### Local Systemic Change Ratings for the 2005–06 Core Evaluation Report

### **Final Year**

### Introduction

The data collection and reporting year for the 2005–06 Core Evaluation Report includes evaluation activities occurring from September 1, 2005 through March 31, 2006. The Lead Evaluator of each project should be sure the following are submitted to HRI by June 1, 2006:

- All classroom and professional development observation protocols and all teacher interview summaries for the 2005–06 data collection year (submit via the Web).<sup>1</sup>
- Core Evaluation Report including Report Ratings and Rationales (submit via the Web).<sup>2</sup>

The Core Evaluation Rating and Narrative Rationale should be completed for the following:

| Introduction | Overview of the LSC Project  |
|--------------|--|
| Part One     | Ratings of the Quality of the LSC Professional Development Program |
| Part Two     | Extent of Support for LSC Reforms                                  |
| Part Three   | Likelihood of Institutionalization of LSC Reforms                  |
| Part Four    | Summary of the Initiative  |

### Please note the constraints associated with web-based submission of reports:

- Any quantitative data you wish to include will need to be incorporated into the narrative; please do not submit charts or tables.
- Indicate quotes with quotation marks; do not use italics.
- Similarly, use two asterisks before and after a phrase to indicate emphasis; do not use underlining or bold print.

<sup>&</sup>lt;sup>1</sup> Data from "penalty" observations and interviews are also due by May 1, 2006, if applicable.

<sup>&</sup>lt;sup>2</sup> The URL for this website will be sent directly to Lead Evaluators on April 1, 2006.

### Introduction: Overview of the LSC Project

Please provide a brief (1-2 pages) description of the design of the LSC project, including relevant information about the context in which it operated, and any major changes to the design over the course of the project.

### **Description:**

### Part One: Ratings of the Quality of the LSC Professional Development Program

For the core evaluation, the quality of an LSC professional development program is assessed by how well it addresses the following functions: (1) deepening teacher content knowledge; (2) helping teachers become familiar with the designated instructional materials and learn the appropriate pedagogy to develop students' conceptual understanding of mathematics/science; and (3) providing ongoing support to teachers as they implement the designated instructional materials in the classroom. The extent to which professional development providers are prepared to carry out their roles, and the quality of the professional development learning environment are considered "enabling characteristics," that may either facilitate or inhibit the quality of the program.

In this report, you are asked to assess the quality of each, and provide overall ratings for these areas and for the program as a whole. In completing these ratings, evaluators should consider all available information regarding the professional development program, including observations of the professional development sessions and interviews with the PI and project staff. These ratings should reflect a holistic view of the professional development program, not just "arithmetic averages" of the individual professional development sessions observed. You are rating this program as it is experienced by the typical targeted teacher. Please note that you are NOT rating the program designers; programs may be rated low in one or more areas even if project staff are doing a remarkably good job of planning and implementation given the constraints of their situation.

In assessing the quality of the project's components, you should begin with an overall statement of that quality and include major reasons for the assessment and the most salient evidence to support the reasoning. Make sure the overall statement of quality is clear. Reports submitted without these components will be returned to the evaluator for clarification.

**Note:** Projects vary in the amount of professional development offered to teachers in the "Final Year." Assessment of the quality and impact of the professional development program should be based on at least 5 professional development observations. If fewer sessions were observed, because professional development offerings in the Final Year were limited, the evaluator should include professional development observation data from the 2004–05 data collection year in this report.

- A. The following program characteristics may influence the quality of the professional development program. Please rate the extent to which each of these areas inhibited or facilitated the implementation of the project's professional development program in 2005–06. Provide a rationale for each rating.
  - 1. The extent to which project staff (including mathematicians/scientists and teacher leaders) were qualified/prepared for their roles as professional development providers.

In assessing the quality of the preparation of the professional development providers, be sure to consider the questions in the box below. *Although it is not necessary to address* 

each bullet separately, it is essential that your rationale includes an overall judgment of the area, reasoning for this judgment, and a brief presentation of evidence.

- Among professional development providers, to what extent was there a shared vision of high-quality, mathematics/science education and the professional development needed to achieve it?
- To what extent was there sufficient orientation to program goals, strategies, and the needs of participants?
- How effectively were leadership roles/expectations communicated?
- To what extent was there appropriate attention to the development of the knowledge and skills needed to carry out their particular professional development roles (e.g., working with adult learners)?
- To what extent was there adequate support for professional development providers as they carried out their roles?

## **Program Rating:** Quality of Preparation of Professional Development Providers (2005–06)

| 1                   | 2 | 3 | 4 | 5                     |
|---------------------|---|---|---|-----------------------|
| Inhibited effective |   |   |   | Facilitated effective |
| professional        |   |   |   | professional          |
| development         |   |   |   | development           |

#### Rationale

Statement summarizing your overall assessment of this area:

2. The extent to which the culture in the professional development program encouraged teachers to be both learners and reflective practitioners.

In assessing the quality of the professional development culture, be sure to consider the questions in the box below. *Although it is not necessary to address each bullet separately, it is essential that your rationale includes an overall judgment of the area, reasoning for this judgment, and a brief presentation of evidence.* 

- To what extent did the professional development activities have an atmosphere of trust, respect, and openness to ideas?
- To what extent was there shared dialogue and collaboration among participants? Between participants and facilitators?
- To what extent did participants see the activities as relevant and useful to them? Were teachers typically eager to participate in the professional development (as opposed to attending only because it was required)?
- To what extent was there opportunity within the professional development program for teachers to reflect on the implications of professional development for their practice?

### **Program Rating:** Culture of the Professional Development Program (2005–06)

| 1                   | 2 | 3 | 4 | 5                     |
|---------------------|---|---|---|-----------------------|
| Inhibited effective |   |   |   | Facilitated effective |
| professional        |   |   |   | professional          |
| development         |   |   |   | development           |

#### Rationale

Statement summarizing your overall assessment of this area:

- B. Please rate the quality of the project design and implementation in 2005–06 with regard to each of the following key functions of an LSC professional development program. **Provide a rationale for each rating.** 
  - 1. Helping teachers deepen their understanding of the mathematics/science content addressed in the designated instructional materials they are expected to use in their classrooms.

In assessing the quality in this area, be sure to consider the questions in the box below. Although it is not necessary to address each bullet separately, it is essential that your rationale includes an overall judgment of the area, reasoning for this judgment, and a brief presentation of evidence.

- How much time and emphasis were given to disciplinary content in the professional development program and to what extent was the disciplinary content integrated throughout the professional development program?
- To what extent and with what quality did the professional development highlight the key conceptual understandings underlying the designated instructional materials? Was the disciplinary content presented accurately and accessibly?
- To what extent was the disciplinary content addressed by the program matched with teacher needs? How did the project determine the extent to which participating teachers were, in fact, deepening their content knowledge?

### Program Rating: Deepening Teachers' Understanding of Mathematics/Science Content (2005–06)

| 1    | 2 | 3 | 4 | 5         |
|------|---|---|---|-----------|
| Poor |   |   |   | Excellent |

Rationale

Statement summarizing your overall assessment of this area:

2. Helping teachers become familiar with the designated instructional materials and learn the appropriate pedagogy to develop students' conceptual understanding of mathematics/science.

In assessing the quality in this area, be sure to consider the questions in the box below. Although it is not necessary to address each bullet separately, it is essential that your rationale includes an overall judgment of the area, reasoning for this judgment, and a brief presentation of evidence.

- How much time and emphasis were given to having teachers explore and become conversant with the designated instructional materials?
- To what extent and with what quality did the professional development focus on how the lessons fit conceptually into the big picture of the unit?
- To what extent and with what quality did the professional development focus on teacher pedagogical content knowledge (e.g., understanding student thinking about particular concepts) in the areas addressed in the designated instructional materials?
- To what extent were appropriate time and emphasis given to professional development in pedagogy, including: (a) attention to how students learn, (b) addressing the needs of diverse learners, and (c) using effective assessment strategies?
- To what extent and with what quality did the professional development program *model* effective pedagogy?
- To what extent and with what quality did the professional development program make effective pedagogy *explicit*?

### Program Rating: Helping Teachers Become Familiar with the Designated Instructional Materials and Learn the Appropriate Pedagogy to Develop Students' Conceptual Understanding of Mathematics/Science (2005–06)

| 1    | 2 | 3 | 4 | 5         |
|------|---|---|---|-----------|
| Poor |   |   |   | Excellent |

#### Rationale

Statement summarizing your overall assessment of this area:

Narrative providing your major reasons for this assessment and the most salient evidence to support your reasoning:

3. Providing support to teachers as they implement the designated instructional materials in their classrooms.

In assessing the quality in this area, be sure to consider the questions in the box below. Although it is not necessary to address each bullet separately, it is essential that your rationale includes an overall judgment of the area, reasoning for this judgment, and a brief presentation of evidence.

- To what extent and with what quality did the project provide opportunities and encouragement for teachers to discuss their experiences in the course of implementation, e.g., academic-year workshops and study groups?
- What was the quality and how widespread was teachers' use of opportunities to discuss their experiences in the course of implementation? How well did it meet their needs?
- To what extent and with what quality did the project provide opportunities for more individualized support, such as coaching or mentoring? How widespread was their use?
- To what extent were materials and supplies for implementing exemplary instruction readily available to teachers?

### Program Rating: Supporting Teachers as They Implement the Designated Instructional Materials in their Classroom (2005–06)

| 1    | 2 | 3 | 4 | 5         |
|------|---|---|---|-----------|
| Poor |   |   |   | Excellent |

#### Rationale

#### Statement summarizing your overall assessment of this area:

C. Overall Continuum Rating of the Quality of the Professional Development Program

Consider *all* data available to you regarding the quality of the LSC professional development in addressing the following key functions of the LSC professional development program: (1) deepening teacher content knowledge; (2) helping teachers become familiar with the designated instructional materials and learn the appropriate pedagogy to develop students' conceptual understanding of mathematics/science; and (3) providing on-going support to teachers as they implement the designated instructional materials in the classroom. Then, place this project at the appropriate point along the continuum below. The continuum rating is holistic and should encompass both science and mathematics for projects that target both subjects. **Please provide a rationale for your rating.** 

### □ Level 1: Predominance of Ineffective Professional Development

While part or all of some LSC professional development activities may meet the needs of a few teachers, the overall professional development program is unlikely to provide most participants with the knowledge, skills, and support necessary for high-quality mathematics/science instruction.

### Level 2: Exploring a High-Quality Professional Development Program

The LSC professional development program may have some high-quality features, but it is unlikely to adequately prepare most teachers in one or more key areas necessary for teachers to implement high-quality mathematics/science instruction in their classrooms.

- □ Level 3: Transitioning Toward a High-Quality Professional Development Program The LSC professional development program has a number of important strengths, but there are weaknesses in key areas that may limit the effectiveness of the program.
  - □ Low: The program has a serious flaw in one of the key areas or there are fairly substantial weaknesses in a number of areas, greatly limiting the effectiveness of professional development.
  - □ Solid: There are some weaknesses in one or more areas of the program and these limit the effectiveness of the professional development.
  - □ **High:** There are some weaknesses in one or more areas of the program, but these have a relatively minor impact on the quality of the professional development.

### Level 4: Emerging Program of High-Quality Professional Development

The LSC professional development activities are consistently of high quality and the program is highly likely to provide most participants with the content background, pedagogical understanding, knowledge of designated instructional materials, and support necessary for high-quality mathematics/science instruction. However, the program is somewhat limited in its capacity to respond to participants' emerging needs and interests.

### □ Level 5: Exemplary Professional Development Program in Place

Professional development activities are consistently of high quality and the program is highly likely to provide most participants with the content background, pedagogical understanding, knowledge of designated instructional materials, and support necessary for high-quality mathematics/science instruction. In addition, the program is able to accommodate multiple and evolving needs of participants. Examples might include: (1) the program enables teachers who are ready to do so, to go beyond the mathematics/science content addressed in the designated instructional materials; (2) there are mechanisms in place that allow teachers to be actively involved in developing their own professional development plans and, at the same time, assure that each teacher's most pressing needs are addressed.

**Rationale for Overall Continuum Rating of the Quality of the Professional Development Program:** 

Statement summarizing your overall assessment of the quality of the professional development program:

### Part Two: Extent of Support for the LSC Reforms

A. What progress has been made in garnering support for the LSC vision of exemplary mathematics/science education among key stakeholders, both within the K–12 education system and in the broader community?

What has been the role of the LSC in this process?

B. What progress has been made in aligning district and school policies and practices with the LSC vision?

What has been the role of the LSC in this process?

### **Overall Ratings of the Extent of Support for the LSC Reforms**

The PIs are asked to monitor the context for standards-based mathematics/science education in participating districts, completing a District Policy Rating worksheet for each district included in the project, or for three representative districts in multi-district projects. In addition, the PIs were asked to have each participating district complete a "District Information: Conclusion of LSC" form. The PI and Lead Evaluator should collaborate in using this information to provide the following ratings. If there is variation among the districts that the PI has been monitoring, choose the rating that best reflects what most teachers in the project are encountering.

A. Select the response that best summarizes how current *district* mathematics/science policies and practices, in each of the areas listed, impact the process of reform in the LSC district(s).

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|    |  | Major<br><u>barrier</u> | Moderate<br><u>barrier</u> | Neutral<br>or mixed<br><u>impact</u> | Moderate<br><u>facilitator</u> | Major<br><u>facilitator</u> |
|----|--|-------------------------|----------------------------|--------------------------------------|--------------------------------|-----------------------------|
| 1. | Mathematics/science curriculum framework/<br>scope and sequence  | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 2. | Selection of instructional materials   | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 3. | System for purchasing and managing materials and supplies  | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 4. | State-wide student assessment  | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 5. | District-wide student assessment   | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 6. | Evaluation of teacher performance  | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 7. | Consistency of LSC mathematics/science reforms with other district reforms   | 1                       | 2                          | 3                                    | 4                              | 5                           |
| 8. | Organizational structures/policies within<br>schools (e.g., time for preparation and planning<br>importance placed on mathematics/science) | ;                       | 2                          | 3                                    | 4                              | 5                           |

B. Select the response that best describes the current extent of support for (or opposition to) each of the following toward mathematics/science reform in the district(s).

|    |   | Considerable<br>active<br>opposition |       | Neutral/<br>No evidence of<br>active oppositior<br><u>or support</u> |                | Considerable<br>active<br><u>support</u> |
|----|---|--------------------------------------|-------|--|----------------|--|
| 1. | Attitudes and beliefs about reform from with                  | in the K–12                          | educ  | ational syst   | tem            |  |
|    | a. Teachers targeted by the LSC                               | 1                                    | 2     | 3  | 4              | 5  |
|    | b. Principals   | 1                                    | 2     | 3  | 4              | 5  |
|    | c. Central office administrators                              | 1                                    | 2     | 3  | 4              | 5  |
| 2. | Attitudes and beliefs about reform from comeducational system | munity stak                          | ehold | ers <i>externa</i>   | <i>l to</i> tł | ne K–12                                  |
|    | a. Parents  | 1                                    | 2     | 3  | 4              | 5  |

| b. Mathematics/science-rich institutions | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| c. Institutions of higher education      | 1 | 2 | 3 | 4 | 5 |
| d. Teacher unions                        | 1 | 2 | 3 | 4 | 5 |

### C. Overall Continuum Rating for Extent of Support of the LSC Reforms

Please indicate the "level" that best describes the current overall context for teaching mathematics/science in the participating district(s). **Provide a rationale for your rating.** 

### Level 1: Predominance of Non-Supportive Context

District policies and practices often act as barriers to effective mathematics/science education. There is considerable active opposition to reform efforts from within the education system or from community stakeholders.

### □ Level 2: Exploring Supportive Context

Some district policies and practices are aligned with the LSC vision for effective mathematics/science education, but other key policies serve as barriers. Support for reform from key stakeholders within and external to the K–12 education system is not apparent, and there may be some active opposition.

### □ Level 3: Transitioning Toward a Supportive Context

Some district policies and practices are aligned with the LSC vision for effective mathematics/science education, and efforts are underway to modify those policies that serve as major barriers. Support for reform is increasingly apparent, but still "patchy."

### □ Level 4: Emerging Supportive Context

Many of the key district policies and practices are aligned with the LSC vision for effective mathematics/science education, and efforts are underway to modify the few policies and practices not yet in alignment. There is considerable support for reform from within the K–12 education system, and significant support from the external community, as well.

### □ Level 5: Exemplary Supportive Context in Place

Most key district policies and practices are aligned with the LSC vision for effective mathematics/science education. There is active support for exemplary mathematics/science education among stakeholders within and external to the education community.

### **Rationale for Overall Continuum Rating for Extent of Support of the LSC Reforms:**

# Part Three: Likelihood of Institutionalization of the LSC Reforms

A. What evidence is there for the long-term sustainability of the LSC reforms in the participating districts?

B. What are the barriers to full implementation and institutionalization of the LSC reforms?

### **Overall Ratings of the Likelihood of Institutionalization of the LSC Reforms**

Districts differ in their capacity, infrastructure, and resources devoted to mathematics/science reform. Please describe the status of the district(s) by indicating the extent to which each of the following exists now, at the end of the LSC, for the subject(s) and grade levels targeted by this LSC. In addition, rate the likelihood of each of the following to exist after the LSC. As in Part Two, the PI and Evaluator should collaborate in completing this form, using data from the "District Information Conclusion of LSC" form, and the District Policy worksheet as appropriate. If there is variation among the districts that the PI has been monitoring, choose the rating that best reflects what most teachers in the project are encountering.

A. Planning and Implementing Mathematics/Science Professional Development

|   | Exists now<br>(end of the<br>LSC)         | Likely to exist<br>after the LSC          |
|---|---|---|
| The district(s):  | To a<br>Not great<br><u>at all extent</u> | To a<br>Not great<br><u>at all</u> extent |
| 1. Have structure(s) in place for assessing teachers' needs   | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| <ol> <li>Have the capacity to plan and deliver<br/>high-quality mathematics/science<br/>professional development:</li> <li>a. Internally</li> </ol> | 12345                                     | 1 2 3 4 5                                 |
| b. Through arrangements with an external group (e.g., local university)   | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| 3. Tie professional development<br>specifically to the mathematics/science<br>curriculum  | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| 4. Provide teachers with the opportunity<br>for a coherent professional<br>development program  | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| 5. Have incentives in place for teachers to participate in ongoing professional development   | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| 6. Use staff development days for mathematics/science professional development  | 1 2 3 4 5                                 | 1 2 3 4 5                                 |
| 7. Use district's federal funds to support mathematics/science professional development:  |   |   |
| a. Title I  | 1 2 3 4 5                                 | 1 2 3 4 5                                 |

(Select one number in *each* column on *each* line.)

| b. Title II, Part A (Teacher Quality Funds)   | 1 2 3 4 5 | 1 2 3 4 5 N/A |
|---|-----------|---------------|
| c. Title II, Part B<br>(Mathematics/Science Partnership<br>Program)   | 1 2 3 4 5 | 1 2 3 4 5 N/A |
| 8. Provide teachers with support as they implement in their classrooms what they have learned in professional development | 1 2 3 4 5 | 1 2 3 4 5     |
| 9. Have systems in place for orienting new teachers to mathematics/science education                                      | 1 2 3 4 5 | 1 2 3 4 5     |

B. Other District Policies and Practices for Mathematics/Science Education

The district(s) have systems in place for aligning the following policies and practices **Exists now** with the mathematics/science reform vision: (end of the Likely to exist LSC) after the LSC To a To a Not great Not great <u>at all</u> <u>at all</u> extent extent 1. Mathematics/science curriculum framework/scope and sequence 1 2 3 4 5 1 2 3 4 5 2. Selection of instructional materials 1 2 3 4 5 1 2 3 4 5 3. System for purchasing and managing supplies and materials 1 2 3 4 5 1 2 3 4 5 4. District-wide student assessments 1 2 3 4 5 1 2 3 4 5 5. Recruiting/hiring new teachers 1 2 3 4 5 1 2 3 4 5 6. Evaluation of teacher performance 1 2 3 4 5 1 2 3 4 5 7. Organizational structures/policies within schools (e.g., time for preparation and planning; importance placed on mathematics/science) 1 2 3 4 5

C. Stakeholder Support for Mathematics/Science Reform

(Select one number in *each* column on *each* line.)

(Select one number in *each* column on *each* line.)

| The district(s) have systems in place for garnering and maintaining support for mathematics/science reform from the following groups: | Exists now<br>(end of the<br>LSC) | Likely to exist<br>after the LSC |
|---|-----------------------------------|----------------------------------|
|---|-----------------------------------|----------------------------------|

|  | To a<br>Not great Not<br>at all extent at all | To a<br>great<br>extent |
|--|---|-------------------------|
| 1. Teachers targeted by the LSC          | 1     2     3     4     5     1     2     3   | 4 5                     |
| 2. Principals                            | 1 2 3 4 5 1 2 3                               | 4 5                     |
| 3. Central office administrators         | 1 2 3 4 5 1 2 3                               | 4 5                     |
| 4. Parents                               | 1 2 3 4 5 1 2 3                               | 4 5                     |
| 5. Mathematics/science-rich institutions | 1 2 3 4 5 1 2 3                               | 4 5                     |
| 6. Institutions of higher education      | 1 2 3 4 5 1 2 3                               | 4 5                     |
| 7. Teacher unions                        | 1 2 3 4 5 1 2 3                               | 4 5                     |

### D. Continuum Rating of Institutionalization of LSC Reforms

Please indicate the "level" that best describes the likelihood that the LSC reforms will be institutionalized in the participating district(s). **Provide a rationale for your rating.** 

#### □ Level 1: Rubber Band Likely to Snap Back

Active opposition is likely to begin undoing the LSC reforms as soon as the grant is over.

#### Level 2: LSC Reforms Likely to Gradually Fade Away

Minimal capacity, few structures, and few dedicated resources are in place; LSC reforms will begin to be dismantled as resources are redirected to other priority areas.

### Level 3: Minor Components of LSC Reform Likely to Become Institutionalized

A few features of reform may become institutionalized, but ongoing comprehensive, high-quality professional development and support, and other central components of LSC reform are unlikely to continue when the grant ends.

### Level 4: Components of LSC Reforms Likely to Become Institutionalized

High capacity for reform, combined with appropriate mechanisms and dedicated resources make it likely that the LSC reforms, including sustained high-quality professional development, will continue for several years. However, forces are at play which may threaten the long-term viability of the reform process.

#### Level 5: Institutionalization of LSC Reforms Likely

The system has changed to the point where institutionalization of the reforms in the long term is probable. Any threats to key components of the reform are likely to be turned aside.

### **Rationale for Continuum Rating of Institutionalization of LSC Reforms:**

### Part Four: Summary of the Initiative

A. What attributes stand out as the key accomplishments of the LSC project?

B. What features of the LSC project have been most important in this success?

C. What have been the key barriers to reform?

D. Based on the experiences of this project, what advice would you offer similar systemic reform efforts in the future?