

Mathematics and Science Teacher Initiative

REQUEST FOR PROPOSALS 2005-2006

PURPOSE

This Request for Proposals (RFP) is to provide funds to enable California State University (CSU) campuses to increase the number of math and science teachers they credential annually. The goal is to double CSU production of mathematics and science teachers by 2010, increasing production from approximately 750 to approximately 1,500 new mathematics and science teachers annually. Funds will be targeted on mathematics and science credential program growth and related publicity and recruitment. Proposals may request funding at either of two levels, to support initiatives that differ primarily in scope and intensity:

(A) Campuses may propose plans for very large growth in the number of credentials awarded, including innovative programs and approaches, and to support such work campuses may request funding in a \$100,000 to \$250,000 range. These proposals are expected to introduce new programs and/or to represent such a comprehensive set of initiatives that they have promise of at least doubling credential enrollments.

(B) Campuses may propose increased or enhanced efforts that build on recognized/current programs and that are designed to achieve moderate to substantial growth in the number of credentials awarded. Awards for successful proposals of this type may be in the range of \$30,000 to \$70,000 per campus. Growth is expected to be in the range of 50% to 100% in credential enrollments.

Funds will generally support two types of mathematics and science teacher credential program growth:

(1) **Creating new and expedited pathways for mathematics and science credentials.** Funds may be used to support internship programs, blended programs beginning at the undergraduate level, integrated programs for community college transfer students, programs that draw on field-based, technology-infused and/or internet-supported environments to increase program flexibility, foundational and specialized credential options, and other new pathways proposed by campuses. These pathways might integrate innovative Web-based strategies and technology-supported approaches for content instruction, assessment, and mentoring of teacher candidates in mathematics and science that have been tested in the U.S. and abroad.

(2) **Increasing the numbers of candidates in existing credential programs.** Funds may be used to expand populations currently in programs and to add new pools of credential candidates. Examples include: increasing credential enrollment of undergraduates majoring in science, agriculture, mathematics, engineering, and technology fields; adding career changers and individuals retiring from math and science based careers; expanding numbers of candidates seeking other credentials who also obtain mathematics or science subject-matter authorizations; channeling candidates with strong math/science backgrounds from the multiple subject credential program into the single subject program; and additional approaches proposed by campuses.

Funds of up to \$10,000 per campus may be included for publicity and recruitment activities, including development of Web sites that increase the visibility and depth of information about obtaining mathematics and science credentials. The Web sites should describe credential demand and pathways and contain information on financial support – including scholarships and loan cancellation programs available for math and science teacher candidates. The Web sites should feature engaging information that attracts new students to the campus' credential programs for math and science teachers. The Web sites might also be locations for students to access online courses and other internet-supported approaches designed to increase participation in math and science teacher education courses and programs.

Campuses receiving awards will be expected to demonstrate substantial enrollment growth in math and science credential programs by Spring 2007, with growth varying in relation to campus capacity and regional demand. The system will need to grow in the vicinity of 50% by Spring 2007 to meet the five-year growth target. To do so, it will be necessary that several campuses develop the capacity to achieve large growth, such as doubling of enrollments. Grant awards will reflect projected growth, with the largest awards typically being allocated for program growth in the vicinity of 50% to 100% or more.

Growth may include new or expanded enrollments in regular Biological Sciences, Chemistry, Geosciences, or Physics credentials or the Foundational-Level Mathematics or Specialized Biological Sciences, Chemistry, Geosciences, or Physics credentials. Campuses are encouraged to recruit broadly. For example, candidates for the Foundational-Level Mathematics credential might include multiple or single subject candidates seeking an additional authorization.

For these efforts to be effective, comprehensive recruitment strategies must also be in place. Therefore, Teacher Recruitment Projects, funded on each campus through \$75,000 of lottery funds, have been asked to include a primary focus in their 2005-06 activities on attracting and recruiting teacher candidates in mathematics and science.

TRP funds can readily be aligned with this initiative by targeting recruitment strategies on mathematics and science teacher candidates. Activities that TRP funds typically support include: financial assistance for credential candidates; public school experiences that introduce undergraduates to the teaching field; credential workshops and information sessions; mentoring, counseling, and advising; and test preparation to assist students preparing for the examinations required for credential program admission and for earning a teaching credential.

PROJECT TIMELINE, DATA COLLECTION AND EVALUATION

Each participating campus will be expected to begin the project no later than the Winter 2006 semester or quarter. Each will be asked to provide a report at the end of the one-year project that describes project activities, outcomes, and expenditures. The report will require data on numbers of candidates enrolled in and earning credentials in mathematics and science and will include such elements as the following:

Data on Math and Science Credential Candidates Enrolled:

- total number of math and science credential candidates enrolled
- number of math and science credential candidates enrolled by credential subject and type (regular, foundational, specialized)
- number of math and science credential candidates enrolled preparing for (a) middle school and (b) high school teaching

Data on Math and Science Credentials Awarded:

- total number of math and science credentials awarded
- number of math and science credentials awarded by credential subject and type (regular, foundational, specialized)
- number of math and science credentials awarded to candidates preparing for (a) middle school and (b) high school teaching.

PROPOSAL REQUIREMENTS

Campus proposals are to include (1) a narrative project description, (2) the budget for use of the Math and Science Teacher Initiative funds, and (3) a brief budget explanation.

The proposal narrative should address the applicable components of each item below in the order specified:

- It should describe approaches that will be used (a) to create new and expedited pathways for mathematics and science teaching credentials and (b) to increase the numbers of candidates in existing credential programs. *Approaches should be included that will allow for large growth in math and science credential enrollments and production.*
- It should identify the credential fields and types (the specific math and science credentials) that will be targeted for (a) creating new and expedited pathways and (b) increasing numbers of candidates in existing programs. *It should indicate projected numerical and percentage growth in enrollments and credentials awarded from 2004-05 to 2006-07 for each math and science credential. It should provide 2003-04 and 2004-05 actual enrollments and credentials awarded as two-year baseline data, provide estimated 2005-06 figures, and include projected figures for 2006-07 through 2009-10 within a 5-year plan for future targeted growth.*
- It should specify which efforts will be directed toward the regular math and science credentials and which will be directed toward the foundational and specialized credentials. For example, it might describe a new program focused on the Foundational-Level Mathematics Credential and preparing candidates for middle school mathematics instruction.
- It should indicate what new populations will be targeted in order to increase candidates in existing credential programs and what strategies will be used. It should, for example, describe approaches that will be used to attract more undergraduates majoring in science,

agriculture, mathematics, engineering, and technology fields into math and science teaching, what approaches will be used to recruit career changers and individuals retiring from math and science based professions, and what approaches will be used to assist candidates seeking other credentials to also qualify for mathematics or science subject-matter authorizations.

- It should specify how Teacher Recruitment Project funds will be used in support of the initiative, including a description of a comprehensive set of recruitment activities that will be conducted that are directly focused on mathematics and science teacher recruitment.
- It should indicate the steps that will be taken to ensure candidates are aware of and have access to assistance in applying for scholarship and loan cancellation programs available to mathematics and science teaching candidates, including the state Assumption Program of Loans for Education (A.P.L.E.) and federal loan teacher cancellation programs.
- It should describe ways in which campus admissions and outreach staff and Early Assessment Program staff will integrate information about math and science teaching careers and credential program pathways in their communications with middle and high school counselors, teachers, administrators, students, and parents.
- It should identify the kinds of information, resources, links, and internet-supported learning that will be accessible through the project Web site. It should also specify the full range of ways in which the Web site will be publicized to enhance knowledge among undergraduates, high school students, community college students, parents, and non-traditional credential pools of the significant need for math and science teachers and the pathways for earning a credential.

PROJECT BUDGET

Math and Science Teacher Initiative funds must be used for expenses directly related to the project purposes. Budget items may include but are not limited to: faculty reassigned time (budgeted at the replacement rate; benefits should not be included); administrative and clerical support; books and materials; supplies and expenses; local travel; meeting and workshops expenses; and scholarships, fellowships, and stipends for teacher candidates. Program administration (including clerical support) may not exceed 25% of the total budget.

Each proposal should include a budget and a one to two page budget explanation that briefly describes each item in the project budget.

FORMAT

Each narrative proposal should address all of the items indicated in the list of proposal requirements in separate, clearly identified sections in the order specified. Narrative proposals should not exceed ten pages and should be double-spaced with one-inch margins and 12-point font size. Combined budgets and budget narratives should not exceed four pages in total. Each proposal should include a cover page that contains the following information:

Campus Name
Funding Requested
Project Director (Name, Title, and E-Mail Address)
Office Address and Mail Code
City and Zip Code
Office Phone Number and Fax Number
Department of Education Liaison (Name and Title)
Department of Mathematics Liaison (Name and Title)
Department of Science Liaison (Name and Title)
Fiscal Administrator (Name, Title, and E-Mail Address)

In addition, each proposal must include (1) letters of endorsement from the Deans of the Colleges involved in the project and (2) a campus transmittal signed by the campus authorized fiscal agent.

PROPOSAL SUBMISSION

Proposals for Math and Science Teacher Initiative funds are due to Teacher Education and Public School Programs, Office of the Chancellor, by 5:00 p.m. on ***Monday, November 21, 2005***. Awards are expected to be announced by Friday, December 2, 2005. Proposals should be sent to:

Ms. Daba Asemebo
Math and Science Teacher Initiative
Teacher Education and Public School Programs
Office of the Chancellor
California State University
401 Golden Shore, 6th Floor
Long Beach, CA 90802-4210
(562) 951-4794

Questions about proposal content or submission may be directed to Joan Bissell at jbissell@calstate.edu or (562) 951-4716 or Margaret Olebe at molebe@calstate.edu or (562) 951-4713.