




# THE CALIFORNIA STATE UNIVERSITY

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**DAVID S. SPENCE**  
EXECUTIVE VICE CHANCELLOR  
CHIEF ACADEMIC OFFICER

To: CSU Presidents

Code: AA-2002-49  
September 25, 2002

From: David S. Spence   
Executive Vice Chancellor  
Chief Academic Officer

Replies Requested by  
November 8, 2002

Subject: **Submission of New LSAMP proposal to the National Science Foundation**

Since summer 1994, the CSU has been offering additional services to undergraduates majoring in science, technology, engineering, and math (STEM) through its Louis Stokes Alliance for Minority Participation (LSAMP) program, sponsored by the National Science Foundation. Two five-year NSF awards, now referred to as Phase I and Phase II grants, have been the foundation of the program's operating funds. Last year more than 2,300 students participated in activities administered by the 18 CSU campuses and community college partners that make up CSU\*LSAMP. An attached "Fact Sheet" highlights some of the details and accomplishments of CSU\*LSAMP. Over the years, NSF has recognized the CSU collaborative as one of its exemplary LSAMP programs.

On October 31, 2002, the CSU\*LSAMP program will receive its last annual Phase II allocation of \$1 million. These funds will support the program through summer 2003. NSF is now accepting proposals for Phase III grants. A Phase III award will represent a capstone effort to fully institutionalize the services developed in Phases I-II, including the promotion of graduate study among baccalaureate recipients. The proposal is due January 31, 2003. The new funds will run from October 2003 to October 2008. The annual allocation from NSF will be \$500,000.

The program solicitation can be found at:

<http://www.nsf.gov/pubs/2001/nsf01140/nsf01140.pdf>.

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Distribution: Vice Presidents for Academic Affairs  
Deans of Science, Mathematics, Engineering, and Computer Science  
Directors of Research and Sponsored Programs  
CSU\*AMP Project Director, Co-Directors, and Coordinators

Last spring term, the faculty and staff that coordinate the CSU\* LSAMP program across the CSU sent a letter to the Chancellor's Office urging us to seek Phase III funding from the National Science Foundation. We assigned Chancellor's Office staff to work with them on drafting a preliminary proposal that would meet the stated goals of NSF and still allow each campus some flexibility in how it pursued those goals. The working-group has spent a lot of time on attaining consensus about what the core activities of our Phase III operation should be and documenting the variations in services that would be made available across campuses. After three meetings, the group is very confident it can produce a quality document that will satisfy all.

To complete the proposal, we naturally need some additional assistance from all the campuses that intend to participate in the Phase III program. We need two things. The first is a letter of support indicating to NSF your institutional commitment to the program. A draft of such a letter is attached. You may alter it in anyway to suit your campus. A signed letter will also indicate to us your willingness to assume the same level of obligation you allocated to the Phase II operation; that is, you will continue to provide at least a \$50,000 in-kind contribution per year to cover the cost of the campus coordinator you assign to the program.

The second thing we need is for all the Phase III campuses to consider becoming the new lead institution. Since its inception, CSU\*LSAMP has had two campuses assume the roles associated with Lead Institution status. San Francisco has been the site of program's governing agent and handled all the financial transactions; Northridge has been the site of the program's administrative headquarters, responsible for the day-to-day coordination across the system. This time around, all the duties of the Lead Institution must be assumed by one campus. The list below succinctly describes the various obligations.

1. Establish a governing board, coordinate campus activities, and monitor program performance.
2. Take financial responsibility for receiving funds and re-allocating them to the campus members of CSU\*LSAMP.
3. Take central responsibility for preparing the annual reports (budget and program summaries) and submitting them to NSF.
4. Maintain the AMP/MARS data system on program participants that is required by NSF.
5. Respond to special requests from NSF to provide ad hoc information or attend LSAMP meetings and events sponsored by NSF.
6. Organize annual meetings of the CSU\*LSAMP participants.

The new Lead Institution also must take a leadership role in finalizing the proposal. On balance, that means helping to complete the text for the budget, management plan, and evaluation activities. Be assured that the Chancellor's Office will help facilitate the implementation of a new management plan and will make available system data whenever necessary.

If you would like to apply for Lead Institution status, please read the third attachment and follow the instructions to organize your response. It is due no later than November 15, 2002. Chancellor's Office staff will review each campus response and make a selection as soon as possible.

CSU Presidents  
September 25, 2002  
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The latest data we have on STEM majors at the CSU indicate that minority-majority gaps are still prevalent across the system. For instance, the STEM graduation ratio for new African American freshmen in contrast to Asian and white freshmen is just 0.47. The comparable ratios for Latino and American Indian freshmen are 0.73 and 0.81, respectively. Thus challenges still persist, and pursuit of Phase III funding appears to be in the best interest of our students.

Questions should be directed to Dr. Philip Garcia, Director of Analytic Studies. Dr. Garcia can be reached at (562) 951-4764 or by e-mail at [pgarcia@calstate.edu](mailto:pgarcia@calstate.edu).

DSS/pg

Attachments

## CSU\*LSAMP FACT SHEET

**Number of CSU\*LSAMP Participating Campuses:** 18

**Primary Student Targets:** African American, American Indian, Latino, and Southeast Asian undergraduates with declared majors in science, technology, engineering, or mathematics (STEM)

**2000-2001 CSU\*LSAMP Budget:**

|                             |                   |
|-----------------------------|-------------------|
| NSF                         | \$1,000,000       |
| CSU General Fund            | \$ 800,000        |
| <u>Campus Contributions</u> | <u>\$ 800,000</u> |
| Total Budget                | \$2,600,000       |

**Table 1. CSU Students that Received Direct Services from CSU\*LSAMP: 1994-95 to 2001-02.**

|         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 |
| 635     | 1,153   | 1,419   | 1,445   | 1,446   | 1,703   | 1,932   | 2,329   |

The foundation of CSU\*LSAMP services are summer or academic-year programs designed to enhance performance in pre-calculus and/or calculus courses; plus summer or academic-year workshops to enhance performance in specific lower-division science courses.

**Table 2. Three-Year STEM Retention Rates for Selected CSU\*LSAMP Participants and Comparison Groups: Latinos and African Americans.**

| Type of Rate    | Latinos | African Americans |
|-----------------|---------|-------------------|
| Benchmark       | 0.408   | 0.289             |
| <i>Observed</i> | 0.595   | 0.596             |
| Goal            | 0.461   | 0.461             |

Over the years CSU\*LSAMP participation has been associated with higher retention rates for minority students. For example, nearly 60 percent of Latinos and African Americans that declared STEM majors as freshmen still pursued STEM majors three years after matriculation (see the observed rates). In each case, that was a much higher rate than the comparable rate for minority students that did not participate in the program (see benchmark rates). Moreover, the participant rates were higher than the goals that were adopted for the CSU\*LSAMP participants; that is, the minority student rates were higher than the three-year STEM retention rates found among majority students.

**Table 3. Eventual STEM Graduation Rates for Selected CSU\*LSAMP Participants and Comparison Groups: Latinos and African Americans.**

| Type of Rate    | Latinos | African Americans |
|-----------------|---------|-------------------|
| Benchmark       | 0.298   | 0.181             |
| <i>Observed</i> | 0.374   | 0.263             |
| Goal            | 0.383   | 0.383             |

After six years of operation, eventual graduation rates were generated for CSU\*LSAMP participants that began and stayed in STEM majors and then compared to benchmarks for comparable groups. For both Latinos and African Americans, there was about an 8 percentage-point gain associated with CSU\*LSAMP participation. Those gains, however, were not equal to the adopted goals. For Latinos participants, the remaining minority/majority gap is just one percentage-point (or 11 percent of the difference between the benchmark and the goal). For African American the remaining minority majority gap is 8 percentage-points (or 59 percent of the difference between the benchmark and the goal).

**Table 4. Percentage of First-Time Freshmen with STEM Majors that were Awarded STEM Degrees within Six Years of Matriculation for Selected CSU\*LSAMP Participants and Comparison Groups: Latinos and African Americans.**

| Type of Rate    | Latinos | African Americans |
|-----------------|---------|-------------------|
| Benchmark       | 45%     | 46%               |
| <i>Observed</i> | 55%     | 60%               |
| Goal            | 69%     | 69%               |

Participation in CSU\*LSAMP is associated with some lessening in the time it takes minority students to earn a STEM degree. Among majority students that enter the CSU as first-time freshmen with declared STEM majors and eventually earn STEM degrees, fully 69 percent are awarded baccalaureates in six year or less time. For minority students the percentage is lower. For example, the percentage that take six years or less among Latinos and African American that do not participate in CSU\*LSAMP is 45 and 46 percent, respectively. The comparable percentages for Latinos and African Americans that do participate in CSU\*LSAMP, however, are 55 and 60 percent, respectively.

**Table 5. STEM Degree Granted to CSU Minority Students, Systemwide: 1994-95 to 2001-02.**

| 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1,041   | 1,138   | 1,272   | 1,379   | 1,473   | 1,443   | 1,375   | 1,486   |

The mission of CSU\*LSAMP is to improve the systemwide production of STEM degrees for minority students. Its Phase I goal was to award at least 1,500 STEM degrees across the system to minority students in 1998-99. In 1998-99, the system recorded 1,473 comparable degrees; that is, a number that was 98.2 percent of the stated goal. Since the onset of Phase III, in 1999-2000, the annual degree production among minority students with STEM majors has been below desired levels. Instead of rising every year, the annual number has been consistently below the Phase I goal of 1,500.

**Table 6. New CSU Minority Freshmen with Declared STEM Majors, Fall Term, Systemwide: 1994 to 2001.**

| 1994  | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1,630 | 1,841 | 1,926 | 2,076 | 1,909 | 2,147 | 2,169 | 2,249 |

Between 1994 and 2000, the average annual growth rate for the fall number of new first-time freshmen that were minority students with STEM major was 4.8 percent. The highest annual growth spurt was 12 percent and the lowest was a decline of 8 percent.

**Table 7. New CSU Minority Transfers from California Community Colleges with Declared STEM Majors, Fall Term, Systemwide: 1994 to 2000.**

| 1994 | 1995  | 1996  | 1997 | 1998 | 1999 | 2000 | 2001  |
|------|-------|-------|------|------|------|------|-------|
| 933  | 1,020 | 1,091 | 963  | 919  | 961  | 933  | 1,026 |

Between 1994 and 2000, the net gain in the fall number of new undergraduate transfers from California Community Colleges that were minority students with STEM major was zero. The highest annual growth spurt was 9 percent and the lowest was a decline of 11 percent.

**Administrative Headquarters Budget 2001-2002:** Personnel (185,866), Benefits (\$46,751), Domestic Travel (\$11,500), Consulting Fees (\$25,000), Meeting Expenses (\$40,000), Space and Utilities (\$9,600) = \$318,716.

**Phase II Participating CSU Campuses:** Bakersfield, Chico, Dominguez Hills, Fresno, Fullerton, Hayward, Humboldt, Long Beach, Los Angeles, Northridge, Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, Sonoma, and Stanislaus.

**REQUEST FOR PARTICIPATION AS THE LEAD INSTITUTION FOR  
PHASE III OF CSU\*LSAMP**

If you wish to be considered for the Lead Institution status in Phase III, please reply to all the items below. Then submit three copies of your written responses to:

Philip Garcia, Director  
Analytic Research  
CSU-Office of the Chancellor  
401 Golden Shore Drive  
Long Beach California 90803

If selected, your responses will be incorporated into the Phase III proposal.

1. Campus:
2. Proposed principal investigator: It must be either the Chief Executive Officer or the Chief Academic Officer of the Lead Institution.
3. Project Director: The individual that will supervise the day-to-day operations of the project.
4. Management Plan: Describe your methods for communicating, coordinating and managing activities throughout the alliance. This includes establishing a Governing Board composed of Presidents or Provosts/VPAs of partner institutions and representatives from collaborating organizations.
5. Evaluation Activities: Projects will be required to submit data to NSF via the AMP/MARS data system. The data format and content are available at <http://www.qrc.com/nsf/her/ampstart.htm>  
Describe how the information collected and analyzed will be used for monitoring the progress of the project (e.g., databases and annual reports).
6. Dissemination Activities: Indicate your plans for disseminating project innovations and for fostering adaptation of project activities that could be implemented at other institutions.
7. Itemized Budget: Indicate and describe the annual costs related to the execution of Lead Institution responsibilities and activities. Senior administrative personnel cost should not exceed 25% of the total budget.
8. Biographical sketches of key project personnel (each no more than two pages in length) should highlight relevant experience in recruiting, academic and career mentoring, and knowledge of research methodologies, higher education, minority participation in SMET disciplines, graduation and workforce entry, etc. Up to 10 major relevant publications may be listed for each key personnel.

Responses should be complete, yet concise. You may wish to review the program solicitation at <http://www.nsf.gov/pubs/2001/nsf01140/nsf01140.pdf>. You also may contact Dr. Garcia for any assistance. His email and telephone number are [pgarcia@calstate.edu](mailto:pgarcia@calstate.edu) and 562.951.4764. Your submission is due in the Chancellors Office by November 15, 2002.

## Sample Letter of Commitment

November 15, 2002

Dr. A. James Hicks  
Program Director  
Human Resources Development  
The National Science Foundation

Dear Dr. Hicks:

As the chief [executive] [academic] officer of our institution, I am pleased to state our continuing campus support for the Louis Stokes Alliance for Minority Participation (LSAMP) Program that is in operation across the California State University (CSU) system. [As a federally recognized Hispanic-Serving Institution, we] [We] are committed to helping more of our students from traditionally under-represented groups obtain quality academic training in the disciplines covered by LSAMP. Moreover, as long-standing members of the LSAMP at the CSU, we are eager to pursue the goals expressed for Phase III programs.

We are proud of the progress we have made in improving individual student retention and progression rates at the CSU. Our summer and academic year workshops that focus on mastery of college-level math and lower-division science requirements have helped increase the percentage of our students that enroll in upper-division STEM courses. Our graduation rates have improved too; but we recognize that there is room for improvement. To reduce the remaining graduation rate gap between minority and majority students, we know that we must provide more services and research experiences to our junior and senior class-level STEM students. We are also keenly aware of the urgency to increase the number of post-baccalaureate students in STEM graduate programs and teacher education programs that offer math and science credentials.

A campus coordinator has already been assigned to advise and work with participants that seek participation in the LSAMP program.

Phase III funding from NSF offers us a great opportunity to quicken our attainment of parity in graduation rates between minority and majority STEM students plus solidify our current efforts to increase the flow of students into graduate school. It will also help us complete the institutionalization process for the innovations and practices developed during Phases I-II of our LSAMP program.

Sincerely,

Name  
Title  
Campus