



# Lions, Lambs & Lone Wolves: Archetypical Disaster Roles and their Relationship to Preparedness Behaviors

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## BACKGROUND

Despite considerable investment of federal funds directed at increasing preparedness since the 2001 terrorist attacks, overall population preparedness has barely increased. In US survey data collected by Columbia's National Center for Disaster Preparedness between 2003 and 2008, the proportion of citizens who reported having a minimal family emergency plan has only increased from 37% to 43%. Efforts to increase individual preparedness rarely distinguish among types of individuals, preferring to treat the citizenry in the aggregate. In an actual disaster, though, individuals and groups do not behave uniformly. According to Lindell and Perry's Protective Action Decision Model, people's behavior during a disaster will be influenced by situational factors, social context, and individual characteristics such as personality traits. Individuals and groups may respond to a disaster by adopting new roles, forming new associations, and taking individual and collective actions that vary greatly from their routine roles. This analysis examined the prevalence of anticipated emergent disaster personality traits, and considered their association with other socio-demographic characteristics and preparedness behaviors.

## METHODS

Using a stratified random digit dial (RDD) probability design, 1,352 adults over eighteen years of age were surveyed in Summer 2007 and 1,579 adults were surveyed in Summer 2008. Data were weighted by gender, race, income, and age to reflect the demographic distribution of households across the population of the continental United States. Since there were no demonstrable inter-year differences the datasets were combined, each with their own survey weights.

In addition to measures of perceived risk, disaster exposure, confidence in government, and socio-demographic characteristics, we asked the following question about perceived disaster roles: "Which statement best characterizes what you think might happen in a disaster situation: (1) Others will turn to you to lead the way, (2) You will work on your own to protect yourself and your family, (3) You will turn to someone else for leadership, or (4) You will wait for help to arrive." For descriptive and analytical purposes we calculated anticipated disaster roles as **Lions** (others will turn to you), **Lone Wolves** (you will work on your own), and **Lambs** (you will turn to someone else or wait for help to arrive). Chi-square analyses and multinomial logistic regression analyses were conducted.

**Table 1. Demographic Correlates of Lion, Lone Wolf & Lamb Expected Roles (row %'s, n=2,855)**

	Lions	Lone Wolves	Lambs
TOTAL	21	57	22
Men	24	59	17
Women	18	55	27
White	20	60	20
Black	22	49	29
Latino	20	51	29
Income <\$25k	17	49	34
\$25 – 49k	19	61	20
\$50 – 74k	23	58	18
> \$75k	26	60	14

**Table 2. Multinomial Regression: Relative Risk of Role Adoption (n = 2,855)**

Factor	Lions v Lambs	Lone Wolves v Lambs
Men (vs women)	1.73 <sup>c</sup>	1.53 <sup>c</sup>
White (vs Latino)	1.24	1.36
Black (vs Latino)	0.90	0.89
Income <\$25k (vs >\$75k)	0.38 <sup>c</sup>	0.41 <sup>c</sup>
Income \$25-50k (vs >\$75k)	0.54 <sup>b</sup>	0.72 <sup>a</sup>
Income \$50-74k (vs >\$75k)	0.83	0.89
Urban (vs rural)	1.45	1.08
Suburban (vs rural)	1.01	0.95
Can handle what comes my way	2.81 <sup>a</sup>	1.38
Can deal with unexpected events	6.82 <sup>c</sup>	2.07 <sup>c</sup>

<sup>a</sup> p<0.05; <sup>b</sup> p<0.01; <sup>c</sup> p<0.001

## FINDINGS & CONCLUSIONS

As illustrated in Table 1, there are considerable differences in anticipated disaster role adoption by socio-demographic characteristics. Men appear more likely to regard themselves as leaders ("Lions") whereas individuals earning less than \$25,000 and minorities are more likely to regard themselves as followers ("Lambs"). Figure 1 further illustrates the relationship between sentinel preparedness correlates and these perceived roles, all of which are statistically significant at the p<.001 level. Lions were the most likely to report the highest level of self-efficacy, more likely to have first response experience, and more likely to have complete emergency plans. Table 2 represents the findings of a multinomial regression equation comparing perceived role adoption by socio-demographic and psychological efficacy characteristics. Gender, income, and self-efficacy are statistically significantly associated with both leadership ("Lions") and independence ("Lone Wolves").

These findings suggest that it may be worth adopting a segmented market approach to preparedness education: (a) giving emergent leaders ("Lions") more tools and integrating them in to formal and informal response structures; (b) supporting independents ("Lone Wolves") and encouraging them to become leaders; and (c) enhancing dependents' ("Lambs") self-efficacy.

**Figure 1. Preparedness Correlates of Disaster Role Archetypes**

