



Post-Katrina/Rita Challenges Facing Louisiana

The second in a series focusing on the impact of Hurricanes Katrina/Rita on Louisiana higher education research activities. The following are excerpts from "The Impact of Katrina and Rita on Federally Sponsored Science and Engineering Research and Education Programs: A White Paper on Louisiana's Immediate Needs, Recovery & Revitalization, and Advancement" by Dr. Kerry Davidson, Board of Regents Deputy Commissioner for Sponsored Programs, and Dr. Michael Khonsari, Associate Commissioner for Sponsored Programs Research and Development and Louisiana EPSCoR Project Director. The Report was written and distributed in October 2005 to the Office of Management and Budget, the White House office responsible for devising and submitting the president's annual budget proposals to Congress, as well as federal funding agencies, and State and U.S. senators and representatives.

The terms *extraordinary*, *unique*, and *new paradigms* have been overused, but all three aptly describe the post Katrina/Rita situation facing Louisiana's higher education community and the broader society in Louisiana.

The scope of the concerted effort required to revitalize the ravaged higher education infrastructure of the affected area is *extraordinary*; the complete evacuation of a major U.S. metropolitan area is *unique* in the history of this country; and finally, *new paradigms* must be created to encompass the myriad changes necessary to restructure the research and education enterprise in the affected areas. While the hurricanes have had a devastating impact, they have also provided the State with unprecedented opportunities to explore, shape, and implement innovative new paradigms.

Ongoing deliberations undertaken by university system and campus heads, the Commissioner of Higher Education, the Louisiana Board of Regents, and the statewide Research Task Force have identified the following challenges facing the State's research and education enterprise.

Facilities/Equipment Issues:

- Damage assessment
- Rebuilding labs and infrastructure
- Plans for replacement/repair/recalibration/relocation
- Proper/safe disposal of unsalvageable equipment and perishable research materials
- Environmental/safety issues

Personnel Issues:

- Widespread dispersion of faculty, post-doctoral researchers, research associates, and teaching assistants
- Faculty and staff relocation and subsistence until they can return to their home institutions
- Migration of top-notch faculty to out-of-state universities
- Uncertainty of faculty advancement opportunities in the immediate future
- Loss of students, both current and prospective
- Recruitment by out-of-state institutions of students

Research Issues:

- Catastrophic cessation/interruption of research activities
- Loss of infrastructure and intellectual property
- Scattering of established research collaborators/teams
- Inability of faculty to respond to proposal solicitations in the immediate future
- Breakdown of normal research administration procedures; inability to access records



Post-Katrina New Orleans showing the Superdome, center, and the downtown district in the background (U.S. Navy photo).

- Reporting/regulatory compliance issues for ongoing projects
- Lack of funds to meet cost sharing requirements
- Stress on educational and research resources at institutions not directly affected to accommodate displaced students
- Interruption or discontinuation of non-federal external funding

Science/Technology/Engineering/Mathematics Pipeline Issues:

- Number of undergraduate programs impacted in affected areas
- Undergraduate/graduate student retention/recruitment issues
- Dislocation of student recipients of NSF fellowships
- Loss of large number of low-income underrepresented students

For Louisiana's research competitiveness, these storms could not have come at a worse time. For the past several years, the state has experienced increasing success in receiving federal S&E funding. This upward trajectory is in jeopardy.

Louisiana's research productivity (number of proposals submitted and awarded) was progressing at an increasing rate before the hurricanes hit; not only is it important to implement a plan for speedy recovery from this setback, but also to ensure that we continue on our upward trajectory toward sustainable science-based success. The essential investment required to rebuild Louisiana's research infrastructure must be provided in a way that enables Louisiana to continue contributing in significant ways to the nation's scientific research agenda.

Ongoing federally sponsored research and development (R&D) as well as science, technology, engineering and mathematics

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(STEM) education projects have been crippled by the storms. The actual extent and severity of these issues are still in the process of being determined because of limited access to the affected campuses.

IMPACT ON FEDERALLY SPONSORED RESEARCH/EDUCATION

According to a March 2005 survey, there are approximately 5,350 faculty members in Louisiana, primarily in science and engineering disciplines, who are eligible to submit proposals to NSF. Of this number, 54 per cent—roughly 2,900 faculty members—are located in New Orleans and thus directly affected by Katrina. To a large extent, work on ongoing projects has been suspended and the ability of these faculty to participate in upcoming competitions has been curtailed. In addition, institutions in areas not directly affected by Katrina have also been severely strained.

The human impact is truly catastrophic. Careers have been interrupted, graduations delayed and research training lost. The core of Louisiana's education and research future—community college, undergraduate and graduate students, and postdoctoral fellows—has been displaced, both within and outside the State. The pipeline providing this next generation of scientists has been further breached by the disruption of K-12 education and national uncertainty about Louisiana's future. This must not be allowed to continue. Immediate intervention is required at all levels.

PRIORITIES

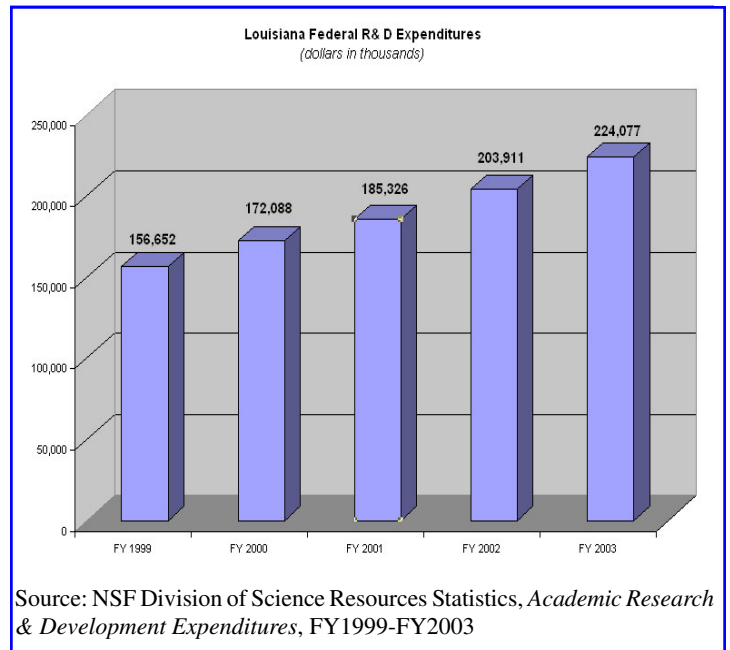
The Report assigned hurricane-related impacts into the following three categories:

Immediate Needs

- Faculty/staff/student support while displaced
- Rebuilding/repairing/replacing/recalibrating/relocating research and educational instrumentation, tools, and materials
- Funding opportunities for faculty to resume their research
- Incentives for faculty and students to return
- Flexibility in existing contracts and grants, including reporting requirements, institutional cost sharing, and time extensions.

Recovery and Revitalization

- Lost opportunity seed funding to help revitalize faculty research
- Fellowships for post-docs and graduate students
- Undergraduate student research opportunities



Advancement

- Statewide research collaboration initiative
- Collaborative research/education activity with Alabama and Mississippi
- Plan for prioritizing research areas critical to our institutions and State to attract new science and technology personnel into affected institutions
- Continuing and strengthening initiatives focused on establishing a national center of excellence in Louisiana
- Development of new programs focusing on problems and challenges created by the hurricanes and other disasters
- Integration of Louisiana Optical Network Initiative (LONI) strengths into research/educational opportunities
- Utilization of LONI to store data to prevent future research/education disruptions.

In the long term, Louisiana's higher education research community, including students, must remain confident that the State's research and education infrastructure and environment will be conducive to their research and careers. Their return to productive scientific careers is critical to Louisiana's recovery, revitalization, and advancement.



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