TO: LSC Project   DATE: September 2005
         PIs and Evaluators

FROM: Horizon Research, Inc.   RE: 2005–06 LSC Core Evaluation

The Local Systemic Change through Teacher Enhancement (LSC) solicitation indicated the
National Science Foundation's (NSF's) plan to "provide a framework for data collection
(including a set of instruments and procedures) that will allow the Foundation to evaluate
individual projects, aggregate data and information across projects, and produce a cross project
analysis" [NSF 94-73]. NSF has contracted with Horizon Research, Inc. (HRI) of Chapel Hill,
NC to design the data collection framework, provide technical assistance in its implementation,
and prepare a cross-site analysis of the evaluation results.

The evaluation system developed by HRI includes qualitative and quantitative data collection by
the LSC projects to address the following core evaluation questions:[1]

1. What is the overall quality of the LSC professional development activities?

2. What is the extent of school and teacher involvement in LSC activities?

3. What is the impact of the LSC professional development on teacher preparedness,
    attitudes, and beliefs about science and mathematics teaching and learning?

4. What is the impact of the LSC professional development on classroom practices in science
    and mathematics?

5. To what extent are the school and district contexts becoming more supportive of the LSC
    vision for exemplary science and mathematics education?

6. What is the extent of institutionalization of LSC reforms?

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[1] While all LSC projects collect data to address these questions, this list is not meant to be exhaustive; individual LSC projects are encouraged
to address additional questions of interest to them.

General Description

Projects collect data to address these core evaluation questions through questionnaires, interviews, and observations using instruments provided by HRI. Copies of these instruments and guidelines for their use are included in this LSC Data Collection Manual.

The core evaluation activities require an average of about **40 days of an evaluator's time** per year, with a higher level of effort in some years than others.[2] Each LSC project is expected to designate a lead project evaluator to serve as liaison with HRI, to personally conduct at least three of the required observations of professional development activities each year, and to ensure that other necessary data are collected. Other core evaluation activities may be carried out either by this individual alone or by a team of consultants and/or district employees, as long as the evaluators have the necessary expertise in science/mathematics education.[3] Individuals conducting classroom and professional development observations must successfully complete HRI's certification/training process. **It is important to note that the PI is responsible for making sure that all of the core evaluation activities are conducted well and on time; NSF has indicated that continued funding is contingent on full compliance with the requirements of the core evaluation.**

The majority of data collection takes place in the Baseline Year (the "partial year" when projects are funded), Year Two, and the Final Year.[4] (Projects have the option of collecting the "Final Year" of data during the spring immediately following the receipt of their final funding increment from NSF or the following spring.) A lesser effort of data collection is required in the interim years. The level of effort required for the yearly core evaluation report will also vary from year to year, with full reports due in Year Two and the Final Year of data collection and less extensive reporting in the other years.

Project Evaluator Activities

1. **Project Team Interviews.** Evaluators interview the project team periodically about the LSC design and the status of districts' policies and practices.

2. **Professional Development Observations (5–8 each year professional development is offered).** Throughout the year, evaluators conduct observations of selected professional development activities.

3. **Classroom Observations.** Projects conduct random sample of classroom observations in the Baseline Year. Core evaluation observations are longitudinal, with the same teachers observed two more times over the course of the project, in Year Two and in the Final Year. Observations must be completed by March 31, 2006. Protocols are to be submitted via the Web by May 1, 2006.

4. **Individual Teacher Interviews (10 each year).** Each year after the Baseline Year, project evaluators conduct interviews of a random sample of ten treated teachers. Interviews must be completed by March 31, 2006. Protocols are to be submitted via the Web by May 1, 2006.

5. **Evaluation Report.** The project evaluator provides the PI and HRI with a core evaluation report. In this last year of the LSC core evaluation, the reporting guidelines will be made available to projects by January 6, 2006. The final core evaluation report will be due by June 1, 2006.

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[2] Data collection activities vary from year to year, and evaluation budgets/contracts should be adjusted accordingly.

[3] NSF must approve all members of the evaluation team.

[4] Since 2005−06 is the last year of data collection for the LSC core evaluation, all active LSCs will be in their Final Year of data collection.

PI Activities

1. **District Information forms.** PIs are asked to collect information on district policies and practices from participating districts in the Baseline Year and in the Final Year of the LSC. Copies of the completed forms are to be sent to the Lead Evaluator and to HRI by April 1, 2006.

2. **District Policy Ratings.** PIs are asked to provide ratings of district policy for a sample of three districts in the Baseline Year, two years later (Year Two), and the Final Year of the project. These data are used by the evaluator in completing the Core Evaluation Report.

PI/Evaluator Activities

The following core evaluation activities can be coordinated by the PI and/or the project Lead Evaluator depending on what arrangement best fits the project's needs.

1. **Teacher Questionnaires.** In the Baseline Year, two years later (Year Two), and the Final Year, the PI and/or Lead Evaluator oversee the distribution and collection of teacher questionnaires for a random sample selected by HRI. All completed Teacher Questionnaires are due at HRI on April 1, 2006.

2. **Principal Questionnaires (entire population).** Between January and March of the Baseline Year, Year Two, and Final Year, the PI and/or Lead Evaluator oversee the distribution and collection of questionnaires to all principals of schools that will be involved in the LSC at some time during the funding period. In the intervening years, an abbreviated version is administered. All completed Principal Questionnaires are due at HRI on April 1, 2006.

Core Evaluation Data Collection System

The following table outlines the core evaluation data collection system for a typical project.

Core Evaluation Data Collection System

	Baseline Year	Year One	Year Two	Interim Years	Final Year
Project Team Interview	Baseline	Follow-Up	Follow-Up & Sustaining	Follow-Up	Lessons Learned
Prof. Dev. Observations	2–5	5–8	5–8	5–8	5–8
School Sampling Frame	Yes	Yes	Yes	Yes	Yes
Principal Questionnaires	Long	Short	Long	Short	Long
Teacher Sampling Frame	Yes	Yes	Yes	Yes	Yes
Teacher Interviews	---	10	10	10	10
Classroom Observations	16 per "subject"	---	16 per "subject"	---	16 per "subject"
Teacher Questionnaires	300* per "subject"	---	300* per "subject"	---	300* per "subject"
District Information Forms	Yes	---	---	---	Yes
District Policy Ratings	Yes	---	Yes	---	Yes
Project Policy Ratings	Yes	---	Yes	---	Yes
Report	Abbreviated	Abbreviated	Full	Abbreviated	Full

* Each project that administers questionnaires to a sample (as opposed to the entire population) of teachers will be asked to administer a small number of additional teacher questionnaires as part of the longitudinal program evaluation. The number will vary based on project size, but will not exceed 75 questionnaires.

Optional Evaluation Activities

The core evaluation system outlined here is designed to meet NSF's needs for accountability and program improvement purposes and at the same time provide information the LSC projects need for making mid-course corrections. For those projects able to devote additional resources to evaluation beyond those specified here, we suggest:

- Observation of as many as possible of the professional development activities, including informal interviews with participants;

- Additional interviews with teachers and principals from the district(s);

- Increased evaluation attention to the policy domain, including interviewing superintendents and school board members; and, especially,

- Having the Lead Evaluator attend as many as possible of the project planning meetings, both to ask questions to clarify strategies and to provide more frequent formative evaluation feedback.

In addition, projects will want to get information about the quality and impact of any special components of their efforts, e.g., collaboration with pre-service teacher preparation programs, creation of a centralized materials distribution center, special community outreach programs.

Permission to Use Instruments

Permission is granted for the use of LSC core evaluation data collection instruments, with appropriate attribution, for other educational and research purposes, e.g., professional development of teacher leaders. Instruments may be photocopied.