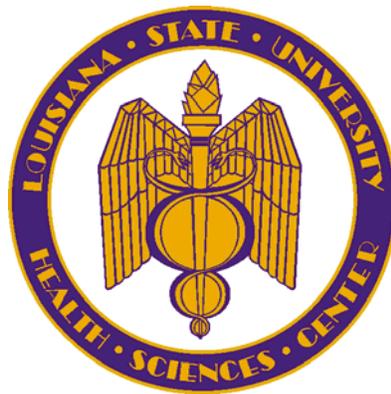


**The Impact of Hurricane Katrina  
on  
Louisiana State University  
Health Sciences Center  
New Orleans**



**Testimony  
For the  
United States Senate**

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# **The Impact of Hurricane Katrina on Louisiana State University Health Sciences Center in New Orleans**

## **Overview of Growth**

The Louisiana State University Health Sciences Center in New Orleans (LSUHSC-NO) is the primary care provider for all citizens in the State of Louisiana. It serves 1,000,000 patients a year and is the primary educational center for health care professionals in the State, and comprises Schools of Medicine, Graduate Studies, Dentistry, Nursing, Allied Health, and Public Health. Hurricane Katrina, which struck southeastern Louisiana on Monday, August 29, 2005, has severely impacted the education, service, and research mission of the Health Sciences Center, essentially requiring a temporary relocation of the Center to Baton Rouge, which is 60 miles inland from New Orleans. The two major teaching hospitals for LSUHSC in New Orleans (Charity and University Hospitals) were flooded and Charity suffered significant structural damage. There is a tremendous ongoing institutional planning effort for continued recovery of this academic medical center.

The past ten years have witnessed a tremendous State investment in LSUHSC-NO, which has resulted in dramatic growth in its research programs. This investment included infrastructure development, research resources and the successful recruitment of new department heads, a new Dean of the School of Medicine, a new Chancellor of the Health Sciences Center and the creation of a School of Public Health. This has resulted in a true sense of mission at the Health Sciences Center, and in the recruitment of 100 new faculty members over the past three years. All of this progress has essentially been brought to a halt by the damage and human tragedy inflicted by Hurricane Katrina.

Within the Basic Science Departments at LSUHSC-NO, four new Heads of Departments (Genetics in 2000, Pharmacology in 2001, Physiology in 2002, Biochemistry in 2004) were recruited within the last four years, and LSUHSC-NO is currently recruiting a new Head for the Department of Anatomy and Cell Biology. This has resulted in the expected additional recruitment of talented, NIH funded faculty and further infrastructure development in terms of space, equipment, and core research support services. Coincident with this growth has been the significant expansion of graduate and postdoctoral research training programs and the continued growth of Centers of Excellence in Alcohol Research, Cancer, Cardiovascular Biology, Research Institute for Children, Oral Biology and Neuroscience and expansion of programs in Gene Therapy, Human Genetics, Immunobiology and Infectious Diseases.

Because of this activity, NIH supported research on campus has increased from \$18,743,273 in FY-2001 to \$39,950,000 for FY-2006 (through 3-1-06). The storm, however, has had a serious impact on our progress. For example, clinical trials were deeply impacted by Katrina with a loss of more than \$7,000,000 from fiscal year 20005 to fiscal year 2006. Seventeen NIH funded investigators have left the institution since the hurricane for a total loss of \$5.7M per year. Table 1 provides historical data regarding LSUHSC-NO research awards.

**Table 1**

<b>LSU Health Sciences Center in New Orleans Historical Research Awards</b>							
		<u>FY-2001</u>	<u>FY-2002</u>	<u>FY-2003</u>	<u>FY-2004</u>	<u>FY-2005</u>	<u>FY-2006</u>
<b>NIH</b>		18,105,247	19,503,425	21,228,872	35,738,211	37,192,393	38,950,000
<b>NIH Subcontract</b>		633,026	2,137,522	1,953,888	2,387,258	2,402,823	1,518,873
<b>Other Federal</b>		2,324,944	3,934,947	7,152,543	5,946,337	4,903,991	1,997,611
<b>Private</b>		3,266,902	5,950,971	3,257,737	4,111,303	4,947,378	2,582,949
<b>State</b>		8,061,668	8,201,246	9,810,431	8,628,646	3,833,636	2,541,984
<b>Clinical Trial</b>		<u>5,948,597</u>	<u>11,642,094</u>	<u>7,805,895</u>	<u>7,546,581</u>	<u>9,013,377</u>	<u>1,855,564</u>
		<u>38,340,384</u>	<u>51,370,205</u>	<u>51,209,365</u>	<u>64,358,336</u>	<u>62,293,598</u>	<u>49,446,981</u>
<b><u>Included Above:</u></b>							
NIH Supplements (15 request)			10 Awarded		1,192,000		
NIH Awards Since Katrina			12 New Awards		4,384,188		

The recruitment of Larry Hollier, M.D. from Mt. Sinai Medical Center as Dean of the School of Medicine in January of 2004 and his recent appointment as Chancellor of the Health Sciences Center has provided further impetus for growth and expansion. Thus, LSUHSC-NO has a group of experienced and respected leaders committed to the development of educational and research programs at the forefront of academic medical centers.

### **Post Katrina Recovery Activities**

Following the evacuation from New Orleans, administration and support services for the Health Sciences Center were established in Baton Rouge. An organizational center was established at the LSU systems office in Baton Rouge during the storm and this served as base camp for leadership and staff. Information was provided through the LSUHSC web site and by using phones to answer questions from students, staff, and faculty.

The Health Sciences Center in New Orleans was temporarily relocated in Baton Rouge. Classes began on Monday, September 26 for all its schools. Infrastructure required for operations were quickly established (i.e. Information Technology, Human Resources, Benefits, Grants Administration). All financial systems became operational within two weeks of the storm and all payrolls were delivered. This was a tremendous undertaking.

One of the biggest challenges in completing the operational initiative of the Health Sciences Center when it relocated to Baton Rouge was finding housing for faculty, student, and staff. Baton Rouge doubled its population due to the influx of New Orleans evacuees. LSUHSC-NO addressed this need by providing a [FinnJet](#) Ferry Boat docked on the Mississippi River that housing up to 1,000 students, faculty, and staff. In addition, 400 one and two bedroom trailers were placed on LSU property in Baton Rouge as part of a University Village for faculty and students.

At the departmental level, chairs communicated with faculty immediately after the storm through text message since direct phone calls were problematic. The LSUHSC email system was down for two weeks further complicating communications. As expected, individuals evacuated to different areas of the country to find a personal comfort zone for their families. LSUHSC-NO's priority was the personal safety of its students, faculty, and staff.

Through text messaging, limited phone connections, and alternative email accounts the Health Sciences Center community was able to establish and maintain contact. The great majority of faculty and staff suffered personal loss and damage to homes to varying degrees. Many faculty, staff, and students completely lost their homes.

Our mission during this time was to provide a personal and professional anchor for individuals. LSUHSC-NO held conference calls with the faculty and also with students to bring people together for mutual support.

## **Continuity of Research and Education Programs**

The next step was to provide a mechanism for continuity of our research and education programs as individuals tackled the issues facing them. Due to the importance of finding a personal comfort zone, it was decided either to support faculty in Baton Rouge with lab space or to work with other universities where faculty may have found that comfort zone for the family and their specific situation. Initial anticipated time frame of 6-9 months following Hurricane Katrina for an operational campus at LSUHSC in New Orleans, the Health Sciences Center moved aggressively to make sure that investigators in temporary locations had what they need in terms of space, equipment, and resources.

Financial systems were made operational, and a research supply store was set up at Pennington Biomedical Research Center. In addition, each investigator was provided with a "purchasing card" so that they could buy what they needed immediately. For investigators at different universities, LSUHSC-NO covered all personnel and supply costs through LSUHSC as normal and arrangements were made for direct shipping of supplies and reagents to the investigator's laboratory.

The laboratories were made operation by sharing equipment, buying small equipment used on a daily basis, obtaining additional items from individual laboratories at the Health Sciences Center, and the graciousness of the individual institutions housing the investigators.

Graduate students beyond the first year of the program were with their mentors or collaborators as were fellows. First year students began classes in the interdisciplinary course framework of the School of Graduate Studies on Monday, September 26 in Baton Rouge and these classes started in New Orleans beginning January 2006.

In many cases, individual faculty gravitated toward the labs of established collaborators. Several faculty set up operational space at LSU affiliated schools or centers in Baton Rouge (Pennington Biomedical Research Center, LSU School of Veterinary Medicine, LSU School of Life Sciences) while others set up their laboratory at other institutions across the country.

In mid-November, laboratories were set up at Children's Research Institute at Children's Hospital and the Ochsner Clinic Foundation in New Orleans as many faculty members and staff began to return home to New Orleans.

In addition to laboratory activities, one hundred and five grants were submitted to NIH since Hurricane Katrina hit the coast. Fifty-eight of these grants were new submissions. As of 3/1/06, fifteen requests for administrative supplements (\$3,717,329) have been submitted to NIH post-Katrina; ten of these requests have been awarded for a total of \$1,192,000.

LSUHSC-NO was contacted by multiple institutions, colleagues, and departments around the country offering space, support, and encouragement. The numerous and generous offers of lab space and support from the research community has provided flexibility to address our challenges. All of the individual programs, investigators, and institutions that welcomed displaced investigators should be recognized for their tremendous effort, graciousness, support, and hospitality.

## **Damage Assessment**

The entire Health Sciences Center was flooded with 3-7 feet of water on the first floor of each building, which destroyed electrical cores, water pumps, and fire pumps. Five major buildings with 5-10 floors each were affected on the downtown campus and the two major buildings on the School of Dentistry campus. A full-assessment of damage to the buildings and the full extent of lost research material and damage to equipment is ongoing. A detailed report with daily updates can be monitored at <http://www.lsuhs.edu/>.

The personal damages along with the losses and disruptions of research programs are having a severe impact on career development for both new and established investigators. It should not be overlooked that this impact also includes the graduate students and postdoctoral fellows. This includes issues with manuscript generation and publication delays as well as grant submissions and grant renewals, all of which will have a lasting impact on our mission and the many contributions of the NIH and NSF supported research programs in Louisiana.

## **The Return to New Orleans**

Less than 6 months after the floodwaters left the downtown campus, the upper floors of the Medical Education Building, the Lion's/LSU Clinic Building and the Mervin L. Trail Clinical Sciences Research Building were opened, allowing researchers to move back into their labs.

Just nine months after Hurricane Katrina forced the institution to relocate all of its classes and operations, the majority of the downtown campus functions have returned. Classes have begun for the Schools of Allied Health Professions, Graduate Studies, Medicine, Nursing, and Public Health. The two student residence halls have reopened, along with the Library, Administration, and Resource Center.

On the Florida Avenue Campus, which sustained the worst flooding, work on the Dental School Clinical and Administration Building is ongoing. The School of Dentistry has organized its efforts in Baton Rouge and continues to educate its dental students, dental hygiene students, dental laboratory technology students, and residents. In addition, a thirty-two chair clinic, a student dental laboratory, and a preclinical laboratory continue to be housed in three vacant buildings made available through Louisiana State University.

## **Summary**

In summary, our immediate goal is to focus on faculty retention and continuity of our research programs. We will also concentrate on programmatic development with emphasis on program retention and institutional restoration.