

**The FIU Disaster Research Team:  
Post Hurricane Andrew Research Efforts\***

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### **THE DISASTER RESEARCH TEAM**

Within a week after the hurricane a team of faculty and graduate students in the Department of Sociology and Anthropology was assembled with the support of a grant from Florida International University's Division of Sponsored Research. The team consists of five sociologists and anthropologists: Hugh Gladwin (Associate Professor of Anthropology and Director of FIU's Institute for Public Opinion Research); Betty Hearn Morrow (Associate Professor of Sociology); Chris Girard (Associate Professor of Sociology); Kevin Yelvington (Assistant Professor of Anthropology, now with the University of South Florida); Elaine Enarson (Ph.D., Sociology, Adjunct Faculty); and Walter Gillis Peacock (Associate Professor of Sociology; Director, Comparative Sociology Graduate Program; and Chair, Faculty Coordinating Committee, FIU's International Hurricane Center), is the team's coordinator. An equal number of graduate students have also participated as part of the team. While the team has diverse interests and expertise, it is united by a common interest in examining household and community preparation and response to this disaster. In a very real sense team members are both researchers and victims in that the homes of many were damaged and one member was without a permanent residence for months. Nevertheless, the team was in the field within weeks, even before Fall semester's classes began in 1992 at Florida International University.

### **RESEARCH PROJECTS:**

The following will briefly discuss research projects that the Disaster Research Team has been engaged in since shortly after Hurricane Andrew struck South Dade County.

#### **1. The Tent City Study:**

Walter Gillis Peacock, (Principal Investigator)

Our first research activity consisted of interviewing in the tent cities that were established in and around Homestead and Florida City. The team conducted open-ended in-depth interviews with personnel from the US Military, Red Cross, and FEMA and, most importantly, with households, families and individuals left homeless by the storm. In all, we interview over 50 individuals and households. Team members even stayed over night in a tent city to better understand the daily routines and problems encountered by residents. These interviews gave us insights into the nature of the problems and experiences of severely impacted victims living in temporary tent cities. In addition, these data informed us of the problems and issues to be further explored in subsequent research activities.

## **2. The FIU Hurricane Andrew Survey:**

Walter Gillis Peacock (Principal Investigator) and Hugh Gladwin (co-principal Investigator).

While the tent city interviews provided detailed information about a select population of victims, we also wanted to obtain a more complete picture of the impact of Andrew on Dade County's households as a whole. Further, we wanted to obtain information on preparation and evacuation activities households undertook while they were still relatively fresh in their memories. Walter Gillis Peacock and Hugh Gladwin obtained funding from the National Science Foundation to undertake such research.

These funds made possible the first systematic survey the team conducted, the FIU Hurricane Andrew Survey, which was a telephone survey of a random sample of over 1,000 households in Dade. A telephone survey was a viable option because: 1) the target population was all households in Dade county, not simply those in South Dade; 2) in South Dade, numbers of households still had service and others had service restored by December 1992, when the survey was conducted; and 3) the phone company instituted call forwarding or recorded message services that allowed us to contact many households that were dislocated or had moved out of South Dade. Furthermore, utilizing funding from the Knight Foundation's sponsorship of FIU's Lesson Learned Conference, an additional over-sample of 300 South Dade households was undertaken to better insure coverage of this important area. Thus, the final sample size was in excess of 1,300 households randomly selected throughout Dade, with an over-sample of South Dade. (An additional 300 interviews were also conducted in Broward County.) Data was collected on household preparation activities, evacuation, household damage, insurance settlements, and other forms of aid.

## **3. South Miami Heights Survey:**

Walter Gillis Peacock and Betty Hearn Morrow, co-directors

To better flesh out issues of household reconstruction and recovery, the team decided to focus on households residing in an unincorporated neighborhood in South Dade, South Miami Heights. The area selected could best be described as working class (middle to lower middle class) and culturally diverse (49% Hispanic, 28% Black, and 23% Anglo). It was heavily impacted by the hurricane, yet virtually ignored by the Military, Red Cross, and other agencies. The team conducted in-depth structured interview with a random sample of approximately 200 households in this neighborhood. Questions related to sources and amounts of assistance received, insurance, contractors, evaluations of community recovery, problems and needs, and the impact of Andrew

and the recovery process where asked.

#### **4. The Family Impact Study**

Betty Hearn Morrow and Elaine Enarson, co-directors.

Andrew destroyed homes, not just houses. Disruption in South Dade took many different forms including household and job loss or dislocation, extended commuting patterns, living in crowded and often deteriorated structures, the maze of paperwork and tasks associated with loss recovery and household reconstruction, as well as the lack of community infrastructure including parks and recreation facilities, and neighborhood stores and services. Daily living conditions made it extremely difficult for many families to regain domestic stability, and, within the privacy of the home and its intimate relationships, stress and frustration was openly expressed.

In order to explore these issues, Betty Hearn Morrow and Elaine Enarson, conducted what they entitled the *Family Impact Study*. Its purpose was to provide insights into the dynamics of family responses to disaster, with special emphasis on families which appeared to be having the most difficulties in the recovery process. They were particularly interested in the experiences of women and their children. Women remain the primary homemakers in most families, and they served as their primary informants. Their assumption was that wives, mothers, daughters, and grandmothers were most often in the best position to reflect on the effects of a disaster on household members. Yet, community leaders seldom solicit these *expert* opinions when making policy and resource decisions which directly impact households.

As part of this study, key informant interviews with care providers, counselors, school and church personnel, and women's groups were conducted. In addition, focus group interviews with groups of women who were identified as having problems such as single mothers in a public housing projects, low-income Haitian women, family day care providers, and battered women was conducted. They hope that this information will contribute to the continuing community assistance efforts in South Dade, as well as enlighten planning efforts for future disasters.

#### **5. The South Dade Population Impact Study**

Hugh Gladwin, Walter Gillis Peacock, and Chris Girard, co-directors

Population change, depending upon ones perspective, can be seen as either a cause or an effect of long-term community recovery. People will return if the economy comes back, but the economy won't bounce back if people don't return. In addition, much of the state funding and

revenue sharing is based on the population in the impacted area. Thus, population change can dramatically impact long-term recovery.

Each year the Bureau of Economic and Business Research at the University of Florida derives estimates of population change for the State of Florida. They use tax assessor and building permit totals to estimate the stock of housing, which is then combined with information on average household size to project the census estimates to the current year. This procedure would have almost certainly led to a major undercount in South Dade since the stock of housing has been drastically reduced. In addition, it was quite possible that household size had been altered as families double and sometimes triple up. Furthermore, there were likely to be higher rental densities and large numbers of people living in non-standard arrangements.

In light of these potential changes, the Bureau of Economic and Business Research asked members of the team to join with them in working to get a more accurate estimate of Dade's population. We focused on South Dade and conducted 2994 field inspections of dwelling units (and interviews if occupied) to determine occupancy rates, average household size, the numbers of people living in non-standard arrangements, and a series of questions related to post Andrew movement and insurance settlements was also included. These data were collected during the late summer and supplemented by an additional sample in the winter of 1993. They provided a more accurate picture of the population change that occurred in South Dade and was incorporated into BEBR's estimates for 1993. In addition our analysis of these data indicated major changes in the ethnic and racial composition of South Dade, showed strong evidence of racial differentials in insurance settlements, and indicated clear evidence of insurance redlining of Black areas in South Dade.

## **6. Red Cross Project**

Betty Hearn Morrow (Director), Walter Gillis Peacock (co-Director),  
and Elaine Enarson (Faculty Associate),

In a study conducted for the American Red Cross, its unprecedented Hurricane Andrew Recovery Project was evaluated as part of an on-going effort to determine what might be the best recovery function for the ARC after a high-impact disaster. Through in-depth interviews with about 50 key informants from the Red Cross and other agencies involved in the south Florida recovery effort, researchers Betty Hearn Morrow, Elaine Enarson, and Walter Peacock identified several areas in which the ARC could be particularly helpful in long-term recovery. The ARC's long-term client intervention in South Dade met with limited success and was the subject of considerable controversy within ARC and the community. It was recommended that in the future when there are many agencies working in a stricken area, the ARC consider providing its long-term assistance

indirectly through other agencies and focus its attention on providing leadership and training in client case management to these providers. The organization's unique relationship with FEMA places it in a central position to serve as a clearinghouse for client information.

### **7. Homestead Housing Needs and Demographic Data Study**

Tom Wilson (of the FIU/FAU Joint center), Hugh Gladwin,  
and Walter Gillis Peacock (co-directors).

On August 24, 1992, Hurricane Andrew altered the face of Homestead in dramatic fashion. Only the future will tell whether or not the changes Andrew wrought will be permanent. However, it is clearly evident that in the short term the changes have been major. Population estimates produced by Florida's Bureau of Business and Economic Research (in part using data mentioned above) indicated that by April 1, 1993, Homestead's population had dropped by over 30% from its 1990 level. This change clearly indicated that in order to understand what is happening in Homestead of today and to make housing policy, census data from 1990 is of limited utility. This is particularly the case when considering matters related to housing and housing quality because it was the build environment that was so dramatically altered in August of 1992. Faced with such a situation, Homestead contacted Tom Wilson of the FIU/FAU Joint Center and members of the Disaster Research Team (Walter Gillis Peacock and Hugh Gladwin) to undertake a survey of housing and demographic changes.

The target population for this survey was all households located within the political boundaries of Homestead, Florida in December of 1994. The survey was conducted using standard telephone survey techniques using standard random digit dialing procedures. The final sample size was approximately 950. The survey collected data on housing, housing markets, housing problems. These data are being utilized by Homestead to develop housing programs.

#### **Use of the Data:**

Data and findings generated from the above activities have been made available through paper presentations, technical reports, journal publications, conference proceedings, and in a forthcoming book entitled, *Ethnicity, Gender, and the Socio-Political Ecology of Disasters: Hurricane Andrew and the Reshaping of Miami*. Furthermore, findings from the telephone survey became the center piece for a conference entitled, *Lessons Learned From Hurricane Andrew*, held at Florida International University in Miami, and have been published in proceedings from this conference. Funding for the conference was provided by the Knight Foundation.

Findings have also been presented by Research Team members to U.S. Representative Carrie Meek, Under-Secretary of HUD Otis Pitts, Joe Gavin, U.S. Corp of Engineers; Mike McDonald, State of Florida Department of Emergency Management, Kate Hale, Dade County Emergency Management; Lisa Coats, Monroe County Emergency Management; Ricky Keck, Central Florida Regional Planning Council; Tim Murphy, South Florida Regional Planning Council; Mel Klein, Florida Power and Light; Larry Hymowitz, Florida Department of Transportation.

Walter Gillis Peacock is also participating on the Academic Task Force on Hurricane Catastrophe Insurance. Findings from these research projects have been presented and policy recommendations suggested by this research have been put forward.

The findings have been utilized in newspaper articles appearing in the Washington Post, Miami Herald, and the Atlanta Journal-Constitution.

#### **Paper Presentations, Publications, Technical Reports:**

The following is a **partial** list of papers, paper presentations, presentations, publications, and technical reports that have generated using the above data. Some of following are available from the Disaster Research Team, others must be obtained from the sponsor of the research projects.

Alba, Manuel and Walter Gillis Peacock 1993. "Length of Residence and Disaster Preparedness: The Case of Hurricane Andrew." Paper presented at the annual meeting of the Society for Applied Anthropology, San Antonio, TX.

Enarson, Elaine and Betty Hearn Morrow. 1993. Hurricane Andrew Through Women's Eyes: Summary and Recommendations. Project summary. Department of Sociology and Anthropology, Florida International University, Miami, FL. 33199.

Gladwin, Hugh and Walter Gillis Peacock. 1995. "Hurricane Andrew Survey Results: Research, Preparation, and Evacuation." Presentation to South Florida Regional Planning Council, Hollywood, Florida. March 17, 1995.

Girard, Chris. 1993a. "Sociological Factors Associated with Preparation, Evacuation and Shelter." Proceedings from *Lessons Learned from Hurricane Andrew* Conference. Miami: Florida International University.

Gladwin, Hugh. 1993a. "Emergency Assistance and Relief Activities: Immediate Aftermath."

- Proceedings from *Lessons Learned from Hurricane Andrew* Conference. Miami, FL: Florida International University.
- Gladwin, Hugh. 1993b. "Role of Disaster in Shaping the Culture of a City." Paper presented at the Annual Meeting of the Society for Applied Anthropology. San Antonio, TX.
- Morrow, Betty Hearn. 1993. "Families of Andrew." Paper presented at Society for Applied Anthropology annual meetings, San Antonio, TX.
- Morrow, Betty Hearn and Elaine Enarson. forthcoming. "Hurricane Andrew Through Women's Eyes: Issues and Recommendations." *International Journal of Mass Emergencies and Disasters*.
- Morrow, Betty Hearn and Walter Gillis Peacock. 1993a. "The Social Impact of Hurricane Andrew." Proceedings from *Lessons Learned in Hurricane Andrew* Conference. Miami, FL: Florida International University.
- Morrow, Betty Hearn and Walter Gillis Peacock. 1993b. "Disasters and Social Change: A Consideration of the Possibilities, Limitations and Constraints." Paper presented at the American Sociological Association Annual Meetings, Miami Beach, Florida.
- Peacock, Walter Gillis. 1995. "Equity and Insurance Redlining: Some Policy Considerations." Presented to the Academic Task Force for Catastrophe Insurance. Tallahassee, Florida, August 4 meeting.
- Peacock, Walter Gillis. 1995. "Ethnic and Racial Differentials in Homeowner's Insurance and Insurance Settlements following Hurricane Andrew in Dade County, Florida." Presented to the Academic Task Force on Hurricane Catastrophe Insurance, West Palm, Florida, July 25.
- Peacock, Walter Gillis and Hugh Gladwin. 1995. "Determinants of Evacuation Prior to Hurricane Andrew and Projections of Future Response." Presentation to South Florida Regional Planning Council, Hollywood Florida. March 17, 1995.
- Peacock, Walter Gillis, Hugh Gladwin and Chris Girard. 1994. Racial and Ethnic Composition, Vacancy Rates, and Racial/Ethnic Housing Patterns in Homestead, 1990 and 1993. Preliminary Report #1: Homestead Housing Needs and Demographic Data Project, Institute

for Public Opinion Research and the Department of Sociology and Anthropology, Florida International University, Miami, Florida.

Peacock, Walter Gillis. 1994. "Hurricane Disaster Warnings: A Success Story." In *Facing The Challenge: The U.S. National Report to the IDNDR World Conference on Natural Disaster Reduction*, National Research Council. Washington D.C.: National Academy Press.

Peacock, Walter Gillis. 1994. "Social Systems, Ecological Fields and Disasters." Paper presented at the International Sociological Associations' XIII World Congress of Sociology, Bielefeld, Germany.

Peacock, Walter Gillis and Betty Morrow. 1993. "The Long Shadow of Hurricane Andrew." *ASA: Footnotes*. Volume 21, Number 2, Page 1.

Peacock, Walter Gillis. 1993. "Preliminary Examination of South Miami Heights Block Data." Preliminary Report #5. Miami, FL: Florida International University.

Peacock, Walter Gillis, Hugh Gladwin, and Chris Girard. 1993. "Ethnic and Racial Differences in Hurricane Andrew Damage and Insurance Coverage: A Summary of Findings from the FIU Hurricane Andrew Survey." Preliminary Report #6, Disaster Research Team. Department of Sociology and Anthropology, Florida International University.

Peacock, Walter Gillis and Hugh Gladwin. 1993. Assessing the Likelihood of Evacuation Next Time: Some Preliminary Findings from the FIU Hurricane Andrew Survey. Preliminary Report #3, Disaster Research Team. Department of Sociology and Anthropology, Florida International University.

Stepick, Alex. 1993. "Emergency Assistance and Relief Activities II: Continuing Needs." Proceedings from *Lessons Learned in Hurricane Andrew Conference*. Miami, FL: Florida International University.

Tardanico, Richard. 1993. "Restoration Activities: Six Months Later." Proceedings from *Lessons Learned in Hurricane Andrew Conference*. Miami, FL: Florida International University.

Tardanico, Sara and Kevin A. Yelvington. forthcoming. "Temporary Shelter and Disaster Recovery Planning: Lessons from South Florida's Tent Cities in International Perspectives.

Housing Policy Debate.

Yelvington, Kevin A. and Donna A. Kerner. 1992. "Ethnic Relations and Ethnic Conflict in Tent City: Understanding Andrew's Aftermath." Paper presented to the annual meeting of the Society for Applied Anthropology, San Antonio, TX.