

FY 2008-2009 PLAN AND BUDGET
FOR THE EXPENDITURE OF REVENUES AVAILABLE FROM THE
BOARD OF REGENTS SUPPORT FUND
WITH AN OVERVIEW OF PRELIMINARY RESULTS OBTAINED

SUBMITTED TO THE
GOVERNOR AND LEGISLATURE
IN ACCORDANCE WITH THE CONSTITUTIONAL PROVISIONS OF
ARTICLE VII, SECTION 10.1

ADOPTED
JANUARY 24, 2008
BY THE
BOARD OF REGENTS

OVERVIEW OF RESULTS

from the Investment of Board of Regents Support Fund Money in Higher Education

- ◆ **\$705,414,079 GENERATED IN NEW EXTERNAL FUNDING** (through 6/30/2007)
From federal, private, and other non-Support Fund sources
- ◆ **AN ADDITIONAL \$299,380,000 GENERATED IN EXTERNAL CONTRIBUTIONS**
For Endowed Chairs and Professorships
- ◆ **2,656 EXTERNAL AWARDS**
From federal, private, and other non-Support Fund sources
- ◆ **247 \$1 MILLION CHAIRS AND 30 \$2 MILLION CHAIRS** for eminent scholars
endowed at 24 universities
- ◆ **1,935 \$100,000 PROFESSORSHIPS** endowed at 34 campuses
- ◆ **1:1.67 RATE OF RETURN** for all projects funded since 1987
For every Support Fund dollar invested, \$1.67 has been returned to the State
- ◆ **158 PATENTS ISSUED; 81 PATENT APPLICATIONS PENDING**
- ◆ **8,812 PUBLICATIONS** in refereed journals
- ◆ **LaSIP** (Regents/BESE/NSF/Louisiana Legislature) produces rising student scores on
statewide tests
- ◆ **EXPANDED UNIVERSITY COLLABORATION** to increase research
competitiveness for federal R&D money

**PLAN AND BUDGET
FOR THE EXPENDITURE OF REVENUES AVAILABLE FROM
THE BOARD OF REGENTS SUPPORT FUND
FISCAL YEAR 2008-2009**

PREFACE

The Governor, Legislature, and public should recognize that a sound educational system at all levels and in all disciplines--which is well-supported on a consistent basis--is crucial to enhancing academic programs and units and promoting economic development, the two goals of the Constitutional amendment which created the Louisiana Education Quality Support Fund (hereinafter referred to as Board of Regents Support Fund). The four programs of the Board of Regents Support Fund (BoRSF) pursue different but related strategies in the quest to achieve these goals. All disciplines are eligible to compete in the Graduate Fellows, Enhancement, and Endowed Chairs Programs, thus reflecting the Board's broad and long-range commitment to strengthen all disciplines and, in so doing, to promote long-term economic development through the enhancement of higher education in general. Competition in the Research and Development (R & D) Program has generally been restricted to those disciplines where the promotion of basic and applied research is essential for near-term economic development, although, beginning in FY 2004-05, one of the R & D subprograms has focused on research efforts in the arts, social sciences, and humanities. (See section 5.4 below.)

I. INTRODUCTION

According to Article VII, Section 10.1, of the Louisiana Constitution, at least sixty days prior to each regular session of the Legislature the Board of Regents must submit to the Governor and the Legislature a proposed plan and budget for the expenditure, during the coming fiscal year, of money available to higher education from the Board of Regents Support Fund. Higher education's portion of these funds may be spent for "any or all" of the following purposes: (1) endowment of chairs for eminent scholars (hereinafter referred to as the Endowed Chairs Program); (2) recruitment of superior graduate students (the Graduate Fellows Program, including Traditional Graduate Fellows and Graduate Fellowships for Teachers); (3) carefully defined research efforts (the R & D Program, including the Research Competitiveness Subprogram, the Industrial Ties Research Subprogram, and the Awards to Louisiana Artists and Scholars [ATLAS] Subprogram); and (4) enhancement of the quality of academic, research, or agricultural departments or units within a university (the Enhancement Program, including the Traditional Enhancement Program, the Undergraduate Enhancement Program, the Endowed Professorships Program, the Enhancement Program for Two-Year Institutions, the Louisiana Systemic Initiatives Program [LaSIP], the Undergraduate Scholarships Program, and the Post-Katrina Support Fund Initiative). A more extensive discussion of the Board's use of the Support Fund to ameliorate the effects of Hurricane Katrina and Rita appears in Section 5.5.7 of this Plan and Budget.

1.1 BOARD OF REGENTS SUPPORT FUND PROJECTION, FY 2008-2009

The actual revenue available for expenditure in FY 2006-07 (\$32,116,788), was used as the base amount in budgeting the FY 2008-09 BoRSF Plan and Budget.

1.2 BUDGET RATIONALE AND PREAMBLE

In deliberations about the Board of Regents Support Fund Plan and Budget for FY 2008-2009, the Board again noted the persistence of three related Support Fund issues requiring long-range strategic planning:

- Steadily increasing demands for Support Fund resources under all four Program components with concomitant increases in proposal quality and outstanding results achieved, including the leveraging during the grant period of \$1.67 in non-State money for every Support Fund dollar awarded;
- The State's expanding emphasis on economic development and diversification through Vision 2020 and the Post-Katrina Initiative; and,
- Unusually great and increasing demands for resources to create endowments--for both eminent scholars and professorships.

Additionally, the Board continues to direct some money from Support Fund programs to assist higher education institutions in the recovery and rebuilding efforts necessitated by the hurricanes. Nevertheless, it is vital that robustness be maintained in all four interrelated Support Fund components. While the Board lauds the growth in private philanthropy reflected in the increased applications for endowed chairs and professorships, the Regents are also mindful that significant cuts in budgets for Enhancement, R & D and Recruitment of Superior Graduate Students would jeopardize the viability of these components and hence impair the overall quality of the Support Fund programs. Endowed chairholders and professors must have basic infrastructural equipment, supportive cutting-edge research in affected departments and units, and top quality graduate students in order to achieve the results expected of them.

1.3 ADOPTION OF FY 2008-2009 PLAN AND BUDGET

The following plan and budget for FY 2008-2009 were adopted by the Board of Regents at its meeting of January 24, 2008.

2. LONG-RANGE PLANNING AND EVALUATION

2.1 LONG-RANGE PLANNING

In FY 1987-88 the Board of Regents determined that, in addition to the Constitutionally-required annual plan and budget which set forth short-term programmatic goals and fiscal objectives, a comprehensive overview of tactics and strategies was required to accomplish fully the interrelated purposes and goals of the Support Fund. The short-term activities outlined in the annual plans and budgets could then be shaped by these long-term goals.

The first such plan evolved from a carefully researched "White Paper" prepared by the Louisiana Stimulus for Excellence in Research (LaSER) Committee. Titled Strategic Plan for Higher Education's Portion of the Louisiana Education Quality Support Fund, it was adopted in 1988. Cognizant of changes in economic conditions which affected academic issues, the Board in 1993 adopted a revised plan, titled Board of Regents Support Fund Long-Range Strategic Plan for Higher Education. It maintained the central themes and strategies of the earlier plan, and adjusted to changing conditions and lessons learned from seven years of experience. In 1999 the Board adopted a third revised plan to guide the Support Fund through FY 2005-06. In the wake of Hurricanes Katrina and Rita, the Board extended that Strategic Plan through FY 2006-07, and at its meeting of June 22, 2006 accepted the FY 2007-08 through FY 2013-14 Strategic Plan. The current Plan continues the approach of balancing continuity based on effectiveness, with revisions reflecting "lessons learned."*

*Copies of the 1988, 1993, 1999, and 2007 Strategic Plans are available in the Board's office.

2.2 LONG-RANGE EVALUATION

To ensure that the Board of Regents Support Fund achieves its goals, the Board, beginning in FY 1990-91, implemented a systematic comprehensive evaluation process. This process involved four stages: (1) collection of background information; (2) submission to the Board by project directors of annual and/or final project reports; (3) submission of additional information one year after project termination; and (4) an evaluation by out-of-state experts of individual projects as well as the overall program. In the spring of 1994 such an evaluation was conducted by a distinguished panel of out-of-state experts. The Panel concluded that the Board of Regents Support Fund Program "is effectively and efficiently administered, that it is addressing some of the State's economic development and higher education infrastructure needs, and that it has been successful in attracting federal funds to the State."*

With the opportunity to see the various Support Fund programs in operation over a period of years, new insights have been gained. Accordingly, the Board instructed the staff, in conjunction with the Evaluation Subcommittee of the Board of Regents Support Fund Planning Committee, to engage in a thorough revision of the long-range evaluation system. That process began with the comprehensive review of the Endowed Chairs Program during the summer and fall of 1998. The Endowed Chairs review culminated in the March, 1999 adoption of the Board of Regents Endowed Chairs Policy, which further strengthened a program with already impressive accomplishments. Similarly, the FY 1999-2000 comprehensive review of the Endowed Professorships Program led to the adoption, in December, 2000 of the Board of Regents Endowed Professorships Policy, providing for the improvement of that program. The FY 2000-01 review of the Recruitment of Superior Graduate Students Program led to the adoption in January, 2002 of recommendations designed to elevate the program's accomplishments. The FY 2001-02 review of the Research and Development Program led to recommendations intended to improve and strengthen this already highly successful program. In each instance, insights from the review led to the adoption of measures that will further strengthen these programs and thus maximize their positive impact on Louisiana higher education. Additional evaluation efforts are currently under discussion.

3. AN OVERVIEW OF PRELIMINARY RESULTS OBTAINED

Significant benefits have begun to accrue to the State as a result of the investment of this money in higher education. The results reported herein are even more impressive when one understands that: (1) realization of the full benefit of investment in higher education is a long-term proposition, and final results only become obvious after a period of many years; (2) reported results include only benefits derived during the life of the grants awarded, and do not attempt to measure the many benefits which accrue to affected institutions after the conclusion of the relatively brief time of Support Fund contracts; and (3) no specific benefits beyond the initial private match are claimed as a result of the Endowed Chairs for Eminent Scholars Program, and no specific external grants are attributed to the Recruitment for Superior Graduate Students program.

Annual and/or final reports have been used since the inception of the Board of Regents Support Fund Program to monitor the progress of all projects. A few of the most significant achievements are described in the following sections.

*This Panel's report is available in the Board's office.

3.1 STATEWIDE RESULTS

- * **\$1.005 billion in external funds has been generated** from Federal, private, and industrial sources as a result of the Board of Regents Support Fund investment in higher education, thereby significantly increasing the total monies available for higher education. This represents a **return of \$1.67 for every Board of Regents Support Fund dollar invested** in higher education since the inception of the programs. The figure reflects only dollars generated during the life of the awards--additional revenues were/will be generated after the expiration of the awards.
- * **Increased collaboration and coordination of efforts between Regents and BESE**, as evidenced by the renewal of the \$37 million joint LaSIP effort to reform K-12 and undergraduate instruction in math and science, the subsequent funding of the Delta Rural Systemic Initiative, and the joint efforts of the two boards to improve education through the Blue Ribbon Commission on Teacher Quality. (See Attachment I for descriptions of these projects.) Those collaborative efforts also contributed to the funding of **Championing Early Awareness and Readiness for Undergraduate Programs (GEAR UP)** by the U.S. Department of Education for \$15 million over a six-year period.
- * **2,656 grants and/or contracts have been awarded** to Louisiana universities from external funding agencies directly as a result of Board of Regents Support Fund investments.
- * An analysis performed by the Louisiana Department of Economic Development concluded that, for all completed Industrial Ties Research Subprogram projects, **48% had either been successfully commercialized or were in the process of commercialization**. Forty-five percent (45%) of those projects that were successfully commercialized are protected by a patent and/or license. Additionally, **almost 60% of all completed projects reported significant to moderate industrial interaction**.
- * **Increased institutional collaboration has resulted**, as evidenced by the multi-million dollar, multi-institutional grants awarded to the Board of Regents on behalf of statewide university consortia for research reform initiatives. Their purpose is to increase the amount of federal research and development money awarded to Louisiana scientists and engineers statewide. (See descriptions of awards in Attachment I.)
- * **158 patents have been issued, and another 81 applications are pending.**

3.2 RESULTS FROM SELECTED PROJECTS

See Attachment II for brief summaries of the achievements of several selected projects.

3.3 MULTIPLIER EFFECTS

Using the input/output table constructed by the Bureau of Economic Analysis in the U. S. Department of Commerce and housed in the Department of Economics at LSU, one can estimate the "multiplier" effects that such an infusion of new dollars creates on the Louisiana economy in terms of new revenues, income, and jobs for Louisianians.

The effect of the \$1.005 billion in new revenues generated from Board of Regents Support Fund projects is estimated as follows:*

- approximately \$2.06 billion in new revenues to Louisiana firms and organizations;
- approximately \$830 million in new income for Louisiana citizens; and
- approximately 35,980 new jobs for Louisianians.

4. LEVERAGING BOARD OF REGENTS SUPPORT FUND MONEY, EXPANDING BOARD OF REGENTS SUPPORT FUND OPPORTUNITIES, AND PROMOTING MULTI-INSTITUTIONAL COOPERATION AND COLLABORATION

As early as FY 1988-89, the Board was co-sponsoring research projects with the National Science Foundation (NSF) and supporting the development of scientific research and educational infrastructure in Louisiana under NSF's Experimental Program to Stimulate Competitive Research (EPSCoR). In FY 1991-92, the Board decided to dedicate a portion of the Board of Regents Support Fund monies as matching commitments for two new statewide, multi-institutional initiatives to be submitted in national competitions for Federal funds in areas which coincide with Constitutionally prescribed Board of Regents Support Fund activities. The reasons for, and goals of, this decision were fourfold:

- To continue and accelerate the leveraging of Federal money with Board of Regents Support Fund investments--as is being accomplished by principal investigators of individually-funded Board of Regents Support Fund projects described in Attachment II of this Plan and Budget;
- To expand opportunities available under the Board of Regents Support Fund Programs;
- To reinforce the building of infrastructure that had begun under the traditional Board of Regents Support Fund Programs, which is necessary to enable Louisiana's universities to compete more successfully for Federal research money; and,
- To promote multi-institutional collaboration and cooperation among Louisiana's colleges and universities.

The FY 1991-92 Board of Regents Support Fund Plan and Budget described the dedication of Board of Regents Support Fund money as State matching commitments for these multi-year Federal grant proposals then in preparation (FY 1990-91) under the auspices of the Board of Regents. Each proposal required significant State matching money as a condition of funding.

*These estimates were determined through application of a formula developed by Dr. Loren Scott of LSU-BR, who authored "The Impact on the Louisiana Economy of \$66.5 Million in Outside Research Funding at LSU," January, 1990.

4.1 FUNDED PROPOSALS: JOINT BOARD OF REGENTS SUPPORT FUND/FEDERAL PROGRAMS WITH STATEWIDE IMPACT

The Board was successful in the competitions described above. These efforts served to solidify a partnership between the Support Fund and the National Science Foundation. This partnership has grown over the years to include relationships with the National Aeronautics and Space Administration, the Department of Defense, the Department of Energy, the Department of Commerce, the Environmental Protection Agency, and the National Institutes of Health. Support Fund obligations for these federal grants appear below in chart form. (See Chart I.) A more detailed description of each grant, including the federal funds received from each, can be found in Attachment I.

The Board's decision to augment the Support Fund by using a part of it to pursue federal matching grants opportunities has borne significant fruit. It has enabled the State to progress from a point in 1985-86 at which it could not receive even minimal support from NSF for research collaborations to the current situation, which finds Louisiana among the elite of NPSOER states in terms of successful research-related activities.

CHART I
FEDERAL MATCHING GRANTS PROGRAM
FOR JOINT STATE AND FEDERAL PROJECTS WITH SYSTEMIC AND/OR STATEWIDE IMPACT
BY TYPES OF SUPPORT FUND ACTIVITY, MONETARY COMMITMENT, AND DURATION

FEDERAL GRANT	TYPE OF SUPPORT FUND ACTIVITY	AMOUNT OF ANNUAL MATCHING COMMITMENT	AMOUNT OF TOTAL MATCHING COMMITMENT	FYs IN WHICH COMMITMENT IS APPLICABLE	TOTAL LENGTH OF COMMITMENT IN YEARS
NSF/EPSCoR* LaSER Implementation	TR ENH: 30% R&D: 70%	Yr. 1 \$685,043 Yr. 2 440,202 Yr. 3 191,791	\$1,317,036	1988-89 through 1990-91	3*
NSF/SI LaSIP	TR ENH, UG ENH, PLEx: Prorata	\$1 Million	\$5 Million	1991-92 through 1995-96	5
NSF/EPSCoR LaSER Advanced Development Program	TR ENH: 1/3 GR FEL: 1/3** ITRS: 1/3	\$1.2 Million	\$4.8 Million	1991-92 through 1994-95	4
NASA/ LaSPACE	RCS: 60% GR FEL: 40%**	\$100,000	\$500,000	1991-92 through 1995-96	5
NSF/SI LaCEPT	TR ENH: 100%	\$500,000	\$2.5 Million	1992-93 through 1996-97	5
DOE/EPSCoR Implementation	TR ENH: 60% RCS: 40%	\$519,795	\$1,039,590	1993-94 through 1994-95	2
DOD/EPSCoR Planning	TR ENH: 100%	\$ 25,000	\$ 25,000	1993-94	1
NASA/EPSCoR Implementation	TR ENH: 50% RCS: 25% GR FEL: 25%**	\$500,000	\$1.5 Million	1994-95 through 1996-97	3
1993 DEPSCoR Implementation	TR ENH: 50% RCS: 25% GR FEL: 25%**	Yr. 1 \$166,666 Yr. 2 166,666 Yr. 3 166,667	\$500,000	1994-95 through 1996-97	3
NSF/SI Teaching Scholars	TR ENH: 100%	\$ 50,000	\$250,000	1994-95 through 1998-99	5
NSF/EPSCoR LaSER Systemic Initiatives	TR ENH: 60% UG ENH: 10% R&D: 20% GR FEL: 10%**	\$1 Million	\$3 Million	1995-96 through 1997-98	3
DOE/EPSCoR Implementation Renewal	TR ENH: 10% R&D: 70% GR FEL: 20%**	\$800,000	\$3.2 Million	1995-96 through 1998-99	4
NSF/SI LAMP	TR ENH: 100%	Yr. 1 \$200,000 Yrs.2-5 \$500,000	\$2.2 Million	1995-96 through 1999-2000	5
NASA LaSPACE Renewal	RCS: 50% GR FEL: 50%**	\$100,000	\$400,000	1996-97 through 1999-2000	4
1995 DEPSCoR Implementation	TR ENH: 50% R&D: 25% GR FEL: 25%**	Yr. 1 \$551,439 Yr. 2 311,740 Yr. 3 311,972	\$1,175,151	1996-97 through 1998-99	3
NSF/SI LaSIP Renewal	TR ENH: 100%	\$1 Million	\$5 Million	1996-97 through 2000-01	5
NASA/EPSCoR Implementation Renewal	TR ENH: 50% RCS: 25% GR FEL: 25%**	\$500,000	\$1 Million	1997-98 through 1998-99	2
NSF/SI Delta Rural SI	TR ENH: 100%	\$200,000	\$1 Million	1997-98 through 2001-02	5

CHART I (CONTINUED)

FEDERAL GRANT	TYPE OF SUPPORT FUND ACTIVITY	AMOUNT OF ANNUAL MATCHING COMMITMENT	TOTAL MATCHING COMMITMENT	FYs IN WHICH COMMITMENT IS APPLICABLE	TOTAL LENGTH OF COMMITMENT IN YEARS
LaCEPT Supplemental	TR ENH: 100%	\$100,000	\$300,000	1998-99 through 00-01	3
1997 DEPSCoR Implementation	TR ENH: 50% R&D: 25% GR FEL: 25%**	\$250,000	\$750,000	1997-98 through 1999-2000	3
NSF/EPSCoR New Cooperative Agreement	TR ENH: 75% R&D: 25%	\$1 Million	\$3 Million	1998-99 through 2000-01	3
1999 DEPSCoR Implementation	TR ENH: 100%	Yr. 1 \$65,998 Yr. 2 61,900 Yr. 3 61,900	\$189,798	1999-2000 through 2001- 02	3
EPSCoT	TR ENH: 100%	\$300,000	\$300,000	1999-2000	1.5
NASA/EPSCoR Continuation Funding	TR ENH: 100%	\$250,000	\$250,000	1999-2000	1
NASA/EPSCoR Preparation Grant	TR ENH: 100%	\$100,000	\$100,000	1999-2000	1
NASA LaSPACE Continuation	TR ENH: 100%	\$200,000	\$1,000,000	2000-01 through 2004-05	5
EPA/EPSCoR 2000	TR ENH: 100%	Yr. 1 \$255,261 Yr. 2 244,739	\$500,000	1999-2000 through 2000-01	2
LAMP Phase II	TR ENH: 100%	\$500,000	\$2.5 Million	2000-01 through 04-05	5
NSF/EPSCoR Research Infrastructure Improvement	TR ENH: 100%	\$1 Million	\$3 Million	2001-02 through 2003-04	3
NASA/EPSCoR 2000	TR ENH: 100%	\$700,000	\$2.1 Million	2001-02 through 03-04	3
EPA/EPSCoR 2001	TR ENH: 100%	Yr. 1 \$250,000 Yr. 2 244,542	\$494,542	2002-03 through 2003-04	2
NSF/EPSCoR Research Infrastructure Improvement II	TR ENH: 100%	\$1 Million	\$3 Million	2003-04 through 2005-06	3
DOE/EPSCoR Implementation 2004	TR ENH: 100%	\$400,000	\$1.2 Million	2004-05 through 2006-07	3
NASA/EPSCoR 2000 Renewal	TR ENH: 100%	\$493,280	\$986,560	2004-05 through 2005-06	2
LAMP Phase III	TR ENH: 100%	\$500,000	\$2.5 Million	2005-06 through 09-10	5
NASA LaSPACE Continuation II	TR ENH: 100%	\$200,000	\$1 Million	2005-06 through 2009-10	5
NASA/EPSCoR 2006	TR ENH: 100%	\$625,000	\$1.875 Million	2006-07 through 2008-2009	3
NSF EPSCoR Proposal	TR ENH: 100%	\$1 Million	\$3 Million	2006-07 through 2008-2009	3
DOE EPSCoR Implementation Renewal	TR ENH 100%	\$400,000	\$1.2 Million	2007-08 through 2009-10	3

*The 13 research projects that were a part of the first NSF/EPSCoR award received Board of Regents Support Fund money for two years prior to receiving NSF support in January of 1989 (FY 1988-89), for a total of five years and \$3,374,355 in Board of Regents Support Fund money. This chart reflects only years three through five of Board of Regents Support Fund money (or \$1,317,036), since only that period of State support that coincides with Federal Support can be counted as part of the State's matching commitment. (See Section 4.1.1.)

** Because of the nature of the Graduate Fellows Program, money for this component must be committed in the fiscal year prior to expenditure. For this reason, the first year's Graduate Fellows portion of matching funds committed to a particular project was usually actually charged to Enhancement or R&D, or prorated between the two program components. (ChartInb 08 C: IW and 08-09P/R)

4.2 PENDING PROPOSALS: NONE

4.3 SPECIAL EFFORTS TO PROMOTE THE SUBMISSION OF MULTI-DISCIPLINARY, MULTI-INSTITUTIONAL PROPOSALS

The Board has long recognized the potential of multi-disciplinary and/or multi-institutional projects to enhance academic quality and promote economic development, as well as to make the most prudent use of scarce State resources. Accordingly, the Board has encouraged these kinds of proposals since the inception of the Board of Regents Support Fund, not only in the joint Federal/State efforts described in Section 4.1 of this Plan and Budget, but also in the proposals submitted under the traditional Board of Regents Support Fund Program components. The best known manifestations of the Board's support of proposals of this type are an \$800,000 award to fund the Louisiana Academic Library Network (LaLINC) proposal, which has computerized databases and linked academic libraries throughout the State, and one award of \$3,500,000 to help support the efforts of the Louisiana Optical Network Initiative (LONI).

To further emphasize its belief in the potential of multi-disciplinary, multi-campus efforts to achieve Board of Regents Support Fund goals and promote the best interests of the State, in its most recent solicitation for proposals, as well as in the 1993, 1999, and 2006 revisions of the Strategic Plan, the Board specifically encouraged the submission of collaborative efforts which would provide statewide benefits. Beginning with its FY 2000-01 budget, and continuing in FY 2008-09, the Board has set aside funds from the Traditional Enhancement program each year for the funding of these types of projects. The Board reaffirms the eligibility and encourages the submission of multi-disciplinary, multi-institutional proposals in all Board of Regents Support Fund Program components for FY 2008-2009. Consistent with the increased emphasis being placed on interdisciplinary research throughout the academic community and the increase of quality proposals submitted in this category, the Board first increased the funds available for awards in this category to \$950,000 in the plan and budget for FY 2004-05. The \$950,000 level will be maintained for FY 2008-09. Any unexpended multi-disciplinary money will revert to discipline-based Traditional Enhancement. (See Section 5 below.)

5. BOARD OF REGENTS SUPPORT FUND PROGRAM COMPONENTS

5.1 BUDGETARY CONTINGENCIES

If Board of Regents Support Fund money for higher education is greater than the \$32,116,788 projected, overages shall be returned to the Traditional Enhancement Program until its allocation reaches \$7,415,000, the level at which that component was funded in FY 2006-07. Any amount thereafter shall be returned to the Traditional and Undergraduate Enhancement components and the Research and Development subprograms on a pro-rata basis. In the event that reductions are necessary, they are to be made on a pro-rata basis among the Undergraduate Enhancement and the Enhancement Program for Two-Year Institutions program components.

5.2 ENDOWED CHAIRS FOR EMINENT SCHOLARS - \$3,220,000

Overview/Rationale

The Endowed Chairs for Eminent Scholars Program, introduced in 1987, is designed to enhance the recruitment and retention of distinguished university faculty at institutions throughout Louisiana. Through the 2006-2007 fiscal year, 277 chairs have been funded at twenty-four institutions, and the program has generated a total endowment (counting private match) of \$307 million.

The program pairs a 60% private-sector match with a 40% Board of Regents award to endow a chair to be filled by a scholar of high renown and great ability. The Board endows chairs in any discipline at two levels: \$1 million total endowment (\$600,000 match/\$400,000 BoRSF) and \$2 million total endowment (\$1.2 million match/\$800,000 BoRSF).

The competition established to determine endowment awards is rigorous and highly selective. A panel of out-of-state experts reviews proposals on an annual basis, and recommends for funding those most representative of and able to achieve the goals of the program. Stringent rules governing the selection of the faculty recipient are designed to ensure his or her excellence. An endowed chair must be filled through a national search and the committee conducting the search must include at least one individual recognized as an expert in the field of the chair, but who is not affiliated with the institution, the private donor, or the Board of Regents. While a chair recipient may be selected from within the affected campus, this may only be done when a national search has documented the national and/or international eminence of the prospective chairholder.

As the national search guarantees the past reputation of the chairholder, periodic peer reviews of the chairholder are intended to assure continued accomplishment. Chairholders are held to standards of performance which require that they maintain a continuing record of scholarly and creative endeavors, leadership activities, exceptional teaching, attraction of high-quality students and enhancement of the State's economy.

Important Historical Milestones

- Funds first awarded in 1987
- Has been budgeted at ≥\$3.2 M since 1990
- "First-come, first-served" replaced by Competitive Process in 1993
- Legislative supplemental appropriations, beginning in FY 1995-96 and continuing in most years since then, have enabled the funding of 94 additional chairs
- Comprehensive Reviews conducted in 1993 and 1998; Recommendations adopted for significant strengthening, especially in 1999
- "Special Provisions for Public Four-Year Campuses with Less than Three Eminent Scholars Chairs" adopted in 2001 - allowed public, four-year institutions with fewer than three chairs to invert the 60:40 private funds/public funds ratio, but retained the principle of competition without favor. Through FY 2005-06 when the "special provisions" expired, nine chairs, (three from Northwestern State University, two from Louisiana State University - Shreveport, and one each from Louisiana State University - Alexandria, Southern University - Baton Rouge, Southern University - New Orleans, and Grambling), were funded under its aegis. One additional proposal from Southern University - New Orleans was funded under special circumstances in FY 2006-07.

5.3 RECRUITMENT OF SUPERIOR GRADUATE STUDENTS - \$3,,851,500

The Recruitment of Superior Graduate Students (RSGS) Program provides resources to select departments to bring top-quality students to their graduate programs. Through the 2006-2007 fiscal year, the Board of Regents has provided over one thousand graduate fellowships to a spectrum of departments at fourteen institutions in Louisiana. About 10% of these fellowships have been awarded to programs specifically targeting in-service teachers in mathematics and science disciplines pursuing master's degrees in Education. While the economic and cultural impact of these fellowships is difficult to quantify, it is clear that the program has contributed highly educated employees to Louisiana industry, expert teachers at levels from kindergarten to college, and a community of enthusiastic, energetic, and dedicated students to further the educational and research agendas at colleges and universities across the State.

Since 1993 two subprograms have comprised RSGS: Traditional Graduate Fellows and Graduate Fellowships for Teachers (GFT). The Traditional subprogram primarily supports excellent doctoral-level programs, but also allows stipends for students at master's-level programs of distinction. The GFT subprogram offers support to pre- and in-service teachers seeking master's degrees in science and/or mathematics. To apply for GFT awards, an applicant institution must offer a program that can be completed in one academic year plus an additional summer, to allow teachers to finish within a single year's sabbatical from the classroom. Fellowship recipients, further, must pledge to teach in a Louisiana school system for at least one year after completing the master's degree, to insure that Louisiana students reap some of the benefits of the State's support of these teachers. Together the GF and GFT subprograms provide a comprehensive opportunity for departments across the State to receive assistance in the training and support of graduate students.

Timely implementation of the Graduate Fellows Program requires the following schedule: year one, awarding the grant; year two, recruiting by awardees of superior graduate students; and year three, disbursing funds committed under the grant. For example, colleges and universities that submit successful proposals during the current fiscal year (FY 2007-08) will have a full year (FY 2008-09) during which to recruit students who, in turn, will enroll in Louisiana universities' graduate programs for the first time in the fall of 2009 (FY 2009-10).

The \$3,851,500 budgeted for this category for FY 2008-2009, therefore, is entirely for previous obligations, including: (a) \$714,500 for fourth-year funding of graduate fellows who began their course of study in AY 2005-2006; (b) \$331,000 for third-year funding of graduate fellows who began their course of study in AY 2006-2007; (c) \$1,156,000 for funding of second-year graduate fellows and SREB Minority Scholars recipients who began their course of study in AY 2007-2008; and (d) \$1,150,000 (including \$250,000 for the SREB Minority Scholars Program) for funding of graduate fellows who will begin their course of study in AY 2008-2009. This information is included in the current year's plan to notify the Governor and the Legislature that an amount of approximately \$3.85 million will have been committed from the FY 2009-2010 Support Fund prior to the time that the annual plan and budget are submitted for that year.

In keeping with the conceptual framework to use Support Fund money to enhance all areas of higher education, all disciplines are eligible to compete in the Graduate Fellows Program. Those disciplines accorded a higher priority for Louisiana's economic development are eligible to compete every year. To determine the eligibility of specific disciplines in the Graduate Fellows Program for FY 2008-2009, see Chart II.

CHART II

ELIGIBILITY OF DISCIPLINES* IN THE GRADUATE FELLOWS PROGRAM

GROUP I - ELIGIBLE EVERY YEAR

Biological Sciences
Chemistry
Computer and Information Sciences
Earth/Environmental Sciences
Engineering A and B
Health/Medical Sciences**
Physics/Astronomy

GROUP II - ELIGIBLE IN FYs 2006-07, 2008-09, 2010-2011, 2012-13

Agriculture
Business
Education, including Literacy
Mathematics

Group III - ELIGIBLE IN FY 2007-08, 2009-2010, 2011-12 , 2013-14

Arts
Humanities
Social Sciences

*The listing of those sub-disciplines which are included in these larger groupings is in Attachment III.

**Effective with the Board action of June 22, 1995, the LSU Health Sciences Centers in New Orleans and Shreveport and the Tulane University Health Sciences Center are permitted to submit a maximum of three proposals each when "Health and Medical Sciences" is an eligible category. "Health and Medical Sciences" was made eligible each year in the 1999 revision of the Strategic Plan.

5.4 CAREFULLY DEFINED RESEARCH EFFORTS - \$ 5,685,000

A total of approximately \$3,300,000 will be required during FY 2008-09 to honor prior commitments for multi-year projects in the Board of Regents Support Fund R&D Program. Since most research projects are multi-year endeavors, the Board has historically been conservative in recommending an increase in funds dedicated for new research projects in the R & D Program. Allocations for new awards in the R & D program peaked at approximately \$2.8 million in FY 1990-91. The budget for new R & D projects was reduced in FY 1991-92, in part because of a slight drop in total Support Funds available, but primarily as a result of the matching commitments required for federal grants.

The Research Competitiveness Subprogram has been consistently successful since its inception in FY 1986-87. Accordingly, the Board has made every effort to fund this subprogram at the highest possible level. The amount devoted to this subprogram for first-year awards was increased to \$1.5 million in FY 1999-2000 and has been maintained since except in those years when ominously low economic forecasts mandated mid-year budget cuts. Beginning in FY 2006-07, and continuing in the FY 2008-09 Plan and Budget, the amount for first-year awards was reduced to \$1,350,000 to facilitate funding of the Post-Katrina Support Fund Initiative.

The Industrial Ties Research Subprogram has not enjoyed such a pattern of unbroken success. Louisiana's relatively undiversified industrial economy and its dearth of large industrial-based corporations (only one Fortune 500 company and relatively few industries with substantial capacity for R & D spending) have made it difficult for university faculty to foster meaningful partnerships with industries based in the State. The Board has significantly reduced the funding level for this subprogram to reflect this reality, with the amount available for first-year funding of this component stabilized at \$650,000 for several years. To free up funds for the Post-Katrina Support Fund Initiative, the amount was further reduced (by 10% to a first-year level of \$585,000) for FY 2006-07. The same level is maintained for FY 2008-09.

While the Board has to date focused the R & D Program almost exclusively on the sciences, mathematics, and engineering, the Regents remain cognizant of their responsibility, elucidated in each Strategic Plan since 1988, to improve the quality of education "at all levels in all disciplines." The comprehensive review of the R & D Program during FY 2001-02 documented the need for a subprogram with emphasis on the arts, social sciences, and humanities. This subprogram, modeled after the internationally famous Guggenheim Foundation Program, was inaugurated at a funding level of \$500,000 FY 2004-05. The funding level for this subprogram, now named the Awards to Louisiana Artists and Scholars (ATLAS) subprogram, remained at \$500,000 for FY 2005-06, but was reduced in FY 2006-07 to \$450,000 in order to free up funds for the Post-Katrina Support Fund Initiative. The \$450,000 level will be maintained in FY 2008-09.

A more detailed discussion of the R & D subprograms for which relevant historical data exists appears below.

5.4.1 Research Competitiveness Subprogram (RCS)

The RCS is a stimulus program directed only toward those researchers who are at the threshold of becoming competitive in the Federal R & D marketplace. It is designed to assist these researchers to overcome the barriers that have prevented them from competing successfully at the national level for R & D funds. RCS is also directed only to those researchers who clearly show strong potential for enhancing their competitive status within the time span of a Board of Regents Support Fund grant. In every year since the subprogram's inception, far more Louisiana university researchers who fit this funding profile have submitted quality research proposals to RCS than the Board has been able to support and encourage with funding.

Disciplines eligible to compete for basic research funds in the RCS are restricted to the sciences and engineering (as defined by the National Science Foundation), agriculture, and health and medical sciences. Most disciplines are eligible on a staggered, two years on-two years off basis; however, three disciplines which are accorded the highest priority for economic development (biological, computer/information, and earth/environmental sciences) are targeted for funding annually. To determine the eligibility of specific disciplines in the RCS for FY 2008-09 see Chart III.

CHART III

ELIGIBILITY OF DISCIPLINES* IN THE RESEARCH COMPETITIVENESS SUBPROGRAM

GROUP I - ELIGIBLE EVERY YEAR

Biological Sciences
Computer and Information Sciences
Earth/Environmental Sciences

GROUP II - ELIGIBLE IN FYs 2006-07, 2007-08, 2010-11, 2011-12

Agricultural Sciences
Engineering A (Chemical, Civil, Electrical, etc.)
Mathematics
Physics/Astronomy
Social Sciences

Group III - ELIGIBLE IN FYs 2008-09, 2009-10, 2012-13, 2013-14

Chemistry
Engineering B (Industrial, Materials, Mechanical, etc.)
Health and Medical Sciences

*The listing of those sub-disciplines which are included in these larger groupings is in Attachment III.

5.4.2 Industrial Ties Research Subprogram (ITRS)

The principal goal of the ITRS is to fund research proposals that have significant **near-term** potential for contributing to the development and diversification of the Louisiana economy. Accordingly, all proposals and funded projects must demonstrate strong interest from and continued involvement by the private sector and/or non-state public agencies. Because the ITRS also functions as a stimulus subprogram, funded projects should either (a) bring about significant near-term federal or private-sector funding of research with commercial applications or (b) enhance or establish a Louisiana business or industry that will attract significant external revenues to the State.

To ensure that no opportunities with the potential to promote economic development and diversification would be overlooked, the Board has, since 1993, opened competition in the ITRS to proposals from any and all research areas. Further, the Board has attempted to encourage university/industry initiatives through cooperation with the Governor's Economic Development Cabinet and with related entities such as the Louisiana Department of Economic Development.

5.4.3 Awards to Louisiana Artists and Scholars (ATLAS) Subprogram

The Awards to Louisiana Artists and Scholars (ATLAS) Subprogram provides support for major scholarly and artistic productions with potential to have a broad impact on a regional and/or national level. The Support Fund awards are accompanied by paid sabbaticals from the faculty members' institutions which facilitate the completion of manuscripts for publications and/or provide recognition for the efforts of artists, playwrights, choreographers, composers, etc. The subprogram allows the State to profit from its rich cultural traditions and makes Louisiana's expertise and creativity in these disciplines known to the rest of the nation.

5.4.4 Summary of FY 2008-09 Research and Development Expenditures

<u>Prior Commitments (RCS and ITRS only)</u>		<u>\$3,300,000</u>
New Awards -	RCS	\$1,350,000
	ITRS	\$ 585,000
	ATLAS	\$ 450,000
R & D PROGRAM TOTAL		\$5,685,000

5.5 ENHANCEMENT OF THE QUALITY OF DEPARTMENTS OR UNITS - \$18,356,090

NOTE: Matching commitments for all Federal Matching Grants Program proposals for which Federal approval has not been received as the date of submission of the affected Plan and Budget will be accommodated from the Enhancement Program. The Board has elected to operate in this manner because of (a) the uncertainty of a proposal's potential success in the national competition for Federal funds, (b) the Board's policy that any unexpended money in the Chairs, Graduate Fellows, and/or R&D program components annually revert to Traditional Enhancement for new awards in that component, (c) the difficulty and uncertainty surrounding moving Board of Regents Support Fund money from one Board of Regents Support Fund Program component budget to another, once budgeted in the prior year's appropriation process, and (d) the fact that all projects of this nature contain elements, in varying degrees, that enhance academic departments and units at colleges and universities.

After weighing interrelations among the four components of the Support Fund, the Board has concluded that enhancement of the instructional and research infrastructure of departments and units remains a fundamental need, essential to accomplishing the goals of the other three Program components. For this reason, the Board shall dedicate \$18,356,090 to the Enhancement Program in FY 2008-09. Thus, approximately 58% of the total funds available for awards in FY 2008-09 have been dedicated to this component, reflecting the Board's strong commitment to the program under which the majority of the State's colleges and universities are most competitive and successful.

Approximately \$8,772,026 of the total \$18,356,090 budgeted for Enhancement awards in FY 2008-2009 will be required to honor prior commitments for multi-year projects. Of this amount, \$300,000 has been budgeted for potential second-year commitments for two-year proposals to be approved in FY 2007-08 under the Traditional and/or Undergraduate Enhancement programs. Traditional and Undergraduate Enhancement proposals are currently undergoing competitive external review and the Board will make funding decisions about them in April or May of 2008. A total of \$2,725,000 has been promised as the State's matching commitment under five current jointly-funded Board of Regents Support Fund/Federal Matching Grants, including: (a) \$200,000 for the fourth year of

the NASA LaSPACE project; (b) \$500,000 for the fourth year of the LAMP Phase III project; (c) \$625,000 for the third year of the NASA EPSCoR project; (d) \$1,000,000 for the third year of the NSF EPSCoR renewal project; and (e) \$400,000 for the second year of the DOE EPSCoR project.* Additionally, \$500,000 is reserved for the third year of the current LaSIP project, and \$5,247,026 is reserved for the third year of Post-Katrina Support Fund Initiative projects initially funded in FY 2006-07.

After deducting these projected commitments for multi-year enhancement projects and the commitments and projected commitments for Federal matching opportunities, \$9,584,064 will be available for new enhancement projects submitted for funding consideration in FY 2008-09. Maintenance of the highest possible budgetary allocations to the Enhancement Programs is particularly important, because: (a) the Enhancement Programs build the infrastructure at universities which is critical to the success of the other three Support Fund programs; and (b) not only are the Enhancement Programs the ones in which all universities are eligible to compete, they are also the ones under which the majority of campuses most successfully compete. Significantly, 63% of the total funds available for new awards will be dedicated to the Enhancement Program. (See Chart V, "Overview of FY 2008-09 Board of Regents Support Fund Budgetary Allocations by Program Component" in Section 6 of this Plan and Budget.)

5.5.1 Undergraduate Enhancement Program

Some colleges and universities without sizeable graduate programs have not been aggressive in submitting enhancement proposals. To continue to affirm the principle that improvement of infrastructure is essential at all academic levels, the Board shall dedicate \$1,620,000 to improve education at the primarily undergraduate institutions.

Prerequisites for participation in the Undergraduate Enhancement Program are as follows: (1) the campus may not offer more than two doctoral programs; and (2) the department applying may not offer a doctoral degree. It should be noted that the maximum number of doctoral programs a campus may offer and still be eligible to participate in the Undergraduate Enhancement Program was lowered from ten in FY 1991-92 to two for FY 1992-1993 and beyond. The Board took this action to promote maximum participation by primarily undergraduate campuses in this Program.

Participation in the Undergraduate Enhancement Program does not preclude campuses from competing for other Enhancement money, and quality considerations continue to form the basis for all funding decisions. The same rotation of disciplines (Chart IV) and types of projects eligible under the Traditional Enhancement Program are also eligible in the Undergraduate Enhancement Program, and the same regulations apply to proposals. Surplus amounts not awarded in the Undergraduate Program will be transferred to the Traditional Enhancement Program.

5.5.2 Endowed Professorships Program

This program was created by the Board and incorporated into the Enhancement Program in FY 1990-91, and funds were first allocated to endow professorships in FY 1991-92. The funding of an endowed professorship requires the college or university to raise at least \$60,000 from external sources, to be matched by \$40,000 from the Support Fund, thus establishing an endowed professorship valued at a minimum of \$100,000.

*A summary of the funded proposals referenced above may be found in Attachment I.

Since its inception the Board has been concerned that too many eligible campuses were not reaping the benefits possible through the Endowed Professorships Program. One manifestation of this concern appeared in the FY 1995-96 Plan and Budget, when the Board first allowed campuses to use Federal funds as the matching source for one endowed professorship per year. The Board has also encouraged campuses to maximize efforts to attain matching funds for endowments from private philanthropic sources. In the Endowed Professorships Policy which emanated from the FY 1999-2000 comprehensive review of the program, the Board adopted the following strategy to broaden inclusiveness:

Beginning in FY 2001-02, the campuses listed below, which have received fewer than five professorships since inception of the program, will receive \$60K from the Support Fund, to be matched with \$40K in private funds. Once a campus has attained five professorships, it will no longer be eligible for funding under this ratio, and will revert to the \$60K private:\$40K Support Fund ratio.

- | | |
|-------------------------------------|--------------------------------------|
| 1. Baton Rouge Community College | 5. River Parishes Community College |
| 2. Bossier Parish Community College | 6. South Louisiana Community College |
| 3. Grambling State University | 7. Southern University-New Orleans |
| 4. LSU-Eunice | 8. Southern University-Shreveport |

The Board initially set aside \$580,000 from the Reserve Fund to accommodate this special funding. The eight campuses listed above will require a total of 29 professorships to enable each to have five funded professorships. $29 \times \$20,000$ (the difference in 60:40 versus 40:60) = \$580,000. Additional money was set aside for this purpose to accommodate Louisiana Delta Community College and Southern University - Baton Rouge Law Center in FY 2003-04, and, effective in FY 2005-06, L. E. Fletcher Technical Community College and Sowela Technical Community College. This special provision remains operative.

This year, as in previous years, the Board searched diligently to identify money in the Support Fund to continue this Program. Measured against the pressing financial needs of higher education, every component of the Support Fund is severely underfunded. Consequently, each dollar used to fund new programs means that fewer dollars are available for critical needs elsewhere. Nevertheless, due to the overriding imperative to strengthen faculty at colleges and universities statewide, the fact that this Program enhances and promotes recruitment and retention of outstanding faculty, and the ever-increasing success of campuses statewide in raising private matching funds, the Board of Regents shall continue to fund the Endowed Professorships Program during FY 2008-09 at the level of \$2,680,000. These funds will enable each four-year campus to endow two professorships, and each two-year campus to endow one professorship, assuming that private matching monies can be secured and all regulations can be met. The money "saved" by reserving only one professorship per two-year institution has since been used in the manner described in the Section 5.5.3.

5.5.3 Enhancement Program for Two-Year Institutions

The Board's belief that improvement of educational quality is essential at all academic levels and in all disciplines drove the establishment, beginning in FY 2002-03, of the Enhancement Program for Two-Year Institutions. The absence of federal calls in FY 2002-03 for grants requiring a state match enabled the Board to use the \$1 million normally made available for federal matching opportunities to "jump-start" the two-year institutions, particularly those which had recently joined the Louisiana higher education system.

Campuses eligible for participation in this program are Baton Rouge Community College, Bossier Parish Community College, Delgado Community College, L. E. Fletcher Technical Community College, Louisiana Delta Community College, LSU-Eunice, Nunez Community College, River Parishes Community College, South Louisiana Community College, Southern University-Shreveport, and Sowela Technical Community College. Campuses participated during the spring of 2002 in the development of rigorous criteria which parallel, to the degree feasible, the criteria used in other BoRSF Enhancement components. A competitive peer-review process is used to prioritize successful proposals.

It is the Board's belief that proceeding in this manner will provide not only an opportunity for the two-year institutions to participate meaningfully in the BoRSF, but also an invaluable training experience in the grant writing and capacity-building that all institutions of higher education must undertake. Cognizant that all or most of the funds devoted to this purpose in FY 2002-03 were likely to revert to the Federal Matching Grants Program in future years, the Board has attempted to provide a financial foundation for the continuance of the subprogram. To wit, the Board has modified its policy for the disbursement of funds for endowed professorships (described in Section 5.5.2 above) so that at least \$440,000 per year will be available to sustain this program. Additional funds will continue to be taken from the Traditional Enhancement Program. One million dollars (\$1,000,000) was allotted to this program in FY 2003-04, and the FY 2004-05 allocation for the Enhancement Program for Two-Year Institutions was raised to \$1,200,000. The \$1,200,000 level was maintained for FY 2005-06. The FY 2006-07 level of \$1,080,000 reflected a reduction of 10% to provide funds for the Post-Katrina Support Fund Initiative. The \$1,080,000 level is maintained for FY 2008-09. Any unexpended funds will revert to the Traditional Enhancement Program.

5.5.4 The Louisiana Systemic Initiatives Program (LaSIP)

The Louisiana Systemic Initiatives Program (LaSIP) first competed successfully for National Science Foundation (NSF) funding in 1991. At that time it received \$10 million from NSF, matched by \$5 million each from the Board of Regents and the Board of Elementary and Secondary Education (BESE). The project involves K-12 reforms which require leadership from colleges and universities, as well as revisions in teacher education programs. LaSIP was one of only two statewide initiatives (Connecticut) which received a five-year renewal in 1996. Federal support ended in FY 2000-01. From the beginning, NSF emphasized that Federal money would only be used to seed the project, with the major continuing financial commitment to emanate from state and/or private sources.

During its ten-year existence LaSIP was repeatedly cited by NSF as a model program. The project's exemplary nature was a major contributing factor in the 1996 renewal. Further, LaSIP has achieved significant results statewide in the improvement of student scores on both criterion-referenced and norm-referenced tests. It has the potential to be a major resource for school districts throughout the State in achieving accountability goals.

Mindful that the federal funding stage for this project was drawing to a close, the Board determined that the educational reform impulse at once spearheaded and buttressed by LaSIP should not die. Accordingly, the Board committed \$500,000 per year for five years, beginning in FY 2001-02, to continue LaSIP activities. The money came from the Reserve Fund, and was contingent upon the provision of a like sum annually from BESE and supplemental funding from the Legislature. Both the Regents and BESE approved five-year renewals at \$500,000 per year for the Program at their meetings in January, 2006. Since FY 2006-07, the Regents contribution to this program has come from the Board of Regents Support Fund Plan and Budget.

5.5.5 Endowed Undergraduate Scholarship Program for First-Generation College Students

The State faces a well-documented impending crisis in terms of educating its future workforce. According to statistics provided by the National Center for Higher Education Management Systems (NCHEMS), for every 100 students entering the ninth grade this fall only about 56 will graduate from high school four years hence. Only 33 will attend college, and only 22 will receive a baccalaureate degree within six years of college entry. Research indicates that this massive "pipeline leakage" is due primarily to socioeconomic factors. Many worthy Louisiana students are now effectively denied this opportunity either because the assistance provided under the TOPS program is not sufficient to make a college education affordable for them or because they approach but fall short of satisfying all of the requirements necessary to qualify for the TOPS program.

The Board has now implemented a pilot merit- and needs-based program to address this situation. Eligible students must be Louisiana residents who are "first-generation" college students (neither parent has earned a baccalaureate degree), who have been awarded the federal Pell grant, and have been admitted to the institution awarding the scholarship. Each four-year institution will be guaranteed one (1) \$40,000 endowed scholarship fund challenge grant annually to match a private/institutional contribution of \$60,000. Each two-year institution will be guaranteed one (1) \$20,000 endowed scholarship fund challenge grant annually to match a private/institutional contribution of \$30,000. Proceeds will be used to establish/enhance a permanent endowed scholarship fund. The interest earnings from the fund(s) will be awarded at the discretion of the institution to eligible students and may be divided among multiple recipients, provided that each student receive at least \$1,000 per year in program funds. In addition to scholarship proceeds, institutions will provide student recipients with structured support through active and engaged advising; and institutions will provide students with meaningful campus employment of at least ten (10) hours per week over and above the scholarship. The program will be funded at the level of \$1,000,000 during FY 2008-09.

5.5.6 Traditional Enhancement Program

Based on its continuing review of academic programs, coupled with evaluation of Board of Regents Support Fund projects, the Board anticipates that the acquisition of research and instructional equipment will remain indefinitely as the area of greatest need in the Enhancement Program. Indeed, during the first three years in which the Board of Regents Support Fund operated, instrumentation was the only type of request allowed in the Enhancement Program. Beginning in FY 1989-90, the Board invited the submission of other types of enhancement requests, due primarily to the eligibility of selected non-scientific and non-engineering disciplines for the first time. Some types of enhancement requests other than instrumentation include, for example, curriculum revision projects and colloquia to be presented by outstanding out-of-state scholars.

In an attempt to limit the commitment of future Board of Regents Support Fund money, in FY 1989-90 the Board further decided that equipment can only be purchased in the initial year of a project and that, for projects which envision multi-year funding, the following stipulations apply: (1) no project may be of more than two years in duration; (2) no project may request more than \$50,000 in the second year; and (3) a limit of \$1 million will be placed on the total of all second-year commitments in the Traditional Enhancement Program. This year, the Board decided to continue to allow the submission of Enhancement requests other than for instrumentation, with the same stipulations as adopted previously.

After deducting all previous and projected commitments for other components of the Enhancement Program, only \$3,204,064 remains for new projects submitted in the Traditional Enhancement Program in FY 2008-09. This amount would increase from the Plan and Budget as submitted only if allocated money is not

expended in one of the other Support Fund programs. However, as indicated in section 5.1, all funds in excess of \$32,116,788 shall be placed in the Traditional Enhancement category until a funding level of \$7.415M (the figure used for FY 2006-07) is reached. Further, the Board will use money from its Reserve Fund as required to preserve the integrity of this vital component.

In keeping with the conceptual framework to use Support Fund money to enhance all areas of higher education, all disciplines are eligible to compete in the Traditional Enhancement Program on a rotating basis as set forth in the Strategic Plan. To determine the eligibility of specific disciplines for FY 2008-09, see Chart IV.

CHART IV

ELIGIBILITY OF DISCIPLINES* IN THE TRADITIONAL AND UNDERGRADUATE ENHANCEMENT PROGRAMS

GROUP I - ELIGIBLE IN FYs 2006-07, 2009-10, 2012-13

Agricultural Sciences
Arts
Earth/Environmental Sciences
Engineering A (Chemical, Civil, Electrical, etc.)
Health and Medical Sciences

GROUP II - ELIGIBLE IN FYs 2007-08, 2010-2011, 2013-14

Business
Chemistry
Education
Mathematics
Physics/Astronomy

GROUP III - ELIGIBLE IN FYs 2008-09, 2011-2012

Biological Sciences
Computer and Information Sciences
Engineering B (Industrial, Materials, Mechanical, etc.)
Humanities
Social Sciences

*See the listing of those sub-disciplines which are included in these larger groupings in Attachment III.

5.5.7 Post-Katrina Support Fund Initiative (P-KSFI)

The storms of August and September, 2005 decimated Louisiana and other sections of the Gulf Coast. In addition to the diaspora of its population, the State's economy, infrastructure, tax-base, and research, both basic and applied, have suffered. The affected region encompasses coastal areas unparalleled for the productivity of its natural resources, its diverse recreation, its unique culture(s), and the quality of its creative and performing arts. While the catastrophic dimensions of the storms would be difficult to overstate, the resulting situation does present an unprecedented opportunity for faculty and students to participate in the recovery and rebuilding of both urban and rural areas.

To facilitate this endeavor, the Board established, at its December 8, 2005 meeting, a five-year program to be funded through an annual allocation of approximately \$5 million from the Board of Regents Support Fund. Although it involves the redirecting of substantial funds from established BoRSF programs, it is essential to addressing priorities that have emerged since the storms. Utilizing monies unspent in the FY 2005-06 competitions, in addition to budget adjustments in established programs and revised budget projections, the Initiative has significant potential for leveraging of BoRSF funds to attain federal and private monies. Thus, the total money available to the Initiative should be significantly more than the approximate \$5 million per year provided through the BoRSF.

Subsequent to the submission of the FY 2006-07 Plan and Budget, the Board's staff conducted several meetings with campus representatives, ultimately resulting in a call for White Papers from the campuses which indicated their priority needs, as well as their thoughts relative to the development of the Initiative. The Board's staff forwarded these White Papers to a panel of experts selected under the auspices of the American Academy for the Advancement of Sciences (AAAS). AAAS hosted interviews during September 2006 in which campus representatives responded to detailed questions arising from their White Papers.

AAAS issued final reports in November 2006 which recommended the following: (1) that the P-KSFI be subdivided into Primarily Research and Primarily Education subprograms and (2) that the disciplines eligible for funding be limited to biological sciences, material sciences, and information technology. After responses to the report were received from the campuses in December 2006, the Board ultimately approved the requests for proposals (RFPs) for the Initiative at its meeting of January 25, 2007.

Forty-one proposals were submitted in response to the RFPs. An intensely competitive peer-review process, multi-stage for primarily research proposals and single-stage for the primarily education proposals, culminated in the awarding of \$25,231,210 over a period of five years to eleven proposals involving participation from fifteen institutions of higher education. The performance of these projects will be carefully monitored and evaluated by the Board.

5.5.8 SUMMARY OF FY 2008-09 ENHANCEMENT EXPENDITURES

Prior Commitments - Traditional and Undergraduate	\$ 300,000
Federal Matching Grants	\$ 2,725,000
LaSIP Renewal	\$ 500,000
Post-Katrina Initiative	\$ 5,247,026
New Awards - Federal Matching Grants	\$ 0
Undergraduate	\$ 1,620,000
Endowed Professorships	\$ 2,680,000
Two-Year Institutions	\$ 1,080,000
Endowed Undergraduate First Generation	\$ 1,000,000
Traditional	\$ 3,204,064
ENHANCEMENT PROGRAM TOTAL	\$18,356,090

5.6 ADMINISTRATIVE EXPENSES - \$1,004,198

Act 675 of 1989 established the following restrictions with respect to the amount of Support Funds money that may be used to administer the Board of Regents Support Fund Programs:

No more than 3% of the annual total amount appropriated to each board or eight hundred thousand dollars, whichever is smaller, shall be appropriated for such purposes to each board, subject to a thorough review with the goal of limiting such costs to those necessary and proper. . . .

This legislation was modified by Act 698 of 2001, which specifies that:

Costs attributable to the Board of Regents for use of external peer-review consultants for purposes of review, evaluation, and assessment of program proposals are recognized as costs appropriately borne by the respective Support Fund programs and shall be paid from the category of expenditure related to the program for which the review, evaluation, and assessment applies.

Legislation passed during the 2006 Session allows an actual amount of \$1,004,198 to be expended in this category during FY 2008-09.

Each program component whose expenditures are itemized in sections 5.3 through 5.5 of this Plan and Budget will incur expenditures for the professional services of out-of-state consultants estimated as follows:

Recruitment of Superior Graduate Students	\$ 20,000
Research and Development	\$150,000
Enhancement	\$ 95,000

These amounts estimated above will be deducted from the total amounts available for expenditure in the respective program components. Estimated consultant costs for the Endowed Chairs for Eminent Scholars Program are added to the regular allocation in order to preserve the \$400,000 units necessary for the endowments.

6. OVERVIEW OF FY 2008-2009 BUDGETARY ALLOCATIONS BY PROGRAM COMPONENT

The following chart provides an overview of FY 2008-2009 Board of Regents Support Fund budgetary allocations for new projects and previous commitments.

CHART V

AN OVERVIEW OF BOARD OF REGENTS SUPPORT FUND BUDGETARY ALLOCATIONS BY PROGRAM COMPONENT, FY 2008-09			
	TOTAL SUPPORT FUND ALLOCATION	ALLOCATION FOR NEW PROJECTS	ALLOCATION FOR PREVIOUS COMMITMENTS
ENDOWED CHAIRS	\$ 3,220,000	\$ 3,220,000	\$ 0
GRADUATE FELLOWS	\$ 3,851,500	\$ 900,000*	\$ 3,851,500
RESEARCH	\$ 5,685,000	\$ 2,385,000	\$ 3,300,000
ENHANCEMENT**	\$ 18,356,090	\$ 9,584,064	\$ 8,772,026
SUBTOTALS	\$ 31,112,590		
ADMIN. COSTS	\$ 1,004,198		
GRAND TOTAL	\$ 32,116,788		

*Because allocations for the Graduate Fellows Program must be determined two years in advance of when students first arrive on campus, the FY 2008-2009 allocation for new graduate fellowships was determined in FY 2006-07 and set forth for the first time in the FY 2007-08 Plan and Budget. Thus, this allocation for new projects must come from the FY 2009-10 budget and has not been included in the subtotal and grand total figures in this chart. See Section 5.3 for a detailed explanation of the timing of the allocation process for this Board of Regents Support Fund Program component.

**Enhancement figures include funds used for Federal Matching Grants opportunities and for the Post-Katrina Support Fund Initiative.

ATTACHMENT I

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Title	Fiscal Years	Federal Award Number	Federal Agency	Duration	Federal Award Amt.	Support Fund Match
Building Research Partnerships with Audio/Video Conferencing Facilities	FY1996-97 – FY1998-99	EPS-9632665	NSF	2 years	\$494,198	\$0
Participating Institutions: LA Tech, LSU-BR, LSU Ag, LSUHSC-NO, NSU, SLU, SUBR, Tulane, ULL, ULM, UNO						
Description/Purpose: To promote research partnerships by establishing an inter-institutional audio/video (A/V) research communications network across Louisiana. The A/V network will enhance collaborative exchanges within and among the State's EPSCoR and EPSCoR associated schools and to promote new research partnerships by eliminating geographical (distance/separation) barriers.						
LaSERnet II Backbone for Institutions of Higher Education in Louisiana	FY1997-98 – FY1999-00	EPS-9720147	NSF	2 years	\$552,893	\$0
Participating Institutions: LA Tech, LSU-BR, LSUHSC-S, LSUHSC-NO, SLU, SUBR, Tulane, ULL, ULM, UNO						
Description/Purpose: To provide researchers in the State with a high-speed intra-state backbone for sharing resources and access to broad-band (Internet II) service and direct vBNS (very Broadband Network Service) connectivity.						
U.S. Department of Energy/EPSCoR Program Renewal	FY1995-96 – FY1998-99	DE-FC02-91ER75669	DOE	4 years	\$3,473,402	\$3,200,000
Participating Institutions: Grambling LA Tech, LSU-BR, Loyola, McNeese, SUBR, Tulane, ULL, ULM, UNO, Xavier						
Description/Purpose: 1) To increase research competitiveness and capabilities of Louisiana scientists and engineers in areas of importance to the State and the U.S. Department of Energy; 2) to educate and recruit individuals, especially minorities and women, to work in these areas in Louisiana; 3) to provide new technologies that lead to economic development in the State; and 4) to support three multi-institutional research cluster projects.						
Louis Stokes Louisiana Alliance for Minority Participation (LS-LAMP) Program	FY1995-96 – FY1999-00	HRD-9550765	NSF	5 years	\$5,944,914	\$2,249,280
Participating Institutions: Dillard, Grambling, LUMCON, LSU-ER, McNeese, Nunez, SUBR, SUNO, SUSBO, Tulane, ULL, UNO						
Description/Purpose: To increase the number of underrepresented minorities receiving B.S. degrees in science, engineering, and mathematics in Louisiana from the baseline rate of 610 annually to an annual rate of 1,110.						
NASA LaSPACE Renewal Program	FY1996-97 – FY1999-00	NGT-40039	NASA	4 years	\$600,000	\$400,000 (NASA and BOR portions awarded directly to LSU)
Participating Institutions: A consortium of sixteen campuses; grant funds awarded on a competitive basis						
Description/Purpose: To continue the development of the infrastructure for aerospace research to competitive levels, while improving the quality of aerospace research and education.						

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Participating Institutions: Grambling, LSU-BR, LSU-S, LA Tech, Loyola, Nicholls, NSU, SLCC, SLU, SUBR, SUNO, ULL ULM, UNO, Xavier

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Participating Institutions: Dillard, LA Tech, LSU-BR, LSU Ag, LUMCON, McNeese, SUBR, Tulane, UNO, Xavier

Description/Purpose: This award is the seventh-year continuation of the NASA EPSCoR Program previously described.

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Description/Purpose: This award funds the "Center for Bio-Modular Multi-Scale Systems" in addition to a variety of initiatives to enhance the competitiveness of science and engineering (S&E) faculty of the State's higher education institutions. This proposal continues the efforts begun under the EPSCoR ADP, SI, NCA, and RII awards previously described.

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Participating Institutions: LSU-BR, SUBR. A portion of the grant funds will be awarded to these and other institutions on a continuing, competitive basis.

Description/Purpose: 1) To develop and strengthen long-term academic research enterprises that will make significant contributions to the strategic research and technology priorities of NASA and, in turn, to contribute to the overall research infrastructure, science and technology capabilities, higher education, and economic development of the State; and 2) to support two research projects of particular interest to NASA, one studying adhesively bonded joints in composite structures and one focusing on high-energy astrophysics.

FUNDED PROPOSALS: JOINT FEDERAL/STATE PROGRAMS WITH STATEWIDE IMPACT

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Title	Fiscal Years	Federal Award Number	Federal Agency	Duration	Federal Award Amt.	Support Fund Match
Louisiana EPSCoR Research Infrastructure Improvement (CyberRII)	FY2006-07 -- FY2008-09	EPS-0701491	NSF	3 years	\$9,000,000	\$3,000,000
<p>Participating Institutions: A significant number statewide, including LSU-BR, LSUHSC-NO, LA Tech, SUBR, Tulane, Tulane Health Sciences Center, Xavier, ULL, UNO. A portion of the grant funds will be awarded to these and other institutions on a continuing, competitive basis.</p> <p>Description/Purpose: The focus of this project is the development of multi-functional cyberinfrastructure (CyberTools) that will broadly enable significant advances in modern science and engineering. In addition, a variety of initiatives to enhance the competitiveness of science and engineering (S&E) faculty of the State's higher education institutions are also supported. This project continues the effort begun under the EPSCoR ADP, SI, NCA, RII, and LSI awards previously described.</p>						
DOE EPSCoR Implementation Renewal	FY2007-08 -- FY2009-10	DE-FG02- 04ER46136	DOE	3 years	\$900,000	\$1,200,000

Participating Institutions: ULL, LSU-BR, SUBR

Description/Purpose: This is a three-year renewal of the DOE EPSCoR program, which seeks to develop the infrastructure for energy and energy-related research in Louisiana, while improving the quality of energy research and education in the State and encouraging human resource development in this area. This award funds the multi-institutional, multidisciplinary research project entitled "Ubiquitous Computing and Monitoring System (UCoMS) for Discovery and Management of Energy Resources."

ATTACHMENT II

2008 Nuggets Report Results of Selected Projects

RESEARCH AND DEVELOPMENT

Although Louisiana is a major participant in the global polymer industry, it is underactive in polymer research and development. The primary goal of a one-year project at **Tulane University** funded by a Board of Regents Support Fund ITRS Grant in 2006 was to develop and bring new polymer research tools to industrial and academic polymer scientist and engineers and to help lift Louisiana's profile in this vital area.

Under the auspices of a previous (1996) BoRSF grant, the Principal Investigator developed, patented and put into practice several instruments and methods that strongly impacted the polymer research industry. Tulane has licensed several patents to industries which are now commercializing the results, and the PI receives support from the National Science Foundation and many private industries.

One invention – the Automatic Continuous Online Monitoring of Polymerization reactions (ACOMP) is of central importance. An analytical tool for polymer discovery and development, for optimizing reactions and, ultimately for controlling industrial scale polymerization reactors, ACOMP will yield large economic gains through better products and more efficient use of non-renewable resources, petroleum products, energy, personnel and plant time. The first commercial unit —which was based on the PI's patents and prototype devices at Tulane, produced by Polymer Laboratories Ltd. (now a division of Varian) and under license from Tulane) — was donated to the PI's group during the 2006 project year. This project focused the ACOMP on monitoring two materials widely used in diverse sectors. It yielded rapid advances and applications as well as some \$400,000 in private industry cash donations.

After Katrina, the PI spent FY 2005-06 in Massachusetts and returned to Louisiana largely to fulfill his mission that ACOMP will one day soon be used by most synthetic polymer chemists around the world in universities, research centers and industry. ACOMP, he says, was "born and raised in Louisiana and it is my conviction that its maturity and industrial blossoming should proceed from Louisiana and that Louisiana's economy and technological legacy should benefit from it."

Although only in the second year of a three-year Board of Regents Support Fund Research and Development Grant, a team of researchers at **Louisiana Tech University** has already received over \$850,000 in external funding. Eleven patent applications have been submitted on the research project, which is addressing what MicroElectroMechanicalSystems (MEMS) and nanotechnology can do for radiation detectors and sources.

Neutron scintillators have been developed to the point where they have been the topic of multiple proposals and papers and patented by the university and the PI has published at the world's leading MEMS conferences

Two licensing deals are being negotiated and one potential licensee, Radiance Technologies, has moved into Louisiana Tech's business incubator. A micro-Geiger has been prototyped and found operational; optimization of this device continues. Testing is being conducted at the Nuclear Center in Louisiana as well as Oak Ridge National Laboratory and the Institute for Clean Energy Technology at Mississippi. The partnership at Mississippi has led to a \$1.5 million proposal.

In addition, a multi-channel detector that can identify all species of radiation has been developed and an invitation received from the Department of Homeland Security to submit a proposal. An inexpensive, low-level radiological source that can be used for oil exploration has also been developed.

As a result of a Board of Regents Support Fund Research and Development grant, the **University of New Orleans** and NVE Corporation, which develops and sells devices using "spintronics," a nano-technology that utilizes electron spin rather than electron charge to acquire, store and transmit information, have formed a collaboration. The focus is on the development and commercialization of magnetic field sensors, tunneling strain sensors and non-volatile magnetoresistive random access memory. These applications are of interest to many micro-electronics and information technology industries.

In the long term, this research will most directly impact two of the economic target areas identified by Louisiana Department of Economic Department — data and telecommunications technology and applications of novel materials. The project also resulted in invitations to give

five international and 11 national presentations on the project's findings, 12 articles in refereed journals, a book chapter and **over \$4.5 million from federal agencies.**

The effects from increased attacks from insects such as Formosan subterranean termites, as well as concerns about mold and decay from greater moisture intrusion have raised questions about whether wood-based products are the best building material for residential homes. The result is a greater use of substitute materials, which can be more environmentally expensive because of the energy required to produce, transport and use them. There is thus a need for new environmentally friendly treatments for wood, a renewable resource that can compete successfully when properly manufactured and treated.

Increasing the durability of wood-based products will also provide and expand markets for what is the second most economically important industry in Louisiana. **LSU-Agricultural Center** researchers awarded a Board of Regents Support Fund Research and Development Grant have developed a Nano Carbon Copper Core-Shell compound preservative. A patent application on the manufacturing and uses of the nano particles has been submitted.

Recipients of a Board of Regents Support Research and Development Grant at **LSU Health Sciences Center in Shreveport** have discovered a new way in which a disease-causing bacterium is a danger to human health. Their findings suggest a new anti-microbial target against a bacterial infection (Group B Streptococcal a.k.a GBS) that has emerged in recent years as a serious pathogen for the elderly and immuno-compromised population. They have determined that a protein of the infection destroys molecules of the immune system that protect humans against bacteria. Also determined was a link between a disease mechanism of the infection and how this disease trait is controlled by the bacterium. The advances, which have been presented at national meetings and submitted for publication, may lead to new therapies for this significant human pathogen as well as major federal funding.

A play by a Loyola University professor, playwright and author awarded a 2005-06 Board of Regents Support Fund "Louisiana Artists and Scholars" (ATLAS) grant was the recipient of the 2006 National New Play Network Commission Award and a 2006 National Showcase of New

Plays selection. The play, *Rising Water*, was also the 2007 recipient of an Access to Artistic Excellence development and production grant from the National Endowment for the Arts.

In his final report to the Board of Regents Support Fund, the PI noted: "Despite losing my house, cars, personal library, research materials and personal possessions to the flooding of New Orleans in late August, I have had a very productive year. I made steady progress on the short story collection I proposed, publishing five stories along with two other stories ready for submission.

"In addition, I wrote numerous nonfiction pieces that will serve as the basis of short stories over the next year. Finally, I revived one of my short stories into a stage play that will premiere in 2008 at Southern Rep Theatre, and a second story I began about the flooding flowered into a stage play, *Rising Water*...ATLAS support was absolutely essential to my ability to continue to produce and publish creative work during this very difficult year."

A Southeastern Louisiana University classical pianist awarded a 2006-2007 ATLAS grant has been nominated for a Grammy Award in this year's 50th anniversary competition. The PI is among five nominees in the category of best instrumental soloist performer (without orchestra) for his recently released album *Louisiana – A Pianist's Journey*. The album — a set of two compact discs featuring eight "reflections" on Louisiana and a 32-page essay on Louisiana history with biographies of the eight composers whose music is featured therein — was made possible by the Board of Regents Support Fund grant.

The ATLAS award was the sole monetary resource that allowed this important project to be completed. Besides the regular distribution venues, arrangements were made for the disc to be widely distributed among Louisiana Tourism and university outlets.

ENHANCEMENT

A Geographical Information Systems (GIS) Learning Laboratory was obtained for the Fletcher Technical Community College (FTCC) through a Board of Regents Support Fund Enhancement Grant. The funding request was in response to a request by local industry for trained drafters/GIS technicians needed for recovery and rebuilding projects in South Louisiana following the devastation of Hurricanes Katrina and Rita. The 12-seat GIS learning lab was acquired to facilitate a pilot course in GIS. As a result, the College's award-winning drafting and

design department has been expanded, drafting students have more diversified, real-life experiences and opportunities, the community is more aware of institution's role as a growing economic resource, and partnerships and collaborations with local business and industry have been enhanced.

Thanks to a Board of Regents Support Fund Enhancement Grant, **Louisiana Tech University's School of Architecture** has a 3-D Digital Fabrication and Assembly Studio. The Studio is the final phase in a three-phase plan in which 3-D parametric modeling expertise and rapid-prototyping capabilities are extended and realized through state-of-the-art computer numerical-control fabrication technology. Two previous BoRSF awards funded the plan's first two phases. The School has the only state-supported program that integrates computer numerical-controlled fabrication techniques into its core design and is among a select group national programs which have only recently begun to exploit the advantages of this technology as part of their core-curricula.

A collaboration of students from Tech's department of history and Schools of Art and Architecture employed the new equipment in the production of a mobile photographic exhibition showcasing images of South Louisiana hurricane devastation that was funded by a University of Louisiana System Serves grant to address hurricane recovery.

A Board of Regents Support Fund Enhancement Grant enabled the **LSU Museum of Natural Science** archaeologists and outreach specialists to collaborate on the creation of a new program that celebrates Louisiana's rich Native American heritage and National Register's LSU Campus Mounds. The Museum's ongoing archaeological research, artifacts from its collections, and the LSU Campus Mounds served as the basis for the creation of 1) a new exhibit that is now permanently hosted at the Museum, 2) a complementary traveling exhibit that will be loaned free of charge to other institutions and Louisiana schools, 3) an activities book linked to the K-8 school curriculum, and 4) a website where all of the material can be viewed and downloaded. A partnership was also formed to help the Louisiana Department of Culture, Recreation and Tourism promote their *Louisiana's Ancient Mounds Trail* initiative.

Over the next decade optical technology is expected to become the platform of choice for providing services that have, until today, been mainly supported by telecommunication voice and data network providers. The goal of a **University of Louisiana at Lafayette** Enhancement proposal was to strengthen the capabilities of investigators and their students in the research and development of optical devices for telecommunications. To that end the Board of Regents Support Fund Enhancement grant was used for a state-of-the-art measurement facility in the university's Optical Communication Laboratory that will enable researchers to test optical devices and systems that play an important role in the advancement of all-optical telecommunications networks. As a result, opportunities have been increased for both faculty and students to be involved in the practical applications of the exciting field of optical communications.

The purchase of a crystal orientation system through a Board of Regents Support Fund Enhancement Grant has significantly enhanced **Tulane University's** physics' infrastructure. It has effectively been used in on-going research projects, including one in which a novel quantum phase discovery would have otherwise been impossible. The principal investigator has since been invited to make two international and two national presentations. He has been awarded a \$450,000 grant from the U.S. Department of Energy, and was a recipient of the Research Corporations Cottrell School Award (given to only ten per cent of the applicants) and a Tulane Presidential Early Career Development Award.

A Board of Regents Support Fund Enhancement Grant to **Southern University in New Orleans** for an In-House Mobile Distance Learning System is enhancing the institution's instructional activities, improving faculty distance learning delivery skills, and engaging students in projects involving real-world problems. The System's physical structure includes a Mobile Teaching Site for faculty and a Mobile Learning Site for students. Each site includes 10 laptop computers equipped with communication facilities and a Webcam. This innovational project is enhancing faculty development and delivery skills and establishing the ground work for collaborations with different educational institutions, e-learning, and e-business organizations. It has also resulted in one national and three international invitations for the PI to make a presentation.

Despite a seven month closure of the University of New Orleans Chemistry Building due to Hurricane Katrina, the chemistry department's Center for Biomedical Spectrometry has been completely rebuilt. Equipment upgrades funded by a Board of Regents Support Fund Enhancement Grant resulted in a \$485,000 grant from the National Science Foundation. Included in the equipment is the only Fourier Transform mass spectrometer in Louisiana.

A Board of Regents Support Fund Enhancement Grant to build the technological infrastructure for the LSU the Crime and Policy Evaluation Research (CAPER) group enabled the creation of a research lab that is becoming the focal point for criminology on campus. It also facilitated the development and distribution of fact sheets through which the media, politicians, policy makers, and the public can garner accurate information about the local realities of crime, victimization, fear of crime, the performance of local law enforcement, and the causes and consequences of these issues. In addition, it has enhanced the degree of mentoring and research collaborations among students and faculty and allowed faculty to leverage additional grant awards that include a Manship Award and a Faculty Research Grant.

ATTACHMENT III

TAXONOMY OF DISCIPLINES
USED IN THE
BOARD OF REGENTS SUPPORT FUND PROGRAMS

NATURAL SCIENCES - BIOLOGICAL

Agriculture

- 0101 Agricultural Economics
- 0102 Agricultural Production
- 0103 Agricultural Sciences
- 0104 Agronomy
- 0105 Animal Sciences
- 0106 Fishery Sciences
- 0107 Food Sciences
- 0108 Forestry and Related Sciences
- 0109 Horticulture
- 0110 Resource Management
- 0111 Parks and Recreation Management
- 0112 Plant Sciences
(Except Agronomy, see 0104)
- 0113 Renewable Natural Resources
- 0114 Soil Sciences
- 0115 Wildlife Management
- 0199 Agriculture - Other

Biological Sciences

- 0201 Anatomy
- 0202 Biochemistry/Biophysics
- 0203 Biology
- 0204 Biometry
- 0205 Botany
- 0206 Cell and Molecular Biology
- 0207 Ecology
- 0208 Embryology
- 0209 Entomology and Parasitology
- 0210 Genetics
- 0211 Marine Biology
- 0212 Microbiology
- 0213 Neurosciences
- 0214 Nutrition
- 0215 Pathology
- 0216 Pharmacology
- 0217 Physiology
- 0218 Radiobiology
- 0219 Toxicology
- 0220 Zoology
- 0299 Biological Sciences - Other

NATURAL SCIENCES - BIOLOGICAL (CONTINUED)

Health and Medical Sciences

- 0601 Allied Health
- 0602 Audiology and Speech Pathology
- 0603 Chiropractic
- 0604 Dental Sciences
- 0605 Environmental Health
- 0606 Epidemiology
- 0607 Health Science Administration
- 0608 Immunology
- 0609 Medical Sciences
- 0610 Nursing
- 0611 Optometry
- 0612 Osteopathic Medicine
- 0613 Pharmaceutical Sciences
- 0614 Podiatry
- 0615 Pre-Medicine
- 0616 Public Health
- 0617 Veterinary Science
- 0699 Health and Medical Sciences - Other

NATURAL SCIENCES - PHYSICAL

Chemistry

- 0301 Chemistry, General
- 0302 Analytical Chemistry
- 0303 Inorganic Chemistry
- 0304 Organic Chemistry
- 0305 Pharmaceutical Chemistry
- 0306 Physical Chemistry
- 0399 Chemistry - Other

Physics and Astronomy

- 0801 Astronomy
- 0802 Astrophysics
- 0803 Atomic/Molecular Physics
- 0804 Nuclear Physics
- 0805 Optics
- 0806 Planetary Science
- 0807 Solid State Physics
- 0899 Physics and Astronomy - Other

NATURAL SCIENCES - COMPUTATIONAL

Computer and Information Sciences

- 0401 Computer Programming
- 0402 Computer Sciences
- 0403 Data Processing
- 0404 Information Sciences
- 0405 Microcomputer Applications
- 0406 Systems Analysis
- 0499 Computer Sciences - Other

Mathematical Sciences

- 0701 Actuarial Sciences
- 0702 Applied Mathematics
- 0703 Mathematics
- 0704 Probability and Statistics
- 0799 Mathematical Sciences - Other

NATURAL SCIENCES - EARTH/ENVIRONMENTAL

Earth, Atmospheric, and Marine Sciences

- 0501 Atmospheric Sciences
- 0502 Environmental Sciences
- 0503 Geochemistry
- 0504 Geology
- 0505 Geophysics and Seismology
- 0506 Paleontology
- 0507 Meteorology
- 0508 Oceanography
- 0599 Earth, Atmospheric, and
Marine Sciences - Other
- 4403 Environmental Design
- 4405 Landscape Architecture

ENGINEERING - A

Engineering - Chemical

- 1001 Chemical Engineering
- 1002 Pulp and Paper Production
- 1003 Wood Science
- 1099 Chemical Engineering - Other

Engineering - Civil

- 1101 Architectural Engineering
- 1102 Civil Engineering
- 1103 Environmental/Sanitary Engr.
- 1199 Civil Engineering - Other

ENGINEERING - A (CONTINUED)

Engineering - Electrical and Electronics

- 1201 Computer Engineering
- 1202 Communications Engineering
- 1203 Electrical Engineering
- 1204 Electronics Engineering
- 1299 Electrical and Electronics
Engineering - Other

ENGINEERING - B

Engineering - Industrial

- 1301 Industrial Engineering
- 1302 Operations Research
- 1399 Industrial Engineering - Other

Engineering - Materials

- 1401 Ceramic Engineering
- 1402 Materials Engineering
- 1403 Materials Science
- 1404 Metallurgical Engineering
- 1499 Materials Engineering - Other

Engineering - Mechanical

- 1501 Engineering Mechanics
- 1502 Mechanical Engineering
- 1599 Mechanical Engineering - Other

Engineering - Other

- 1601 Aerospace Engineering
- 1602 Agricultural Engineering
- 1603 Biomedical Engineering
- 1604 Engineering Physics
- 1605 Engineering Science
- 1606 Geological Engineering
- 1607 Mining Engineering
- 1608 Naval Architecture and
Marine Engineering
- 1609 Nuclear Engineering
- 1610 Ocean Engineering
- 1611 Petroleum Engineering
- 1612 Systems Engineering
- 1613 Textile Engineering
- 1699 Engineering - Other

SOCIAL SCIENCES

Anthropology and Archaeology

- 1701 Anthropology
- 1702 Archaeology

Economics

- 1801 Economics
- 1802 Econometrics

Law (5102)

Political Science

- 1901 International Relations
- 1902 Political Science and Government
- 1903 Public Policy Studies
- 1999 Political Science - Other

Psychology

- 2001 Clinical Psychology
- 2002 Cognitive Psychology
- 2003 Community Psychology
- 2004 Comparative Psychology
- 2005 Counseling Psychology
- 2006 Developmental Psychology
- 2007 Experimental Psychology
- 2008 Industrial and Organizational Psychology
- 2009 Personality Psychology
- 2010 Physiological Psychology
- 2011 Psycholinguistics
- 2012 Psychometrics
- 2013 Psychopharmacology
- 2014 Quantitative Psychology
- 2015 Social Psychology
- 2099 Psychology - Other

Sociology and Social Work

- 2101 Demography
- 2102 Sociology
- 5001 Social Work

Social Sciences - Other

- 2201 Area Studies
- 2202 Criminal Justice/Criminology
- 2203 Geography
- 2204 Public Affairs and 4801 Public Administration
- 2205 Urban Studies and 4406 Urban Design
- 2299 Social Sciences - Other
- 4401 Architecture
- 4402 City and Regional Planning
- 4404 Interior Design
- 5101 Interdisciplinary Programs

SOCIAL SCIENCES (CONTINUED)

Communications

- 4501 Advertising
- 4502 Communications Research
- 4503 Journalism and Mass Communication
- 4504 Public Relations
- 4505 Radio, TV and Film
- 4506 Speech Communication
- 4599 Communications - Other

Home Economics

- 4601 Consumer Economics
- 4602 Family Relations
- 4699 Home Economics - Other

Library and Archival Sciences

- 4701 Library Science
- 4702 Archival Science

ARTS

Arts - History, Theory, and Criticism

- 2301 Art History and Criticism
- 2302 Music History, Musicology, and Theory
- 2399 Arts - History, Theory, and Criticism - Other

Arts - Performance and Studio

- 2401 Art
- 2402 Dance
- 2403 Drama/Theater Arts
- 2404 Music
- 2405 Design
- 2406 Fine Arts
- 2499 Arts - Performance and Studio - Other

Arts - Other

- 2999A Arts - Other
- 5101A Interdisciplinary Programs

HUMANITIES

English Language and Literature

- 2501 English Language and Literature
- 2502 American Language and Literature
- 2503 Creative Writing
- 2599 English Language and Literature - Other

HUMANITIES (CONTINUED)

Foreign Language and Literature

- 2601 Asiatic Languages
- 2602 Foreign Literature
- 2603 French
- 2604 Germanic Languages
- 2605 Italian
- 2606 Russian
- 2607 Semitic Languages
- 2608 Spanish
- 2699 Foreign Languages - Other

History

- 2701 American History
- 2702 European History
- 2703 History of Science
- 2799 History - Other

Philosophy

- 2801 All Philosophy Fields

Humanities - Other

- 2901 Classics
- 2902 Comparative Language and Literature
- 2903 Linguistics
- 2904 Religious Studies; 4901 Religion; and 4902 Theology
- 2999H Humanities - Other
- 5101H Interdisciplinary Programs

EDUCATION

Education - Administration

- 3001 Educational Administration
- 3002 Educational Supervision

Education - Curriculum and Instruction

- 3101 Curriculum and Instruction

Education - Early Childhood

- 3201 Early Childhood Education

Education - Elementary

- 3301 Elementary Education
- 3302 Elementary-level Teaching Fields

EDUCATION (CONTINUED)

Education - Evaluation and Research

- 3401 Educational Statistics and Research
- 3402 Educational Testing Evaluation and Measurement
- 3403 Educational Psychology
- 3404 Elementary and Secondary Research
- 3405 Higher Education Research

Education - Higher

- 3501 Educational Policy
- 3502 Higher Education

Education - Secondary

- 3601 Secondary Education
- 3602 Secondary Level Teaching Fields

Education - Special

- 3701 Education of the Gifted
- 3702 Education of the Handicapped
- 3703 Education of Special Learning Disabilities
- 3704 Remedial Education
- 3799 Other Special Education Fields

Education - Student Counseling and Personnel Services

- 3801 Personnel Services
- 3802 Student Counseling

Education - Other

- 3901 Adult and Continuing Education
- 3902 Bilingual/Crosscultural Education
- 3903 Educational Media
- 3904 Junior High/Middle School Education
- 3905 Pre-Elementary Education
- 3906 Social Foundations
- 3907 Teaching English as a Second Language/Foreign Language
- 3999 Other Education Fields

BUSINESS

Accounting

- 4001 Accounting**
- 4002 Taxation**

Banking and Finance

- 4101 Commercial Banking**
- 4102 Finance**
- 4103 Investments and Securities**

Business, Administration and Management

- 4201 Business Administration and Management**
- 4202 Human Resource Development**
- 4203 Institutional Management**
- 4204 Labor/Industrial Relations**
- 4205 Management Science**
- 4206 Organizational Behavior**
- 4207 Personnel Management**
- 4299 Business Management - Other**

Business - Other

- 4301 Business Economics**
- 4302 International Business Management**
- 4303 Management Information Systems**
- 4304 Marketing and Distribution**
- 4305 Marketing Management and Research**
- 4399 Business Fields - Other**

(2008)