

**REPORT TO THE
LOUISIANA BOARD OF REGENTS**

**RECRUITMENT OF SUPERIOR GRADUATE STUDENTS COMPONENT
OF THE
BOARD OF REGENTS SUPPORT FUND
FY 2015-16 COMPETITION FOR AWARDS TO BEGIN IN FY 2017-18**

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INTRODUCTION

The review panel for the Recruitment of Superior Graduate Students Program met in Baton Rouge on February 27 and 28, 2016 to discuss and make funding recommendations relative to proposals submitted in the FY 2015-16 competition for awards to begin in FY 2017-18. Members of the panel were Dr. John Mayfield (Chair), Iowa State University; Dr. Roger Chalkley, Vanderbilt University Medical School; and Dr. Charles Ambler, University of Texas at El Paso.

Eight (8) institutions submitted a total of thirty (30) proposals within the disciplines eligible for this year's competition in the Traditional Graduate Fellows subprogram. 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 2015-16 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 assessment of the merits of each proposal, the consultants established a rank order for all proposals and recommended monetary levels for awards according to established criteria. 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 61.8 to 83.7 out of a maximum of 100. The panel did not recommend funding for those proposals receiving scores lower than 75. A total of \$835,000 in first-year monies was recommended for expenditure.

The total amount of first-year funds requested in the Traditional Graduate Fellows subprogram was \$2,629,048. Consultants were advised that \$900,000 was budgeted for expenditure.

The panel recommends that twenty (20) of the thirty (30) proposals submitted under the Traditional Graduate Fellows subprogram 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.

Cumulative requests substantially exceed the total amount of funding available. Reviewers sought to ascertain the degree to which each award could bring about the successful recruitment of superior graduate students, consistent with the Support Fund goals 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.

Once again, the panel members commend all involved in this ongoing endeavor to elevate the level of graduate study in Louisiana's institutions of higher education.

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

Panel Comments, Recommendations and Suggestions:

1. Successful graduate programs generally have multiple sources of funding and the intent of the BoRSF Graduate Fellows Program is to supplement other sources of student support and enhance recruiting. Due to this intent and necessarily limited Board of Regents funding, the reality is that awards of more than three fellowships are unusual. Thoughtful proposals should address how only one or two fellowships will leverage other funding streams and positively benefit the graduate program under review.
2. Applicants must complete the required tables correctly. Though data reporting has improved in most proposals, there continue to be mistakes, omissions, and misinterpretations of the data requested. These data are very important to the panel's understanding of graduate programs' strengths and challenges, so missing, incomplete, or error-filled data tables will have serious consequences in panel deliberations. Further, it is crucial that the tables are consistent and correct.
3. As noted above, the panel relies heavily on and carefully analyzes data submitted in the proposals. If data suggest problems with funding, recruitment, retention, time to degree, minority participation, or other elements of a graduate program's performance, the proposal should specifically address the problem(s) in the narrative and indicate what the program is doing or will do to respond. For example, if large numbers of students leave without the intended degree, explain this trend and the steps being taken to improve retention and completion.
4. Recruitment plans that have been in place for many years and are not yielding results, particularly those relating to increasing diversity, should be reevaluated. This panel sometimes sees the same proposals putting forth the same plans with the same results year after year and wonders why plans do not evolve or change, particularly when performance is stagnant or in decline. Convincing proposals will include an evaluation of what has worked, what has not and what concrete changes are proposed to address deficiencies.
5. The panel notes that the current section on Mentoring and Tracking is still not well addressed in many proposals. Proposals are enhanced by the inclusion of clear and systematic mentoring plans coupled with, but not replaced by, 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. If applicable, proposals should discuss how mentoring procedures put in place for Board of Regents fellowship recipients have impacted the quality of mentoring for all students in the graduate program. Many applicant institutions are not using Individual Development Plans (IDP). We recommend that programs familiarize themselves with this concept (myidp.sciencecareers.org).
6. 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 and other measures of success, such as publications and conference presentations. Though anecdotal evidence may be included, it should supplement comprehensive, systematically presented data. A well-constructed pie chart can convey information better than a lengthy narrative.
7. Programs that have received fellowship funding for more than a few years should document how those fellowships have led to the recruitment of talented and diverse graduate students and enhanced the overall quality of programs. The panel recommends that two required subsections

be added to each proposal. These should be entitled 1: impact of the fellowships on the program and 2: student outcomes. Applications with no or few past fellows should clearly identify the expected impact on the students and the program.

8. Economic development is a specific goal of the Board of Regents Support Fund and the Traditional Graduate Fellows subprogram. Most proposals can be improved by providing specific examples in addition to generalities in their descriptions of economic development success and/or potential. Applicants should also include information on how program curricula prepare students for non-academic careers.
9. Though the terms of BoRSF fellowships (two years for academic master's, three years for professional master's, and four years for doctoral studies) are insufficient for many students to complete their studies, most proposals do not address the issue of funding for fellowship recipients after Board support concludes. Proposals can be enhanced by including plans or pledges regarding the level and duration of support after BoRSF fellowship support is exhausted.
10. Though this has improved in recent years, the panel continues to note that a few proposals 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.
11. Though ETS guidelines clearly state that use of composite GRE scores is a misuse of test results and the panel has for several years 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 most recent comments on use of scores may be found at http://www.ets.org/s/gre/pdf/gre_guide.pdf. As in several recent competitions, this year the use of combined scores resulted in substantially reduced scoring by the reviewers. In addition, it is no longer acceptable to give GRE scores by converting to the old scoring system. Nationwide, many programs now use percentiles.
12. There has been great improvement in proper use of the term "underrepresented minority". The panel still reminds applicants that Asian Americans and non-citizens who do not have permanent resident status are not to be categorized as underrepresented in this competition.
13. The panel recommends that, consistent with NIH and NSF definitions and practices, the definition of underrepresented minorities be expanded to include students with disabilities.
14. Applicants should not include lengthy appendices, which are rarely used by the review panel. Material should be provided in appendices only when it is absolutely necessary to specifically illustrate or document in a concise manner points made in the proposal narrative.

APPENDIX A

RECOMMENDATIONS FOR FUNDING

**LOUISIANA BOARD OF REGENTS SUPPORT FUND
TRADITIONAL GRADUATE FELLOWS
FY 2015-16 CYCLE FOR AWARDS TO BEGIN IN FY 2017-18**

**TABLE I
PROPOSALS RECOMMENDED FOR FUNDING**

RANK	PROPOSAL NO.	INSTITUTION	DISCIPLINE	LENGTH/TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BORSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1ST YEAR AWARDS
1	018GF-17	TULANE	BIOLOGICAL SCIENCES	4 YR. DOC	2	\$32,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 64,000 \$ 64,000 \$ 64,000 <u>\$ 64,000</u> \$256,000	\$64,000
2	003GF-17	LSU A&M	CHEMISTRY	4 YR. DOC	2	\$32,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 64,000 \$ 64,000 \$ 64,000 <u>\$ 64,000</u> \$256,000	\$128,000
3	020GF-17	TULANE	CHEMISTRY	4 YR. DOC	2	\$32,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 64,000 \$ 64,000 \$ 64,000 <u>\$ 64,000</u> \$256,000	\$192,000
4	014GF-17	LA TECH	CHEMISTRY	4 YR. DOC	2	\$25,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 50,000 \$ 50,000 \$ 50,000 <u>\$ 50,000</u> \$200,000	\$242,000
5	009GF-17	LSU A&M	EARTH & ENVIRONMENTAL SCIENCES	4 YR. DOC 2 YR. MS	2 0	\$28,000 \$25,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 56,000 \$ 56,000 \$ 56,000 <u>\$ 56,000</u> \$224,000	\$298,000
6	001GF-17	LSU A&M	MATHEMATICS	4 YR. DOC	2	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 <u>\$ 60,000</u> \$240,000	\$358,000
7	019GF-17	TULANE	ENGINEERING	4 YR. DOC	2	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 <u>\$ 60,000</u> \$240,000	\$418,000

RANK	PROPOSAL NO.	INSTITUTION	DISCIPLINE	LENGTH/TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BORSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1ST YEAR AWARDS
8	008GF-17	LSU A&M	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 30,000 \$ 30,000 \$ 30,000 <u>\$ 30,000</u> \$120,000	\$448,000
9	027GF-17	UL LAFAYETTE	BIOLOGICAL SCIENCES	4 YR. DOC	2	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 <u>\$ 60,000</u> \$240,000	\$508,000
10	002GF-17	LSU A&M	PHYSICS & ASTRONOMY	4 YR. DOC	1	\$27,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 27,000 \$ 27,000 \$ 27,000 <u>\$ 27,000</u> \$108,000	\$535,000
11	016GF-17	TULANE	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$28,500	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 28,500 \$ 28,500 \$ 28,500 <u>\$ 28,500</u> \$114,000	\$563,500
12	023GF-17	TULANE	PHYSICS & ASTRONOMY	4 YR. DOC	2	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 60,000 \$ 60,000 \$ 60,000 <u>\$ 60,000</u> \$240,000	\$623,500
13	028GF-17	UL LAFAYETTE	ENGINEERING	4 YR. DOC	1	\$30,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 30,000 \$ 30,000 \$ 30,000 <u>\$ 30,000</u> \$120,000	\$653,500
14	013GF-17	LA TECH	ENGINEERING	4 YR. DOC	1	\$25,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 25,000 \$ 25,000 \$ 25,000 <u>\$ 25,000</u> \$100,000	\$678,500
15	022GF-17	TULANE	SOCIAL SCIENCES	4 YR. DOC	1	\$28,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 28,000 \$ 28,000 \$ 28,000 <u>\$ 28,000</u> \$112,000	\$706,500

RANK	PROPOSAL NO.	INSTITUTION	DISCIPLINE	LENGTH/TYPE OF PROGRAM	NUMBER OF FELLOWSHIPS RECOMMENDED	ANNUAL STIPEND AMOUNT	YEAR	TOTAL BORSF MONEY RECOMMENDED	CUMULATIVE AMOUNT OF 1 ST YEAR AWARDS
16	024GF-17	TUHSC	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$28,500	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 28,500 \$ 28,500 \$ 28,500 \$ 28,500 \$114,000	\$735,000
17	025GF-17	TUHSC	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$25,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 25,000 \$ 25,000 \$ 25,000 \$ 25,000 \$100,000	\$760,000
18	006GF-17	LSU A&M	ARTS	4 YR. DOC 3 YR. MFA	0 2	\$16,000 \$16,000	Year 1 Year 2 Year 3 TOTAL	\$ 32,000 \$ 32,000 \$ 32,000 \$ 96,000	\$792,000
19	012GF-17	LA TECH	HEALTH & MEDICAL SCIENCES	4 YR. DOC	1	\$25,000	Year 1 Year 2 Year 3 Year 4 TOTAL	\$ 25,000 \$ 25,000 \$ 25,000 \$ 25,000 \$100,000	\$817,000
20	015GF-17	NICHOLLS	BIOLOGICAL SCIENCES	2 YR. MS	1	\$18,000	Year 1 Year 2 TOTAL	\$ 18,000 \$ 18,000 \$ 36,000	\$835,000

**TABLE II
PROPOSALS NOT RECOMMENDED FOR FUNDING**

PROPOSAL NO.	INSTITUTION	ELIGIBLE DISCIPLINE
004GF-17	LSU A&M	ENGINEERING
005GF-17	LSU A&M	SOCIAL SCIENCES
007GF-17	LSU A&M	AGRICULTURAL SCIENCES
010GF-17	LSUHSCNO	BIOLOGICAL SCIENCES
011GF-17	LA TECH	COMPUTER & INFORMATION SCIENCES
017GF-17	TULANE	EARTH & ENVIRONMENTAL SCIENCES
021GF-17	TULANE	MATHEMATICS
026GF-17	UL LAFAYETTE	COMPUTER & INFORMATION SCIENCES
029GF-17	UL LAFAYETTE	MATHEMATICS
030GF-17	UL LAFAYETTE	PHYSICS

APPENDIX B

NARRATIVE ASSESSMENTS

**COMMENTS ON PROPOSALS SUBMITTED UNDER THE BOARD OF REGENTS
SUPPORT FUND TRADITIONAL GRADUATE FELLOWS SUBPROGRAM**

**001GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
 “Recruitment of Superior Doctoral Students in Mathematics”
 Requested: 4 Doctoral-Level Fellowships at \$30,000/annum for 4 years**

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

The LSU A&M Mathematics Department has a strong faculty and a vigorous doctoral program. Time to degree is reported to be 5.7 years, which, though long, is typical of math programs. The high non-completion rate of a few years ago seems to have been resolved, based on data included in the proposal. The list of “Departmental Actions” listed on page 6 is badly dated: the most recent accomplishment cited dates from 2008. Recent recruiting classes have had outstanding numerical credentials, which bodes well for the future. Application numbers seem adequate, but the recent yield from offers made was disappointing. Recruitment of minorities has also improved and though the number of URM students is not high, it seems the department is now committed to this important dimension of graduate training. The economic development argument is thoughtful, but focuses more on national impact than local benefits of the program. In this context, more detail about interactions with local industries would be helpful. If there are any recent awards or other indications of faculty or departmental recognition, such would be useful to enable the review panel to gauge departmental prominence. Funding is recommended for two four-year, doctoral-level fellowships at \$30,000 each per year.

**002GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
 “LEQSF 2015 FY 2015-16”
 Requested: 3 Doctoral-Level Fellowships at \$27,000/annum for 4 years**

Recommended: 1 Doctoral-Level Fellowship at \$27,000/annum for 4 years = \$108,000 TOTAL

LSU A&M’s Physics Department is one of the largest and strongest on the campus, with substantial external grant support and long and successful history of graduate student training. The ratio of research assistants to teaching assistants indicates an adequate level of grant funding to support the graduate program. Last year the review panel noted problems with Tables 10-GF and 11-GF; these problems have not been rectified. The history of underrepresented minority participation provided in Table 11-GF is uninterpretable; in 10-GF, data for two years show GPA averages outside the range and GRE ranges are not given. Converting GRE scores to the old scale is no longer acceptable. The text claims 106 PhD students in the program, but 11-GF suggests that this figure is several years out of date. The drop rate is relatively low, but the low graduation rate suggests that the time to degree may be quite long; Table 9-GF shows that three Board of Regents fellows are still in the program after 7-8 years. The argument for the department’s impact on Louisiana’s economy is improved. Minority recruitment remains a problem, though the tables suggest that two underrepresented minority students were admitted this past year. The panel notes again that the use of combined GRE scores for student evaluation is inappropriate, especially since it is clear that the department places little weight on the verbal score. As in previous years, the proposal indicates that medical insurance is not paid by the department and the panel again emphasizes

that this may make it harder to recruit the best students. The \$3,000 match for fellowship stipends is applauded. Overall this proposal reads as if too little attention was given to it. If the problems with the tables are not adequately addressed in next year's proposal and the overall proposal is not updated and reworked, the panel may not support funding. Funding is recommended for one four-year, doctoral-level fellowship at \$27,000 per year.

003GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“Graduate Fellowships in Chemistry for 2017”
Requested: 2 Doctoral-Level Fellowships at \$32,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$32,000/annum for 4 years = \$256,000 TOTAL

LSU A&M's doctoral program in Chemistry has had invigorated leadership over the last few years and recent outcomes are very impressive. First and foremost, the level of attrition appears to be at a rewardingly low level of less than 10%. This is clearly a consequence of attention to mentoring support during the early years of a student's tenure in the program. Such positive results are also good news for the diversity aspects of this program. The number of underrepresented minority students entering each year is very significant and the program has demonstrated that this type of recruiting can be systematically done. Attrition of Board of Regents fellows is minimal, in line with the program as a whole. Improved advising is clearly affecting all students regardless of background. The proposal makes a strong case for full support. Funding is recommended for two four-year, doctoral-level fellowships at \$32,000 each per year.

004GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“Board of Regents Fellowships in Engineering 2017-2022”
Requested: 5 Doctoral-Level Fellowships at \$30,000/annum for 4 years
2 Master's-Level Fellowships at \$20,000/annum for 2 years

Recommended: - 0 -

This is a College-wide proposal for the largest engineering program in Louisiana. Clearly the program is vitally important to the State's economic development, including many exciting research projects and recruiting large numbers of outstanding graduate students. In spite of dwindling State resources, the College seems to be on an upward trajectory, with increasing undergraduate and graduate enrollments, a new building in the works, and plans to hire new faculty. Last year the review panel posed two questions: how will a small number of Board of Regents fellowships enhance the quality of seven programs; and what plans are in place to address the very high attrition rate in the doctoral program? Little attention was given to answering these questions in the proposal. Retention is good for Board of Regents fellows; can this success be translated to the broader group of students? The panel felt strongly that the individual graduate programs need more serious mentoring plans; a unified mentoring unit in the dean's office is unlikely to fulfill this need. The rationale for requesting master's-level support was not well presented. Future proposals requesting master's-level student support need to address the value of these students and explain why limited funding should go to master's programs. No funding is recommended.

005GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“LSU School of Social Work Board of Regents Fellowship in Graduate Education”
Requested: 8 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: - 0 -

The LSU A&M School of Social Work houses well-regarded undergraduate and graduate programs. Though these programs attract very large numbers of students, there are only about 20 students enrolled in the PhD program. There is a small but research-active faculty who have had considerable success in attracting external funding, both for community programs and to support graduate students. The department has secured an impressive number of faculty endowments. The PhD program has consistently enrolled substantial numbers of minority students. The request for eight fellowships, however, is unrealistic given the size of the program and the goals of the Board of Regents Support Fund subprogram relative to improving educational quality and economic development. The proposal would have been more persuasive if it had explained how the program had used the federal student support it has attracted to recruit outstanding students and build the program. There is very little information regarding the curriculum, plans for mentoring and retention, and student placement. A number of the tables have not been completed, making it impossible to evaluate program quality. No funding is recommended.

006GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“College of Music and Dramatic Arts”
Requested: 6 Doctoral-Level Fellowships at \$16,000/annum for 4 years
2 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

The College of Music and Dramatic Arts at LSU A&M offers a range of programs, enrolling large numbers of students at both undergraduate and graduate levels. This proposal requests fellowships only for the terminal degree programs: the MFA in Theater, the Doctor of Musical Arts, and the PhD in Theater and Music, which enrolls only ten to fifteen students. These programs are part of a vibrant artistic enterprise that has attracted regional and national attention, notably through the adventurous productions of the Swine Palace. Anecdotal evidence suggests that graduates of the various programs have gone on to highly successful careers. Many on the faculty have strong records of artistic expression, although it is difficult from the proposal to assess faculty strength. The proposal does not clearly indicate for which programs support is requested and how Board of Regents fellowships would enhance the quality of those programs. As in the past, reviewers take note of the lack of clarity in the data provided, notably in Table 11-GF. The programs have had success in attracting diverse students, but from the data provided it is difficult to assess time to degree and persistence – key indicators of program quality. With programs this large, there should be systematic approaches to student support, tracking and mentoring. Finally, the proposal could make a much stronger argument for the economic impact of these programs. In the absence of clear documentation of the quality of the doctoral programs, support is appropriate only for the MFA in Theater. Funding is recommended for two three-year, master’s-level fellowships at \$16,000 each per year.

007GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“Recruitment of Outstanding Graduate Students in Renewable Natural Resources
at Louisiana State University [FY 2017/2018]”
Requested: 2 Doctoral-Level Fellowships at \$30,000/annum for 4 years
1 Master’s-Level Fellowships at \$25,000/annum for 2 years

Recommended: - 0 -

This proposal from the School of Renewable Natural Resources at LSU A&M seeks support for two PhD fellows and one MS fellow. The narrative makes a reasonable case for the need for such students, and the role that Regents fellows might play in strengthening the department. A good plan is outlined for the education and mentoring of such students. As a part of this description the applicants emphasize that attrition is minimal, reflecting the support that graduate students receive in these programs; however, a detailed review of the supporting tables challenges this claim. The number of applicants to the program appears to be very small, and tends to reflect more international applicants than U.S. citizens. Since Board of Regents fellows must be U.S. citizens, the number of eligible applicants is considerably reduced. The data indicate low selectivity and a high yield, suggesting that students have been in contact with faculty and an understanding was reached before submission of the application. However the most serious problem revealed by the data is attrition: 6-8 new students enroll each year (which agrees with the applications table) and 3-4 drop. Thus attrition is substantial and much larger than the completion rate of one student per year. These programs also have difficulty recruiting a diverse student body. Though the proposal acknowledges this, little in the way of creative ideas is offered to address the problem. No funding is recommended.

008GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“Graduate Studies in Infectious Disease”
Requested: 2 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

This proposal from the Infectious Disease Program at LSU A&M requests two doctoral fellowships. The unit has been in operation for about 14 years, but only last year was awarded Board of Regents fellowships. The program enrolls four to five students each year, and has attracted two underrepresented minority students over the last six years. Most students are recruited from the veterinary medicine community. The educational process is fairly traditional, requiring 54 credits along with research; this may account for what seems like a fairly long time to degree. Approximately 20% of enrolled students leave without the intended degree. Given that steady-state enrollment is around 35 students, a completion rate of four students a year suggests the time to degree is close to eight years. The mentoring process seems careful, with individual development plans used as a gauge of progress. Program directors also work with the LSU Assessment Office to follow student progress on an annual basis. Although the program has not achieved much success with diversity issues, the proposal does include a careful and extensive plan to attempt to rectify this situation. Because of the program’s significant dependence on international students, it may be difficult to identify eligible U.S. students for Regents fellowships. Future

proposals should clearly describe how awarded fellowships have helped leverage recruitment of superior students. Funding is recommended for one four-year, doctoral-level fellowship at \$30,000 per year.

**009GF-17 LOUISIANA STATE UNIVERSITY AND A&M COLLEGE
“Recruitment of Superior Graduate Students in Earth, Ocean, and Environmental
Sciences”**

**Requested: 2 Doctoral-Level Fellowships at \$28,000/annum for 4 years
4 Master’s-Level Fellowships at \$25,000/annum for 2 years**

Recommended: 2 Doctoral-Level Fellowships at \$28,000/annum for 4 years = \$224,000 TOTAL

In response to the series of disasters that have plagued Louisiana during the last decade, the LSU A&M Departments of Oceanography & Coastal Sciences, Geology & Geophysics, and Environmental Sciences have moved aggressively to develop research and educational programs, many of which cut across disciplinary lines, that address the causes and impacts of these disasters. The establishment in 2012 of the Coastal Studies Institute has provided a mechanism to build linkages among these departments and more broadly. The proposal makes a strong argument for the value of these research and educational programs for the Louisiana economy. More than 50 faculty are associated with these departments, most with substantial publication profiles and external funding. In these circumstances it is difficult to understand why there are significant numbers of students without funding support. There are currently more than 70 PhD students and almost 90 master’s candidates. Doctoral students appear to be high quality; annually, fewer than half of applicants are admitted and most of those who are admitted enroll. The data provided also raise concern about time to degree. The programs have a strong record of graduating Regents fellows, but the proposal still does not provide a coherent strategy for capitalizing on the fellowships to increase applicant pools, notably among prospective minority applicants. The proposal cites the grim national statistics regarding minority doctoral enrollments, but provides little evidence of a concerted effort to build interest among undergraduates and master’s students in Louisiana. The proposal does not make a compelling case for support for master’s students. Funding is recommended for two four-year, doctoral-level fellowships at \$28,000 each per year.

**010GF-17 LSU HEALTH SCIENCES CENTER – NEW ORLEANS
“Graduate Training in Integrative Pharmacological Sciences”**

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

Recommended: - 0 -

The Integrative Pharmacology program at the LSU Health Sciences Center – New Orleans currently enrolls 17 students, two of whom are MD/PhD candidates. Only a small percentage of students enrolled are international. In this small department, faculty members work closely with students. This approach apparently works since there is little attrition and most students complete their degrees in a reasonable time frame. Student quality is high despite relatively limited applicant pools. The program has made efforts to recruit minority students, including active engagement in K-12 programing and a partnership with the University of New Orleans. The results, however, have been mixed and the apparent targeting of minority students for Board of Regents fellowships might be counter-productive. As previous reviews

have noted, more thought might be given to how the Regents fellowships could leverage larger applicant pools, including minority applicants. Faculty members appear to be active researchers, but only eleven currently have funding. It is a matter of concern that few students are supported on grants. No funding is recommended.

011GF-17 LOUISIANA TECH UNIVERSITY
“Recruitment of Superior Doctoral Graduate Fellows in Computational Analysis and Modeling”
Requested: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: - 0 -

Computational Analysis and Modeling (CAM) is one of four PhD programs in the College of Engineering and Science at Louisiana Tech. Most research occurs in four centers of excellence. The innovative administrative structure of the University means that all graduate programs in the sciences and engineering are interdisciplinary, and that it is very easy to develop interdisciplinary research projects. This is a real advantage. The program seems to do a good job with the limited resources provided by the State. The well-documented impact on economic development mostly describes activities of the college as a whole rather than being limited to CAM, but it is evident that CAM faculty are involved in economic development. There are reported to be 24 students in the program but, because Table 11-GF is missing, the review panel knows little about program trends, composition, or student funding. The small size of the reported applicant pool and the fact that most applicants are made offers suggests that prescreening occurs. If so, this should be described in the proposal. U.S. matriculants, while small in number, have high GRE scores and grade point averages, though it is a little disconcerting that the proposal provides a range of quantitative scores when a single student was enrolled. The \$5,000 fellowship supplement is a very positive feature of the proposal. Table 11-GF is critical to the review process, and in its absence the panel does not have sufficient data to assess the program. No funding is recommended.

012GF-17 LOUISIANA TECH UNIVERSITY
“Graduate Fellows in Biomedical Engineering 2016-21”
Requested: 2 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

Louisiana Tech’s Biomedical Engineering program is strong. The proposal describes a faculty which is increasingly diverse and which is evidently well funded with contracts, though federal support appears to be moderate. The doctoral program has a steady state of around 30 students, of whom two are minorities. The level of attrition is reasonable, at approximately 15-29% overall. The number of applicants is quite small, and selectivity among U.S. candidates is very limited. As the proposal indicates, the ratio of U.S. citizens to international students still dramatically favors the international students. The training program and mentoring support are adequate, though traditional. Nevertheless the outcomes for Board of Regents fellows in this program have been quite good. Funding is recommended for one four-year, doctoral-level fellowship at \$25,000 per year.

013GF-17 LOUISIANA TECH UNIVERSITY
**“Superior Graduate Fellows Supporting Five Centers of Excellence in Engineering
FY 2017-2021”**
Requested: 4 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

This doctoral program involves faculty members across the Louisiana Tech College of Engineering and Science associated with five active research centers. Faculty members have robust records of research and publication and considerable success in winning external funding. The Centers have strong relationships with industry partners. The degree program is designed to prepare students for both academia and industry, although only limited data is provided on placement. As a previous review noted, there is little evidence that the curriculum and supplementary professional development programs are aligned to career outcomes. The program continues to struggle to attract U.S. applicants, although there is some evidence of improved recruitment of underrepresented minority students. Students who enroll seem well qualified and it appears that selectivity has increased. Overall program size has decreased slightly, which may be desirable given the demands on the faculty in programs with large numbers of undergraduate and master’s students. There is very serious concern about the level of attrition among U.S. students. This may be partly attributable to the absence of a systematic tracking and support systems – very important in a program of this size. This program has been quite successful with earlier Board of Regents awards and the University is commended for providing \$5,000 supplements to the fellowships. Funding is recommended for one four-year, doctoral-level fellowship at \$25,000 per year.

014GF-17 LOUISIANA TECH UNIVERSITY
“Superior Graduate Fellows in Molecular Sciences and Nanotechnology 2016-21”
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

The Molecular Science and Nanotechnology doctoral program, in operation for three years, represents collaboration of a relatively new group of faculty from Chemistry, Biology and Engineering at Louisiana Tech. The program has seen an increasing number of applicants since its inception. Offers are made to 60-80% of the applicants, with a yield of about 60%. Approximately half of the applicants are international students. Two of 26 students are underrepresented minorities. The results of recruiting activities are summarized in figure 3, which demonstrates why percentages can be profoundly misleading, especially when the numbers are so small. The proposal stresses that plans for mentoring and advising are included but argues that lack of attrition is evidence of success. While this is a good preliminary outcome, lack of attrition of a small number of students over only three years of program operation is not an indicator that current activities should drive the future. Mentoring should be developed further as the program continues to develop. Funding is recommended for two four-year, doctoral-level fellowships at \$25,000 each per year.

015GF-17 NICHOLLS STATE UNIVERSITY

“Enhancement of Marine and Environmental Biology Student Recruitment through Graduate Study”

Requested: 2 Master’s-Level Fellowships at \$18,000/annum for 2 years

Recommended: 1 Master’s-Level Fellowship at \$18,000/annum for 2 years = \$36,000 TOTAL

Since the master’s program in Biological Sciences was established at Nicholls in 2002, the department has substantially expanded its research-active faculty. Several have succeeded in acquiring external funding. Consistent with its location, the department has focused on research related to wetlands and coastal issues and developed an impressive range of linkages with business, industry and public institutions. Nevertheless, the proposal should make a much more explicit argument for the economic impact of this program. Previous Regents fellows have generally done well, but the proposal would be enhanced with a clearer explanation of how these fellows have strengthened the entire program. The program is reasonably selective, with about 15 students applying each year and about half that number enrolling. Attrition seems to have improved, although greater attention could be given to time to degree. There is no clearly articulated plan of mentoring and tracking. The program has not succeeded in attracting any minority students and does not really have a coherent plan for attracting such applicants. This should be a priority in the future. Funding is recommended for one two-year, master’s-level fellowship at \$18,000 per year.

016GF-17 TULANE UNIVERSITY

“Superior Graduate Students in Neuroscience / 2017-2022”

Requested: 2 Doctoral-Level Fellowships at \$28,500/annum for 4 years

Recommended: 1 Doctoral-Level Fellowship at \$28,500/annum for 4 years = \$114,000 TOTAL

The Neuroscience program at Tulane is the oldest, biggest and most successful interdepartmental program on the campus. The Board of Regents has supported 32 Neuroscience PhD students over the years and is currently supporting six of the 25 students enrolled. The program has 33 faculty members and the university provides nine teaching assistantships. A major advantage is a funding stream from the master’s program. Research support of program students has greatly improved from a few years ago, and only eight students were supported on teaching assistantships last year. An innovative and very positive feature of the teaching assistantships is supplementary funding to bring stipends up to the level of research assistantship support. We note that an increasing fraction of the research mentors have external funding. The panel applauds the reported submission of an NIH training grant which, if successful, will provide a huge boost for the program. It is notable, however, that this submission has been a long time coming. One negative factor, not discussed in the proposal, is that nearly 10% of students are opting out each year (two per year for the past five years). This has been a drag on program size. Only one of 26 students is categorized as being minority. This needs to be improved. The recruiting plan is first rate and the number of applications has gradually increased. This may be a sign of a growing reputation. The program seems to be reinvigorated following Hurricane Katrina and is functioning well. Funding is recommended for one four-year, doctoral-level fellowship at \$28,500 per year.

017GF-17 TULANE UNIVERSITY

“Recruitment and Mentoring of Graduate Students in Earth and Environmental Sciences at Tulane University”

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

2 Master’s-Level Fellowships at \$25,000/annum for 2 years

Recommended: - 0 -

The Earth and Environmental Sciences doctoral program at Tulane is relatively small, with 19 PhD students and eight MS students. The program consists of 44 hours of coursework, followed by a qualifying exam and research. Time to degree, inferred from Table 11-GF, appears to be fairly long, though high attrition makes this estimation uncertain. Students are supported by nine tenured or tenure-track faculty with a modest level of national funding. The program receives approximately 20 applications each year and is fairly selective, admitting two to three U.S. candidates and a variable but roughly comparable number of international students. Although data provided are minimal, the program appears to have had some success and some drops among Board of Regents fellows in the recent past. The master’s program seems to be on surer footing. Diversity recruitment is not strong, with one recent underrepresented minority student graduating and the other dropping. The proposal outlines a traditional strategy for recruiting, with an emphasis on the personal touch. No funding is recommended.

018GF-17 TULANE UNIVERSITY

“Recruiting Superior Graduate Students in Ecology and Evolutionary Biology”

Requested: 2 Doctoral-Level Fellowships at \$34,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$32,000/annum for 4 years = \$256,000 TOTAL

This application from the Tulane Department of Ecology and Evolutionary Science reports substantive attempts to modify the degree program, building strength and addressing some challenges. The program has recently made efforts to decrease the time to degree, with the result that 2014-15 yielded the largest graduating class ever. Also the program is making strong efforts to recruit minorities and is providing substantial mentoring. This may be showing results, with no drops since the new mentoring approach has been implemented, though it is too early to be certain. Future proposals might speak to interim progress. This program seems to be taking graduate education very seriously and deserves support. The high fellowship level requested, however, is not aligned with national norms and not well justified. Funding is recommended for two four-year, doctoral-level fellowships at \$32,000 each per year.

019GF-17 TULANE UNIVERSITY
“Enabling the Future: Graduate Fellowships for Biomedical and Chemical & Biomolecular Engineering”
Requested: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years

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

This proposal for Tulane’s doctoral program in Biomedical and Chemical and Biomolecular Engineering describes an aggressive plan to vault the program to a level comparable with Rice, Duke and Vanderbilt. This is an ambitious goal and will likely inspire the leadership to focus on building performance. An exciting expansion of research capabilities is already underway. The doctoral program annually admits 14 students each year, with about half being U.S. citizens eligible for Regents fellowships. The proposal narrative also indicates three underrepresented minority students enrolled, though this does not match the data in Table 11-GF, which indicate one dropped, none have graduated, and only one is still in the program. It does not appear from the data presented that any minority students have graduated with a doctoral degree in these areas. It is difficult to calculate time to degree from Table 11-GF, and it would be helpful to have a chart in the document clearly showing this for U.S. and international students. The proposal does describe some overall outcomes in terms of where students have developed careers; unfortunately it comes as a narrative and is anecdotal. It would be very helpful in future proposals to present outcomes for all students, either as a text chart or a pie chart. Funding is recommended for two four-year, doctoral-level fellowships at \$30,000 each per year.

020GF-17 TULANE UNIVERSITY
“Recruitment of Superior Graduate Students in Chemistry”
Requested: 3 Doctoral-Level Fellowships at \$32,000/annum for 4 years

Recommended: 2 Doctoral-Level Fellowships at \$32,000/annum for 4 years = \$256,000 TOTAL

Tulane’s doctoral program in Chemistry has been well supported through Board of Regents fellowships over the years. The department has a strong faculty with reasonable federal support. Faculty are productive and show good outcomes for their students. Currently the program enrolls approximately 60 students, about 25 of whom are U.S. citizens. On average, eight students graduate per year, including one underrepresented minority. The data in Table 11-GF are somewhat inconsistent, but appear to be generally correct. The panel notes that the students in the program, including Board of Regents fellows, seem to have a long time to degree; it appears from Table 11-GF and the proposal narrative that six to eight years is not unusual. It would be helpful to the panel to have information for all students in the program in terms of time to degree, though the partial information provided suggests this could be improved considerably. Overall expectations for progress in the program are fairly traditional: course, presentations, exams, and research, as well as various milestones mentioned in the mentoring plan. These are really just academic timelines, not ideas to improve mentoring and speed time to degree. Funding is recommended for two four-year, doctoral-level fellowships at \$32,000 each per year.

021GF-17 TULANE UNIVERSITY
“Tulane Mathematics Graduate Fellowships”
Requested: 2 Doctoral-Level Fellowships at \$25,000/annum for 4 years

Recommended: - 0 -

Tulane’s Mathematics Department is moderately large, with 22 faculty and 46 doctoral students. The faculty are reported to be research active but, except for a long list of journals in which they have published, there is no way for the panel to judge the national reputation of the program. In addition, there is no discussion of the economic impact of the program. Required tables were not carefully prepared. In Table 10-GF, the numbers of students matriculating in 2014-15 are not given, GRE scores for 2012-13 are uninterpretable, and grade point averages of U.S. students for 2009-10 are not given. No underrepresented minority students appear to have applied over the six years reported, yet two appear in Table 11-GF in 2013-14. One of these is apparently still in the program but is not reported for the start of the 2014-15 academic year. Only eight U.S. applications were reported for the 2014-15 year, with seven offered admission. Was a pre-application screening initiated this year? Finally, Table 12-GF is missing altogether. Inconsistencies in the data provided, as well as incomplete tables, led the panel to lack confidence in the proposal as a whole. The proposal was not thoughtfully and carefully prepared. No funding is recommended.

022GF-17 TULANE UNIVERSITY
“Graduate Fellowships in Psychology”
Requested: 2 Doctoral-Level Fellowships at \$27,778/annum for 4 years

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

The Tulane Psychology Department is modest in size, with 15 tenured/tenure-track faculty, all of whom actively publish. Three-quarters of the faculty have submitted proposals for funding in recent years, although at present only five department members are funded. Six professors of practice carry a considerable proportion of the undergraduate teaching. The PhD program has about 40 students, including a substantial number of students from minority backgrounds (although that number appears to be declining). The data presented suggest that students are completing in a timely fashion. Greater attention should be given to mentoring and other forms of support in light of the high student attrition numbers. The quality of students is generally quite good. The proposal indicates that the majority of graduates go into non-academic positions, for the most part within the region. The program has had success with previous Regents fellows, but the proposal would be enhanced by a more developed strategy for recruitment and in particular for utilizing these fellowships to promote program recruitment goals. Funding is recommended for one four-year, doctoral-level fellowship at \$28,000 per year.

023GF-17 TULANE UNIVERSITY
“Graduate Fellowships in Physics 2017-2022”
Requested: 2 Doctoral-Level Fellowships at \$30,000/annum for 4 years

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

This small department is in the process of rebuilding with a new emphasis on materials. Six of twelve faculty members are assistant professors. If new faculty can establish regular research funding, the department will be very strong. Economic development activities are well developed, with three faculty research programs having direct impact on the local economy. Efforts to emphasize materials science should provide many future opportunities in this area. Over half of students are supported by teaching assistantships, which is too high. Recruiting has improved steadily over the past six years, but there is an unexplained drop in applicants in 2014-15. In addition, the yield from domestic offers is disappointing. The panel notes that GRE scores are very high, but grade point averages less so. This could indicate that the very best students are going elsewhere. The program has only four women and no minority students (although a minority student was apparently recruited for the current academic year). The dual degree programs with Xavier, Dillard and Loyola should provide a marvelous opportunity for recruiting minority students, but this approach has not yet yielded results. The drop rate is low. Board of Regents fellowships would greatly benefit this program. The panel anticipates that next year’s proposal will document the impact of recent Regents fellowships on program recruiting. Funding is recommended for two four-year, doctoral-level fellowships at \$30,000 each per year.

024GF-17 TULANE UNIVERSITY HEALTH SCIENCES CENTER
“Predoctoral Training in Biomedical Sciences”
Requested: 4 Doctoral-Level Fellowships at \$28,500/annum for 4 years

Recommended: 1 Doctoral-Level Fellowship at \$28,500/annum for 4 years = \$114,000 TOTAL

Tulane Health Sciences Center’s Biomedical Sciences program includes faculty from Pharmacology, the Cancer Center, Microbiology and Immunology, as well as Structural and Cellular Biology. There are a number of strong points about this application. The program has a good record with recent Board of Regents fellows. Minority recruitment is strong, and the fellowships are used well to support these efforts. Time to degree is reasonable and the attrition is minimal. The panel notes in 2014-15, five students left the program, including two underrepresented minority students. The proposal’s way of presenting data, and the care with which information is reported, is a critical weakness. Gaps in Table 11-GF make it impossible to discern the accomplishments, or otherwise, of this program. Details of faculty support come in the form of NIH-style biosketches, which both increases the proposal file to an unreasonable size, difficult to load on slower networks, and forces the reviewer to disentangle the information which is apropos to the proposal, from that which is irrelevant to it. Finally, in the narrative of the proposal the PI tries to emphasize the stature of the program and its faculty by listing programs which are not rated as highly, using data which are quite dated. This is inappropriate and weakens, rather than strengthens, the application. In the next submission, the panel hopes to see these deficiencies remedied, which weigh down the proposal for a strong program. Funding is recommended for one four-year, doctoral-level fellowship at \$28,500 per year.

025GF-17 TULANE UNIVERSITY HEALTH SCIENCES CENTER
“Graduate Fellows Program in Tropical Medicine at Tulane University”
Requested: 4 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

This request from Tulane Health Sciences Center’s Tropical Medicine program demonstrates a significant need for training in this area, as many emerging tropical vector-borne diseases are beginning to enter the U.S., with a major point of entry within the region. The training offered is extensive and very course-heavy; students are also expected to undertake a substantial amount of research activity. The structure of this program is well designed to train students in this area, but is also likely to result in a long time to degree. This seems to be evidenced anecdotally by a Board of Regents fellow from 2005 who is still in the program. Data in Table 11-GF more generally seem to indicate lengthy stays in the department. This must be the case for a program which graduates about one student per year and enrolls a steady state of around nine students, with relatively little attrition. This is a real concern, which should be addressed in future proposals. The level of the fellowship also seems extremely low. Funding is recommended for one four-year, doctoral-level fellowship at \$25,000 per year.

026GF-17 UNIVERSITY OF LOUISIANA AT LAFAYETTE
“Recruitment of Superior Graduate Students in Computer Science”
Requested: 2 Doctoral-Level Fellowships at \$30,996/annum for 4 years

Recommended: - 0 -

At UL Lafayette, Computer Science and Computer Engineering degrees are administered under the umbrella of the Center for Advanced Computer Study (CACCS). Together the two programs have 13 faculty and 74 PhD students. In several previous reviews, the panel noted problems with the data tables and these have never been addressed or explained. Because of inaccuracies and conflicts in the reported data, it is very difficult for the panel to get a clear picture of the PhD program. For example, over the past six years 94 students are reported to have graduated or left the program while over this same period only 39 new matriculations are reported, yet the program has not diminished in size. The pool size and quality of U.S. applicants seems to pose a significant challenge; the last two U.S. students admitted had very low grade point averages and disappointing GRE scores. As the panel has commented before, 74 PhD students seems to be a high number for thirteen faculty who also direct master’s students. Curiously, only 42 PhD students, a much more reasonable number, are listed as being mentored in Table 12-GF. The economic development activities of the department, as reported, appear to be very strong, including many interactions with local businesses. There are no minority students in the doctoral program, indicating a lack of commitment to this important dimension of graduate education. The panel also notes that plans to address this issue are all phrased in the future tense. Overall this seems to be a program with national prominence that survives almost exclusively on international graduate students, and inconsistencies in the data provided prevent the panel from gaining a better understanding of how the program works. No funding is recommended.

027GF-17 UNIVERSITY OF LOUISIANA AT LAFAYETTE
“Recruitment of Superior Graduate Students in Environmental and Evolutionary Biology for 2017”
Requested: 3 Doctoral-Level Fellowships at \$30,000/annum for 4 years

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

The doctoral program in Environmental and Evolutionary Biology at UL Lafayette has a strong and consistent record of attracting high-quality students, the great majority of whom are U.S. citizens or residents. The program has made a concerted effort to attract minority candidates and has a solid history of enrolling and graduating such students. In recent years the department has raised PhD stipend levels significantly, which presumably has led to improved recruitment and retention. Admissions are increasingly competitive. The number of students currently supported on grants is relatively low; thus, the department’s goal of increasing that number is appropriate. The faculty have strong research records, notwithstanding the large undergraduate program. That research strength is enhanced through relationships with staff at regionally located national laboratories, many of whom are involved in the doctoral program. The department was certainly well situated to capitalize on the research funding that was directed toward the ecological crises in the Gulf of Mexico following the Deepwater Horizon oil spill. Discussion of utilization of Individual Development Plans is promising, but there continues to be concern regarding plans for tracking and mentoring. Although program attrition seems to have improved, time to degree remains an issue, notably among Board of Regents fellows. Funding is recommended for two four-year, doctoral-level fellowships at \$30,000 each per year.

028GF-17 UNIVERSITY OF LOUISIANA AT LAFAYETTE
“Graduate Fellowships in Systems Engineering Focusing on Lean Six Sigma Research”
Requested: 6 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 recently established PhD program in Systems Engineering at UL Lafayette draws on faculty from across the College of Engineering. The program is designed to focus on preparing graduates for careers in industry. The proposal indicates very promising research initiatives to build links to industry and plans for involving industry representatives in the program. From the information presented it is somewhat difficult to discern the number of faculty actively involved; but the proposal outlines an ambitious plan to increase faculty numbers from 40 to 52 this year. The faculty table, however, lists just 16 members who are currently active in the program, all of whom have substantial publications. Only seven of these have significant external funding. The program currently has about 30 students and plans to expand that number to around 50, if sufficient resources are allocated. Student quality is quite high. About 80 students apply each year, but on average only 10 of them are U.S. citizens or residents. There is no comprehensive plan to use the Board of Regents fellowships to raise that number and ensure a sufficient pool. High attrition numbers (13 students left the program during the most recent two years for which data was provided) raise concern about admissions and point to the need for more ambitious and creative approaches to tracking and mentoring. The plan to develop mentoring training among faculty is certainly

a step in the right direction, but in a program like this one, that cuts across departments, and where faculty have many responsibilities, a more comprehensive approach is required. Funding is recommended for one four-year, doctoral-level fellowship at \$30,000 per year.

029GF-17 UNIVERSITY OF LOUISIANA AT LAFAYETTE
“Recruitment of Superior Graduate Students in Mathematics for PhD Program”
Requested: 3 Doctoral-Level Fellowships at \$29,500/annum for 4 years

Recommended: - 0 -

UL Lafayette’s Mathematics Department struggles to recruit, support, and retain high-quality PhD students. As the proposal notes, stipends offered are not competitive and the best applicants are frequently lost to other universities. The numbers and scores of applicants and matriculants have improved recently, and the narrative indicates that some high-quality applications were received last year. Of continuing concern is the very high drop rate, with more students leaving the program than graduating in five of the past six years. This needs to be acknowledged and plans to address it detailed in future applications. The program does a reasonable job recruiting women and a fair job recruiting underrepresented minorities. The faculty are very active in publishing, but only three faculty members have external funding and no students were supported on grant funds in the most recent year reported. The economic development argument is improved but the claims made lack specifics. The program would certainly benefit from three high-quality doctoral students, but the impact of such students on the overall reputation of the program and the increased benefit of the program to Louisiana would likely be minimal. No funding is recommended.

030GF-17 UNIVERSITY OF LOUISIANA AT LAFAYETTE
“Recruitment of Superior Graduate Physics Students”
Requested: 2 Master’s-Level Fellowships at \$20,000/annum for 2 years

Recommended: - 0 -

UL Lafayette’s small Physics Department has successfully offered the MS degree since 1958. In the most recent year reported, five of twelve students were supported on teaching assistantships. Students are encouraged to attend summer programs at national labs. The text indicates that graduates get jobs, often locally, or go on to doctoral programs. Most faculty do not have regular grant support, which likely poses a problem for student research. The data given indicate a very low drop rate. The applicant pool seems adequate to support the proposal, especially if recruiting is stepped up. The proposal is much improved from last year, with a strong case made for impact on economic development and improved data reporting. To safeguard student privacy, it is important to remove the names of individuals when recounting personal stories (proposal pp. 12-13), even when such accounts bring alive the arguments made. The key question is whether the proposal made a competitive case for impact of the master’s-only program; the panel remained unconvinced that the impact as described was sufficient to warrant support. No funding is recommended.

APPENDIX C

LISTS OF PROPOSALS SUBMITTED

**Traditional Graduate Fellows Program
2015-16 Competition
Proposals Submitted**

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
001GF-17 MATH	William Adkins	LSU A&M	Recruitment of Superior Doctoral Students in Mathematics	4 years 4 PhD @ \$30K	Y1: \$120,000 Y2: \$120,000 Y3: \$120,000 <u>Y4: \$120,000</u> Total: \$480,000
002GF-17 PHYS	Dana Browne	LSU A&M	LEQSF 2015 FY 2015-16	4 years 3 PhD @ \$27K	Y1: \$81,000 Y2: \$81,000 Y3: \$81,000 <u>Y4: \$81,000</u> Total: \$324,000
003GF-17 CHEM	Samuel Gilman	LSU A&M	Graduate Fellowships in Chemistry for 2017	4 years 2 PhD @ \$32K	Y1: \$64,000 Y2: \$64,000 Y3: \$64,000 <u>Y4: \$64,000</u> Total: \$256,000
004GF-17 ENG	Sherif Ishak	LSU A&M	Board of Regents Fellowships in Engineering 2017-2022	4 years/2 years 5 PhD @ \$30K 2 MS @ \$20K	Y1: \$190,000 Y2: \$190,000 Y3: \$150,000 <u>Y4: \$150,000</u> Total: \$680,000
005GF-17 SOC SCI	Elaine Maccio	LSU A&M	LSU School of Social Work Board of Regents Fellowship in Graduate Education	4 years 8 PhD @ \$25K	Y1: \$200,000 Y2: \$200,000 Y3: \$200,000 <u>Y4: \$200,000</u> Total: \$800,000

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
006GF-17 ARTS	Kristin Sosnowsky	LSU A&M	College of Music and Dramatic Arts	4 years/3 years 6 PhD @ \$16K 2 MA @ \$16K	Y1: \$128,000 Y2: \$128,000 Y3: \$128,000 <u>Y4: \$96,000</u> Total: \$480,000
007GF-17 AG	Sabrina Taylor	LSU A&M	Recruitment of Outstanding Graduate Students in Renewable Natural Resources at Louisiana State University [FY 2017/2018]	4 years/2 years 2 PhD @ \$30K 1 MS @ \$25K	Y1: \$85,000 Y2: \$85,000 Y3: \$60,000 <u>Y4: \$60,000</u> Total: \$290,000
008GF-17 HM	Ronald Thune	LSU A&M	Graduate Studies in Infectious Disease	4 years 2 PhD @ \$30K	Y1: \$60,000 Y2: \$60,000 Y3: \$60,000 <u>Y4: \$60,000</u> Total: \$240,000
009GF-17 EARTH	R. Eugene Turner	LSU A&M	Recruitment of Superior Graduate Students in Earth, Ocean and Environmental Sciences	4 years/2 years 2 PhD @ \$28K 4 MS @ \$25K	Y1: \$106,000 Y2: \$106,000 Y3: \$106,000 <u>Y4: \$106,000</u> Total: \$424,000
010GF-17 BIO	Andrew Catling	LSUHSC-NO	Graduate Training in Integrative Pharmacological Sciences	4 years 2 PhD @ \$28K	Y1: \$56,000 Y2: \$56,000 Y3: \$56,000 <u>Y4: \$56,000</u> Total: \$224,000

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
011GF-17 CIS	Sumeet Dua	LA Tech University	Recruitment of Superior Doctoral Graduate Fellows in Computational Analysis and Modeling	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
012GF-17 HM	Steven Jones	LA Tech University	Graduate Fellows in Biomedical Engineering 2016-2021	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
013GF-17 ENG	James Palmer	LA Tech University	Superior Graduate Fellows Supporting Five Centers of Excellence in Engineering FY 2017-2021	4 years 4 PhD @ \$25K	Y1: \$100,000 Y2: \$100,000 Y3: \$100,000 <u>Y4: \$100,000</u> Total: \$400,000
014GF-17 CHEM	Bala Ramachandran	LA Tech University	Superior Graduate Fellows in Molecular Sciences and Nanotechnology 2016-21	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000
015GF-17 BIO	Aaron Pierce	Nicholls State University	Enhancement of Marine and Environmental Biology Student Recruitment through Graduate Study	2 years 2 MS @ \$18K	Y1: \$36,000 <u>Y2: \$36,000</u> Total: \$72,000
016GF-17 HM	Jill Daniel	Tulane University	Superior Graduate Students in Neuroscience / 2017-2022	4 years 2 PhD @ \$28.5K	Y1: \$57,000 Y2: \$57,000 Y3: \$57,000 <u>Y4: \$57,000</u> Total: \$228,000

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
017GF-17 EARTH	Nancye Dawers	Tulane University	Recruitment and Mentoring of Graduate Students in Earth and Environmental Sciences at Tulane University	4 years/2 years 2 PhD @ \$26K (\$26.5K in years 3 & 4) 2 MS @ \$25K	Y1: \$102,000 Y2: \$102,000 Y3: \$53,000 <u>Y4: \$53,000</u> Total: \$310,000
018GF-17 BIO	Elizabeth Derryberry	Tulane University	Recruiting superior graduate students in ecology and evolutionary biology	4 years 2 PhD @ \$34K	Y1: \$68,000 Y2: \$68,000 Y3: \$68,000 <u>Y4: \$68,000</u> Total: \$272,000
019GF-17 ENG	Donald Gaver	Tulane University	Enabling the Future: Graduate Fellowships for Biomedical and Chemical & Biomolecular Engineering	4 years 3 PhD @ \$30K	Y1: \$90,000 Y2: \$90,000 Y3: \$90,000 <u>Y4: \$90,000</u> Total: \$360,000
020GF-17 CHEM	Janarthanan Jayawickramarajah	Tulane University	Recruitment of Superior Graduate Students in Chemistry	4 years 3 PhD @ \$32K	Y1: \$96,000 Y2: \$96,000 Y3: \$96,000 <u>Y4: \$96,000</u> Total: \$384,000
021GF-17 MATH	Morris Kalka	Tulane University	Tulane Mathematics Graduate Fellowships	4 years 2 PhD @ \$25K	Y1: \$50,000 Y2: \$50,000 Y3: \$50,000 <u>Y4: \$50,000</u> Total: \$200,000

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
022GF-17 SOC SCI	Stacy Overstreet	Tulane University	Graduate Fellowships in Psychology	4 years 2 PhD @ \$27,778	Y1: \$55,556 Y2: \$55,556 Y3: \$55,556 <u>Y4: \$55,556</u> Total: \$222,224
023GF-17 PHYS	Jerry Shakov	Tulane University	Graduate Fellowships in Physics 2017-2022	4 years 2 PhD @ \$30K	Y1: \$60,000 Y2: \$60,000 Y3: \$60,000 <u>Y4: \$60,000</u> Total: \$240,000
024GF-17 HM	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
025GF-17 HM	Dawn Wesson	TUHSC	Graduate Fellows Program in Tropical Medicine at Tulane University	4 years 4 PhD @ \$25K	Y1: \$100,000 Y2: \$100,000 Y3: \$100,000 <u>Y4: \$100,000</u> Total: \$400,000
026GF-17 CIS	Magdy Bayoumi	University of Louisiana at Lafayette	Recruitment of Superior Graduate Students in Computer Science	4 years 2 PhD @ \$30,996	Y1: \$61,992 Y2: \$61,992 Y3: \$61,992 <u>Y4: \$61,992</u> Total: \$247,968

Proposal#/ Discipline	PI Name(s)	Institution	Proposal Title	Duration	Funds Requested
027GF-17 BIO	Paul Klerks	University of Louisiana at Lafayette	Recruitment of superior graduate students in environmental and evolutionary biology for 2017	4 years 3 PhD @ \$30K	Y1: \$90,000 Y2: \$90,000 Y3: \$90,000 <u>Y4: \$90,000</u> Total: \$360,000
028GF-17 ENG	Jim Lee	University of Louisiana at Lafayette	Graduate Fellowships in Systems Engineering Focusing on Lean Six Sigma Research	4 years 6 PhD @ \$30K	Y1: \$180,000 Y2: \$180,000 Y3: \$180,000 <u>Y4: \$180,000</u> Total: \$720,000
029GF-17 MATH	Arturo Magidin	University of Louisiana at Lafayette	Recruitment of Superior Graduate Students in Mathematics for PhD program	4 years 3 PhD @ \$29.5K	Y1: \$88,500 Y2: \$88,500 Y3: \$88,500 <u>Y4: \$88,500</u> Total: \$354,000
030GF-17 PHYS	Gabriela Petculescu	University of Louisiana at Lafayette	Recruitment of Superior Graduate Physics Students	2 years 2 MS @ \$20K	Y1: \$40,000 <u>Y2: \$40,000</u> Total: \$80,000

TRADITIONAL GRADUATE FELLOWS PROPOSAL SUBMISSION SUMMARY

TOTAL NUMBER SUBMITTED: 30

Arts: 1	Computer & Information Sciences: 2	Health & Medical Sciences: 5
Agricultural Sciences: 1	Earth/Environmental Sciences: 2	Mathematics: 3
Biological Sciences: 4	Engineering A&B: 4	Physics/Astronomy: 3
Chemistry: 3	Humanities: 0	Social Sciences: 2

FIRST-YEAR FUNDS REQUESTED: \$2,629,048

TOTAL FUNDS REQUESTED: \$10,104,192