

**Elderly Female-Headed
Households in the Disaster Loan Process***

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The purpose of this exploratory research was to compare the income and approval rates of elderly single-female households and other types of households applying for disaster aid. Households from two parishes involved in the flooding in and around New Orleans, Louisiana, in May 1995 who applied for federal loans via the U.S. Federal Emergency Management Agency's (FEMA) National Teleregistration Center were compared on demographics and outcomes. Data analysis showed that elderly single-female households were over-represented in the population applying to FEMA; two and one half times as likely as other elderly households or non-elderly households to have incomes of \$11,000 or lower; and three times less likely than other elderly households to receive a low-interest loan. This study indicates that the current federal low-interest loan program does not adequately address the needs of poor elderly women. Special initiatives are needed that target this population.

Age is a characteristic shown to influence ability to recover from disaster. In over 30 years of study on elderly in disaster, though, researchers have disagreed on the nature of that influence, or even its direction; either elderly persons are *more* affected or are *less* affected than younger people (Phillips 1993, p. 3). The discussion of gender and disaster, on the other hand, has been largely ignored by disaster researchers until the last decade or so (Fothergill 1996). Since the mid-1990s, however, researchers are beginning to understand the specific problems that women face during disasters (see Enarson and Morrow 1998; Morrow and Enarson 1996; Phillips 1996a). The present study fills a critical void, in that

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it provides the results of a multivariate analysis examining the intersection of age and gender. I focus on a category of disaster-victim households about which very little is known: elderly women living alone. Do these households differ from other types of households in terms of their vulnerability to recover from disaster and/or how the federal relief organization responds to them?

Literature Review

Friedsam (1961; 962) and Hutton (1976) suggested that elderly people were more vulnerable than others to disaster because they may be less able to evacuate due to poor health, lack of transportation, or isolation from family or relatives. In retesting Friedsam's hypothesis of relative deprivation, however, Hutton (1976) found elderly people to be as likely as others to evacuate if they received warning. If not warned, though, elderly persons die at a disproportionate rate because of physical limitations.

Bell (1978) has insisted that elderly people are not affected any more than other disaster victims. Bolin (1982) found, however, that elderly individuals tend to have less insurance coverage. Because of fixed incomes, they may also live in poorly constructed housing which is more likely to be heavily damaged in a disaster. Elderly victims are also less likely than younger victims to use formal aid (Bolin 1982). Older people might reject aid because they perceive it as a blow to their independence or as a form of charity (Bell 1978; Huerta and Horton 1978). Another explanation might be that they may become weary of dealing with formal agencies, in part because of complicated claim forms or feeling lost in the bureaucracy (Huerta and Horton 1978). They may also lack information or understanding on how to access the system. Consequently, elderly victims are more likely than younger victims to use kin networks rather than formal aid agencies (Bell 1978; Bolin and Klenow 1982; Huerta and Horton 1978). When elderly do apply for formal aid, though, their fixed incomes make it less likely that they will qualify for low-interest loans or be able to find permanent housing quickly (Bolin 1982; Phillips 1995).

Gender differentiation and stratification disadvantage women in a variety of ways, which ultimately impacts their ability to recover from disaster (Fothergill 1996). In the United States, women tend to be concentrated in low-wage positions; their annual earnings are on average about 74 percent of males (U.S. Department of Labor 1997). According to the U.S. Census Bureau (1997), women are disproportionately poor. More specifically, female-headed households are four times as likely as male-headed households to be in poverty. The relationship between poverty and disaster vulnerability has been well established (Bolin and Bolton 1986; Bolin and Stanford 1991; Morrow-Jones and Morrow-Jones 1991; Phillips 1996b; Tierney 1989). Female-headed households, therefore, are likely

to be much slower to recover from disaster than other households.

Females are also more vulnerable to disaster impact and recovery because of socially-defined gender roles. Women in lower-income countries are more likely to die in disasters, for example, because of caregiving responsibilities, whether to children or to the elderly (Chowdhury et al. 1993; Miyano et al. 1991; Parasurtaman 1995); because they do not have decision-making power over whether to leave for safety (Haider et al. 1991); and/or because they are physically isolated and do not get word of the danger (Ikeda 1995). In addition, Morrow and Enarson (1996) suggested that aid programs geared toward a nuclear-family model do not work well for some women. When males, designated as "head-of-household," receive the family's aid money and sometimes use it for other purposes, the family can be left without means to recover.

While we are beginning to understand the elderly in disaster and are developing a base of knowledge on women in disaster, very little is known about elderly women in disaster. This study is among the first of its kind in examining elderly women, specifically women living alone, who applied for federal aid after a disaster. How do they compare with younger people and also with elderly single male-headed households? Which characteristics emerge as most important in their experiences with the federal disaster relief organization? The findings should have implications for trying to expand theories connecting gender, age, and socioeconomic status to explain elderly women's disaster experiences.

Methods

Context

During the evenings of May 8 and 9, 1995, a series of severe storms rolled through next evening, another storm dumped an additional 17 inches of rain on the northern shores of the lake. The flooding qualified as a 100-year flood. On May 10, President Clinton declared the area a major disaster, setting in motion the release of resources coordinated through the Federal Emergency Management Agency (FEMA) to aid flood victims.

This project used data gathered by FEMA's National Teleregistration Center (NTC), the nationwide telephone registering system that disaster victims call when applying for federal assistance. When victims call the NTC, interviewers ask a scripted list of questions concerning demographic information, the damage they sustained, and their needs. Inspectors later verify the damage, along with the victim's eligibility. All contact with the victim is recorded in the database, up to and including the final resolution of the claim.

All 3,037 disaster-victim households applying for federal assistance from two of the more devastated parishes became the target population for this study.

Research Hypotheses

Several hypotheses about elderly single-female households generated from the literature review were tested:

1. they are more likely than other types of households to be under-represented in the population of victim households applying for federal aid;
2. they are more likely than other types of households to be low income;
3. they are less likely than other types of households to have insurance; and
4. they are less likely than other types of households to receive low-interest loans.

Variables and Measurement

Victim Type. Three categories of victim household types were identified: (1) "Elderly Single-Female Households" where the registrant was female, aged 65 or older, and had no financial dependents living in the same household; (2) "Elderly Households — Other," registrants over the age of 65 who had financial dependents living in their household; and (3) "Non-Elderly Households." One other category was identified for in-depth analysis of elderly households: "Elderly Single-Male Household" where the registrant was male, aged 65 or older, and had no financial dependents living in the same household.

Income. The gross yearly household income reported to FEMA was recoded into the following categories: (1) "<1/2 Median" containing those households which reported earning less than half of the median income for the state of approximately \$22,000; (2) "1/2 Median to Median" containing those households which reported earning between half the state median and the median income; and (3) "> Median" containing those households which reported earning above the state median income.

Source of Income. FEMA collects employer name or source of income for each household applying for assistance. The answers were recoded into the following categories: (1) "Public/Private Assistance" containing households who reported Social Security, disability, supplemental income (SSI), and/or savings/family/friends; (2) "Pension" containing households who reported just Social Security, pension, and/or retirement plan; and (3) "Wage/Salary" containing households who reported an employer or were self-employed.

Type of Insurance. Two types of insurance were identified: (1) "Basic," which included Homeowner/Condo/Renters insurance; and (2) "Extended," which included Homeowner/Condo/Renter insurance with sewer backup and/or flood insurance.

Type of Aid. FEMA coordinates a variety of types of disaster assistance: (1) housing assistance, which can be either (a) emergency minimal repairs or (b) emergency rent assistance for victims whose homes are severely damaged

or destroyed or who are waiting for insurance payments to begin repairs or rebuilding efforts; (2) low-interest household loans from the Small Business Administration (SBA); and (3) Individual and Family Grant (IFG) program, which offered at that time grants up to \$12,600 for uninsured expenses, if all other sources of assistance have been exhausted. For the purposes of this paper, analysis was confined to low-interest loans because this is the type of assistance which comprises the majority of aid distributed by the government.

Race. No comparison of various racial/ethnic groups could be made. FEMA does not collect racial/ethnic information on disaster victims. In addition, efforts to circumvent the problem by matching households with census block groups failed because FEMA did not include specific street addresses in the data available for analysis.

Results

My first hypothesis, that elderly single-female households would be under-represented in the target population, was rejected. In fact, they were over-represented. While accounting for approximately 5 percent of the total households in the Census profile of the two parishes, elderly single-female households represented over 12 percent of the total households applying for federal aid.

Table 1.
Distribution of Applicant Households

	Frequency	Percent
Elderly Single-Female	369	12.2
Elderly Households — Other	283	9.3
Non-Elderly — All	2385	78.5
Total	3037	100.0

A couple of explanations might account for the differences. Elderly women living alone may have had fewer internal resources with which to recover and thus turned to the governmental organization for help. The findings might also be somewhat reflective of the scope of the flooding, which was in large part a result of the topographical arrangement of the affected area. New Orleans and its surrounding suburbs are at or below sea-level. Consequently, the disaster affected a broad range of the population. Informal support networks that ordinarily might have been used by households may have also been affected by the disaster (Neal et al. 1982; Neal et al. 1988; see Phillips 1993).

Huerta and Horton (1978) surmised that elderly people might tire of the

bureaucratic process. Older persons may also require support service, such as transportation, when leaving their homes (Poulshock and Cohen 1975). Since 1995, FEMA has simplified its application process. Victims no longer have to travel to an application center and wait in line to fill out myriad forms. Disaster victims can apply for all relevant assistance programs through one phone call. This simplification might make a difference for elderly victims, who may have limited mobility or need transportation.

Table 2.
Income Category by Type of Victim Household

Relationship to State Median (S.M.)	Elderly		
	Single-Female (n=369)	Elderly — Other (n=280)	Non-Elderly (n=2377)
<½ S.M. (<\$11,000)	70.5%	29.3%	31.6%
½-S.M. (\$11,000-\$22,000)	25.5%	42.1%	25.1%
>S.M. (>\$22,000)	4.0%	28.6%	43.3%
$\lambda = .15$	Mdn.=\$8,000	Mdn.=\$16,000	Mdn.=\$18,000

The expectation of lower incomes of elderly single-female households was strongly supported by the data. As Table 2 shows, just over 70 percent of the elderly single-female households reported earnings below \$11,000. The median income for elderly single-female households was about 50 percent of other elderly households and only 44 percent of non-elderly households. Thus, elderly women living alone were about 2.5 times as likely as other elderly households to have yearly incomes below \$11,000.

To examine the connection between gender and socioeconomic status, a more in-depth comparison between households headed by elderly women and men was made. Elderly single-victim households applying for federal aid (N=466) were overwhelmingly female (79 percent). As seen in Table 3, elderly single-male households reported higher incomes. In fact, they were over four times as likely to report earnings above the state median income. While over 90 percent of all households with elderly registrants reported fixed incomes, they were much lower for the women-alone households. Part of the explanation may be that of those elderly households reporting no pension or retirement income, single-female households were twice as likely as single-male households to be on public/private assistance; single-male households, on the other hand, were about 1.5 times as likely to have a job (see Table 4). The median income of elderly single-female households was approximately 73 percent that of single-male households.

Table 3.
Income Category by Type of Elderly Victim Household

Relationship to State Median (S.M.)	Single-Female (n=369)	Single-Male (n=97)
<½ S.M. (<\$11,000)	70.5%	50.5%
½-S.M. (\$11,000-\$22,000)	25.5%	30.9%
>S.M. (>\$22,000)	4.0%	18.6%
$\lambda = .25$	Mdn.=\$16,000	Mdn.=\$18,000

This gender gap in the income of elderly households is strikingly similar to the gender wage gap in the United States. As we know, most fixed incomes earned by the elderly, whether through retirement plans or Social Security, are based on level of income while in the labor force, number of years in the labor force, or on a percentage of their spouse's income. These findings suggest that economic disadvantages faced by women during their younger years affect their ability later in life to access resources with which to recover from disaster.

Table 4.
Source of Income by Type of Elderly Victim Household

Relationship to State Median (S.M.)	Single-Female (n=369)	Single-Male (n=97)
Private/Public Assistance	16.8%	8.2%
Pension/Retirement	78.6%	84.5%
Wage/Salary	4.6%	7.2%
$V = .10$		

The third hypothesis, that elderly single-female households would have less insurance than other types of households, was rejected. As Table 5 shows, there is no appreciable relationship between the type of households and level of insurance. Between one-third and almost one-half of all victim households applying for federal aid reported having no insurance. For those with insurance, however, elderly single-female households were slightly less likely to have extended insurance that covered flooding.

Insurance status was somewhat reflective of family size and income. Households with younger registrants tended to have larger families, as well as higher incomes. They may, therefore, be able to afford the higher costs of extended coverage. These findings concur with Bolin (1982), Morrow-Jones and Morrow-Jones (1991), and others regarding inadequate insurance among lower-income households.

Table 5.
Income Category by Type of Victim Household

	Elderly Single-Female (n=366)	Elderly - Other (n=280)	Non-Elderly (n=2379)
None	37.2%	32.2%	44.3%
Basic	48.9%	47.7%	31.4%
Extended	13.9%	20.1%	24.3%

$\lambda = .05$

The last hypothesis leads to the most important findings. Elderly single-female households were, in fact, less likely to receive low-interest loans. Of the 1,772 low-interest loan applications processed, the Small Business Administration (SBA) approved only 243 (13.0 percent) of them. As Table 6 shows, the approval rate for all types of households was small. Elderly single-female households, however, were much less likely to be approved for a loan. In fact, they were five times less likely than other elderly households to be approved. Income appears to be a deciding factor. Elderly women living alone were over twice as likely (66.4 percent) than other elderly households (31.8 percent) or non-elderly households (33.0 percent) to be denied because of failing the income test.

Table 6.
SBA Application Resolution by Type of Victim Household

	Elderly Single-Female (n=289)	Elderly Other (n=140)	Non- Elderly (n=1343)
Approved	2.8%	14.3%	16.0%
Denied	97.2%	85.7%	84.0%

A re-examination also showed that elderly single-female households (2.8 percent) were still about 2.5 times less likely than elderly single-male households (7.2 percent) to be approved for a low-interest loan. They were 1.5 times as likely as elderly single-male households to be denied the loan because of failing the income test. For elderly households that passed the income test, single-male and single-female households were equally likely (4.1 percent) to be denied a low-interest loan because of perceived inability to repay the loan.

The findings agree with Bolin (1982; 1986) and Phillips (1995), who suggest that the elderly are not as likely as younger people to qualify for low-interest loans. In this study, elderly single-female households were five

times less likely than other elderly households, and almost six times less likely than younger people, to be approved for a loan. At the same time, elderly single-male households were only slightly less likely than households with younger registrants to qualify for a low-interest loan. Because qualification for the loans is in large part based on level of income, these findings should not be surprising.

Households which are denied a low-interest loan are referred to the IFG program, which provides the least amount of assistance of all the programs because of its capped dollar amount of aid. In this study, over 90 percent of elderly single-female households ultimately were referred to the IFG program. Table 7 shows that elderly women living alone were over 1.5 times as likely as all other types of households to use the program. The data clearly indicate the extent to which elderly women living alone are disadvantaged in times of disaster. These findings are consistent with much previous research, which has found that low-income households have the least amount of choice in the type of disaster assistance they receive and have the greatest difficulty recovering (Bolin and Bolton 1986; Bolin and Stanford 1991; Clarke and Short 1993; Kreps 1984; Morrow-Jones and Morrow-Jones 1991; Peacock, Morrow, and Gladwin 1997; Phillips 1996b).

Table 7.
IFG Use by Type of Victim Household

	Elderly Single-Female (n=369)	Elderly Other (n=283)	Non- Elderly (n=2385)
Used IFG	50.1%	30.0%	32.6%
Did Not Use IFG	49.9%	70.0%	67.4%

Discussion and Conclusion

This study has been a preliminary attempt to understand how gender, age, and income interact to affect elderly women's experiences with federal disaster aid. Not surprisingly, the findings suggest that income is a major contributing factor. In other words, gender effects are largely a reflection of lifetime differences in work careers and income. Once again, gender inequality plays itself out in the social and economic structures of our society.

Overall, the results show that elderly single-female households were disproportionately low income, particularly in comparison to elderly single-male households. Researchers have agreed that low-income households have a much harder time recovering after disaster. As the United States becomes an

increasingly aged population, it becomes an increasingly female population. Elderly single-female households in 1996 outnumbered elderly single-male households by 3:1, and the gap is projected to widen (U.S. Bureau of the Census 1997). Consequently, low-income elderly single-female households will become increasingly at risk to the effects of disasters. If for no other reason than their sheer numbers, the vulnerability of this sector of the population must be dealt with if we are to have disaster-resistant communities.

Because income is so often a function of gender, the findings concur with Fothergill (1996) who suggested that theories of gender stratification need to be incorporated into disaster research. As she stated: "It is necessary to move beyond the descriptive, to ask why, and to begin placing the disaster findings within larger, structural contexts" (Fothergill 1996, p. 49). From a sociological perspective, income acts as an aid to the accumulation of resources needed to gain the political and economic power necessary for individuals or households to make decisions and control their lives (Weber 1968[1921]). Theories of gender stratification would ultimately help disaster researchers understand the social arrangements — such as the gendered division of labor — within society and the economic, political, and social consequences to women. Only by understanding the cultural and/or sociopolitical contexts within which the interactions take place can we begin to address the root causes of female poverty among the elderly.

In the meantime, special initiatives and programs which target elderly women living alone should be incorporated into every disaster mitigation program. With FEMA's commitment to providing grants for mitigation, communities should be able to better protect a most vulnerable population. Elderly women should be included in the decision-making process; using American Association of Retired Persons (AARP), along with other organizations which cater to the elderly to create a network of citizens on which elderly women living alone can rely; flexible qualifications in the loan application process for low-income households; community grants which would enable low-income elderly women to purchase hazard insurance; community grants to retrofit homes of elderly women to better withstand disaster and/or ensure that they find permanent housing quickly after the disaster. Using Bolin's (1982) suggestion of "recovery capacity profiles," decision makers can identify particular concerns of elderly women living alone and develop specific resources within the community to address these needs.

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