

*HURRICANE IKE RELATED MISSING PERSONS:  
IDENTIFYING VULNERABLE POPULATIONS THAT SHOULD BE TARGETED  
DURING EVACUATION PREPARATIONS*

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**Introduction**

On September 13, 2008, Hurricane Ike made landfall near Galveston, TX. Although Galveston experienced the worst hurricane disaster in U.S. history in 1900, and despite recent memories of Hurricanes Katrina and Rita, an estimated 20 - 40% of Galveston's 57,000 residents did not heed mandatory evacuation orders. In the days following Ike, hundreds were reported missing. Hence, a better understanding of the characteristics of missing persons is needed to facilitate targeted evacuation preparations. While studies on hurricane casualties show that the elderly are particularly vulnerable, data on missing persons suggest that middle-aged persons may be more vulnerable than anticipated.

**Objectives**

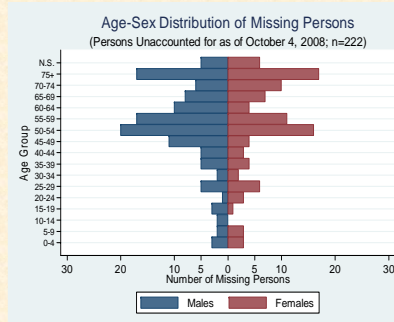
This study identifies the demographic characteristics of persons reported as missing in the aftermath of Hurricane Ike. Specifically, we illustrate the age and sex composition of those missing.

**Data and Methods**

The Laura Recovery Center was the central point for reporting missing persons for Hurricane Ike. LRC received nearly 900 reports of missing persons, most of whom were located relatively quickly. However, three weeks after Ike, 222 remained unaccounted for. In total, only 17 of the missing are known to be deceased. The name, age, and hometown of each person was posted on the LRC website ([www.lrcf.net/ike/](http://www.lrcf.net/ike/)). We determined the person's sex based on their first name, using <http://babynamesworld.parentsconnect.com>.

We use population pyramids to give a graphic representation of the age and sex distribution of those reported missing. We examine the age and sex distribution of persons still missing three weeks after the hurricane, and also examine how the characteristics of the missing vary at different points in time.

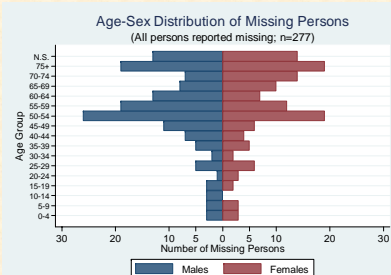
**Fig. 1: Age-Sex Pyramid of Missing Persons as of Oct.4, 2008**



**Fig. 2: Missing Persons as of Oct.14, 2008**



**Fig. 3: All Missing Persons (Oct.4-Nov.1, 2008)**



**Results**

These results illustrate that missing persons during hurricane disasters tend to be much younger than we expect. Fig. 1 shows that many of the people still missing 3 weeks after Hurricane Ike were males aged 45 and older, and females aged 50 and older. The number of missing males aged 45-59 and females 50-59 is particularly high. Fig. 2 shows that after one month, most of the missing had been located. However, there continues to be a notable excess of missing persons aged 50-54. Pooled data from October 4 onward (n=277) confirm that the missing are concentrated in the age-group 45-64 (Fig. 3).

**Conclusions**

Because hurricane casualties tend to be concentrated among the elderly, we also expected most missing persons to be elderly, who may have limited physical mobility. However, our analysis shows that middle-aged, rather than elderly persons, have a disproportionate likelihood of being reported missing. This suggests that middle-aged persons may have much weaker social networks than is often believed. Although nearly all of the missing were found alive (only 17 are known to be deceased), locating them required enormous effort at a time when the resources of disaster preparation and recovery were already strained. Our findings show the need for more information about the unique set of factors affecting middle-aged persons' evacuation decisions. Implementing a central system that enables evacuees to report their evacuation plans and whereabouts may also help reduce disaster recovery agencies' need to invest scarce resources to locate large numbers of missing persons.

**Acknowledgements:** The authors are grateful to the Laura Recovery Center and its volunteers, particularly Sandy Stafford, without whom this study would not have been possible.