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## CARRI Organization and Activities

By Warren Edwards, CARRI Director

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The Community and Regional Resilience Institute (CARRI) is dedicated to research and practical application of common principles across the full continuum of prevention, protection, response and recovery to enhance the resilience of communities and regions. CARRI seeks to assist the nation in developing an accepted, common framework for community and regional resilience that integrates the full suite of community resources into a coherent resilience pathway so that the community can get back on its feet following a natural or man-made disaster as quickly as possible.

From its beginning, CARRI has been designed to combine community engagement activities with research activities. Resilient communities are our objective and research is critical to ensure that CARRI's understanding is based on knowledge and evidence and not just ad hoc ideas. We believe that CARRI's interactive linkage between research and practice in the field is very rare.

CARRI works with three partner communities: Gulfport, Mississippi and the adjacent Gulf Coast region; the Charleston-Tri-county area of South Carolina; and the Memphis, Tennessee urban area. These partner communities have assisted CARRI in defining community resilience and testing it at the community level. Using input from the partner communities, lessons learned from around the nation, and the guidance of researchers who are experts in the diverse disciplines that comprise resilience, CARRI is developing a community resilience framework that outlines processes and tools that communities can use to become more resilient. Of critical importance, CARRI is working to demonstrate that resilient communities gain economically from resilience investments thus providing the incentive to local governments to embrace the resilience process.

The Community and Regional Resilience Institute is ready now to assist communities, leaders and policymakers at all levels in working to assure a more resilient nation.

The Community and Regional Resilience Institute has five divisions with these missions and capabilities:

### **Community Resilience Practice**

The Community Resilience Practice works directly with communities who desire to increase their resilience across all community domains using the CARRI process.

### **Current Activities and Capabilities**

- Solid research partnerships with three communities with active social networks encompassing the full fabric of each community. Each community is in the process of implementing identified resilience enhancements that include robust public/private sector partnerships.
- Expanded research into the resilience of rural communities in cooperation with the US Endowment for Forestry and Communities.
- Association with numerous private, non-profit organizations with proven resilience programs for individuals, private businesses and faith-based groups.
- Fully developed case studies with significant resilience focus for two large urban regions.
- Numerous lessons learned from Hurricane Katrina and its effects on the Gulf Coast of Mississippi.
- Conference results and a white paper series from the CARRI Community Forum that brought together the three partner communities including their mayors to discuss executive leadership; the private sector; enhancing resilience through coordination; building resilience capacity and leading the way with local government.

### **Community Resilience Research**

CARRI acts as a facilitator to promote linkages among the larger family of resilience centers in the nation in matters relating to communities. CARRI has fully integrated its research efforts into the community practice and has assembled an outstanding group of university, laboratory and independent scholars from across the US.

#### **Research Team**

Dr. Thomas J. Wilbanks - CARRI Research Director

Dr. Craig E. Colton - Louisiana State University

Dr. Susanne Moser - Director and Principle Researcher, Susanne Moser Research and Consulting

Dr. Robert Kates - Professor Emeritus, Brown University

Dr. Susan Cutter - Director, Hazards and Vulnerability Research Institute, University of South Carolina

Dr. Kathleen Tierney - Director, Natural Hazards Research and Applications Information Center, University of Colorado

Dr. L. Frances Norris – Professor of Psychiatry and Community and Family Medicine, Dartmouth Medical School

Dr. Adam Rose – Research Professor and Coordinator for Economics for CREATE, University of Southern California

#### **Local Research Teams**

Dr. Andy Felts – Professor, Public Affairs, College of Charleston

Dr. Tom Lansford – Associate Dean and Professor of Public Affairs, University of Southern Mississippi, Gulf Coast Campus

Susan Kammeraad-Campbell – Independent Researcher

Dr. Jack Covarrubias – Assistant Professor, University of Southern Mississippi, Gulf Coast Campus

### **CARRI Directed Research Papers**

CARRI has produced the following research papers. There are additional papers in progress and several will be published in the next few months including a synthesis of what we have learned from the research effort by Tom Wilbanks and Bob Kates.

Community and Regional Resilience: Perspectives from Hazards, Disasters and Emergency Management, Susan L. Cutter\*, Lindsey Barnes, Melissa Berry, Christopher Burton, Elijah Evans, Eric Tate and Jennifer Webb, Hazards and Vulnerability Research Institute, Department of Geography, University of South Carolina, September 2008 (\*Carolina Distinguished Professor and Director of the Hazards and Vulnerability Institute)

Resilience in the Face of Global Environmental Change, Susanne C. Moser, Director and Principle Scientist, Susanne Moser Research and Consulting, Santa Cruz, California and Research Associate, Institute of Marine Sciences, University of California – Santa Cruz, September, 2008

Community Resilience: Lessons from New Orleans and Hurricane Katrina, C. E. Colton, Carl O. Sauer Professor, Department of Geography and Anthropology, Louisiana State University; Baton Rouge, R. W. Kates, Independent Scholar, Trenton, Maine; and S. B. Laska, Professor of Sociology and Director for Hazards, Assessment, and Response and Technology, University of New Orleans; September 2008

Community Resilience: A Social Justice Perspective, Betty Hearn Morrow, Professor Emeritus, Sociology, Florida International University, Miami, September 2008

Comparing Ecological and Human Community Resilience, Lance Gunderson, Department of Environmental Studies, Emory University, Atlanta, January 2009

Disaster Response: Research Findings and their Implications for Resilience Measures, Kathleen Tierney, Department of Sociology and Institute of Behavioral Science, Natural Hazards Center, University of Colorado, Boulder, March 2009

The papers are available for download <http://www.resilientus.org/publications/reports.html>

There is a resilience blog that might be of interest as well at: <http://resilientus.blogspot.com/>

### **Research Related Events**

- CARRI hosted a Resilience Research Workshop in conjunction with the Natural Hazards Workshop on July 13, 2009. This event coordinated by CARRI, and organized by several organizations, institutes and DHS University Centers of Excellence brought together researchers from across the US to discuss the current state of resilience research, identify research gaps and suggest ways to address these gaps.
- CARRI provided resources and research staff for a “Ghosts of Katrina Workshop” in June at the University of Southern Mississippi, Gulf Coast Campus. This academic forum provided an opportunity for the Mississippi Gulf Coast community to converse on lessons learned, progress made and remaining requirements.

## **CARRI Directed Research Programs**

CARRI collaborates with and provides resource support to Savannah River National Laboratory (SRNL), North Carolina State University, United States Army Corp of Engineers Construction Engineering Research Laboratory (USACE CERL) and Clemson University on the Resilient Home Program (<http://home.resilientus.org/>). This innovative program conducts research into rebuilding homes with available resources in a more durable manner, protecting homes from the short and long term effects of a natural disaster, stabilizing homes and rendering them a safe interim shelter, and determining the extent of damage that occurred to the home during a natural disaster in a quick and cost effective manner. Through the research, they also identified gaps and priorities for research on making homes natural disaster resilient and have collaborated on research projects in several areas including resilient home rebuilding and mitigating damage from mold.

## **Community Resilience Policy**

The knowledge gained from the community resilience practice and the research efforts provide practical information for policy makers that is grounded in community reality and bolstered by academic study. Through the publication of papers and by hosting and participating in workshops and seminars, CARRI assists leaders at all levels as they work to make our nation's communities more resilient.

Currently CARRI believes there is a need for a *National Commission on Community and Regional Resilience*. The commission would be composed of elected governors, elected mayors, appropriate representatives of national organizations and associations, representatives of private business, as well as individuals from voluntary, faith-based, and non-governmental citizen organizations to supervise the creation of **common framework for community and regional resilience** that meets the needs of our citizens, businesses and governments, voluntary and faith-based organizations at the community level, provides an understanding of and agreed upon terminology for community and regional resilience; examines how communities and regions can collaborate to achieve and sustain cost-effective resilience; and recommends to governments at all levels policies that are required to foster resilient communities.

Over the past year, CARRI has been invited to present at numerous conferences, workshops and symposia including but not limited to:

- The National Association for the Advancement of Science, Annual Meeting
- The DHS University Centers of Excellence Conference; The DHS S&T Stakeholders Conference; DHS Regional S&T Conferences
- US Chamber of Commerce Workshop on Public/Private Partnerships
- ASIS Corporate Security Officer Workshops
- FEMA Region IV Public/Private Readiness Workshop
- US NORAD/NORTHCOM (DoD) Interagency Working Group on Public/Private Partnerships
- Project on National Security Reform, National Common DHS Framework Working Group
- Lessons Learned from 9/11, 7/7 and 26/11 for Safe Cities, London, UK

## **Community Resilience Certification**

One of the basic ideas of CARRI from its beginning is that communities can benefit economically from resilience investments. We see community resilience certification as the means to that economic end. The community resilience certification section of the Institute is charged with working with the widest possible set of stake holders to fully develop a community resilience certification system that can address the complexity of community resilience in a real-world,



practical manner that is widely accepted. This is clearly a challenging task but one that we see as critical to the success of the program and to creating many more resilient communities and a more resilient nation.

### **Community Resilience Resources**

CARRI provides resources for those researchers who wish to work in the area of community resilience and to those communities that wish to become more resilient. CARRI has created a searchable resilience publications database and provides this service (updated quarterly) to researchers via its CARRI web site, [www.ResilientUS.org](http://www.ResilientUS.org).

The Resilient Home Program provides a searchable database of state-of-the-art technology for both building and maintaining a natural disaster resilient home (<http://home.resilientus.org/resilient-home-program/search/>)

In the coming months, the Institute will expand these resources by adding additional research papers, lessons learned from our partner communities and community resilience case studies.