

# *Louis Stokes* **Louisiana Alliance for Minority Participation**

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## **LS-LAMP**

- ◆ **A comprehensive, statewide, systemic mentoring program aimed at**
  - (1) substantially increasing the numbers and quality of minority, undergraduate students completing BS degrees in Science, Mathematics, Engineering, and Technology (SMET) and at**
  - (2) increasing the numbers of those alumni who successfully pursue SMET graduate degrees.**

[www.ls-lamp.org](http://www.ls-lamp.org)

## **LS-LAMP Phase I Objectives**

- ◆ **To double the yearly number of minority students receiving BS degrees in Science, Mathematics, Engineering, and Technology (SMET) by the year 2000 (from 482 to 964)**
- ◆ **To have 20% of the minority SMET graduates enroll and succeed in SMET graduate programs, with emphasis on Ph.D. programs and degrees**

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## **LS-LAMP Phase II Objectives**

- ◆ **To increase to 1120-1470 the yearly number of minority students receiving BS degrees in Science, Mathematics, Engineering, and Technology (SMET) by the year 2005**
- ◆ **To have 20%-40% of the minority SMET graduates enroll and succeed in SMET graduate programs, with emphasis on Ph.D. programs and degrees**

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## BASIC ORGANIZATION OF LS-LAMP

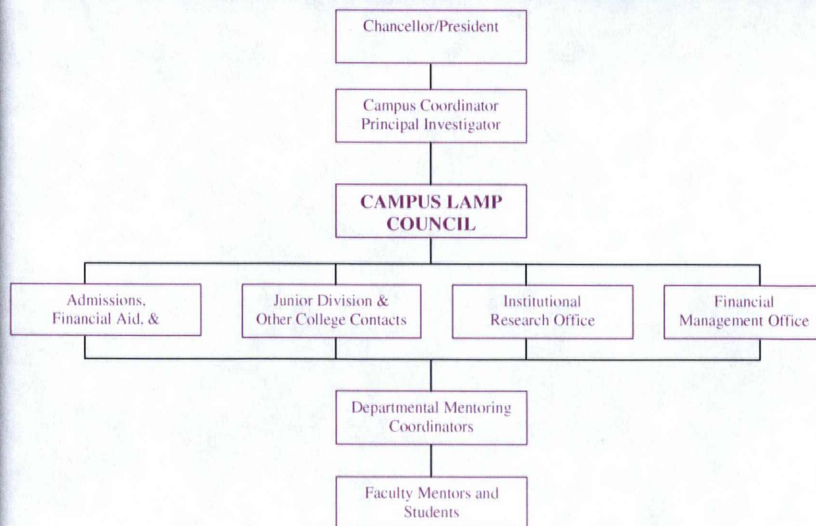
**Grantee:** The Louisiana Board of Regents

**Alliance:** 11 Colleges and Universities and One Research Organization—Led by Southern University and A&M College in Baton Rouge

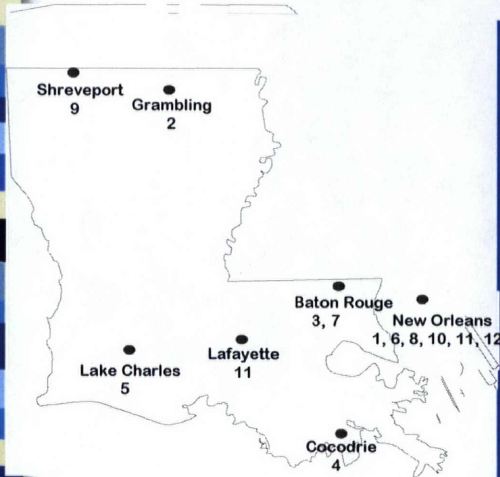
**Governing Board:** CEOs of Partner Institutions with the Commissioner of Higher Education as the Chairman

**Campus Council:** The Institutional Coordinating Body and Advocate of LS-LAMP; an Agent of Institutional Transformation

## LS-LAMP Campus Council



# LS-LAMP Partner Institutions

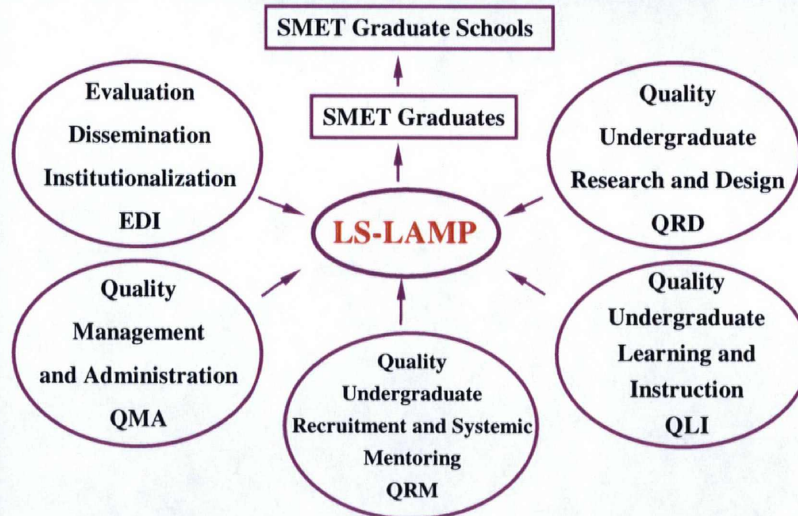


1. Dillard University
2. Grambling State University
3. Louisiana State University
4. Louisiana Universities Marine Consortium (research site)
5. McNeese State University
6. Nunez Community College
7. Southern University and A&M College, Baton Rouge (lead institution)
8. Southern University New Orleans
9. Southern University-Shreveport
10. Tulane University
11. University of Louisiana at Lafayette
12. University of New Orleans

(The existing and emerging community colleges are expected to become strong affiliates of LS-LAMP)

[www.ls.lamp.org](http://www.ls.lamp.org)

# Logical Framework of LS-LAMP



Institutionalized holistic systemic mentoring, reform-imbued instruction, undergraduate research experience, and quality evaluation and management form the logical framework of LS-LAMP that maximizes retention of SMET undergraduate students and their transition to graduate school.

## Systemic Mentoring Activities

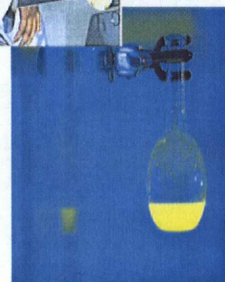
- ❖ **Systemic Mentoring: The Core Strategy of LS-LAMP.**  
The activities of our 10-step systemic mentoring model follow.

**Direct Financial Support** (time dividend to be devoted to studying and to research)

**Cooperative Learning** (to enhance learning and interpersonal skills germane to excelling in graduate school and in the job market)

**Recruitment of Pre-College, Junior Division, Community College and SMET students**

**Articulation and Bridge Activities:** Pre-college to college; Community college to 4-year college; Four-year college to graduate school.



## Systemic Mentoring Activities

**Scientific Advisement & Participation in Tutoring**

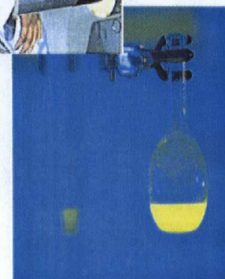
**Research Participation & experiential learning** (to enhance quality and to promote graduate studies)

**Preparation for Graduate School** (including GRE Preparation)

**Rigorous Approach to Communication Skills Enhancement**

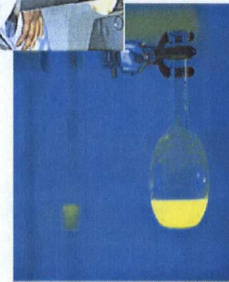
**Information and other Technology Skills Enhancement**

**Immersion in a Professional Culture:** weekly seminars, conferences, workshops, etc.



## Other LS-LAMP Activities

- ❖ Curriculum Reforms
- ❖ Infrastructure Improvement in Instruction and in Research (to ensure quality and expand R&D opportunities)
- ❖ Collaborations/Partnerships with Many Other Organizations (with overlapping goals and objectives)



### Partnerships



*Exhibit by Stanford Linear Accelerator Center (SLAC)*

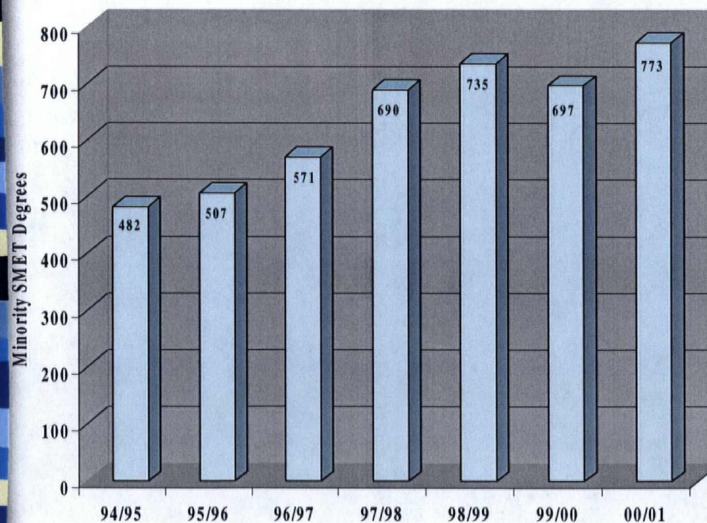
- ◆ To achieve the goals of LS-LAMP, LS-LAMP institutions are strongly encouraged to establish alliances with colleges and universities, community colleges, school systems, Federal/state/local government agencies, national laboratories, *industry*, private foundations, and professional organizations.

## Institutionalization of LS-LAMP

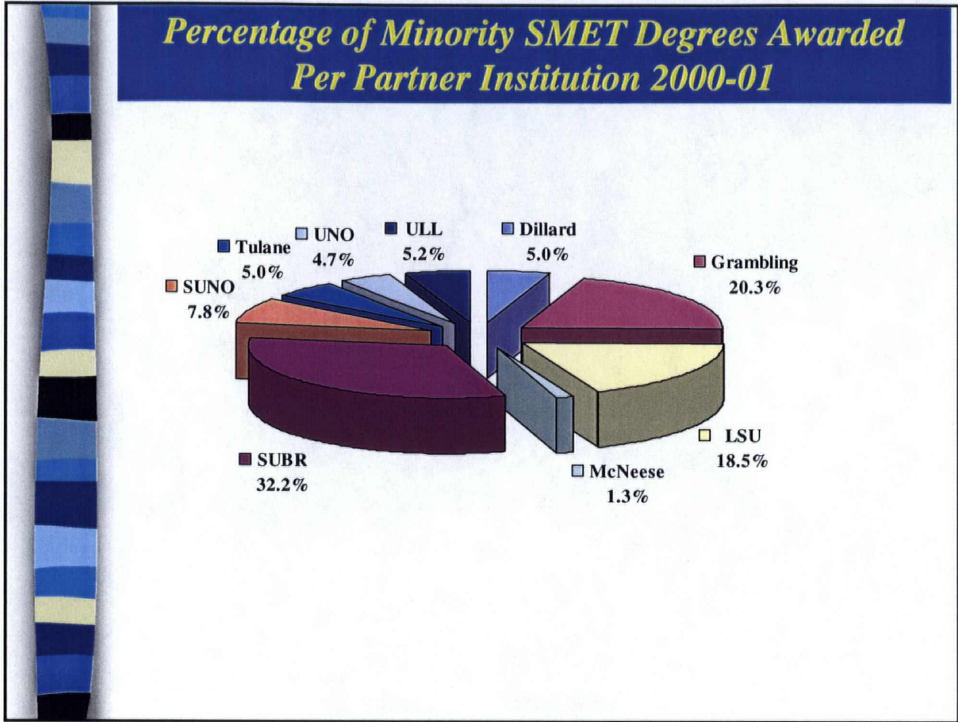
**NSF funding serves as a stimulus to enhance systemic mentoring (Phase I & II) and its institutionalization (Phase II)**

- The campus council is the support structure to facilitate institutionalization
- Departmental Mentoring Coordinators enable the propagation of systemic mentoring in SMET departments and units

LS-LAMP Minority SMET Degrees



Source: The Louisiana Board of Regents



- ## CHALLENGES OF LS-LAMP
- **State law(s) dictating drastic increases in out-of- state fees: dramatic, negative effects on Grambling State University (GSU) and significant, negative effects on SUBR (which had 45% and 20% of their students out-of-state)**
  - **State law(s) setting specific requirements out-of-state students have to meet (i.e., a minimum ACT score): significant impact on SUBR and on GSU**
  - **Stagnant or declining nature of the numbers of high school graduates in the State (10% decline predicted in the future)**
  - **Some competition from electronic universities: the University of Phoenix and others started operating in the state (new offices in Baton Rouge and in N.O.)**





## SOLUTIONS FOR THE FUTURE

### PART 1: THE SUPPORTIVE CONTEXT

- **Actions of the Governor and Legislature Favorable to Higher Education:** Assistance to institutions for energy bills; Special funding for technology and other infrastructure programs—including the Louisiana Education Quality Support Fund (LEQSF); Raises for faculty members, effective in the fall of 2001; and Tuition Opportunity Program for Students (TOPS).
- **Implementation of the new Master Plan for Postsecondary Education,** including extensive studies that continue (i.e., Study by Noel-Levit), and the EPAS efforts (Regents & BESE) at the pre-college level (*for more & better prepared college freshmen*).
- **Clear commitment to LS-LAMP by the Commissioner, Dr. Joseph Savoie and the Regents;** Increasing commitment by CEOs of partner institutions, faculty, and staff members.



## SOLUTIONS FOR THE FUTURE

### PART 2: ENHANCED IMPLEMENTATION AND INSTITUTIONALIZATION OF THE 10-STEP SYSTEMIC MENTORING MODEL AND ATTENDANT ACTIVITIES

Please refer to the enclosed Strategic Implementation Plan developed in 2000. This plan is a fail-safe road-map for partner institutions. The institutional transformation its full implementation requires or induces is currently ongoing and at an accelerating pace.

This execution of our Strategic Implementation Plan, despite adverse conditions noted earlier, practically guarantees our success.

## SOLUTIONS FOR THE FUTURE

### PART 3: GROUNDING OF LS-LAMP ACTIVITIES INTO THE CURRENT SUM OF KNOWLEDGE IN SMET EDUCATION

Please see our publications, **Strategic Implementation Plan, and related products (including videotapes).**

**“Avoiding or Closing the Academic Achievement Gaps,”** D. Bagayoko, S. Hasan, and R. L. Ford. Proceedings, DOE/LS-LAMP Annual Conference, N.O., LA, February 2001.

**“Basic and Advanced Training for the New Millennium: the Model of the Timbuktu Academy,”** by D. Bagayoko, R. Bobba, E. L. Kelley, and S. Hasan. Submitted to the International Journal of Materials Science Education.

**“A Problem Solving Paradigm,”** by D. Bagayoko, E. L. Kelley, and S. Hasan. College Teaching, Winter of 2000.

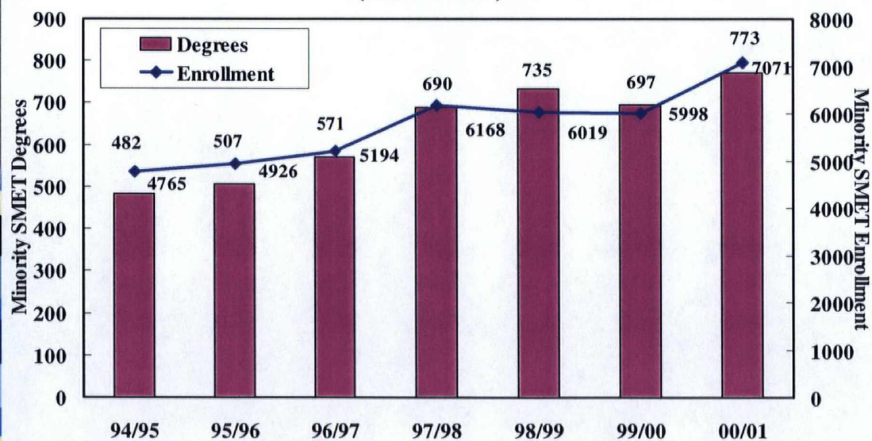
### LS-LAMP Publications

- **“Fundamentals of Mentoring and Networking,”** D. Bagayoko, R. L. Ford, and E. L. Kelley; in *Scholarly Guideposts for Junior Faculty* Publisher, Quality Education for Minority (2000).
- **“Early Guidance Pays Off,”** published in Resource Magazine (April, 1998).
- **“Writing for Success, a User-Friendly Manual for Effective Communication,”** by O. Plummer and D. Bagayoko. Publisher: McGraw Hill. ISBN: 0-07-154196-9 (1998).
- **“Integration of Research and Education”** and **“Accountability in Teaching and Learning: The Covenant”** have been published on the World Wide Web (<http://www.phys.subr.edu/senate/>)

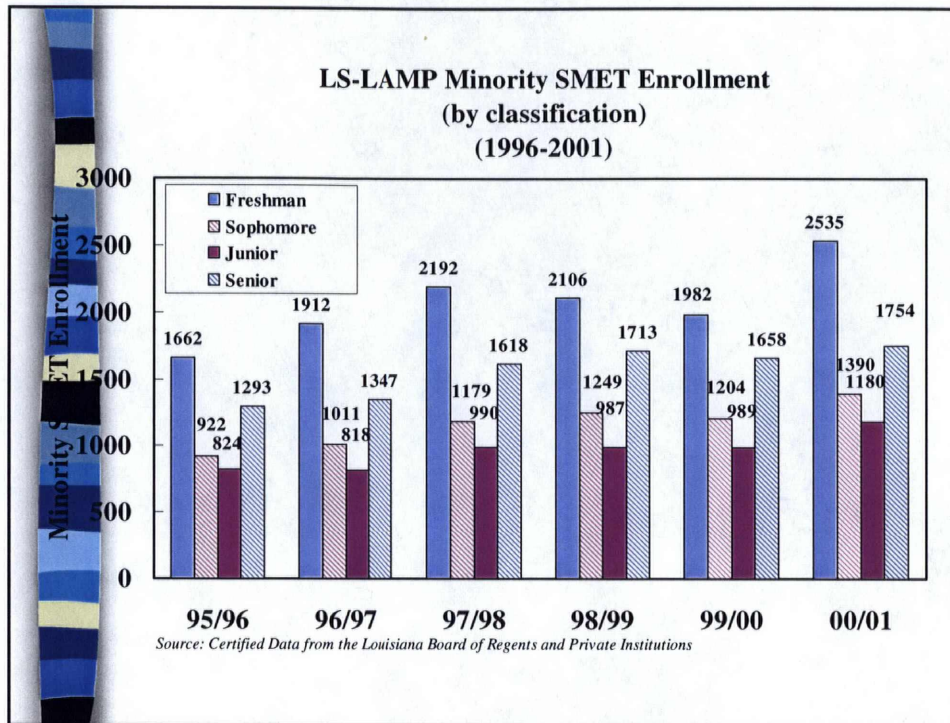
## LS-LAMP Publications

- *Mentoring: A Strategy for Increasing Minority Participation (1997)*
- *"Perspectives of US Presidential Awardees on Workforce Development," in US Science, Engineering, and Technology Workforce of the Future: National Strategy, National Portfolio, National Resource Base. , National Science Foundation (NSF), Washington, D.C., USA, Publication Number: NSF 99-132, 1999.*
- ***College Success Workbook* by H. Stevenson (in progress)**
- ***"The Law of Performance for Excellence in Research," D. Bagayoko. To appear in Proceedings, NAFEO High Tech Student Expo (2001).***

LS-LAMP Minority SMET Degrees and Enrollment  
(1995-2001)



Source: Certified Data from the Louisiana Board of Regents and Private Institutions

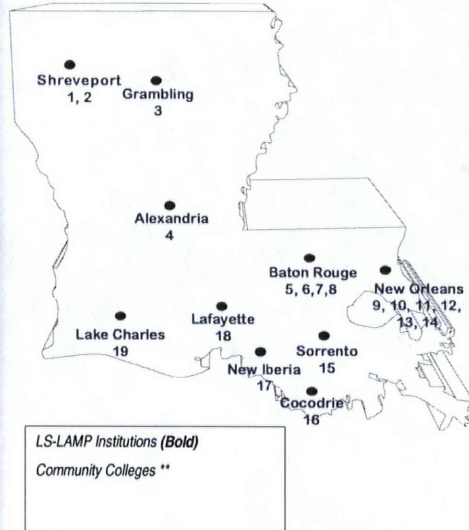


## POTENTIAL IMPACT OF COMMUNITY COLLEGES (TRANSFERS) IN PHASE II

The following map illustrates the rapid increase of the number of community colleges and the expected benefits to LS-LAMP stemming from transfers from community colleges to LS-LAM institutions after 2-years.

The Baton Rouge Community College (BRCC) is reported to enroll over 4,000 students this fall. BRCC and SUBR have a transfer agreement in place; it is expected to be partly financed by an NSF-Advanced Technological Education project under development.

## LAMP Partner Institutions & Affiliates



- 1. Southern University at Shreveport \*\*.**
- 2. Bossier Parish Community College \*\***
- 3. Grambling State University**
- 4. Louisiana State University at Alexandria \*\***
- 5. Southern University and A&M College (lead institution)**
- 6. Louisiana State University**
- 7. Baton Rouge Community College \*\***
- 8. Louisiana Board of Regents**
- 9. Dillard University**
- 10. Nunez Community College \*\***
- 11. Tulane University**
- 12. University of New Orleans**
- 13. Southern University at New Orleans**
- 14. Delgado Community College \*\***
- 15. River Parishes Community College \*\***
- 16. Louisiana Universities Marine Consortium (research site)**
- 17. South Louisiana Community College \*\***
- 18. University of Louisiana at Lafayette**
- 19. McNeese State University**

## SUMMARY OF PROSPECTS FOR THE FUTURE OF LS-LAMP

- **A rigorous, comprehensive knowledge base is guiding the increasingly thorough implementation of the 10-step systemic mentoring model of LS-LAMP.**
- **The increasing commitment from all stakeholders further portends the successful implementation of Phase II of LS-LAMP.**
- **It is expected that the results of LS-LAMP, in the years to come, will warrant the nationwide dissemination of its logical framework, systemic mentoring model, and related implementation processes.**

*“Luck is what happens when preparation meets or makes, recognizes, and acts on opportunity.”*