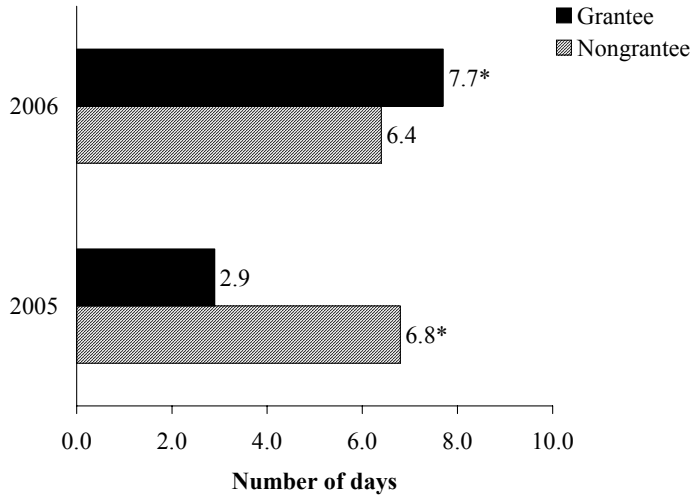

Exhibit reads: In 2006, grantee school libraries were open for an average of 7.7 days, compared with 6.4 days for nongrantee school libraries. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 8.

Exhibit 4-15
Percentage of Libraries Open During Nonschool Hours, by Grantee Status, Spring 2006 and 2005

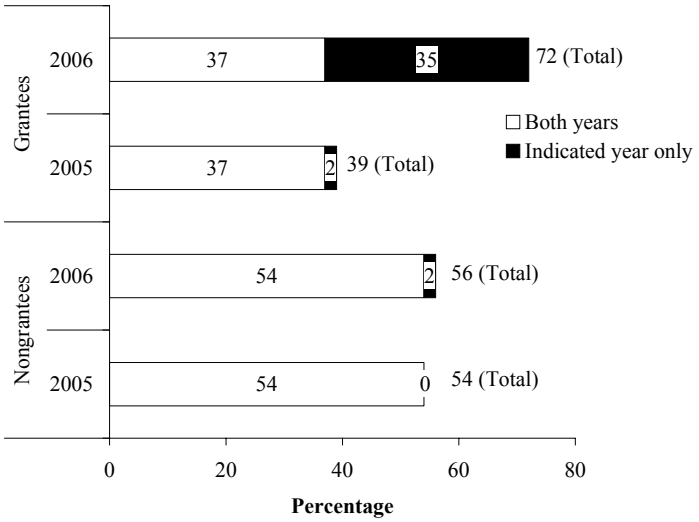

Exhibit reads: In 2006, 37 percent of the grantees that were open during nonschool hours in the previous year continued to be open and an additional 35 percent began offering this service. A total of 72 percent of grantees were open during nonschool hours in 2006. In 2005, 37 percent of the grantees provided access during nonschool hours and continued to be open in 2006. An additional 2 percent provided access in 2005 but not in 2006. Altogether, 39 percent of the grantees provided access during 2005.

Source: Second evaluation, school library media center survey question 5.

A different way of looking at library availability is whether the school libraries were open during nonschool hours during the school year. Here the grantees and nongrantees showed very different patterns (Exhibits 4-15 and A-23). The nongrantees started in spring 2005 with 54 percent of schools offering access, but showed an insignificant change the next year at 56 percent. The grantees started with lower levels of access in 2005 (39 percent), but their increase in 2006 was sufficiently large to give them higher levels of access than the nongrantees (72 percent versus 56 percent).[8]

[8] Among the grantees, 35 percent offered access for the first time during nonschool hours in 2006, but 2 percent stopped offering access that they offered in 2005. Thus, the net change was 33 percent.

Exhibit 4-16
Mean Number of Nonschool Hours of Library Access per Week, by Grantee Status, Spring 2006 and 2005

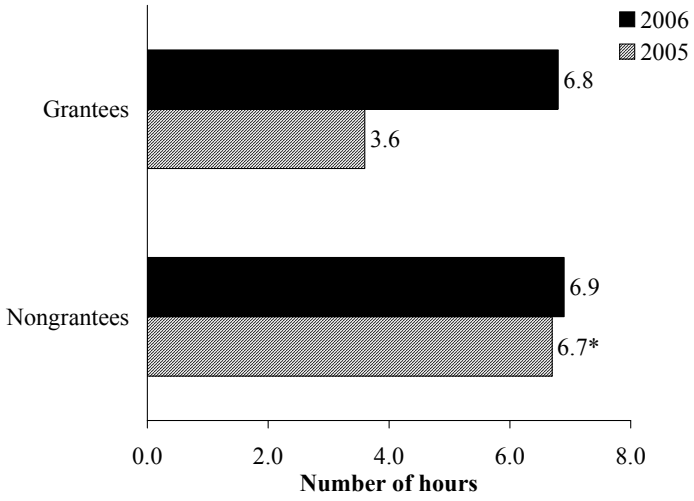

Exhibit reads: In 2005, grantee school libraries provided an average of 3.6 nonschool hours of access, compared with 6.7 hours for nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 6.

Before receiving the LSL grants, the grantees provided significantly fewer nonschool hours of access per week than nongrantees (3.6 versus 6.7), but this difference was eliminated after receiving the grants (6.8 versus 6.9) (Exhibit 4-16). On average, grantees increased the mean number of nonschool hours of access from 3.6 to 6.8 (a 91 percent increase), while nongrantees showed negligible change from 6.7 to 6.9.

Exhibit 4-17
Mean Number of Nonschool Hours of Access per Week to School Libraries, by Time of Access and Grantee Status, Spring 2005 and 2006

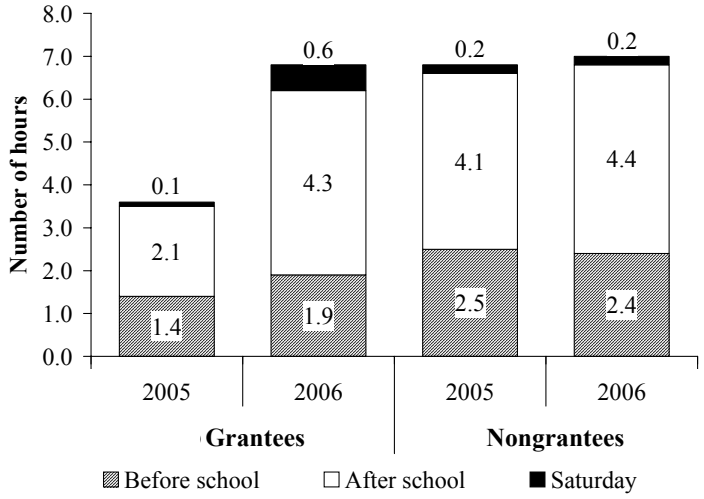

Exhibit reads: In 2005, grantee school libraries provided an average of 1.4 hours of access before school, 2.1 hours after school and 0.1 hours on Saturday.

Source: Second evaluation, school library media center survey question 6.

Both in 2005 and 2006, the primary times of offering nonschool hours of access were after school and before school (Exhibit 4-17). Grantees started with fewer hours of access in 2005 (1.4 hours per week before school and 2.1 after school for grantees compared with 2.5 and 4.1 hours for nongrantees), but were relatively similar to nongrantees in 2006 (1.9 hours per week before school and 4.3 hours after school for grantees compared with 2.4 and 4.4 hours for nongrantees).

When schools opened libraries for extended hours, close to all (90 percent) were open for loaning books, 33 percent were open for specific programs such as offering tutorials on search techniques, 13 percent held book clubs, and 59 percent used the library for other purposes (Exhibit A-24). Grantees were somewhat more likely than nongrantees to offer specific programs such as tutorials (43 percent versus 32 percent).

Example of Extended Hours, Drawn From the Case Studies

As part of the LSL grant, each school library in a rural district in the East was open approximately 2.5 hours per week for extended hours either before or after school. During these extended hours, some students conducted research using the resources available to help them to complete classroom assignments or meet their own interests. Others received additional instruction on an early reading workstation. Also, many parents were recruited to be reading volunteers, who either read to the students or had the students read to them. However, extended hours benefit students who are driven to school more than those who rely on the bus.

Once a month, each library was open for four hours in the evening for family reading night, an activity done two or three times a semester since completion of the grant. For approximately 20 hours in the summer, the libraries were open for Camp Read-a-Lot with planned activities targeting low-achieving and emergent readers.

Exhibit 4-18
Percentage of School Libraries Saying That Various Factors Were Either Major or Moderate Barriers to Extending Library Hours, by Grantee Status, Fall 2006

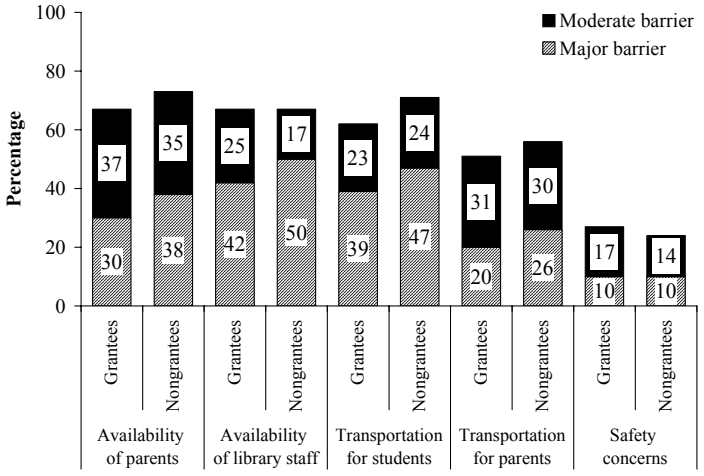

Exhibit reads: Thirty percent of grantees considered the availability of parents to be a major barrier to extending library hours and 37 percent considered it to be a moderate barrier.

Source: Second evaluation, school library media center survey question 16.

School libraries often faced barriers in extending their hours, with between 51 and 73 percent identifying each of four factors as either major or moderate barriers: availability of parents (73 percent of nongrantees and 67 percent of grantees), availability of library staff (67 percent for both nongrantees and grantees), transportation for students (71 percent of nongrantees and 62 percent of grantees), and transportation for parents (57 percent of nongrantees and 51 percent of grantees) (Exhibits 4-18, A-25 and A-26). Safety concerns were less frequently noted as major or moderate barriers, but still were barriers for roughly a fourth of the schools (24 percent of nongrantees and 27 percent of grantees). As a rule, the differences between grantees and nongrantees were small, as were the differences between different subgroups of grantees. However, the availability of library staff at grantee schools was less likely to be a major barrier at high schools than at elementary or middle schools (30 percent versus 44 percent–45 percent) and at large schools than at small schools (33 percent versus 46 percent).

To the extent that libraries increased the hours they were open, one might expect that student usage of the libraries would increase—for example, in the number of students using the libraries in a typical week or in the number of materials that were checked out. As in the first evaluation, grantees showed an increase in number of visits per week but no significant change in the number of materials checked out (Exhibits 4-19 and A-27). No data were collected on why the number of materials checked out did not change, but possible reasons are (a) that students were using other books or using books in the library and not checking them out or (b) that there was a limit on the number of books students could check out at one time. Nongrantees showed no change in number of visits per week. As a rule, the changes were small, so differences between different categories of grantees were statistically insignificant. However, a few categories showed increases of 25 percent or more in number of visits to the library in a typical week: schools located in cities (25 percent), schools where 50 percent or more of the students were eligible for free or reduced-price lunch (25 percent), schools with library expenditures per student of $12 or less (33 percent), and schools with 1.25 or fewer FTE staff members in the library (27 percent).

Exhibit 4-19
Mean Usage of Library Resources per Student, by Grantee Status, Spring 2006 and 2005

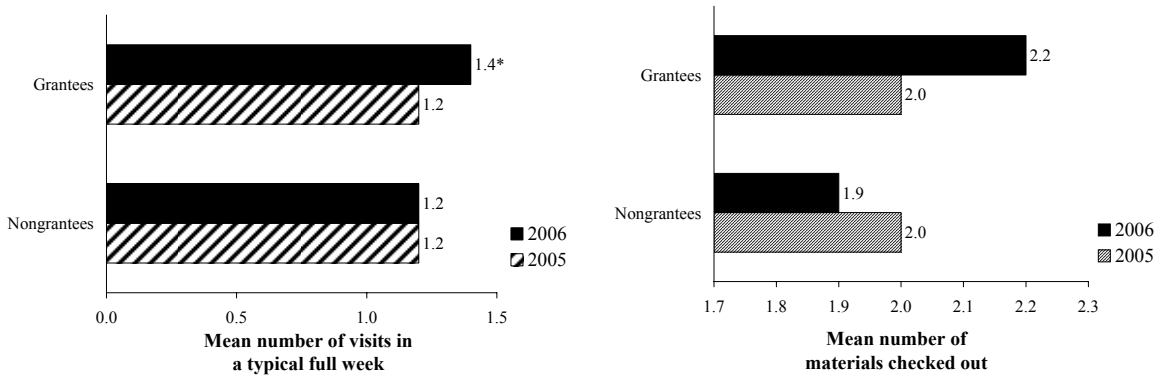

Exhibit reads: In a typical full week in 2006, students used grantee school libraries an average of 1.4 times, compared with 1.2 times for nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey questions 1, 2, and 3.

Services Offered

One of the most common tasks for school libraries, whether grantees or nongrantees, was to provide reference assistance: 76 percent to 78 percent reported providing such assistance to students on a daily basis, and 53 percent to 57 percent reported providing it to teachers on a daily basis (Exhibits 4-20, A-28 and A-29). Providing reference assistance to administrators was less common, but still 69 percent to 70 percent reported providing it monthly or more often. Grantees and nongrantees differed in three areas. First, grantees were more likely to work on a monthly basis with the principal or teachers on curriculum issues (42 percent versus 29 percent), the only area where grantees more frequently offered a service than nongrantees in the first evaluation study. Second, grantees were more likely to participate in grade-level, department or team meetings (52 percent versus 41 percent). This difference is new (grantees and nongrantees were tied at 49 percent in the last study), but the change is attributed to a decline in providing services among nongrantees rather than to new behavior among the grantees. Still, being a grantee was associated with providing a higher level of service. Third, grantees were more likely than nongrantees to

coordinate training programs about integrating educational technology into the curriculum for teachers and other staff members (13 percent versus 7 percent). Grantees were less likely to provide frequent services at small schools than at large schools (e.g., 73 percent versus 89 percent for reference assistance to students, 49 percent versus 69 percent on providing reference assistance to teachers, and 30 percent versus 53 percent on assisting with research projects).

Exhibit 4-20
Percentage of School Libraries Offering Selected Services on a Daily or Monthly Basis, by Grantee Status, 2005–06 School Year

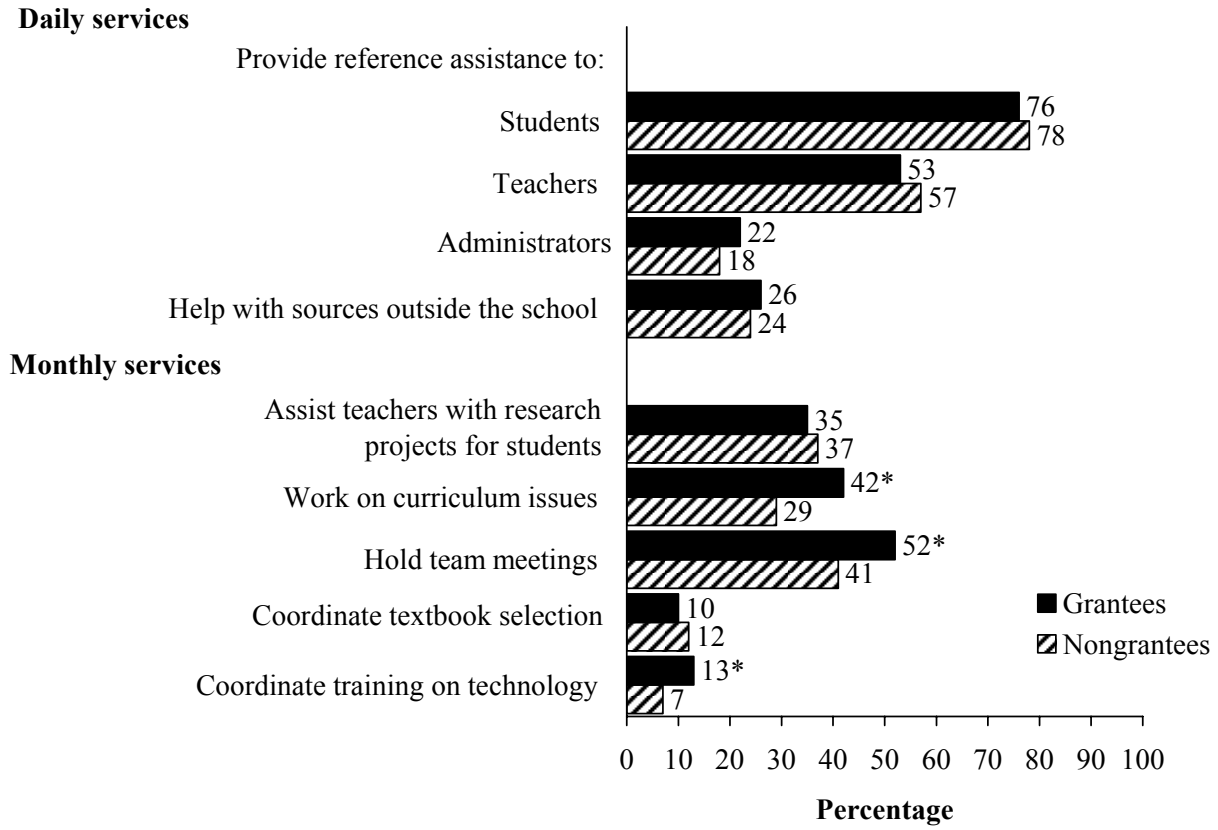

Exhibit reads: Seventy-six percent of grantees provided reference assistance to students on a daily basis, compared with 78 percent of nongrantees. This difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 10.

Exhibit 4-21
Percentage of School Libraries Providing New or Expanded General Programs or Services in 2005–06, by Grantee Status

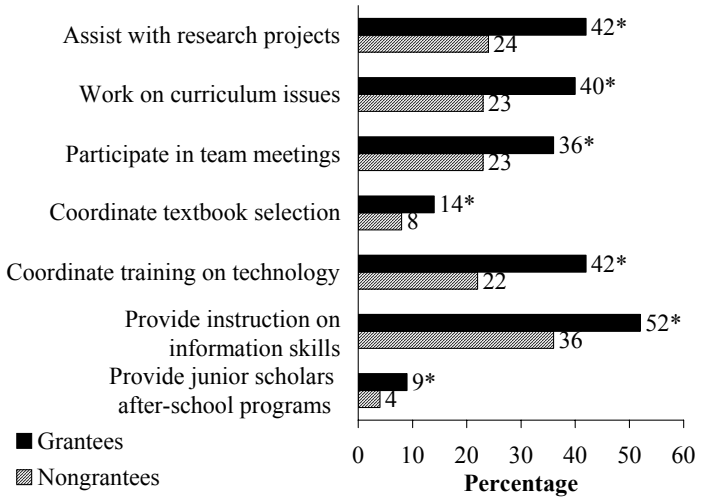

Exhibit reads: Forty-two percent of grantees provided new or expanded assistance with research projects in the 2005–06 school year, compared with 24 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 15.

Overall, grantees were more likely to have increased services (i.e., by establishing new programs or expanding existing programs) than nongrantees (Exhibits 4-21, A-30, A-31 and A-32). For example, they were more likely to have increased services to assist with research projects (42 percent versus 24 percent), work on curriculum issues (40 percent versus 23 percent), and participate in team meetings (36 percent versus 23 percent). The same was true of services specifically related to reading/English (Exhibit 4-22). For example, grantees were more likely to have increased services concerning selecting resources (49 percent versus 33 percent), curriculum development (32 percent versus 20 percent), family literacy nights (38 percent versus 13 percent), and after-school programs with library orientation (34 percent versus 8 percent). In the first evaluation, grantees were also more likely than nongrantees to have increased services.

Exhibit 4-22
Percentage of School Libraries Providing New or Expanded Programs Relating to Reading or English in 2005–06, by Grantee Status

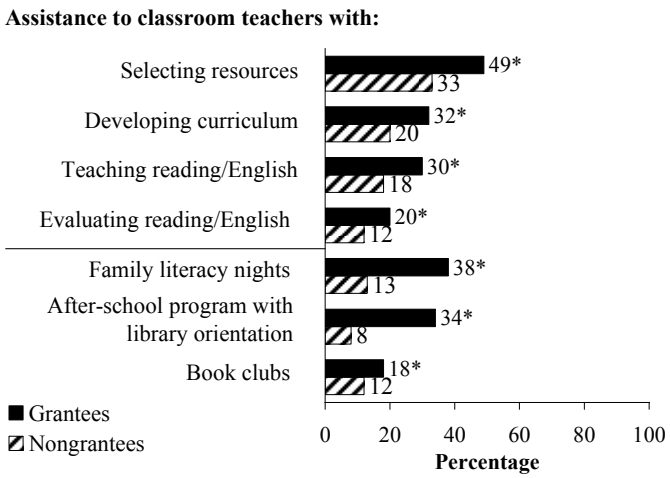

Exhibit reads: Forty-nine percent of grantees provided new or expanded services in selecting reading or English resources with classroom teachers in the 2005–06 school year, compared with 33 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 15.

Examples of Services Provided Under the LSL Grant, Drawn From the Case Studies

Information problem solving

Librarians and classroom teachers have jointly implemented an information problem-solving model as a part of one LSL grant in a small Eastern town. In one activity, an eighth grade science teacher asked the class to write a question they

wanted to answer. Then they went to the library to find the answer, using a minimum of three sources including at least one Internet source. The librarian and classroom teacher helped students who were having difficulty. Students would later write a summary of what they had learned.

Early reading

In one rural district in the East with 15 participating elementary schools, an early reading workstation was purchased for each school to address the identified need for materials for nonreaders. About 10 students in each school were targeted for 15–20 minutes of individualized instruction per day. Students who were nonreaders but were not considered to be special education students were selected. Initially, the students worked with tutors, but some became self-directed and worked on their own. According to the district, 90 percent of the students in this program had attained grade-level reading. For some students, this achievement represented an increase of two grade levels. Consequently, the district plans to add more workstations.

Examples of Services Provided Under the LSL Grant, Drawn From the Case Studies (continued)

Young Authors Program

The LSL grant provided a librarian in a small rural district in the north central part of the United States with the resources to establish a Young Authors Program in which students wrote and illustrated their own books. Older students used PowerPoint to prepare their books. This program was said to foster interest in reading as well as writing skills and creativity.

Reader's Theatre

In a small Southern town, 40 high school students performed Reader's Theaters for approximately 240 primary school students. The materials for this activity were multiple copies of plays written on the second grade level. Each high school student read a part in the play, and one or two students served as narrators. The younger students could read the play on their own at a later date. The plays were selected by the primary school's media specialist and purchased with LSL funds.

Exhibit 4-23
Mean Number of School Library Staff, by Grantee Status, Spring 2006 and 2005

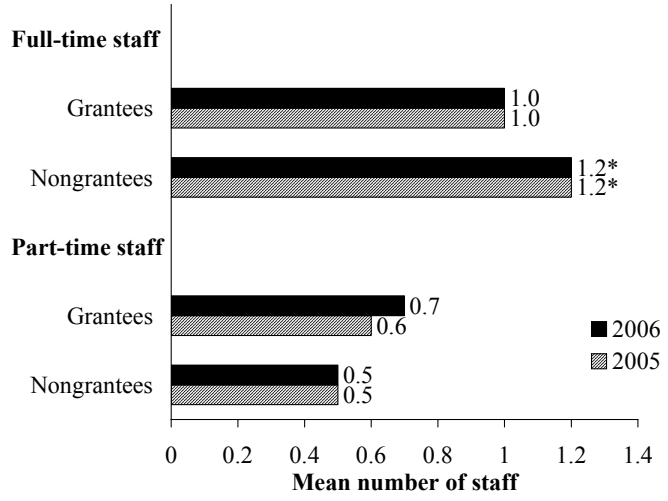

Exhibit reads: In 2006, grantees had an average of 1.0 full-time staff, compared with 1.2 full-time staff for nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 9.

Staffing of School Libraries

Nongrantee school libraries had a mean of 1.2 full-time staff members and 0.5 paid part-time staff members in both spring 2005 and 2006 (Exhibits 4-23 and A-33). Grantees had significantly fewer full-time staff members than nongrantees (1.0 versus 1.2 in both years) and no statistically significant difference in the number of part-time staff members in spring 2005 and 2006. Thus, despite the focus on extending the number of hours that school libraries were open, the LSL grants do not appear to have been used to increase paid staffing.[9] One reason might be that districts are reluctant to hire new staff members for just the one year of the grant.

[9] The LSL legislation also contains a "supplement, not supplant" restriction, which means (a) that the LSL funding cannot be used to pay for staff members to do activities that were done before the grant was awarded and (b) that LSL funding cannot be used to pay for staff if there is existing funding for staff.

Exhibit 4-24
Mean Number of Pupils per Librarian, by Grantee Status, Spring 2006 and 2005

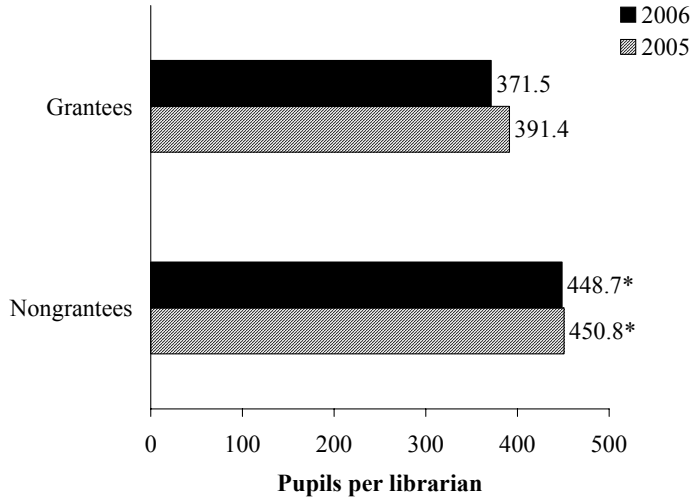

Exhibit reads: In 2006, grantees had an average of 371.5 pupils per librarian, compared with 448.7 pupils per librarian for nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey questions 1 and 9.

There was a small but statistically significant decrease among grantees in the number of pupils per librarian (from 391.4 to 371.5) (Exhibits 4-24 and A-33). Grantees in rural districts had fewer pupils per librarian than those in cities in 2005 (293.4 versus 478.2), and also showed a decline in that ratio in 2006 (to 247.6), while cities showed essentially no change (with means of 478.2 in 2005 and 474.1 in 2006). Also, grantees at small schools had fewer pupils per librarian than those in large schools in 2005 (261.4 versus 728.8), and further showed a small decline in 2006 (i.e., from 261.4 to 239.9), while large schools showed little change (from 728.8 to 717.6, which was not statistically significant).

Professional Development Related to School Libraries

The LSL legislation states that program funds may be used to "provide professional development … for school library media specialists and activities that foster increased collaboration between school library media specialists, teachers, and administrators."[10] Professional development funded by LSL is limited to staff members serving pre-kindergarten through grade 3. Because professional development is specifically mentioned in the LSL legislation, one might expect that more grantee staff members would participate in professional development related to school libraries compared with nongrantee staff members.

[10] Section 1251(g)(4) of the *ESEA*.

About three-fourths of both grantees and nongrantees reported staff members participating in professional development related to school libraries during the grant year, but the mean number of staff members participating was greater for the grantees. About twice as many classroom teachers, paraprofessionals and reading specialists in grantee schools received professional development related to school libraries compared with nongrantee staff members (Exhibit 4-25). When compared with the first LSL evaluation, the mean number of both grantee and nongrantee staff members receiving professional development decreased in 2005–06, especially for classroom teachers (from 14.1 to 9.5 for grantees and from 11.1 to 4.7 for nongrantees).

Exhibit 4-25
Mean Number of Staff Members Participating in Professional Development, by Grantee Status Year, 2005–06 and 2003–04 School Years

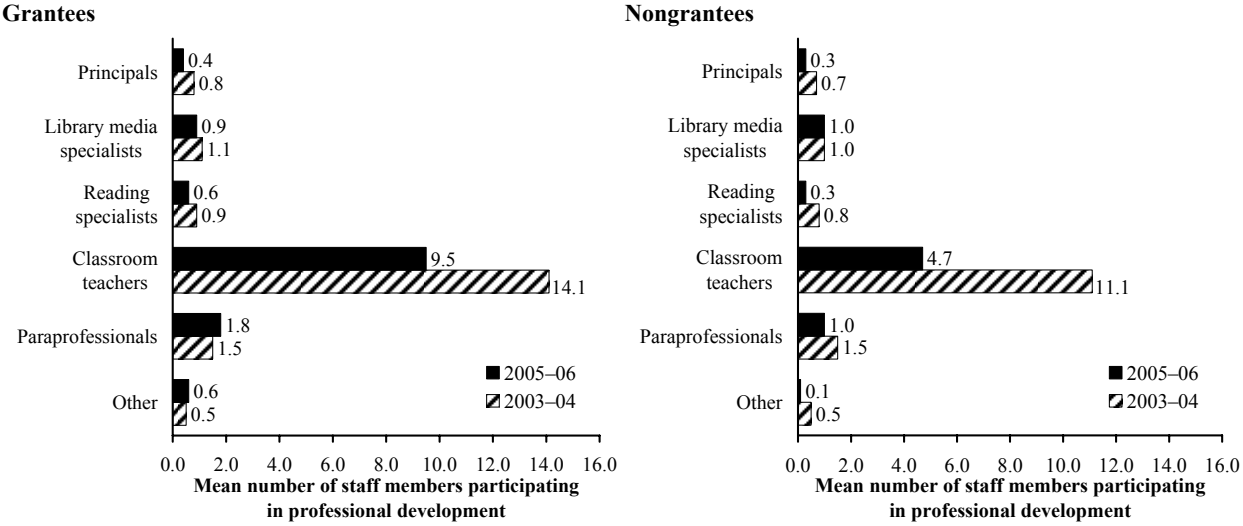

Exhibit reads: In the 2005–06 school year, an average of 0.4 principals in grantee schools participated in professional development. In the 2003–04 school year, an average of 0.8 principals in grantee schools participated.

Source: Second evaluation, school library media center survey question 18; first evaluation, school library media center survey question 17.

Although LSL professional development is directed at the elementary level, the mean number of staff members participating in professional development related to school libraries at the elementary level was about the same as the mean number for all schools. One exception was the mean number of classroom teachers participating in professional development, which was significantly lower for elementary schools than for all schools (8.3 versus 9.5). One possible reason for the high participation by staff members at all grade levels is that some of the professional development may have been funded by sources other than LSL; the survey did not ask about funding sources.

Exhibit 4-26
Percentage of School Libraries Covering Selected Topics in Professional Development Activities, by Grantee Status, 2005–06 School Year

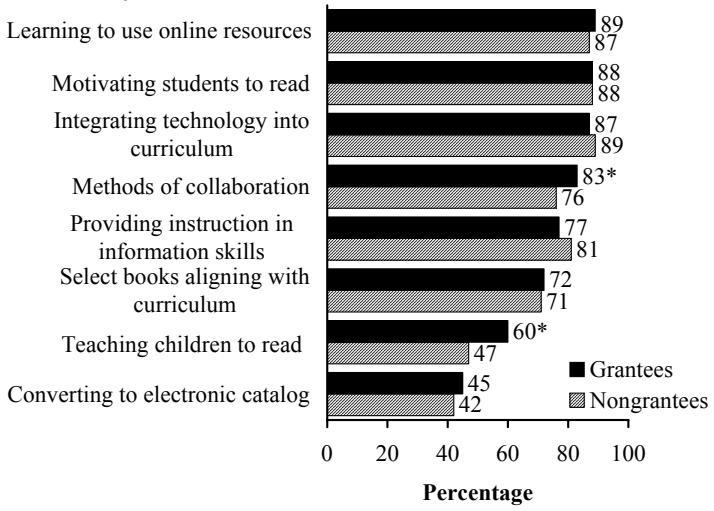

Exhibit reads: Eighty-nine percent of grantee school libraries covered the topic of learning to use online resources in professional development activities, compared with 87 percent of nongrantee school libraries. This difference is not statistically significant.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 19.

During the grant year, the topics covered in the professional development of grantees and nongrantees were generally the same, although professional development related to teaching children to read was provided by more grantees (60 percent) than nongrantees (47 percent) (Exhibits 4-26 and A-34). However, a different picture emerges when one examines professional development provided during the year before the grant. The grantees covered all the topics significantly less frequently in the year before the grant than they did during the grant year (Exhibits 4-27 and A-35). In contrast, nongrantees covered the various topics to the same extent that they did during the grant year. There were some differences among subgroups of grantees. Those in cities were less likely than grantees in the urban fringe to offer professional development in integrating technology into the curriculum (79 percent compared with 96 percent).

Exhibit 4-27
Percentage of School Libraries Covering Selected Topics in Professional Development Activities, by Grantee Status, 2005–06 and 2004–05 School Years

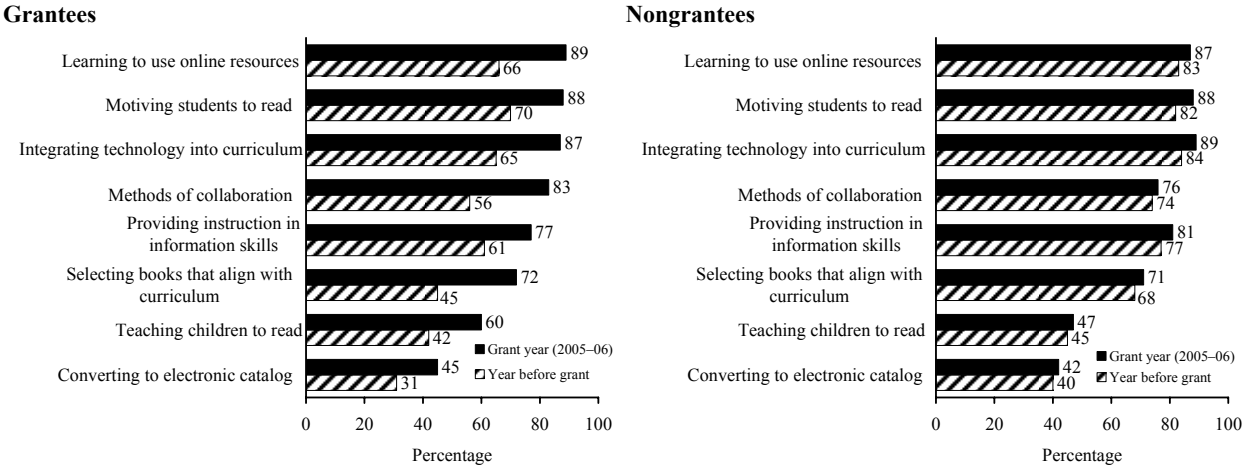

Exhibit reads: In the 2005–06 school year, the grant year, 89 percent of grantee school libraries covered the topic of learning to use online resources in professional development activities. In the 2004–05 school year, the year before the grant, 66 percent of grantee school libraries covered this topic.

Source: Second evaluation, school library media center survey question 19.

Examples of Professional Development, Drawn From the Case Studies

Special day to demonstrate new equipment

A rural cooperative in the Northeast purchased a sizable amount of technological equipment. Each library media specialist in the participating districts held a professional development day to demonstrate the equipment to classroom teachers.

Professional development team

In a mid-size city in the south central part of the United States, each school established a professional development team during the first month of the LSL project. The team worked with other committees to identify training needs, particularly because the libraries had acquired additional updated materials and resources. For example, both classroom teachers and librarians were trained on software and database usage. At the elementary level, the professional development teams included one teacher from each grade level, the librarian, library aide, and one special education teacher. At the high-school level, one representative from each content area also was included on the teams. School principals participated as honorary members.

Exhibit 4-28
Percentage of School Libraries With Library Staff Working With Classroom Teachers on a Weekly Basis, by Grantee Status, 2005–06 School Year

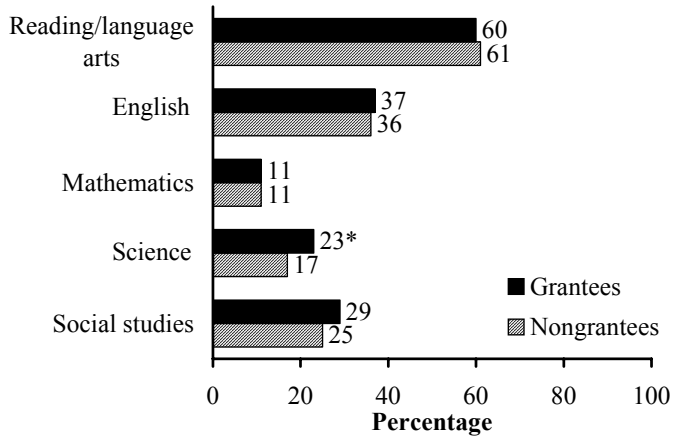

Exhibit reads: Working with classroom teachers on reading/ language arts on a weekly basis was done by staff in 60 percent of grantee school libraries, compared with 61 percent of nongrantee school libraries. This difference is not statistically significant.

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 11.

Collaboration With Teachers

Collaboration between school librarians and teachers is encouraged by the LSL program. Literacy is a focus of the program and reading/language arts is the curriculum area in which collaboration occurred most often on a weekly basis (Exhibits 4-28, A-36, and A-37). However, there was no significant difference between grantees and nongrantees in the amount of collaboration in reading/language arts or other subject areas except science. Both grantees and nongrantees had significantly more collaboration for reading/language arts than for other curriculum areas. For all subject areas, grantees with school enrollments of more than 700 students had more collaboration than smaller grantee schools.

Exhibit 4-29
Percentage of School Libraries Providing Selected Services to Classroom Teachers in Reading or English, by Grantee Status, 2005–06 School Year

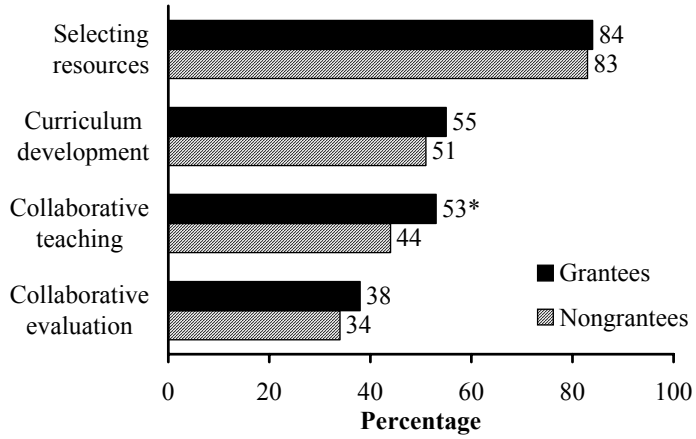

Exhibit reads: Eighty-four percent of grantee school library staff worked with classroom teachers in selecting resources in reading or English, compared with 83 percent of nongrantee school libraries. This difference is not statistically significant.

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., *p*-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 12.

The curriculum areas in which collaboration between school library staff members and classroom teachers occurred most frequently were reading/language arts and English, areas of particular emphasis in the LSL program. Types of services school libraries might provide to classroom teaches in reading or English are selecting resources, curriculum development, collaborative teaching and collaborative evaluation. Only one of these services, collaborative teaching, was done significantly more frequently by grantees than nongrantees (Exhibits 4-29, A-38, and A-39). All these services were provided more frequently by grantees at the middle school/junior high level than at the elementary level.

Examples of Collaboration Between Librarians and Classroom Teachers, Drawn From the Case Studies

Fostering collaboration through joint attendance at professional development programs

In a rural cooperative in the north central region of the United States, a mechanism used for fostering collaboration was having the librarians and teachers attend professional development programs together to see where they could work together. Subsequently, librarians have co-taught research units and genre studies.

Joint decision making with respect to purchases leads to further collaboration

In a small rural district in the north central part of the United States, the librarian consulted with classroom teachers about which books and other materials to purchase. This process has increased the collaboration between teachers and librarians on a variety of activities, including lesson planning and teaching information and research skills. Finding time for collaboration was a challenge at first. The teachers did not want to miss instructional time and preferred not to use substitutes to cover their classes. Ultimately, staff members donated their personal and planning time. The collaboration established under the grant has been continued beyond the grant year and in some cases has strengthened with time. The initial goal was to have eight collaborative projects, but the district exceeded this goal by having 11.

Information skills instruction, or information literacy, involves the development of concepts, skills and attitudes that foster independent, effective and lifelong use of information. This instruction can be provided as a separate course, integrated into the curriculum or provided as a combination of these two approaches. In 2005–06, more grantees than nongrantees used a combination of approaches (42 percent versus 34 percent) (Exhibits 4-30 and A-40). Grantees used this approach more frequently at the middle-school/junior-high and high-school levels than at the elementary level. In 2005–06, 47 percent of the grantees used integration into the curriculum as the only approach for teaching information skills, an increase from 2003–04 when 37 percent used this approach.

Exhibit 4-30
Approaches Used to Provide Instruction in Information Skills, by Grantee Status, 2005–06 School Year

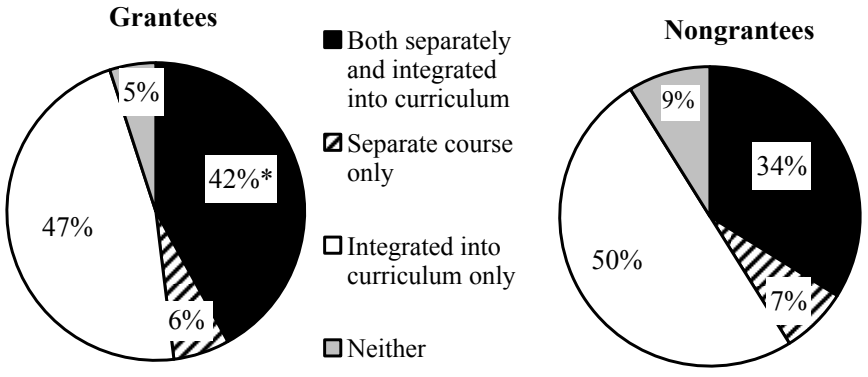

Exhibit reads: Forty-two percent of grantees provided instruction in information skills both as a separate course and integrated into the curriculum, compared with 34 percent of nongrantees. This difference is statistically significant ($p \leq .05$).

Note: The asterisk (*) indicates that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 13.

Similarly, the personnel involved in providing the instruction on information skills were the same for grantees and nongrantees in 2005–06 (Exhibit A-40). This representation was a change from 2003–04 for the grantees when 87 percent of the library media specialists were involved in this instruction compared with 78 percent in 2005–06.

Example of Introducing Collaborative Teaching and Flexible Scheduling, Drawn From the Case Studies

In one small rural district in the north central part of the United States, an LSL program goal was to introduce flexible library scheduling and collaborative teaching. The school librarian began with two teachers to demonstrate how it works. The practice was successful in teaching specific units such as how to write a research paper, which was conducted with the eighth grade science teacher. Subsequently, two more teachers have requested the librarian to work collaboratively with them in their English classes.

Libraries That Received Grants for Two or Three Years

Of the 85 grantees in 2005–06, 11 had also received an LSL grant in at least one previous year.[11] These repeat grantees might be expected to show different patterns from first-time LSL grantees; for example, they may have already overcome some of the prior disadvantaged status that seems often to have been associated with being an LSL grantee, plus they may set new priorities in later years. These 11 grantees are represented by 37 school libraries among the 611 respondents to the survey, and it is helpful to see how these grantees compare with first-time LSL grantees.

[11] Grantee districts can apply again for funding to serve grade levels or schools not served by current or prior funding. All grantee districts still have to meet the eligibility requirements.

In the first evaluation, school libraries receiving two successive LSL grants tended to be more disadvantaged than those receiving grants only in 2003–04. In contrast, in the second evaluation, the repeat grantees appear to have started with fewer disadvantages in 2004–05 than the other grantees (Exhibit 4-31). For example, they were open for a slightly longer number of hours during a typical full week in 2005 (32.3 versus 31.4), were open for more days in the summer (4.3 versus 2.7), and provided a greater mean number of nonschool hours of access (7.0 versus 3.1). In addition, the repeat grantees had a greater mean number of materials checked out per student (3.0 versus 1.9), were more likely to provide access during nonschool hours (70 percent versus 36 percent), and spent more on books and subscriptions ($7,668 versus $9,468). There were exceptions, however. The repeat grantees had a greater ratio of pupils per librarian than the other grantees (433.7 versus 386.4).

Exhibit 4-31
Comparison of Library Characteristics Before 2005–06 Grants, by Grantee Status

Characteristic	2005			2006		
	Received Grants for		Non-grantees	Received Grants for		Non-grantees
	1 Year	2 Years		1 Year	2 Years	
Mean hours open in typical full week	31.4	32.3	34.0	34.5	32.4	34.8
Mean days open in summer 2003	2.7	4.3	6.8	7.9	6.3	6.4
Mean number of nonschool hours of access	3.1	7.0	6.7	6.7	7.4	6.9
Mean number of materials checked out per student	1.9	3.0	2.0	2.1	3.1	1.9
Percentage provided access during nonschool hours	36%	70%	54%	72%	71%	56%
Mean number of pupils per librarian	386.4	433.7	450.8	364.7	429.9	448.7
Mean expenditures on books and subscriptions (dollars)	7,667.5	9,467.6	7,315.2	26,179.6	24,367.0	8,085.0

Exhibit reads: In 2005, the mean number of hours that libraries were open in a typical full week was 31.4 hours for those who had received an LSL grant for one year, 32.3 hours for those who had received LSL grants for two years (through two separate grants), and 34.0 hours for those who had never received an LSL grant.

Source: Second evaluation, school library media center survey questions 1, 3–6, 8, 9, and 32.

Because repeat grantees generally appeared to start with a relative advantage, one can examine what happened after both groups (grantees and repeat grantees) had received grants. The findings were mixed. The exhibit above shows that the two groups became more equal in terms of the number of nonschool hours of access (though the repeat grantees maintained a slight advantage), but the repeat grantees maintained their advantage in terms of the number of materials checked out, and the other grantees surpassed the repeat grantees on several measures (the mean number of hours they were open in a typical week, the mean number of days they were open during the summer, and the total expenditures on books and subscriptions).

It is difficult to extrapolate from these findings, both because of their mixed nature and because the findings may depend on which particular districts received grants in a particular year.

Chapter 5
Achievement Analysis

Key Findings

- No definitive statement can be made based on these data as to whether LSL was associated with improved test scores.
- One of the primary features of the LSL program—increasing the size of the book collections—was significantly related to increased test scores. On average, each additional book per student that libraries obtained was associated with an increase of 0.44 percentage points in student test scores.
- Some differences appeared by instructional level, with LSL grantee status showing a stronger relationship to student test scores at the elementary school level and an increase in the number of books per student showing a stronger relationship at the secondary school level.
- Most of the change in test scores appeared to take place in the year after receiving the grant (2004–05) rather than in the year of the grant (2003–04). The estimated change in test scores was slightly higher in the subsample of schools that compared 2004–05 data with true baseline data from 2002–03. However, the differences in the estimates of test score changes were not statistically significant across the models used. Because the sample of schools varies across models, it is not possible to know whether the small, nonstatistically significant differences are a result of the difference in samples or a result of the different years of data used for comparison purposes.

To test whether the LSL program was associated with improved test scores, this analysis used regression models to predict student test scores in 2004–05 on state reading/English assessments based on their test scores in 2002–03 and/or 2003–04 and on each school's LSL participation in the 2003–04 school year. Only school-level data on student test scores were available, but a school-level analysis is appropriate because the LSL grants can be considered to affect the whole school. However, the lack of student-level data does limit the ability of this analysis to examine whether LSL affected some students differently than other students.

Methodology

A later section of this chapter presents the actual statistical findings. This section describes the data and the key methodological choices that were made in the statistical analysis.

Student Test Scores

Student test score data were obtained from the National Longitudinal School-Level State Assessment Score Database (NLSLSASD). These data, available for almost all states for multiple years, consist of school-level state assessment results for the tested grades. Because the purpose of this study was to examine the association of LSL grants with student literacy, the reading test scores were used in the analysis. Some states also test students in writing; reading scores were chosen because they were more universally available and, thus, better able to support the statistical analysis. At higher grade levels, some states use a test in English/language arts rather than in reading; these scores were used in place of reading scores if no reading scores were available.

If test scores were available for multiple grade levels for a school, then the average proficiency level across all available grade levels was computed, adjusting for the number of students in each grade level.[12] The most recent test score data available at the time of this report were for 2004–05 and, thus, were too old to use to examine the 2005–06 school year as in the rest of this report. Therefore, the test score data were merged with questionnaire data from the previous LSL evaluation data (examining the 2003–04 school year). NLSLSASD is highly comprehensive, but it does not include all states or all schools within the states. Of the 701 respondents to the 2003–04 survey, test scores were available for 553 schools (79 percent) in 24 states.

Because the schools in this study were not randomly assigned and the study's comparison group sample was not matched on previous achievement, preprogram data (2002–03) are important to control for possible preexisting differences in achievement or in factors related to achievement that could bias estimates of LSL-related changes in achievement. Thus, ideally the test score analysis would include data for at least three years for every school, and preferably more. There would be three benefits to having such data: (1) the statistical models could better estimate what trend in scores existed at each school before receiving the LSL grants; (2) if data for later years were included, the models could examine whether any increase in test scores persisted or changed in later years; and (3) the models could test the empirical question of whether the grants showed some association with improved test scores during the year of the grant or whether a longer time period was required before any change in test scores could be found.

Unfortunately, data for only a limited number of years were available. At the time of the study, no data were available for the years after 2004–05, and data were unavailable for 2002–03, the baseline year, for 60 percent of the respondents. Because of the lack of complete baseline data, this analysis compares three different types of approaches. One approach analyzes only schools for which three years of data were available (i.e., 2002–03 through 2004–05). However, given the large amount of missing baseline data, this approach both reduces the size of the data set and provides a less representative set of schools. A second approach predicts the 2004–05 scores using data from the year after the grant (2003–04) instead of the baseline year (2002–03). Although this model allows more of the sample to be included in the analysis, it also assumes that there is no LSL-associated change in achievement during the year of the grant and that there are no preexisting differences between the LSL and non-LSL schools in the sample, both of which are untestable assumptions. A third approach is a hybrid approach, using the 2002–03 data where available, but using 2003–04 data for the remaining cases so all cases can be retained for the analysis. This analysis uses a dummy variable to differentiate between the two groups of data. Each of these three approaches has advantages and disadvantages, and the collective use of all three allows us to better understand the implications of each one. These three approaches are discussed in greater detail in a later section.

Comparison Group

The design of the comparison group of nongrantee schools for the 2004 survey is similar to the design for the current study. Collectively, the comparison schools represent all schools that were in districts eligible to receive LSL grants in 2003–04 (i.e., at least 20 percent of the students in the LEA must be from families with incomes below the poverty line) and that had not received LSL grants in the past. To the extent possible, comparison schools were chosen from the same states as the sampled grantee schools to keep the test scores as comparable as possible. This analysis is based on data from 24 states.

[12] For example, if both grades 3 and 4 were tested, the number taking the test in grade 3 was multiplied by the percentage who were proficient, and the number taking the test in grade 4 was multiplied by the percentage who were proficient. Then the total of those two numbers was divided by the total number in grades 3 and 4 to get a single percentage for all grades that were tested.

The grantees in the study were a subsample of 400 grantee schools from the approximately 650 schools that received grants in 2003–04. Similarly, a sample of 400 comparison schools was selected by drawing an equal number of comparison schools from each of the specified matching cells, based on the sampling strata. The district-level characteristics that were used in the matching process included region, district poverty status, school district type, urbanicity and district enrollment size. The school-level characteristics that were used in the matching process included instructional level, school type, enrollment size, type of locale, percentage of students belonging to racial/ethnic minorities and the percentage receiving free lunches. Because baseline achievement data were not available at the time of sampling, we were unable to match comparison and LSL schools on prior achievement. Special attention was given to identifying similar comparison schools for those few grantee schools with unusual characteristics (charter school districts or single-school districts). Both grantees and nongrantees were weighted based on the probability of selection and to adjust for nonresponse. The grantees were weighted to represent the approximately 650 schools receiving grants. The nongrantees were weighted to represent the pool of eligible schools (i.e., schools in districts with high poverty) that did not receive LSL grants. Because nongrantees were weighted to represent a population with a potentially different distribution of characteristics than in the original sample, the weighted and unweighted statistics can show different distributions. We chose to weight the nongrantees to the total population of eligible schools that did not receive LSL grants for the following reasons: (a) for many types of statistics, there is a natural interest in comparing LSL schools with all eligible schools; (b) the characteristics of specific schools that get awards can change from year to year, while eligibility provides a straightforward way of identifying the schools of interest; and (c) though the weights of the comparison schools could be made proportional to the LSL weights, it would no longer be clear what class of schools was being discussed, while LSL eligibility clearly defines such a class.

Exhibit 5-1 shows how the grantees and nongrantees compared on several school characteristics, both for the original set of survey respondents and for the reduced set of schools that were available for the test score analysis. The grantee and nongrantee survey respondents showed highly similar distributions when using unweighted statistics (generally within 1.5 percentage points for those characteristics that were used for matching) and somewhat less similar distributions when using weighted statistics (generally within 4 or 5 percentage points). A similar pattern appeared for the subset of schools with test scores: there were small differences in the unweighted distributions (generally within 2 percentage points) and somewhat larger differences in the weighted distributions (generally within 4 or 5 percentage points). The only statistically significant differences between grantees and nongrantees in Exhibit 5-1 were with respect to middle and secondary/combined schools. Because the analysis focuses on change over time and schools do not ordinarily change instructional levels, the differences based on school level should not have had an important effect on the results. Also, the end of this chapter includes a separate analysis by school level.

Mean reading test scores at baseline were not available at the time the samples were drawn, and are still missing for 60 percent of the respondents, but can be used as an additional tool for examining how the two samples compared (Exhibit 5-2). The baseline test score means generally were within 2 percentage points when comparing grantees and nongrantees; however, 60 percent of the sample is missing from this comparison.

Exhibit 5-1
Comparison of Grantees and Nongrantees, by School Characteristics in 2002–03

School Characteristic	Percentage of Survey Respondents				Percentage of Test Score Schools			
	Unweighted		Weighted		Unweighted		Weighted	
	Grantees (n = 353 schools)	Non-grantees (n = 348 schools)	Grantees (n = 628 schools)	Non-grantees (n = 16,076 schools)	Grantees (n = 276 schools)	Non-grantees (n = 277 schools)	Grantees (n = 481 schools)	Non-grantees (n = 12,687 schools)
School enrollment size								
Less than 300	31.4	32.2	39.8	44.2	29.3	30.7	37.4	42.2
300–499	34.8	32.2	35.0	31.2	34.8	32.1	35.0	31.2
500 or more	33.7	35.6	25.2	24.6	35.9	37.2	27.6	26.6
Level								
Elementary	47.0	45.7	57.4	53.7	47.1	45.5	57.9	53.0
Middle	27.2	27.9	20.4	16.0**	30.1	30.3	23.0	17.1**
Secondary/ combined	25.8	26.4	22.3	30.3**	22.8	24.2	19.0	29.9**
Total expenditures per student, spring 2003								
Small	35.7	35.3	34.3	31.7	33.7	31.0	32.6	25.5
Medium	32.9	33.6	31.8	32.5	34.1	36.1	32.8	35.8
Large	31.4	31.0	34	35.8	32.2	32.9	34.6	38.8
Total FTE staff, spring 2003								
Small	49.0	44.3	54.8	50.4	48.9	46.2	55.0	52.1
Medium	21.2	17.5	19.6	18.0	20.3	16.2	17.4	16.6
Large	29.7	38.2	25.7	31.6	30.8	37.5	27.5	31.3

* $p \leq 0.05$; ** $p < 0.01$ comparisons are between grantees and nongrantees.

Note: Percentages may not add to 100 because of rounding.

Exhibit 5-2 does provide evidence suggesting there were substantial "baseline" differences in test scores between schools that had test scores available in 2002–03 and those that did not.[13] For example, the mean test result in 2003–04 among grantees was 57.4 for those with test scores available for 2002–03, and 36.0 among grantees without test scores available for 2002–03. Similar differences appeared among the nongrantees, and all of these differences were statistically significant (though none of the differences between grantees and nongrantees were statistically significant). Thus, if 2002–03 data were available for all schools, the rate of improvement for both grantees and nongrantees may be somewhat lower than the estimates produced here.

Exhibit 5-2
Comparison of Grantees and Nongrantees, by Mean Test Scores in Reading

School Year	Number of Schools		Mean Test Scores in Reading			
			Unweighted		Weighted	
	Grantees	Non-grantees	Grantees	Non-grantees	Grantees	Non-grantees
2002–03	108	111	50.7	48.7	53.3	52.4
2003–04 (total)	270	268	42.7	42.4	43.8	41.8
Among those with data for 2002–03	107	111	54.6	52.5	57.4	54.4
Among those without data for 2002–03	163	157	34.9	35.4	36.0	34.3
2004–05 (total)	271	274	47.1	45.5	48.1	44.5
Among those with data for 2002–03	107	111	60.6	56.6	63.6	59.1
Among those without data for 2002–03	164	163	38.3	37.9	39.3	36.3
Prior test score[a]	271	268	41.2	40.9	42.3	41.1

Note: None of the differences between grantees and nongrantees were statistically significant.
[a]From 2002–03 if available; otherwise from 2003–04.

Comparisons Across States

State test scores are difficult to compare across states. The tests vary in the specific content covered, the quantitative scales used for scoring, and in the performance levels required to achieve proficiency. This variation is especially an issue if one uses "raw" (unstandardized) test scores; for example, a score of 80 in one state might indicate a higher level of proficiency than a score of 300 in another. Also, because of differences in the content areas covered and in the weighting given to each component of a score, a score on one test cannot be accurately converted to show what score a student would achieve on another test.

To establish a common metric that would be more meaningful across states, this analysis focused on the percentage of students who met or exceeded their state's standard for proficiency. This measure has a standard scale across all states (i.e., ranging from 0 to 100 percent), unlike the raw test scores. It also has a more standardized meaning: even if states differ on how they measure proficiency or on the levels they set to indicate proficiency, policy-makers evaluate students and schools in terms of their ability to satisfy the state standards. Assuming that each state's test is designed to match the state's curriculum (a requirement of the *No Child Left Behind Act* that states have been working to meet), this metric changes the focus from what scores are achieved (which may change depending on the test and the curriculum) to schools' success in training students based on the state curriculum.

[13] Ideally, one would use 2002–03 tests scores to measure such baseline differences, but by definition they are unavailable. However, typically, test scores at the school level change little from one year to another; thus, the 2003–04 test scores serve not only as a partial surrogate but also as the actual baseline used in some of the analyses in this report.

In principle, the state proficiency metric can be just as precise as a raw score, with two main exceptions. First, because the percentage scores are typically rounded to the nearest integer in the database, a percentage score may not be as sensitive to small changes as the raw score. Second, to the extent that states are successful in getting all students to achieve proficiency, there may be insufficient variation to compare grantees and nongrantees. Such a lack of variation could occur either if schools are successful in raising students' skills/knowledge or if states set such minimal levels for demonstrating proficiency that essentially all students can pass.[14] In practice, the percentages showed sufficient variation so neither of these two factors presented a serious problem for this analysis, though the second factor may become increasingly important as states seek to demonstrate progress in later years. Also, LSL grants are directed at disadvantaged districts (and often further directed by the districts to the most disadvantaged schools within those districts), and such districts/schools typically have lower proficiency levels among their students, lessening the likelihood that schools might be so near to the top that there is little room for improvement.

However, using this state proficiency metric tends to place the focus on students who are close to the cutoff point. Some schools/districts may choose to focus services on students just below the cutoff point, figuring that this approach gives them the best chance of satisfying the standards. In this case, changes in the percentage of students who are proficient may tend to overstate the degree to which improvement is shared across all students. Alternatively, this measure can mask any student-level changes in performance that may have occurred above or below the cutoff point. Even substantial changes in student achievement can go undetected when average student performance does not cross a given threshold, leading to underestimates of the improvements in student performance. Both types of risks are inherent in the way that schools are currently evaluated (i.e., in terms of the percentage of students reaching proficiency); ideally, this analysis would use student-level data to examine changes in test scores across all students, but the use of school-level results does correspond with the expectations currently being placed on the schools. It is difficult to know how these considerations might interact with the evaluation of the LSL program. School libraries, by their nature, are meant to serve all students. However, the books that libraries choose to purchase may have greater relevance to some students than to others, the ability to make use of the library may vary among different groups of students, and the need for library services also varies among students. Focusing on changes among students near the cutoff point may or may not reflect those students who are most affected by the LSL grants.

As a second tool to facilitate making comparisons across states (and localities), this analysis focused on how test scores changed from one year to another rather than on the absolute levels of the scores. Comparing changes in scores puts the focus on whether the grantees showed greater improvement, which is a meaningful concept for any school.[15] School and student characteristics tend to stay stable over

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[14] In such situations, one could use the analogous approach of examining the percentage of students who exceed the standards (e.g., those who reach the next proficiency level, which typically is labeled "advanced"). This presumably would help to increase the amount of variation and thus increase one's ability to measure differences over time and across schools. However, the data then may not be as directly comparable across states; *proficiency* can be considered as a type of benchmark, while *advanced* is more difficult to interpret (a) because it is not given the same policy importance and (b) because the definition may vary across the states. As an analogy, graduation requirements differ across schools and states but still are a benchmark; thus, it is meaningful to identify a person as a high school graduate or a college graduate as well as to examine a school in terms of the percentage of students who graduate. It is more difficult to interpret the percentage who exceeded graduation requirements unless one knows what requirements were exceeded and by how much.

[15] As noted, there is a possibility that schools could start at such high levels of proficiency that they have little room for improvement (based on that particular measure). Similarly, it is possible that it is easier to produce changes in proficiency levels at some schools than at others (e.g., if some schools have a larger proportion of students who need only small improvements to reach proficiency). Regression to the mean could occasionally be a factor (e.g., if some districts direct grants to those schools with the lowest proficiency levels), though regression to the mean should be less of a factor when working with schoolwide averages than when working with individual student test scores. Regression to the mean is most an issue when students are selected because of their low (or high) scores. In such cases, some of the students are likely to have low (or high) scores because of measurement error and very different scores when they are tested again. Schoolwide means should be much more stable, and in fact, typically should vary only slightly from year to year. Also, schools are not being targeted in the research because of their low scores; it is true that some districts target schools with the lowest scores, but even that targeting may often be based on long-term

time, so schools typically show little change from one year to another. In statistical terms, if the mean test scores for one year are used to predict the mean test scores for the next year, 96 percent of the variance is explained. A focus on changes in test scores also lessens the need to model every factor that influences test scores; in fact, variables that would be important when predicting absolute test scores often drop out when predicting change.

In summary, focusing on the percentage of students who were proficient helps to adjust for differences across states in how test scores are computed, and focusing on the change in scores rather than on actual scores further lessens the need to model those factors that have a consistent effect on students from one year to another (whether those differences are differences in testing, in school characteristics or in student characteristics).

Use of Measures of Correlation

This analysis is based on the correlation of student test scores with participation in the LSL program (or with features related to participation in LSL). Any such analysis is always subject to the possibility that other unmeasured factors may be responsible for the correlations. For this reason, researchers prefer experimental designs (e.g., with participation in LSL determined by random assignment).

To lessen the chances that false correlations may appear, this research uses a quasi-experimental design in which a set of comparison schools was chosen that did not participate in LSL but that otherwise was similar to the LSL participants on demographic variables available to the study team. Because baseline achievement data were not available at the time of sampling, we were unable to match comparison and LSL schools on prior achievement. Still, the fact that schools or districts chose to seek the grants and succeeded in obtaining them may distinguish these schools in important ways from other schools. It remains possible that other unmeasured factors such as preexisting differences in test scores may be responsible for LSL-related changes in test scores. This research is necessarily exploratory and subject to confirmation or contradiction by later research.

Specification of Variables

The decision to focus on change over time helps to simplify the regression models. Many of the factors that might be presumed to influence student test scores could be implicitly included in the model through the measure of prior test scores.

Unfortunately, only 219 of the 553 schools (40 percent) had data available for the year before the grant. Thus, this study used three approaches. First, to maximize the available sample, one set of regressions looked only at change in the year after the grant (i.e., comparing 2003–04 with 2004–05). This approach is based on the hypothesis that most, if not all, of any LSL-related changes in test scores were likely to occur in the year after the grant because of the time required to implement the grant (e.g., the time required to purchase and distribute new books) and for students to respond to those changes. Necessarily, however, this approach is incapable of measuring LSL-related changes in the year of the grant. Second, an alternative set of models also predicted 2004–05 test results using the school test score results from the baseline year, 2002–03. This approach controls for preexisting differences in achievement and allows the measurement of grant-associated change in the year of the grant, though at the cost of losing more than half of the respondents. Third, as a way of incorporating all of the available test score data, another set of models used a single variable that contained either 2002–03 results (when

trends rather than on chance fluctuations. On balance, the directing of LSL grants to disadvantaged districts and schools as well as the selection of comparison schools that were also in disadvantaged districts helps to lessen the chances either that schools would have little room for improvement or that grantees would have greatly different opportunities for improvement from nongrantees because of differences in their starting levels of proficiency.

they were available) or 2003–04 results (if 2002–03 results were not available). The model also included a dummy variable indicating whether test score data were available for 2002–03. This approach allows the change over time to be broken in two parts: the coefficient for the test score variable represents the average change from 2003–04 to 2004–05, and the coefficient for the dummy variable represents the additional change experienced among schools with test scores from 2002–03.[16] If schools did experience some LSL-related change in 2003–04, then this approach might be expected to produce results somewhere between the first two approaches, capturing some of the change that appeared in 2003–04 but not all of it.

A second set of choices involved how to model grantees' participation. The simplest approach was to use a dichotomous variable (taking the values of 1 for grantees and 0 for nongrantees) so the coefficient shows the estimated change in reading proficiency that is associated with receiving an LSL grant. This approach has the advantage of directly estimating the change in test scores associated with receiving the LSL grants. As a slight modification to that approach, some models in this analysis also include a dichotomous variable measuring whether the grantee had also received an LSL grant in a previous year. On the one hand, if test score data were available for the year before the first grant, one might hypothesize that the repeat grantees would show larger total increases than other grantees because of the additional aid they received. On the other hand, given the limited number of years of data used in this analysis, there is a risk that the "base" scores taken from 2003 or 2004 may include some of the early improvement associated with the first grant so the total improvement related to the grants could be underestimated.

An alternative way of measuring grantees' participation is to model the specific changes they made as part of the grant (e.g., increasing the number of books the library purchased per student and increasing the number of hours the library was open).[17] This alternative approach does not directly estimate improvements that are associated with receiving the LSL grants because grantees varied in the degree to which they made each change. However, it potentially provides information on which aspects of implementing the grant are most associated with improved test scores and, thus, may provide information on how to better implement the program in the future. Also, if some grantees failed to make these particular changes, or if some nongrantees made the changes even without receiving the grants, then the differences between grantees and nongrantees may be small and statistically insignificant, even if the programmatic changes themselves were useful for many grantees. Thus, this alternative approach helps to measure whether some grantees were helped by the grants and whether these particular focuses of the LSL grant program are appropriate focuses.

Finally, one theory is that the relationship between LSL participation and achievement scores varies between grade levels. Therefore, a set of regression models were calculated for elementary schools and secondary schools. Middle/junior-high schools were combined with senior-high schools to retain a sufficient number of schools in the analysis. The number of schools at each level was roughly half that of the overall analyses (256 elementary schools and 296 secondary schools), resulting in increased standard errors and a reduced likelihood of finding statistically significant results.

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[16] These two school years are not the only possibilities. It also is possible that it may take several years for an LSL grant to show its full influence, in which case measuring change ending in 2004–05 may understate the ultimate influence of the grant. In later years, when additional test score data become available, it may be desirable to reexamine the association of the grants with student literacy, using a longer timeframe.

[17] These particular measures were chosen (a) because they reflect major emphases of the LSL program, (b) because the survey data suggest they were influenced by the program, and (c) because they could be measured with a fairly high level of precision. Another emphasis of the LSL program is on increased collaboration, but the amount of increase in collaboration is much more difficult to measure and is often more subjective. This study did examine some potential measures of collaboration and found no significant association between these measures and improvement in student test scores. It is difficult to attach any meaning to the lack of statistically significant findings, however, because of the weakness of the measures that were used.

Regression Through the Origin

Typically, regression models include an intercept term, and the regression results can be interpreted as modeling variation around the mean, as represented by the intercept. Sometimes, however, the intercept is not meaningful from a theoretical perspective, and it is dropped from the model. For this study, if the intercept is dropped, then the model has a clear interpretation: the coefficient for the test result variable reflects the overall proportional change in the scores from one year to the next. For example, a coefficient of 1.03 would reflect an overall improvement of 3 percent in the test results, and a coefficient of 0.98 would reflect an overall decline of 2 percent. Alternately, including the coefficient results in a less plausible model: one then would be predicting the 2004–05 results as being equal to the overall mean for the same year, plus an adjustment based on the earlier test results for each school. The coefficient for the test result variable thus is much more difficult to interpret, as is a determination of whether there was an overall pattern of improvement from one year to another. When comparing both versions of the regression model, regression through the origin also appeared to perform better from a statistical perspective: R^2 increased from 0.84 to 0.96. R^2 has a different meaning when using regression through the origin and can even be negative, but the improvement in R^2 can be interpreted as indicating that regression through the origin provides a better fit of the data. Also, the standard errors for the test score measure decreased (e.g., from 0.030 to 0.016) while the other standard errors remained roughly the same, which could be interpreted as suggesting that regression through the origin provided a better fit of the relationship between past and current test scores. Therefore, regression through the origin is used in this report.

Construction of Statistical Models

The structure of the models is based on the assumption that the mean proficiency levels for 2005 can be predicted by starting with the mean proficiency for 2004 (or 2003), plus some average change over time that is common to all schools and some improvement because of the specific changes that were made by the schools (i.e., receiving an LSL grant or increasing the number of books per student and/or the number of hours the library was open).

The base model thus can be estimated as

$$\text{Proficiency}_{2005} = \beta \times \text{Proficiency}_{2004} + \varepsilon$$

where the coefficient β represents the average change across schools from their proficiency levels in 2004 (e.g., $\beta = 1.05$ represents an average improvement of 5 percent), and ε represents random error. This model was highly successful, predicting 96 percent of the variance, indicating that it is possible to predict school test scores based on test scores from the previous year with a high degree of accuracy and by using no other variables to adjust for differences among schools. On average, schools eligible for the LSL program showed a 5 percent increase in the percentage of students who met or exceeded proficiency on their reading/English state assessment.

To directly estimate the level of improvement associated with receiving the LSL grant, model 1a modifies the base model by adding either a single term representing LSL participation in 2003–04 or two terms measuring LSL participation in 2003–04 and in a prior year.

(Model 1) $$\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Grantee}_{2004} + \varepsilon$$

(Model 1a) $$\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Grantee}_{2004} + \beta_3 \times \text{Grantee}_{\text{Prior}} + \varepsilon$$

Here, the coefficient β_1 represents the average change across districts from their proficiency levels in 2003–04, β_2 represents the improvement associated with being a grantee in 2003–04, and β_3 represents the improvement associated with being a repeat grantee.

To measure whether other school reform efforts might be associated with test score increases rather than LSL, model 1b modifies model 1a by adding measures of participation in Title I, Reading First, Early Reading First, and Comprehensive School Reform. Reading First and Comprehensive School Reform were not statistically significant and were dropped from the models. The measures added were each dummy variables, taking the value of 1 if a school participated in a particular program and 0 otherwise. Early Reading First is a program that applies only to elementary schools, not middle schools or high schools. However, this circumstance does not present a problem in the statistical models. In the models that include both elementary and secondary schools, the measure takes the value of 0 when applied to secondary schools; thus, the model tests for an extra gain in test scores in participating elementary schools relative to schools that did not participate (either because they did not have Early Reading First Programs or because they were secondary schools). Early Reading First is not included in the models for secondary schools only; it would then always take the value of 0 and would not be meaningful.

(Model 1b) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Grantee}_{2004} + \beta_3 \times \text{TitleI} + \beta_4 \times \text{EReadFirst} + \beta_5 \times \text{Grantee}_{\text{Prior}} + \varepsilon$

To estimate the level of improvement associated with specific library improvements, model 2 replaces the terms measuring LSL participation with terms measuring the increase in the number of books that libraries purchased per student and in the number of hours the library was open. Because these two terms may interact with each other, they were included not only together in one regression equation but also separately in additional regression equations (models 2a and 2b).

(Model 2) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Books} + \beta_3 \times \text{Hours} + \varepsilon$

(Model 2a) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Hours} + \varepsilon$

(Model 2b) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2004} + \beta_2 \times \text{Books} + \varepsilon$

Finally, because some improvements in test scores may have occurred in 2003–04 and would be missed in a time comparison between 2003–04 and 2004–05, the models above were all repeated using an alternative measure of early proficiency (the proficiency level in 2002–03 when available and the level in 2003–04 otherwise), plus a new variable indicating which data were used (1 if the proficiency measure is for 2002–03 and 0 if the measure is for 2003–04).

(Alternate Model 1) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2003/2004} + \beta_2 \times \text{Grantee}_{2004} + \beta_3 \times \text{Data}_{2003} + \varepsilon$

(Alternate Model 1a) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2003/2004} + \beta_2 \times \text{Grantee}_{2004} + \beta_3 \times \text{Grantee}_{\text{Prior}} + \beta_4 \times \text{Data}_{2003} + \varepsilon$

(Alternate Model 2) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2003/2004} + \beta_2 \times \text{Books} + \beta_3 \times \text{Hours} + \beta_3 \times \text{Data}_{2003} + \varepsilon$

(Alternate Model 2a) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2003/2004} + \beta_2 \times \text{Hours} + \beta_3 \times \text{Data}_{2003} + \varepsilon$

(Alternate Model 2b) $\text{Proficiency}_{2005} = \beta_1 \times \text{Proficiency}_{2003/2004} + \beta_2 \times \text{Books} + \beta_3 \times \text{Data}_{2003} + \varepsilon$

These models can be interpreted in the same way as the previous models, except that β_1 represents the average improvement over time from 2003–04 to 2004–05, and the coefficient before $Data_{2003}$ (either β_2 or β_3) represents the average improvement over time from 2002–03 to 2003–04).

If data were available for individual students, then the models could alternatively be constructed as hierarchical models, with student-level and school-level variables examined in separate equations. Student-level data were not available, however, and all variables are measured at the school level.

Because the test score analysis is based on the first LSL evaluation (i.e., for grants received in 2003–04), the questionnaire data included in the file are from the same evaluation. Thus, some variables that appear to be of interest in earlier chapters of this report are not available for the test score analysis. For example, Exhibit 4-27 shows that more grantee libraries provided professional development resources on Teaching Children to Read. However, these data are not available for the first evaluation.

Standard Errors

The regression estimates were calculated using replicate weights to adjust for the use of a complex sample. The resulting standard errors ranged from 0.9 to 1.7 times the standard errors produced by standard statistical software for surveys based on simple random samples. Thus, in many cases the use of standard statistical software would result in incorrect conclusions about the statistical significance of the estimates.

Limitations and Design Issues

This study raised a large number of important design and analysis issues, which are discussed in detail throughout this chapter. In this section, we provide a brief summary of these issues.

- **Random assignment.** The schools were not randomly assigned to treatment and control groups. Therefore, no causal inferences about these findings can be made.

- **Sample selection.** The grantee schools were chosen through a stratified random sample of schools receiving LSL grants in 2003–04. Comparison schools were chosen to collectively show a similar range of characteristics as the grantee schools. Because baseline achievement data were not available at the time of sampling, we were unable to match comparison and LSL schools on prior achievement. Although the sample design provided for every district receiving an LSL grant to have at least one school chosen, LSL grants were not equally distributed across all states. Similarly, because the comparison schools were chosen from the same states as much as possible (to have test scores that were more comparable), they also were not distributed across all states. The sample includes data from only 24 states.

- **Potential for selection bias.** Exhibits 5-1 and 5-2 show that the comparison schools were largely similar but not identical to the grantee schools, both with respect to the sampling characteristics and with respect to baseline reading scores. However, baseline reading scores are not available for 60 percent of the sample, thus we are unable to definitively establish baseline equivalence on achievement for the full set of respondents. This limitation was true not only for the original set of questionnaire respondents but also for the reduced set of schools for which test score data were available. Aside from the comparisons shown in Exhibit 5-1, there could be important unobserved differences between the grantee and comparison schools, though such variables are likely to be at least correlated with the variables in Exhibit 5-1.

- **Weighting.** Comparison schools were weighted to represent all schools in districts that were eligible for but had not received LSL grants. Weighted statistics can change the degree to which the comparison groups show the same distribution of characteristics as the grantee schools. More specifically, weighting increased the differences between grantee and comparison schools, though the differences still were not large (Exhibit 5-1 and 5-2).

- **Test scores used.** The analysis used the percentage of students considered proficient on state reading tests. Such proficiency scores ignore any student-level changes in performance that may have occurred above or below the cutoff point and could either understate or overstate the degree to which change is shared across all students.

- **Years for which data were available.** True pretest data were available only for 40 percent of the schools included in the analyses. Some analysis models are based solely on the schools for which true baseline data from 2002–03 were available to control for preexisting differences in achievement between LSL and non-LSL schools. Other models predict the 2004–05 scores using data from the year of the grant (2003–04) instead of the baseline year (2002–03). This approach allows more of the sample to be included in the analysis, but it also assumes that there is no LSL-associated change in achievement during the year of the grant and does not control for preexisting differences between the LSL and non-LSL schools in the sample. A third set of models uses a hybrid approach, incorporating all of the respondents and using 2002–03 data when they were available, but using 2003–04 data when 2002–03 data were not available. When this study was conducted, data after 2004–05 were unavailable, which precluded any analysis of extended changes in test scores following the receipt of the grants.

- **Regression to the mean.** When individuals are chosen for a study based on attributes such as low test scores, some are likely to have unusually low scores because of measurement error. When they are tested again, the new measure may show great improvement and may be falsely interpreted as real change in reading proficiency, when it actually represents only a more accurate measure of reading proficiency. This study did not target individuals with low test scores, but some districts did target low-performing schools when allocating LSL grants to their schools. This situation could indirectly create the potential for regression to the mean. However, several factors lessen the likelihood of this problem. First, the comparison schools were chosen to match the grantee schools, though not by using test scores, so they should show the same potential for regression to the mean as the grantee schools. Exhibit 5-2 shows that for the 40 percent of the sample with baseline reading scores, the scores were actually quite similar before the grants for grantees and the comparison schools. Second, school-level data tend to be much more stable than individual-level data; that is, individual fluctuations balance out when viewed collectively and, in fact, varied only slightly from year to year. Using test scores from one year to predict test scores in the following year explained 96 percent of the variance. Third, even when districts targeted the schools that were the lowest performers, they may have based those judgments on multiple years rather than on temporary fluctuations. Thus, regression to the mean does not appear to present a serious issue for this study.

- **Potential for multiple concurrent reforms.** The fact that a school receives an LSL grant may indicate something about the district and the school, for example, that the district/school has a strong reform orientation, that it is capable of preparing a comprehensive plan that will be approved by the U.S. Department of Education, and that it is actively involved in school improvement efforts. When multiple reforms occur simultaneously, it can be difficult or even impossible to determine how changes in test scores are related to specific reforms. The orientation of the district/school toward reform may be as important, or more important, than a specific reform program. Given some evidence in this study that the grantee schools were more

likely to participate in other such school improvement efforts, it is difficult to determine the precise amount of improvement associated with LSL participation.

Because of these issues, no definitive statement can be made based on these data as to whether LSL was associated with improved test scores.

Presentation of Multiple Measures of Test Scores

Because the schools in this study were not randomly assigned and the study's comparison group sample was not matched on previous achievement, preprogram data (2002–03) are important to control for possible preexisting differences in achievement that could bias estimates of LSL-related changes in achievement. Ideally, the test score analysis would include data for at least three years for every school and preferably more. There would be three benefits to having such data: (1) the statistical models could better estimate what trend in scores existed at each school before receiving the LSL grants; (2) if data for later years were included, then the models could examine whether any increase in test scores persisted or changed in later years; and (3) the models could test the empirical question of whether the grants showed some association with improved test scores during the year of the grant or whether a longer time period was required before any change in test scores could be found.

Unfortunately, only a limited number of years of data were available. At the time of the study, no data were available for the years after 2004–05, and data were unavailable for 2002–03, the baseline year, in 60 percent of the sample. Thus, Exhibit 5-3 presents findings from three parallel sets of regression models, each using a different approach to measuring change in test scores over time.

- **Time A.** The first analysis uses scores from 2003–04 (the grant year) to predict 2004–05 scores. This approach maximizes the sample that can be included in the analysis. However, it also assumes that there is no LSL-associated change in achievement during the year of the grant and that there are no preexisting differences between the LSL and non-LSL schools in the sample, both of which are untestable assumptions when using this approach.
- **Time B.** The second analysis starts with test score data from the year before the grant (2002–03), using those scores to predict improvements in 2004–05. This approach allows one to control for possible preexisting differences in achievement between LSL and non-LSL schools and to measure the full extent of LSL-related changes (at least in the first two years, though there could be benefits in later years). Unfortunately, test scores for 2002–03 were available only for 219 schools, so this analysis applied to less than half of the 553 schools in the first analysis. The reduction in the number of cases could reduce the chances of finding statistically significant relationships; further, if those 219 schools differed in important ways from the larger set, then this second approach may not properly represent what LSL-related changes appeared overall. This model by itself also cannot provide information about which years showed LSL-related improvements in test scores, though one can compare these results with those of the first analysis, using caution in making inferences given the differences in samples.
- **Time C.** The third analysis also uses 2002–03 data where available to predict 2004–05 test scores, but rather than drop the 234 schools lacking 2002–03 data, it includes them by replacing the missing 2002–03 data with the test scores from 2003–04. So the regression estimates can properly distinguish between the two years, the analysis also includes a dummy variable that is 1 when data from 2002–03 were available and 0 otherwise. Thus, the coefficient for "prior test score" represents the average change across all schools from 2003–04 to 2004–05 while the coefficient for "test scores available in 2002–03" represents the average change between 2002–03 and 2003–04. The coefficient for LSL grantee represents the average LSL-related improvement when both grantees with 2002–03 data and those with only 2003–04

Exhibit 5-3
Regression Models to Estimate Association of 2003–04 LSL Grants With 2004–05 Test Scores, With Various Baseline Years for Test Results

Variable	Time A Using 2003–04 Test Scores (n = 553)			Time B Using 2002–03 Test Scores (n = 219)			Time C Using Combination (n = 553)		
	Estimate	Standard Error	P-value	Estimate	Standard Error	P-value	Estimate	Standard Error	P-value
Model 1—Overall test of LSL grant									
Prior test score	1.05	0.017	0.000	1.12	0.026	0.000	1.03	0.022	0.000
LSL grantee	2.22	1.076	0.039	3.77	1.733	0.030	2.71	1.065	0.011
Test scores available for 2002–03							5.30	1.569	0.001
Model 1a—Overall test of LSL grant									
Prior test score	1.05	0.017	0.000	1.12	0.026	0.000	1.03	0.023	0.000
LSL grantee	2.40	1.077	0.026	4.07	1.753	0.021	2.79	1.078	0.010
LSL grantee for 2 or more years	-4.20	4.743	0.376	-2.45	4.205	0.561	-1.92	4.224	0.650
Test scores available for 2002–03							5.31	1.572	0.001
Model 1b—Overall test of LSL grant and other reforms									
Prior test score	1.00	0.021	0.000	1.05	0.032	0.000	1.00	0.027	0.000
LSL grantee	0.96	1.043	0.357	3.10	1.776	0.081	1.93	1.064	0.071
Title I	3.94	1.081	0.000	4.96	2.140	0.021	2.78	1.011	0.006
Early Reading First	6.26	1.501	0.000						
Test scores available for 2002–03							4.81	1.482	0.001
Model 2—Test of library changes									
Prior test score	1.04	0.018	0.000	1.12	0.030	0.000	1.01	0.025	0.000
Increase in hours the school library was open	0.45	0.260	0.083	-0.18	0.797	0.823	0.11	0.316	0.723
Increase in books per student	0.47	0.193	0.014	0.40	0.569	0.487	0.49	0.191	0.011
Test scores available for 2002–03							6.22	1.766	0.000
Model 2a—Test of library changes									
Prior test score	1.05	0.016	0.000	1.12	0.024	0.000	1.03	0.023	0.000
Increase in hours the school library was open	0.41	0.259	0.115	-0.16	0.778	0.837	0.08	0.309	0.806
Test scores available for 2002–03							5.36	1.599	0.001
Model 2b—Test of library changes									
Prior test score	1.04	0.018	0.000	1.11	0.032	0.000	1.01	0.025	0.000
Increase in books per student	0.42	0.192	0.029	0.35	0.543	0.516	0.44	0.190	0.021
Test scores available for 2002–03							6.34	1.765	0.000

Exhibit reads: Model 1, using data for 2003–04, indicates that test scores for both grantees and nongrantees increased by 5 percent compared with 2003–04. The test scores for grantees were 2.2 percentage points higher than would be expected if they had not received the grants. Both statistics were statistically significant, with p-values below 0.05.

Note: R^2 ranged from 0.955 to 0.973 across all models.

Source: National Longitudinal School-Level State Assessment Database (2003, 2004, 2005); first evaluation, school library media center survey questions, 1, 4 and 31.

data are mixed together; it thus can capture LSL-related improvements in 2003–04 in some schools but not in other schools. This last approach is not an ideal measure because it cannot fully control for preexisting differences in achievement between LSL and non-LSL schools and may still understate or overstate the total LSL-related change. However, unlike the first approach, this third approach can capture at least some of the LSL-related change in 2003–04 while it also allows all of the data to be included.[18]

Findings

Following are the results of the analyses.

- **LSL participation.** No definitive statement can be made based on these data as to whether LSL was associated with improved test scores. Although some models showed a statistically significant relationship between LSL participation and improved test scores, models that included measures of other school reforms did not.

  - In the most basic models, the percentage of students who met or exceeded the proficiency requirements increased significantly by between 2.2 and 3.8 percentage points among grantees, depending on the model used. The estimates were roughly similar whether or not the regression model included a measure of participation in LSL before 2003–04 (models 1 and 1a).[19]

  - However, when other school improvement programs (Title I and Reading First) were added to the models, the improvement associated with LSL participation no longer was statistically significant at the 0.05 level (model 1b). Thus, it may be these other reforms that best explain the improvement in test scores.

  - Models A, B and C all showed highly similar findings. The LSL coefficients were largest when 2002–03 data were used alone and smallest when 2002–03 data were excluded. This pattern is consistent with the hypothesis that there were LSL-related improvements in both 2003–04 and 2004–05, although the small magnitude of the differences is consistent with most of the improvement appearing in 2004–05. However, because the changes across the models are not statistically significant, one can neither be sure that the models truly differ in their findings nor attribute specific

[18] An alternative approach would to add another dummy variable to the model that is 1 when the school is an LSL-grantee and the school has data for 2002–03 and 0 otherwise. This would allow one to separately measure the LSL-related increases in 2003–04 and 2004–05. If the number of cases were larger, such an approach might be useful, but with the current number of cases, this approaches makes both LSL coefficients statistically insignificant. Thus, Exhibit 5-2 instead uses an overall measure of LSL-related change even though this statistic reflects an average across two years.

[19] An analysis of the residuals identified a few schools with exceptionally high changes in test scores. These exceptionally large changes seem likely to be the result of changes having nothing to do with school libraries, for example, changes in the school boundaries (and thus in the student populations served). Deleting 16 observations with changes greater than 25 percentage points produced statistical findings that were roughly similar to those shown here. The coefficient for LSL grantee did become statistically insignificant at the 0.05 level (p value = 0.052) in model 1 when using 2003–04 as the baseline, but remained significant using the other two approaches (p value = 0.018 using 2002–03 and p value = 0.012 using the combination). It was significant in model 1a for all three approaches (p-value=0.034, 0.013, and 0.011, respectively). In model 1b, it was insignificant when using 2003–04 data (p value = 0.298), significant at the 0.05 level when using 2002–03 data (p value = 0.038), and significant at the 0.10 level when using a combination of 2002–03 and 2003–04 data (p value = 0.066). Although LSL participation reached the 0.05 level of statistical significance when using 2002–03 data, the measure for Title I itself was not statistically significant (p value = 0.077), leaving some doubt about whether Title I belonged in the model. The values for an increase in the number of books per student (model 2b) remain statistically significant when using the first and third approaches (p value = 0.024 and 0.014, respectively) and insignificant when using only 2002–03 data (p value = 0.424).

reasons for such differences. Also, because the two-year change estimates were slightly greater than the change between 2003–04 and 2004–05, there is no evidence of a drop-off in test scores in the year of the grant.

- **Library features.** As noted earlier, one of the primary goals of the LSL program is to increase students' access to the library during nonschool hours, while another is to increase the resources available to the library, including the number of books. As the survey results (discussed elsewhere in this report) indicate, both of these variables were associated with participation in the LSL program. The regression analysis indicated that increasing the number of books per student that the library purchased was associated with improved student test scores not only when using 2003–04 test scores as the baseline but also when using a combination of 2003–04 and 2003–04 test scores. It was not significant when restricting the analysis to schools with 2002–03 test score data, possibly because of the reduced number of cases available for analysis. Increasing the number of hours the library was open was not significant at the 0.05 level in any of the models or approaches. There was much more variation among schools in the acquisition of books than in changes in the number of hours the library was open, and this difference may help to explain the stronger statistical findings with respect to books. Among grantees, 67 percent acquired more than 1 book per student, and 11 percent acquired more than 5. By contrast, 51 percent of grantees made no change in the number of hours, and 33 percent made changes of up to 5 hours per week.

Differences by Instructional Level

Exhibit 5-4 displays a set of models in which results were separated by elementary and secondary schools (both middle and high schools). These models provide a way of testing whether LSL participation may have different relationships to student test scores at different grade levels. These analyses, based on the findings from the earlier models, were conducted using a combination of 2002–03 and 2003–04 scores to predict 2004–05 scores (as in Exhibit 5-3); using 2002–03 scores alone would be problematic because the reduced number of cases would not easily support subsetting to only elementary or secondary schools. For brevity, Exhibit 5-4 omits model 1 (because the inclusion of repeat grantees in model 1a resulted in important changes to the estimates), model 1b (because Early Reading First was not statistically significant), and models 2 and 2a (because only the increase in the number of books per student was statistically significant).

The results shown in Exhibit 5-4 suggest that LSL was associated with levels of changes in test scores in secondary schools that were different from those in elementary schools. In elementary schools, there was no significant relationship between LSL participation and student scores, whether or not adjustments for other school reform efforts were included in the model. However, there was still a significant relationship between an increase in the number of books and an increase in student test scores. By contrast, in secondary schools, LSL participation was significantly related with improved test scores in model 1a (using 0.05 as the cutoff). However, an increase in the number of books was not significantly related to improved test scores in secondary scores, despite a significant relationship in elementary schools.

Exhibit 5-4
Regression Models to Estimate Association of LSL Grants With Student Test Scores, Using 2002–03 Test Scores (Where Available) to Predict 2004–05 Test Scores, by Instructional Level

Variable	Estimate	Standard Error	*P*-value
Elementary schools			
Model 1a—Overall test of LSL grant			
Prior test score[a]	1.03	0.027	0.000
Test scores available for 2002–03	5.95	2.263	0.009
LSL grantee	2.21	1.580	0.162
LSL grantee for 2 or more years	1.07	5.572	0.847
$R^2 = 0.957$			
Model 1c—Overall test of LSL grant and other reforms			
Prior test score[a]	0.99	0.031	0.000
Test scores available for 2002–03	5.93	2.207	0.007
LSL grantee	1.24	1.571	0.429
Title I	3.26	1.161	0.005
$R^2 = 0.957$			
Model 2b—Test of library changes			
Prior test score[a]	1.01	0.032	0.000
Test scores available for 2002–03	6.53	2.603	0.012
Increase in books per student	0.48	0.188	0.021
$R^2 = 0.957$			
Secondary schools			
Model 1a—Overall test of LSL grant			
Prior test score[a]	1.03	0.046	0.000
Test scores available for 2002–03	4.24	2.202	0.055
LSL grantee	3.45	1.467	0.019
LSL grantee for 2 or more years	-10.15	3.944	0.010
$R^2 = 0.957$			
Model 1c—Overall test of LSL grant and other reforms			
Prior test score[a]	1.01	0.057	0.000
Test scores available for 2002–03	3.93	2.188	0.073
LSL grantee	2.78	1.424	0.052
Title I	2.22	1.870	0.236
$R^2 = 0.957$			
Model 2b—Test of library changes			
Prior test score[a]	1.00	0.044	0.000
Test scores available for 2002–03	6.13	2.270	0.007
Increase in books per student	0.17	0.629	0.789
$R^2 = 0.957$			

[a]Test score is for 2002–03 when data for that year were available and for 2003–04 otherwise.

Exhibit reads: Model 1a calculates that test scores for both grantees and nongrantees increased by 3 percent compared with 2003–04. Both grantees and nongrantees also shared an additional 6 percentage point increase when compared with test scores in 2002–03. Both of these statistics were statistically significant, with *p*-values below 0.05. The test scores for grantees were 2.2 percentage points higher than would be expected if they had not received the grants and were an additional 1.1 percentage points higher if they received LSL grants for two or more years; however, neither of these statistics were statistically significant.

Note: Of the 553 schools used for the test-score analysis, 219 had data available for 2002–03.

Source: National Longitudinal School-Level State Assessment Database (2003, 2004, 2005); first evaluation, school library media center survey questions, 1, 4 and 31.

Discussion

The measure of book purchases is the number of books purchased by the library per student rather than the total number of books. Consider this measure in context: The median enrollments were 460 for elementary schools, 700 for middle/junior-high schools and 775 for high schools or other schools. The median number of books added by grantees was 798 for elementary schools, 996 for middle/junior-high schools and 747 for high schools and other schools. From this perspective, grantees tended to add roughly one to two books per student, and only small changes in student literacy would be anticipated. However, from another perspective, book purchases sometimes were much higher, up to a maximum of 15,215 books among elementary schools, 7,411 books among middle/junior-high schools and 7,324 books among high schools and other schools. One cannot directly equate book purchases with participation in the LSL program: some LSL schools purchased few books while some nongrantees purchased many. Also, the LSL program consists of more than buying books. Still, as data from the first-year evaluation shows, LSL participation was associated with purchasing 1,250 additional books (520 more than nongrantees), or about 2.9 additional books per student (1.5 more than among nongrantees). Based on these statistics, the expected total improvement associated with the book-purchasing component of the LSL program would be an increase of 1.3 percentage points, and the expected improvement with relation to nongrantees would be an increase of 0.7 percentage points.

The value of additional book purchases may vary depending on the initial condition of the school libraries. The LSL grantees (and the comparison schools) were all in districts with high poverty levels, which often is correlated with lower levels of resources. Additionally, to obtain the LSL grants, the LSL grantees needed to not only demonstrate need (for example, through the use of a needs assessment) but also offer a plan for addressing their needs. Thus, these libraries are likely to have started with substantial deficits, and new purchases may have been especially helpful at these schools in making the holdings more interesting and relevant to the students. Because the districts were in areas of high poverty, the students' homes also could be expected to have a low level of resources, so students may have had fewer options to meet their needs if their school libraries were not well equipped. By contrast, a school library that already has substantial holdings may not experience the same benefit from new purchases, and a school library serving more advantaged students may not have as much influence on students' learning.[20] Thus, the relationship between book purchases and student literacy could be nonlinear: for example, depending on the school's initial starting point and the size of the purchases, the benefit from new purchases could diminish or there could even be a ceiling after which new purchases show little or no association with student literacy. The LSL data are not fully adequate for investigating this possibility because the sample was limited to eligible (high-poverty) districts. A plot comparing the new book purchases per student with the change in test scores reveals that there were a few outliers with exceptionally high increases in the number of books per student (i.e., 14 cases for which the increase was more than 10 books per student). If the outliers are deleted, then the association between book purchases and test scores is increased (the coefficient is increased from 0.42 to 1.69, and the *p*-value is reduced to 0.012, with an R^2 of 0.957); this association is consistent with the benefits from additional book purchases decreasing after the book purchases reach a certain point.

To the extent that increases in the book collection are associated with improved student test scores, there are several possible mechanisms that may be important. It may be that students (a) check out more books, (b) spend more time in the library, and/or (c) get more help from those materials that they use (e.g., because the materials are more up-to-date, more relevant or more interesting). Ideally, one would also have measures of the amount of time that students spend in the library, the number of materials they use, the ways they use those materials, the number and types of materials they check out from the library,

[20] It is also possible to argue that school libraries have more influence at advantaged schools because the students at such schools are better equipped to use the resources and services that the libraries offer. The point here is simply that one should be wary of extrapolating these findings to different types of schools.

and the time they spend reading at home. Most of these types of data were not available for this study. However, Exhibit 4-19 does indicate that grantees showed a statistically significant increase in students' use of the library while nongrantees showed no change. These statistics are consistent with the observed relationship between new purchases and improved student test scores, but they are not conclusive. Also, other changes in the libraries may be as responsible or more responsible for the reported increases in library usage.

Summary

No definitive statement can be made based on these data as to whether LSL was associated with changes in test scores. The LSL program feature that most clearly was related to improved test results was an increase in the number of books per student that were purchased by the library. Some differences appeared by instructional level, with LSL grantee status showing a stronger relationship to student test scores at the elementary-school level and an increase in the number of books per student showing a stronger relationship at the secondary-school level.

Chapter 6
Conclusions

The LSL grants appear to have been targeted to the neediest schools, which were disadvantaged even when compared with other schools in districts having high levels of poverty. After the grants, the school libraries were brought up to a level of equality with the nongrantees and, sometimes, to a level that surpassed them. To a large degree, these findings echo those of the previous evaluation report.

A new analysis showed that participation in the grant was significantly related to increases in test scores on state reading achievement assessments. However, one cannot definitively separate LSL participation from other school reform efforts in terms of their association with improved test scores.

Following is a more extensive summary of the findings, organized in terms of the evaluation questions.

Summary of Findings: How Do Districts Allocate Funds and Are They Targeted to Schools With the Greatest Need for Improved Library Resources?

Before receiving the grants, participating schools in grantee districts were more disadvantaged than schools in eligible districts that had not received grants.

- 2005–06 grantee districts often reported selecting participating schools based on various kinds of disadvantages at those schools: 36 percent chose schools based on a lack of library resources, 22 percent based on the poverty level, and 20 percent based on those identified for improvement under *No Child Left Behind.* (Some districts used several factors in selecting participating schools.)

- Of those grantee and nongrantee districts conducting needs assessments, grantees were more likely than nongrantees to identify needs. Staffing-related needs identified by more grantees than nongrantees included the need for more library staff (55 percent versus 33 percent, respectively), more professional development (75 percent versus 57 percent), more time for planning (64 percent versus 40 percent), and opening the library for more hours (75 percent versus 41 percent). Resource-related needs identified by more grantees than nongrantees were more up-to-date materials (95 percent versus 85 percent, respectively), more space (51 percent versus 33 percent), and more computer equipment (80 percent versus 70 percent). For the only area in which nongrantees were more likely to note a need (rewiring the library), the difference (33 percent versus 29 percent) was not statistically significant.

- Before the grant, grantees were more likely than nongrantees to say their holdings were inadequate in all four general areas that were examined in the survey: the overall reading/English collection (34 percent versus 22 percent), print materials (35 percent versus 23 percent), video/audiovisual materials (52 percent versus 37 percent), and computer software (57 percent versus 44 percent).

- On average, before receiving LSL funding, the grantees were open for fewer days per week during the summer before the grant than nongrantees (2.9 versus 6.8) and slightly fewer hours during a typical full school week (31.5 versus 34.0). Grantees also were less likely to offer access outside of school hours in 2005 (39 percent versus 54 percent).

During the grant year, a large number of changes appeared among the grantees while relatively little change occurred among the nongrantees. Following are some of the major changes.

- Grantees roughly tripled their expenditures on books and subscriptions as well as computer hardware while nongrantees showed little change.

- Of those that conducted needs assessments, the grantees were often more likely than the nongrantees to make changes. These changes include getting more up-to-date materials (92 percent versus 78 percent, respectively), providing more time for planning (39 percent versus 21 percent), getting more computer equipment (60 percent versus 49 percent), increasing professional development (68 percent versus 41 percent), and increasing the hours the library is open (62 percent versus 24 percent).

- Grantees started out with poorer holdings than nongrantees but ended with equal or higher percentages describing their holdings as adequate or excellent. For example, the percentage of grantees that considered their print materials supporting the English instructional program to be adequate or excellent increased from 65 percent before the grant to 89 percent after the grant. In comparison, the nongrantees showed no significant difference during the same time period (77 percent versus 79 percent).

- Grantees often were more likely than nongrantees to provide new or expanded library services. These expanded services include library staff members assisting with research projects (42 percent versus 24 percent, respectively), working on curriculum issues (40 percent versus 23 percent), participating in team meetings (36 percent versus 23 percent), coordinating professional development on technology (42 percent versus 24 percent), and providing instruction on information skills (52 percent versus 36 percent). Some other changes specifically relating to reading/English are working with classroom teachers on selecting resources (49 percent versus 33 percent), holding family literacy nights (38 percent versus 13 percent), and holding after-school programs that offer an orientation to the library (34 percent versus 8 percent).

Summary of Findings: How Are Funds Used (e.g., to Buy Books, Improve Technology, Increase Library Hours, or Provide Professional Development for Library and Reading Staff Members, etc.)?

In 2005–06, program funds were spent as follows: 57 percent on resources, including books; 20 percent on acquiring advanced technology; 5 percent on professional development; 8 percent on operating the library media center during nonschool hours; 3 percent on linkages to the Internet and other networks; and 8 percent on other areas.

Summary of Findings: What Is the Relationship Between Participation in This Program and Staff Collaboration and Coordination?

Grantees were more likely than nongrantees to (a) establish new programs or expand existing programs to have library media staff members assist teachers in designing, implementing and evaluating research projects for students (42 percent versus 24 percent, respectively); (b) work with the principal and/or teachers on curriculum issues (40 percent versus 23 percent); (c) participate in team meetings (36 percent versus 23 percent); and (d) coordinate training programs about integrating educational technology into the curriculum for teachers and other staff members (42 percent versus 24 percent).

Summary of Findings: How Do Reading Achievement Scores Vary in Schools That Received Grants for 1, 2 or 3 Years Compared With Matched Comparison Schools That Have Not Received Grants?

The percentage of students who met or exceeded the proficiency requirements on state reading assessments increased by an extra 2.7 percentage points among grantees, a statistically significant increase. Some or all of this increase, however, may be associated with other school reform efforts or preexisting differences in achievement between LSL and non-LSL schools rather than with LSL participation. In addition, increasing the number of books was associated with significant increases in test scores. Because of the lack of a true experimental design, these findings cannot support causal inferences that attribute observed differences in student reading achievement between LSL and non-LSL schools to the LSL program.

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APPENDIX A

DETAILED TABLES

Exhibit A-1
Percentage of Districts Using Various Methods to Select Schools for Participation in the Grant and to Distribute Grant Money to the Schools, by District Characteristics, 2005–06 School Year

District Characteristic	District Had Only One School	Selecting Schools[a]						Distributing Funds Among Schools			
		All Schools Selected	Grade Level	Based on Poverty	Based on Library Resources	Identified for Improvement Under *NCLB*	Other	All Schools Equal	Per-Pupil Basis	Purchasing at District Level	Other
Percentage of all districts	14	53	26	22	36	20	9	31	19	16	34
District enrollment size											
Fewer than 500	59	84	16	16	33	0	0	27	6	34	32
500–1,999	8	58	38	26	34	17	4	27	20	15	38
2,000 or more	0	53	26	14	31	12	13	28	30	7	35
Urbanicity											
City	17	44	0	29	50	42	14	47	6	17	29
Urban fringe	0	56	28	28	44	12	16	24	29	0	47
Town	8	66	34	26	34	17	0	32	30	0	38
Rural	18	51	33	16	30	13	9	26	19	24	31
Region											
Northeast	23	31	35	31	54	45	7	40	21	23	16
Southeast	0	60	29	23	35	17	6	24	17	11	48
Central	18	56	11	11	22	11	11	64	0	18	18
West	16	59	24	21	34	12	13	19	27	13	41
Amount of grant											
Up to $100,000	36	57	15	0	14	0	14	38	9	27	26
$101,000–$200,000	15	46	44	28	54	14	11	20	16	19	44
More than $200,000	7	56	17	23	30	27	8	37	24	10	29

NCLB = No Child Left Behind.

[a]Districts could use more than one method to select schools for participation.

Source: Second evaluation, district performance report questions 1 and 14.

Exhibit A-2
Percentage of Districts Using Various Personnel to Decide Which Schools to Serve, by District Characteristics, 2005–06 School Year

District Characteristic	District School Library Coordinator	Reading Curriculum Coordinator	Superintendent(s)	Principal(s)	School Library Media Specialists	Reading Specialists	Classroom Teachers	Parents	Other
Percentage of all districts	52	40	82	77	84	43	47	35	32
District enrollment size									
Fewer than 500	46	40	81	81	80	74	81	53	47
500–1,999	31	28	93	77	89	42	54	39	19
2,000 or more	62	57	79	81	87	37	33	29	33
Urbanicity									
City	70	35	66	65	72	30	42	42	28
Urban fringe	58	55	84	100	84	43	43	43	28
Town	54	39	77	69	85	31	23	15	38
Rural	42	40	89	79	89	52	57	37	31
Region									
Northeast	49	49	74	79	73	36	36	30	40
Southeast	53	48	88	77	94	46	40	28	29
Central	18	18	82	64	82	55	64	36	27
West	65	40	83	81	86	41	50	41	30
Amount of grant									
Up to $100,000	46	27	55	91	100	63	63	36	28
$101,000 to $200,000	44	40	83	68	79	31	46	34	41
More than $200,000	58	45	88	78	83	45	42	35	27

Source: Second evaluation, district performance report question 2.

Exhibit A-3
Percentage of Districts Using Various Personnel to Decide How the Grant Funds Should be Spent, by District Characteristics, 2005–06 School Year

District Characteristic	District School Library Coordinator	Reading Curriculum Coordinator	Superintendent	Principal(s)	School Library Media Specialists	Reading Specialists	Classroom Teachers	Parents	Other
Percentage of all districts	54	45	54	73	95	60	82	45	48
District enrollment size									
Fewer than 500	46	40	73	86	94	68	87	47	46
500–1,999	42	39	66	84	92	70	93	43	46
2,000 or more	62	56	41	69	100	54	81	52	51
Urbanicity									
City	52	35	36	48	88	47	53	30	52
Urban fringe	58	39	55	100	100	56	100	39	73
Town	54	62	45	68	92	62	92	31	46
Rural	54	45	65	79	97	67	87	58	42
Region									
Northeast	44	54	36	62	95	73	74	37	58
Southeast	58	52	47	64	100	58	82	57	53
Central	18	36	55	73	91	73	91	45	36
West	71	40	69	84	94	51	84	43	44
Amount of grant									
Up to $100,000	37	27	36	62	100	64	73	37	45
$101,000 to $200,000	37	44	47	76	92	47	85	52	60
More than $200,000	70	51	64	74	95	68	83	43	42

Source: Second evaluation, district performance report question 13.

Exhibit A-4
Percentage of Districts Using Various Personnel to Decide Which Schools to Serve and How Grant Funds Should be Spent, by Personnel Type, 2003–04, 2004–05, and 2005–06 School Years

Personnel Involved in the Decision	Which Schools to Serve			How Grant Funds Should Be Spent		
	2003–04	2004–05	2005–06	2003–04	2004–05	2005–06
District school library coordinator	69	57	52	60	69	54
Reading curriculum coordinator	44	51	40	36	47	45
Superintendent(s)	75	78	82	56	66	54
Principal(s)	72	65	77	72	70	73
School librarians	89	76	84	94	93	95
Reading specialists	31	36	43	45	54	60
Classroom teachers	39	36	47	90	73	82
Parents	23	29	35	39	52	45
Other	30	24	32	26	35	48

Source: First and second evaluations, district performance report questions 2 and 13.

Exhibit A-5
Percentage of Grant Funding Spent by Category, by District Characteristics, 2005–06 School Year

District Characteristic	Acquisition of Advanced Technology	Acquisition of All Other Resources	Linkage to Internet and Other Networks	Professional Development	Operating Center in Nonschool Hours	Other
Percentage of all districts	20	57	3	5	8	8
District enrollment size						
Fewer than 500	20	56	4	3	5	12
500–1,999	26	45	4	5	11	9
2,000 or more	19	60	3	3	8	6
Urbanicity						
City	6	73	1	6	8	6
Urban fringe	20	64	1	5	7	4
Town	25	52	6	4	5	9
Rural	25	49	4	4	9	9
Region						
Northeast	14	68	1	6	6	5
Southeast	20	56	5	2	10	7
Central	19	56	1	3	12	10
West	23	52	4	6	6	9
Amount of grant						
Up to $100,000	21	60	2	4	10	4
$101,000 to $200,000	24	56	2	3	8	7
More than $200,000	18	57	4	5	8	8

Note: Percents may not add to 100 because of rounding.

Source: Second evaluation, district performance report question 12.

Exhibit A-6
Total Grant Funding and Amount and Percent of Funding Spent, by Category, 2004–05 and 2005–06 School Years

Spending Category	2004–05		2005–06	
	Amount	Percentage	Amount	Percentage
Total funding in dollars	18,073,674	100	18,107,163	100
Acquisition of advanced technology	4,125,337	23	3,555,291	20
Acquisition of all other resources	9,336,700	52	10,363,844	57
Linkage to Internet and other networks	293,795	2	575,885	3
Professional development	690,917	4	816,315	5
Operating center in nonschool hours	1,538,808	9	1,411,741	8
Other	2,088,116	12	1,384,089	8

Note: Detail may not add to totals because of rounding.

Source: Second evaluation, district performance report question 12.

Exhibit A-7
Mean Expenditures in School Libraries and Percentage Change of Those Expenditures Between the 2004–05 and 2005–06 School Years, by School Characteristics

School Characteristic	Materials Such as Books and Subscriptions			Computer Hardware, Other Than Communications Equipment			Audiovisual Equipment			Total[a]		
	2004–05	2005–06	Percentage Change[b]	2004–05	2005–06	Percentage change[2]	2004–05	2005–06	Percentage change[2]	2004–05	2005–06	Percentage change[2]
Mean of all schools	7,332.4	8,681.6	18	1,861.8	1,976.6	6	537.6	710.4	32	9,478.2	11,475.6	21
Nongrantees	7,315.2	8,085.0	11	1,871.3	1,837.6	-2	525.7	672.7	28	9,446.2	10,673.0	13
Grantees	7,834.6	26,007.5*	232	1,595.4	5,959.3*	274	872.5*	1,820.8	109	10,404.3	34,767.6*	234
Received grant for two or more years	9,467.6	24,367.0	157	2,581.0	4,970.5	93	290.5	907.1	212	13,457.9	31,925.5	137
School enrollment size												
400 or fewer	5,559.5	22,269.8	301	847.3	5,636.2	565	350.6	1,316.4	275	6,698.4	29,988.4	348
401–700	9,399.7	27,082.4	188	2,004.0	5,137.8	156	649.1	1,428.2	120	12,370.6	35,084.3	184
More than 700	11,513.5	35,641.7	210	3,094.4	9,319.8	201	3,362.5	4,740.3	41	18,213.4	50,110.6	175
School level												
Elementary	7,026.2	24,285.5	246	1,452.7	4,858.1	234	303.0	1,324.5	337	8,776.0	31,378.2	258
Middle/junior high	9,219.9	31,956.9	247	1,548.0	8,293.3	436	3,818.6	4,626.6	21	14,669.0	45,503.5	210
High school/other	10,397.4	29,589.2	185	2,275.6	9,293.6	308	1,441.4	2,066.0	43	14,733.1	41,912.8	184
Urbanicity												
City	7,435.7	22,090.5	197	1,649.3	3,242.9	97	1,235.0	1,218.5	-1	10,438.6	27,408.1	163
Urban fringe	7,356.6	24,006.0	226	1,770.3	3,854.6	118	263.7	1,446.0	448	9,884.7	29,398.8	197
Town	8,327.0	27,492.2	230	2,266.9	7,650.2	237	445.4	1,640.9	268	11,023.9	38,010.1	245
Rural	8,276.7	30,588.0	270	1,148.9	9,121.4	694	978.8	2,707.0	177	10,349.1	43,384.9	319
Free/reduced-price lunch eligibility												
Less than 50 percent	12,187.2	24,661.8	102	1,854.1	5,510.5	197	2,317.2	1,811.1	-22	16,747.8	32,647.3	95
50 percent or more	6,385.0	26,481.2	315	1,501.2	6,125.9	308	351.2	1,824.4	419	8,176.9	35,551.6	335
Total expenditures per student												
$12.00 or less	2,661.2	28,202.2	960	28.7	5,928.4	1,020	83.5	1,599.8	1816	2,714.8	36,706.7	1,252
$12.01–$20.00	6,122.9	26,694.5	336	1,287.7	4,596.5	257	398.9	1,901.2	377	8,134.8	34,754.8	327
More than $20.00	14,975.0	23,527.1	57	3,784.6	7,001.6	85	2,211.5	2,168.8	-2	21,331.0	32,954.3	54
Total FTE staff												
1.25 or less	6,439.3	25,855.3	302	1,153.3	6,211.0	439	372.0	1,906.6	413	8,034.0	34,928.2	335
1.26–1.75	8,997.0	22,150.3	146	2,250.9	4,116.6	83	562.2	779.6	39	12,147.0	27,902.0	130
More than 1.75	10,862.0	31,675.0	192	2,194.4	7,513.7	242	2,955.4	2,933.9	-1	16,362.1	43,796.4	168

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., *p*-value ≤ .05) between grantee and nongrantee school libraries.

[a]The totals may not be equal to the sum of the previous columns because only schools that provided answers in all three areas were included when the totals were calculated.

[b]Statistical significance was not calculated for percentage change.

Source: Second evaluation, school library media center survey questions 33, 34, and 35.

Exhibit A-8
Mean Expenditures for All Materials in the 2004–05 and 2005–06 School Years and Distribution of 2005–06 Expenditures Among Selected Materials, by School Characteristics

School Characteristic	Total in 2004–05	Total in 2005–06	Distribution of 2005–06 Expenditures (Percentage of Total)					
			Books	Video Materials	CD-ROM Titles	Print or Microform Subscriptions	Electronic Subscriptions	Other
Mean of all schools	7,332.4	8,681.6	69.3	6.7	0.8	8.5	4.4	10.3
Nongrantees	7,315.2	8,085.0	68.9	6.8*	0.8	8.7*	4.5*	10.3
Grantees	7,834.6	26,007.5*	80.2*	3.4	1.3*	3.0	2.4	9.7
Received grant for two or more years	9,467.6	24,367.0	84.5	2.6	1.2	1.5	0.8	9.4
School enrollment size								
400 or fewer	5,559.5	22,269.8	77.7	3.0	1.2	2.9	2.6	12.6
401–700	9,399.7	27,082.4	82.4	3.9	0.6	3.5	2.5	7.1
More than 700	11,513.5	35,641.7	81.9	3.2	3.6	1.7	1.6	8.0
School level								
Elementary	7,026.2	24,285.5	83.2	3.0	1.0	2.8	2.0	8.1
Middle/junior high	9,219.9	31,956.9	72.7	6.4	3.0	3.4	1.3	13.2
High school/combined/other	10,397.4	29,589.2	73.3	3.3	1.3	3.3	5.0	13.7
Urbanicity								
City	7,435.7	22,090.5	86.6	2.5	0.5	4.0	1.3	5.2
Urban fringe	7,356.6	24,006.0	85.3	4.0	0.3	1.7	1.8	7.0
Town	8,327.0	27,492.2	82.0	4.8	0.5	2.0	2.5	8.2
Rural	8,276.7	30,588.0	70.9	3.4	2.8	3.1	3.7	16.0
Free/reduced-price lunch eligibility								
Less than 50 percent	12,187.2	24,661.8	79.1	3.0	1.3	2.8	2.9	10.9
50 percent or more	6,385.0	26,481.2	80.7	3.6	1.3	3.1	2.2	9.2
Total expenditures per student								
$12.00 or less	2,661.2	28,202.2	80.0	2.8	1.6	4.0	1.6	9.9
$12.01–$20.00	6,122.9	26,694.5	78.6	4.1	1.1	1.2	2.5	12.4
More than $20.00	14,975.0	23,527.1	80.6	3.9	1.0	2.9	3.4	8.3
Total FTE staff								
1.25 or less	6,439.3	25,855.3	77.7	3.4	1.7	3.1	2.4	11.6
1.26–1.75	8,997.0	22,150.3	86.3	4.0	0.8	1.4	2.3	5.3
More than 1.75	10,862.0	31,675.0	80.6	2.8	0.3	4.6	2.7	9.0

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding and incomplete data for some schools.

Source: Second evaluation, school library media center survey questions 32 and 33.

Exhibit A-9
Percentage of School Libraries That Conducted a Needs Assessment in the Last Two Years, and Percentage of Those Libraries That Identified Particular Needs, by School Characteristics, Fall 2006

School Characteristic	Conducted Assessment	Percentage Identifying Need										
		More Staff	More Non-English Materials	More Up-to-Date Materials	More Time for Planning	More Space	More Computer Equipment	Rewiring the Library	Flexible Scheduling	More Professional Development	More Hours Open	Other
Percentage of all schools	35	34	51	86	41	34	71	32	46	58	42	11
Nongrantees	34	33	51	85	40	33	70	33	46	57	41	11
Grantees	51*	55*	51	95*	64*	51*	80	29	54	75*	75*	11
Received grant for two or more years	45	45	29	86	58	38	71	37	38	36	43	
School enrollment size												
400 or fewer	49	53	44	96	63	52	77	20	58	79	79	17
401–700	49	55	54	98	71	48	83	33	53	72	70	7
More than 700	63	62	62	83	52	59	76	46	45	72	75	4
School level												
Elementary	47	62	57	96	73	54	78	30	61	77	76	14
Middle/junior high	62	35	32	86	48	38	75	12	38	64	68	9
High school/combined/other	59	46	42	97	46	51	87	38	41	75	78	3
Urbanicity												
City	38	67	68	92	70	58	84	36	70	80	74	10
Urban fringe	64	45	59	92	63	49	82	23	55	69	79	10
Town	64	34	39	91	54	38	71	30	28	73	59	9
Rural	53	63	39	100	66	54	79	26	54	76	82	13
Free/reduced-price lunch eligibility												
Less than 50 percent	61	53	42	92	56	38	81	22	51	74	75	13
50 percent or more	47	56	55	96	68	57	79	32	56	76	75	10
Total expenditures per student												
$12.00 or less	50	55	40	97	62	50	70	37	56	65	67	12
$12.01–$20.00	60	52	54	89	65	51	89	25	53	81	76	17
More than $20.00	50	58	62	94	68	53	87	23	51	84	83	7
Total FTE staff												
1.25 or less	51	55	50	95	54	47	81	30	49	73	70	6
1.26 –1.75	58	66	56	98	86	66	82	16	72	89	84	22
More than 1.75	43	38	47	89	68	44	69	46	39	60	79	8

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey questions 39 and 40.

Exhibit A-10
Percentage of School Libraries That Made Changes as the Result of a Needs Assessment in the Last Two Years, by School Characteristics, Fall 2006

School Characteristic	More Staff	More Non-English Materials	More Up-to-Date Materials	More Time for Planning	More Space	More Computer Equipment	Rewiring the Library	Flexible Scheduling	More Professional Development	More Hours of Being Open	Other
Percentage of all schools	10	42	79	22	13	50	28	31	42	25	6
Nongrantees	10	42	78	21	13	49	28	31	41	24	6
Grantees	21*	45	92*	39*	13	60	22	28	68*	62*	8
Received grant for two or more years	8	17	77	23	0	53	25	16	23	23	0
School enrollment size											
400 or fewer	27	39	95	44	14	65	16	33	73	69	13
401–700	16	51	95	34	12	63	28	21	64	53	3
More than 700	19	48	78	37	10	41	25	29	66	65	4
School level											
Elementary	23	52	94	42	13	57	22	28	71	62	10
Middle/junior high	8	15	80	34	8	60	9	22	49	49	5
High school/combined/other	25	39	94	34	14	70	28	31	71	70	3
Urbanicity											
City	19	60	87	46	8	49	34	37	75	60	8
Urban fringe	5	53	85	27	18	45	13	21	59	58	8
Town	13	34	94	34	9	63	19	10	71	54	3
Rural	38	34	99	44	15	75	19	34	67	70	11
Free/reduced-price lunch eligibility											
Less than 50 percent	22	29	88	28	12	65	25	24	64	61	9
50 percent or more	21	52	94	45	13	58	20	29	70	62	7
Total expenditures per student											
$12.00 or less	28	35	93	39	20	61	30	34	57	55	9
$12.01–$20.00	19	47	90	44	11	61	21	31	76	67	8
More than $20.00	14	59	94	40	7	63	15	18	80	68	7
Total FTE staff											
1.25 or less	28	42	93	35	14	65	24	34	64	56	5
1.26–1.75	11	53	95	56	14	56	15	18	87	73	16
More than 1.75	16	41	83	27	7	50	25	21	52	63	4

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 40.

Exhibit A-11
Percentage of School Libraries' Holdings That Support the Instructional Program in English, by Degree of Adequacy, Grantee Status and Type of Material, Spring 2005 and 2006

Grantee Status and Type of Material	Excellent		Adequate		Inadequate	
	Spring 2005	Spring 2006	Spring 2005	Spring 2006	Spring 2005	Spring 2006
Grantee						
Overall reading/English collection	11	33*	54	57	34*	10
Print materials	10	29*	55	60	35*	11
Video/audiovisual materials	3	16	46	49	52*	35
Computer software	3	9	40	55*	57*	36
Nongrantee						
Overall reading/English collection	20*	24	58	60	22	16*
Print materials	19*	22	58	57	23	21*
Video/audiovisual materials	10*	13	52	54	37	33
Computer software	8*	10	47*	47	44	43*

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 20.

Exhibit A-12
Percentage of School Libraries Reporting That Their Holdings in Supporting the Instructional Program in English Were Adequate or Excellent, by School Characteristics, Spring 2005 and 2006

School Characteristic	Overall Reading/ English Collection		Print Materials		Video/Audiovisual Materials		Computer Software	
	Spring 2005	Spring 2006	Spring 2005	Spring 2006	Spring 2005	Spring 2006	Spring 2005	Spring 2006
Percentage of all schools	78	84	76	80	62	67	55	57
Nongrantees	78*	84	77*	79	63*	67	56*	57
Grantees	66	90*	65	89*	48	65	43	64*
Received grant for two or more years	74	78	73	78	46	49	35	45
School enrollment size								
400 or fewer	64	91	61	90	42	63	40	66
401–700	69	92	70	92	54	67	44	60
More than 700	62	83	62	80	54	67	51	70
School level								
Elementary	71	91	68	90	50	65	43	62
Middle/junior high	59	95	66	95	46	67	45	71
High school/combined/other	49	83	52	83	40	62	40	67
Urbanicity								
City	72	92	72	91	56	63	50	63
Urban fringe	69	93	64	94	45	67	37	61
Town	74	89	74	91	63	76	49	64
Rural	54	88	54	85	36	61	36	67
Free/reduced-price lunch eligibility								
Less than 50 percent	56	90	59	89	45	65	39	68
50 percent or more	69	90	67	89	50	65	44	63
Total expenditures per student								
$12.00 or less	63	90	59	86	39	56	40	62
$12.01–$20.00	68	93	71	92	64	80	46	70
More than $20.00	67	90	66	93	50	68	44	64
Total FTE staff								
1.25 or less	57	89	61	87	38	56	34	58
1.26–1.75	79	96	64	96	65	83	52	71
More than 1.75	76	86	78	89	59	72	58	75

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 20.

Exhibit A-13
Percentage of School Libraries Reporting the Adequacy of Their Resources in Specified Areas, by Grantee Status, Spring 2005 and 2006

Grantee Status and Resource	Excellent	Adequate	Inadequate	Not Applicable
Spring 2005				
Grantee				
English as a second language	2	30	47	21
Multicultural materials	10	51	37*	2
High interest–low vocabulary	9	48	41*	2
Picture books/easy readers	17	51	26*	5
Proprietary online resources/subscriptions	13	36	43*	8
Nongrantee				
English as a second language	2	34	43	21
Multicultural materials	13	57	26	4
High interest–low vocabulary	18*	56*	25	1
Picture books/easy readers	26*	46	17	11*
Proprietary online resources/subscriptions	20*	41	31	9
Spring 2006				
Grantee				
English as a second language	9*	41	29	21
Multicultural materials	27*	58	14	1
High interest–low vocabulary	29*	57	13	1*
Picture books/easy readers	46*	42	7	4
Proprietary online resources/subscriptions	26	46	20	7
Nongrantee				
English as a second language	2	39	38*	21
Multicultural materials	14	62	21*	3
High interest–low vocabulary	22	57	21*	0
Picture books/easy readers	32	47	12*	9*
Proprietary online resources/subscriptions	22	42	28*	8

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 21.

Exhibit A-14
Percentage of School Libraries Reporting That Their Resources Were Excellent or Adequate in Specified Areas, by School Characteristics, Spring 2005 and 2006

School Characteristic	English as a Second Language		Multicultural Materials		High Interest–Low Vocabulary		Picture Books/Easy Readers		Proprietary Online Resources	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Percentage of all schools	36	42	70	76	73	79	72	79	60	64
Nongrantees	36	41	70*	76	74*	79	72	79	61*	64
Grantees	32	49*	61	85*	57	86*	68	88*	49	72*
Received grant for two or more years	24	27	60	79	68	83	73	89	49	57
School enrollment size										
400 or fewer	27	41	62	84	53	84	67	89	50	71
401–700	34	53	62	88	60	87	73	91	42	70
More than 700	44	69	54	77	60	91	59	79	64	86
School level										
Elementary	35	52	64	87	57	86	77	95	45	71
Middle/junior high	30	48	63	89	59	87	44	72	56	72
High school/combined/other	23	39	46	71	54	87	48	70	62	80
Urbanicity										
City	45	65	67	86	62	81	79	91	53	74
Urban fringe	39	61	62	86	64	91	59	89	32	68
Town	35	54	55	86	53	82	66	82	55	73
Rural	14	25	56	82	50	91	63	88	49	73
Free/reduced-price lunch eligibility										
Less than 50 percent	20	33	46	81	49	85	61	84	53	74
50 percent or more	36	55	66	86	60	87	71	90	47	72
Total expenditures per student										
$12.00 or less	27	39	61	86	52	84	65	89	43	68
$12.01–$20.00	31	56	59	86	57	84	72	85	56	72
More than $20.00	35	59	60	84	60	89	70	88	50	77
Total FTE staff										
1.25 or less	28	43	59	83	52	82	67	86	46	66
1.26–1.75	41	65	64	90	64	91	70	94	44	79
More than 1.75	35	50	62	83	61	94	72	91	62	84

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages are based on schools reporting that the specified area was applicable to their school.

Source: Second evaluation, school library media center survey question 21.

Exhibit A-15
Recency of Copyrights of Holdings at School Libraries, by School Characteristics, Fall 2006

School Characteristic	Most Recent World Atlas (Percentage of Schools)			Most Recent General Encyclopedia (Percentage of Schools)			Mean Year for Fiction Collection	Mean Year for Nonfiction Collection
	2005 or 2006	2003 or 2004	2002 or earlier	2005 or 2006	2003 or 2004	2002 or earlier		
Percentage of all schools	42	20	39	46	20	34	1992	1992
Nongrantees	41	20	39	45	20	35*	1992	1992
Grantees	46	18	35	63*	16	21	1992	1993*
Received grant for two or more years	36	19	46	59	19	22	1995	1996
School enrollment size								
400 or fewer	49	13	38	63	15	22	1992	1993
401–700	43	24	34	61	18	21	1992	1993
More than 700	50	19	30	70	14	16	1994	1995
School level								
Elementary	45	18	37	60	19	21	1992	1993
Middle/junior high	47	15	38	55	12	33	1992	1992
High school/combined/other	56	12	32	69	9	22	1994	1993
Urbanicity								
City	49	16	35	65	17	18	1994	1994
Urban fringe	48	22	30	65	16	19	1990	1994
Town	30	29	42	49	23	28	1991	1991
Rural	50	15	35	68	12	20	1992	1993
Free/reduced-price lunch eligibility								
Less than 50 percent	48	18	34	60	17	24	1992	1992
50 percent or more	46	18	36	65	16	19	1992	1993
Total expenditures per student								
$12.00 or less	47	20	33	64	13	23	1992	1993
$12.01–$20.00	53	18	29	65	17	18	1993	1995
More than $20.00	46	17	37	63	18	19	1992	1993
Total FTE staff								
1.25 or less	47	15	38	62	18	20	1993	1993
1.26–1.75	43	28	29	63	14	23	1991	1993
More than 1.75	49	16	34	67	14	19	1992	1993

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey questions 22, 23, and 24.

Exhibit A-16
Percentage of Schools Indicating the Importance of Various Factors in Their Library's Choice of Books to Add During the 2005–06 School Year, by Grantee Status

Grantee Status and Factor for Choosing Books	Very Important	Somewhat Important	Not Important	Not Used/ Not Applicable
Grantees				
Books had won awards	58	35	3	3
Lost books replaced	30	56	9*	6
Consultation with classroom teachers	77	19	1	3
Consultation with reading specialist	42*	21	3	34
Categories that become quickly outdated	49*	29	10	12
Strengthen particular subject areas	87*	10	1	3
Other	33	4	1*	62
Nongrantees				
Books had won awards	64	31	2	4
Lost books replaced	37*	53	4	6
Consultation with classroom teachers	75	19	3	4
Consultation with reading specialist	34	19	5	43*
Categories that become quickly outdated	37	35	12	16
Strengthen particular subject areas	81	13	3	2
Other	34	4	0	62

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 25.

Exhibit A-17
Percentage of School Libraries Reporting That Various Factors Were Very or Somewhat Important When Selecting Books to Add to the Collection During the 2005–06 School Year, by School Characteristics

School Characteristic	Books Had Won Awards	Lost Books Replaced	Consultation With Classroom Teachers	Consultation With Reading Specialist	Categories That Become Quickly Outdated	Strengthen Particular Subject Areas	Other
Percentage of all schools	94	91	93	53	72	95	38
Nongrantees	94	91*	93	52	72	94	38
Grantees	93	85	96	63*	78*	97	37
Received grant for two or more years	91	79	88	64	74	97	26
School enrollment size							
400 or fewer	93	86	95	60	77	96	37
401–700	93	84	97	65	80	97	35
More than 700	96	90	97	69	77	98	42
School level							
Elementary	93	86	95	66	78	97	37
Middle/junior high	98	90	100	65	77	98	30
High school/combined/other	94	78	98	51	83	97	39
Urbanicity							
City	92	81	93	60	68	96	40
Urban fringe	93	85	100	66	94	97	35
Town	94	87	98	56	75	98	33
Rural	95	90	96	68	83	97	36
Free/reduced-price lunch eligibility							
Less than 50 percent	94	92	100	62	80	99	44
50 percent or more	93	83	94	64	78	96	34
Total expenditures per student							
$12.00 or less	92	79	95	60	70	97	39
$12.01–$20.00	98	94	100	62	85	100	36
More than $20.00	97	93	98	67	87	99	37
Total FTE staff							
1.25 or less	92	83	94	61	76	96	39
1.26–1.75	99	94	100	63	85	99	36
More than 1.75	93	82	98	70	78	97	32

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 25.

Exhibit A-18
Percentage of School Libraries Reporting That Various Electronic Services Were Available on Different Kinds of Networks, by Grantee Status, Fall 2006

Grantee Status and Electronic Service	Stand-Alone Computer	Library LAN	Buildingwide LAN	District WAN	Not Available
Grantee					
Automated catalogs	10	21	28	46	7
CD-ROMs	43*	13	22	15	20
Internet access	6	9	21	81*	0
E-mail	4	8	16	83*	3
Electronic full-text periodicals	2	7	11	49	34
Nongrantee					
Automated catalogs	10	25	26	40	10
CD-ROMs	35	15	19	17	23
Internet access	6	14*	22	73	3*
E-mail	5	12*	18	76	8*
Electronic full-text periodicals	5*	11	14	50	33

LAN = local area network.

WAN = wide area network.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 27.

Exhibit A-19
Percentage of School Libraries Reporting That Various Electronic Services Were Networked to Locations Outside of the Library, by School Characteristics, Fall 2006

School Characteristic	Automated Catalog	CD-ROMs	Internet Access	E-mail	Electronic Full-Text Periodicals
Percentage of all schools	63	34	87	84	57
Nongrantees	62	34	87	84	57
Grantees	69*	35	93*	91*	57
Received grant for two or more years	57	34	92	86	38
School enrollment size					
400 or fewer	71	36	95	93	57
401–700	67	36	92	89	60
More than 700	69	29	91	91	48
School level					
Elementary	70	37	92	90	53
Middle/junior high	72	39	95	95	66
High school/combined/other	64	27	96	93	67
Urbanicity					
City	66	40	91	90	58
Urban fringe	72	29	97	95	56
Town	72	31	93	93	59
Rural	69	35	94	90	55
Free/reduced-price lunch eligibility					
Less than 50 percent	69	34	90	89	67
50 percent or more	69	36	94	92	53
Total expenditures per student					
$12.00 or less	68	37	93	92	56
$12.01–$20.00	69	32	92	92	54
More than $20.00	74	34	96	92	63
Total FTE staff					
1.25 or less	61	33	92	89	52
1.26–1.75	80	34	94	95	63
More than 1.75	81	43	96	94	65

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 27.

Exhibit A-20
Percentage of School Libraries With Computer Access to Catalogs of Other Libraries, by Type of Library and School Characteristics, Fall 2006

School Characteristic	Public Library	Community College Library	College or University Library	Other School Libraries in District	School Libraries Outside District
Percentage of all schools	58	38	43	47	24
Nongrantees	58	38	42	47	24
Grantees	64*	47*	53*	61*	33*
Received grant for two or more years	43	32	34	43	11
School enrollment size					
400 or fewer	65	52	59	56	39
401–700	60	38	43	61	23
More than 700	73	55	62	80	42
School level					
Elementary	69	46	51	63	29
Middle/junior high	45	39	41	65	38
High school/combined/other	56	56	70	47	46
Urbanicity					
City	81	38	42	65	30
Urban fringe	66	63	55	62	31
Town	58	38	52	77	35
Rural	48	52	64	49	36
Free/reduced-price lunch eligibility					
Less than 50 percent	69	49	57	57	42
50 percent or more	63	46	52	62	29
Total expenditures per student					
$12.00 or less	67	40	43	56	37
$12.01–$20.00	58	42	57	61	30
More than $20.00	65	57	65	69	31
Total FTE staff					
1.25 or less	61	44	47	51	29
1.26–1.75	84	59	70	82	37
More than 1.75	51	39	50	66	37

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 28.

Exhibit A-21
Percentage of School Libraries That Participated in Cooperative Activities With Local Public Libraries and the Ways They Participated in the Last 12 Months, by School Characteristics, Fall 2006

School Characteristic	Participated in Any Cooperative Activity	Method of Participation					
		Borrowing Materials for School Library	Borrowing Materials for Classroom Teachers	Informing Public Library of Curriculum/ Homework Needs	Coordinating on Student Research Projects	Automation Projects, Such as Online Resources	Summer Reading Program
Percentage of all schools	52	70	68	46	43	36	41
Nongrantees	51	70	68	46	43	36	41
Grantees	59*	71	72	47	48	43	39
Received grant for two or more years	46	83	78	63	67	27	53
School enrollment size							
400 or fewer	58	76	74	49	47	36	38
401–700	59	62	62	45	50	49	46
More than 700	62	77	90	46	43	47	26
School level							
Elementary	61	71	69	42	46	43	41
Middle/junior high	60	61	60	67	49	41	47
High school/combined/ other	48	75	94	56	58	42	23
Urbanicity							
City	63	66	71	34	57	55	38
Urban fringe	60	62	60	46	22	40	29
Town	64	75	83	67	47	25	45
Rural	52	79	72	53	50	38	42
Free/reduced-price lunch eligibility							
Less than 50 percent	62	74	76	47	57	54	42
50 percent or more	58	69	70	47	44	39	38
Total expenditures per student							
$12.00 or less	62	67	70	58	51	30	42
$12.01–$20.00	67	75	81	48	55	39	44
More than $20.00	57	74	73	35	41	59	32
Total FTE staff							
1.25 or less	57	70	68	51	59	46	43
1.26–1.75	69	80	77	32	28	50	29
More than 1.75	53	60	74	58	43	20	42

FTE = full-time equivalent.

Note: The asterisk (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey questions 29, 30, and 31.

Exhibit A-22
Mean Length of Time the School Library Was Open, by School Characteristics, Spring 2005 and 2006

School Characteristic	Typical Full Week of School (Mean Number of Hours)			Summer Vacation (Mean Number of Days)		
	Spring 2005	Spring 2006	Percentage Change[a]	Summer 2005	Summer 2006	Percentage Change[a]
Mean of all schools	33.9	34.8	3	6.7	6.4	-4
Nongrantees	34.0*	34.8	2	6.8*	6.4	-6
Grantees	31.5	34.3	9	2.9	7.7*	166
Received grant for two or more years	32.3	32.4	0	4.3	6.3	47
School enrollment size						
400 or fewer	29.8	33.7	13	2.8	8.7	211
401–700	32.6	34.4	6	2.1	6.3	200
More than 700	34.5	36.2	5	5.3	8.7	64
School level						
Elementary	30.6	33.1	8	2.1	6.8	224
Middle/junior high	35.6	37.9	6	5.6	9.3	66
High school/combined/other	32.5	37.0	14	4.3	10.8	151
Urbanicity						
City	29.5	32.0	8	2.8	4.4	57
Urban fringe	31.7	33.8	7	2.9	9.6	231
Town	34.7	36.6	5	4.4	8.8	100
Rural	32.1	36.0	12	2.2	10.0	355
Free/reduced-price lunch eligibility						
Less than 50 percent	32.4	34.8	7	3.9	8.1	108
50 percent or more	31.2	34.2	10	2.5	7.6	204
Total expenditures per student						
$12.00 or less	27.6	31.4	14	2.0	8.5	325
$12.01–$20.00	35.8	37.7	5	3.1	10.2	229
More than $20.00	34.9	37.4	7	3.8	6.5	71
Total FTE staff						
1.25 or less	29.2	32.5	11	3.4	7.9	132
1.26–1.75	35.2	37.4	6	2.1	6.9	229
More than 1.75	34.0	36.1	6	2.0	8.4	320

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

[a]Statistical significance was not calculated for percentage change.

Source: Second evaluation, school library media center survey questions 4 and 8.

Exhibit A-23
Access to the School Library During Nonschool Hours, by School Characteristics, Spring 2005 and 2006

School Characteristic	Percentage of Schools Providing Access				Mean Number of Nonschool Hours of Access		
	Both Years	2005 Only	2006 Only	Neither Year	2005	2006	Percentage Change[a]
Percentage of all schools	53	0	3	43	6.6	6.9	5
Nongrantees	54*	0	2	44*	6.7*	6.9	3
Grantees	37	2*	35*	26	3.6	6.8	91
Received grant for two or more years	60	10	11	19	7.0	7.4	6
School enrollment size							
400 or fewer	33	2	39	27	3.3	7.0	110
401–700	38	2	33	27	3.3	6.2	89
More than 700	51	2	27	20	5.1	7.8	54
School level							
Elementary	32	2	37	29	3.0	6.2	103
Middle/junior high	51	0	28	21	4.5	8.2	81
High school/combined/other	50	2	31	18	4.9	8.1	66
Urbanicity							
City	28	1	27	45	3.4	6.5	90
Urban fringe	28	2	53	18	1.9	5.5	182
Town	62	5	26	7	4.9	7.7	59
Rural	41	2	39	18	3.8	7.3	91
Free/reduced-price lunch eligibility							
Less than 50 percent	49	0	27	24	4.0	6.7	67
50 percent or more	33	3	37	27	3.4	6.9	103
Total expenditures per student							
$12.00 or less	22	1	37	39	2.5	6.7	171
$12.01–$20.00	57	3	23	16	4.2	7.3	72
More than $20.00	43	2	42	13	3.6	6.5	79
Total FTE staff							
1.25 or less	33	2	32	33	3.6	7.1	96
1.26–1.75	44	1	43	11	2.8	5.8	111
More than 1.75	43	2	34	21	4.5	7.5	66

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

[a]Statistical significance was not calculated for percentage change.

Source: Second evaluation, school library media center survey questions 5 and 6.

Exhibit A-24
Percentage of School Libraries Using Extended Hours for Various Activities During the 2005–06 School Year, by School Characteristics

School Characteristic	Specific Programs	Open to Loan Books	Book Clubs	Other
Percentage of all schools	33	90	13	59
Nongrantees	32	90	13	59
Grantees	43*	92	18	59
Received grant for two or more years	32	90	17	59
School enrollment size				
400 or fewer	47	93	16	56
401–700	36	91	17	57
More than 700	48	94	25	77
School level				
Elementary	40	91	15	57
Middle/junior high	45	93	24	66
High school/combined/other	50	98	25	63
Urbanicity				
City	40	86	19	61
Urban fringe	42	94	27	56
Town	38	88	10	61
Rural	48	98	17	59
Free/reduced-price lunch eligibility				
Less than 50 percent	51	91	22	67
50 percent or more	40	93	16	57
Total expenditures per student				
$12.00 or less	41	90	16	61
$12.01–$20.00	51	91	19	68
More than $20.00	43	95	17	59
Total FTE staff				
1.25 or less	48	91	18	55
1.26–1.75	36	94	17	65
More than 1.75	40	94	21	62

FTE = full-time equivalent.

Note: The asterisk (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 7.

Exhibit A-25
Percentage of School Libraries Reporting Major or Moderate Barriers to Providing Services During Nonschool Hours, by School Characteristics, Spring 2006

School Characteristic	Availability of Library Staff		Transportation for Students		Transportation for Parents		Availability of Parents		Safety Concerns	
	Major Barrier	Moderate Barrier	Major Barrier	Moderate Barrier	Major Barrier	Moderate Barrier	Major Barrier	Moderate Barrier	Major Barrier	Moderate Barrier
Percentage of all schools	50	17	47	24	26	30	37	35	10	14
Nongrantees	50*	17	47*	24	26*	30	38*	35	10	14
Grantees	42	25*	39	23	20	31	30	37	10	17
Received grant for two or more years	40	22	51	19	43	24	46	27	17	14
School enrollment size										
400 or fewer	46	27	43	24	20	30	29	38	11	18
401–700	40	23	36	25	21	31	30	34	9	17
More than 700	33	24	35	11	19	31	34	44	14	13
School level										
Elementary	44	22	39	24	21	30	28	37	11	19
Middle/junior high	45	28	35	21	25	19	36	33	3	17
High school/combined/other	30	35	42	20	13	43	33	42	10	8
Urbanicity										
City	44	24	31	26	17	35	31	35	15	21
Urban fringe	44	28	43	13	19	22	24	43	6	23
Town	36	25	37	36	19	27	35	41	7	11
Rural	41	24	47	18	24	32	29	36	9	12
Free/reduced-price lunch eligibility										
Less than 50 percent	45	21	35	21	12	38	27	42	4	4
50 percent or more	41	26	41	23	23	28	31	36	12	21
Total expenditures per student										
$12.00 or less	43	23	44	25	24	30	33	38	11	22
$12.01–$20.00	34	27	35	24	14	29	24	53	7	13
More than $20.00	42	26	37	21	19	33	29	30	9	14
Total FTE staff										
1.25 or less	45	23	41	25	22	29	28	36	11	18
1.26–1.75	41	30	36	22	20	34	29	45	11	15
More than 1.75	34	27	38	16	16	31	37	33	8	16

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 16.

Exhibit A-26
Percentage of School Libraries Reporting Barriers to Providing Services During Nonschool Hours, by Grantee Status, Spring 2006

Grantee Status	No Barrier	Small Barrier	Moderate Barrier	Major Barrier
Grantee				
Availability of library staff	20	13	25*	42
Transportation for students	19	19*	23	39
Transportation for parents	23	27	31	20
Availability of parents	10	23*	37	30
Safety concerns	53	20	17	10
Nongrantee				
Availability of library staff	21	12	17	50*
Transportation for students	18	11	24	47*
Transportation for parents	20	23	30	26*
Availability of parents	14	13	35	38*
Safety concerns	51	26*	14	10

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 16.

Exhibit A-27
Mean Usage of School Library Resources per Student, by School Characteristics, Spring 2005 and 2006

School Characteristic	Number of Visits in a Typical Week			Number of Materials Checked Out		
	Spring 2005	Spring 2006	Percentage Change[a]	Spring 2005	Spring 2006	Percentage Change[a]
Mean of all schools	1.2	1.2	0	2.0	1.9	-5
Nongrantees	1.2	1.2	0	2.0	1.9	-5
Grantees	1.2	1.4*	17	2.0	2.2	10
Received grant for two or more years	1.0	1.8	80	3.0	3.1	3
School enrollment size						
400 or fewer	1.3	1.5	15	2.3	2.7	17
401–700	1.1	1.4	27	1.9	2.0	5
More than 700	1.0	1.1	10	1.0	1.1	10
School level						
Elementary	1.4	1.6	14	2.4	2.6	8
Middle/junior high	0.9	1.1	22	0.8	1.0	25
High school/combined/other	0.8	0.9	13	0.8	0.9	13
Urbanicity						
City	1.2	1.5	25	1.7	1.6	-6
Urban fringe	1.1	1.2	9	2.0	1.9	-5
Town	1.3	1.4	8	2.5	3.1	24
Rural	1.3	1.5	15	2.0	2.5	25
Free/reduced-price lunch eligibility						
Less than 50 percent	1.2	1.3	8	2.3	2.4	4
50 percent or more	1.2	1.5	25	1.9	2.1	11
Total expenditures per student						
$12.00 or less	1.2	1.6	33	2.0	2.1	5
$12.01–$20.00	1.2	1.4	17	1.7	2.3	35
More than $20.00	1.3	1.4	8	2.1	2.3	10
Total FTE staff						
1.25 or less	1.1	1.4	27	1.6	1.8	13
1.26–1.75	1.5	1.7	13	2.6	2.8	8
More than 1.75	1.2	1.3	8	2.4	2.4	0

FTE = full-time equivalent.

Note: The asterisk (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

[a]Statistical significance was not calculated for percentage change.

Source: Second evaluation, school library media center survey questions 1, 2, and 3.

Exhibit A-28
Percentage of School Libraries Offering Selected Services and the Frequency of Those Services, by Grantee Status, 2005–06 School Year

Grantee Status and Service	Frequency of Services				
Grantees	Daily	Weekly	Monthly	Never	Not Applicable
Provide reference assistance to					
Students	76	17	5	0	2*
Teachers	53	30	13	1	2
Administrators	22	18	30	20	10
Help with sources outside the school	26	20	36	12	7
	Monthly	Quarterly	Annually	Never	Not Applicable
Assist teachers with research projects for students	37	32*	10	14	7
Work on curriculum issues	42*	18	18	14	8
Participate in team meetings	52*	18	10	15	5
Coordinate textbook selection	10	5	16	40	30
Coordinate professional development on technology	13*	20*	26	27	14
Nongrantees	Daily	Weekly	Monthly	Never	Not Applicable
Provide reference assistance to					
Students	78	16	6	0	1
Teachers	57	29	11	1	2
Administrators	18	20	31	16	15*
Help with sources outside the school	24	24	34	9	9
	Monthly	Quarterly	Annually	Never	Not Applicable
Assist teachers with research projects for students	35	20	18*	17	10
Work on curriculum issues	29	18	22	18	14*
Participate in team meetings	41	20	13	15	12*
Coordinate textbook selection	12	4	18	42	25
Coordinate professional development on technology	7	14	29	29	21*

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 10.

Exhibit A-29
Percentage of School Libraries Reporting That They Provide Selected Services, by the Highest Listed Level of Frequency and School Characteristics, 2005–06 School Year

School Characteristic	Provide Services Daily				Provide Services Monthly				
	Provide Reference Assistance to			Help Use Information Outside the School	Assist With Research Projects	Work on Curriculum Issues	Participate in Team Meetings	Coordinate Textbook Selection	Coordinate Professional Development on Technology
	Students	Teachers	Administrators						
Percentage of all schools	78	57	18	25	35	30	41	12	7
Nongrantees	78	57	18	24	35	29	41	12	7
Grantees	76	53	22	26	37	42*	52*	10	13*
Received grant for two or more years	81	60	27	34	23	42	52	5	5
School enrollment size									
400 or fewer	73	49	21	20	30	38	52	6	10
401–700	74	53	23	30	39	46	54	13	13
More than 700	89	69	24	36	53	46	49	12	23
School level									
Elementary	72	53	22	24	34	41	52	10	13
Middle/junior high	85	68	32	37	52	59	49	20	13
High school/combined/other	83	45	15	28	36	35	55	3	12
Urbanicity									
City	79	60	27	27	42	44	55	18	18
Urban fringe	71	51	29	26	36	33	45	3	10
Town	75	56	18	28	31	56	56	5	11
Rural	74	46	16	24	34	39	51	6	10
Free/reduced-price lunch eligibility									
Less than 50 percent	84	52	24	20	42	46	62	3	14
50 percent or more	73	54	22	28	35	41	49	12	12
Total expenditures per student									
$12.00 or less	70	50	23	26	38	40	54	7	7
$12.01–$20.00	80	54	21	27	35	48	58	11	15
More than $20.00	83	59	22	27	40	46	48	12	19
Total FTE staff									
1.25 or less	77	53	23	27	37	36	49	11	11
1.26–1.75	74	61	20	19	34	46	55	0	13
More than 1.75	72	47	22	30	39	58	60	18	18

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 10.

Exhibit A-30
Percentage of School Libraries Indicating Changes in Their Provision of Selected Services, by Grantee Status and Type of Service, 2005–06 School Year

Type of Service	Grantees					Nongrantees				
	New in 2005–06	Expanded in 2005–06	No Change	Decreased or Eliminated in 2005–06	Not Performed in Either Year	New in 2005–06	Expanded in 2005–06	No Change	Decreased or Eliminated in 2005–06	Not Performed in Either Year
Assist in research projects	7*	35*	37	2	20	3	22	48*	1	26*
Work on curriculum issues	5	35*	41	2*	17	4	19	48*	1	28*
Participate in team meetings	9*	27*	46	2	17	3	20	51	2	24*
Coordinate textbook selection	5*	9	24	2*	60	1	7	32*	0	60
Coordinate professional development on technology	10*	31*	25	4*	29	1	21	36*	2	40*
Work with teachers on resources for reading/English	6	43*	39	1*	11	5	28	53	0	14
Work with teachers on curriculum development in reading/English	3	28*	33	2	33	4	17	43*	1	36
Teach reading/English with classroom teachers	6*	24*	28	3	39	3	15	30	2	49*
Evaluate reading/English with classroom teachers	4	16*	30	2	48	3	10	34	1	52
Instruct on information skills	5*	46*	39	2	7	3	33	50*	2	13*
Coordinate family literacy nights	17*	21*	28	1	34	3	10	29	2	55*
Coordinate junior scholars after-school programs	5*	4	10	2	79	0	4	11	1	83
Operate after-school program with library orientation	23*	11*	14	3*	49	1	7	14	2	76*
Coordinate book clubs	6	12*	21*	4	57	4	8	16	4	68*

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value $\leq .05$) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 15.

Exhibit A-31
Percentage of School Libraries Providing Selected New or Expanded General Programs, by School Characteristics, 2005–06 School Year

School Characteristic	Assist With Research Projects	Work on Curriculum Issues	Participate in Team Meetings	Coordinate Textbook Selection	Coordinate Professional Development on Technology	Provide Instruction on Information Skills	Coordinate Junior Scholars After-School Programs
Percentage of all schools	25	24	24	8	23	36	4
Nongrantees	24	23	23	8	22	36	4
Grantees	42*	40*	36*	14*	42*	52*	9*
Received grant for two or more years	31	27	16	13	30	35	6
School enrollment size							
400 or fewer	40	41	33	12	40	53	10
401–700	43	39	39	18	42	51	8
More than 700	47	40	35	9	43	49	8
School level							
Elementary	40	40	36	13	39	50	9
Middle/junior high	52	37	30	18	56	56	5
High school/combined/other	45	41	39	15	40	55	13
Urbanicity							
City	37	35	31	14	34	45	7
Urban fringe	39	38	31	13	43	55	11
Town	45	43	43	12	47	55	4
Rural	47	45	39	15	46	55	12
Free/reduced-price lunch eligibility							
Less than 50 percent	50	45	31	7	39	47	10
50 percent or more	39	38	38	16	42	53	9
Total expenditures per student							
$12.00 or less	43	40	38	16	37	50	9
$12.01–$20.00	44	51	39	11	50	56	6
More than $20.00	43	38	35	12	46	57	10
Total FTE staff							
1.25 or less	38	37	33	16	38	46	9
1.26–1.75	51	47	45	8	51	67	11
More than 1.75	42	42	32	13	43	50	7

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 15.

Exhibit A-32
Percentage of School Libraries Providing Selected New or Expanded Programs Related to Reading/English, by School Characteristics, 2005–06 School Year

School Characteristic	Work With Classroom Teachers on				Family Literacy Nights	Provide After-School Program With Library Orientation	Coordinate Book Clubs
	Selecting Resources	Curriculum Development	Teaching Reading/English	Evaluating Reading/English Curriculum			
Percentage of all schools	33	21	18	13	14	9	12
Nongrantees	33	20	18	12	13	8	12
Grantees	49*	32*	30*	20*	38*	34*	18*
Received grant for two or more years	30	25	21	11	32	19	16
School enrollment size							
400 or fewer	51	32	29	19	43	40	17
401–700	42	28	28	24	32	26	17
More than 700	60	41	35	13	37	33	23
School level							
Elementary	45	30	27	19	39	34	15
Middle/junior high	64	49	41	22	37	34	27
High school/combined/other	54	29	30	21	34	33	24
Urbanicity							
City	29	21	22	18	32	29	21
Urban fringe	52	22	26	12	35	30	16
Town	58	53	35	28	47	35	7
Rural	62	38	37	22	40	40	20
Free/reduced-price lunch eligibility							
Less than 50 percent	56	31	32	25	38	32	21
50 percent or more	46	32	29	18	37	34	17
Total expenditures per student							
$12.00 or less	47	30	29	20	32	27	21
$12.01–$20.00	60	41	38	32	39	41	15
More than $20.00	47	32	26	17	45	39	17
Total FTE staff							
1.25 or less	43	27	26	18	33	25	19
1.26–1.75	62	42	31	22	51	53	16
More than 1.75	50	34	37	22	37	35	17

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 15.

Exhibit A-33
Mean Number of Staff per School Library and Pupils per Librarian, by School Characteristics, Spring 2005 and 2006

School Characteristic	Full-Time Staff			Part-Time Staff[a]			Mean Number of Pupils per Librarian per School		
	Spring 2005	Spring 2006	Percentage Change[b]	Spring 2005	Spring 2006	Percentage Change[b]	Spring 2005	Spring 2006	Percentage Change[b]
Mean of all schools	1.2	1.2	0	0.5	0.5	0	448.8	446.2	-1
Nongrantees	1.2*	1.2*	0	0.5	0.5	0	450.8*	448.7*	0
Grantees	1.0	1.0	0	0.6	0.7	17	391.4	371.5	-5
Received grant for two or more years	1.0	1.0	0	0.7	0.7	0	433.7	429.9	-1
School enrollment size									
400 or fewer	0.8	0.9	13	0.7	0.9	29	261.4	239.9	-8
401–700	1.1	1.2	9	0.5	0.6	20	428.0	412.9	-4
More than 700	1.3	1.3	0	0.3	0.6	100	728.8	717.6	-2
School level									
Elementary	1.0	1.0	0	0.6	0.7	17	387.1	371.3	-4
Middle/junior high	1.2	1.3	8	0.4	0.5	25	385.9	373.0	-3
High school/combined/other	0.9	1.0	11	0.6	1.0	67	415.2	371.7	-10
Urbanicity									
City	1.0	1.0	0	0.4	0.6	50	478.2	474.1	-1
Urban fringe	1.0	1.0	0	0.6	0.5	-17	453.3	453.5	0
Town	1.4	1.4	0	0.5	0.6	20	336.0	314.8	-6
Rural	0.8	1.0	25	0.8	1.1	38	293.4	247.6	-16
Free/reduced-price lunch eligibility									
Less than 50 percent	1.0	1.0	0	0.6	0.8	33	412.9	399.2	-3
50 percent or more	1.0	1.0	0	0.5	0.7	40	383.9	361.8	-6
Total expenditures per student									
$12.00 or less	0.9	1.0	11	0.5	0.6	20	425.9	403.2	-5
$12.01–$20.00	1.1	1.2	9	0.5	0.8	60	414.2	380.9	-8
More than $20.00	1.0	1.0	0	0.7	0.9	29	335.6	324.7	-3
Total FTE staff									
1.25 or less	0.7	0.8	14	0.4	0.6	50	469.6	430.2	-8
1.26–1.75	1.0	1.0	0	1.1	1.2	9	275.0	272.6	-1
More than 1.75	1.9	1.8	-5	0.4	0.7	75	298.8	310.7	4

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

[a]Part-time staff are treated as half time.

[b]Statistical significance was not calculated for percentage change.

Source: Second evaluation, school library media center survey questions 1 and 9.

Exhibit A-34
Percentage of Schools Offering Professional Development Related to School Libraries, by Topic Area and School Characteristics, 2005–06 School Year

School Characteristic	Selecting Materials That Align With Curriculum	Integrating Technology Into the Curriculum	Methods of Collaboration	Teaching Children to Read	Motivating Students to Read	Providing Instruction in Information Skills	Converting to Electronic Catalog	Learning to Use Online Resources	Other
Percentage of all schools	71	89	77	47	88	81	42	87	15
Nongrantees	71	89	76	47	88	81	42	87	15
Grantees	72	87	83*	60*	88	77	45	89	18
Received grant for two or more years	72	87	63	66	87	67	68	87	4
School enrollment size									
400 or fewer	67	84	81	63	87	74	46	88	10
401–700	79	90	82	58	93	80	45	93	25
More than 700	67	87	94	54	81	80	39	83	25
School level									
Elementary	72	86	84	63	89	76	46	88	19
Middle/junior high	75	96	80	52	94	80	43	97	16
High school/combined/other	67	84	82	51	83	81	41	88	12
Urbanicity									
City	65	79	83	63	85	74	49	94	17
Urban fringe	78	96	77	61	93	70	38	84	28
Town	75	91	88	51	86	79	44	89	16
Rural	74	89	84	60	90	84	44	87	14
Free/reduced-price lunch eligibility									
Less than 50 percent	70	90	90	58	89	79	35	83	15
50 percent or more	72	86	81	60	88	77	48	91	18
Total expenditures per student									
$12.00 or less	72	88	83	65	89	74	46	87	12
$12.01–$20.00	75	90	87	59	88	89	47	94	25
More than $20.00	73	84	81	54	86	78	43	90	22
Total FTE staff									
1.25 or less	71	84	80	59	90	74	49	90	14
1.26–1.75	76	95	88	70	89	81	34	87	27
More than 1.75	69	87	85	48	82	82	46	89	15

FTE = full-time equivalent.

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 19.

Exhibit A-35
Percentage of Schools Offering Professional Development Related to School Libraries, by Grantee Status, 2004–05 and 2005–06 School Years

Grantee Status and Topic Area	School Year	
	2004–05	2005–06
Grantees		
Selecting books that align with curriculum	45	72
Integrating technology into curriculum	65	87
Exploring methods of collaboration	56	83*
Teaching children to read	42	60*
Motivating students to read	70	88
Providing instruction in information skills	61	77
Converting to electronic catalog	31	45
Learning to use online resources	66	89
Nongrantees		
Selecting books that align with curriculum	68*	71
Integrating technology into curriculum	84*	89
Exploring methods of collaboration	74*	76
Teaching children to read	45	47
Motivating students to read	82*	88
Providing instruction in information skills	77*	81
Converting to electronic catalog	40*	42
Learning to use online resources	83*	87

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 19.

Exhibit A-36
Percentage of School Libraries Reporting That Library Staff Worked With Classroom Teachers on Selected Curriculum Areas at Various Frequency Rates, by Grantee Status, 2005–06 School Year

Grantee Status	Weekly	Monthly	Quarterly	Annually	Never	Not Applicable
Grantees						
Reading/language arts	60	19	8	5	4	4
English	37	22	13*	8	11	10
Mathematics	11	15	22*	16	29	7
Science	23*	31	21	12	9	5
Social studies	29	31	19	9	7	4
Nongrantees						
Reading/language arts	61	16	7	4	6	7
English	36	26	9	7	9	13
Mathematics	11	16	16	14	30	13*
Science	17	27	21	15	12	9*
Social studies	25	27	19	10	9	9*

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 11.

Exhibit A-37
Percentage of School Libraries Reporting That Library Staff Worked Weekly With Classroom Teachers on Selected Curriculum Areas, by School Characteristics, 2005–06 School Year

School Characteristic	Reading/ Language Arts	English	Mathematics	Science	Social Studies
Percentage of all schools	61	36	11	17	25
Nongrantees	61	36	11	17	25
Grantees	60	37	11	23*	29
Received grant for two or more years	55	27	13	13	22
School enrollment size					
400 or fewer	57	33	10	17	25
401–700	58	34	11	23	26
More than 700	75	62	17	41	56
School level					
Elementary	59	30	13	24	30
Middle/junior high	69	50	5	23	25
High school/combined/other	56	55	10	16	30
Urbanicity					
City	56	38	12	21	36
Urban fringe	56	27	8	20	23
Town	68	37	13	28	28
Rural	61	40	12	24	26
Free/reduced-price lunch eligibility					
Less than 50 percent	66	49	12	22	31
50 percent or more	57	33	11	23	29
Total expenditures per student					
$12.00 or less	60	36	11	18	26
$12.01–$20.00	65	38	17	39	35
More than $20.00	59	42	10	23	33
Total FTE staff					
1.25 or less	57	34	11	21	30
1.26–1.75	63	42	13	27	29
More than 1.75	63	40	11	24	28

FTE = full-time equivalent.

Note: The asterisk (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 11.

Exhibit A-38
Percentage of School Libraries Reporting That Library Staff Provided Selected Services to Classroom Teachers in the Area of Reading or English at Various Frequency Rates, by Grantee Status, 2005–06 School Year

Grantee Status	Weekly	Monthly	Quarterly	Annually	Never	Not Applicable
Grantees						
Selection of resources	29	21	16	18	11	5
Curriculum development	13	18*	11	13	31	14
Collaborative teaching	13	13	16	11	31	16
Collaborative evaluation	7	8	12*	11	43	19
Nongrantees						
Selection of resources	27	18	17	21	10	7
Curricular development	9	13	12	16	33	16
Collaborative teaching	10	12	14	9	38*	18
Collaborative evaluation	4	10	8	12	46	19

Note: The asterisks (*) indicate that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey question 12.

Exhibit A-39
Percentage of School Libraries Reporting That Library Staff Provided Selected Services to Classroom Teachers in the Area of Reading or English, by School Characteristics, 2005–06 School Year

School Characteristic	Selecting Resources	Curriculum Development	Collaborative Teaching	Collaborative Evaluation
Percentage of all schools	83	51	44	35
Nongrantees	83	51	44	34
Grantees	84	55	53*	38
Received grant for two or more years	70	41	42	34
School enrollment size				
400 or fewer	83	57	49	33
401–700	84	51	52	42
More than 700	88	57	72	44
School level				
Elementary	80	50	50	34
Middle/junior high	98	70	63	51
High school/combined/other	89	64	62	46
Urbanicity				
City	80	39	53	37
Urban fringe	77	42	40	22
Town	96	74	63	45
Rural	86	69	56	44
Free/reduced-price lunch eligibility				
Less than 50 percent	92	62	60	46
50 percent or more	81	52	51	35
Total expenditures per student				
$12.00 or less	80	48	52	31
$12.01–$20.00	87	65	53	46
More than $20.00	89	60	54	42
Total FTE staff				
1.25 or less	77	49	47	34
1.26–1.75	94	62	58	43
More than 1.75	93	63	66	43

FTE = full-time equivalent.

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries.

Source: Second evaluation, school library media center survey question 12.

Exhibit A-40
Percentage of School Libraries Providing Instruction in Information Skills Through Various Approaches, by School Characteristics, 2005–06 School Year

School Characteristic	Location of Providing Instruction				Who Provided Instruction		
	Both Separate and Integrated Into Curriculum	Separate Course Only	Integrated Into Curriculum Only	Neither	Library Media Specialist	Classroom Teachers	Other
Percentage of all schools	34	7	50	9	78	75	21
Nongrantees	34	7	50	9	78	75	21
Grantees	42*	6	47	5	78	78	24
Received grant for two or more years	28	9	55	8	78	67	20
School enrollment size							
400 or fewer	48	8	39	5	81	81	21
401–700	40	5	49	6	76	74	29
More than 700	28	3	67	3	71	80	21
School level							
Elementary	49	7	38	6	76	75	27
Middle/junior high	28	3	69		84	90	15
High school/combined/other	26	3	66	5	82	85	21
Urbanicity							
City	46	7	42	6	71	74	29
Urban fringe	50	11	34	5	72	69	28
Town	35	2	58	6	91	89	20
Rural	39	4	53	4	82	83	19
Free/reduced-price lunch eligibility							
Less than 50 percent	48	3	49	0	86	83	22
50 percent or more	40	7	46	7	75	77	25
Total expenditures per student							
$12.00 or less	43	6	49	2	82	76	18
$12.01–$20.00	43	2	49	6	80	86	30
More than $20.00	45	7	45	3	74	83	30
Total FTE staff							
1.25 or less	43	7	44	6	75	75	23
1.26–1.75	54	3	41	2	76	82	34
More than 1.75	28	5	61	6	86	83	17

FTE = full-time equivalent.

Note: The asterisks (*) indicates that there is a statistically significant difference (i.e., p-value ≤ .05) between grantee and nongrantee school libraries. Percentages may not add to 100 because of rounding.

Source: Second evaluation, school library media center survey questions 13 and 14.

APPENDIX B

METHODOLOGY

Methodology

Sample Design and Weighting

This study focused on districts (or consortia of districts) and schools receiving grants in 2005. Although school districts were the official recipients of the grants, much of the data sought for this evaluation were likely to be available only at the school level. The study therefore collected district information from the district performance reports (which are required as a condition of receiving the grant) and school information through a separate school survey. With roughly 450 schools participating in the grants for 2005, and up to 53 participating schools per district, sampling was undertaken as a way of reducing burden and costs. Further, when a large number of schools in a district are participating, those schools' programs are not truly independent of one another but, rather, share many commonalities (e.g., there may be a districtwide effort to revise the curriculum or the libraries may share a common strategy in determining which types of books are needed). Such commonalities lessen the need to survey all schools.

A subsample of 400 grantee schools was selected from the targeted schools in districts that received grants in 2005–06. The subsampling of the grantee schools was designed to ensure that at least one school was selected from each of the 85 districts or consortia of districts that were awarded grants in 2005–06. Schools in the 11 districts that received grants for 2005–06 and prior years were included in the frame of grantee schools as a way of examining what changes were associated with prolonged participation in the library program. However, schools in districts that received grants in prior years but not for 2005–06 were not included either in the grantee or in the comparison school frame because they might have systematic differences from both groups.

Similarly, a sample of 400 comparison schools was selected by drawing an equal number of comparison schools from each of the specified matching cells, based on the sampling strata. The sample of comparison schools included both (a) districts that applied for but were denied grants and (b) districts that were eligible but did not apply for grants. Schools in districts that had received grants in prior years were excluded from the comparison school frame. In the 2005 evaluation report, about 25 percent of the comparison schools belonged to the first group. They thus were sufficiently common that stratification to control the number of such districts was unnecessary, and this distinction was not made for the current study. Nongrantee schools that did not belong to any of the matching cells (e.g., schools in districts in which fewer than 20 percent of the students are from families with incomes below poverty levels) were excluded from the comparison school frame. The most current (2003–04) National Center for Education Statistics (NCES) Common Core of Data (CCD) Local Education Agency Universe File (augmented with information from other available data sources such as the district-level Title I data file maintained by NCES) was used to create the frame. The district-level characteristics that were used in the matching process included region, district poverty status, school district type, urbanicity and district enrollment size. The school-level characteristics that were used in the matching process included instructional level, school type, enrollment size, type of locale, percentage of students belonging to racial or ethnic minorities, and percentage of students receiving free or reduced-priced lunches. Special attention was given to identifying similar comparison schools for those few grantee schools with unusual characteristics (charter school districts or single-school districts).

The comparison schools intentionally included a mixture of districts that applied for grants but were rejected and districts that did not apply. One could argue that the schools that applied but were rejected are most comparable to the grantee sites, with their decision to apply possibly reflecting a reform orientation (or other characteristic) that may itself be important in influencing school and student outcomes (or, for that matter, in how the grant is implemented). This reasoning could be an argument for sampling only from districts that applied for the grant. However, extrapolating the potential influence of

the program is improved if a broader set of districts or schools is used for the sample. For example, the importance of such a reform orientation (or other characteristic) can only be measured by also examining districts or schools that did not apply for a grant.

With this design, the comparison of the grantee schools with similar comparison schools can be used as one way of measuring the outcomes of the program. It may be that the outcomes of the program will vary depending both on how it is implemented at the sites and on the characteristics of the schools where it is implemented. The sample design should be helpful in examining such differences by assuring a broad range of school and district characteristics. Additionally, because the questionnaire asked for some retrospective data to allow the measurement of change over time, the comparison schools can be used to measure whether the changes might be attributed to factors other than the library program (such as a general movement toward school reform).

It should be noted that school library services are organized in a variety of ways. Except in a few cases in this report where district statistics are considered, the unit of analysis for this study is considered to be school libraries rather than schools. That is, the focus of this study is on what changes occurred in school libraries, looking at such topics as the level of usage of school libraries, the resources held by these school libraries, the services provided by libraries, and their finances; all of these data are library-based statistics rather than school statistics. Thus, for this study, we excluded from the analysis schools without libraries, including a small number of schools with classroom collections only. A greater number of schools have school libraries but no librarians; these were not excluded from the analysis, and some other school official (e.g., the principal) provided data on the library. A few schools shared a library with another school and were able only to provide statistics on the combined use of the library. Because the library rather than the school was being treated as the unit of analysis, the data in such cases were weighted to reflect the number of libraries rather than the number of schools.

The data have been weighted for nonresponse and the probability of selection, so the grantee schools represent the full total of 407 grantee school libraries (after removing ineligible schools and adjusting for situations where two schools shared a single library), and the nongrantee schools represent the full total of 12,014 eligible nongrantee school libraries.

Ideally, an evaluation study would examine the school libraries over multiple years after the receipt of the grant rather than only the year of the grant, for several reasons.

- Some changes resulting from the grants may have not yet been fully realized in the 2005–06 school year because a change had been in effect for only part of the year (for this reason, some items in the questionnaire focused on spring 2006).

- Changes in students may lag behind the changes made in the libraries; for example, it may take time before changes in a library's holdings are associated with improvements in students' reading literacy.

- Some types of changes might be more likely to persist than others. For example, a library's holdings would continue to reflect the extra purchases that were funded by the grant, but over time, the holdings may again become more outdated if the school lacks sufficient funds for continued updates. Other differences, and especially those that required hiring additional personnel, might show changes in later years; for example, to the degree that the grant funds were used to fund extending the hours in which a school library is open, schools may lack the funding to continue such extended hours after the grant has expired. Changes that are brought about through professional development activities might have the best chances of persisting, though the provision of library services and increased collaboration may depend not only on

people's skills but also on resources that are available (e.g., to support the services or to provide time in which the activities can be conducted).

This study thus is intended to provide a preliminary measure of how the grants were implemented and what changes were associated with receipt of the grants.

Although most of the data in this report are from school surveys that were administered to both grantees and nongrantees, some data also were taken from the performance reports that were submitted to the U.S. Department of Education at the completion of the grant period by the participating districts. The form used for the performance reports was designed by the Department, with input from Westat. These data exist only for the districts receiving grantees and, thus, cannot be compared with other districts. Still, they provide a different perspective on the administration of the grants (i.e., by either districts or consortia of districts) and are particularly helpful for describing the district's role in implementing the grants, for example, describing how schools were selected to participate in the grants or how the funds were distributed to schools. Districts were required to complete the performance reports as a condition of receiving the grants; however, some districts received extensions to allow sufficient time to implement the programs, and some of these extended beyond the evaluation time frame. At the time of the preparation of this report, 75 of the 85 grantees for 2005–06 had sent performance reports. District performance reports for 2004–05 also were included in the evaluation; 70 of the 92 grantees for 2004–05 had submitted reports. Some types of districts were more likely to submit the reports than others, though the differences were usually small. The most notable differences were that districts were more likely to respond if their grants were $100,000 or less (80 percent versus 63 percent to 65 percent among the other grant size categories), and if they were either small or large (79 percent and 72 percent, respectively, versus 46 percent among those with enrollment between 500 and 1,999). The data were weighted to adjust for nonresponse.

Grantees for 2003 through 2005 were considered for becoming case study sites. The most important criterion in selecting sites was whether there was some indication that promising practices were occurring in the district. The strategies used to obtain this information were review of all LSL project abstracts, review of LSL conference call notes from the program administrator with respect to FY 2005 projects, review of the highlights document on the LSL Web site with respect to FY 2004 projects, and solicitation of recommendations from school library experts. Other criteria were that the districts and schools had met adequate yearly progress (AYP),[21] that the activities conducted as a part of the LSL grant were continuing and that most of the key staff were still working in the district. In addition, sites were selected to reflect a diversity in terms of race/ethnicity, level of poverty, locale and geographic region of the country.

Questionnaire Development

To facilitate measures of change that might be associated with receipt of the grants, many of the survey questions asked for data for both the 2004–05 and the 2005–06 school years, with the first year representing the condition of the school libraries before the grant and the second year representing the condition of the school libraries during the year of the grant. The questionnaire was designed to apply to both grantees and nongrantees to receive comparable data from both types of school libraries. That is, the questions were phrased in a general manner (e.g., asking about what services were offered or the size of the collections) without specifically referring to the grants.

[21] AYP is an individual state's measure of progress toward the goal of 100 percent of students achieving to state academic standards in at least reading/language arts and math. It sets the minimum level of proficiency that the state, its school districts and schools must achieve each year on annual tests and related academic indicators.

A pretest of the School Library Media Center Survey was conducted between February 24, 2006, and April 21, 2006. Originally, nine schools agreed to participate in the pretest, but one dropped out because of a death in the family of the respondent. The results from the eight remaining schools were quite consistent, so their responses were used without making a last minute substitution for the school that dropped out. The pretest schools were selected not only to include both grantees and nongrantees but also to collectively represent a variety of school characteristics (i.e., based on geographic region, enrollment size, urbanicity and grade level). The responses to the pretest were used to revise the questionnaire, rephrasing the directions to several questions to emphasize that estimates were acceptable when records with exact amounts were not available. The questionnaire was also reviewed by the U.S. Office of Management and Budget (OMB), and revised in response to comments from that review. OMB approval to conduct the survey was received on September 19, 2006.

For the case studies, interview protocols were developed for the program administrator at the district level as well as for the principal, school librarian and classroom teacher. In addition, an observation form for LSL-related activities was prepared. The protocols were reviewed by the U.S. Department of Education and OMB.

Data Collection and Processing

Surveys

Data collection began with a mailout of the survey questionnaire to school libraries in October 2006. All data collection activities were ended on March 20, 2007. All data collection for the survey was conducted by REDA International, Inc., as a subcontractor to Westat. Telephone follow-up was used to prompt school libraries that had not yet responded and to resolve questions concerning data quality that appeared during reviews of the data.

Exhibit B-1 presents the response rates to the survey. Of the 400 grantee schools that were sampled, 49 were either closed or ineligible because of not having school libraries, leaving 360 school libraries. Of these, 315 responded to the survey for a response rate of 88 percent. Of the 406 nongrantee schools that were sampled, 47 were closed or ineligible, leaving a total of 357 school libraries. Of these, 296 responded to the survey, for a response rate of 83 percent. The combined response rate across both grantee school libraries and nongrantee school libraries was 85 percent, or 611 of 717 school libraries.

Exhibit B-1
Number of Schools Sampled and Number of Responses

School Characteristic	Original Sample	Closed Schools	Ineligible	Total Eligible	Number of Responses	Response Rate (%)
Total	806	13	83	717	611	85
Grantees.....	400	8	41	360	315	88
Nongrantees..	406	5	42	357	296	83

The completed questionnaires were reviewed for completeness and internal consistency. Questionnaires that had fewer than 100 completed data items were considered as nonresponses and discarded. Depending on the questionnaire item and the type of problem that was found, problematic responses were verified by checking the original questionnaire or calling the respondent or, in a few cases, by setting extreme outliers to have missing values.

Case Studies

Case study site visitor training took place on September 21, 2006. Seven site visits were conducted by two-person teams, and two site visits were conducted by one senior project staff member. The site visits were conducted between November 2006 and January 2007; each involved a visit to one or two schools.

Derived Variables

Several analytic variables were created by combining data from multiple questionnaire items, either to create measures that would be more comparable across all schools or to summarize the data more compactly and better represent overall patterns in the responses. Following are the specific variables that were created for this reason and the way in which they were derived.

Standardization based on school enrollment. Several measures were created as ratios with respect to the school enrollment to create statistics that would be more comparable across schools of different sizes.

- Usage in typical week per student enrolled (e.g., Q2apct = Q2a/Q1)
- Materials checked out per student enrolled (e.g., Q3aperstu = Q3a/Q1)
- Number of pupils per librarian (e.g., if paidstaff06fte > 0, then mps2006 = q1/paidstaff06fte; see below for derivation of paidstaff04fte)

Other summary variables. Following are additional variables that were created to summarize the data contained in multiple variables:

- Nonschool hours of access
  (e.g., nonschl06 = sum(q6a_1*q6a_2,q6b_1*q6b_2,q6c,q6d)
- Total full-time staff (e.g., ftstaff06 = q9a_1+q9b_1+q9c_1)
- Total part-time staff (e.g., ptstaff06 = q9a_2+q9b_2+q9c_2)
- Total paid staff using full-time equivalents
  (e.g., paidstaff06fte = q9a_1+q9b_1+q9c_1+(q9a_2+q9b_2+q9c_2)/2)
- Mean paid staff per student
  (e.g., if paidstaff06fte > 0 then mps2006 = q1/paidstaff06fte)
- Total expenditures for materials other than those reported in question 32
  (q32oth = q33_1-q32a_3-q32b_3-q32c_3-q32d_3-q32e_3
- Expenditures as a percentage of total expenditures for materials
  (e.g., q32a_3pct = q32a_3/q33_)
- Electronic services networked to locations outside the library (e.g., if q27a_3 = 1 or q27a_4 = 1 then q27a_34 = 1; else if q27a_3 ge 0 and q27a_4 ge 0 then q27a_34 = 2;)

- Number of programs or services that were added or expanded in 2005–06 (for each library, the count of the number of items from q15a through q15n that are equal to either 1 or 2)

Analytic Techniques

Some of the survey data suggest that the grantees may have been relatively disadvantaged when compared with the larger pool of eligible schools. It is possible that even if the grants had a positive influence, the grants may have helped only to compensate for these earlier disadvantages, and the grantees may not necessarily compare favorably with the nongrantees even after receiving the grants. For this reason, when possible, this analysis focuses especially on changes from 2004–05 to 2005–06 rather than on straight comparisons based on 2005–06 alone. This approach provides a way of adjusting for possible differences in starting points and, thus, provides a more accurate indication of how the schools and libraries changed. When statistics for 2004–05 are not available, however, then comparisons are limited to a single year, and the statistics may tend to understate the changes that resulted from receiving the grants.

Most of the statistics in this report are percentages or means, along with a few statistics that are based on regression analysis. Regression analysis is most useful when one wishes to simultaneously allow for the influence of multiple variables; for example, student test scores have been shown to be related to many factors, and an analysis of the association of the grants with test scores would especially require a multivariate approach such as regression analysis. Conceivably, if one has a well-developed statistical model, multivariate regression analysis could be used to adjust for the differences between grantees and nongrantees, which would lessen the need for having multiple years of data. For example, if only data for 2005–06 are available, and if grantees and nongrantees appear to have similar results, then regression analysis might be used to test whether the grantees had better results than otherwise might be expected. Regression analysis can also be helpful when one desires to make a specific prediction (e.g., that an increase in expenditures of x amount will result in a change of y percent) rather than determine only whether two variables are correlated.

Regardless of the statistical approach being used, all statements of comparison in this report have been checked for statistical significance to help assure that the differences are not likely to be the result of chance variations in the statistical sample. The statistics have been rounded, generally to the closest integer. An estimate of 0 percent may appear either if no respondents gave the indicated answer or if the percentage of such respondents was less than 0.5 percent.

The appendix tables often include a line for "total" that includes both grantees and nongrantees. However, the weighted number of nongrantees was much larger than the number of grantees (16,076 versus 628), so the estimates in those lines are largely identical to those for nongrantees.

Variance Estimation

Statistical significance is used to measure the probability that an observed relationship could have occurred by chance because the use of statistical sampling creates some possibility that the relationships observed in the sample may be attributed to peculiarities in the sample that might not appear if the full universe of public schools were included in the survey. The fact that a relationship is found to be statistically significant does not necessarily mean that the relationship is important; the larger the size of the sample, the less likely the survey is to differ from a census of all schools, regardless of the importance of the relationship that is observed. For this reason, this report is generally limited to differences of at least 10 percentage points as a way of limiting the discussion to those differences that are most important (in terms of the size of the differences found). Similarly, the failure to find a statistically significant relationship does not necessarily mean that two variables are not related in some important way. It means

that there is at least a 0.05 probability that the result could have occurred by chance, not that it did occur by chance. Of course, it is also possible that other ways of looking at the variables (e.g., by also incorporating different variables into the analysis) might have produced statistically significant results.

The standard error is a measure of the variability of estimates because of sampling. It indicates the variability of a sample estimate that would be obtained from all possible samples of a given design and size. Standard errors are used as a measure of the precision expected from a particular sample. If all possible samples were surveyed under similar conditions, then intervals of 1.96 standard errors below to 1.96 standard errors above a particular statistic would include the true population parameter being estimated in about 95 percent of the samples. This parameter is a 95 percent confidence interval. For example, the estimated percentage of grantees reporting that their school library staff received professional development on school libraries during the 2005–06 school year was 78.99 percent, and the estimated standard error is 0.982 percent. The 95 percent confidence interval for the statistic extends from [78.99-(0.982 times 1.96)] to [78.99+ (0.982 times 1.96)] or from 77.07percent to 80.91 percent.

Because the samples of grantees and nongrantees were stratified samples, standard variance estimates that assume a simple random sample are not appropriate. Estimates of standard errors for this report were computed using a technique known as a jackknife replication method. All specific statements of comparison made in this report have been tested for statistical significance, and they are significant at the 95 percent confidence level or better (Exhibit B-2). In addition, Bonferroni adjustments were made to control for multiple comparisons where appropriate. Bonferroni adjustments correct for the fact that a number of comparisons (*g*) are being made simultaneously. The adjustment is made by dividing the 0.05 significance level by *g* comparisons, effectively increasing the critical value necessary for a difference to be statistically different. As a result of this adjustment, comparisons that would have been significant with an unadjusted critical *t* value of 1.96 may not be significant with the Bonferroni-adjusted critical *t* value. For example, the Bonferroni-adjusted critical *t* value for comparisons between any three of the four categories of urbanicity is 2.65 rather than 1.96. Consequently, there must be a larger difference between the estimates being compared for there to be a statistically significant difference when the Bonferroni adjustment is applied than when it is not.

Exhibit B-2
Selected Standard Errors for School Survey Statistics

Questionnaire Item and Grantee Status	Estimate	Standard Error
Grantees		
Mean library usage per week per student enrolled, spring 2006	1.438	0.0220
Mean number of materials checked out per student enrolled, spring 2006	2.163	0.0602
Mean number of nonschool hours of access, spring 2005	3.564	0.0636
Q16. Staff received professional development on school libraries (percentage)	78.994	0.9821
Q19a. Overall reading/English collection in spring 2006 was excellent (percentage)	33.478	1.0353
Q10. Worked monthly with principal and/or teachers on curriculum issues (percentage)	42.257	1.2388
Nongrantees		
Mean library usage per week per student enrolled, spring 2006	1.175	0.1156
Mean number of materials checked out per student enrolled, spring 2006	1.875	0.2194
Mean number of nonschool hours of access, spring 2006	6.730	0.3536
Q16. Staff received professional development on school libraries (percentage)	71.777	2.8603
Q19a. Overall reading/English collection in spring 2006 was excellent (percentage)	23.694	2.6295
Q10. Worked monthly with principal and/or teachers on curriculum issues (percentage)	29.349	2.6843

APPENDIX C

SCHOOL LIBRARY QUESTIONNAIRE

U.S. DEPARTMENT OF EDUCATION OFFICE OF THE UNDER SECRETARY WASHINGTON, D.C. 20202 **IMPROVING LITERACY THROUGH SCHOOL LIBRARIES** **SCHOOL LIBRARY MEDIA CENTER SURVEY**	O.M.B. No.: 1875–0230 EXP. DATE: 09/30/2009

This questionnaire is designed to be completed by the person who is most knowledgeable about the school library media center. It is designed to obtain information about individual school library media centers rather than school systems. Please respond only for your individual school. If your school does not have a library media center, please call REDA International, Inc. at 1-800-646-7332.

RETURN COMPLETED FORM TO:	IF YOU HAVE ANY QUESTIONS CALL:
REDA International, Inc. School Library Media Center Survey 11141 Georgia Avenue Suite 517 Wheaton, MD 20902	1–800–929-7332 OR E-MAIL: adjangali@redainternational.com

LIBRARY ORGANIZATION, USAGE, AND STAFFING

For this survey, a library media center (LMC) is defined as an organized collection of printed and/or audiovisual and/or computer resources that (a) is administered as a unit, (b) is located in a designated place or places, and (c) makes resources and services available to students, teachers, and administrators. It is this definition, not the name, that is important; your school might call this a library, media center, resource center, information center, instructional materials center, learning resource center, or some other name.

1. Around the first of April 2006, what was the total number of students enrolled in this school in grades K-12 and comparable ungraded levels? *(DO NOT include prekindergarten, postsecondary, or adult education students.)*

   _____ students

2. During a typical full week of school, approximately how many students used the school library media center (LMC) in spring 2006 and spring 2005? *(Both individual and group visits should be counted. If multiple visits by one person, count each visit. Estimates may be used.)*

   a. In spring 2006: _____ students

   b. In spring 2005: _____ students

   c. How accurate are the above statistics? *(Circle one response.)*

Very accurate/we regularly collect data on library visits or made special counts for one or more days.	1
Estimate is within 5 percent of the correct answer.	2
Estimate may be off by more than 5 percent.....	3

3. During a typical full week of school, what was the total number of books and other materials checked out from the LMC in spring 2006 and spring 2005?

   a. In spring 2006: _____ books and other materials

   b. In spring 2005: _____ books and other materials

4. During a typical full week of school, what was the total number of hours that your school's library media center was open in spring 2006 and spring 2005? *(Please include the time that your library was open during nonschool hours, including weekends. Please round your answer to the closest half hour.)*

   a. In spring 2006: _____ Hours per week

   b. In spring 2005: _____ Hours per week

5. Did this school provide students with access to the LMC during nonschool hours in spring 2006 and/or spring 2005? *(Circle one response.)*

Yes, in both years	1
Yes, in spring 2006 only	2
Yes, in spring 2005 only	3
No, not in either year	4 SKIP TO QUESTION 8

6. How many hours per day was your school library media center open during nonschool hours during spring 2006 and spring 2005? *(Please round your answer to the closest half hour. Enter 0 if your school was not open for a particular time period. If your school library media center was open before or after school, enter the number of days per week it was open for extended hours.)*

	Spring 2006	Spring 2005
a. Before school	_____Hours per day _____ days per week	_____Hours per day _____ days per week
b. After school	_____Hours per day _____ days per week	_____Hours per day _____ days per week
c. Saturday	_____Hours	_____Hours
d. Sunday	_____Hours	_____Hours

7. How did your school library use the extended hours during the 2005–06 school year? *(Circle one response on <u>each</u> line.)*

	Yes	No
a. Specific programs, such as offering tutorials on search techniques	1	2
b. It was open to loan books	1	2
c. Book clubs	1	2
d. Other *(please specify)*_____	1	2

8. How many days was your school library media center open during summer vacation in 2006 and 2005?

a. In summer 2006: _____ Days

b. In summer 2005: _____ Days

9. For each of the categories listed below, please indicate the number of persons working full time and the number working part time in the library media center in spring 2006 and spring 2005. Please include only staff working full time in this LMC. Staff working less than full time in this LMC should be counted as part time, even if employed full time by the school system. **Please report the number of people (not full-time equivalent) in each category, counting each person only once.** (*If none, enter 0.*)

	Spring 2006 (Number of staff)		Spring 2005 (Number of staff)	
	Full time	**Part time**	**Full time**	**Part time**
a. State-certified library media specialists (LMS)	_____	_____	_____	_____
b. Professional staff not certified as LMS	_____	_____	_____	_____
c. Other paid employees, such as clerical staff, aides	_____	_____	_____	_____
d. Parent volunteers	_____	_____	_____	_____
e. Other adult volunteers	_____	_____	_____	_____
f. Total	_____	_____	_____	_____

PROGRAMS AND SERVICES

10. Please indicate how frequently the following services were provided by staff in your school library media center during the 2005–06 school year. *(Circle one response on each line.)*

	Frequency				
	Daily	**Weekly**	**Monthly**	**Never**	**Not applicable**
a. Provide reference assistance to:					
1. students	1	2	3	4	5
2. teachers	1	2	3	4	5
3. administrators	1	2	3	4	5
b. Help students, teachers, and administrators find and use relevant information sources outside the school	1	2	3	4	5

	Monthly	**Quarterly**	**Annually**	**Never**	**Not applicable**
c. Assist teachers in designing, implementing, and evaluating research projects for students ..	1	2	3	4	5
d. Work with the principal and/or teachers on curriculum issues	1	2	3	4	5
e. Participate in grade-level, department, or team meetings	1	2	3	4	5
f. Coordinate textbook selection, ordering, and distribution program in school	1	2	3	4	5
g. Coordinate training programs about integrating educational technology into the curriculum for teachers and other staff	1	2	3	4	5

11. During the 2005–06 school year, how frequently did library staff work with classroom teachers in each of the following curricular areas? *(Circle one response on <u>each</u> line.)*

	Frequency					
	Weekly	**Monthly**	**Quarterly**	**Annually**	**Never**	**Not applicable**
a. Reading/language arts	1	2	3	4	5	6
b. English	1	2	3	4	5	6
c. Mathematics	1	2	3	4	5	6
d. Science	1	2	3	4	5	6
e. Social studies	1	2	3	4	5	6

12. During the 2005–06 school year, how frequently did the LMC staff provide the following services to classroom teachers in the area of reading or English?*(Circle one response on <u>each</u> line.)*

	Frequency					
	Weekly	**Monthly**	**Quarterly**	**Annually**	**Never**	**Not applicable**
a. Work with teachers in selecting and evaluating library media resources in reading or English	1	2	3	4	5	6
b. Work with teachers in curriculum development in reading/English	1	2	3	4	5	6
c. Collaboratively <u>teach</u> reading/English curriculum units with classroom teachers	1	2	3	4	5	6
d. Collaboratively evaluate reading/English curriculum units with classroom teachers	1	2	3	4	5	6

13. How was instruction in information skills provided to students in school year 2005–06? *(Circle one response on <u>each</u> line.)*

	Yes	**No**
a. In an information skills course	1	2
b. Integrated into other curriculum areas	1	2

14. Who provided the instruction in information skills to students in school year 2005–06? *(Circle one response on <u>each</u> line.)*

	Yes	**No**
a. Library media specialist	1	2
b. Classroom teachers	1	2
c. Other *(please specify)* _____	1	2

15. Which of the following services and programs were new to your library in 2005–06 and which ones were expanded in 2005–06 compared to 2004–05? (*Circle one response on <u>each</u> line.*)

	New in 2005–06	Expanded in 2005–06	No change	Decreased or eliminated in 2005–06	Not performed in either year
a. Assist teachers in designing, implementing, and evaluating research projects for students	1	2	3	4	5
b. Work with the principal and/or teachers on curriculum issues	1	2	3	4	5
c. Participate in grade-level, department, or team meetings	1	2	3	4	5
d. Coordinate textbook selection, ordering, and distribution program in school	1	2	3	4	5
e. Coordinate training programs about integrating educational technology into the curriculum for teachers and other staff	1	2	3	4	5
f. Work with teachers in selecting and evaluating library media resources in reading or English	1	2	3	4	5
g. Work with teachers in curriculum development in reading/English	1	2	3	4	5
h. Collaboratively <u>teach</u> reading/English curriculum units with classroom teachers	1	2	3	4	5
i. Collaboratively evaluate reading/English curriculum units with classroom teachers	1	2	3	4	5
j. Provide instruction in information skills	1	2	3	4	5
k. Provide family literacy nights	1	2	3	4	5
l. Provide junior scholars after-school programs	1	2	3	4	5
m. Provide after-school program with a library orientation	1	2	3	4	5
n. Provide books clubs	1	2	3	4	5

16. To what extent, if any, is each of the following a barrier to your library's ability to provide services during nonschool hours during the school year? *(Circle one response on <u>each</u> line.)*

	No barrier	Small barrier	Moderate barrier	Major barrier
a. Availability of library staff	1	2	3	4
b. Transportation for students	1	2	3	4
c. Transportation for parents to participate in family programs	1	2	3	4
d. Availability of parents to participate in family programs	1	2	3	4
e. Safety concerns	1	2	3	4

PROFESSIONAL DEVELOPMENT

17. Did any staff in your school receive professional development on topics related to school libraries during the 2005–06 or 2004–05 school years?

Yes..... 1

No ..... 2 SKIP TO QUESTION 20

18. How many of the following types of staff received professional development related to school libraries during the 2005–06 and 2004–05 school years?

	Number of staff	
	2005–06	**2004–05**
a. Principal.....	_____	_____
b. School library media specialist(s).....	_____	_____
c. Reading specialist(s).....	_____	_____
d. Classroom teacher(s)	_____	_____
e. Other paid employee(s), such as paraprofessional(s), clerical(s), or aide(s).....	_____	_____
f. Other (*please specify*) _____	_____	_____

19. Were the following topics related to school libraries covered in the professional development activities? *(Circle one response on <u>each</u> line.)*

	2005–06		2004–05	
	Yes	**No**	**Yes**	**No**
a. How to select books and materials that align with the curriculum.....	1	2	1	2
b. How to integrate educational technology into the curriculum.....	1	2	1	2
c. Methods in which teachers and school library media specialists can collaborate	1	2	1	2
d. Teaching children to read	1	2	1	2
e. Motivating students to read	1	2	1	2
f. Providing instruction in information skills to students.....	1	2	1	2
g. Converting to an electronic catalog or circulation system.	1	2	1	2
h. Learning how to use online resources	1	2	1	2
i. Other (*please specify*) _____	1	2	1	2
j. Other (*please specify*) _____	1	2	1	2

MATERIALS AND RESOURCES

20. In your opinion, how adequate were the LMC's holdings in supporting the instructional program in reading/English in spring 2006 and in spring 2005? *(Circle one response for spring 2006 and one response for spring 2005 on each line.)*

1 = Inadequate – few, poor quality, or outdated materials available to support the instructional program

2 = Adequate – library has enough good quality current materials to support the instructional program

3 = Excellent – library has a very good to excellent selection of high quality current materials to support the instructional program

	Spring 2006			Spring 2005		
	Inadequate	**Adequate**	**Excellent**	**Inadequate**	**Adequate**	**Excellent**
a. Overall reading/English collection	1	2	3	1	2	3
b. Print materials	1	2	3	1	2	3
c. Video and other audiovisual materials	1	2	3	1	2	3
d. Computer software	1	2	3	1	2	3

21. For each of the following areas, please indicate the adequacy of the LMC's resources in meeting the school's needs in that area in spring 2006 and spring 2005. *(Circle one response on each line.)*

	Spring 2006			
	Inadequate	**Adequate**	**Excellent**	**Not applicable**
a. English as a second language	1	2	3	4
b. Multicultural materials	1	2	3	4
c. High interest-low vocabulary	1	2	3	4
d. Picture books/easy readers	1	2	3	4
e. Proprietary online resources/subscriptions	1	2	3	4

	Spring 2005			
	Inadequate	**Adequate**	**Excellent**	**Not applicable**
f. English as a second language	1	2	3	4
g. Multicultural materials	1	2	3	4
h. High interest-low vocabulary	1	2	3	4
i. Picture books/easy readers	1	2	3	4
j. Proprietary online resources/subscriptions	1	2	3	4

22. What is the copyright year of the LMC's most recent world atlas? (*Please write one answer for whatever format, e.g., print, CD-ROM, online, is most recent.)* _____

23. What is the copyright year of this LMC's most recent general knowledge encyclopedia? (*Please write one answer for whatever format, e.g., print, CD-ROM, online, is most recent.)* _____

24. What are the average copyright years of your fiction and nonfiction collections? *(If you are not able to make precise calculations, please provide your best estimates. Please provide a single year for each collection and not a range of years.)*

a. Fiction collection..... _____

b. Nonfiction collection, including reference materials ..... _____

c. How accurate are your responses to 23a and 23b above? *(Circle one response.)*

Highly accurate/comes directly from recent search of records or computer database..... 1

Estimate should be within 2 years of correct date..... 2

Estimate should be within 5 years of correct date..... 3

Estimate could easily be off by more than 5 years..... 4

25. On what basis did you select the books you added to your collection during the 2005–06 school year? *(Circle one response on <u>each</u> line.)*

	Not important	Somewhat important	Very important	Not used/ not applicable
a. The books had won awards.....	1	2	3	4
b. Lost books were replaced.....	1	2	3	4
c. Books were selected in consultation with the classroom teachers	1	2	3	4
d. Books were selected in consultation with the reading specialist.....	1	2	3	4
e. The focus was on categories that become quickly outdated.....	1	2	3	4
f. Books were selected to strengthen particular subject areas	1	2	3	4
g. Other *(please specify)*_____	1	2	3	4

26. Is the following equipment located within this library media center? *(Circle one response on <u>each</u> line.)*

	Yes	No
a. Automated circulation system.....	1	2
b. Video laser disc or DVD.....	1	2
c. Technology to assist patrons with disabilities (e.g., TDD)	1	2

27. Are the following electronic services available in the library media center either through stand-alone computers (not linked to a network), library local area network (LAN), building-wide LAN, or district wide area network (WAN)? *(Circle all that apply on <u>each</u> line.)*

	Stand-alone computer (non-networked)	Library LAN	Building-wide LAN	District WAN	Not available
a. Automated catalogs	1	2	3	4	5
b. CD-ROMS	1	2	3	4	5
c. Internet access (e.g., Internet Explorer, Netscape)	1	2	3	4	5
d. E-mail	1	2	3	4	5
e. Electronic full-text periodicals	1	2	3	4	5

28. Please indicate whether or not your LMC has computer access (by the Internet or other networks) to the catalog of the following? *(Circle one response on <u>each</u> line.)*

	Yes	No
a. Public library	1	2
b. Community college library	1	2
c. College or university library (excluding community college)	1	2
d. Other school libraries in your district	1	2
e. School libraries outside your district	1	2

29. During the last 12 months, did your school participate in <u>any</u> cooperative activity with a local public library? Examples of cooperative activities include borrowing books for the school library, informing the public library of students' upcoming homework needs, sharing online resources, and planning for a summer reading program.

Yes	1	
No	2	SKIP TO QUESTION 32
Not applicable, public library has bookmobile service only	3	SKIP TO QUESTION 32
Not applicable, there is no local public library or bookmobile service	4	SKIP TO QUESTION 32

30. During the last 12 months, how often did your school participate in the following cooperative activities with one or more local public libraries? *(Circle one on <u>each</u> line.)*

	Frequency					
	Weekly	**Monthly**	**Quarterly**	**Annually**	**Never**	**Not applicable**
a. Borrowing books or other materials for the school library....	1	2	3	4	5	6
b. Borrowing books or other materials for classroom teachers .	1	2	3	4	5	6
c. Informing the public library of curriculum or upcoming homework needs.....	1	2	3	4	5	6
d. Coordinating regarding student research projects, including science fairs.....	1	2	3	4	5	6
e. Participating in automation projects such as shared online resources, searches, etc.	1	2	3	4	5	6

31. Did your school work with the public library in planning for a summer reading program conducted for school-age children last summer?

Yes 1

No 2

HOLDINGS AND EXPENDITURES

32. During the 2005–06 school year, what were the total holdings, additions, and expenditures for the library media center for each of the following kinds of materials? *(Any subscriptions that were renewed in 2005–06 should be included in Column 2. If you are not able to get an exact count, please provide your best <u>estimate</u>.)*

	(1) Total number held at the END of the 2005–06 school year	**(2) Number ACQUIRED DURING the 2005–06 school year**	**(3) Report the amount spent for rental and purchase during the 2005–06 school year. Round to the nearest dollar.**
a. Books (count all copies).....	_____	_____	$_____
b. Video materials (tape, DVD or laser disc titles. Do not report duplicates).....	_____	_____	$_____
c. CD-ROM titles (do not report duplicates).	_____	_____	$_____
d. Current print or microform periodical subscriptions (do not report duplicates)	_____	_____	$_____
e. Electronic subscriptions	_____	_____	$_____

For Questions 33 through 35, if you are not able to get an exact amount, please provide your best estimate.

33. What was the TOTAL expenditure for all materials for this library media center during the 2005–06 and 2004–05 school years? *(This total should include all the types of materials listed above in Question 32 as well as other materials such as globes, posters, and pictures. Supplies should not be included.)*

    a. Total expenditure for materials in 2005–06 ..... $_____

    b. Total expenditure for materials in 2004–05 ..... $_____

34. What was the total expenditure for computer hardware, other than communications equipment, for this library media center during the 2005–06 and 2004–05 school years? (*Include expenditures for purchase, rental, and/or lease.*)

    a. Total expenditure for computer hardware in 2005–06 ..... $_____

    b. Total expenditure for computer hardware in 2004–05 ..... $_____

35. What was the total expenditure for audiovisual equipment for this library media center during the 2005–06 and 2004–05 school years? (*Include expenditures for purchase, rental, and/or lease.*)

    a. Total expenditure for audiovisual equipment in 2005–06..... $_____

    b. Total expenditure for audiovisual equipment in 2004–05..... $_____

SCHOOL INFORMATION

36. What grades are offered in your school? (*Circle all grades that apply or if your school is ungraded, specify ages of children enrolled.)*

Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	Ungraded, specify age groups:_____

37. Does your school have a computer lab?

    Yes 1

    No ..... 2 SKIP TO QUESTION 39

38. Is the computer lab considered part of the school library? *(The computer lab may be physically separate from the rest of the school library.)*

    Yes 1

    No 2

39. Within the past 2 years, has your school conducted a needs assessment of school LMC programs and services? *(Circle one response on each line.)*

    Yes 1

    No ..... 2 SKIP TO QUESTION 41

40. For each of the categories listed below, please indicate in column (1) whether or not that need was identified in the needs assessment; and in column (2) whether or not changes were made in that area as a result of the needs assessment. *(Circle yes or no in <u>each</u> of the two columns for <u>each</u> need.)*

	(1) Need identified		(2) Changes made as a result	
	Yes	**No**	**Yes**	**No**
a. More library staff	1	2	1	2
b. More materials in languages other than English	1	2	1	2
c. More up-to-date materials	1	2	1	2
d. More time for planning with teachers	1	2	1	2
e. More space	1	2	1	2
f. More computer equipment	1	2	1	2
g. Rewiring the LMC	1	2	1	2
h. Flexible scheduling	1	2	1	2
i. More staff training	1	2	1	2
j. More hours in which the LMC is open	1	2	1	2
k. Other *(please specify)*_____	1	2	1	2

41. Has your school ever participated in the Improving Literacy Through School Libraries Program?

Yes 1

No ..... 2 SKIP TO QUESTION 43

42. In what school years has your school participated in the Improving Literacy Through School Libraries Program? *(Circle one response on <u>each</u> line.)*

	Yes	**No**
a. 2002–03	1	2
b. 2003–04	1	2
c. 2004–05	1	2
d. 2005–06	1	2
e. 2006–07	1	2

43. Did your school participate in any of the following federal education programs during the 2005–06 school year? *(Circle one response on <u>each</u> line.)*

	Yes	**No**
a. Reading First	1	2
b. Early Reading First	1	2
c. Comprehensive School Reform (CSR)	1	2
d. Title I	1	2
e. 21st Century Community Learning Centers	1	2
f. Other *(please specify)*_____	1	2

44. How much did your school library receive from the following outside sources of funding during the 2005–06 school year? *(Write one response on <u>each</u> line If you did not receive any funds from a listed source, write $0. Do not include in-kind contributions such as donations of books.)*

		Amount of funding
a.	State allotment	$_____
b.	Corporate donors, such as Partners in Education	$_____
c.	Not-for-profit group *(please specify)*_____	$_____
d.	Other *(please specify)*_____	$_____

45. Of the students taking the state-mandated proficiency tests at your school during the 2005–06 school year, what percentage were at your school at the start of the school year? *(Circle one response.)*

a.	Less than 20 percent	1
b.	21 to 40 percent	2
c.	41 to 60 percent	3
d.	61 to 80 percent	4
e.	81 percent or more	5

46. How many students enrolled in grades K–12 in your school in April 2006 had IEPs (individualized education programs) for special education?

_____ students

RESPONDENT INFORMATION

47. Which one of the following categories best describes your position at this school? *(Circle one response.)*

State-certified library media specialist (LMS)	1
Professional library staff member <u>no</u>t certified as LMS	2
Principal	3
Teacher	4
Other paid employee, such as paraprofessional, clerical or aide	5
Volunteer	6
Other *(please specify)* _____	7

Is there anything else we should know about your school library media center?

THANK YOU!

APPENDIX D

DISTRICT PERFORMANCE REPORT

Improving Literacy Through School Libraries

OMB No. 1810-0667
Exp. Date:11/30/2007

Cover Sheet/Final Grant Report

See Block 5 on the Grant Award Notification.

1) PR/Award No

S364A030_____

District Common Core Data Number

http://nces.ed.gov/ccd/districtsearch

2) Project Title

Enter the same title as on the approved application.

3) Recipient Information

Repeat from Block 1 on Grant Award Notification. If address has changed, provide the current address.

Name:

Address

City: State: Zip+4:

4) Contact Person

Provide the name of the project director or the contact person who is most familiar with the content of the performance report.

Name:

Title:

Telephone Number:

Fax Number:

E-mail Address:

5) Reporting Period

Include the interval for the information requested in the performance reporting period.

- ____/____/____ (mm/dd/yy)

6) Total Expenditures

Report actual budget expenditures for the above performance reporting period.

Federal $	Non-Federal $ (if applicable)

Provide the District's indirect cost rate

Negotiated Indirect Cost Rate: _____%

Authorized Representative:

To the best of my knowledge and belief, all data in this performance report are true and correct.

Name (typed or printed):	Title:
Signature:	Date:

IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM
FINAL GRANT REPORT

Part I. Please provide the following information:

A. Cover Sheet – see attached. Complete the cover sheet according to the instructions provided.

- ED Form 524-B

B. Executive Summary

- Provide a one- to two-page Executive Summary describing the project and highlighting key accomplishments.

C. Project Performance

- Report on how you met each one of your project objectives, i.e., areas proposed in Use of Funds section and/or other applicable sections of your original application.

D. Project Evaluation

- Provide a copy of your program evaluation report.

Part II. Please answer the following questions:

SCHOOLS SERVED AND EXTENDED HOURS

1. On what basis were schools selected for participation in the Improving Literacy through School Libraries Program? (*Circle one response on each line*.)
If your district has only one school, please check this box and skip to Question 2.

	Yes	**No**
a. Percentage of all schools in the district were selected	1	2
b. Percentage of all schools serving a particular grade level were served *(please specify level)* _____	1	2
c. The neediest schools based on poverty level	1	2
d. The neediest schools based on lack of library resources	1	2
e. The neediest schools based on those identified for improvement under *No Child Left Behind*	1	2
f. Other (*please specify*) _____	1	2

2. Who participated in the decision regarding which schools to serve? (*Circle one response on each line*.)

	Yes	**No**
a. District school library coordinator	1	2
b. District reading curriculum coordinator	1	2
c. Superintendent(s)	1	2
d. Principal(s)	1	2
e. School library media specialist(s)	1	2
f. Reading specialist(s)	1	2
g. Classroom teacher(s)	1	2
h. Parent(s)	1	2
i. Other *(please specify)* _____	1	2

3. How many schools were served under the grant? _____ Schools

4. In the table below, please list each school served under the grant in column 1. The grade levels served under the grant in each school should be entered in column 2; and the number of students served under the grant in each school should be entered in column 3. (While most schools planned to serve all students under the grant, some schools planned to target only certain grades. When only certain grades participated in the grant, only those grades and the total number of students in the targeted grades should be entered in the table.) In column 4, please enter the total number of hours per week that the library in each school was open during nonschool hours (i.e., extended hours) during the school year of the grant. Please include the hours that the school was open before and after school and on weekends. If the library was not open during nonschool hours, please enter 0. In column 5, please enter the total number of hours per week that the library was open during nonschool hours during the school year prior to the grant.

NOTE: Please make as many copies of this page as needed to cover all schools served under the grant.

School served (1)	**Grades served (2)**	**Number of students served (3)**	**Total number of extended hours per week**	
			Year of the grant (4)	**Year prior to the grant (5)**

5. If extended hours were not provided, please check this box and skip to question 7.

During the grant year, how many schools extended hours at each of the following times?

		Number of schools extending hours
a.	Before school	_____
b.	After school	_____
c.	Saturday	_____
d.	Sunday	_____
e.	Summer	_____

6. During the grant year, how many schools staffed the library with the following kinds of personnel during extended hours?

		Number of schools
a.	School library media specialists	_____
b.	Library aides	_____
c.	Classroom teachers	_____
d.	Volunteers	_____
e.	***Other (*****please specify*****)*** **_____**	_____

SCHOOL LIBRARY PURCHASES

7. In the table below, please list each school and its CCD# served under the grant in column 1. For each school served, please enter the total number of books purchased during the grant year in column 2, and the total number of books purchased during the school year prior to the grant in column 3. For each school, please provide the number of titles of other media resources (e.g., tapes, DVDs, laser discs, and CD-ROMs) purchased during the grant year in column 4, and the number of titles of other media resources purchased during the year prior to the grant in column 5. For each school, please provide the number of computers purchased for the library during the grant year in column 6 and the number of computers purchased during the year prior to the grant in column 7.

NOTE: Please make as many copies of this page as needed to cover all schools served under the grant.

School served/ CommonCoreDataNumber(1) http://nces.ed.gov/ccd/schoolsearch	**Number of books purchased**		**Number of titles of other media resources purchased**		**Number of computers purchased for the library**	
	Year of the grant (2)	**Year prior to the grant (3)**	**Year of the grant (4)**	**Year prior to the grant (5)**	**Year of the grant (6)**	**Year prior to the grant (7)**

8. Which of the following areas, if any, did your district target for buying additional books with grant funds?

	Yes	*No*
a. Fiction	1	2
b. Updating of science collection	1	2
c. Updating collection on history and/or biography	1	2
d. Filling holes in particular areas (*please specify*) _____	1	2
e. General upgrading of entire collection	1	2
f. Decisions on book purchases were made by schools, not the district	1	2
g. Other areas targeted by the district *(please specify)*_____	1	2

PROFESSIONAL DEVELOPMENT

9. Was any professional development provided by the district under the grant?

Yes 1
No..... 2 SKIP TO QUESTION 12

10. How many of the following types of staff received professional development by the district under the grant?

	Number of staff
a. District school library coordinator	_____
b. District reading curriculum coordinator	_____
c. Principal(s)	_____
d. School library media specialist(s)	_____
e. Reading specialist(s)	_____
f. Classroom teacher(s)	_____
g. Paraprofessionals/instructional assistant(s)	_____
h. Other (*please specify*) _____	_____

11. How many times per year were the following topics covered in the professional development activities? *(Circle one response on each line.)*

	Times per year			
	7 or more	**3-6**	**1-2**	**Not covered**
a. How to select books and materials that align with the curriculum	1	2	3	4
b. How to integrate educational technology into the curriculum	1	2	3	4
c. Methods in which teachers and school library media specialists can collaborate	1	2	3	4
d. Teaching children to read	1	2	3	4
e. Other (*please specify*) _____	1	2	3	4
f. Other (*please specify*) _____	1	2	3	4
g. Other (*please specify*) _____	1	2	3	4

EXPENDITURES

12. How much of your grant money was ultimately spent in each of the following categories:

a. Acquisition of advanced technology	$ _____
b. Acquisition of all other resources, including books	$ _____
c. Linkage to the Internet and other resource-sharing networks	$ _____
d. Professional development	$ _____
e. Operating the school library media center during nonschool hours	$ _____
f. Other (*please explain*) _____	$ _____

13. Who participated in the decision regarding how the money should be spent? *(Circle one response on each line.)*

	Yes	**No**
a. District school library coordinator	1	2
b. District reading curriculum coordinator	1	2
c. Superintendent(s)	1	2
d. Principal(s)	1	2
e. School library media specialist(s)	1	2
f. Reading specialist(s)	1	2
g. Classroom teacher(s)	1	2
h. Parent(s)	1	2
i. Other (*please specify*) _____	1	2

14. On what basis was the grant money distributed to the schools in your district? (*Circle one response*.)

Each participating school received the same amount	1
Each participating school received an amount based on the number of students in the school	2
All purchasing was done at the district level	3
Other (*please specify*) _____	4

STUDENT ACHIEVEMENT DATA IN READING/LANGUAGE ARTS

15. For each school served under the grant, please provide your district name, the school name and CCD #, the name of the assessment, and in the table below, indicate each grade level or grade span that was tested in reading/language arts. If you did not test a particular grade level in a particular year, write NA for the numbers who were assessed for that year and grade. For both the year prior to the grant and the year of the grant, please provide the number of students who were enrolled, assessed, and whose scores showed they met or exceeded the proficient level of academic achievement for the assessment used. For the higher grades, if you do not specifically test in reading/language arts, please provide the test results for English instead. NOTE: Please copy these pages as needed, and fill out one page for each school served under the grant.

District Name: _____ School Name/CCD#:_____

Name of Achievement Test:_____

Grade level	Number of Students					
	In the year **prior** to the grant who were:			In the year **of the grant** who were:		
	Enrolled	Assessed	Met or Exceeds Proficient	Enrolled	Assessed	Met or Exceeds Proficient
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						

APPENDIX E

CASE STUDY PROTOCOLS

School District: _____

Program Administrator: _____

Title of Program Administrator: _____

Site Visitors: _____

Date:

EVALUATION OF THE IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM

Program Administrator at the District Level

My name is _____ and this is _____. We are visiting your school district as a part of the Evaluation of the Improving Literacy Through School Libraries Program (LSL), which is a study required under the No Child Left Behind legislation. We are examining promising practices related to the LSL Program that might be adopted by other school districts. We want to obtain details about the program in your district, how it has changed over time, problems you ran into during implementation and how they were resolved, and suggestions for districts that are considering adopting the program. Districts for our case studies/site visits were selected through several mechanisms, including nominations by experts in the field of school libraries, results of a previous survey of schools participating in the program, and the review of materials that districts submitted to the U.S. Department of Education.

Responses to this data collection will be used only for statistical purposes. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific individual, school, or school district. We will not provide information that identifies you or your school district to anyone outside the study team, except as required by law.

Do you have any questions before we begin?

1. What services are provided as part of the targeted program (e.g., working with classroom teachers to select books and other materials that are aligned with the curriculum, using collaborative teaching by librarians and teachers, providing professional development, opening the library for extended hours, providing family literacy activities)?

2. In how many schools are the services provided? At which level(s) (elementary/middle/high school) are the services provided? Why was this level selected? (If not all the schools at this level are served, ask why not.)

3. Where are the services provided (e.g., school libraries, regular classrooms)?

4. When are the services provided (e.g., during the regular school day, before school, after school, weekends, summer)?

5. Who provides the services (e.g., school librarian, classroom teachers, aides, parent volunteers, other adult volunteers) How many people for each staffing category?

6. What qualifications must program staff meet? What qualifications are preferred but not required (e.g., state-certified library media specialist, professional staff but not certified as a librarian)?

7. Were program staff given any special training prior to beginning the program? If yes, please describe.

8. What other staff development training has occurred as a part of the program? (e.g., methods of selecting books and materials that align with the curriculum, approaches for integrating educational technology into the curriculum, methods in which teachers and librarians can collaborate, motivating students to read, providing instruction in information skills to students, learning how to use online resources) Who participated?

9. Who is being served this year by your LSL program (students, teachers, parents, others)? How many are being served this year (by category)? How many were served in previous years?

10. Does the program focus on any particular subject areas? If so, which ones? Why were these subject areas selected? How are these subject areas incorporated into professional development?

11. Does the program focus on specific skills? If yes, which ones? (e.g., use of advanced technology, information retrieval, critical thinking skills)

12. Does the program involve collaboration between school librarians and other school staff? If yes, please describe.

12. What equipment is used as a part of the program? What equipment was purchased as a part of the program (e.g., computer; CD player)? How is technology used as a part of the program?

14. What resources are used as part of the program? Which of these resources were purchased as a part of the program (e.g., number of books purchased as a part of the program, serial subscriptions, video laser disc, DVDs, computer software)?

15. Did school libraries in your district become connected or increase their connection to other libraries as a part of the program? (e.g., other school libraries in your district, school libraries outside your district, public library, community college library, college or university library) If yes, please describe. (e.g., computer access via the Internet or other networks to the catalog of other libraries, inter-library loans, coordinating regarding student research projects)

16. What are the goals and objectives of the LSL program in your district?

17. Who was involved in establishing the goals and objectives?

18. How will it be determined that the goals have been met? How did you decide what criteria to use?

19. Has the program been evaluated? If yes, describe the evaluation. What were the results?

20. Is the program tied to district student test score results? If so, how?

21. Why was the program developed?

22. Was the development of the program based on a needs assessment? If yes, please describe.

23. Who was involved in the development and planning of the program? Are they still involved in the program? If yes, in what ways?

24. How has the program changed over time? Has it expanded to other branches or schools? Has the range of services been expanded?

25. What are the next steps planned for the program? What are the long range plans?

26. What problems were encountered in operating the program? How were they resolved?

27. What factors would a district need to consider in adopting this kind of program?

28. What is the estimated program cost?

29. What other library and reading programs are provided in your district (e.g., Title I, Reading First, Early Reading First)? Are these programs coordinated with the LSL program? If so, how?

30. Are the federal Comprehensive School Reform program or 21st Century Community Learning Centers program provided in your district? If yes, are these programs coordinated with the LSL program? If so, how?

31. How could the LSL program provide more assistance to districts to improve school libraries?

32. Verify extant data on the school district.

School District: _____

School:

Principal: _____

Site Visitors: _____

Date:

EVALUATION OF THE IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM

Principal

My name is _____ and this is _____. We are visiting your school as a part of the Evaluation of the Improving Literacy Through School Libraries Program (LSL), which is a study required under the No Child Left Behind legislation. We are examining promising practices related to the LSL Program that might be adopted by other school districts. We want to obtain details about the program in your district, how it has changed over time, problems you ran into during implementation and how they were resolved, and suggestions for districts that are considering adopting the program. Districts for our case studies/site visits were selected through several mechanisms, including nominations by experts in the field of school libraries, results of a previous survey of schools participating in the program, and the review of materials that districts submitted to the U.S. Department of Education.

Responses to this data collection will be used only for statistical purposes. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific individual or school. We will not provide information that identifies you or your school to anyone outside the study team, except as required by law.

Do you have any questions before we begin?

1. How have you been involved in the development of the program? How have you been involved in implementing program activities?

2. How does the program meet the needs of the school? Teachers? Students? Others?

3. Why was the program developed?

4. What resources have been provided for the program beyond those covered in the grant? (e.g., security guard at the front door of the school so the library can stay open for extended hours, scheduled meeting times for classroom teachers and the librarian, snacks for family literacy nights, finding parent volunteers to work with the program)

5. What problems were encountered in operating the program? How were they resolved?

6. What are the next steps planned for the program?

7. What recommendations would you make to a school that is considering the adoption of the program?

8. What other library, reading, or reform programs are operating in your school (e.g., Title I, Reading First, Comprehensive School Reform, 21st Century Community Learning Centers)? How are these programs coordinated with the LSL program?

9. How have the students in your school performed on reading/language arts portion of the state assessments? (For each grade served by the LSL Program, try to obtain the scores for the past 3 years.)

10. Have you had any difficulty staffing the library? If yes, please describe. How was the situation resolved? To what extent are parent volunteers involved in the school library? In what capacity are the parent volunteers involved?

11. How could the LSL program provide more assistance to schools to improve school libraries?

12. Verify extant data on the school

School District: _____

School: _____

School Librarian: _____

Site Visitors: _____

Date:

EVALUATION OF THE IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM

School Librarian

My name is _____ and this is _____. We are visiting your school as a part of the Evaluation of the Improving Literacy Through School Libraries Program (LSL), which is a study required under the No Child Left Behind legislation. We are examining promising practices related to the LSL Program that might be adopted by other school districts. We want to obtain details about the program in your district, how it has changed over time, problems you ran into during implementation and how they were resolved, and suggestions for districts that are considering adopting the program. Districts for our case studies/site visits were selected through several mechanisms, including nominations by experts in the field of school libraries, results of a previous survey of schools participating in the program, and the review of materials that districts submitted to the U.S. Department of Education.

Responses to this data collection will be used only for statistical purposes. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific individual or school. We will not provide information that identifies you or your school to anyone outside the study team, except as required by law.

Do you have any questions before we begin?

1. What services do you provide as part of the targeted program (e.g., working with classroom teachers to select books and other materials that are aligned with the curriculum, collaborative teaching by librarians and teachers, professional development, open the library for extended hours, family literacy activities)?

2. Do you focus on any particular subject areas? If so, which ones?

3. Do you focus on specific skills? If yes, which ones?

4. What percentage of your time is spent on this program?

5. Where are the services provided (e.g., school library, classrooms)?

6. When are services provided (e.g., during school hours, before school, after school, summer)?

7. Who received the services (e.g., students, classroom teachers, parents, library aides)?

8. Were you given any special training prior to beginning the program? If yes, please describe.

9. What other staff development training has occurred as a part of the program? (e.g., methods of selecting books and materials that align with the curriculum, approaches for integrating educational technology into the curriculum, methods in which teachers and librarians can collaborate, motivating students to read, providing instruction in information skills to students, learning how to use online resources) What staff were involved?

10. How do you work with classroom teachers as a part of the program?

11. Do you work with other school staff as a part of the program? Please explain.

12. Do you work with parents as a part of the program? Please explain.

13. What equipment/technology is used as part of the program (e.g., computer; CD player)? How is the equipment/technology used as a part of the program?

14. What resources are used as part of the program (e.g., number of books purchased as a part of the program, serial subscriptions, video laser disc, DVDs, computer software)? How were they selected?

15. Did your school library become connected or increase its connection to other libraries as a part of the program? (e.g., other school libraries in your district, school libraries outside your district, public library, community college library, college or university library) If yes, please describe. (e.g., computer access via the Internet or other networks to the catalog of other libraries, inter-library loans, coordinating regarding student research projects)

16. How were you involved in the development and planning of the program? What other groups were involved? In what way?

17. How do you continue to provide input into the program?

18. How has the program changed over time? Has the range of services been expanded?

19. What are the next steps planned for the program?

20. What problems were encountered in operating the program? How were they resolved?

21. What has been achieved as a result of the program? How has the program benefited students?

22. What factors would a school need to consider in adopting this kind of program?

23. What other library or reading programs are provided in your school? How are the activities of the LSL program coordinated with the activities of these other programs?

24. How could the LSL program provide more assistance to schools to improve school libraries?

25. What is your educational background (e.g., degrees held, area of degree such as library science, type of certification)?

School district: _____

School: _____

Teacher: _____

Site Visitors: _____

Date:

EVALUATION OF THE IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM

Classroom Teacher

My name is _____ and this is _____. We are visiting your school as a part of the Evaluation of the Improving Literacy Through School Libraries Program (LSL), which is a study required under the No Child Left Behind legislation. We are examining promising practices related to the LSL Program that might be adopted by other school districts. We want to obtain details about the program in your district, how it has changed over time, problems you ran into during implementation and how they were resolved, and suggestions for districts that are considering adopting the program. Districts for our case studies/site visits were selected through several mechanisms, including nominations by experts in the field of school libraries, results of a previous survey of schools participating in the program, and the review of materials that districts submitted to the U.S. Department of Education.

Responses to this data collection will be used only for statistical purposes. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific individual or school. We will not provide information that identifies you or your school to anyone outside the study team, except as required by law.

Do you have any questions before we begin?

1. What subject(s) do you teach?

2. Do you work with the school librarian to select and evaluate library resources? If so, please describe. How are the materials connected to the curriculum?

3. How often do you meet with the school librarian?

4. Do you work with the librarian in curriculum development? If so, please describe. In what subject areas do you work together?

5. Do you teach any curriculum units collaboratively with the librarian? If so, please describe. What was the subject area of the curriculum unit? What was the specific topic of the unit? What were your respective roles when teaching these units?

6. Do you work with the school librarian in selecting technology for the library (e.g., computers, DVD players)? If yes, please describe?

7. Do you work with the school librarian regarding the use of advanced technology? If yes, please describe. In what ways are classroom teachers using the technology? How are students using the technology?

8. Do you work with the librarian regarding specific skills such as information retrieval or critical thinking skills? If yes, please describe.

9. How have your students benefited from these activities? Do particular students benefit more than others?

10. Have the types of activities you have done with the librarian changed over time? If yes, how have they changed? Why have they changed?

11. Have you had any training in connection with the kinds of activities you are doing with the librarian? If yes, please explain.

12. What problems have you encountered? How were they resolved?

13. What advice would you give to another teacher who is considering becoming involved in such a program?

14. How could the LSL program provide more assistance to schools to improve school libraries?

School District: _____

School:

Site Visitors: _____

Date:

Length of Observation: _____

EVALUATION OF THE IMPROVING LITERACY THROUGH SCHOOL LIBRARIES PROGRAM

Observation Form

1. Where did the activity take place (e.g., classroom, school library)?
   - ☐ Classroom
   - ☐ School library
   - ☐ Other (*please describe*) _____
2. When did the activity take place?
   - ☐ During the school day
   - ☐ Before school
   - ☐ After school
   - ☐ During the evening
3. Who was involved in the activity? How many people in each category?
   - ☐ Librarians _____
   - ☐ Library aides _____
   - ☐ Classroom teachers _____
   - ☐ Students _____
   - ☐ Parents _____
   - ☐ Other (*please describe*) _____
4. What types of materials were used (e.g., books, DVDs, computer software)?
5. What types of equipment were used (e.g., computer, DVD player, automated circulation system)?

6. Describe the activity.

   - a. What were the adults doing (e.g., reading to students, providing instruction on searching for information on the internet)?

   -

   -

   - b. What were the students doing (e.g., selecting books and other materials for a report, talking to each other about something they had read)?

   -

   -

   - c. How were the students grouped (e.g., whole group, small groups, one-to-one instruction)?

   -

   -

   - d. Extent to which students and others were engaged in the activity?

   -

   -

7. Overall impression of the activity

APPENDIX F

CASE STUDY SUMMARIES

Site A

Site A is a rural district in the north central part of the U.S. Altogether, 35 percent of the 800 students are from families with incomes below the poverty line. The racial composition of the community is 69 percent white, 22 percent black, and 7 percent two or more races. In 2000, for residents aged 25 and older, 65 percent had earned a high school diploma or GED compared with 83 percent in the state. Most of the students have not traveled outside of their little community.

The district's three schools (elementary, middle and high) are all located on the same campus in different buildings. The elementary and middle schools were the focus of the LSL grant, and both met adequately yearly progress (AYP)[1] in the state's accountability system in 2004–05 as did the district as a whole. One school library media center serves the elementary school and a separate library serves both the junior and senior high schools. The libraries share one professional, state-certified school librarian and one paraprofessional.

Site A received an LSL grant for the 2005–06 school year. One goal of the grant was to work collaboratively with teachers and administrators to update the library collections to help support the state curriculum. In addition to involving the teachers and administrators in the needs assessment to help identify gaps in the library collection, the librarian asked the students about the kinds of books that would interest them. Consequently, according to the librarian, both the teachers and students feel they have an investment in using the library and the materials they helped select. This has contributed to helping motivate students to read.

The LSL grant enabled the schools to purchase a substantial amount of resources. In consultation with the other members of the library advisory committee, the librarian devoted a significant amount of time to research and select materials and equipment that were appropriate and of high quality. Resources on generational poverty and student learning were consulted during this process. In the year after the grant, more students and teachers were using the library.

Another program goal was to introduce flexible library scheduling and collaborative teaching. The school librarian began with two teachers to demonstrate how it works. The practice was successful in teaching specific units (e.g., how to write a research paper and biographies of famous scientists, which were both conducted with the eighth-grade science teacher, as well as regions and continents, animal kingdom, and plants, conducted with the third-grade teacher). Subsequently, two more teachers have requested that the librarian work collaboratively with them in their English classes.

Site B

Site B is a small Southern town in which 26 percent of the 3,100 students are from families with incomes below the poverty line. The community is 80 percent white and 15 percent black. All four of the district's schools participated in the LSL grant, which was received in 2005. In 2005–06, the district and all schools in the grant met AYP. In addition, the high school won an award for improvement on the statewide test.

During the grant year, the state was in the process of revising standards in English language arts, science, and social studies. Some materials purchased with LSL grant money were selected with the standards in mind. For example, a new standard involves acquiring knowledge of state authors and

[1] AYP is an individual state's measure of progress toward the goal of 100 percent of students achieving to state academic standards in at least reading/language arts and math. It sets the minimum level of proficiency that the state, its school districts and schools must achieve each year on annual tests and related academic indicators.

significant text created by them. Therefore, some biographies were purchased. Also, the primary school (grades pre-K–2) does not have textbooks for science or social studies. Under the LSL grant, the library purchased six-packs of books that cover the science and social studies standards and are used in guided reading lessons. The high school also targeted science and social as areas needing updating.

The district has two literacy coaches that were originally funded under a Reading Excellence Act grant. Each Friday, the coaches select the books that will be used in guided reading sessions in grades 1–3 in the following week. Each class receives six copies each of five books per week. With the purchase of additional materials under the LSL grant, this program was able to expand.

Also benefiting from additional LSL-funded materials was the book bag program for 400 at-risk primary and elementary students. Each student is given a set of books in a resealable plastic bag to take home and read. The books are matched to the students' reading levels. The school tries to provide a new set of books on the same day that a student returns one. Assistance with this program is provided by 18 VISTA volunteers.

More than 12,000 books, an average of four books per student, were purchased with grant money. Two paraprofessionals were hired for the year to help with processing the new books.

Older students mentor younger ones in several district programs. Students enrolled in an Introduction to Teaching class at the high school were trained by the elementary literacy coaches to conduct guided reading sessions with students at the primary and elementary schools. The high school interns also provided one-on-one assistance with students as directed by the classroom teacher. Approximately 60 high school students visited individual classrooms to read aloud to large groups and discuss their reading selections.

Forty high school students performed Reader's Theaters for approximately 240 primary school students. The materials for this activity were multiple copies of plays written on the second-grade level. Each high school student read a part in the play, and one or two students served as narrators. The younger students were very attentive during the play, which they could read on their own at a later date. The plays were selected by the primary school's media specialist and purchased with LSL funds.

Site C

Site C is a mid–size city in the south central part of the United States with a poverty rate of 27 percent. The district has 44,500 students; the community is 56 percent black and 42 percent white. The district has 75 schools, but the LSL grant focused on the 11 high schools. In 2003–04, the year of the grant, the district made AYP in English language arts in all categories except students with disabilities.

Improving reading literacy through the curricular area of science was the focus of Site C's LSL grant, and the high school science supervisor served as the co-project director. The district had done similar projects with the English and social studies departments in the past. Science was chosen for the LSL grant in part because the high school science supervisor was responsive and available.

The program used a commercial reading motivation program for students with little interest in reading. It began with a short test that provided each student's reading ability range. Some of the students were surprised at how low they scored. Others scored higher than might be expected based on their grades. Students then read books and answered questions about them. The more difficult the book, the more points they received. A posttest was also done. Understanding the reading levels of the students has helped teachers tailor their lessons to student needs.

One project activity involved having students read both nonfiction materials and a fiction book on a particular topic and compare them. Teachers used these materials to demonstrate how science concepts are used properly and improperly and to help students assess whether the source of their information is reliable and reputable. Use of science fiction books has helped motivate students to read more. For example, students picked a disease, which they researched. To find a work of fiction that included the disease, the librarians and teachers used Novelist, a database of novels that can be searched by subject area. Also as part of the project, teachers used poetry with a scientific theme and biographies of scientists.

Another grant purchase was a magazine subscription service and database that contain full-text magazine articles, including medical articles. The science teachers had not known about the database and were pleased to be able to access current information.

Since completion of the grant, some science teachers have embraced the opportunity to collaborate with the librarians, and they have incorporated this new professional relationship into their routines. Teachers who had only worked with librarians sporadically before the grant now see the benefits of such collaboration.

Site D

Site D is a cooperative[22] of 30 districts in the north central region of the United States, but only three rural districts were eligible for and participated in the LSL grant. The combined student population of the participating districts is 1,200, and the community is 97 percent white. The poverty rate of the largest participating district is 29 percent. Typically, there is one elementary, middle and high school in each district, and one librarian supports them all. In 2005–06, the three districts and all eight schools in those districts met AYP.

The consortium received two LSL grants, for the 2004–05 and 2005–06 school years; the first grant focused on grades K–2 and the second, on grades 3–5. Collaboration between the librarians and classroom teachers was a component of the grant. One mechanism used for fostering collaboration was having the librarians and teachers attend professional development programs together to see where they could collaborate. Subsequently, librarians have co-taught research units and genre studies.

Other professional development was done as a part of the LSL grant in Site D, sometimes in collaboration with Title I programs. Topics included how to select materials for particular grade levels and how to use personal digital assistants (PDAs). Librarians learned about general reading strategies, how to teach guided reading, and specific reading skills to be taught at each grade level.

Site E

Site E is a cooperative of 22 rural school districts in the northeastern part of the United States, only six of which met the poverty criterion for the LSL program. Combined, the six districts serve 5,100 students in 14 schools. The population is 98 percent white, and the poverty level of the lead district is 29 percent. The grant focused on six elementary schools, all of which met AYP in English language arts in 2004–05, the year of the LSL grant. These schools are widely dispersed with some being as much as 100 miles apart.

[22] A cooperative is a voluntary association of school districts who work together across a geographic area to provide educational services more economically than any district could offer by itself.

One goal of the LSL program was to enable students in schools that are far apart to do joint projects. This was achieved by acquiring advanced technology. In addition, each library media specialist held a professional development day to demonstrate the equipment to classroom teachers. Projects that have been done with the equipment include book studies and virtual field trips.

Site E built onto a previous project in which broadband connection, distance learning labs, and library/classroom audiovisual conferencing had already been established. The following equipment was purchased under the LSL grant:

- Six computers for each library—which were needed to make all the other connections.
- Cart-mounted videoconferencing units with large screen monitors, camera, microphone, cabinet and VCR—connected to each school district's individual Ethernet networks. They were configured to communicate with each of the distance learning labs to enable audiovideo conferencing among libraries, the labs and classrooms. Remote access provides communication with any other Internet-accessible videoconferencing site.
- Multipoint IP codecs—necessary to complete the connectivity and compatibility of the project.
- Videoconferencing cameras—mounted on library computers and made the connection with partner distance learning networks to enable desktop videoconferencing.

A variety of software programs were also purchased under the grant. These included interactive books that can read words from the pages to the reader when the word is touched with a stylus. Drawings in the background are also interactive when touched with the stylus.

Site F

Site F is in a community that is 99 percent Hispanic and is located on the fringe of a midsize city along the U.S.-Mexican border. The district serves 3,200 students, 52 percent of whom are from families with incomes below the poverty line. In 2005, the year of the grant, all seven schools in the district met AYP in English language arts. Percentage of all schools participated in the grant.

About 55 percent of the students are English language learners. Some of the students are recent immigrants, and some had never been to school before. The district has a dual-language program, which is designed to help all participating students become fluent in both English and Spanish. These factors were taken into account in determining how to use grant money.

In addition, a majority of the parents are first-generation Americans, have limited English proficiency, and come from cultures in which parents do not generally participate in the education process. Family literacy kits were purchased for each school so parents could improve their literacy skills along with their children. A two-day program was provided for parents to give them an overview of library resources, demonstrate how to obtain Internet access, and provide suggestions for reading to their children.

The foundation of the program was a needs assessment, which was done with the assistance of a consultant. It brought together teachers, librarians, principals and administrators in an open dialog about what was most essential for the district's students. Each school received resources based on its enrollment and the needs of its student population.

During the first month of the LSL project, each school also established a literacy committee and a professional development team. Literacy committee membership included an administrator; librarian; library aide; and reading, bilingual and special education teachers. The committees determined how the library needs would be addressed by obtaining input from classroom teachers and deciding which books to order and which to remove.

The professional development teams worked with other committees to identify training needs, particularly since the libraries had acquired additional updated materials and resources. For example, both classroom teachers and librarians were trained on software and database usage. At the elementary level, the professional development teams included one teacher from each grade level, the librarian, library aide and one special education teacher. At the high school level, one representative from each content area also was included on the teams. School principals participated as honorary members.

Additionally, librarians are represented on the curriculum development committees of each school. They attend meetings where they learn what lessons are planned for the upcoming weeks and can talk to teachers about library resources available to support their classes.

Before the grant, the district purchased an estimated 1,900 new books per year and used five databases. During the grant year, 12,400 new books were purchased and 16 databases were available for use. Additional purchases included 120 audio books, 22 serial subscriptions, and one laptop and data projector per library. Many of the new books and materials are designed to encourage independent reading and come with tests and quizzes that are aligned with state standards. Since completion of the grant, some teachers are assigning more research projects because the libraries have more resources to offer.

Site G

Site G is a rural district in the north central area of the United States; its community is 98 percent white. The 200 students are served in three schools (one elementary, one middle and one high school), which are housed in separate areas of the same building. There are two libraries, one for the elementary school and one for the middle and high schools. Percentage of all schools participated in the grant and met AYP in 2005–06, the year of the LSL grant. Although the district met the 20 percent poverty rate needed to qualify for an LSL grant during the grant year, the current poverty rate of 17 percent means that the district no longer qualifies.

One grant activity was the development of a Young Authors Program to foster interest in reading as well as writing skills and creativity. All students in the elementary and middle schools participated in the program, which was done collaboratively by classroom teachers and the librarian. First, students learned about writing books. Then, each student wrote his or her own book and illustrated it using either hand-drawn pictures or computer-assisted pictures such as clip art and scanned photographs. Older students used PowerPoint for their entire book. At the end of the school year, all students' work was displayed in an open public setting as part of a Young Authors Festival. Staff members had wanted to participate in the Young Authors Program for some time but did not have the resources to do so until they received the LSL grant.

Updating the library collections was one of the primary goals of the LSL program. During a needs assessment of the collections, staff members learned that 63 percent of their books had a copyright year before 1990. Current nonfiction books and materials were particularly needed. Under the grant, staff members got rid of almost 10 percent of the collection and added about 1,900 new books. The weeding and ordering process took at least five months. The librarian consulted with classroom teachers about which books and other materials to purchase. This process has increased the collaboration between

teachers and librarians on a variety of activities including lesson planning and teaching information and research skills. In addition, circulation has increased more than 20 percent since receipt of the LSL grant.

Finding time for collaboration was a challenge at first. The teachers did not want to miss instructional time and preferred not to use substitutes to cover their classes. Ultimately, staff members donated their personal and planning time. The collaboration established under the grant has been continued beyond the grant year and, in some cases, has strengthened with time. The initial goal was to have eight collaborative projects, but the district exceeded this goal by having 11.

Site H

Site H is a rural district in an Eastern state; the community is 98 percent white. Altogether, 26 percent of the 10,500 students live in families with incomes below the poverty line. The district has 26 schools, but the LSL grant focused on the 15 elementary schools, 11 of which met AYP in 2004–05, the year of the grant.

One district used several approaches to determine needs, including reviewing student test score data, interviewing teachers, assessing library circulation rates and reviewing inventories to find possible gaps in the resources. They found that 60 percent of the library collection had an average copyright date before 1993 and approximately 50 percent was in poor condition. Gaps identified included books for nonreaders and emergent readers as well as science and social studies resources.

An early reading workstation was purchased for each school under the grant. For the workstation program, each school targeted 10 students who were nonreaders but were not considered to be special education students. Each student received 15–20 minutes of time with the program each day. Before beginning the program, students were given a placement test to determine where they would need to begin. Initially, tutors, who also serve as classroom aides, worked with the students, but once the students were familiar with the program, they could be self-directed. The program allowed students to work at their own pace and progress to the next level only when they had mastered the current one. Tutors could intervene if students were not progressing as quickly as expected. Altogether, 90 percent of the students participating in this early reading program attained grade-level reading. For some students, this achievement represented an increase of two grade levels.

Before choosing this early reading program, the district reviewed research on many different programs. One school already had the workstation in each classroom and its reading scores were some of the highest in the state. Consequently, it was decided to expand the program. Since completion of the grants, several schools are considering purchasing additional workstations because they have seen the benefits and would like to serve more students.

As part of the LSL grant, each school library was open approximately 2.5 hours per week for extended hours either before or after school. During these extended hours, some students conducted research using the resources available to help them to complete classroom assignments or meet their own interests. Others received additional instruction on the workstation. Also, many parents were recruited to be reading volunteers, who either read to the students or had the students read to them. However, extended hours benefit students who are driven to school more than those who rely on the bus.

Once a month, each library was open for four hours in the evening for family reading night; this activity has been done two or three times a semester since completion of the grant. For approximately 20 hours in the summer, the libraries were open for Camp Read-a-Lot, with planned activities targeting low-achieving and emergent readers.

Site I

Site I is a small Eastern town with 3,700 students, 23 percent of whom are from families with incomes below the poverty line. The community population is 85 percent white, 8 percent black, and 4 percent two or more races. All seven schools met AYP in 2005–06, the year after the grant. The LSL grant focused on the two middle schools.

An experienced librarian who was new to the district provided the impetus to apply for an LSL grant. She arrived to an outdated library with four computers, a magazine collection beginning in the 1970s, and a science book that said, "Some day man may go to the moon." Under the grant, outdated books were removed, and each school added more than 3,000 books as well as audio books and educational DVDs. To promote interest in some of the new books, the librarians have held "book talks," aired live to all students during morning announcements. By the end of the talk, students are often already in the library to check out the book.

Twelve desktop, Internet-connected computers for use by students and teachers were installed as part of the LSL grant. Additional computers have been purchased since completion of the grant. Each library now has about 25 Internet-connected units, so an entire class can work on them at the same time.

Also under the grant, the middle school card catalogs were put online and links were established to the local public library and the state university library. Interactive white-boards enhanced by LCD projectors have changed large-group presentations by the librarians to student-interactive experiences. A software program that provides individualized tutoring to students with reading difficulties also was purchased.

Librarians and classroom teachers received professional development in an in formation problem-solving model as part of the LSL grant. It was observed in action during the site visit. First, an eighth-grade science teacher asked the class to write a question they wanted to answer. Then they went to the library to find the answer, using a minimum of three sources including at least one Internet source. The librarian and classroom teacher helped students who were having difficulty. In another class, the students were to write a summary of what they had learned.

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