



N

V

P

A

NEW VISIONS FOR PUBLIC AFFAIRS

VOLUME 6, SPRING 2014

IN THIS ISSUE

SPECIAL INTERVIEW 5
ADVOCATING FOR JUSTICE AND
EQUALITY: AN INTERVIEW WITH
ASHLEY BIDEN
M. KRISTEN HEFNER

SPECIAL PROFILE 13
A HALF-CENTURY OF SERVICE AND
SCHOLARSHIP: THE DISASTER
RESEARCH CENTER AT UD
ADRIA BUCHANAN

NECoPA FEATURE 19
CIVIC HACKING: A MOTIVATION
FRAMEWORK
TANYA STEPASIUK

31
TECHNOPOLITICAL REGIMES AND
CLIMATE CHANGE: A TRANSCRIPT OF
AN INTERVIEW WITH THE CARBON
CYCLE
PHILIP BARNES

41
NEOLIBERAL URBANISM
SOCIO-SPATIAL FRAGMENTATION &
EXCLUSION
RACHEL BEATTY

51
FOSTER YOUTH MENTORING
PROGRAM: ASSISTING WITH AND
CONNECTING THE “AGING OUT”
CHALLENGES IN DELAWARE
LEANN MOORE

EDITORIAL BOARD

EXECUTIVE DIRECTOR
JENNIFER FUQUA, PH.D. '14

EDITOR-IN-CHIEF
DAVID P. KARAS, M.A. '14

ASSOCIATE EDITORS

PHILIP BARNES, PH.D. '14
ADRIA BUCHANAN, M.A. '15
ANTHONY CARIO, M.S. '14
CAITLIN DEL COLLO, M.A. '14
KATRINA COWART, M.A. '15
M. KRISTEN HEFNER, PH.D. '15
ANGELA KLINE, PH.D. '17
ABAGAIL SCOUT, M.P.A. '15
MATTHEW WATKINS, PH.D. '16

FACULTY ADVISORY BOARD

MARIA P. ARISTIGUETA, PH.D.
JONATHAN B. JUSTICE, PH.D.
JOHN G. MCNUTT, PH.D.
LELAND WARE, J.D.

SCHOOL OF PUBLIC POLICY AND ADMINISTRATION
UNIVERSITY OF DELAWARE

www.sppa.udel.edu/nvpa/home

A Half-Century of Service and Scholarship: The Disaster Research Center at UD

Adria Buchanan
University of Delaware

The political and cultural landscape took on dramatic color during the 1960s, and academia responded. Nationally, universities and academics developed, enhanced and sharpened their tools for investigating new phenomena. Two sociologists in particular, E.L. Quarantelli and Russell Dynes at Ohio State University, found their way into natural disasters, eventually leading to the establishment of the Disaster Research Center (DRC). The Center's subsequent research would break existing molds for understanding human behavior and provide the basis for worldwide disaster inquiry. The Center began with a number of funded projects from the Office of Civil Defense and Air Force Office of Scientific Research to investigate human behavior during a disaster as a possible threat to national security and preparation. Despite its niche in human behavior, the DRC's permanence at the University of Ohio was uncertain. Fortunately for the University of Delaware, the stars aligned to bring the DRC stability midway through its 50-year history. In the context of new inventions, political and social revolutions, pop culture sensations, and unfortunate tragedy, the DRC has evolved. Other centers have since emerged, yet this article depicts those characteristics that have contributed to the DRC's longevity by chronicling its history in a global and domestic context, discussing what makes it unique in the ongoing body of disaster science, and presenting current projects with perspectives from staff and students to celebrate its 50 year anniversary.

The Beginning

1963 was a remarkable year. Kenya gained independence from Britain, "Beatlemania" emerged with the release of "I want to hold your hand," and gasoline was about 30 cents a gallon. During 1963 the Berlin wall also opens for one-day passes, however by 1964 you wouldn't have seen civil rights activist Medgar Evers, President John F. Kennedy or Lee Harvey Oswald in line for a ticket. Martin Luther King, Jr. goes off-script and delivers perhaps the most famous speech in recent history, and *Gideon v. Wainwright* asserts a fair trial "cannot be realized if a poor man charged with a crime" must face his accuser without a lawyer to assist him. Yugoslavia and Libya also suffer massive earthquakes that sever the earth beneath, societies of, and relationships between those who experienced them.

In part to study the social complexities of such devastating natural phenomena, a new field of research also emerged in 1963. This research, carried out through the first-ever Disaster Research Center, would break existing molds for understanding human behavior and provide

Adria Buchanan⁵ is a Masters student in Urban Affairs and Public Policy. Her research interests lie in understanding inclusive local governance and youth participation in the urban planning process. Email: adria@udel.edu

⁵ Adria Buchanan in an Associate Editor for *New Visions for Public Affairs*. She compiled this profile article through a series of interviews and communications with Disaster Research Center personnel throughout the spring 2014 semester.

the basis for worldwide disaster inquiry.

The 60s

The political and cultural landscape took on dramatic color during the 1960s, and academia responded. Nationally, universities and academics developed, enhanced and sharpened their tools for investigating new phenomena. Two Sociologists in particular, E.L. Quarantelli and Russell Dynes at Ohio State University, found their way into studying natural disasters. Along with Charles Fritz and Eugene Haas, the pair collectively worked on a proposal to investigate crisis-time behavior during both natural and human induced disasters. As E.L. Quarantelli states of the ongoing Cold War:

“[It] led to several major confrontations between the two countries, one being the Soviet blockade of Berlin, and the other being the Cuban crisis where Soviet missiles were going to be installed on the island not too far from Florida. From oral histories obtained later from key officials involved, it is obvious that there was a strong belief in both political and military top level circles, that both crises sharply accelerated a concern over how American society would react to an atomic attack on the United States. There was a pervasive belief among elite circles [t]hat the reaction would not be a good one, that there would be widespread “panic” and a breakdown of the social order.”

This paralleled the team’s interest, and their proposal eventually made its way from the National Science Foundation, which turned it down, to the Office of Civil Defense (OCD) and the Air Force Office of Scientific Research (AFOSR). To address concerns that civilian behavior might disrupt wartime efforts, the “OCD and AFSOR officials saw the proposal as something that would meet their needs to show they were doing something to meet the new threat to American society.”

The goals of the proposal sought namely to:

1. Collate and synthesize findings obtained in prior studies of organizational behavior under stress.
2. Examine, through fieldwork and other means, pre-crisis organizational structures and procedures for meeting stress.
3. Establish a field research team to engage in immediate and follow-up studies of the operation of organizations in community disaster settings, both domestic and foreign.
4. Develop, in coordination with a concurrent project, a program for field experiments and laboratory simulation studies of organizational behavior under stress.
5. Produce a series of publications on the basis of these four objectives with special emphasis on recommendations concerning the effective emergency operations of organizations and other matters pertinent to civil defense planners.

The accepted proposal provided a few guaranteed years of funded work for the team and prompted them to formally centralize their activities. In 1963 the name Disaster Research Center was chosen because “Center” was, according to Quarantelli, “an informal designation, and did not constitute the setting up of a new formal administrative unit on campus as would be required if something called an Institute was created...[a]lso, no funding of any kind was ever provided to DRC by OSU. DRC solely existed for nearly two decades on getting its own grants and contracts.” As E.L. Quarantelli continues, as such, “we were a phantom organization and answerable only to ourselves.”

However, as the years went on, the future of the DRC became uncertain.

The 70/80s

The 70s were good years for Roe, Bill Gates, the guy who created Star Wars, LeVar Burton and Mother Teresa. They were less prosperous for Wade, Olympic athletes in Munich, and anyone near Three Mile Island.

In the 80s President Regan and the Pope both escaped assassination attempts. Michael Jackson's "Thriller" album was released, and the Vietnam War Memorial opened in Washington, D.C. Unfortunately, in this decade we also experienced famine in Ethiopia, The Chernobyl disaster, and the identification of Auto Immune Deficiency Syndrome (AIDS).

In a different vein, the 70s and 80s also brought professional change for both Dynes and Quarantelli. The DRC continued to grow, though the support from Ohio State remained flat; Quarantelli and Dynes were guaranteed neither the administrative resources nor the space to expand. In 1977, Dynes moved on to head the American Sociological Association (ASA) and Quarantelli continued to oversee the DRC, however, with his retirement on the horizon and no replacement in sight to head the center, the risk of the DRC dismantling became even greater.

While at the ASA, Dynes was recruited by the University of Delaware to head its Sociology department. At the same time, Quarantelli was preparing to retire from Ohio State and looking for a place to house the Disaster Research Center. In 1985, through a series of serendipitous moves, the Disaster Research Center found a new home. As chair of the Sociology Department, Dynes worked with Quarantelli to transfer the Disaster Research Center from Ohio State University 500 miles southeast to the University of Delaware campus, where it would continue to be housed in the Sociology department. The E.L. Quarantelli Resource Collection, as it is now known, contains more than 6,100 items, including unique, one of a kind, and rare material. The collection continues to grow, meeting the needs of the disaster research community, including entities like FEMA, and archiving nearly 50 years of articles, field studies, interviews and other policy-influencing research.

The 1990s, the 2000s, and Beyond

The 90s saw the collapse of the Soviet Union, the election of Nelson Mandela and images of Mars via the Pathfinder. We mourned the untimely deaths of cultural icons Princess Diana and Bob Ross, the victims of Columbine, and the millions suffering under the rage of Rwandan genocide. Mother Theresa wins the Nobel Peace Prize and the United States prepared to enter a new millennium with a population of just over 6 billion.

Human Genome. America Online. Facebook. Hillary. Bush. Obama. The 2000s were a decade of unbridled innovation, controversy and political strife. The attacks of Sept. 11, 2001, Hurricane Katrina, and the election of President Barack Obama forced us into new conversations that have forever changed the American cultural and political narrative.

The conversation around disaster research also took on a new flavor. The DRC became more diverse, hiring faculty with backgrounds in marine biology, engineering, anthropology, English and other disciplines. This interdisciplinary shift reflected the complexity of research generally, and the call of the National Science Foundation specifically, to undertake a multi-disciplined approach to disaster science. During this time, current Professor Joanne Nigg joined the faculty whose background includes evaluation of hazards and risk mitigation. Her more than 20 projects, totaling 3.2 million have covered areas including hazard and threat awareness, communal attitudes towards nuclear waste repositories, and disaster recovery.

Celebrating Today

The computer mouse. The zipcode. The nanosecond. They all turn 50 this year. What these discoveries have done for computers, geo-location, and time, respectively has made life easier or more complicated, depending upon your perspective. So too, has the Disaster Research Center. Samantha Penta, a graduate student studying sociology, asserts, "The faculty and students at the Disaster Research Center are an incredible resource, and have fostered a learning and collaborative environment that has both supported me and pushed me to grow as a disaster researcher." Professor Tricia Wachtendorf, assistant director of the Center, goes on to say that, "DRC faculty, students, and alumni - both from UD and when DRC was at Ohio State - have done so much to shape the social science of disasters over the past half century. From the seminal work of

the founding directors, to the theories developed on disaster behavior, to the applied recommendations made for practice, the findings have had a reach around the world."

After 50 years, the DRC continues as 1) a source of information and original archives for researchers around the world, 2) a benchmark of research excellence in disaster science and 3) the basis of the University of Delaware's Masters and Doctoral programs in Disaster Science.

The following section details what continues to make the DRC unique, including some of the current studies, with faculty and student perspectives, and provides an exciting look at the upcoming 50th Anniversary conference.

Understanding the Relationships between Household Decisions and Infrastructure Investment in Disaster Recovery: Cases from Superstorm Sandy

Team: Professor Sue McNeil (PI), Professor Joe Trainor (Co-PI), Alex Greer (Graduate student researcher).

Professor Sue McNeil explains:

"The project addresses issues related to resettlement during disaster recovery. One piece of this focuses on the role of transportation infrastructure. This exploratory interdisciplinary project aims to better understand the role transportation infrastructure plays in the disaster recovery process. By documenting transportation infrastructure damage and repair, conducting interviews to understand community and household attitudes, and researching incentives and resources related to household decisions regarding relocation and rebuilding in two communities impacted by Hurricane Sandy, we will better understand how to provide transportation infrastructure recovery activity that meets the needs of communities impacted by disaster." Alex Greer will conduct follow-up interviews with a select number of communities, and explains, "[t]his exploratory research is an opportunity to contribute to our understanding of household resettlement in the context of community recovery... [and] will also offer policymakers unique insights on what households consider most important in this decision-making process."

The project is funded through the University Transportation Centers program from U.S. Department of Transportation. University of Delaware is a member of a consortium led by the Center for Advanced Infrastructure and Transportation (CAIT) at Rutgers.

Collaborative Adaptive Sensing of the Atmosphere (CASA)-Technology, Weather Forecasts, and Warnings: Integrating the End User Community.

Team: Professor Joe Trainor and Professor Havidan Rodriguez. Graduate research assistants Danielle Nagele, Brittany Scott.

The Collaborative Adaptive Sensing of the Atmosphere (CASA) project is one of a small number of multi-disciplinary, multi-institution engineering research centers in the United States funded by the National Science Foundation (NSF). Danielle Nagele describes,

"As an incoming doctoral student with little experience in social science research, I found the CASA project to be extremely helpful. Throughout my time as a graduate assistant on this project I gained extensive experience in SPSS, survey design, interviewing, and project management. Most importantly, I was able to conduct research on a topic I am particularly passionate about: societal impacts of weather. Publications and presentations resulting from the CASA project have and will have an enormously positive impact on our understanding of behavioral response to warnings and hazards."

Defending her dissertation later this year, Danielle currently works at the National Oceanic and Atmospheric Administration where she integrates and coordinates social science within NOAA. She reveals, “NOAA mostly deals with physical sciences, but it's beginning to incorporate social sciences like risk communication, sociology, and economics. Since my background is in meteorology, I spend a lot of time working with societal aspects of weather in particular.”

Danielle and Professor Joseph Trainor continue to work on analysis from the CASA project, and look forward to publishing additional findings later this year.

THE CoPEWell Project

Professor James Kendra, Director for the Disaster Research Center, serves as the Principle Investigator (PI) working alongside New York's Department of Health and Human Services and the Center for Disease Control (CDC). Others on this team include Professors Benigno Aguirre, Joanne Nigg, and Joe Trainor with student involvement from Hans Louis-Charles, Sarah Gregory and Nuno Martins, Lauren Clay and Victor Wang.

The project seeks to understand existing and large data in combination with surveys to predict which communities at the county level will function better after a disaster, to determine how different interventions will improve functioning, and as Sarah explains, “reduce losses.” Nuno Martins, an international student, expressed:

“This opportunity is particularly meaningful for me because it is my first case study in the US, introducing me to an entirely new context in which to work. Furthermore, it gives me the opportunity to work with researchers from different fields and with different backgrounds.”

Hazard SEES - Science, Engineering, and Education for Sustainability

According to the National Science Foundation, “The overarching goal of Hazards SEES is to catalyze well-integrated interdisciplinary research efforts in hazards-related science and engineering in order to improve the understanding of natural hazards and technological hazards linked to natural phenomena, mitigate their effects, and to better prepare for, respond to, and recover from disasters.”

As a subset of the larger project, the University of Delaware DRC team is responsible for collecting data and understanding public response in the integrated warning system framework. The team on this project, known as Next Generation Resilient Warning Systems for Tornadoes and Flash Floods, is a collaborative effort between the University of Massachusetts, University of Oklahoma, Colorado State University, North Central Texas Council of Governments, and LTHE Grenoble, France. The University of Delaware team consists of Dr. Joe Trainor as Co-PI, DISA MS Candidate Daryl Yoder-Bontrager, DISA MS Candidate Anthony Cario, and two undergraduate students (Cortney Flynn and Lindsay Arndt). This three year interdisciplinary initiative seeks to develop a system that provides real time user-specific warnings to individuals over their smartphones utilizing high resolution nowcast technology.

Anthony Cario, a graduate student researcher on the project describes looking at how time and space affect public response and says,

“Some tasks include an extensive literature review, collecting data through focus groups in the Dallas Fort Worth Metroplex, developing survey instruments to be delivered over smartphones immediately following a hazard event, opt-in cell phone tracking during an event, and individual follow-up interviews.”

Regarding his personal experience on the project, he notes,

“Working on grant funded projects is an eye opening and rewarding experience. It gives students, like myself, a real world look into how to perform academic research along the lifespan of a project...[i]t is incredibly rewarding to see my own growth working with undergraduate researchers and hitting different benchmarks. In addition, working on projects at the DRC allows students opportunities to publish or present their own work and findings.”

Anthony, on behalf of the team, will present the preliminary work on the project at this year’s 50th Anniversary Celebration

“Taking Stock and Taking Action: Disaster Research and the Challenges Ahead”

The DRC’s 50th Anniversary Conference will take place Wednesday April 30th – Saturday May 3rd, 2014 in the University of Delaware’s Clayton Hall, and will feature a range of highly experienced, ambitious, and engaging individuals with backgrounds in history, public administration, behavioral health, anthropology, law and many other disciplines. With nearly 30 featured speakers, breakout sessions, an interactive forum and a poster presentation, this year’s celebration is intended to display the rich history and exceptional research of disaster science. According to the conference website,

“Rapid urbanization, growing populations, global economic adjustments, environmental degradation, decaying infrastructure, climate change, and technological failures of every description create a universal risk milieu whose origins and outcomes are hard to identify and for which ameliorative steps are elusive. This crisis demands new research directives that build new theory, explore new methods, and that foster synthesis and integration of ideas that can be useful in creating more adaptive risk management institutions.”

Given the DRC’s commitment to continually push the boundaries of disaster exploration, its constant willingness to adopt new technologies, and ongoing practice of incorporating a wide array of research professionals, it is no wonder, as Professor Joe Trainor, whose upcoming book combines disaster research with practice knowledge, explains, “the University of Delaware’s Disaster Research Center continues to be a formidable player and one of the premier institutions that does this research.” Presently, it is hard to imagine the DRC’s future was once uncertain. As Bob Dylan’s 1964 song of the same title explains, “Times They Are A-Changin,” and to its credit, 50 years later, the University of Delaware’s Disaster Research Center has not missed a beat.

Acknowledgements

I wish to extend a special thanks to Disaster Research Center Director Professor James Kendra, Professor Joanne Nigg, Professor Joe Trainor, Resource Collection Coordinator Pat Young and master’s candidate Anthony Cario for their thoughtful insights, and generous time in providing the information and contacts necessary for this article. I also would like to acknowledge the faculty and students who contributed comments to this piece, as well as the NVPA Editorial Board.

References

- National Science Foundation (2014). Interdisciplinary Research and Disasters (Hazards SEES). General format. Retrieved from: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504804.
- O’Leary, M. R. (Ed.). (2004). The first 72 hours: A community approach to disaster preparedness. iUniverse. p. 321-339.
- Stallings, R. A. (2003). Methods of disaster research. Xlibris Corporation. p. 94-116.
- University of Delaware (2014). Disaster Research Center. General format. Retrieved from: <http://www.udel.edu/DRC/>.