

## Rebuilding New Orleans: A Summarized Account of Human Factors

Much has been written, and well written, about human factors and Hurricanes Katrina/Rita. Some of it was even written before the 2005 hurricane season. Rather than reinvent the wheel, the purpose of this working document is to highlight some of this work, with apologies in advance for those whose work has been omitted. The primary theme, learned again from Katrina, is that people through their behavior, both intentional and unintentional, are involved either directly or indirectly in all aspects of disasters, including occurrence and, of course, rebuilding.

### Pre-storm Context

#### *New Orleans region vulnerable to coastal storms*

Problems associated with coastal erosion and environmental degradation have been discussed for years by the U. S. Geologic Survey and other governmental and non-governmental agencies and institutions. In 2004, FEMA held the simulated Hurricane Pam exercise in the region. Laska's (2004) article "What if Hurricane Ivan Had Not Missed New Orleans?" published in the *Natural Hazards Observer* was prophetic while Colten's (2005) book, *An unnatural metropolis*, provided a historical perspective on the building of the New Orleans area.

#### *New Orleans socially vulnerable*

Among the ways in which New Orleans was socially vulnerable pre-Katrina were:

- Failing schools
- High rate of interpersonal violence
- High rate of poverty
- Lack of good jobs
- Sub-standard housing
- Over representation in criminal justice system

These problems are now better known and probably better documented than before Katrina.

### Post-storm Response

In relatively short order after the storm, social scientists wrote more than 30 articles about understanding Katrina under the auspices of the Social Sciences Research Council (<http://understandingkatrina.ssrc.org/>). The response from the mental health research community was no less significant, including the Disaster Research Education and Mentoring Center ([www.disasterresearch.org](http://www.disasterresearch.org)) and the Center for Mental Health Services (CMHS) which is a Federal agency within the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) (<http://www.mentalhealth.samhsa.gov/disasterrelief/pubs.aspx>). Two noteworthy social science disaster centers are the Natural

Hazards Center at the University of Colorado (<http://www.colorado.edu/hazards/>) and the Disaster Research Center at the University of Delaware (<http://www.udel.edu/DRC/>). The former center, in particular, has kept the social sciences research community abreast of the myriad of post-Katrina issues through its website and newsletters and has recently developed a Hurricane Katrina Research Resource Page at <http://www.colorado.edu/hazards/library/katrina.html>. Naturally, the federal government has been involved as well: the House has published *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina*; the Senate published, *Hurricane Katrina: A Nation Still Unprepared*; and the White House published, *The Federal Response to Hurricane Katrina: Lessons Learned*. In addition, the U.S. Government Accountability Office alone lists more than 15 Katrina-related reports.

Among the issues discussed:

- Katrina was more of a technological, man made, than natural disaster.
- People and government at all levels were under prepared and overwhelmed, including non-governmental agencies and organizations.
- Media accounts were often overstated and in many cases plain wrong.
- Evacuation policies led to death and suffering.
- Discrimination and Diaspora.
- Politics, trust of government, and political will.
- Vulnerable populations.

As the seemingly never ending turmoil triggered by Katrina unfurled, Grambling, from the University of Louisiana at Lafayette, accurately conceptualized Katrina as actually five disasters:

The First Disaster: The Failure of Risk Management  
 Disaster Two: Hurricane Katrina  
 Disaster Three: The Failure of the Levees  
 Disaster Four: The Response  
 Disaster Five: The Recovery

One wonders, how many disasters Grambling would conceptualize today, more than 12 months after the storm.

## Recovery, Repopulation, and Rebuilding

Volumes, too many to mention here, have been written thus far by seemingly just about every educational, governmental and non-governmental organization, agency or institution on the aftermath of Katrina. Some of the work has received more publicity than others, for example, reports by the Urban Institute (<http://www.urbaninstitute.org/afterkatrina/>), the Brookings Institute (<http://www.brookings.edu/metro/katrina.htm>) and the RAND Corporation (<http://www.rand.org/rgspi/>).

One of the most comprehensive reports, however, is Appendix 4, Social, Cultural, and Historical Consequences (Volume VII, Technical Appendices), of the Interagency Performance Evaluation Taskforce (IPET) report prepared summer 2006 for the U. S. Army Corp of Engineers (<https://ipet.wes.army.mil/>). Based on both quantitative and qualitative analyses, 20 of the 73 New Orleans neighborhoods across flooding levels were investigated, including Irish Channel, St. Claude, Central City, Uptown, Treme', the Lower Ninth Ward, Gentilly Terrace, and Lakeview (the best and most current mapping of the area can be found at: <http://www.gnocdc.org/>).

From a human sciences perspective, one of the most compelling sections of the report is the one titled "A Day in the post-Disaster Life of Residents." In this section, the following issues were considered burning and the equivalent to having a full-time job by the respondents:

- Insurance
- Making decisions under uncertain and changing conditions
- Getting your FEMA trailer (and keeping it maintained)
- Feeling vulnerable
- Living with devastation
- Vulnerability
- Visible reminders
- Physical losses
- Social losses
- Daily survival
- June 1 is coming (the beginning of hurricane season)

Some of their preliminary findings were:

1. Regardless of socioeconomic status, neighborhoods that received little or no flooding have returned to near-pre-Katrina levels of occupancy.
2. The occupancy rate, among neighborhoods in which flooding occurred, varies widely.
3. Within neighborhoods that experienced significant flooding, occupancy levels fluctuate widely across blocks.

A recent (August 18, 2006) and comprehensive report by the Center for Social Inclusion (CSI) titled *The Race to Rebuild: The Color of Opportunity and the Future of New Orleans* includes a recovery report card on indicators such as housing, health care, education, and utilities (<http://www.centerforsocialinclusion.org/PDF/racetorebuild.pdf>). A summary of the grades (bad = Ds and Fs) for 13 planning districts including the French Quarter/Central Business District, Bywater, New Orleans East, Venetian Islands, Central City/Garden District and New Aurora/English Turn (see AppendixA1 of the report for more information and a map) that will be updated monthly is:

Housing	62% bad grades, 2 Bs, 0 As
Utilities	92% A+s; the Lower Nine Ward, C+
Economy	69% bad grades; Algiers, A-
Health	100% bad grades
Public Education	92% bad grades; Lakeview, B-
Overall	85% bad grades

One of the most poignant parts of the report were the chronicles of three Katrina survivor: Mary from Slidell in St. Tammany parish, David from Gentilly, and Janine from Mid City. In contrast to the aforementioned mentioned report by the IPET, the CSI report maintains that residents from wealthier heavily flooded districts (e. g., Lakeview) will rebound because they have greater financial assets and rely less on systems disrupted by Katrina such as public schools and transportation. As with most things, time will tell; the highest overall grade awarded, one year after Katrina, was a C for the Uptown/Carrollton and Algiers planning districts. One hopes that our country doesn't accept such low marks as rebounding.

#### Thoughts about the Future

- New Orleans is a city of neighborhoods with unique challenges and strengths that by almost all accounts will be smaller than before Katrina.
- Recovery has been slow and spotty and rebuilding attenuated, and may not be particularly tied to race or socioeconomic status.
- Homeownership was prevalent in many low income New Orleans neighborhoods; unfortunately, carrying homeowner's and flood insurance was not.
- Of those who choose not to return may be the African American middle class.
- Faith in government will need to be rebuilt as well as housing, infrastructure, public services, and hurricane protection systems.
- Bottom up approaches will be more effective than top down in many instances.

- Rebuilding efforts must take into account the pre-Katrina social context of the region and include affordable housing that is connected to jobs, schools, public transportation and adequate child and health care.
- Immigration reform may impact reconstruction as anecdotal evidence suggests a large proportion of Spanish speaking manual laborers at least some of who are probably undocumented.
- Ambiguity increased distress and inhibits progress and has increased the need to for residents to be physically present in the area to recover and rebuild; a daunting task given the Diaspora.
- The negative impact of the daily barrage of stressors for survivors living in New Orleans, both acute and chronic, is easy to overlook and hard to overstate.
- The effect of oppressive weather that saps physical energy, diminishes mental capacities (even among the most educated), shortens tempers, and increases substance abuse should not be underestimated nor should the number and variety of time-limited, but significant, decisions that disaster survivors must make about their lives during prolonged and trying times.
- Preparedness activities should include volunteer and donation management and the expectation of “mass assaults of volunteers” and disaster-induced charity and altruism, sometimes misplaced.