# REPORT TO THE LOUISIANA BOARD OF REGENTS

# RECRUITMENT OF SUPERIOR GRADUATE STUDENTS COMPONENT OF THE BOARD OF REGENTS SUPPORT FUND FY 2009-10 COMPETITION FOR AWARDS TO BEGIN IN FY 2011-12

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#### INTRODUCTION

The panel urges applicants to read the summary critique, included in this report, relating to each submitted proposal. Most summaries, more importantly, offer specific suggestions to help applicants design proposals for future competitions of the Recruitment of Superior Graduate Students Program.

The review panel for the Recruitment of Superior Graduate Students Program met in Baton Rouge on February 27 and 28, 2010, to discuss and make funding recommendations relative to proposals submitted in the FY 2009-10 competition for awards to begin in FY 2011-12. Members of the panel were Dr. John Mayfield (Chair), Iowa State University; Dr. Roger Chalkley, Vanderbilt University Medical School; Dr. Charles Ambler, University of Texas, El Paso; and Dr. Suzanne Ortega, University of New Mexico.

Eight (8) institutions submitted a total of thirty-two (32) proposals within the disciplines eligible for this year's competition in the Traditional Graduate Fellows Program. Two (2) universities submitted a total of three (3) proposals in the Graduate Fellowships for Teachers Program. In some cases two or more departments within an academic unit submitted a single proposal.

Prior to arriving in Baton Rouge, consultants individually read and evaluated each proposal according to the guidelines provided by the Louisiana Board of Regents in the FY 2009-10 Graduate Fellows Request for Proposals. Each consultant assigned a preliminary rating to each proposal before the February meeting. Preliminary composite scores were then computed and facilitated discussions at the panel meeting.

After thorough discussion of the merits of each proposal, the consultants established a rank order for all of the proposals and recommended monetary levels for the awards according to established criteria for budgetary cogency. Recommendations were made consistent with the limits of available funding as determined by the Board of Regents. Final composite scores assigned to the proposals ranged from 69 to 89 out of a maximum of 100. The panel did not recommend funding for those proposals receiving scores of less than 78. A total of \$900,000 anticipated to be available in first-year monies was recommended for expenditure.

The total amount of first-year funds requested in the Traditional Graduate Fellows Program was \$2,603,000. The Graduate Fellowships for Teachers proposals requested total first-year funds of \$320,500. Consultants were advised that \$720,000 was allotted for the Traditional Graduate Fellows Program and \$180,000 for the Graduate Fellowships for Teachers Program. The panel was also advised that any funds not committed to proposals submitted for the latter program should be recommended for expenditure under the Traditional Graduate Fellows Program, assuming that a sufficient number of meritorious proposals had been submitted in Traditional GF to warrant the transfer.

The panel recommends that seventeen (17) of the thirty-two (32) proposals submitted under the Traditional Graduate Fellows Program and all of the three (3) proposals submitted under the Graduate Fellowships for Teachers Program be funded in the amounts specified in Appendix A. Appendix B consists of brief narrative summaries of the panel's assessment of each proposal and Appendix C contains a listing of all proposals submitted under each program.

The cumulative requests substantially exceed the total amount of funding available. Panel members made every effort to keep recommendations within established funding limitations as well as in accordance with the collective assessment of each proposal's individual merits. Reviewers sought to ascertain the degree to which each award could bring about the successful recruitment of superior graduate students. Such efforts are consistent with the goal of enhancing the overall quality of higher education in and the social, cultural and

economic development of Louisiana. Moreover, panel members considered in each case whether the dollar value of the requested fellowship stipend would ensure each program's competitiveness with comparable institutions and accord with past recruiting efforts. In a few cases, requested stipend levels were increased to ensure consistency across programs and national competitiveness.

Once again, the four panel members commend all involved in this ongoing endeavor to elevate the level of graduate study in Louisiana's institutions of higher education. The members of the panel, collectively and individually, also wish to express their sincere appreciation to the staff of the Louisiana Board of Regents for their aid and support in the completion of this task.

## Panel Recommendations and Suggestions:

- Applicants continue to have problems filling out the required tables correctly, providing all requested information, and ensuring that the data are consistent both across the different tables and with the proposal narrative. These data are very important to the panel's understanding of the graduate programs' strengths and challenges. The panel relies heavily on and carefully analyzes the data in the required tables. If data suggest problems with recruitment, retention, time-to-degree, minority participation, or other elements of a graduate program, the proposal should specifically address the problem and indicate what the program is doing or will do to respond. If data are in conflict, it is almost impossible for the panel to interpret the success of the program or recognize problems/issues.
- Though most proposals have now accommodated this panel's previous requests, a few still provide names
  and personal information for students in and graduates of programs seeking funding. This practice is
  inappropriate and does not strengthen the proposal in any way. Applicants are urged to maintain the
  anonymity of students.
- Though ETS guidelines clearly state that use of composite GRE scores is a misuse of test results and the panel has urged applicants to provide only the scores most relevant to the graduate program for which funding is sought, a handful of proposals continue to provide composite scores. ETS's comments on use of scores may be found at http://www.ets.org/Media/Tests/GRE/pdf/gre\_0809\_guide.pdf. As in the last competition, this year the use of combined scores resulted in reduced scoring by the reviewers.
- There continues to be a problem with the definition of "under-represented minority". Asian Americans and non-citizens who do not have permanent resident status are not to be categorized as under-represented in this competition. The panel notes a surprising number of Pacific Islanders and Native Alaskans cited as enrolled in Louisiana graduate programs and urges applicants to make certain that these students are appropriately listed as members of these ethnic categories.
- Economic development is very important to the Board of Regents Support Fund and to the Graduate Fellows panel. Most proposals can be improved by providing specific examples in addition to generalities in their descriptions of economic development potential.
- Proposals are enhanced by clear and systematic mentoring plans coupled with meaningful benchmarks
  and timelines for satisfactory progress. Descriptions of resources available to students who fall behind or
  fail to meet benchmarks should be included in addition to the statements describing penalties.

- Applicants are discouraged from including appendices, which are rarely used by the review panel because
  they are generally over-filled and difficult to navigate. Material should be provided in appendices only
  when it specifically illustrates or documents points made in the proposal narrative.
- Student outcomes following completion of the degree are an extremely important measure of a graduate program's success, and proposals are significantly enhanced by the inclusion of quantitative data on the placement of program graduates. This data should be summarized systematically rather than presented anecdotally in the proposals. To provide guidance for proposal writers, the panel suggests that data include a) the total number of program students awarded degrees over the past 15 years, b) the total number no longer working in the discipline, c) the number currently in postdoctoral positions, d) the number currently working in academia (but not employed as post-doctoral fellows), e) the number employed in industry, and f) the number in other discipline-related careers. If programs do not currently collect such information, the panel encourages them to institute mechanisms for acquiring it. This is especially crucial for GFT proposals, and all GFT proposals should indicate whether the students who received awards continue to teach in Louisiana K-12 classrooms.
- BoR Fellowships are intended to enhance the recruitment of more talented and diverse graduate students to programs in Louisiana universities and to improve the overall quality of programs. The panel pays close attention to indications of how past Board funding has leveraged institutional funding to improve graduate programs and enhance recruiting. Some programs have received BoR funding for many years. Proposals should clearly explain how past fellowships have achieved the desired goals and what specific plans are in place to utilize new awards to achieve greater eminence.
- Recruitment plans that have been in place for many years and are not yielding results should be reevaluated. This panel sometimes sees the same proposals putting forth the same plans and the same results year after year and wonders why plans do not evolve or change, particularly when performance is stagnant or in decline.

# APPENDIX A RECOMMENDATIONS FOR FUNDING

# TABLE I

# Louisiana Board of Regents Support Fund Traditional Graduate Fellows Program and Graduate Fellowships for Teachers Program Proposals Recommended for Funding

FY 2009-10 Cycle for Awards to Begin in FY 2011-12

RANK	PROP. NO.	SCHOOL	DISCIPLINE	LENGTH/ TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BoRSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1st YEAR AWARDS
1	004GF-11	LSU-BR	ENGINEERING	4 YR. DOC	3	\$30,000	1 2 3 4 TOTAL	\$ 90,000 \$ 90,000 \$ 90,000 <u>\$ 90,000</u> \$360,000	\$90,000
2	005GF-11	LSU-BR	CHEMISTRY	4 YR. DOC	2	\$30,000	1 2 3 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 \$ 60,000 \$240,000	\$150,000
3	026GF-11	UL LAFAYETTE	BIOLOGICAL SCIENCES	4 YR. DOC	3	\$27,000	1 2 3 4 TOTAL	\$ 81,000 \$ 81,000 \$ 81,000 \$ 81,000 \$ 324,000	\$231,000
4	013GF-11	LA ТЕСН	ENGINEERING	4 YR. DOC	2	\$25,000	1 2 3 4 TOTAL	\$ 50,000 \$ 50,000 \$ 50,000 \$ 50,000 \$ 200,000	\$281,000
5	014GF-11	LA TECH	COMPUTER & INFORMATION SCIENCES	4 YR. DOC	2	\$25,000	1 2 3 4 TOTAL	\$ 50,000 \$ 50,000 \$ 50,000 <u>\$ 50,000</u> \$200,000	\$331,000

RANK	PROP. NO.	SCHOOL	DISCIPLINE	LENGTH/ TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BORSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1st YEAR AWARDS
6	032GF-11	UNO	CHEMISTRY	4 YR. DOC	2	\$30,000	1 2 3 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 \$ 60,000 \$240,000	\$391,000
7	023GF-11	TUHSC	BIOLOGICAL SCIENCES	4 YR. DOC	2	\$28,500	1 2 3 4 TOTAL	\$ 57,000 \$ 57,000 \$ 57,000 <u>\$ 57,000</u> \$228,000	\$448,000
8	021GF-11	TULANE	CHEMISTRY	4 YR. DOC	1	\$30,000	1 2 3 4 TOTAL	\$ 30,000 \$ 30,000 \$ 30,000 <u>\$ 30,000</u> \$120,000	\$478,000
9	001GF-11	LSU-BR	PHYSICS & ASTRONOMY	4 YR. DOC	2	\$27,000	1 2 3 4 TOTAL	\$ 54,000 \$ 54,000 \$ 54,000 <u>\$ 54,000</u> \$216,000	\$532,000
10	010GF-11	LSUHSC-NO	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$26,000	1 2 3 4 TOTAL	\$ 26,000 \$ 26,000 \$ 26,000 <u>\$ 26,000</u> \$104,000	\$558,000
11	019GF-11	TULANE	BIOLOGICAL SCIENCES	4 YR. DOC	2	\$27,000	1 2 3 4 TOTAL	\$ 54,000 \$ 54,000 \$ 54,000 \$ 54,000 \$216,000	\$612,000

RANK	PROP. NO.	SCHOOL	DISCIPLINE	LENGTH/ TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BORSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1st YEAR AWARDS
12	006GF-11	LSU-BR	BIOLOGICAL SCIENCES	4 YR. DOC	1	\$30,000	1 2 3 4 TOTAL	\$ 30,000 \$ 30,000 \$ 30,000 <u>\$ 30,000</u> \$120,000	\$642,000
13	011GF-11	LSUHSC-NO	BIOLOGICAL SCIENCES	4 YR. DOC	1	\$25,000	1 2 3 4 TOTAL	\$ 25,000 \$ 25,000 \$ 25,000 \$ 25,000 \$100,000	\$667,000
14	029GF-11	UNO	ARTS	3 YR. MASTER'S	2	\$16,000	1 2 3 TOTAL	\$ 32,000 \$ 32,000 \$ 32,000 \$ 96,000	\$699,000
15	008GF-11	LSU-BR	ARTS	3 YR. MASTER'S	2	\$18,000	1 2 3 TOTAL	\$ 36,000 \$ 36,000 \$ 36,000 \$108,000	\$735,000
16	022GF-11	TULANE	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$28,000	1 2 3 4 TOTAL	\$ 28,000 \$ 28,000 \$ 28,000 \$ 28,000 \$ 112,000	\$763,000
17	027GF-11	UL LAFAYETTE	HUMANITIES	4 YR. DOC	1	\$24,000	1 2 3 4 TOTAL	\$ 24,000 \$ 24,000 \$ 24,000 \$ 24,000 \$ 96,000	\$787,000

RANK	PROP. NO.	SCHOOL	DISCIPLINE	LENGTH/ TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BoRSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1st YEAR AWARDS
1	003GFT- 11	MCNEESE	CHEMISTRY	1 YR. MASTER'S	1	\$27,000	1 TOTAL	\$27,000 \$27,000	\$814,000
2	002GFT- 11	LSU-BR	EDUCATION	1 YR. MASTER'S	2	\$18,000	1 TOTAL	\$36,000 \$36,000	\$850,000
3	001GFT- 11	LSU-BR	EARTH & ENVIRONMENT AL	1 YR. MASTER'S	2	\$25,000	1 TOTAL	\$50,000 \$50,000	\$900,000

# TABLE II

# SUPPORT FUND GRADUATE FELLOWS PROGRAM PROPOSALS NOT RECOMMENDED FOR FUNDING

PROPOSAL #	SCHOOL	ELIGIBLE DISCIPLINE
002GF-11	LSU-BR	COMPUTER & INFORMATION SCIENCES
003GF-11	LSU-BR	HEALTH & MEDICAL SCIENCES
007GF-11	LSU-BR	EARTH & ENVIRONMENTAL SCIENCES
009GF-11	LSUHSC-NO	HEALTH & MEDICAL SCIENCES
012GF-11	LA TECH	HEALTH & MEDICAL SCIENCES
015GF-11	SOUTHERN-BR	EARTH & ENVIRONMENTAL SCIENCES
016GF-11	TULANE	EARTH & ENVIRONMENTAL SCIENCES
017GF-11	TULANE	ENGINEERING
018GF-11	TULANE	PHYSICS & ASTRONOMY
020GF-11	TULANE	SOCIAL SCIENCES
024GF-11	UL LAFAYETTE	COMPUTER & INFORMATION SCIENCES
025GF-11	UL LAFAYETTE	SOCIAL SCIENCES
028GF-11	UL LAFAYETTE	HEALTH & MEDICAL SCIENCES
030GF-11	UNO	BIOLOGICAL SCIENCES
031GF-11	UNO	SOCIAL SCIENCES

# APPENDIX B NARRATIVE ASSESSMENTS

# COMMENTS ON PROPOSALS SUBMITTED UNDER THE BOARD OF REGENTS SUPPORT FUND PROGRAMS FOR TRADITIONAL GRADUATE FELLOWS AND GRADUATE FELLOWSHIPS FOR TEACHERS

001GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Graduate Fellows in Physics and Astronomy"

Requested: 3 Doctoral-Level Fellowships at \$27,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$27,000/annum for 4 years = \$216,000 TOTAL

The Physics Department is one of LSU's strongest and has an excellent record of external grant support. The pool of applicants to the doctoral program is adequate but, given the strength of the department, should be better. The increase in GRE scores is an indication that recruitment is going well. The panel notes that the program is not reaching its stated goal, established in 2004, of doubling the number of graduate students, and that the dropout rate remains a major concern. Progress in the Medical Physics program, however, is very positive. The panel would like to see this highly capable department demonstrate a greater impact on Louisiana's economic development. Overall this is a high-quality program deserving of support. Funding is recommended for two four-year doctoral fellowships at \$27,000 per student per year.

#### 002GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Recruitment of Superior Graduate Fellows in Theoretical Computer Science and Distributed Computing"

Requested: 4 Doctoral-Level Fellowships at \$25,000/annum for 4 years

#### Recommended: -0-

LSU's Computer Science Department has a surprisingly small faculty (18), but the quality appears high with strong productivity. For the past two years, the number of U.S. applicants to the doctoral program has been extraordinarily low, indicating ineffective or negative publicity. The panel noticed that significant portions of sections B.3 and B.4 are taken verbatim from the LSU Physics proposal (001GF-11) raising a question in the panel members' minds about whether the department has in fact emulated Physics department procedures for student selection and mentoring, or whether the wording was simply borrowed without implementation of new departmental policies. Data in tables 11-GF A and B do not agree, creating doubts about accuracy. A plan for improved minority student recruitment has been in place for several years, yet for the last two years there appear to be no applications from minority students. This suggests a lack of commitment or a need to revisit and reshape the plan. The economic impact of the program appears to be good, and the percentage of students supported on research funds indicates a healthy research environment. In the overall analysis, the panel was not convinced that one or two fellowships could be usefully filled or that they would have much impact on the program, given the small U.S. applicant pool. No funding is recommended.

#### 003GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Graduate Studies in Comparative Biomedical Sciences, Pathobiological Sciences, and

Veterinary Clinical Sciences"

Requested: 3 Doctoral-Level Fellowships at \$25,000/annum for 4 years

### Recommended: <u>-0-</u>

The School of Veterinary Medicine's graduate training program has not had a great deal of success in some areas of endeavor. Attrition has been high, the number of applicants and selectivity are low, and the program's ability to recruit under-represented minority students is unimpressive. However, administrators and faculty have recognized the problems and are working to improve the situation. An early sign of success is that attrition seems to be much reduced in the last two years and there is hope that improved attention to mentoring will help continue this positive trend. The discussion of how the program will address under-represented minority student recruiting was thorough. This panel recognizes the difficulty the program faces in this area: the pipeline does not offer the program a substantial resource within which to work. Nonetheless the administration clearly perceives the value of diversity and is making the right moves to help the program in this regard. The panel feels this application is indicative that

the program is moving in the right direction but that support at this time might be premature. Once the program's challenges are creatively addressed, it will be a strong contender for support. No funding is recommended.

004GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Board of Regents Fellowships in Engineering 2011-16"

Requested: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years

Recommended: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years = \$360,000 TOTAL

The College of Engineering at LSU has a strong group of research faculty, many of whom collaborate with industry and are committed to developing excellent engineering innovation programs. Their already good economic development potential is fostered by new doctoral requirements that include patents and tech transfer activities as part of the menu from which to select. The program has wisely focused its request for BoRSF fellowship support in areas of strategic priority. Some progress has been made in increasing the number of U.S. applicants to the program; unfortunately the percentage of degree recipients who are women or racial and ethnic minorities remains below 1998 levels. While reorganization of the college's diversity office may help, renewed and energetic commitment of individual faculty members will be necessary to recover lost ground. Per capita extramural research funding still appears somewhat below average. Full funding of three doctoral fellowships at \$30,000 per student per year is recommended.

005GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Graduate Fellowships in Chemistry for 2011"

Requested: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years

#### Recommended: 2 Doctoral-Level Fellowship at \$30,000/annum for 4 years = \$240,000 TOTAL

LSU Chemistry is a strong department which has been well funded over the years and has a productive and energetic faculty. The plans for recruiting seem to be well considered, especially in terms of under-represented minority students. The proposed educational strategy and oversight plans are thoughtfully presented. This is a large program and the total number of students, around 145, has been fairly constant over the last six years. There are, however, some concerns. Despite the effort made in recruiting, the low number of U.S. nationals applying and being accepted is worrisome. The selectivity is especially weak with well over 50% of all applicants accepted. At the same time the attrition rate is disconcertingly high. Over the period 2002-09 the panel found that by a small margin more students dropped than were awarded the PhD on average. This is somewhat less pronounced for international students (who make up the majority of the student body). Minority students are also lost at a disturbingly high rate. These patterns are similar for BoRSF fellows. Of the 15 fellowships awarded since 2002, 3 students have graduated. 4 have dropped and 8 are still in the program. As some of the students still in the program are recent appointees, the panel worries that, with time and given the previous record, more students will be lost. The proposal did not specify whether under-represented minority students are disproportionately represented in these numbers. However, since a substantial number of the fellowships have been awarded to these students it seems almost unavoidable. Nevertheless, the program is strong and deserving of support. Funding is recommended for two doctoral fellowships at \$30,000 per student per year.

#### 006GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Graduate Fellowships in Biological Sciences at Louisiana State University—Fall 2009" Requested: 4 Doctoral-Level Fellowships at \$30,000/annum for 4 years

#### Recommended: 1 Doctoral-Level Fellowship at \$30,000/annum for 4 years = \$120,000 TOTAL

LSU's Biological Sciences doctoral program is solid and traditional, with two routes to the PhD. The program currently has approximately 150 graduate students. The average time to degree is described as six years. The guidance of students appears to be careful though conventional. The proposal mentions that the program has strict schedules for advisory meetings, which seem to occur about once each year. Students are required to complete 15 hours of formal coursework before they can proceed to the qualifying exam. There was no indication in the proposal of outcomes in terms of what jobs and careers students successfully pursue following completion. From the data tables it is possible to get an overview of the success of the program overall, at least in terms of retention and the

gender and under-represented minority student balance. According to the proposal, the program has had 43 BoRSF fellows since 1992, with only seven dropouts. However, in recent times these fellows seem to have struggled somewhat; the program has had 18 fellows since 2001, and 5 of these did not complete, yielding an attrition level of 27%. This number is rather high, but it pales in comparison to the program's overall drop rate since 2002. During this period, 103 students dropped while 69 graduated. In addition, under-represented minority students, which the program works so hard to recruit, are dropping at an even greater rate; in the last decade, of their under-represented minority student body (10 students, representing 10% of the total student body) only one has graduated, while 9 left the program. It would have been valuable to the panel if the proposal could have recognized this issue and identified an aggressive program focused on retaining and graduating these students. Funding is recommended for one doctoral fellowship at \$30,000 per year.

#### 007GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Recruitment of Superior Graduate Students in Earth, Ocean and Environmental Science"
Requested: 4 Doctoral-Level Fellowships at \$30,000/annum for 4 years
4 Master's-Level Fellowships at \$28,000/annum for 2 years

#### Recommended: - 0 -

LSU's programs in Oceanography & Coastal Sciences, Geology & Geophysics, and Environmental Sciences have combined in this proposal to request support for doctoral programs in the first two areas and master's programs in all three. The proposal makes an effective case for the significance of these programs to the economic development of the State and there is evidence that the programs have hired strategically in recent years to capitalize on the need for research and training related to coastal issues. The faculty has a generally good record of publication and has had reasonable success in securing external funding. The proposal does provide combined data for all programs, but there is no evidence that the three departments are taking advantage of opportunities for interdisciplinary recruitment and training. The apparent sharp decline in U.S. applicants is very troubling, as is the continued lack of success in recruiting under-represented minority candidates. No persuasive argument is made for the importance of funding the master's programs. A proposal that focused on the strongest of the three programs might be more persuasive. No funding is recommended.

### 008GF-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Board of Regents Fellowships in the Arts"

Requested: 4 Doctoral-Level Fellowships at \$16,000/annum for 4 years 4 Master's-Level Fellowships at \$16,000/annum for 3 years

#### Recommended: 2 Master's-Level Fellowships at \$18,000/annum for 3 years = \$108,000 TOTAL

This proposal brings together a number of programs in LSU's highly regarded Music School and Theater Department. These programs are at the heart of a vibrant performing arts culture, including in particular the Swine Palace Theater. Members of the faculty are active regionally and nationally and there is an impressive record of high-quality local music and theater performances. The proposal makes a persuasive case for the economic development impact of these programs. Evidence of faculty achievements could be more systematically documented. Although this is a single proposal there is no evidence of significant collaboration among the programs in recruitment or training. Program admissions are highly competitive and students and graduates have impressive records of accomplishments. Although the data provided are inconsistent, they appear to suggest relatively high levels of attrition. Plans for recruitment are unimaginative. The data provided indicate that only one under-represented minority student has been enrolled in the last six years. Two fellowships to support students in the MFA in Theater program are recommended. Concentrating resources on one of the programs should permit the fellowships to have greater impact, particularly in recruitment of minority students. The panel further recommends increasing the MFA fellowship to \$18,000 per year, which the proposal identified as the high end of support offered by peer institutions. Fellowships at this level should make LSU competitive for the highest quality students.

#### 009GF-11 LSU HEALTH SCIENCES CENTER – NEW ORLEANS

"Graduate Training in Molecular Biology, Genetic Control of Inflammation and Cancer" Requested: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: <u>- 0 -</u>

The Department of Genetics at LSUHSC-NO is a member of the basic science interdisciplinary program, and it recruits two to three students each year from the common pool. Judging by the numbers, six to eight students must rotate through the department labs before choosing where they will do their PhD studies. Recruitment is via the website, which for an interdisciplinary program is standard. The proposal should have included more information about recruiting for the core program, without which it is difficult to determine the overall caliber of the applicant pool. The educational program is conventional, with 30 credit hours of 'letter' grade courses and a qualifying exam which is an NIH-style grant application (using an abstract provided by the faculty – certainly a different approach from other schools). The program includes an oversight committee to conduct evaluations and outcomes for the students before they choose a dissertation committee. With a small class of twelve or so, the program seems to be able to monitor progress; thus, attrition is very low. The program has not had a great deal of success in attracting under-represented minority students and seems to have had difficulty retaining those recruited. The time to degree is five years, for which the faculty and administration are to be commended. Finally, most of the students who graduate from the program are developing strong careers in science. Overall, though this program is reasonable, it is not clear how the BoRSF fellowships would assist the program in recruitment, particularly since it draws from a common pool of applicants. In addition, since it is part of the interdisciplinary program and pool, the panel is uncertain that Graduate Fellows funding would contribute in a significant way to its eminence and quality. No funding is recommended.

010GF-11 LSU HEALTH SCIENCES CENTER – NEW ORLEANS

"Recruitment of Superior Doctoral Students in Biostatistics"
Requested: 5 Doctoral-Level Fellowships at \$26,000/annum for 4 years

Recommended: 1 Doctoral-Level Fellowship at \$26,000/annum for 4 years = \$104,000 TOTAL

This is a very new program in existence for less than two years, so there are no outcomes to evaluate. The proposal identifies its overall plans as consisting of four parts: attracting exceptional students into the PhD in Biostatistics degree program; training students to become independent statistical researchers and practitioners who can carry out original methodological research in statistics and apply the resulting methodology to health-related research problems; involving BoRSF fellowship recipients in promoting careers in statistics among K-12 students in Louisiana; and providing necessary support to enable fellowship recipients to complete their PhD degree in biostatistics within a four-year framework. The proposal does outline a carefully considered mechanism for recruiting and for mentoring and assaying progress. Possibly because this is a new program, the faculty and administration appear to have new ideas and approaches, making the proposal refreshing to read. The approaches to mentoring are probably most appropriate for a program such as this wherein the students are not located in specific labs, but can move from project to project; naming a defined mentoring advisor is likely very wise. The details of the records kept are well justified. This program with its evolving faculty should turn out to be a first-rate graduate training environment. A BoRSF fellowship should be a valuable asset in program development. Funding is recommended for one doctoral fellowship at \$26,000 per year.

011GF-11 LSU HEALTH SCIENCES CENTER – NEW ORLEANS

"Graduate Fellow FY10"

Requested: 3 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: 1 Doctoral-Level Fellowship at \$25,000/annum for 4 years = \$100,000 TOTAL

A substantial number of faculty members in this relatively small program are extramurally funded. Importantly, the program has made good use of NIH supplemental support for minority students to increase and nurture the diversity of the scientific work force, though this fact was not entirely reconciled with the minority enrollment figures presented in the tables. While the program's connection to economic development activities of emerging biotech industries might seem to be self-evident, it is not clear that its activities, partnerships, and doctoral requirements are

well aligned with this opportunity. The proposal presents a good plan for tracking progress of students, but the applicant pool remains very small and recruitment plans do not promise to reverse this. <u>Under no circumstances should combined GRE scores be provided in the proposal. Proposal writers should review ETS guidelines for appropriate use of test scores.</u> Funding is recommended for one doctoral fellowship at \$25,000 per year.

012GF-11 LOUISIANA TECH UNIVERSITY

"Graduate Fellows in Biomedical Engineering 2011-15"

Requested: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: <u>-0-</u>

Biomedical Engineering is arguably the most widely known science and engineering program at Louisiana Tech. The innovative administrative structure of the university means that all graduate programs in the sciences and engineering are interdisciplinary. This is a real positive. Given the program's high profile and innovative structure, though, it seems strange that it had only five U.S. applications last year and only two of the 14 offers made were accepted. The fact that only five of 33 PhD students are supported on research grants indicates a less than healthy research funding situation. The program is small, with 10 funded faculty members, and the panel has concerns that these may have very high teaching loads. GRE data in table 10GF appear to be in error. The panel commends the faculty on their economic development activities but notes that no under-represented minority students applied last year. The data provided suggest that all of the domestic students entering the program in the past two years are BoRSF fellows. The \$5,000 stipend "top-off" match is laudable. The panel has concerns that about this program's trajectory and does not recommend funding this year.

013GF-11 LOUISIANA TECH UNIVERSITY

"Graduate Fellows in Engineering 2011-15"

Requested: 3 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years = \$200,000 TOTAL

The proposal from Engineering at Louisiana Tech indicates that this is a program with a strong sense of direction and purpose. The faculty is well funded and seems aligned to support economic development. Collaboration with industry is well-established and ongoing. Though several elements of historic performance are somewhat lacking – per capita extramural research funding is modest, the number of U.S. applicants is low, the enrollment of underrepresented minority students is disappointing, and attrition seems high – the program has developed a recruitment strategy and other plans for success that have real promise. Strong student chapters of professional societies should help with peer mentoring and create a more dynamic and supportive environment. Institutional financial support through "top-off" stipends is commendable. Funding is recommended for two doctoral fellowships at \$25,000 per student per year to promote continued improvement of this program.

014GF-11 LOUISIANA TECH UNIVERSITY

"Graduate Fellows in Computational Analysis and Modeling 2011-2015" Requested: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years = \$200,000 TOTAL

Computational Analysis and Modeling is one of three doctoral programs in the College of Engineering and Science at Louisiana Tech; the others are represented in 012GF-11 and 013GF-11. As mentioned above, the interdisciplinary nature of these graduate programs is excellent. Because the three programs are so closely integrated, however, it is difficult to distinguish the quality of this program from the other two. That said, this program presents the best evidence among the Louisiana Tech proposals of a real impact on economic development. The \$5,000 stipend supplement is a very positive feature. The four minority applications cited suggest that efforts in this area may be paying off. The panel hopes that advertising the Board of Regents fellowships will boost the number of U.S. applications. Funding is recommended for two doctoral fellowships at \$25,000 per student per year.

#### 015GF-11 SOUTHERN UNIVERSITY AND A&M COLLEGE – BATON ROUGE

"Strengthening Doctoral Research in Environmental Toxicology at Southern University" Requested: 4 Doctoral-Level Fellowships at \$30,000/annum for 4 years

#### Recommended: <u>- 0 -</u>

This is a relatively new program focusing on an area of great potential importance for the State and the region. The research and training undertaken in conjunction with the PhD program would produce professionals and knowledge that could support economic development associated with environmental pollution, though there is little information provided on linkages to industry. Although the program has seemingly had a good record of recruiting minority students, there has been heavy attrition. The data provided are unclear, but appear to show that there is little selectivity in admissions. Recognizing the program's marginal status, the department has brought in new leadership and implemented a revised approach to recruitment and systematic mentoring, but these changes have not yet brought measurable results. There is cause for concern about faculty research productivity and funding. Given the transitional state of the program, no funding is recommended at this time.

#### 016GF-11 TULANE UNIVERSITY

"Recruitment of Superior Doctoral Students in Earth and Environmental Sciences at Tulane University"

Requested: 4 Doctoral-Level Fellowships at \$24,000/annum for 4 years

# Recommended: -0-

Tulane's Earth and Environmental Sciences program appears to be in the process of rebuilding. It has nine tenured or tenure-track faculty, with five hired in the past few years. Only three of these faculty members hold external grants. The doctoral program is extremely small. The number of U.S. applicants remains limited and ways must be found to increase this number. The panel hopes that in another year or two, the department will be in a position for Board of Regents fellowships to provide an effective boost to a dynamically growing program. No funding is recommended at this time.

#### 017GF-11 TULANE UNIVERSITY

"Graduate Fellowships in Support of Biomedical and Chemical/Biomolecular Engineering" Requested: 4 Doctoral-Level Fellowships at \$30,000/annum for 4 years

#### Recommended: -0-

While per capita extramural research funding for the Engineering programs at Tulane is modest, the proposed use of BoRSF fellowships to support the research agendas of new faculty appears to be a good strategy. The pending IGERT training grant, if funded, will link students to the biomedical industry, thus enhancing the economic development potential of the program; proposed IGERT activities should be initiated even if the grant application is not successful. The number of U.S. applicants to these programs remains exceptionally low and the tables give contradictory data on the representation of racial and ethnic minorities. It appears that there currently are no students from under-represented groups and there is little chance that current recruitment efforts will improve this. The proposal does outline some excellent service learning and K-12 outreach efforts. <u>Under no circumstances should combined GRE scores be provided in the proposal. Proposal writers should review ETS guidelines for appropriate use of test scores.</u> No funding is recommended.

#### 018GF-11 TULANE UNIVERSITY

"Recruitment of Superior Doctoral Students in Physics and Engineering Physics at Tulane University"

Requested: 3 Doctoral-Level Fellowships at \$28,000/annum for 4 years

#### Recommended: -0-

Tulane's Physics and Engineering Physics program reportedly is comprised of 15 faculty and 27 doctoral students. The number of faculty with research grants and the number of students supported on external research funding has

not improved since last year. The number of faculty mentoring graduate students also remains at seven. This paints a picture of a department with only seven or eight research-active faculty. The creation of a division of materials science and physics has the potential to foster a new sense of direction, but it is not yet yielding essential results, like the creation of a broader graduate program or improved external support for students. For this program to attract eight U.S. applications with one matriculation is inadequate, but the incoming students seem to be of good quality. The panel noted that no offers were made to under-represented minority students in the past two years. No funding is recommended.

#### 019GF-11 TULANE UNIVERSITY

"Recruiting Superior Students in Ecology and Evolutionary Biology" Requested: 2 Doctoral-Level Fellowships at \$27,000/annum for 4 years

## Recommended: 2 Doctoral-Level Fellowships at \$27,000/annum for 4 years = \$216,000 TOTAL

In the reorganization that followed Hurricane Katrina, the Tulane Ecology and Evolutionary Biology program has appropriately emphasized research areas that build on the University's location and strategic position: tropical biology, wetlands ecology, and global change biology. The proposal makes an effective argument for the importance of approach to the State's economic development. Recent strategic hires, with more planned, have strengthened the program. Faculty members have very good records of publication and have succeeded in winning substantial external funding. Although the proposal might have detailed a more thorough plan for tracking and mentoring, the program has succeeded in attracting an increasing number of applicants and has a very low level of attrition. More attention should be paid to building minority participation. Funding is recommended for two doctoral fellowships at \$27,000 per student per year.

#### 020GF-11 TULANE UNIVERSITY

"Recruitment of Superior Graduate Students"
Requested: 2 Doctoral-Level Fellowships at \$20,000/annum for 4 years

#### Recommended: -0-

Graduates of Tulane's Psychology program appear to be successful in securing faculty and postdoctoral positions, thereby contributing to educational infrastructure of the State and region. However, a clearly articulated link to economic development in the State is missing. The applicant pool is small relative to psychology programs throughout the country and proposed minimum standards for BoRSF fellows are low. The idea of designating fellows to support the research agendas of new faculty is well considered, but overall the panel was not convinced that the proposed fellowships are sufficiently leveraged to elevate the stature and impact of the graduate program. Future proposals should not mention specific students by name. No funding is recommended.

#### 021GF-11 TULANE UNIVERSITY

"Recruitment of Outstanding Graduate Students in Chemistry at Tulane" Requested: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years

## Recommended: 1 Doctoral-Level Fellowship at \$30,000/annum for 4 years = \$120,000 TOTAL

The Tulane Chemistry program is strong and worthy of support. The recruiting approaches as well as mentoring and outcomes analyses are carefully considered. Attrition does not in general seem to be a major concern, which confirms that the mentoring is on target. Previously the panel had been inclined to accept the argument that the disruption due to Katrina had powerfully affected student progress, with a consequently extended time to degree beyond the stated normal five-year duration. But this issue does not seem to be improving with time. Looking at the progress of the 14 BoRSF fellows appointed since 2000, the panel notes that one has graduated, two have dropped and the rest are still in progress. While some of these have only been there for a few years, others have gone far beyond a five-year plan for completion. The same result is seen for all the students in the program; for an average of approximately 50 students in the program, only 4 are graduating each year. Since overall attrition is small, this must reflect a very long time to degree. As 2005 recedes into the distance and the department and the city continue to recover from Hurricane Katrina, the panel hopes the rate of progress of these students will increase. Funding is recommended for one doctoral fellowship at \$30,000 per year.

#### 022GF-11 TULANE UNIVERSITY

"Superior Graduate Students in Neuroscience 2011-2016"

Requested: 2 Doctoral-Level Fellowships at \$28,000/annum for 4 years

#### Recommended: 1 Doctoral-Level Fellowship at \$28,000/annum for 4 years = \$112,000 TOTAL

Tulane's interdisciplinary graduate program in Neuroscience has a long history of support from the Board of Regents. Currently eight students, one-third of the students in the program, are supported by BoRSF fellowships. Disappointingly, only six of 24 students are supported on research funding. Viewed from this perspective, BoRSF funds are not being well leveraged. The program lists 30 faculty members, 29 of whom have graduate students but only 16 of whom are listed as having external grant support. If this is accurate, it indicates a serious problem. The proposal mentions plans to submit a training grant. The panel encourages this application but suggests that only a fraction of the faculty can strongly support it. The number of U.S. applications last year was good and provides an adequate base for a strong graduate program. The number of minority students in the program has steadily dwindled over the past five years, suggesting a slackening of effort. Funding is recommended for one doctoral fellowship at \$28,000 per year.

#### 023GF-11 TULANE UNIVERSITY HEALTH SCIENCES CENTER

"Predoctoral Training in Biomedical Sciences"

Requested: 4 Doctoral-Level Fellowships at \$28,500/annum for 4 years

#### Recommended: 2 Doctoral-Level Fellowships at \$28,500/annum for 4 years = \$228,000 TOTAL

This is a good proposal from a strong group of departments. They have instituted careful measures to avoid attrition and, as a result, the mentoring is now quite extensive. Incoming students are assigned a faculty mentor immediately upon arrival, and there is strong centralized monitoring through the graduate steering committee, which has established specific timelines and meets regularly to review student performance. Once in a lab the student and the faculty mentor prepare a biannual report to the steering committee. Recruitment is part of an umbrella program and the students can rotate into any lab before making a final choice. The time to degree for all students, including BoRSF fellows, seems to be quite long. The application states that the expectation is five years and under no circumstances can a student stay beyond seven years. This does not appear to have been rigorously followed for BoRSF fellows, though Hurricane Katrina may have been a factor. As time goes by this factor will be less persuasive, and the panel was pleased to see that the department appears now to be applying rigorous standards in terms of time to degree. Recruiting of under-represented minority students appears to be on track. Funding is recommended for two doctoral fellowships at \$28,500 per student per year.

## 024GF-11 UNIVERSITY OF LOUISIANA AT LAFAYETTE

"Recruitment of Superior Graduate Students in Computer Science and Computer Engineering"

Requested: 2 Doctoral-Level Fellowships at \$26,000/annum for 4 years

#### Recommended: -0-

Two graduate programs are combined under UL Lafayette's Center for Advanced Computer Studies in this request for support. The combined programs have 16 faculty (one fewer than last year), and 79 PhD students (four more than last year). CACS reports on its webpage that there are 326 graduate students total, indicating 247 MS students. The proposal also says that 106 graduate courses are taught. This is 6.6 graduate courses, an unknown number of undergraduate courses, 5 doctoral students, and 15 master's students for each faculty member. These are not healthy numbers. That only six doctoral students receive financial support in the summer only adds to the impression of an overburdened graduate program. Unless the data provided are incorrect, CACS faculty members cannot have enough time to adequately mentor the graduate students and carry on vibrant research programs. The last matriculated minority doctoral student was in the program five years ago, indicating a lack of commitment to this important dimension of student training. No funding is recommended.

#### 025GF-11 UNIVERSITY OF LOUISIANA AT LAFAYETTE

"Pursuing Excellence in Cognitive Science (2011)"

Requested: 3 Doctoral-Level Fellowships at \$28,000/annum for 4 years

Recommended: <u>- 0 -</u>

UL Lafayette's Cognitive Science doctoral program is small in terms of both faculty and student numbers. The thoughtfulness of the mentoring plan, portfolio approach to comprehensive exams, study plan that includes goals for course work, research emphasis, and career-oriented internship program are all strong points of this proposal. The lack of external support is, however, a major concern. Faculty members need to secure a more robust extramural funding base to attract a larger, more nationally competitive pool of applicants. More research funding is also absolutely essential to create sufficient financial support to improve time to degree and degree completion rates. Targeting fellowships toward under-represented minority applicants is one important factor that may help create a more diverse student body, although additional and more innovative efforts at diversity recruitment will also be necessary. No funding is recommended.

#### 026GF-11 UNIVERSITY OF LOUISIANA AT LAFAYETTE

"Recruitment of Superior Graduate Students in Environmental and Evolutionary Biology for 2011"

Requested: 3 Doctoral-Level Fellowships at \$27,000/annum for 4 years

#### Recommended: 3 Doctoral-Level Fellowships at \$27,000/annum for 4 years = \$324,000 TOTAL

The UL Lafayette program in Environmental and Evolutionary Biology has continued a steady course of improvement, attracting a growing number of U.S. applicants and becoming increasingly more selective. The program has restructured funding in order to raise levels of support for graduate students and the results are shown in increased rates of matriculation, reduced attrition and a gratifying increase in the number of minority students. The faculty, numbering more than 20, includes several researchers who have strong records of publication and have attracted a substantial amount of external funding (although there is concern that a larger proportion of the faculty does not have extramural support). The close relationship of the program to three major research centers is an important asset, underscoring the contribution that the program and its graduates can make to the Louisiana economy. The efforts made to gather and analyze data about student progress and develop mentoring and tracking programs in response are commendable. Full funding is recommended to support three doctoral fellowships at \$27,000 per student per year.

#### 027GF-11 UNIVERSITY OF LOUISIANA AT LAFAYETTE

"UL Lafayette Fellowship Proposal"

Requested: 2 Doctoral-Level Fellowships at \$24,000/annum for 4 years

#### Recommended: 1 Doctoral-Level Fellowship at \$24,000/annum for 4 years = \$96,000 TOTAL

The PhD program in English at UL Lafayette is well established, involving approximately 60 students and a large faculty of more than 30, a number of whom have established substantial national and international reputations. The proposal to focus the BoRSF fellowships on the folklore area makes good sense, reinforcing broader research emphases as well as cultural tourism agendas. It would have been helpful if the proposal itself had been more directed toward this specific focus. In general, though, the proposal placed too much emphasis on past department activities and too little on what is currently occurring, particularly in the folklore concentration. Some members of the faculty are productive, but faculty research is very uneven. Admissions are quite selective, but given the high rates of attrition, greater attention needs to be given to effective recruitment and to mentoring and retention. The current recruitment plan is conventional and the department will need to develop a new approach, including attention to minority recruitment, if it wishes to capitalize on its considerable opportunity to make UL Lafayette a recognized center for folklore studies. Under no circumstances should combined GRE scores be provided in the proposal. Proposal writers should review ETS guidelines for appropriate use of test scores. Funding is recommended for one doctoral fellowship at \$24,000 per year.

#### 028GF-11 UNIVERSITY OF LOUISIANA AT LAFAYETTE

"Board of Regents Fellowships for the ALSS PhD Program"

Requested: 2 Doctoral-Level Fellowships at \$26,000/annum for 4 years

#### Recommended: <u>- 0 -</u>

The focus of this very small doctoral program is on the recruitment of applicants from Louisiana and their ultimate placement on the faculties of Louisiana's regional universities. While this focus will enhance the Louisiana professoriate, it may also work to the detriment of developing a greater regional/national/international profile for the program. While faculty and alumni appear to have compiled a strong publication record, the absence of any extramural funding makes it difficult to create the competitive stipends necessary to attract, matriculate, and graduate a larger number of very high ability students. Without some growth in program size, the capacity to maintain a vibrant intellectual community is seriously compromised. No funding is recommended.

#### 029GF-11 UNIVERSITY OF NEW ORLEANS

"Recruitment of Superior Graduate Students in Fine Arts"
Requested: 5 Master's-Level Fellowships at \$16,000/annum for 3 years

#### Recommended: 2 Master's-Level Fellowships at \$16,000/annum for 3 years = \$96,000 TOTAL

UNO's MFA program is closely engaged with the vibrant New Orleans arts scene, illustrating how important arts education can be in local economies. An active, creative faculty has capitalized on this opportunity by developing a gallery off campus and aggressively seeking funding. This is reflected in substantial pools of applicants to the MFA program, increasing in the period since Hurricane Katrina. The program is quite selective and graduates have distinguished themselves as artists and educators, including in the regional schools. Students are expected, in the course of the three-year program, to develop critical communications skills, an important asset for their future careers. The proposal was hampered, however, by a lack of complete data, even for recent years, making it impossible to judge several elements (for example, the success of efforts to recruit under-represented minority students). In general plans for effective recruitment could be more directly described. Funding is recommended for two master's fellowships at \$16,000 per student per year.

#### 030GF-11 UNIVERSITY OF NEW ORLEANS

"Graduate Fellowships in Conservation Biology at the University of New Orleans" Requested: 1 Doctoral-Level Fellowships at \$30,000/annum for 4 years

#### Recommended: - 0 -

After some initial successes in the years before Hurricane Katrina, this program has not been able to effectively recover. The lack of faculty alignment with the focus of the program has from the start hampered the development of research and training in an area that clearly makes sense for the institution and for Louisiana. Newly hired faculty members are beginning to correct this situation. However, although faculty members are in general active scholars, they have had only modest success in winning external funding and limited university resources have made it impossible for the department to realize its hiring goals. The earliest graduates had good success in publication and finding appropriate positions, but in recent years the program has struggled to enroll students. Only two or three new students have begun the program in each of the last four years for which data are provided. The proposal details a standard approach to recruitment, which might work with an established program but is likely to continue the status quo of low applications and enrollments in a program such as this. If this program is to survive and prosper, something much more ambitious must be put into place. The program does not have a good record with previous BoRSF fellowships. The absence of health insurance for PhD students is a serious problem. No funding is recommended.

#### 031GF-11 UNIVERSITY OF NEW ORLEANS

"Recruiting and Retaining Outstanding Graduate Students: University of New Orleans Psychology Department"

Requested: 4 Doctoral-Level Fellowships at \$20,000/annum for 4 years

#### Recommended: - 0 -

Faculty members in this relatively small department have good track records of extramural funding, even though nearly half of the tenured and tenure-track faculty are new assistant professors. Data on applicants to the doctoral program are confusing. It appears that the applicant pool is very small (especially in comparison to those found at virtually every doctoral program in psychology in the country) and almost entirely local. The information on underrepresented minority students in the program does not match in various tables nor does the data on students supported on grants. While it appears that students who seek faculty positions do secure them, this begs the question of what proportion of students actually aspire to such positions and what proportion aspire to be private practitioners. Clarification of this issue could help build the case for the ways in which the program enhances economic development in the city and State. Lack of student health benefits and low stipends for teaching assistants suggest that BoRSF fellowships would not be sufficiently leveraged to create a competitive doctoral program. No funding is recommended.

#### 032GF-11 UNIVERSITY OF NEW ORLEANS

"Graduate Fellowships for the Chemistry Doctoral Program at the University of New Orleans"

Requested: 4 Doctoral-Level Fellowships at \$32,000/annum for 4 years

#### Recommended: 2 Doctoral-Level Fellowships at \$30,000/annum for 4 years = \$240,000 TOTAL

UNO Chemistry is a strong department with a high-quality doctoral program. Student recruitment appears to be fairly passive, as reflected in the limited number of applicants and low selectivity. The training program is conventional for a chemistry department. The program has what amount to initial placement exams, which then guide students' course selection in the first two years. Students do three rotations of three weeks apiece in the first semester before choosing a lab. The graduate education committee serves as the advisory source during the first period of a student's course of study, and is followed by the establishment of a thesis advisory committee in the fifth semester. The proposal indicates that such intensive mentoring was triggered by the high dropout rate of ten years ago, and that the changes have served to reduce attrition. The numbers by and large bear this out. Attrition over the last 8 years has been low, and the time to degree seems to be between 6 and 7 years – acceptable though not rapid. Recruitment of under-represented minority students seems to be on target. The panel recommends support for two fellowships and that the stipend be reduced from \$32,000 to \$30,000 per student per year. As in previous years, the \$32,000 request is out of line with fellowship levels nationwide, particularly those provided by federal agencies, and seems excessive for this state-supported program.

# 001GFT-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"GRITT"

Requested: 6 Master's-Level Fellowships at \$25,000/annum for 1 year

#### Recommended: 2 Master's-Level Fellowships at \$25,000/annum for 1 year = \$50,000 TOTAL

The Geology and Geophysics Department at LSU has requested funding for its GRITT (Geoscience Recruitment Initiative for Teacher Training) master's program, previously successfully offered in 2006-07. Current teachers will be recruited to complete a 36-hour non-thesis course of study that involves substantial field work and development of approaches to K-12 science teaching and learning. This is an admirable goal, though it would no doubt be a challenge to identify in-service teachers in a position to undertake a master's program on a full-time basis. Unfortunately, the proposal itself mainly focuses on the larger graduate program in geological sciences rather than this particular master's offering and provides little evidence of how this initiative for teachers would be structured. At one point the proposal indicates that the program can only be offered effectively for a cohort of six students, but no plan is presented to show that it would be possible to recruit that number of students or that the department has reorganized its resources to provide the support necessary for the cohort. In addition, the panel questions whether it

is appropriate to request that the Board of Regents fund the entire program cohort. Given the department's apparent earlier success in providing a similar course of study for two students with BoRSF support, that number of fellowships is again recommended at a level of \$25,000 per student. In addition, following program guidelines, there must be assurance that the participants commit to return to Louisiana classrooms after completing the master's degrees.

#### 002GFT-11 LOUISIANA STATE UNIVERSITY – BATON ROUGE

"Improving Classroom Interest in Science and Mathematics by Preparing Highly Qualified Teachers"

Requested: 8 Master's-Level Fellowships at \$18,000/annum for 1 year

#### Recommended: 2 Master's-Level Fellowships at \$18,000/annum for 1 year = \$36,000 TOTAL

Faculty members in LSU's Holmes Program are active researchers with good records of publication and extramural funding. Despite this, the program has had little success in increasing the number of applicants and graduates, particularly in mathematics. Given the low enrollments, it is difficult to imagine how a content-area cohort model can be sustained. It remains uncertain whether changes in curriculum, assessment, and college structure will actually strengthen and grow the Holmes Program. Data on the placement of program graduates and their retention as classroom teachers would help build the case for the impact of this program on improving STEM education in the State. The proposal would be further strengthened by speaking more directly to the issues of its potential economic impact. For example, the mention of the chemical industry would be important in this regard if it were tied to the focus of the training effort. It appears that GFT is the primary source of support for Holmes STEM students. Far more desirable would be a strategy that uses GFT funding to leverage other institutional investments. Funding is recommended for two one-year master's fellowships at \$18,000.

#### 003GFT-11 McNEESE STATE UNIVERSITY

"Graduate Fellowship Teachers Program for Master of Science in Environmental and Chemical Sciences"

Requested: 1 Master's-Level Fellowship at \$26,500/annum for 1 year

### Recommended: 1 Master's-Level Fellowship at \$27,000/annum for 1 year = \$27,000 TOTAL

The purpose of McNeese's request is to provide one middle or high school chemistry or science teacher in Calcasieu Parish (or potentially all of Louisiana) the opportunity to attend full-time for one year and the following summer to obtain an advanced degree in Environmental and Chemical Sciences. The fellowship award mitigates or at least reduces potential financial hardship for the teacher during the sabbatical year. McNeese recognizes that one of its goals is to provide advanced training for teachers who in turn will impart the information and knowledge they have learned to their students. This will give the students a better understanding of science and possibly attract them into this area as a career. The fellowship recipient will follow the same curriculum as a regular graduate student in the Chemistry concentration and be required to meet the same expectations. Based on feedback from teachers in general and particularly teacher fellows awarded in 2005 through 2009, the department has evidence that advanced knowledge gained from the master's degree significantly improved teachers' careers and more importantly made them more comfortable and confident in the classroom. This program is organized around a very worthy goal and will undoubtedly benefit science teaching in area middle and high schools. The previous results of BoRSF GFT funding are excellent. Support for one fellowship at \$27,000 is recommended. Other Louisiana universities would do well to consider adopting this model.

# APPENDIX C LISTS OF PROPOSALS SUBMITTED

# Traditional Graduate Fellows Program 2009-10 Competition Proposals Submitted

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
001GF-11 PHYS	Dana Browne	LSU-Baton Rouge	Graduate Fellows in Physics and Astronomy	4 years 3 PhD @ \$27K	Y1: \$81,000 Y2: \$81,000 Y3: \$81,000 <u>Y4: \$81,000</u> Total: \$324,000
002GF-11 CIS	Sitharama Iyengar	LSU-Baton Rouge	Recruitment of Superior Graduate Fellows in Theoretical Computer Science and Distributed Computing	4 years 4 PhD @ \$25K	Y1: \$100,000 Y2: \$100,000 Y3: \$100,000 <u>Y4: \$100,000</u> Total: \$400,000
003GF-11 HM	Thomas R. Klei	LSU-Baton Rouge	Graduate Studies in Comparative Biomedical, Pathobiological and Veterinary Clinical Sciences	4 years 3 PhD @ \$25K	Y1: \$75,000 Y2: \$75,000 Y3: \$75,000 <u>Y4: \$75,000</u> Total: \$300,000
004GF-11 ENG	Kelly Rusch	LSU-Baton Rouge	Board of Regents Fellowships in Engineering 2011-16	4 years 3 PhD @ \$30K	Y1: \$90,000 Y2: \$90,000 Y3: \$90,000 <u>Y4: \$90,000</u> Total: \$360,000
005GF-11 CHEM	George Stanley	LSU-Baton Rouge	Graduate Fellowships in Chemistry for 2011	4 years 3 PhD @ \$30K	Y1: \$90,000 Y2: \$90,000 Y3: \$90,000 <u>Y4: \$90,000</u> Total: \$360,000

006GF-11 BIO	Jacqueline Stephens	LSU-Baton Rouge	Graduate Fellowships in Biological Sciences at Louisiana State University- Fall 2009	4 years 4 PhD @ \$30K	Y1: \$120,000 Y2: \$120,000 Y3: \$120,000 <u>Y4: \$120,000</u> Total: \$480,000
007GF-11 EAR	R. Eugene Turner	LSU-Baton Rouge	Recruitment of Superior Graduate Students in Earth, Ocean and Environmental Science	4 years/2 years 4 PhD @ \$30K 4 MS @ \$28K	Y1: \$176,000 Y2: \$176,000 Y3: \$176,000 <u>Y4: \$176,000</u> Total: \$704,000
008GF-11 ARTS	Leslie Wade	LSU-Baton Rouge	Board of Regents Fellowships in the Arts	4 years/3 years 4 PhD @ \$16K 4 MA @ \$16K	Y1: \$128,000 Y2: \$128,000 Y3: \$128,000 <u>Y4: \$ 64,000</u> Total: \$448,000
009GF-11 HM	Diptasri Mandal	LSUHSC-New Orleans	Graduate Training in Molecular Biology, Genetic Control of Inflammation and Cancer	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
010GF-11 HM	Donald Mercante	LSUHSC-New Orleans	Recruitment of Superior Doctoral Students in Biostatistics	4 years 5 PhD @ \$26K	Y1: \$130,000 Y2: \$130,000 Y3: \$130,000 <u>Y4: \$130,000</u> Total: \$520,000

011GF-11 BIO	Emel Songu-Mize	LSUHSC-New Orleans	Graduate Fellow FY10	4 years 3 PhD @ \$25K	Y1: \$75,000 Y2: \$75,000 Y3: \$75,000 <u>Y4: \$75,000</u> Total: \$300,000
012GF-11 HM	Steven Jones	LA Tech University	Graduate Fellows in Biomedical Engineering 2011-15	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
013GF-11 ENG	James Palmer	LA Tech University	Graduate Fellows in Engineering 2011- 15	4 years 3 PhD @ \$25K	Y1: \$75,000 Y2: \$75,000 Y3: \$75,000 <u>Y4: \$75,000</u> Total: \$300,000
014GF-11 CIS	Bala Ramachandran	LA Tech University	Graduate Fellows in Computational Analysis and Modeling 2011-2015	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
015GF-11 EAR	John Owens	Southern University at Baton Rouge	Strengthening Doctoral Research in Environmental Toxicology at Southern University	4 years 4 PhD @ \$30K	Y1: \$120,000 Y2: \$120,000 Y3: \$120,000 <u>Y4: \$120,000</u> Total: \$480,000

016GF-11 EAR	Nicole Gasparini	Tulane University	Recruitment of Superior Doctoral Students in Earth and Environmental Sciences at Tulane University	4 years 4 PhD @ \$24K	Y1: \$96,000 Y2: \$96,000 Y3: \$96,000 <u>Y4: \$96,000</u> Total: \$384,000
017GF-11 ENG	Donald Gaver	Tulane University	Graduate Fellowships in Support of Biomedical and Chemical/Biomolecular Engineering	4 years 4 PhD @ \$30K	Y1: \$120,000 Y2: \$120,000 Y3: \$120,000 <u>Y4: \$120,000</u> Total: \$480,000
018GF-11 PHYS	Dae Ho Kim	Tulane University	Recruitment of Superior Doctoral Students in Physics and Engineering Physics at Tulane University	4 years 3 PhD @ \$28K	Y1: \$84,000 Y2: \$84,000 Y3: \$84,000 <u>Y4: \$84,000</u> Total: \$336,000
019GF-11 BIO	Corinne Richards- Zawacki	Tulane University	Recruiting Superior Students in Ecology and Evolutionary Biology	4 years 2 PhD @ \$27K	Y1: \$54,000 Y2: \$54,000 Y3: \$54,000 <u>Y4: \$54,000</u> Total: \$216,000
020GF-11 SS	Janet Ruscher	Tulane University	Recruitment of Superior Graduate Students	4 years 2 PhD @ \$20K	Y1: \$40,000 Y2: \$40,000 Y3: \$40,000 <u>Y4: \$40,000</u> Total: \$160,000

021GF-11 CHEM	Russell Schmehl	Tulane University	Recruitment of Outstanding Graduate Students in Chemistry at Tulane	4 years 3 PhD @ \$30K	Y1: \$90,000 Y2: \$90,000 Y3: \$90,000 <u>Y4: \$90,000</u> Total: \$360,000
022GF-11 HM	Jeffrey Tasker	Tulane University	Superior Graduate Students in Neuroscience 2011-2016	4 years 2 PhD @ \$28K	Y1: \$56,000 Y2: \$56,000 Y3: \$56,000 <u>Y4: \$56,000</u> Total: \$224,000
023GF-11 BIO	Robert Garry	TUHSC	Predoctoral Training in Biomedical Sciences	4 years 4 PhD @ \$28.5K	Y1: \$114,000 Y2: \$114,000 Y3: \$114,000 <u>Y4: \$114,000</u> Total: \$456,000
024GF-11 CIS	Magdy Bayoumi	University of Louisiana at Lafayette	Recruitment of Superior Graduate Students in Computer Science and Computer Engineering	4 years 2 PhD @ \$26K	Y1: \$52,000 Y2: \$52,000 Y3: \$52,000 <u>Y4: \$52,000</u> Total: \$208,000
025GF-11 SS	Claude Cech	University of Louisiana at Lafayette	Pursuing Excellence in Cognitive Science (2011)	4 years 3 PhD @ \$28K	Y1: \$84,000 Y2: \$84,000 Y3: \$84,000 <u>Y4: \$84,000</u> Total: \$336,000

026GF-11 BIO	Paul Klerks	University of Louisiana at Lafayette	Recruitment of Superior Graduate Students in Environmental and Evolutionary Biology for 2011	4 years 3 PhD @ \$27K	Y1: \$81,000 Y2: \$81,000 Y3: \$81,000 <u>Y4: \$81,000</u> Total: \$324,000
027GF-11 HUM	Claiborne Rice	University of Louisiana at Lafayette	UL Lafayette Fellowship Proposal	4 years 2 PhD @ \$24K	Y1: \$48,000 Y2: \$48,000 Y3: \$48,000 <u>Y4: \$48,000</u> Total: \$192,000
028GF-11 HM	Nancye Roussel	University of Louisiana at Lafayette	Board of Regents Fellowships for the ALSS PhD Program	4 years 2 PhD @ \$26K	Y1: \$52,000 Y2: \$52,000 Y3: \$52,000 <u>Y4: \$52,000</u> Total: \$208,000
029GF-11 ARTS	Alton Jenkins	University of New Orleans	Recruitment of Superior Graduate Students in Fine Arts	3 years 5 MA @ \$16K	Y1: \$80,000 Y2: \$80,000 <u>Y3: \$80,000</u> Total: \$240,000
030GF-11 BIO	Bernard Rees	University of New Orleans	Graduate Fellowships in Conservation Biology at the University of New Orleans	4 years 1 PhD @ \$30K	Y1: \$30,000 Y2: \$30,000 Y3: \$30,000 <u>Y4: \$30,000</u> Total: \$120,000
031GF-11 SS	Laura Scaramella	University of New Orleans	Recruiting and Retaining Outstanding Graduate Students: University of New Orleans Psychology Department	4 years 4 PhD @ \$20K	Y1: \$80,000 Y2: \$80,000 Y3: \$80,000 <u>Y4: \$80,000</u> Total: \$320,000

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032GF-11	John Wiley	University of New	Graduate Fellowships for the Chemistry	4 years	Y1: \$128,000
CHEM		Orleans	Doctoral Program at the University of	4 PhD @ \$32K	Y2: \$128,000
			New Orleans	_	Y3: \$128,000
					<u>Y4: \$128,000</u>
					Total: \$512,000

## TRADITIONAL GRADUATE FELLOWS PROPOSAL SUBMISSION SUMMARY

**NUMBER SUBMITTED: 32** 

Arts: 2 Engineering A&B: 3

Biological Sciences: 6 Health & Medical Sciences: 6

Chemistry: 3 Humanities: 1

Computer & Information Sciences: 3 Physics/Astronomy: 2 Earth/Environmental Sciences: 3 Social Sciences: 3

FIRST-YEAR FUNDS REQUESTED: \$2,603,000

TOTAL FUNDS REQESTED: \$10,652,000

TOTAL FIRST-YEAR FUNDS AVAILABLE: \$720,000

# Graduate Fellowships for Teachers Program 2009-10 Competition Proposals Submitted

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
001GFT-11 EAR	Ray Ferrell	LSU-BR	GRITT	1 year 6 MS @ \$25K	\$150,000
002GFT-11 ED	Byron Launey	LSU-BR	Improving Classroom Interest in Science and Mathematics by Preparing Highly Qualified Teachers	1 year 8 MS @ \$18K	\$144,000
003GFT-11 CHEM	Joseph Sneddon	McNeese State University	Graduate Fellowship Teachers Program for Master of Science in Environmental and Chemical Sciences	1 year 1 MS @ \$26.5K	\$26,500

# GRADUATE FELLOWSHIPS FOR TEACHERS PROPOSAL SUBMISSION SUMMARY

**NUMBER SUBMITTED: 3** 

**TOTAL FUNDS REQUESTED: \$320,500** 

TOTAL FIRST-YEAR FUNDS AVAILABLE: \$180,000