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## The University as a Resilient Community: Applying Lessons Learned from Katrina

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# The University as a Resilient Community: Applying Lessons-learned from Katrina

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UNIVERSITY *of*  
NEW ORLEANS

# Building Disaster Resilience at UNO Pre-Katrina

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Obtained DRU Grant from FEMA in 2004

Formed an interdisciplinary project team

- Urban policy and planning faculty
- Environmental sociology faculty
- Civil engineering faculty
- Facilities administrator

Formed an advisory team

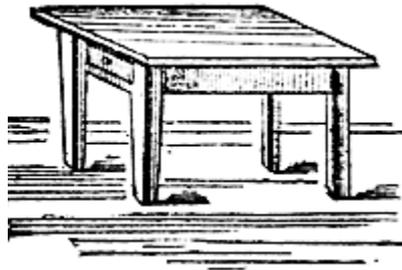
- Key administrative unit leadership



# We Applied a Theoretical Framework

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A systems approach to disaster resilience is dependent upon four “legs”:



- Resilient Social systems (Comfort) - Students, faculty, staff
- Resilient Technical systems (Comfort) – Pumping stations, levees
- Resilient Political systems (Leavitt & Kiefer) – Stafford Act, sheltering
- Resilient Business systems (Kiefer & Miestchovich) – Profit centers on campus

# The Process of Building Disaster Resilience at UNO Pre-Katrina

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Obtained top-level support \*

Used a collaborative model \*

- Obtained broad stakeholder support

Unique capacity-building approach \*

- developed in-house expertise in development of disaster resilience (*a good idea!*)

Completed Plan in August 2005 – it was a good, holistic plan

Did not fully implement the plan (*big mistake!*)



# What Katrina Did

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- 1/3 of university flooded
- Significant looting and vandalism to buildings
- Extensive damage to residence halls (flood)
- Water damage to all buildings (wind, roof)
- Mold problems in all buildings (see above)
- Adversely impacted ability to communicate with faculty, staff and students (hampered recovery)



# What We Think We Did Right

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Made Herculean effort to re-establish communications with university community \*

Established an off-site HQ \*

Created an alternate email server

Got faculty and staff involved in regional recovery effort \*

Designated alternate class meeting locations

Physical and distance learning



# What We Think We Did Right (con't)

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Focused on business continuity (research, teaching and outreach) \*

- Conducted classes within 6 weeks of impact (first university in New Orleans to do so)
- Established student, faculty and staff housing -- FEMA trailer compounds \*
- These were a critically important steps in retaining our student population, encouraging students to return to the City, and contributing to the regional workforce.

# What We Think We Did Right (con't)

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Created some degree of financial independence by reopening revenue producing activities \*

- Arena, fitness center, food outlets
- Reduces need for financial dependency upon State and Federal resources



# What We Could Have Done Better

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Implemented our mitigation plan \*

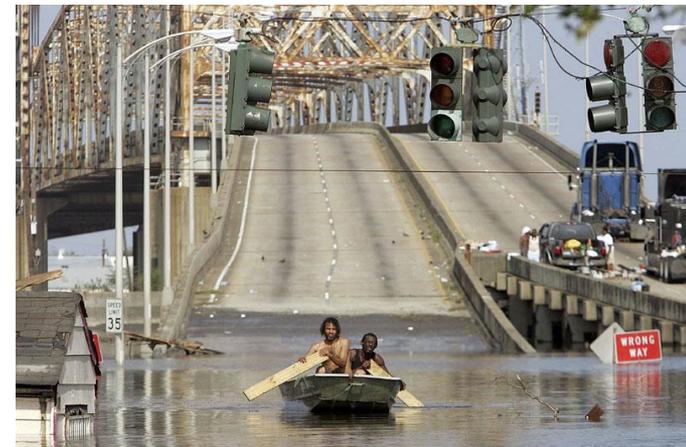
- Moved students (*pre-K plan was a lot like N.O.!*)
  - Personal plans, pets, resources, sites, cultural sensitivity

Had alternative communications networks \*

- Email addresses
- Servers

Had a hardened site on campus for operations and police

- On-site observation of rising floodwaters; policing of looters; coordination of evacuees



# What We Could Have Done Better (con't)

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Mold is a hazard – both from rising water and building leaks

- Have a mold remediation plan
- Very dependent upon access to campus
  - Plan to house, feed recovery personnel



# What We Could Have Done Better (con't)

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## Adopted a broader definition of “off-site”

- For catastrophic, regional disasters, especially hurricanes, “off-site” means hundreds of miles away.
- University database recovery
- People out of harm’s way

## Developed a community mutual assistance plan \*

- Student, faculty, staff sheltering
- Academic/Research continuity – sites, distance learning adaptability
- Lesson learned for other communities? Expand the “sister city” concept?

# What We Could Have Done Better (con't)

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Better understand our community's dependence upon critical infrastructure...i.e. electricity, water, telecom, transportation \*

Conduct an aggressive outreach program that is updated, inclusive, and continuously improved. \*

- More student involvement
- More community involvement



# A Reassessment of UNO's Disaster Resiliency Post Katrina

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Additional data points re vulnerability – *capture them!*

Re-prioritize vulnerabilities

- Looting, vandalism and long-term flooding move upward

IMPLEMENT, IMPLEMENT, IMPLEMENT

# Lessons *Re-Learned* for Building Disaster Resilience

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Protecting the lives and health of the students, faculty and staff remain paramount.

Reducing the exposure of the community's existing and future buildings, contents, utilities, and infrastructure to damage by natural and human-caused hazards is important.

- We need to do a better job of this by addressing a broader range of mitigation strategies.
- This will improve our ability to resume our core business of conducting research, educating students, and participating in community outreach.

# Lessons *Re*-Learned for Building Disaster Resilience (con't)

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We need to do an even better job of mitigating the vulnerabilities of certain special resources in the community that are critical to our mission -- the Library, student housing, and university records. i.e. “selective resiliency”

We need to ensure that outreach and education regarding disasters is a continuous process that includes all stakeholders.

We must have the necessary emergency response facilities, equipment, staff, and procedures in place to minimize the danger and damage to people and property during a disaster, with minimal reliance on outside sources of assistance.

# Lessons *Re*-Learned for Building Disaster Resilience (con't)

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And finally...

- We need to take a “Continuous Process Improvement” approach to ensuring disaster resilience...we must adopt paradigms of continuous improvement, and develop the community as a “learning organization.”



# A Final Thought....

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What should be the role of a public university within a larger community when disaster strikes?

- Moral/ethical/legal issues, “good neighbor”
- Just how “attractive” to do you want to make your campus?