Title IIB Massachusetts Mathematics and Science Partnerships Program (MMSP) Information Session

Tuesday, November 1, 2011
1:00-3:30 p.m.

Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION
INTRODUCTIONS

- Carol Lach, MMSP Coordinator
- Barbara Libby, Director of the Office for Mathematics, Science & Technology/Engineering
- Roxane Johnson De Lear, Science Assistance Coordinator
- Lori DiGisi, Disciplinary Literacy Specialist
- Paula Quinn, Research Manager, UMass Donahue Institute
- Jake Foster, Director of STE
- Life LeGeros, Director of Math
POLL

What type of organization do you represent?

- District/LEA
- Higher Education – STEM Department
- Higher Education – Education Department
- Evaluator
- Charter School or Private School
- Other
Agenda

- Overview of the Federal Program
- The Request for Proposals RFP
- Developing a Proposal
- Evaluation
- Budget
- Questions
- Networking and Collaboration
FEDERAL PROGRAM
TITLE IIB of No Child Left Behind

★ U.S. Department of Education
Mathematics and Science Partnerships (MSP)

★ Federal Program Priorities

★ Encourage collaboration between institutes of higher education and school districts
★ Provide high-quality professional development to increase teacher subject matter knowledge and standards-based instructional practices
★ Improve student academic achievement in mathematics and/or science
Massachusetts Mathematics and Science Partnerships (MMSP)

Three year duration-dependent upon continued funding

In-service training to teachers provides *at least*:

- Minimum of 45 hours of direct instruction
- Minimum of 24 hours of supplemental support to ensure implementation in the classroom
MMSP Title IIB
PROGRAM GOALS

★ **GOAL I:** Develop and implement an effective and sustained course of study for in-service teachers of Science, Technology/Engineering and Mathematics (STEM) by integrating the courses of study into schools of arts and sciences and/or education at institutions of higher education.

★ **GOAL II:** Increase the number of STEM teachers in the partner districts who are licensed in the subject area(s) and grade level(s) they teach.
MMSP Title IIB PROGRAM GOALS (continued)

★ **GOAL III**: Increase the number of STEM teachers in the partner districts who participate in high quality professional development and advance their content knowledge.

★ **GOAL IV**: Develop and implement a systemic approach to STEM education by integrating professional development with district and school STEM improvement initiatives.
HISTORY

- **Cohort 1**: February 2004, 8 partnerships
- **Cohort 2**: September 2004, 2 partnerships
- **Cohort 3**: September 2006, 9 partnerships
- **Cohort 4**: September 2008, 8 partnerships
- **Cohort 5**: September 2010, 2 partnerships
- This RFP will initiate **Cohort 6**
RFP: REQUEST FOR PROPOSALS

Contains information about the program, purpose, priorities, eligibility, general requirements, funding and submission

Contains links to:

- Workbook
- Additional Information:
  - Required Program Information
  - High-Need District List,
  - Definition of Terms,
  - Syllabus Guidance,
  - Links to Frameworks, Key Practices, etc.

http://finance1.doe.mass.edu/grants/grants12/rfp/150-B.html
MMSP RFP PRIORITY

Priority will be given to proposed MMSP partnerships that develop and offer a program of professional development for middle school STEM teachers that supports implementation of their subject area standards by drawing connections across disciplines and strengthening their ability to link mathematics and science concepts and skills to deepen students understanding.
MMSP RFP PRIORITY (continued)

The PD program developed should help teachers to deepen their content knowledge and understanding of the mathematical content and practice standards in order to implement effectively the 2011 Mathematics Curriculum Framework and to understand and effectively integrate the standards for literacy in science and technical subjects to support student content learning and improve achievement in grades 5-8 mathematics.
MMSP RFP PRIORITY (continued)

The PD program should help teachers to deepen their content knowledge and understanding of the Massachusetts science and technology/engineering content standards and the eight scientific and engineering practices articulated in Chapter 3 of the National Research Council's (NRC) *Conceptual Framework* and to understand and effectively integrate the standards for literacy in science and technical subjects to support student content learning and improve achievement in grades 5-8 science and technology/engineering.
MMSP RFP PRIORITY (continued)

Additionally, the professional development program should:

★ help STEM teachers learn about and apply common STEM practices.

★ equip STEM teachers to integrate the reading and writing standards for literacy in science and technical subjects to improve student understanding and communication.
ELIGIBILITY

- Include at least one high-need district (LEA), a STEM department from an institution of higher education (IHE), and a local evaluator;
- Address the Required Program Information
- Develop proposal collaboratively by the partners and the local evaluator
General Requirements

- high-quality, content-specific STEM professional development
- integration of the local evaluator into the initial program planning, a formative program evaluation, and compliance with state and federal reporting requirements;
- a web page to communicate and disseminate partnership activities
- at least 50% of the participating teachers are from high-need districts
- regular collaborative meetings of partners
PD DESIGN: COURSES

- Content-focused courses
  - Rigorous & graduate level
  - Minimum of 45 hours of direct instructional time
  - Responsive to identified district needs
PD DESIGN: SUPPLEMENTAL ACTIVITIES

- supplemental activities (follow-up)
  - guide the implementation of course content into standards-based instruction
  - Minimum of 24 hours
  - Encourage active engagement of district or school instructional leaders
  - Promote connections to district STEM initiatives
FUNDING

- $900,000 for 2011-2012
- Approximately 4 MMSP projects
- Up to $200,000 per year, for up to 3 years
  Years 2 and 3 contingent on performance and available federal funding
DEVELOPING A PROPOSAL
FORM A PARTNERSHIP

★ High Need School District
★ Higher Education Institution
 ★ Science, Math, Engineering Department
 ★ Education Department
★ Local Program Evaluator
★ Other LEAs (Private Schools, Charter Schools or Consortiums)
★ Businesses
★ Nonprofit & For-profit Organizations
ASSESS NEEDS

★ Student Needs

★ Teacher
   ★ Licensure
   ★ Individual Professional Development Plans

★ District/ School
   ★ STEM Initiatives
   ★ Instructional Leadership

http://profiles.doe.mass.edu/
DEVELOP ACTIVITIES

- Align with the goals and objectives of the partnership
- Meet the needs of the district(s)
- Describe the methods to identify and enroll teachers in sufficient numbers in courses that address their professional growth needs
- Content-specific course or course of study
  - Course syllabus and sample session
- Aligns with MA Frameworks
- Consider sustainability
  - Integration of educator’s experiences into initiatives at the school/district level
  - Integration of courses or course components into the higher education institution’s on-going program, department or regional offerings
EVALUATION
UMass Donahue Institute Roles

★ Coordinate state-level data collection
★ Provide technical assistance to partnerships
★ Serve as liaison with USED for evaluation issues
EVALUATION
Logic Model

Standard logic model for professional development programs

PD and Support Activities → Teacher Knowledge and Skills → Highly Qualified Teachers → Better Classroom Instruction → Improved Student Achievement

Required tools/measures

- Participant feedback
- Pre/post test of content knowledge
- Licensure status
- HQ status
- Self-report surveys and/or classroom observation
- MCAS scores
- Optional project-specific tests
EVALUATION
Components

★ Participant Tracking System
★ Formative Evaluation
★ Summative Evaluation
★ Required Tools
★ External Evaluator
★ Multi-pronged Reporting System
EVALUATION
Participant Tracking System

Contents
- Participant names
- Courses completed by each participant
- Time each participant completed each course
- Contact information (e.g., school, e-mail, phone, home address)

In your proposal, include an assurance that your partnership will maintain a participant tracking system
EVALUATION
Formative

★ Purposes
★ Support program management
★ Document program implementation

★ In proposal
★ Identify specific research questions
★ Outline data collection and analysis plan
EVALUATION
Summative: Purpose

Measure progress toward, and overall attainment of, fundamental project objectives
EVALUATION

Summative: In proposal

★ Identify specific research questions
★ Articulate objectives with measures that directly assess:
  ★ Course availability
  ★ Changes in teacher knowledge, teacher practice, and student achievement
  ★ Progress toward integrating PD with STEM improvement initiatives (for high need districts)

★ Identify evaluation design
★ Outline data collection and analysis plan
EVALUATION
Required Tools

★ Description/identification
★ Pre/post content knowledge test
★ Course Participant Survey (UMDI-created)
★ Self-selected measure of change in teacher practice
★ Measure of student achievement (e.g., MCAS, district/school benchmark tests, or unit tests)
★ Formative feedback measures

★ In proposal
★ Indicate familiarity with all required tools
★ Indicate readiness to use required tools
EVALUATION
External Evaluator

★ **Role:** Objective collaborator
★ **Skilled in systematically gathering, analyzing, and presenting data**
★ **Proficient using analytic software**
★ **High level of comfort using online reporting tools**
★ **Working member of project team, beginning now, with proposal development**
DESIGN YOUR BUDGET

★ All budgets and budget descriptions must be:

★ Aligned with the program activities and reflect any coordinated uses of resources from other sources

★ Cost-effective: cost per teacher participant should be approximately $2,000 per course

http://finance1.doe.mass.edu/grants/grants12/rfp/doc/150-B.xls
DESIGN YOUR BUDGET

★ Funds may be used for
  ★ Administrative costs
  ★ Stipends
  ★ Substitutes
  ★ Materials for professional development
  ★ Local program evaluation
  ★ Program dissemination
  ★ Travel to state and national Title II-B meetings
  ★ $5,000 should be included for the state evaluator to support technical assistance activities
DESIGN YOUR BUDGET

★ Funds may not be used for
  ★ Equipment (single item costing $5,000 or more)
  ★ Instructional materials or equipment for use by students of participating teachers
  ★ Space rental
  ★ Food
  ★ Full-time staff positions.

★ Grant funds may not be allocated to pay for both a participant’s graduate credit tuition and to provide a stipend
DESIGN YOUR BUDGET

- Indirect costs, may not exceed 8%
- Administrative costs and indirect costs combined may not exceed 20% of the total budget
- Consultant fees may not exceed $100 per hour, up to $750 per day
- Please request ONLY what you actually intend to spend
SUBMIT YOUR PROPOSAL

- Review your proposal (objective reader)
- Allow time for obtaining necessary signatures
- Mail
  - 1 complete copy of entire proposal
  - 2 copies of grant signature page
- Email
  - Workbook (excel file)
  - Syllabus with sample session
- Submit on time: must be received by 5 pm on Tuesday, December 2, 2011 to be considered
REVIEW PROCESS

★ A proposal will be disqualified if: it is late, incomplete, or it does not meet the eligibility requirements.

★ Proposal review is based on the required application components and the scoring rubric (See Additional Information).

★ The results of the review will be reported to the Commissioner for his final determination.
TIMELINE

Proposals Due
Review
Modification or Budget Revision
Recommendations to the Commissioner
Announcement of Awards
Grants Management Processing
Official Notification and Initial Funds Disbursement
Project Start

December 2
December 3 - 22
January 6-16
Mid January
Mid January
Mid-late January
Early February
February
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QUESTION/ANSWER
Networking and Collaboration
Time