

# SRI International

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January 10, 2007

## **National Technology Activities Task Order**

### **OMB Package for District Survey**

ED-04-CO-0040 Task 0002  
SRI Project P16946

Submitted to:

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**PAPERWORK REDUCTION ACT SUBMISSION**

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the Supporting Statement, and any additional documentation to: **Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.**

1. Agency/Subagency originating request <b>SRI</b>		2. OMB control number a. <u>1875 - 0241</u> b. <input type="checkbox"/> None	
3. Type of information collection (check one) a. <input type="checkbox"/> New Collection b. <input checked="" type="checkbox"/> Revision of a currently approved collection c. <input type="checkbox"/> Extension of a currently approved collection d. <input type="checkbox"/> Reinstatement, <b>without change</b> , of a previously approved collection for which approval has expired e. <input type="checkbox"/> Reinstatement, <b>with change</b> , of a previously approved collection for which approval has expired f. <input type="checkbox"/> Existing collection in use without an OMB control number <i>For b-f, note Item A2 of Supporting Statement instructions</i>		4. Type of review requested (check one) a. <input checked="" type="checkbox"/> Regular b. <input type="checkbox"/> Emergency - Approval requested by: ___/___/___ c. <input type="checkbox"/> Delegated	
		5. Small entities Will this information collection have a significant economic impact on a substantial number of small entities? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
		6. Requested expiration date a. <input type="checkbox"/> Three years from the approval date b. <input checked="" type="checkbox"/> <u>06/08</u>	
7. Title <b>Study of Education Data Systems and Decision Making</b>			
8. Agency form number(s) (if applicable) <b>None</b>			
9. Keywords <b>education technology, education data systems</b>			
10. Abstract <b>The purpose of the study is to examine the prevalences, use, and outcomes of education data systems for accountability, assessment, and instructional purposes</b>			
11. Affected public (Mark primary with "P" and all others with "X") a. <input type="checkbox"/> Individuals or households b. <input type="checkbox"/> Business or other for-profit c. <input type="checkbox"/> Not-for-profit institutions d. <input type="checkbox"/> Farms e. <input checked="" type="checkbox"/> Federal Government f. <input checked="" type="checkbox"/> State, Local, or Tribal Government		12. Obligation to respond (Mark primary with "P" and all others that apply with "X") a. <input type="checkbox"/> Voluntary b. <input type="checkbox"/> Required to obtain or retain benefits c. <input checked="" type="checkbox"/> Mandatory	
13. Annual reporting and recordkeeping hour burden a. Number of respondents <u>1,034</u> b. Total annual responses <u>1,034</u> 1. Percentage of these responses collected electronically <u>50</u> % c. Total annual hours requested <u>1,034</u> d. Current OMB inventory <u>0</u> e. Difference <u>1,034</u> f. Explanation of difference 1. Program change <u>sampling, survey</u> 2. Adjustment _____		14. Annual reporting and recordkeeping cost burden (in thousands of dollars) a. Total annualized capital/startup costs _____ b. Total annual costs (O&M) _____ c. Total annualized cost requested _____ d. Current OMB inventory _____ e. Difference _____ f. Explanation of difference 1. Program change _____ 2. Adjustment _____	
15. Purpose of information collection (Mark primary with "P" and all others that apply with "X") a. <input type="checkbox"/> Application for benefits b. <input checked="" type="checkbox"/> Program evaluation c. <input type="checkbox"/> General purpose statistics d. <input type="checkbox"/> Audit e. <input checked="" type="checkbox"/> Program planning or management f. <input checked="" type="checkbox"/> Research g. <input type="checkbox"/> Regulatory or compliance		16. Frequency of recordkeeping or reporting (check all that apply) a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/> Third party disclosure c. <input checked="" type="checkbox"/> Reporting: 1. <input type="checkbox"/> On occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly 4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. <input checked="" type="checkbox"/> Annually 7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____	
17. Statistical methods Does this information collection employ statistical methods? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		18. Agency contact (person who can best answer questions regarding the content of this submission) Name: <u>Bernadette Adams Yates</u> Phone: <u>202-205-9898</u>	



**19. Certification for Paperwork Reduction Act Submissions**

On behalf of this Federal agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9.

**NOTE:** The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8(b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It uses plain, coherent, and unambiguous language that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention periods for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8 (b)(3) about:
  - (i) Why the information is being collected;
  - (ii) Use of information;
  - (iii) Burden estimate;
  - (iv) Nature of response (voluntary, required for a benefit, or mandatory);
  - (v) Nature and extent of confidentiality; and
  - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of the instructions);
- (i) It uses effective and efficient statistical survey methodology (if applicable); and
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of these provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Signature of Senior Official or designee	Date
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## I. INTRODUCTION

The Policy and Program Studies Service (PPSS), Office of Planning, Evaluation and Policy Development, U.S. Department of Education (Department), requests clearance for a district survey for the Study of Education Data Systems and Decision Making. OMB provided clearance for case study data collection activities for this study on October 23, 2006 (OMB Control Number 1875-0241). The study is conducted under the authority of Title II, Part D of the Elementary and Secondary Education Act (ESEA). Using a multi-method approach that includes case studies and a survey, the study will document the availability of education data systems, their characteristics, and the prevalence and nature of their use in districts and schools. In this submission, we request clearance for the design, sampling strategy, and district survey data collection activities to be undertaken by the study.

### A. Overview of the Evaluation's Goals, Research Questions, and Approach to Data Collection

Today's accountability systems have led educators to focus on achievement test scores (and, more recently, college-ready high school graduation) as the primary outcomes of education. Setting goals or targets for improving these outcomes is common practice at the national, state, and local levels. The emerging consensus around goals and commitment to improving education are important progress toward giving all students a better education, but much remains to be done if commitment is to generate results. What accountability systems per se do not do is to link measured educational outcomes to the educational processes that produced them. Educators make a myriad of decisions regarding implementation of specific processes, programs, and policies, but systematic examination of the results of an adopted practice is more the exception than the rule.

Current data-driven decision-making (DDDM) efforts call on educators to adopt a continuous-improvement perspective with an emphasis on goal setting, measurement, and feedback loops so that teachers and administrators reflect on their programs and processes, relate them to student outcomes, make refinements suggested by the outcome data, and then implement the refined practices, again measuring outcomes and looking for places for further refinement. An important distinction between this innovation and most educational programs or reforms is that this improvement cycle does not end with the first set of program refinements but is continuous.

Over the past four years, meeting the data requirements of NCLB and adapting or acquiring database systems capable of generating the required student data reports has consumed much of

the attention of district and state assessment and technology offices. This work has been necessary, but it is not sufficient for data-driven decision making to make a mark on education. Data-driven educational decision making is much more than a data system: it is a set of expectations and practices around the on-going examination of data to ascertain the effectiveness of educational activities in order to improve outcomes for students. It is a commitment on the part of an educational organization to continually work to refine and improve their programs and practices.

Exhibit 1 shows the stages in a data-driven continuous-improvement process—plan, implement, assess, analyze data, and reflect (as a precursor to more planning and a refined implementation). Although this process has been promoted within business for decades, it is an innovative approach for education.

**Exhibit 1**  
**Conceptual Framework for Data-Driven Decision Making**



A. Data systems	B. Leadership for improvement and use of data	C. Tools for generating data	D. Social structures and supported time for reflection on data	E. Professional development and technical support for data interpretation	F. Tools for acting on data
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Making the continuous-improvement perspective and the processes of data-driven decision making part of the way in which educators function requires a major cultural change in schools

and districts. Such a change will not occur without leadership, effort, and well-designed supports. The bottom portion of Exhibit 1 identifies six major types of prerequisite supports for effective data-driven decision making: (1) state, district, and school data systems, (2) leadership for educational improvement and the use of data, (3) tools for generating data, (4) professional development and technical support for data interpretation, (5) social structures and supported time for analyzing and interpreting data, and (6) tools for acting on data. These systems and supports form the conceptual framework that guides the evaluation activities of the national Study of Education Data Systems and Decision Making. Examination of these key systems and supports will provide policy makers and practitioners with information both on promising practices regarding data-driven decision making and the gaps that inhibit effective implementation. We briefly describe the nature of these supports below.

- **Data systems:** State education data systems typically include student enrollment information, basic demographic data, special program designation (if applicable), and scores on state-mandated achievement tests (in most cases, an annual spring testing in language arts and mathematics and often a proficiency or “exit” examination required for a high school diploma). School districts typically maintain their own data systems. In addition to student scores for state-mandated tests, which they get from the state or the state-designated vendor, district systems often include information about a student’s teachers, grades, attendance, disciplinary infractions, and scores on district tests. Other student data systems are targeted for school use, and these are more likely than state and district systems to incorporate teacher-developed formative assessments and to be closely aligned with the decisions principals and teachers make in the course of a school year (Means, 2005). These systems are more likely to contain annotated samples of student work, grades on students’ assignments, and information concerning student mastery status with respect to specific skills. In theory, all of these state, district, and school-level systems could be interoperable (U.S. Department of Education, 2004), and there could be “one-stop shopping” for educational data coming from sources ranging from the individual school to the U.S. Department of Education (what one vendor characterizes as the “secretary to Secretary” solution). Such a set of integrated systems does not yet exist, but federal efforts are moving toward uniform and consolidated reporting of data to the federal level, and some states are attempting to incorporate features in state systems that will make them more useful to districts and schools (Palaich, Good, and van der Ploeg, 2004).
- **Leadership for educational improvement and use of data:** Pioneering efforts to promote data-driven decision making within districts and schools have found that the active promotion of the effort on the part of the superintendent or principal is vital (Cromey, 2000; Halverson, Grigg, Prichett, and Thomas, 2005; Herman and Gribbons, 2001). Typically, district and school leaders play a major role in framing targets for educational improvement, setting expectations around staff participation in data-driven decision making, and making resources, such as supported time, available to support the enterprise.

- **Tools for generating data:** Increasingly, student achievement data are available at the school level in a form that can be disaggregated by student category (ethnicity, free or reduced-price lunch status, special education status, and so on) over the World Wide Web. Software systems to support data-driven decision making all generate standard student achievement reports, and many also produce custom reports for user-designated student groups (an important feature for school staff who want to examine the effects of locally developed services for specific student groups). These are major improvements over the level of access to student achievement data that schools had previously, but much remains to be done if teachers are to have timely, convenient access to user friendly reports of rich student data.
- **Social structures and supported time for analyzing and interpreting data:** The most sophisticated data warehouse in the world will have no effect on instruction if no one has—or takes—the time to look at the data, reflect on those data, and draw inferences for instructional planning. Case studies of schools active in data-driven decision making suggest that organizational structures that include supported time for reviewing and discussing data in small groups greatly increase the likelihood that the examination of data will be conducted and will lead to well-informed decisions (Choppin, 2002; Cromey, 2000).
- **Professional development and technical support for data interpretation:** Teacher training generally has not included data analysis skills or data-driven decision-making processes in the past (Choppin, 2002). Few administrators have this kind of training either. Moreover, the measurement issues affecting the interpretation of assessment data, and certainly the comparison of data across years, schools, or different student subgroups, are complicated. Data misinterpretation is a real concern (Confrey and Makar, 2005). For this reason, districts and schools are devoting increasing amounts of professional development time to the topic of data-driven decision making.
- **Tools for acting on data:** The examination of data is not an end in itself but rather a means to improve decisions about instructional programs, placements, and methods. Once data have been analyzed to reveal weaknesses in certain parts of the education program or to identify students who have not attained the expected level of proficiency, educators need to reflect on the aspects of their processes that may contribute to less-than-desired outcomes and to generate options for addressing the identified weaknesses. Some of the data-driven decision-making systems incorporate resources that teachers can use in planning what to do differently.

## Goals of the Evaluation

The Study of Education Data Systems and Decision Making will document the availability of education data systems, their characteristics, and the prevalence and nature of their use in districts and schools. It will examine the availability of the six supports for effective data-driven decision making identified in our conceptual framework and the nature of challenges that educators face in trying to use data systems in their efforts to improve instruction.

The data that educators need to design instruction for their students may be gathered at the classroom, school, district, or state level, and the systems in which the information is stored may be developed commercially or by national, state, district, or school organizations. A system developed or purchased at one level of the education system may be used by decision makers at another level (e.g., when teachers examine their school’s achievement and demographic data in a state or national database). In recognition of this complexity and the interactions among data systems, supports, and practices at different levels of the education system, we plan to analyze data collected at the state, district, and school levels.

When possible, we will use existing data sources in addressing study questions. Important resources for this study are the National Center for Educational Accountability (NCEA)<sup>1</sup> review of state-level education data systems and the ongoing National Educational Technology Trends Study (NETTS) teacher survey, which includes a set of items explicitly addressing the use of data systems from the teacher perspective. Primary data collection activities for this study include a district administrator survey for which we are currently seeking clearance, and case studies of 30 schools focused on the use of data in instructional decision making (OMB Control Number 1875-0241).

## **Evaluation Questions**

The Study of Education Data Systems and Decision Making seeks to answer five basic evaluation questions derived from our conceptual framework:

1. What kinds of systems are available to support district and school data-driven decision making?
2. Within these systems, how prevalent are tools for generating and acting on data?
3. How prevalent are state and district supports for school use of data systems to inform instruction?
4. How are school staff using data systems?
5. How does school staffs’ use of data systems influence instruction?

As noted above, we plan to analyze data collected at the state, district, and school levels. In Exhibit 2, the data collection activities for the study, along with secondary data sources, are matched with the questions that will guide this evaluation. District survey activities, for which we are seeking OMB clearance, are described in detail later in this document.

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<sup>1</sup> See <http://www.nc4ea.org/index.cfm?pg=surveyresults> for additional information on the NCEA survey.

## Exhibit 2

### Relationship Between Evaluation Questions and Data Sources

Evaluation Question	District Survey	Case Studies	Secondary Data Sources
<p><i>Q1: What kinds of systems are available to support school and district DDDM?</i></p> <p>How broadly are education data systems being implemented in states, districts, schools, and classrooms? What kinds of information do the systems contain? What functionalities do they offer?</p>	X		<p>NCEA survey(s)</p> <p>NETTS teacher survey</p> <p>Wayman, Stringfield, and Yakimowski, 2004</p>
<p><i>Q2: Within these systems, how prevalent are tools for generating and acting on data?</i></p> <p>How common are online assessments, transaction capture, links to content standards, and instructional resources in the systems being developed or acquired by states and districts? Which of these tools are being used by teachers and administrators?</p>	X	X	<p>NETTS teacher survey</p>
<p><i>Q3: How prevalent are state and district supports for school use of data systems to inform instruction?</i></p> <p>What professional development, data coaching, and other supports are states and districts providing for school-level data-driven decision making? What data are collected to evaluate the effectiveness of data system supports? Have data collected to date led to changes in data system supports? What trade-offs have district staff had to make to allocate time and resources to data-driven decision making?</p>	X	X	<p>NETTS teacher survey</p>
<p><i>Q4: How are school staff using data?</i></p> <p>How broadly and frequently are education data systems being used by teachers nationally overall and in schools that vary in student demographics? How much time do teachers and administrators put into using data management systems? How is their time supported, and what outside resources facilitate their system use? What specific data do teachers and school administrators obtain from data management systems? For what purposes (e.g., class placement, curriculum decisions, planning of professional development) do they use these data? What kinds of data or system features are used less often?</p>		X	<p>NETTS teacher survey</p>

## Exhibit 2 (concluded)

### Relationship Between Evaluation Questions and Data Sources

Evaluation Question	District Survey	Case Studies	Secondary Data Sources
<i>Q5: How does school staffs' use of data systems influence instruction??</i> How do school staff interpret the data they obtain from these systems? What changes in school and classroom practices do school staff make in response to the inferences they make on the basis of data they obtain from these systems?		X	NETTS teacher survey

### Data Collection Approach

Sound data on the state of data-driven decision making in education are needed to inform educational policy and practice. Collecting high-quality data involves careful attention to each detail in the data collection process, from asking the right questions in surveys and interviews to ensuring that the data collected are handled accurately and ethically. We have planned a set of interrelated strands of data collection combining quantitative with qualitative methods as follows:

- Case studies of a purposive sample of 30 schools in 10 districts.
- A survey of a nationally representative sample of 500 school districts.
- Secondary analysis of existing data sources, including state surveys focused on the features of state education data systems and portions of a national teacher survey focused on the use of data.

Information from the case studies will help inform the refinement of district survey items and the district survey will provide an opportunity to test hypotheses derived from the case studies.





## II. SUPPORTING STATEMENT FOR PAPERWORK REDUCTION ACT SUBMISSION

### A. Justification

#### 1. Circumstances Making Collection of Information Necessary

Section 2404(b)(2) of Title II, Part D, of the Elementary and Secondary Education Act of 2001 (P.L. 107-110) provides for the support of national technology activities, including technical assistance and dissemination of effective practices to state and local education agencies that receive funds to support the use of technology to enhance student achievement. In addition, sections 2415 (5) and 2416(b)(9) further call on states and districts to develop performance measurement systems as a tool for determining the effectiveness of uses of educational technology supported under Title IID. The Study of Education Data Systems and Decision Making will address both of these provisions by providing SEAs and LEAs with critical information to support the effective use of technology to generate data to support instructional decision making.

New standards and accountability requirements have led states' to reexamine the appropriate uses of technology to support learning and achievement. For some years now, researchers and developers have promoted technology systems that give students access to high-quality content and carefully designed instructional materials (Roschelle, Pea, Hoadley, Gordin, and Means, 2001). More recently, both technology developers and education policymakers have seen great promise in the use of technology for delivering assessments that can be used in classrooms (Means, Roschelle, Penuel, Sabelli, and Haertel, 2004; Means, 2006) and for making student data available to support instructional decision making (Cromey, 2000; Feldman and Tung, 2001; Light, Wexler, and Heinze, 2004; Mason, 2002; U.S. Department of Education, 2004). These strategies are not only allowable uses of ESEA Title IID funds but also of great interest to educational technology policymakers because of their potential to link technology use with changes in practice that can raise student achievement—thus helping to fulfill the primary goal of both Title IID (Enhancing Education Through Technology) and ESEA as a whole. The purpose of the present study is to provide further information exploring these potential links between the use of data housed in technology systems and school-level practices that support better teaching and learning.

While data is being collected on the characteristics of database systems that manage, collect and analyze data (Means 2005; Wayman, Stringfield, and Yakimowski, 2004), much less

is known about the relationship between various systems features and usage in ways that support better teaching and learning at the school and classroom levels. The wide variety in system architectures and components and the multiple ways in which educators have been encouraged to use them, suggest that a whole range of different practices and supports are being used in different places. However, survey questions used in the past have been at too large a grain-size to capture important distinctions. Moreover, the field has limited knowledge about how educators can best use data from different kinds of assessments (e.g., annual state tests versus classroom-based assessments) for informing instruction. Further study is needed to determine the system features and data types school staff have access to, and the kinds of supports they are receiving from their school districts.

Stringfield, Wayman, and Yakimowski-Srebnick (2005), have been studying these data systems for some time and believe that school-level data-driven decision making using such systems has great potential for improving student achievement but is not yet widely implemented in schools:

Formal research and our own observations indicate that being data-driven is a phenomenon that generally does not occur in the basic structure of the typical school. We believe that the absence of data-informed decision making is not due to educators' aversion to being informed. Rather, the wealth of data potentially available in schools is often stored in ways that make it virtually inaccessible to teachers and principals and generally far from analysis-friendly. (p. 150).

Our conceptual framework suggests that in addition to making usable, system-wide data available through technology systems, schools and districts need to put in place processes for preparing educators to use these systems and to cultivate practices of inquiring about data within schools. Far more detailed studies of use of these systems are needed if we are to extract principles for designing systems and practices that support frequent and effective use (the six supports identified in our conceptual framework). This is the goal of the Study of Education Data Systems and Decision Making.

## **2. Use of Information**

The data collected for this study will be used to inform educational policy and practice. More specifically, the data can be used:

- By SEAs and LEAs to compare the contents and capabilities of their student data system to that of a nationally representative sample of districts, and to identify and develop policies to support implementation practices that are associated with more teacher use of student data in planning and executing instruction.

- By ED staff to design outreach efforts to stimulate and enhance the use of data systems to improve instruction.
- By researchers, who may use the data to inform future studies of data-driven decision making to improve instructional practice.

### **3. Use of Information Technology**

The contractors will use a variety of advanced information technologies to maximize the efficiency and completeness of the information gathered for this evaluation and to minimize the burden the evaluation places on respondents at the district and school levels. For example, respondents will be given the option to complete either a paper and pencil or online version of the district survey. During the data collection period, an e-mail address and phone number will be available to permit respondents to contact the contractor with questions or requests for assistance. The e-mail address will be printed on all data collection instruments, along with the name and phone number of a member of the data collection team. For the district survey, a notification and response rate tracking system will be set up in advance so that task leaders and ED can have weekly updates on response rates. Finally, a project Web site, hosted on an SRI server, will be available for the purpose of communicating data collection activities and results (e.g., a copy of the study brochure, a copy of the district survey, study reports as available).

### **4. Efforts to Identify Duplication**

The contractor is working with the U.S. Department of Education to minimize burden through coordination across Department studies to prevent unnecessary duplication (e.g., no repeating questions for which sufficient data are already available). In addition to using teacher survey data collected from other Department-sponsored evaluation activities to assess national trends regarding some aspects of data-driven decision making, secondary sources have also been identified for data on state-supported data systems, thereby eliminating the need for state-level data collection. Additional information on these secondary sources is provided in the discussion of data collection procedures.

### **5. Methods to Minimize Burden on Small Entities**

No small businesses or entities will be involved as respondents.

### **6. Consequences If Information Is Not Collected or Is Collected Less Frequently**

Currently, the Department is working to improve the quality of K-12 performance data provided by SEAs to assess the effectiveness of federally-supported programs. *EDFacts* is an initiative of the Department, SEAs, and other members of the education community to use state-

reported performance data to support planning, policy, and program management at the federal, state, and local levels. Since much of the data that states gather on program effectiveness comes from the local level, it is important that local performance measurement systems are collecting high-quality data. No Child Left Behind also cites the importance of using data to improve the instruction that students receive, but many of the data system efforts to date have focused on improving state data systems without comparable attention to making the data in those systems available to and meaningful to the school staff who make instructional decisions. Improved use of data at the local level can improve the teaching and learning process by giving teachers the information they need to guide their instructional practices. A potential byproduct would be improvement of the quality of the data that the Department receives from states because states depend on districts and schools for their data.

To address the need for high-quality, actionable data at the local level, the Study of Education Data Systems and Decision Making will provide in-depth information in several key issue areas: the availability of education data systems, their characteristics, the prevalence and nature of their use in districts and schools, and the conditions and practices associated with data usage that adheres to professional standards for data interpretation and application. The study will also provide more detailed information on implementation of data-driven decision making than has previously been available at the local level.

If the data are not collected from the proposed study, there will be no current national data collection on the availability of education data systems at the local level and the nature of their use in districts and schools. There will also be only limited information on classroom and other school-level use of data. (Several investigations are exploring data use in individual schools, but no other study is producing cross-case analysis.) The result will be a continued gap in information on how districts and schools are using data to inform their instructional decision making, the barriers to effective use of data, and the supports that staff need to better employ data in their teaching in a way that can positively impact student achievement.

## **7. Special Circumstances**

None of the special circumstances listed apply to this data collection.

## **8. Federal Register Comments and Persons Consulted Outside the Agency**

A notice about the study will be published in the Federal Register when this package is submitted to provide the opportunity for public comment. In addition, throughout the course of this study, SRI will draw on the experience and expertise of a technical working group (TWG)

that provides a diverse range of experience and perspectives, including representatives from the district and state levels, as well as researchers with expertise in relevant methodological and content areas. The members of this group and their affiliations are listed in Exhibit 3. The first meeting of the technical working group was held on January 26, 2006. Individual members of the TWG have provided additional input as needed (e.g., recommendations for revisions to the case study sample, review of the district survey).

**Exhibit 3**  
**Technical Working Group Membership**

Member	Affiliation
Marty Daybell	Washington State Education Authority
Dr. Jeff Fouts	Fouts & Associates
Aimee Guidera	National Center for Educational Accountability
Jackie Lain	Standard and Poor's School Evaluation Services
Dr. Glynn Ligon	ESP Solutions
Dr. Ellen Mandinach	Center for Children and Technology
Dr. Jim Pellegrino	University of Illinois-Chicago
Dr. Arie van der Ploeg	North Central Regional Education Laboratory (NCREL)/Learning Points
Dr. Jeff Wayman	University of Texas, Austin
Katherine Conoly	Executive Director of Instructional Support, Corpus Christi Independent School District

**9. Respondent Payments or Gifts**

No payments or gifts will be provided to respondents.

**10. Assurances of Confidentiality**

SRI is dedicated to maintaining the confidentiality of participant information and the protection of human subjects. SRI recognizes the following minimum rights of every subject in the study: (1) the right to an accurate representation of the right to privacy, (2) the right to informed consent, and (3) the right to refuse participation at any point during the study. Because much of the Policy Division's education research involves collecting data about children or students, we are very familiar with the Department's regulation on protection of human subjects of research. In addition, SRI maintains its own Institutional Review Board. All proposals for studies in which human subjects might be used are reviewed by SRI's Human Subjects Committee, appointed by the President and Chief Executive Officer. For consideration by the reviewing committee, proposals must include information on the nature of the research and its purpose; anticipated results; the subjects involved and any risks to subjects, including sources of substantial stress or discomfort; and the safeguards to be taken against any risks described.

SRI project staff have extensive experience collecting information and maintaining confidentiality, security, and integrity of interview and survey data. In accordance with the SRI's institutional policies, privacy and data protection procedures will be in place. These standards and procedures for district survey data are summarized below.

- Project team members will be educated about the privacy assurances given to respondents and to the sensitive nature of materials and data to be handled. Each person assigned to the study will be cautioned not to discuss confidential data.
- Each survey will be accompanied with a return envelope so as to allow the respondent to seal it, once it has been completed. All respondents will mail their postpaid surveys individually to SRI. The intention is to allow respondents to respond honestly without the chance that their answers will be inadvertently read or associated personally with them. If the survey is taken online, security measures are in place to safeguard respondent identifies and to ensure the integrity of the data.
- Participants will be informed of the purposes of the data collection and the uses that may be made of the data collected.
- Respondent's names and addresses will be disassociated from the data as they are entered into the database and will be used for data collection purposes only. As information is gathered on districts, each will be assigned a unique identification number, which will be used for printout listings on which the data are displayed and analysis files. The unique identification number also will be used for data linkage.
- All paper surveys will be stored in secure areas accessible only to authorized staff members.
- Access to the survey database will be limited to authorized project members only; no others will be authorized such access. Multilevel user codes will be used, and entry passwords will be changed frequently.
- All identifiable data (e.g., tracking data) will be shredded as soon as the need for this hard copy no longer exists.
- The reports prepared for this study will summarize findings across the samples and will not associate responses with a specific district, school or individual. Information that identifies a school or district will not be provided to anyone outside the study team, except as required by law.

At the time of data collection, all survey participants will be assured of privacy to the extent possible (see draft of survey cover letter in Appendix A).

#### **11. Questions of a Sensitive Nature**

No questions of a sensitive nature will be included in the district survey.

**12. Estimate of Hour Burden**

The estimates in Exhibit 4 reflect the burden for notification of study participants, as well as the survey data collection activity.

- District personnel—time associated with reviewing study information, and if required, reviewing study proposals submitted to the district research committee; time associated with asking questions about the study and completing the survey about the district’s use of data systems.

**Exhibit 4  
Estimated Burden for Site Selection and Notification**

Group	Participants	Total No.	No. of Hours per Participant	Total No. of Hours	Estimated Burden
District Personnel	Superintendent (notification)	534	0.5	267	\$10,680
	District staff (survey)	500*	1.0	500	20,000
	Total	1,034		767	\$30,680

\*Anticipate some non-response. See Section B regarding respondent universe.

**13. Estimate of Cost Burden to Respondents**

There are no additional respondent costs associated with this data collection other than the burden estimated in item A12.

**14. Estimate of Annual Costs to the Federal Government**

The annual costs to the federal government for this study, as specified in the contract, are:

Fiscal year 2005	\$272,698
Fiscal year 2006	\$849,532
Fiscal year 2007	\$242,696
<b>Total</b>	<b>\$1,364,926</b>

**15. Change in Annual Reporting Burden**

This request is for a new information collection.

**16. Plans for Tabulation and Publication of Results**

During the summer of 2006, the data collection team worked with the secondary analysis team to analyze data from the NETTS 2005-06 teacher survey. Descriptive statistics were



calculated to show the proportion of teachers nationwide who are aware of their access to student data systems and the support teachers have had for DDDM. Although an evaluation report is not required for the first year of the study, a policy brief is being prepared on the secondary analyses of the NETTS teacher survey data (additional information on this database is provided in Section B).

In 2007, analysis activities will focus on the case study data (OMB Control Number 1875-0241). These data will provide a more in depth look at the kinds of systems that are available to support district and school data-driven decision making, and the supports for school use of data systems to inform instruction. We will analyze teacher focus group and interview data on these topics. A separate analysis will examine responses to the portion of the teacher case study interviews in which teachers respond to hypothetical data sets. We will develop and apply rubrics for judging the quality of the inferences teachers make from data. The school-level and teacher-level data will be reported in an interim report to be drafted by October 2007 to answer the following evaluation questions:

- To what extent do teachers use data systems in planning and implementing instruction?
- How are school staff using data systems?
- How does school staffs' use of data systems influence instruction?

In 2008, analysis activities will focus on data from the district survey covered by this OMB package. These analyses, along with prior analyses of data collected at the state, district, and teacher levels, will be combined in a final report to be drafted by April 2008. The final report will focus on the following additional evaluation questions:

- What kinds of systems are available to support district and school data-driven decision making (prevalence of system access; student information and functions of these data systems)?
- Within these systems, how prevalent are tools for generating and acting on data?
- How prevalent are state and district supports for school use of data systems to inform instruction?

Exhibit 5 outlines the report dissemination schedule.

**Exhibit 5**  
**Schedule for Dissemination of Study Results**

Activity/Deliverable	Due Date
<b>Interim Report</b>	
Outline of interim report	8/07
First draft of interim report	10/07
Second draft of interim report	12/07
Third draft of interim report	2/08
Final version of interim report	3/08
<b>Final Report</b>	
Outline of final report	3/08
First draft of final report	4/08
Second draft of final report	6/08
Third draft of final report	7/08
Final version of final report	9/08

**Data Analysis**

The Study of Education Data Systems and Decision Making will analyze quantitative data gathered through surveys and qualitative data gathered through case studies. Survey data will include the 2007-08 district survey of a nationally representative sample of approximately 500 districts administered in fall 2007 and, as noted above, secondary analyses of other data sets will also be conducted by the study team. Qualitative data will be collected through case studies of 30 schools conducted during winter and spring of the 2006-07 school year.

The evaluation will integrate findings derived from the quantitative and qualitative data collection activities. Results from the case studies may help to explain survey findings, and the survey data may be used to test hypotheses derived from the case studies. In this section, we present our approaches to analysis of the quantitative data; a description of our approach to analysis of qualitative data was presented with the OMB package for the case studies.

**Survey Analyses**

The processing and analysis of survey responses are designed to minimize sources of error that can mask or bias findings. Data management techniques are designed to produce accurate translation of survey responses to computerized databases for statistical analysis. The statistical analyses will use appropriate analytical weights so that the survey findings are unbiased estimates of parameters of the populations of interest.

The evaluation questions can be addressed with a few different statistical techniques. Many of the questions require descriptive information about the population of districts or schools on a

single variable of interest. Some evaluation questions may be explored in more detail by examining relationships among variables or by examining whether the distributions of a variable differ from one subpopulation to another. These questions will be addressed through multivariate analyses.

**Univariate Analyses.** Characteristics of the measurement scale for a variable will determine the type of summary provided. For many variables, the measurement scale is categorical because survey respondents select one choice from a small number of categories. For other variables, the measurement scale is continuous because respondents provide a numerical answer that can take on many values, even fractional values, along an ordered scale. The distributions of categorical variables will be provided by presenting for each choice category the (weighted) percentage of respondents who selected the category.

The distributions of continuous variables will be summarized by an index of the central tendency and variability of the distribution. These might be the mean and standard deviation, if the distribution is symmetrical, or the median and interquartile range, if the distribution is skewed.

In some cases, the variable of interest can be measured by a single survey item. In other cases (e.g., for more complex or abstract constructs), it is useful to develop a measurement scale from responses to a series of survey items. The analyses will provide simple descriptive statistics that summarize the distribution of measurements, whether for single items or for scales. Whenever it is possible to do so within the set of survey data, we also will examine the validity of the measurement scale. Techniques, such as factor analysis, that examine hypothesized relationships among variables will be used to examine the validity of scale scores.

**Bivariate and Multivariate Analyses.** In addition to the univariate analyses, we plan to conduct a series of bivariate and multivariate analyses of the survey data. For example, we will examine relationships between specific demographic variables and district and school reports of the implementation of supports for data-driven decision making. Our primary purpose in exploring the relationships between context variables and responses to items about implementation of support systems is explanatory. For example, we will examine relationships of survey responses with district size because we expect that larger districts have more resources and, therefore, greater capacity to assist schools with data-driven decision making. Conversely, small districts (often rural) have very limited central office capacity to assist schools (McCarthy, 2001; Turnbull and Hannaway, 2000) and may be challenged to implement data-driven decision making well.

By looking at relationships among two or more variables, the bivariate and multivariate analyses may provide more refined answers to the evaluation questions than the simple summary statistics can provide. A variety of statistical techniques will be used, depending on the characteristics of the variables included in the analyses and the questions to be addressed. Pearson product-moment correlations will summarize bivariate relationships between continuous variables, unless the parametric assumptions are unreasonable, in which case Spearman rank order correlations will be used. Chi-square analyses will examine relationships between two categorical variables. We will use t-tests and analysis of variance (ANOVA) to examine relationships between categorical and continuous variables. Regression analyses will be used to examine multivariate relationships.

**Integration of Quantitative and Qualitative Data.** Findings from the surveys and case studies provide different perspectives from which to address the evaluation questions. For example, whereas the district survey can estimate the number of districts in the nation that provide assistance for data-driven decision making, the case studies can describe the nature and quality of the assistance that districts might provide. The survey findings can be generalized to national populations, but they may have limited descriptive power. The opposite is true for the case studies, which can provide detailed descriptions and explanations that may have limited ability to generalize.

A goal of the analysis is to integrate findings from the different methods, building on the strengths of each. When they are consistent, the findings from different perspectives can provide rich answers to evaluation questions. When they are inconsistent, the findings point to areas for further study. For example, the case studies may identify hypotheses worth testing in the survey data, and survey results might identify an unexpected correlation between variables that case study data could help to explain.

Our strategy for integration is to share findings across the perspectives in a way that maintains the integrity of each methodology. The evaluation questions provide the framework for integration. Separately, the quantitative and qualitative data will be analyzed to a point where initial findings are available to address the evaluation questions. Then the findings will be shared and discussed to identify robust findings from both types of data, as well as inconsistencies suggesting the need for further analyses. Frequent communication at key points in this process will be important. We will have formal meetings of the case study and quantitative analysts to share findings. The first will be held after preliminary results are available from each type of study, for the purpose of identifying additional analyses to conduct. Subsequent meetings will focus on interpretation of analyses and planning for new examinations of the data.

Communication between analytic teams will be facilitated by having some core members common to both.

The integration of different types of data, like the integration of data from different sites within the qualitative analyses, requires an iterative approach. Each step builds on the strengths of the individual data sets to provide answers to the evaluation questions. If, for example, we find through analyses of survey data that schools vary on the degree to which they receive technical support for data interpretation, we will first test with the survey data whether responses vary with characteristics identified through previous research (e.g., size of the district in which the school is located, number of years the school has been in identified as in need of improvement). If a characteristic is predictive of the amount of assistance that schools receive, it will be explored further through our case studies. Data from the case study schools will be examined to see whether they support the relationship between the characteristic and technical assistance; to provide additional details, such as other mitigating factors; and to identify examples that could enhance the reporting of this finding.

**17. OMB Expiration Date**

All data collection instruments will include the OMB expiration date.

**18. Exceptions to Certification Statement**

No exceptions are requested.

## **B. Collections of Information Employing Statistical Methods**

### **1. Respondent Universe**

The proposed sampling plan for the district survey was developed with the primary goal of providing a nationally representative sample of districts to assess the prevalence of district support for data-driven decision making. A secondary goal was to provide numbers of districts adequate to support analyses focused on subgroups of districts. To conduct such analyses with reasonable statistical precision, we have created a six-cell sampling frame stratified by district size and poverty rate. From the population of districts in each cell, we will sample at least 90 districts. Below, we discuss our stratifying variables, describe the overall sampling frame, and show the distribution of districts in the six-cell design.

#### **District Size**

Districts vary considerably in size, the most useful available measure of which is pupil enrollment. A host of organizational and contextual variables that are associated with size exert considerable potential influence over how districts can support data-driven decision making. Most important of these is the capacity of the districts to design data management systems, actively promote the use of data for educational improvement, and provide professional development and technical support for data interpretation. Very large districts are likely to have professional development and research offices with staff to support school data use, whereas extremely small districts typically do not have such capacity. Larger districts also are more likely to have their own assessment and accountability processes in place, which may support accountability and data-driven decision making practices. District size is also important because of the small number of large districts that serve a large proportion of the nation's students. A simple random sample of districts would include few—if any—of these large districts. Finally, accountability-related school improvement efforts are much more pronounced in large districts. For example, longitudinal analyses of district-level data from the Title I Accountability Systems and School Improvement Efforts study indicated that although the total number of schools identified for improvement has remained approximately the same from 2001 to 2004, there has been a steady trend toward a greater concentration of identified schools in large districts (U.S. Department of Education, 2006).

We propose to sort the population of districts nationally into three categories so that each category serves approximately equal numbers of students, based on enrollment data provided by the National Center for Education Statistics' Common Core of Data (CCD):

- **Large** (estimated enrollment 25,800 or greater). These are either districts in large urban centers or large county systems, which typically are organizationally complex and often are broken up into subdistricts.
- **Medium** (estimated enrollment from 5,444 to 25,799). These are districts set in small to medium-size cities or are large county systems. They also are organizationally complex, but these systems tend to be centralized.
- **Small** (estimated enrollment from 300 to 5,443). The small district group typically includes suburban districts, districts in large rural towns, small county systems, and small rural districts. These districts tend to have more limited organizational capacity.

Districts with 299 or fewer students will be excluded from the study. Such districts account for approximately one percent of all students and 21 percent of districts nationwide. The distribution of districts among the size strata and the proportion of public school students accounted for by each stratum are displayed in Exhibit 6. The proportion of districts among the three size strata in the district sample (excluding districts with 299 or fewer students) are: large (2.2 percent), medium (13.5 percent), and small (84.3 percent).

**Exhibit 6**  
**Distribution of Districts and Student Population, by District Size\***

<b>Enrollment Size Category</b>	<b>Number of Districts</b>	<b>Percent of Districts</b>	<b>Number of Students (000s)</b>	<b>Percent of Students</b>
Large (>25,800)	249	1.8	15,834	33.0
Medium (5,444 – 25,799)	1,497	10.6	15,844	33.0
Small (300 – 5,443)	9,378	66.6	15,853	33.0
Very small (299 or less)	2,956	21.0	478	1.0
<b>TOTAL</b>	<b>14,080</b>	<b>100.0</b>	<b>48,008</b>	<b>100.0</b>

\* Based on 2004-05 NCES Common Core of Data (CCD).

### **District Poverty Rate**

Because of the relationship between poverty and achievement, schools with large proportions of high-poverty students are also more likely than schools with fewer high-poverty students to be low achieving, and thus to be identified as in need of improvement. Under NCLB, districts are required to provide identified Title I schools with technical assistance to support school improvement activities, including assistance in analyzing data from assessments and other student work to identify and address problems in instruction and assistance in identifying and implementing professional development strategies and methods of instruction that have proven effective in addressing the specific instructional issues that caused the school to be identified for

improvement. We expect that high-poverty districts face greater demands for educational improvement, as well as the demands of working with larger numbers (or higher proportions) of schools identified for improvement. Consequently, we want our sample to include a sufficient number of both relatively high-poverty and relatively low-poverty districts so that survey results from these districts can be compared.

As a measure of district poverty, we will use the percentage of children ages 5 to 17 who are living in poverty, as reported by the U.S. Census Bureau and applied to districts by the National Center for Education Statistics. The distribution of districts among strata and the proportion of students accounted for by each stratum are displayed in Exhibit 7.

**Exhibit 7**  
**Distribution of Districts and Student Population, by District Poverty Rate\***

District Poverty Rate	Number of Districts	Percent of Districts	Number of Students (000s)	Percent of Students
Other ( $\leq 20\%$ )	8,555	76.9	33,370	70.2
High ( $> 20\%$ )	2,569	23.1	14,160	29.8
TOTAL	11,124	100.0	47,530	100.0

\* Excluding districts with 299 or fewer students. Based on data from the 2003 U.S. Census for the percentage of children ages 5 to 17 who are living in poverty and applied to districts by NCES.

### **District Sample Selection Strategy**

Our original proposal called for a sample of 500 districts. We had anticipated an 85 percent participation rate, which would result in approximately 425 respondents. We currently propose to increase our sample size (up to 588 districts) with the goal of obtaining approximately 500 respondents.

The two variables of district size and poverty rate generate a six-cell grid into which the universe of districts (excluding very small districts) can be fit. Exhibit 8 shows the strata, a preliminary distribution of the number of districts in each stratum, and the initial sample size in each cell.

For most analyses, we will be combining data across cells. When examining data from the full 498 responding districts, the confidence interval is  $\pm 6.5$  percent. With 498 district respondents, if we are looking at data from all 249 high-poverty district respondents, the confidence interval is  $\pm 9$  percent. In those cases where we are examining survey responses in a single cell, 83 respondents will yield a statistic with a confidence interval of no more than



± 11 percent.<sup>2</sup> For example, if we find that 50% of medium-size, high-poverty districts report a particular approach to supporting schools for data-based decision making activities, then the true population proportion is likely to be within 11 percentage points of 50 percent. More precisely, in 95 out of every 100 samples, the sample value should be within 11 percentage points of the true population value.

**Exhibit 8  
Number of Districts in the Universe and Quota Sample Size, by Stratum**

District Size	District Poverty Rate		Total
	Low (≤20%)	High (>20%)	
Large Sample Universe	83 160	76 89	166 249
Medium Sample Universe	83 1,155	83 342	166 1,497
Small Sample Universe	83 7,240	83 1,155	166 9,378
TOTAL Sample Universe	249 8,555	249 2,569	491* 11,124

\* Initially we will sample 89 districts in each cell (i.e., 534 districts). As required, additional samples will be added (up to a total of 588 districts) to meet our quota of respondents in each strata.

**2. Data Collection Procedures**

As described in the first section of this document, the district survey is a component of an interrelated data collection plan that also includes case studies of 30 schools in 10 districts and a review of secondary sources that address the same set of evaluation questions. Exhibit 9 outlines the schedule of data collection activities for which clearance is being sought. OMB has already approved case study data collection activities (OMB Control Number 1875-0241).

**Exhibit 9  
General Timeline of Data Collection Activities**

<sup>2</sup> The value of 11 percent assumes responses to yes/no questions with 50 percent probability of a “yes” response. The half-width of the confidence interval will be smaller for other probabilities of a “yes” response.

Year	Conduct Case Studies	Survey Districts
Winter 2006 to Spring 2007	✓	
Fall 2007		✓

### District Survey

The evaluation questions outlined in the first section of this document, along with an analysis of the literature and pretesting of case study protocols, have generated a list of key constructs that have guided survey development. Below we describe the district survey in greater detail.

The district survey will focus on the characteristics of district data systems and district supports for data-driven decision-making processes within schools. Proposed questions for the district survey will include transferability of data between state and district systems through the use of unique student and teacher identifiers, uses of the systems for accountability, and the nature and scale of the supports districts are providing for school-level use of data to improve instruction. In addition, the district survey will include a section on the types of student information available in district systems (information on types of student data available from state systems will be drawn from the survey conducted by NCEA). Our district survey will cover the suggested topics shown in Exhibit 10.

**Exhibit 10**  
**District Survey Topics**

<b>Topic</b>	<b>Subtopic</b>	<b>Evaluation Question Addressed</b>
Data systems	<ul style="list-style-type: none"> <li>▪ Types of student data in district data systems.</li> <li>▪ Features and functions of district systems.</li> <li>▪ Linkages between unique student and teacher identifiers at the local and state levels (interoperability).</li> <li>▪ Limitations of district data systems.</li> <li>▪ Accessibility of student data to school staff.</li> <li>▪ Data quality.</li> </ul>	Q1: What kinds of systems are available to support district and school data-driven decision making?
DDDM tools for generating and acting on data	<ul style="list-style-type: none"> <li>▪ Features and tools of district systems.</li> <li>▪ Types of queries the system supports to link student performance with other data.</li> <li>▪ Frequency of DDDM activities related to student-level data and other types of decision making related to improving instructional practice.</li> </ul>	Q2: Within these systems, how prevalent are tools for generating and acting on data?
Supports for DDDM	<ul style="list-style-type: none"> <li>▪ Extent to which DDDM has supported district improvement goals/activities.</li> <li>▪ Steps taken to increase the capacity of district staff to engage in DDDM.</li> <li>▪ District provision of training, resources, technical assistance, and the establishment of policies and practices to increase school-level capacity in DDDM.</li> <li>▪ How long districts have been providing supports for school use of data.</li> <li>▪ Areas where districts and schools need more support for data system use and DDDM.</li> <li>▪ Current barriers to expanding district DDDM practices.</li> </ul>	Q3: How prevalent are state and district supports for school use of data systems to inform instruction?

The district survey will be formatted to contain structured responses that allow for the quantification of data, as well as open-ended responses in which district staff can provide more descriptive information on how DDDM is carried out in their district.

As noted earlier, respondents will also be given the option to complete the district survey online. The paper survey will contain the URL for the electronic version. In order to determine which districts have responded using the online survey, respondents will be requested to enter the identification number at the top of the survey as well as the name and location of their district on their online survey form.

Our approach to survey administration is designed to elicit a high response rate and includes a comprehensive notification process to achieve “buy-in” prior to data collection as well as multiple mailings and contacts with nonrespondents described later in this document. In addition, a computer-based system will be used to monitor the flow of data collection—from survey administration to processing and coding to entry into the database. This monitoring will help to ensure the efficiency and completeness of the data collection process.

### **Secondary Data Sources**

The use of secondary data sources will enhance our analysis and avoid duplication of efforts. We have currently identified two main sources of additional data on how states, districts, and schools are using data systems.

The first source of data for secondary analysis is the NETTS study which is focusing on the implementation of the Enhancing Education Through Technology (EETT) program at the state and local levels. A teacher survey was completed through NETTS in January 2005 that gathered data from over 5,000 teachers in approximately 850 districts nationwide. Teachers were asked about their use of technology in the classroom, including the use of technology-supported databases. Questions about data systems addressed issues related to the accessibility of an electronic data management system with student-level data, the source of the system (state, district, school), the kinds of data and supports provided to teachers to access data from the system, and the frequency with which teachers use data to carry out specific educational activities, and the types of supports available to teachers to help them use student data.

The second major source of data for secondary analysis is the National Center for Educational Accountability (NCEA) state survey, first administered in August 2005, which focused on data system issues related to longitudinal data analysis. The second administration of the NCEA state survey was scheduled for completion by the end of September 2006. The 2006 survey updates data from the 2005 survey and adds some new items as well. The NCEA state survey will continue to be used as a secondary data resource for this study in the future. NCEA data provide key information on the data systems that states are building and maintaining as they gear up to meet NCLB requirements for longitudinal data systems (i.e., NCEA’s “ten essential elements”).<sup>3</sup>

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<sup>3</sup> Creating a longitudinal data system that will provide data to improve student achievement is one of the major goals of the Data Quality Campaign. The campaign is a national, collaborative effort to encourage and support state policymakers to improve the collection, availability and use of high-quality education data.

## **Prepare Notification Materials and Gain District Cooperation**

Gaining the cooperation of district representatives is a formidable task in large-scale data collection efforts. Increasingly, districts are beset with requests for information, and many have become reluctant to participate. Our efforts will be guided by three key strategies to ensure adequate participation: (1) an introductory letter signed by the Department, (2) preparation of high-quality informational materials, and (3) follow up contacts with nonrespondents.

**U.S. Department of Education Letter.** A letter from the Department will be prepared that describes the purpose, objectives, and importance of the study (i.e., documenting the prevalence of data-driven decision making, identifying practices for effective data-driven decision making, identifying challenges to implementation) and the steps taken to ensure privacy. The letter will encourage cooperation and will include a reference to the U.S. Department of Education Department General Administrative Regulations (EDGAR) participation requirements, stating that the law requires grantees to cooperate with evaluations of ESEA-supported programs (EDGAR Section 76.591). As noted earlier, the study is part of the national technology activities supported under Section 2404(b)(2) of Title II, Part D, of the Elementary and Secondary Education Act and 85 percent of districts receive EETT funds under ESEA. A draft of the letter is included in Appendix A.

**High-Quality Informational Materials.** Preparing relevant, easily accessible, and persuasive informational materials is critical to gaining cooperation. The primary component of the project's informational materials will be a tri-fold brochure. This brochure includes the following information:

- The study's purpose.
- Information about the design of the sample and the schedule for data collection.
- The organizations involved in designing and conducting the study.

A draft copy of the brochure is included in Appendix B. All informational materials will be submitted to ED for approval before they are mailed. Mailing of informational materials to districts will begin in spring 2007, prior to the mail out of the survey.

**Contacting Districts.** The first step in contacting districts will include the notification letter and information packet sent to the district superintendent. As part of the notification process, we will request the most appropriate respondent for the district survey (i.e., the district staff member who has primary responsibility for leading data-driven activities related to instructional improvement). As initial pretest activities have shown, the position held by this particular staff member is not consistent across districts (e.g., Director of Technology, Director

of Research and Assessment, Director of Curriculum). Therefore, we will take extra steps during the notification process to identify the best respondent for the survey (this will be particularly important in very large districts). The survey will then be shipped via Priority Mail to the district staff member identified by the superintendent. (A copy of the notification letter is included in Appendix A.)

Every effort is being made to minimize the burden on districts, but at the same time, very large districts that serve large numbers of students will be included in multiple studies given the proportion of the student population they serve. In these districts, great care will be taken during notification activities to respond to the concerns and questions of participants. If needed, project staff will be prepared to submit proposals to district research committees.

### **3. Methods to Maximize Response Rates**

A number of steps have been built into the data collection process to maximize response rates. Special packaging (e.g., Priority Mail) and a cover letter from the U.S. Department of Education have served to increase survey response rates in other recent national studies (e.g., NETTS, Evaluation of Title I Accountability Systems and School Improvement Efforts). In addition, by targeting the appropriate respondent for the survey, we are more likely to obtain a completed survey. Finally, all notification materials will include a reference to the U.S. Department of Education Department General Administrative Regulations (EDGAR) participation requirements, stating that the law requires grantees to cooperate with evaluations of ESEA-supported programs. The Study of Education Data Systems is part of the national technology activities supported under Section 2404(b)(2) of Title II, Part D, of the Elementary and Secondary Education Act and 85 percent of districts receive EETT funds under ESEA.

Other steps to be taken to maximize response rates include multiple mailings and contacts with nonrespondents:

- The surveys will be mailed with postage-paid return envelopes and instructions to respondents to complete and return the survey within 3 weeks.
- Three weeks after the initial mailing, a postcard will be sent out reminding respondents of the survey closing date and offering to send out replacement surveys as needed or the option of completing the survey online.
- Four weeks after the initial mailing, a second survey will be sent to all nonrespondents, requesting that they complete and return the survey (in the postage-paid envelopes included in the mailing) or complete the survey online within 2 weeks.

- Six weeks after the initial mailing, telephone calls will be placed to all nonrespondents reminding them to complete and return the survey. A third round of surveys will be sent after telephone contact, if necessary.

The final step will be for SRI to conduct interviews by phone (i.e., in the event of response rates below 80 percent) to increase the response rate. We will use the data gathered through the phone interview to do a study of nonresponse bias. The responses obtained in the phone interview will be compared with those obtained from respondents to see whether people who did not respond to the mail and online survey are different in systematic ways from those who did. Respondents will also be asked their reasons for not responding to the mail or online survey to learn the reasons for nonresponse.

#### **4. Pilot Testing**

To improve the quality of data collection instruments and control the burden on respondents, all instruments will be pre-tested. Pilot tests of the district survey will be conducted with several respondents in districts near SRI offices in Arlington and Menlo Park, with districts among the case study pool that were not selected for inclusion in the case study sample, and with selected members of the TWG. The results of the pre-testing will be incorporated into revised instruments that will become part of the final OMB clearance package. If needed, the revised survey will be piloted in a small set of local districts with nine or fewer respondents prior to data collection. The district survey can be found in Appendix C.

#### **5. Contact Information**

Dr. Barbara Means is the Project Director for the study. Her mailing address is SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025. Dr. Means can also be reached at 650-859-4004 or via e-mail at [barbara.means@sri.com](mailto:barbara.means@sri.com).

Christine Padilla is the Deputy Director for the study. Her mailing address is SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025. Ms. Padilla can also be reached at 650-859-3908 or via e-mail at [christine.padilla@sri.com](mailto:christine.padilla@sri.com).

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## **Appendix A**

### **Notification Letters**



[informational letter to be sent to survey districts]

Date

[name and address]

Dear Superintendent:

We are writing to inform you about an upcoming evaluation sponsored by the U.S. Department of Education. The Study of Education Data Systems and Decision Making is part of the National Technology Activities Task Order (NTA) which is an effort by the Department to provide analytic and policy support for educational technology leadership activities focused on the implementation of Title II Part D of NCLB. A copy of the study brochure is enclosed for your information. The study will document the availability of systems and supports for using data to improve instruction, and the prevalence and nature of data-informed decision making in districts and schools. It will examine the challenges that educators face in trying to use data systems in their efforts to improve instruction and the practices employed by districts and schools that have used data to inform their decisions and have obtained successful outcomes for their students. Data for the study will include case studies of 30 schools conducted during the 2006-07 school year and a nationally representative survey of 500 districts conducted in spring 2007. Your district has been selected to be part of the national survey sample.

Given the topics covered in the survey, the most appropriate respondent will be your district staff member who has primary responsibility for *leading data-driven instructional improvement activities*. We would appreciate it if you can provide this information through an e-mail message to SRI International<sup>4</sup> who is conducting the study under contract to the U.S. Department of Education (bladimir.lopez-prado@sri.com) or in the envelope provided.

The information collected for this study can be used by (1) states and districts to identify and develop policies to support promising practices in data-driving decision making and to develop and implement performance measurement systems that utilize high quality data, and by (2) U.S. Department of Education staff to design outreach efforts to stimulate and enhance the use of data systems to improve instruction. Please note that we will provide participants with an executive summary of our findings that will include information on promising practices in data-driven decision making drawn from the study.

The information that is collected for this study will be used only for statistical purposes and no information that identifies individual districts will be provided to anyone outside the study team, except as required by law. Reports prepared for the Department of Education will summarize findings across the sample of schools and districts, and will not associate responses with a specific district, school or individual.

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<sup>4</sup> SRI International is a not-for-profit research organization located in Menlo Park, California.

If you have any comments or questions regarding the study, please contact the Deputy Project Director, Christine Padilla, at 650-859-3908 or via e-mail at [christine.padilla@sri.com](mailto:christine.padilla@sri.com). Thank you very much for your time and cooperation.

Sincerely,

Timothy J. Magner  
Director, Office of Educational Technology

Alan Ginsburg  
Director, Policy and Program Studies Service

Enclosures (2)

[cover letter for district survey]

Date

Dear Colleague:

Enclosed you will find a copy of the district survey for the Study of Education Data Systems and Decision Making sponsored by the U.S. Department of Education under Title II, Part D, of the Elementary and Secondary Education Act. While data has been collected on the range of database systems that manage, collect and analyze data, much less is known about actual system usage in ways that support better teaching and learning. The purpose of the study is to document the availability of education data systems, their characteristics, the prevalence and nature of their use in districts and schools, and the conditions and practices associated with effective data usage. A copy of the study brochure is enclosed for your information.

We are sending you this survey because you were identified by your district as the staff member who has primary responsibility for *leading data-driven activities related to instructional improvement*. In some instances, you may need to consult with colleagues in responding to items. Collectively, it will take approximately 60 minutes to complete.

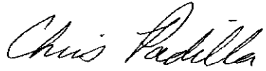
We recognize that participation in this study will require time and energy from you, however, we are requesting your support of this important study so that we can develop a body of knowledge in this emerging field that can inform both educational policy and school district practice. The information collected for this study can be used by (1) states and districts to identify and develop policies to support promising practices in data-driving decision making and to develop and implement performance measurement systems that utilize high quality data, and by (2) U.S. Department of Education staff to design outreach efforts to stimulate and enhance the use of data systems to improve instruction. Please note that we will provide participants with an executive summary of our findings that will include information on promising practices in data-driven decision making drawn from the study.

Under the U.S. Department of Education General Administrative Regulations (EDGAR Section 76.591) grantees are required to cooperate with Department evaluations of programs for which they receive funds. Your prompt response to this survey is crucial to the study, as your district has been selected to represent many others nationwide.

The information that is collected for this study will be used only for statistical purposes and no information that identifies you or your district will be provided to anyone outside the study team, except as required by law. Reports prepared for the Department of Education will summarize findings across the sample of schools and districts, and will not associate responses with a specific district, school or individual.

The study is being carried out by SRI International, a not-for-profit research organization under contract to the U.S. Department of Education. If you have any questions or concerns about this survey, please call Bladimir Lopez-Prado at 650-859-4898, or e-mail him at [bladimir.lopez-prado@sri.com](mailto:bladimir.lopez-prado@sri.com).

Sincerely,

A handwritten signature in cursive script that reads "Chris Padilla".

Christine Padilla  
Deputy Project Director

Enclosure (2)

## **Appendix B**

### **Study Brochure**





**STUDY OF EDUCATION  
DATA SYSTEMS AND  
DECISION MAKING**



For more information, please contact:

**Bernadette Adams-Yates**  
U.S. Department of Education  
400 Maryland Avenue, SW  
Room 6W207  
Washington, DC 20202  
(202) 205-9898  
bernadette.adams.yates@ed.gov

**Christine Padilla**  
SRI International  
333 Ravenswood Avenue  
Menlo Park, CA 94025  
(650) 859-3908  
christine.padilla@sri.com

Sponsored by the U.S. Department of Education's Office of Planning, Evaluation, and Policy Development



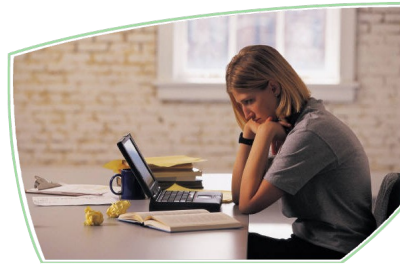
## Purpose

This study, a component of the U.S. Department of Education's National Technology Activities (NTA), will document the availability of systems and supports for using data to improve instruction, and the prevalence and nature of data-informed decision making in districts and schools. It will examine the challenges that educators face in trying to use data systems in their efforts to improve instruction and the practices employed by districts and schools that have used data to inform their decisions and have obtained successful outcomes for their students. The information collected through this study will be used in designing outreach efforts by the U.S. Department of Education to stimulate and enhance the use of data systems to improve instruction.



## Study Design

The study consists of data collection activities at the state and local level to provide (1) nationally representative quantitative data on the prevalence of data-use practices and (2) in-depth, qualitative data on the nature of promising practices in schools and districts that are linking data analysis to instructional decision making.



### States

State data collected from participants in activities sponsored by the U.S. Department of Education and other organizations will be analyzed.

### Districts

District-level data will be collected in spring 2007 from approximately 500 district administrators. Selected school districts will be representative of the nation in terms of geographic region, enrollment size, and district/community income level.

### Schools

Teacher focus groups and individual interviews with principals and teachers will be conducted in 30 schools during the 2006-07 school year. Schools will be selected to participate based, in part, on school performance and teachers' use of data to make instructional decisions.

Study Questions	Data Source		
	States	Districts	Schools
What kinds of systems are available to support district and school data-driven decision making?	✓	✓	
Within these systems, how prevalent are tools for generating and acting on data?	✓	✓	✓
How prevalent are state and district supports for school use of data systems to inform instruction?	✓	✓	✓
How are school staff using data systems?			✓
How does school staffs' use of data systems influence instruction?			✓

## Timeline

This study will be conducted over a period of two years beginning October 2006 and extending through September 2008. An interim report describing preliminary analyses of



## **Appendix C**

### **District Survey**



# Study of Education Data Systems and Decision Making

## 2006-07 District Survey

Note to the recipient of this survey:

This survey concerns the nature of district data systems and the use of data from such systems to improve instruction. Two or more district staff may need to collaborate in responding to the survey. The staff member responsible for implementing information systems may best be able to answer questions in Section B. Sections C and D should be completed by the district staff member who has **primary responsibility for leading data-driven instructional improvement activities**.

Topics addressed in the survey include:

- Data elements of the district electronic data system
- Features of the data system
- Access to the data system
- Data quality
- How data are used to support instructional decision making
- Activities undertaken to increase the capacity of district staff to engage in data-driven decision making
- Activities undertaken to increase the capacity of school staff to engage in data-driven decision making
- Barriers to expanding the use of data-driven decision making practices
- District background information.

The survey is also available in electronic form. If you prefer to take this survey online, you can go to the following URL: [EdTechFuture.org](http://EdTechFuture.org). In order to determine which districts have responded using the electronic form, you will be requested to enter the ID number at the **top left-hand corner** of this page of the survey as well as the name and location of your district. All the names of districts sampled for the survey will be deleted; only the identification number assigned to each survey will be used in entering data.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this survey is 1875-0241. The time required to complete this survey is estimated to average 60 minutes per response, including the time to review instructions, search existing data sources, gather the data needed, and respond to the survey questions. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the U.S. Department of Education, Washington, DC 20202-4651.

**Dear District Administrator:**

Here are the answers to some questions you may have about this survey.

**Why is the U.S. Department of Education sponsoring this study?**

This study is being conducted for the U.S. Department of Education to document the availability of systems and supports for using data to improve instruction, and the prevalence and nature of data-informed decision making in districts and schools. We are collecting data from a nationally representative sample of 500 school districts.

The information collected through this study will be used in designing outreach efforts by the U.S. Department of Education to stimulate and enhance data systems to improve instruction. The data can also be used by state and local staff to identify and develop policies to support promising practices in data-driven decision making intended to improve teaching and learning at the school and classroom levels.

**Why should I respond to this survey?**

The law requires grantees of state-administered federal programs, like Enhancing Education Through Technology (EETT), to cooperate with federal evaluations of the program (see 34 CFR, Section 76.591). We are conducting this survey with only a sample of districts from across the country. **Your response is very important because it represents many other districts nationwide.** Each respondent's participation is critical to our ability to provide policy-makers with complete and accurate information.

Completed surveys will be coded, entered into a data set, and stored in secure facilities. All the names of districts sampled for the survey will be deleted; only the identification number assigned to each survey will be used in entering data. Survey results will be reported in aggregated form to ensure that no individual respondents can be identified.

**What will I need to complete this survey?**

The survey will require about 60 minutes of your time. You will be able to answer the majority of questions on the basis of your knowledge and experience. Some items may concern topics with which you are not familiar. We encourage you to ask the appropriate individuals in your district for the information. Please complete each item according to the directions and return the survey in the enclosed postage-paid envelope to:

Bladimir Lopez-Prado  
SRI International, Room BN322  
333 Ravenswood Avenue  
Menlo Park, CA 94062

The survey is also available in electronic form. If you prefer to take this survey online, you can go to the following URL: [EdTechFuture.org](http://EdTechFuture.org).

**Whom should I contact for more information?**

If you have questions or comments about your response to this survey or about the study, please call Bladimir Lopez-Prado at 650-859-4898, or e-mail him at [bladimir.lopez-prado@sri.com](mailto:bladimir.lopez-prado@sri.com). (SRI is an independent, not-for-profit research and consulting organization.)

**THANK YOU FOR YOUR COOPERATION IN THIS IMPORTANT EFFORT**



## Study of Education Data Systems and Decision Making

1. How many public schools are currently in your district? \_\_\_\_\_
  - a. How many of these schools received Title I funds in the current (2006-07) school year? \_\_\_\_\_
  - b. For the current school year (2006-07), how many schools in the district **did not** make adequate yearly progress (AYP) as defined by NCLB based on 2005-06 test scores? \_\_\_\_\_

For purposes of this survey we are interested in electronic student data systems and tools that can enhance educational decision making (see Question 3 for definitions of these types of systems). If you **do not** have a student data system that meets this definition, please check here  and return the survey in the postage-paid envelope.

### A. District and Respondent Background

As described on the cover of the survey, two or more district staff may need to collaborate in responding to the survey. The staff member responsible for implementing information systems may best be able to answer questions in Section B. Sections C and D should be completed by the district staff member who has primary responsibility for leading data-driven instructional improvement activities. Please note that no respondents or districts will be identified; survey results will be reported in aggregated form.

2. Which of the following most closely describes the job title of the staff member or members who completed each section of the survey? **Fill in as many as apply for each column.**

<b>Job title:</b>	<b>Section B</b>	<b>Section C</b>	<b>Section D</b>
a. District Superintendent	①	①	①
b. Assistant Superintendent	②	②	②
c. Chief Information Officer	③	③	③
d. Instructional Technology Coordinator	④	④	④
e. Division Director	⑤	⑤	⑤
f. Researcher/Evaluator	⑥	⑥	⑥
g. Professional Development Specialist	⑦	⑦	⑦
h. Finance Officer	⑧	⑧	⑧
i. Other: _____	⑨	⑨	⑨

## B. Student Data System

This section asks about the features and capabilities of the district’s current electronic student data system or systems, regardless of whether those features are used to their fullest capacity.

### Elements of the Student Data System

3. What electronic student data system or systems is *driving instructional improvement* in your district? The first column describes the major function or components of the data systems. Please indicate which of these systems you have in the district by writing in the name of the system and identifying the developer of the system. **Please fill in as many as apply.**

Type of Student Data System	Name of Student Data System (fill in)	Source/Developer			
		Locally developed	State developed	Commercially developed	Other
a. <b>Student information system:</b> provides real-time access to student data such as attendance, demographics, test scores, grades, schedules, etc.		①	②	③	④
b. <b>Data warehouse:</b> electronic data collection and storage system that provides access to current and historical data on students, personnel, finance, etc.		①	②	③	④
c. <b>Instructional/curriculum management system:</b> provides a unifying framework to provide access to curriculum and instructional resources such as planning tools, model lesson plans, creation of benchmark assessments, linkage to state content or performance standards, communication and collaboration tools (e.g., threaded discussion forums).		①	②	③	④
d. <b>Assessment system:</b> rapidly organizes and analyzes benchmark assessment data.		①	②	③	④
e. Other system (describe): _____ _____		①	②	③	④
f. Other system (describe): _____ _____		①	②	③	④

4. How long has your district had each of the kinds of electronic student data systems indicated above, including systems that may predate the ones listed above (e.g., an earlier student information system by a different developer)? **Please fill in one response for each type of system.**

Type of Student Data System	Don't Have System	Number of Years Had This Type of Data System			
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years
a. Student information system	①	②	③	④	⑤
b. Data warehouse	①	②	③	④	⑤
c. Instructional/curriculum management system	①	②	③	④	⑤
d. Assessment system	①	②	③	④	⑤
e. Other system (describe): _____ _____	①	②	③	④	⑤
f. Other system (describe): _____ _____	①	②	③	④	⑤

5. Does your district currently maintain electronically any of the following types of information? If yes, do you have access to data stored for at least 3 years or longer (i.e., access to data in the same format across years)? **Fill in one response for each row in each column.**

Type of Information	Data available electronically in your district?		Longitudinal data available for 3 years or more?	
	NO	YES	NO	YES
a. Student test scores on statewide assessments.	⓪	Ⓜ	⓪	Ⓜ
b. Student test scores on district-administered assessments (e.g., benchmark test, diagnostic test, local test).	⓪	Ⓜ	⓪	Ⓜ
c. Student test scores on school-administered assessments (e.g., end of unit test, diagnostic test).	⓪	Ⓜ	⓪	Ⓜ
d. Student test scores on SAT, ACT, and Advanced Placement tests.	⓪	Ⓜ	⓪	Ⓜ
e. Student grades (i.e., end of course, quarter or semester grades).	⓪	Ⓜ	⓪	Ⓜ
f. Student course enrollment histories (e.g., course completion information).	⓪	Ⓜ	⓪	Ⓜ
g. Student demographics (e.g., campus of enrollment, grade level, gender, ethnicity, English Language Learner—ELL status, economically disadvantaged status, migrant status).	⓪	Ⓜ	⓪	Ⓜ
h. Prior school(s) attended within the district.	⓪	Ⓜ	⓪	Ⓜ
i. Student special education information (e.g., diagnostic data).	⓪	Ⓜ	⓪	Ⓜ
j. Student participation in educational programs (e.g., ELL program, Title I, gifted and talented, special education, after school learning programs, supplemental services tutoring).	⓪	Ⓜ	⓪	Ⓜ
k. Student attendance (e.g., daily attendance, tardies).	⓪	Ⓜ	⓪	Ⓜ
l. Student behavior data (e.g., counselor reports, referrals, discipline).	⓪	Ⓜ	⓪	Ⓜ
m. Differential codes for students no longer enrolled (e.g., transferred within the district, transferred out of the district, dropped out).	⓪	Ⓜ	⓪	Ⓜ
n. Student graduation status (i.e., whether or not each student graduated).	⓪	Ⓜ	⓪	Ⓜ
o. Status after graduation (e.g., attending college, working).	⓪	Ⓜ	⓪	Ⓜ
p. Teacher qualifications (e.g., certification, education).	⓪	Ⓜ	⓪	Ⓜ
q. Teacher professional development (e.g., workshops attended, courses taken).	⓪	Ⓜ	⓪	Ⓜ
r. Parent data (e.g., background, involvement, perceptions of school).	⓪	Ⓜ	⓪	Ⓜ
s. Other: Please Describe _____ _____	⓪	Ⓜ	⓪	Ⓜ

6. What data would your district like to have electronically that you do not currently have? **Please specify.**

**Features of the Student Data System**

7. Does your district student data system(s) have the capability to support queries (i.e., allowing the user to make specific data requests) *regardless of whether they are used*? **Fill in one response for each row.**

Type of Query	No, Not Available on System	Yes, Query Available to:	
		District staff	School staff
a. Student performance linked to Adequate Yearly Progress (AYP) subgroups (e.g., low income students, African American students).	①	①	②
b. Student performance linked to specific teachers (e.g., reading achievement of students in a specific classroom).	①	①	②
c. Student performance linked to teacher characteristics (e.g., reading performance of students assigned to first-year teachers).	①	①	②
d. Student performance linked to specific instructional programs (e.g., achievement gains of third graders in the after school reading program).	①	①	②
e. Individual student assessment performance over time (e.g., reading test score history).	①	①	②
f. Individual student history over time (e.g., cumulative grades, schools attended).	①	①	②
g. Linking school performance and finance data (e.g., how high and low-performing schools compare in terms of actual per pupil expenditures).	①	①	②

8. Does your district data system(s) include the following features or tools for use by district and school staff, *regardless of whether those capabilities are used*? **Fill in all that apply for each row.**

Feature or Tool	No, Not Available on System	Yes, Feature Available to:	
		District staff	School staff
a. Ability to generate standard accountability reports or district report card and school report cards.	①	①	②
b. Transaction capture (e.g., daily and class attendance, disciplinary actions, sick time, etc.)	①	①	②
c. Drill-down capability (e.g., the ability to query a school level finding to efficiently examine a subset of data at a grade, classroom, or student level).	①	①	②
d. Assessments available in reading, mathematics, and/or other core subject areas that students take online.	①	①	②
e. Tools for communicating with parents around an individual student’s performance (e.g., student reports, online access to student assignments and attendance).	①	①	②
f. Links to curricular resources (e.g., lesson plans, state content or performance standards, references to instructional materials).	①	①	②
g. Other features or tools. Please explain: _____ _____	①	①	②

### **Access to the Student Data System**

The following questions focus on the accessibility of *student-level data* in the district’s electronic data system(s).

9. What description below best describes the access that *school* principals or specialists (i.e., not classroom teachers) have to student-level data through the district’s electronic information system(s)? **Please fill in one number.**
- ① Principals or specialists have access to **all** the data on students in their school contained in the district information system(s).
  - ② Principals or specialists have access to **most** of the data on students in their school contained in the district information system(s).
  - ③ Principals or specialists have access to a **limited set** of the data on students in their school contained in the district information system(s) (e.g., achievement data, attendance data).
  - ④ No student-level data is available *electronically* to principals or specialists.

10. What description below best describes the access that **individual classroom teachers** have to student-level data through the district’s electronic information system(s)? **Please fill in one number.**

- ① Classroom teachers have access to **all** the data on students in their classroom contained in the district system(s).
- ② Classroom teachers have access to **most** of the data on students in their classroom contained in the district system(s).
- ③ Classroom teachers have access to only a **limited set** of the data on students in their classroom contained in the district system(s) (e.g., their most recent standardized test scores).
- ④ Individual classroom teachers **do not** have access to data on the students in their classroom.

11. Do the **majority** of classroom teachers have access to the district’s electronic data system(s) in any of the following locations? **(Fill in one response for each row.)**

Access to Data	NO	YES	Don’t Know
a. In their own classroom or office.	①	①	⑨
b. Somewhere else in the school (i.e., not the teacher’s classroom or office).	①	①	⑨
c. Internet access at their home.	①	①	⑨

### **Data Quality**

The reliability and accuracy of data in the student data system(s) is a common concern among districts attempting to establish data-driven decision making practices. The next set of questions focus on this issue.

12. Has *your district* disseminated data collection guidelines and recommended data information management and security practices to schools? **(Please fill in one number.)**

- ① No
- ① No, but the state has provided guidelines and recommended data practices
- ② Yes

13. Does *your district* have one or more staff members who are responsible for receiving and preparing data files from outside sources, such as the state and test publishers, to load into the student data system? **(Please fill in one number.)**

- ① No
- ① No, because we use an outside source (e.g., the regional center, vendor) for this task
- ② Yes

14. By your estimate, what percentage of the data captured by the district’s student data system(s) is accurate? **(Please fill in one number.)**

- ① Less than 50% is accurate
- ② 50-75% is accurate
- ③ 76-90% is accurate
- ④ Greater than 90% is accurate

15. What data elements do you feel have the biggest accuracy problems? **Please specify.**

16. For which of these student-level data elements are school staff responsible for entering directly into the student data system(s) (e.g., via online input, completing a scannable form)? Data entered through “other method” would include staff other than those employed by the district such as a contractor or state staff who prepare the data for the district (e.g., a test publisher, state generated data set). **(Please fill in all that apply for each row.)**

Type of Data	Data Not in System	Data Entered by:		Data Entered Through Other Method
		School staff	District staff	
a. Student test scores on district-required assessments (benchmark, diagnostic).	①	①	②	③
b. Student test scores on school-required assessments (e.g., end of unit test, diagnostic).	①	①	②	③
c. Student grades.	①	①	②	③
d. Student course enrollment histories (e.g., course completion information).	①	①	②	③
e. Student demographics (e.g., campus of enrollment, grade level, gender, ethnicity, ELL status, economically disadvantaged status, migrant status).	①	①	②	③
f. Student special education information.	①	①	②	③



Type of Data	Data Not in System	Data Entered by:		Data Entered Through Other Method
		School staff	District staff	
g. Student participation in educational programs (i.e., ELL program, Title I, gifted and talented, after school learning programs, tutoring).	①	①	②	③
h. Student attendance (e.g., daily, tardies).	①	①	②	③
i. Student behavior data (e.g., counselor reports, referrals, discipline).	①	①	②	③
j. Student drop out data.	①	①	②	③
k. Student graduation data.	①	①	②	③

The remainder of the survey focuses on how your district’s student data system(s) and tools are being used to enhance educational decision making in your district. The staff member who has primary responsibility for leading the district’s data-driven instructional improvement activities may be the best individual to complete Sections C and D of the survey.

### C. District Use of Data

This section asks about your district’s goals for data-driven decision making and how district staff use the student data system(s) to support decisions intended to improve instruction. By “data-driven decision making” we mean the integration and analysis of data and information from various data systems to support decisions intended to improve teaching and learning at the school and classroom levels.

17. This question focuses on how the student data system(s) is actually used to support decision-making *in your district*. How often do **staff in the district office (non school-based staff)** perform the following activities related to student data *using an electronic data system(s)*? **(Fill in your best estimate for each line.)**

Use data in the districts' electronic student data system(s) to:	Never	Annually	2 to 4 Times a Year	Monthly or More Often
a. Analyze student achievement data over time (i.e., identifying trends).	①	②	③	④
b. Track other measures of student progress (e.g., benchmark and diagnostic tests).	①	②	③	④
c. Analyze student achievement by grade-level, district wide or by school.	①	②	③	④
d. Examine achievement gaps between groups of students (e.g., NCLB subgroups).	①	②	③	④
e. Track school performance (e.g., to estimate AYP for schools).	①	②	③	④
f. Track graduation rates by school.	①	②	③	④
g. Track student readiness for promotion or graduation (e.g., percent on track to graduate or advance).	①	②	③	④
h. Inform student placement in courses or special programs or support services (e.g., remedial math, gifted program, tutoring).	①	②	③	④
i. Inform teachers about individual students' instructional needs in terms of specific skills or content.	①	②	③	④
j. Monitor student attendance.	①	②	③	④
k. Examine district or school climate data (e.g., student perceptions, satisfaction levels of staff and parents).	①	②	③	④
l. Inform parents about student progress (e.g., test scores on district test, areas of strengths and weaknesses, satisfactory course completion).	①	②	③	④

18. How often are *electronic student data systems* used by **staff in the district office** to discuss or make decisions in the following areas? **(Fill in your best estimate for each line.)**

<b>Use data in the districts' electronic student data system to:</b>	<b>Never</b>	<b>Annually</b>	<b>2 to 4 Times a Year</b>	<b>Monthly or More Often</b>
a. Guide curricular changes or curriculum development (e.g., align curriculum with content standards).	①	②	③	④
b. Develop benchmark assessments aligned with curriculum.	①	②	③	④
c. Evaluate teacher performance (e.g., assessing classroom performance, evaluating teachers' instructional practices).	①	②	③	④
d. Evaluate principal performance.	①	②	③	④
e. Inform instructional practice (e.g., tailoring instruction to meet student needs, managing instructional pacing).	①	②	③	④
f. Identify promising instructional programs (e.g., measuring program effectiveness).	①	②	③	④
g. Inform professional development offerings for school staff to enhance instructional quality.	①	②	③	④
h. Target individual teachers for specific professional development.	①	②	③	④
i. Track teacher qualifications (e.g., to determine highly qualified status).	①	②	③	④
j. Inform resource allocation to improve instruction (e.g., which schools/students receive which programs, which staff work in which school/with which students).	①	②	③	④
k. Meet accountability reporting requirements.	①	②	③	④
l. Use data for other purposes. Please specify: _____ _____	①	②	③	④

## D. Capacity-Building for Data Use

This section asks about *your district's* efforts to build capacity at the district- and school-levels to support using data to improve instruction.

19. Does your district use or plan to use any of the following methods to increase the capacity of **staff in the district office** to engage in data-driven decision making, with the goal of improving instructional practice? **(Fill in one response for each line.)**

Methods used to increase district capacity:	No Plans	Plan to Use Within Next 12 Months	Currently Using
a. Partnering with another district.	①	②	③
b. Partnering with a regional entity or consortia.	①	②	③
c. Contracting with a software vendor or other company that provides training on the technical aspects of system use for intended users of its system. Please specify vendor: _____	①	②	③
d. Restructuring district staff or practices to increase collaboration and communication among departments around the use of data to improve instructional practices.	①	②	③
e. Providing district administrators with training on how to use data.	①	②	③
f. Providing district administrators with training on how to implement data-driven decision making practices.	①	②	③
g. Making data analysis experts available to district staff.	①	②	③
h. Acquiring software for analyzing student achievement.	①	②	③
i. Making technical experts (in systems, networks, databases) available to district staff to support system use.	①	②	③
j. Tracking teacher use of the district data system.	①	②	③
k. Providing training to district staff on basic functions of the data system (e.g., accessing and downloading data, data queries).	①	②	③
l. Ensuring data in the system is current, timely, and user-friendly.	①	②	③
m. Providing district staff with tools to help them turn data into information that can inform decision making.	①	②	③
n. Other. Please specify: _____ _____	①	②	③

20. Does your district provide or provide support for any of the following training (e.g., data retreats, workshops, data coaches) to increase **school-level** capacity in data-driven decision making to improve instruction, and if so, what proportion of schools are involved or have been involved as of the current school year (2006-07)? **(Fill in your best estimate for each line.)**

District-supported training to increase school-level capacity:	Proportion of Schools Involved			
	None of the schools	Half or less than half of the schools	More than half of the schools	All of the schools
a. Training school staff on the basic functions of the data system (e.g., accessing and downloading data, data queries).	①	②	③	④
b. Training school staff on data entry to improve data accuracy.	①	②	③	④
c. Training school staff on data management and security.	①	②	③	④
d. Training principals or other building administrators on using the data system to analyze student achievement.	①	②	③	④
e. Training principals or other building administrators on using data to change instructional practice (e.g., translating data into practice).	①	②	③	④
f. Training school administrators on how to provide leadership for data-driven decision making practices in their school.	①	②	③	④
g. Training teachers on using the data system to analyze student achievement.	①	②	③	④
g. Training teachers on using data to change instructional practice (e.g., translating data into practice).	①	②	③	④

21. Does your district do any of the following activities intended to increase *school-level* capacity in data-driven decision making to improve instruction, and if so, what proportion of schools are involved or have been involved as of the current school year (2006-07)? **(Fill in your best estimate for each line.)**

District activities to increase school-level capacity:	Proportion of Schools Involved			
	None of the schools	Half or less than half of the schools	More than half of the schools	All of the schools
<b>Providing resources/assistance to schools</b>				
a. Making <i>technical</i> experts (in systems, networks, databases) available to schools to support system use.	①	②	③	④
b. Providing models illustrating school use of data in allocating resources and designing school improvement activities (e.g., school improvement template, providing assistance in analyzing and revising the school budget).	①	②	③	④
c. Making <i>data analysis</i> experts available to school staff such as data coaches.	①	②	③	④
d. Identifying professional development that addresses data-driven school improvement issues for schools identified for improvement.	①	②	③	④
e. Providing links or pointers to an online database of state academic or content standards.	①	②	③	④
f. Providing web-accessible lesson plans and planning resources linked to academic standards and assessment results.	①	②	③	④
g. Providing web-accessible library of diagnostic or benchmark assessments (for downloading) linked to academic standards.	①	②	③	④
h. Providing teachers research-based guidance on differentiating instruction on the basis of student assessment data.	①	②	③	④
<b>Implementing policies/practices</b>				
i. Requiring instructional coaches to explicitly incorporate data use and train teachers in data use as part of their job.	①	②	③	④
j. Paying for incentives for teachers to use or obtain training in data-driven decision making (e.g., paying for dedicated time for school staff to review data).	①	②	③	④
k. Requiring all or particular schools to follow specific	①	②	③	④

District activities to increase school-level capacity:	Proportion of Schools Involved			
	None of the schools	Half or less than half of the schools	More than half of the schools	All of the schools
data-driven decision-making practices in their school improvement plans (e.g., schools identified for improvement).				
l. Requiring “data conferences” between individual principals and district leaders.	①	②	③	④
m. Following up to determine if schools have implemented instructional changes prescribed as a result of data analysis activities.	①	②	③	④
n. Other. Please specify: _____ _____	①	②	③	④

22. For how many years has your district been actively engaged in helping *schools* to use data to improve instruction? **(Fill in one response for each line.)**

District support activities to help schools to use data:	No Plans in This Area	Number of Years of District Support			
		Planning but have not started	1 to 2 years	3 to 5 years	6 or more years
a. Providing professional development for teachers and principals on the use of data to improve instructional practices.	①	①	②	③	④
b. Providing resources (such as models, consultants) to schools to support the use of data to inform instruction.	①	①	②	③	④
c. Implementing policies and requirements to use data or providing incentives for data use.	①	①	②	③	④

23. In general, how much does your district *need examples of good practice* in the following areas? **(Fill in one response for each line.)**

<b>Area of need:</b>	<b>Little Need (we know how to do this)</b>	<b>Some Need</b>	<b>Great Need</b>
a. Using assessment data to identify gaps in student achievement (e.g., standards that individual students or groups of students don't meet).	①	②	③
b. Adapting instructional activities to meet students' individual needs (e.g., modifying lesson plans to teach students at different ability levels).	①	②	③
c. Developing curriculum-embedded formative assessments (e.g., designing assessments to use with instruction).	①	②	③
d. Examining student data to identify which practices work best for which students (e.g., comparing the performance of students receiving instructional programs).	①	②	③
e. Collaborating and sharing ideas with colleagues regarding data inquiry and analysis issues (e.g., group facilitation techniques).	①	②	③
f. Communicating with parents about student progress.	①	②	③
g. Structuring the district organization and practices to support data-driven decision making.	①	②	③

24. To what extent are the following typical problems *current barriers* to the expanded use of data-driven decision making *in your district*? **(Fill in one response for each line.)**

<b>Current barriers in our district:</b>	<b>Not a Barrier</b>	<b>Minor Barrier</b>	<b>Major Barrier</b>
<b>Data system and technology resources</b>			
a. Lack of sufficient hardware (servers, computers, peripheral devices, etc.).	①	②	③
b. Out-of-date hardware.	①	②	③
c. Internet connections that are not fast or reliable enough.	①	②	③
d. Unreliable or inaccurate data in the system.	①	②	③
e. Data stored in forms that are difficult to access, manage, and interpret.	①	②	③
f. Information located in multiple disparate data bases that make it difficult to link data for analyses (i.e., lack of interoperability).	①	②	③



<b>Current barriers in our district:</b>	<b>Not a Barrier</b>	<b>Minor Barrier</b>	<b>Major Barrier</b>
g. Lack of district-wide unique <i>student</i> identification numbers that are consistent from year-to-year.	①	②	③
h. Lack of district-wide unique <i>teacher</i> identification numbers that are consistent from year-to-year.	①	②	③
i. Inability to provide adequate safeguards and security for the data.	①	②	③
j. Lack of funding to expand or improve the student data system.	①	②	③
<b>Logistical/other barriers</b>			
k. Lack of trained technical staff available for product and service acquisition, installation, or equipment maintenance.	①	②	③
l. Lack of trained instructional or support specialists available to assist with data-driven decision making.	①	②	③
m. Lack of <i>teacher</i> preparation on how to use data for data-driven decision making.	①	②	③
n. Lack of <i>building administrator</i> preparation on how to use data for data-driven decision making.	①	②	③
o. Lack of time for school staff to conduct data-driven decision making activities.	①	②	③
p. Lack of a clear vision or strategic plan for data-driven decision making.	①	②	③
q. Lack of district leadership support for data-driven decision making.	①	②	③
r. Lack of communication or sharing of data across departments within the district.	①	②	③
s. Policies prohibiting access to individual student-level data.	①	②	③
t. Lack of incentives for data use.	①	②	③
u. Other. Please specify: _____ _____	①	②	③

**REMINDER:** There may have been more than one respondent needed to complete this survey. Please remember to review and complete Question 2 of the survey.

Please feel free to note any special circumstances in your district or comments you might have:

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**THANK YOU!**

If you have any questions about this survey, please contact Bladimir Lopez-Prado at [bladimir.lopez-prado@sri.com](mailto:bladimir.lopez-prado@sri.com) or 650-859-4898. Please use the enclosed envelope to return the completed survey to SRI International.

All study participants will be notified of the availability of the final report once it is completed. Thank you very much for your time.