Personal Preparedness In America:

Findings From the

Citizen Corps National Survey

June 2009

FEMA

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INTRODUCTION

Disaster preparedness became a renewed priority for our nation as a direct response to the devastation of September 11, 2001. Following the tragedies of that day, government at all levels has imbedded stronger collaboration with non-governmental civic and private sector organizations and the general public in policies and practices. The Citizen Corps grassroots model of community preparedness has spread across the country, and Americans have been asked to become fully aware, trained, and practiced on how to respond to potential threats and hazards.

To evaluate the nation's progress on personal preparedness, the Federal Emergency Management Agency's (FEMA's) Community Preparedness Division and Citizen Corps conduct national household surveys to measure the public's knowledge, attitudes, and behaviors relative to preparing for a range of hazards. This report provides a summary of the findings from the 2007 Citizen Corps National Survey.

RESEARCH OBJECTIVES

The research objectives and survey questions for the 2007 Citizen Corps National Survey were developed based on previous research, preparedness modeling, and policy and guidance from the Department of Homeland Security (DHS).

2003 Citizen Corps National Survey

In 2003, Citizen Corps conducted a similar national survey that provided baseline data on individual preparedness for disasters. Several specific questions from this survey were retained in the 2007 survey to provide trend data. Comparisons between the findings from the 2003 and the 2007 surveys are noted throughout the report.

Citizen Preparedness Reviews[1]

FEMA's Community Preparedness Division periodically publishes the Citizen Preparedness Review to highlight specific areas of research regarding community preparedness and to summarize research findings from multiple sources. To assess the research landscape on preparedness, Citizen Corps has developed and maintains the Citizen Preparedness Surveys Database of surveys on personal and business preparedness conducted in the United States since September 11, 2001. Currently, the database contains 81 surveys on individual preparedness, 28 surveys on business, and 10 surveys on school preparedness. Analyzing research from this wide variety of sources allows larger preparedness trends and research gaps to be identified.

Citizen Preparedness Review Issue 3, *Patterns in Current Research and Future Research Opportunities* (published in summer 2006), made several recommendations for future research that were taken into consideration in the development of the 2007 Citizen Corps National Survey including to:

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[1] The Citizen Preparedness Reviews and other preparedness research are available at:
http://www.citizencorps.gov/ready/research.shtm

- More fully explore participants' knowledge of the correct preparedness measures and appropriate responses for different types of hazards.

- Investigate a more comprehensive range of knowledge, supplies, and skills related to disaster preparedness, such as knowledge of warning systems, evacuation routes, and training for specific skills.

- More fully explore motivational barriers to preparedness, such as degree of uncertainty about ability to perform recommended measures or perceptions that recommended measures will not make a difference in disaster situations.

- Investigate demographic and contextual characteristics as they relate to preparedness including: prior experience with disasters, disability/ability factors, and community engagement.

- Examine individuals' preparedness in multiple locations in addition to their homes, such as the school, workplace, and community.

An important finding from the Citizen Preparedness Surveys Database is that perceived preparedness can be very different from the specific preparedness measures taken. In nearly all cases, the proportion of those who have taken appropriate preparedness measures is much lower than those that indicate that they are prepared.

Personal Disaster Preparedness Model

Citizen Corps Preparedness Review Issue 4, *Citizen Corps Personal Behavior Change Model for Disaster Preparedness*, presented the Citizen Corps Personal Disaster Preparedness (PDP) Model. This behavioral model describes the various factors that may influence whether or not a person engages in disaster preparedness activities. Based on two theoretical models common to the social science field that have been applied in other risk assessment and protection motivation work, the Extended Parallel Process Model (EPPM)[2] and the Stages of Change/Transtheoretical Model[3], the PDP Model explores personal motivation factors and identifies ways to target individuals based on their motivation for, or perceived barriers to, preparedness. Several questions in the 2007 Citizen Corps National Survey were designed to test the PDP Model.

Community Preparedness and Participation Target Capability

Homeland Security Presidential Directive 8 (HSPD-8) on National Preparedness, enacted December 17, 2003, directed the Secretary of Homeland Security to develop a national all-hazards preparedness goal. To execute this Directive, in March 2005 DHS released the Interim National Preparedness Goal. In September 2007, the National Preparedness Guidelines and accompanying Target Capabilities List (TCL) were updated and published. The guidelines define

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[2] Witte, K. 1998. Fear as motivator, fear as inhibitor: Using the extended parallel process models to explain fear appeal successes and failures, P.A. Anderson and L.K. Guerrero (eds). *The handbook of communication and emotion: Research, theory, applications, and contexts*. New York Academic Press, 423-450.
[3] Prochaska, J.O., and C.C. DiClemente, 1982. Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice*, 20, 161-173.

what it means for the nation to be prepared for all hazards. The Target Capabilities List denotes 37 specific capabilities that communities, the private sector, and all levels of government should collectively possess in order to respond effectively to disasters.

The Community Preparedness and Participation (CPP) Target Capability is one of four common capabilities that support all mission areas and all other Target Capabilities. The CPP Capability encourages government to collaborate with civic leaders from all sectors to strengthen community preparedness and resilience by integrating nongovernmental resources and assets in government plans and protocols, and engaging citizens in personal preparedness, exercises, ongoing volunteer programs, and surge capacity response.

For individuals, the CPP Capability outlines the goal that everyone in America become fully aware, trained, and practiced on how to prevent, protect, mitigate, prepare for, and respond to all threats and hazards. Desired outcomes include all three of the following:

- The education and training of the public in the four homeland security mission areas: prevention, protection, response, and recovery;

- The participation of individuals in volunteer programs; and

- That the public be able to provide surge capacity support.

Several survey questions in the 2007 Citizen Corps National Survey were designed to provide strategic insight into specific aspects of the CPP TCL goals, including the following:

- Percent of residents within the jurisdiction who are alert to unusual behavior—indicative of potential terrorist activity—and who understand appropriate reporting procedures, until 80 percent of residents maintain knowledge.

- Percent of households that conduct pre-incident preparation to include creating and maintaining a communication plan, obtaining disaster supplies, and practicing evacuation/shelter-in-place and additional maintenance skills, until 80 percent of households maintain pre-incident preparation.

- Percent of residents prepared to evacuate or relocate to designated shelter (to include residents with special needs), until 80 percent of the population is prepared.

- Percent of a jurisdiction's population that is knowledgeable of workplace, school, and community emergency plans, until 80 percent of population maintains knowledge.

- Percent of residents prepared to shelter-in-place and have emergency supplies on hand as advised by local authorities, until 80 percent of population is thus prepared.

- Percent of annual increase in number of residents trained in basic first aid, until 80 percent of population maintains these skills.

- Percent of residents educated and trained in risk-based capabilities for high-threat incidents in their area, to include natural hazards, technological hazards, and terrorism, until 72 percent of population (80% of those living in high-threat area) are educated and trained per appropriate hazard.

- Percent of trained residents providing volunteer support to local emergency responder disciplines (law enforcement, fire, emergency medical, and public health services), until 10 percent of the population volunteers an average of 20 hours per year, to equal 560 million hours/year.

RESEARCH METHOD

Under contract to FEMA's Community Preparedness Division, Macro International Inc. (Macro) an applied research and consulting firm, supported the survey design, data collection and analysis and reporting of the 2003 and 2007 Citizen Corps Surveys.

Survey Design

The survey instrument consists of 55 items covering the following topics:

• Severity/Efficacy	• Prevention	• Volunteering
• Risk Awareness/Perception	• Disaster Supplies	• Disability
• Stages of Change	• Household Plan	• Outreach
• Reliance	• Community Plan	• Brand Awareness
• Personal Response	• Drills/Exercises	• Demographics

Office of Management and Budget Approval

In accordance with the Paperwork Reduction Act, the Office of Management and Budget (OMB) approved a multi-year collection on May 18, 2007. The OMB Control Number for this survey is 1670-0006.

Institutional Review Board Exemption Approval

In addition to OMB approval, the research survey was also granted Institutional Review Board (IRB) exemption from Macro International's internal IRB under 45 CFR 46.101(b) (2b).

Survey Administration

The 2007 Citizen Corps National Survey was fielded from July 2007 to November 2007.

The survey was administered using Macro's computer-assisted telephone interviewing system. Macro also provided Spanish-speaking interviewers as an option for Spanish-speaking respondents.

National Sampling[4]

Macro conducted the survey with a target sample size of 2,400 U.S. households. This provides overall results at +/–2 percent sampling error (at a 95% confidence level). Findings that have a higher percentage than the sampling error are more likely to be accurate and are considered to be statistically significant.

The sample was selected via random digit dialing (RDD) from a list-assisted sampling frame. The RDD sampling frame represents the non-institutionalized U.S. adult population residing in households equipped with land-line telephones. The frame excludes adults in penal, mental, or other institutions; adults living in other group quarters such as dormitories, barracks, convents, or

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[4] To provide greater insight in preparedness in an urban environment, an additional oversample of 2,000 respondents was drawn from four Metropolitan Statistical Areas (MSA) Urban Area Security Initiative (UASI) areas: Indianapolis, IN; New York City, NY: Houston, TX: and San Francisco, CA. A separate report, *Personal Preparedness in America: Findings from the Citizen Corps Survey of Four Urban Areas,*, provides the analysis of that data.

boarding houses (with 10 or more unrelated residents); adults living in a household without a telephone; and/or adults who did not speak English or Spanish well enough to be interviewed in either language.

Weighting

Each telephone number in the national sample had an equal chance of selection. However, operational aspects associated with RDD surveys, such as non-response and landline saturation, may produce respondents that over-represent or under-represent certain population segments. Macro accounted for these potential biases by weighting the data according to geography, age, gender, and race. (See Appendix A for the survey respondents' profile based on the weighted date.) This adjusted the sample's demographic distributions to match the distribution in the 2007 U.S. Census population estimates.

Research Questions

Building on the findings of the 2003 Citizen Corps National Survey, the understanding of disaster preparedness garnered from Citizen Preparedness Reviews, the Citizen Corps PDP Model, and the CPP TCL, the following research questions were developed to guide the design and analysis of this study:

- To what extent are individuals prepared for disasters? What barriers do individuals perceive in preparing for disasters?

- What is the perception of vulnerability to different types of disasters? How do people perceive the utility of preparedness?

- In which stage of the Stages of Change Model (Precontemplation, Contemplation, Preparation, Action, Maintenance) are individuals relative to disaster preparedness?

- How does disaster preparedness differ by demographic characteristics?

- How do the findings inform the Citizen Corps PDP Model?

- What is the perceived social responsibility for reporting suspicious behavior?

- How aware are individuals of specific Federally sponsored community preparedness programs, and what are their communication preferences about these programs?

RESEARCH FINDINGS

Results from the 2007 Citizen Corps National Survey are organized according to the research questions to further inform these critical aspects of preparedness. Statistically significant differences across different demographics or contextual variables such as religiousness or employment status are also provided (See Appendix B for the survey instrument). Findings relevant to the specific CPP Target Capability are highlighted in callout boxes throughout the report.

To What Extent Are Individuals Prepared for Disasters?

To What Extent Have Individuals Gathered Disaster Supplies?

The extent to which individuals report having gathered and maintained specific disaster supplies has been used as an important indicator of actual preparedness (versus perceived preparedness). Participants were asked about the existence of disaster preparedness supplies in their home, workplace, and cars. Just over one-half of individuals (53%) reported having supplies set aside in their home, to be used only in the case of a disaster. This showed a slight increase from the 2003 survey, where 50 percent reported to have a home disaster kit.

If participants indicated they had set supplies aside in their home, they were then asked to list those supplies; unaided responses were then coded according to predetermined categories. The supplies most frequently mentioned included a supply of bottled water (73%) and packaged food (71%), with many fewer individuals mentioning other essential supplies such as a flashlight (40%) or a first aid kit (34%). Most of these 2007 percentages were an increase from 2003— except for having a first aid kit, whose mention dropped from 64 percent to 30 percent. In addition, only 23 percent mentioned a battery powered radio for receiving information in the event that a disaster causes an electricity outage. Most individuals with supplies (80%) reported that they update their supplies at least once a year, with 5 percent stating that they never update their supplies.

Table 1: Home Disaster Supply Kits*

	2003	2007	+/-
A supply of bottled water	54%	73%	19%
A supply of packaged food	45%	71%	26%
A flashlight	41%	40%	-1%
A first aid kit	64%	34%	-30%
Batteries	21%	25%	4%
A portable, battery-powered radio	14%	23%	9%
Medications	---	9%	---
Cash	---	3%	---
Financial documents	---	2%	---
Eyeglasses	---	1%	---
Photocopies of personal identification	---	1%	---

> **Relevant TCL Measures:**
>
> Number of households that conduct pre-incident preparation, to include maintaining a communication plan, gathering disaster supplies, practicing evacuation/shelter-in-place, and maintaining skills.
>
> Numbers of citizens prepared to shelter-in-place and who have emergency supplies on hand as advised by local authorities.

*These responses were unaided and asked as part of a multiple response question. The results represent the total percent of respondents mentioning the existence of the particular item in their home as part of their disaster preparedness kit.

Participants were also asked if they had disaster preparedness kits in their cars and workplace (as appropriate for their employment status). Only one-third of individuals (30%) said they had supplies set aside in their car, a decline from the 2003 survey where 34 percent reported to have a kit in their car. However, the number of individuals who indicated they had set aside supplies in their workplace increased from 2003 (41% to 45%).

Table 2: Disaster Supply Kits in Multiple Locations

	2003	2007	+/-
In your home	50%	53%	3%
In your car	34%	30%	-4%
In your workplace	41%	45%	4%

Demographic and Contextual Differences
- **Age**: Individuals between the ages of 18 to 34 (54%) were significantly more likely to have disaster supply kits set aside in their workplace than individuals between 35-54 and 55 and older (41% and 39% respectively)**.**
- **Education**: Individuals with some college education (57%) were significantly more likely than less educated individuals (44%) to have supplies set aside in their homes. Likewise, individuals with some college education (33%) were significantly more likely than those with less education (22%) to have supplies set aside in their car.
- **Ethnicity:** Non-Hispanic individuals (75% and 73%, respectively) were significantly more likely than Hispanic individuals (60% and 57%, respectively) to have a supply of bottled water and a supply of packaged food set aside as part of their home disaster supply kit.
- **Household Income**: Households making more than $50K were significantly more likely than households earning less to have a disaster supply kit in their home (58% and 47% respectively). Households earning over $50K were significantly more likely to have supplies set aside in their cars than households making less than $25K (32% and 22% respectively).

- **Race**: White individuals (55%) were significantly more likely than Black individuals (41%) to have a disaster supply kit set aside in their home. Whites (76%) were significantly more likely than Blacks (59%) to have a supply of bottled water and a supply of packaged food set aside as part of their home disaster supply kit. Blacks (59%) were significantly more likely to have a flashlight as part of their kit than Whites (37%).
- **Religiousness**: Individuals that considered themselves to be somewhat religious (47%) were significantly more likely to have supplies set aside in their workplace than those who considered themselves barely religious (38%).

To What Extent Do Individuals Have a Household Emergency Plan?
Less than half of individuals (42%) reported having a household emergency plan that included instructions for household members about where to go and what to do in the event of a disaster. This was a decline from the 58 percent that reported having such a plan in 2003. Most individuals with a plan discussed this plan with other members of their household (88%). Additionally, 7 in 10 individuals (70%) disclosed that they had placed copies of important financial and insurance documents in a safe place so as to help them rebuild or seek assistance following a disaster.

Table 3: Household Disaster Preparedness Plan

	2003	2007	+/-
Yes	58%	42%	-16%
No	42%	58%	16%

Relevant TCL Measure:

Number of households that conduct pre-incident preparation—to include maintaining a communication plan, gathering disasters supplies, practicing evacuation/shelter-in-place, and maintaining skills.

Demographic and Contextual Differences
- **Age**: Individuals between the ages of 35 to 54 (94%) were significantly more likely than other age groups (18 to 35, and over 55—85% and 82% respectively), to have discussed their household plan with other members in their household.
- **Ethnicity**: Non-Hispanic individuals (71%) were significantly more likely to have copies of important financial and insurance documents in a safe place than Hispanic individuals (58%).
- **Household Income**: Households with an income over $75K (48%) were significantly more likely to have an emergency plan in the event of a disaster than households earning less than $49K (38%). Households with incomes over $75K (97%) were significantly more likely to have discussed their household plan with other members in the home than households making less than $25K (74%). Likewise, households making over $75K (76%) were significantly more likely to have copies of important financial and insurance documents in a safe place than households making less than 49K (68%).
- **Religiousness**: Individuals that considered themselves to be somewhat religious (44%) were significantly more likely to have a home emergency plan than those that considered themselves barely religious (36%).

How Familiar Are Individuals with Their Community-based Disaster Preparedness Systems?

Participants were asked to rate their familiarity with various community-based disaster preparedness systems. Fewer than half of respondents were familiar with the alert and warning systems in their communities (45%) and official sources of public safety information (34%). Individuals reported even lower levels of familiarity with community evacuation routes (26%) or their local shelter locations (31%). Approximately 6 in 10 (58%) of individuals who said they had a child attending a school outside of their home, including day care or part-time kindergarten, said they were aware of the details of the emergency or evacuation plan of their children's school, including where the school planned to evacuate and how to get information about the child in the event of a disaster.

Table 4: Familiarity with Community Plans/Systems*

	Most Familiar	Least Familiar
Alerts and warning systems in your community?	45%	33%
Official sources of public safety information?	34%	43%
Shelter locations near you?	31%	54%
How to get help with evacuating or getting to a shelter?	29%	49%
Community evacuation routes?	26%	60%

* Each percentage represents top-and-bottom-box scores, respectively. Those stating 4 or 5 (top-box, most familiar) and 1 or 2 (bottom-box, least familiar) are measured on a scale of 1 to 5; with 5 being 'very familiar' and 1 being 'not at all familiar')

Relevant TCL Measures:

Jurisdiction's population that is knowledgeable of workplace, school, and community emergency plans.

Number of households that conduct pre-incident preparation—to include maintaining a communication plan, gathering disaster supplies, practicing evacuation/shelter-in-place, and maintaining skills.

Number of citizens prepared to evacuate or relocate to designated shelter (to include citizens with special needs).

Demographic and Contextual Differences

- **Age**: Individuals over the age of 55 (32%) were significantly more likely to be very familiar with their community's alert and warning systems, as well as evacuation routes, than were individuals between 18-34 and 35-54 (25% and 26% respectively).
- **Geography**: Rural residents (68%) were significantly more likely to know the details of their children's school emergency and evacuation plans than individuals from suburban and urban residential areas (both 55%).
- **Religiousness**: Individuals that considered themselves to be somewhat religious (60%) were significantly more likely to know the details of their children's school emergency and evacuation plans than those that considered themselves barely religious (48%). Religious individuals were significantly more likely to be very familiar with shelter locations (22%), and how to get help evacuating to a shelter (19%) than non-religious individuals (17% and 13% respectively).

What Is the Extent of Volunteer Support for Emergency Responders/Community Safety?

Nearly one-quarter (23%) of individuals stated they had given some time in the past 12 months to support emergency responder organizations or an organization that focuses on community safety, such as Neighborhood Watch (a similar finding to the 2003 survey; 22%). About one-third of participants (32%) disclosed that they had volunteered to help in a disaster at some point in the past, a new item in the 2007 survey. The most frequently mentioned organizations for which individuals had volunteered their time included Neighborhood Watch, the American Red Cross, and local fire and police departments.

An encouraging 65 percent of individuals said they would be willing to take a 20-hour training course to become qualified to help their community recover from disasters. The respondents that were least willing to take the training class included individuals over 55 years old, and respondents from households making less than $25K.

Table 5: Volunteering for Emergency Responder/Community Safety

	2003	2007	+/-
Yes	22%	23%	1%
No	78%	77%	-1%

Relevant TCL Measure:

Number of trained citizens providing volunteer support to local emergency responder disciplines (law enforcement, fire, emergency medical, and public health services).

Table 6: Volunteering to Help in a Disaster

	2003	2007	+/-
Yes	28%	32%	4%
No	72%	68%	-4%

Demographic and Contextual Differences

- **Age**: Individuals between the ages of 18 to 54 (67–74%) were significantly more likely than older individuals (52%) to indicate willingness to take a 20 hour disaster recovery training course.
- **Education**: Individuals with college experience (36%) were significantly more likely to have volunteered in a disaster than individuals with less education (23%).
- **Employment**: Employed individuals (25%) were significantly more likely to have given some time to support emergency responder organizations or an organization that focuses on community safety than the unemployed (21%). Those with a job (35%) were also significantly more likely to have volunteered to help in a disaster than those without one (28%). Employed individuals (72%) are significantly more likely to be willing to take a 20-hour training course than unemployed individuals (56%).
- **Ethnicity**: Non-Hispanic individuals (24%) were significantly more likely than Hispanic individuals (14%) to have given time to help support emergency responder organizations or an organization that focuses on community safety.
- **Gender**: Men (37%) were significantly more likely to have volunteered during a disaster than women (27%).

- **Geography**: Individuals living in suburban or rural residential areas (25% and 26%, respectively) were significantly more likely to have volunteered time than urban residents (18%). Suburban residents (69%) were significantly more willing than rural or urban residents (60% and 63%) to express willingness to take a 20-hour disaster recovery training course.
- **Household Income**: Individuals with a household annual income of $75K or more were more likely to volunteer in the past 12 months (30%) than individuals with a household annual income of $25K or less (14%).
- **Religiousness**: Individuals that considered themselves to be somewhat religious (24%) were significantly more likely to have given some time to support emergency responder organizations or an organization that focuses on community safety than those that considered themselves barely religious (17%).

Do Individuals Know What To Do in the First Five Minutes After Specific Types of Disasters (Natural, Radiological, Explosion, or Chemical Release)?

This section of the survey focused on the first 5 minutes following disasters that might occur without warning. These survey items also continued to probe individuals' perceptions of their abilities to become prepared for a disaster (self-efficacy), as well as the response efficacy of the action—the belief that the preparedness actions they might take could make a difference in the event of a disaster. Participants were asked how confident they were in their own abilities and knowledge of what they should do in the first 5 minutes of a disaster (scale of 1–5, where 1 means "not at all confident," and 5 means "very confident"). Nearly 6 in 10 individuals (57%) expressed confidence in their abilities to know what to do in the first 5 minutes of a sudden natural disaster such as an earthquake or tornado. Reported confidence levels were significantly lower for man-made disasters such as radiological explosions (or dirty bombs), the release of chemical agents, or other explosions or bombs (19%, 23%, and 33% confidence, respectively). Individuals had the least confidence in their abilities to handle an explosion of a radiological or dirty bomb, or release of a chemical agent (62% and 59% non-confidence, respectively).

Table 7: Knowledge of How to Respond in the First Five Minutes*

	Confident	Not Confident
A sudden natural disaster such as an earthquake or tornado?	57%	18%
An explosion or bomb?	33%	42%
The release of a chemical agent?	23%	59%
An explosion of a radiological or dirty bomb?	19%	62%

Relevant TCL Measure:

The number of citizens who know the appropriate detailed response for specific high-threat incidents in their area, to include multiple incidents where appropriate.

*Each percentage represents top-and-bottom-box scores, respectively. Those stating 4 or 5 (top-box, very confident) and 1 or 2 (bottom-box, not very confident) on a scale of 1 to 5, with 5 being 'very confident' and 1 being 'not very confident' in their abilities to know what to do in the first 5 minutes following a disaster)

Demographic and Contextual Differences
- **Education**: Individuals with some college experience (33%) were significantly more confident in their abilities to know what to do in the first 5 minutes of a natural disaster than those with less educational experience (26%).
- **Gender**: Men were significantly more confident in their abilities to know what to do in the first 5 minutes of any type of disaster (scores for different types of disaster ranged from 17–37%) than women (scores for different types of disaster ranged from 8–25%). Men were also more likely than women to be very confident in their own ability to handle a disaster (31% vs. 18%).
- **Geography**: Suburban and rural residents (32% and 35%) were significantly more confident in their abilities to know what to do in the first 5 minutes of a natural disaster than those living in an urban residential area (26%).

What Is the Extent of Participation in Preparedness Drills/Exercises?

Participants were asked if they had participated in a variety of disaster-related drills in their home, workplace, or school—aside from fire drills. While 4 in 10 individuals (41%) reported having participated in a workplace evacuation drill, only 27 percent had participated in a workplace shelter-in-place drill. Even fewer individuals had participated in school or home-based shelter-in-place drills (14% and 10%, respectively). Only 13 percent reported having participated in a home evacuation drill, and just 10 percent stated they had taken part in a home shelter-in-place drill.

Table 8: Participation in Drills

	Yes, I have participated
A workplace evacuation drill	41%
A workplace shelter-in-place drill	27%
A school evacuation drill	19%
A school shelter-in-place drill	14%
A home evacuation drill	13%
A home shelter-in-place drill	10%

> **Relevant TCL Measures:**
>
> Jurisdiction's population that is knowledgeable of workplace, school, and community emergency plans.
>
> Number of households that conduct pre-incident preparation—to include maintaining a communication plan, gathering disaster supplies, practicing evacuation/shelter-in-place, and maintaining skills.
>
> Number of citizens prepared to evacuate or relocate to designated shelter (to include citizens with special needs).

Demographic and Contextual Differences
- **Age**: Individuals between the ages of 18 to 54 (13–16%) were significantly more likely to have participated in a home evacuation drill than older individuals (7%).
- **Education**: Besides home-based drills, individuals with some college experience were significantly more likely to have participated in drills than those without college experience: a workplace evacuation drill (44% and 33% respectively), a workplace shelter-in-place drill (29% and 21% respectively), a school evacuation drill (22% and 11% respectively) and a school evacuation shelter-in-place drill (16% and 8% respectively).
- **Employment**: Employed individuals (16%) were significantly more likely to have participated in a home evacuation drill than unemployed individuals (8%).
- **Race**: Black individuals (56%) were significantly more likely to have participated in a workplace evacuation drill than White individuals (40%).

- **Religiousness**: Very religious individuals (43%) were significantly more likely to have participated in a workplace evacuation drill than individuals who were not religious at all (33%).

How Many Individuals Have Received Training in Preparation for a Disaster?
Participants were asked if they had engaged in any sort of emergency-related training programs. Cardiopulmonary Resuscitation (CPR) training was found to be the most common, taken by over one-third of individuals (35%), which was a minor decrease from the 2003 Citizen Corps survey (–2%). There was also a decline (–4%) from the 2003 study in the number of individuals who had taken first aid skills training (33%). One in ten individuals (10%) had attended training as part of a Community Emergency Response Team (CERT). Nearly one-quarter of individuals (23%) reported having attended a meeting on how to become better prepared for a disaster—a question not asked in the 2003 survey.

Table 9: Preparedness Training Programs

	2003	2007	+/-
Attended CPR training	37%	35%	-2%
Attended first aid skills training	37%	33%	-4%
Attended a meeting on how to be better prepared for a disaster**	---	23%	---
Attended training as part of a Community Emergency Response Team or CERT	10%	10%	0%

Relevant TCL Measures:

Number of citizens trained in basic first aid.

Number of citizens educated and trained in risk-based capabilities for high-threat incidents in their area, including natural hazards, technological hazards, and terrorism.

** Was not included in the 2003 survey

Most individuals taking preparedness classes or emergency training attributed their motivation to a mandatory function of their job or school (51%). The second most common responses were for personal preparedness (16%) or out of concern for the safety of family or others (15%). These numbers are consistent with the results from the 2003 survey asking the same question.

Table 10: Motivators for Preparedness Training*

	2003	2007	+/-
Mandatory for job/school	47%	51%	4%
To be prepared**	---	16%	---
Concern for safety of family or others	20%	15%	-5%
Easy to sign up**	---	7%	---
Concern for personal safety	6%	7%	1%
To have the necessary skills to help others**	---	7%	---
General interest/hobby	11%	6%	-5%
Because others (family or friends) did**	---	4%	---
Other	20%	5%	-15%

*These responses were unaided and asked as part of a multiple response question. The results represent the total percent of respondents mentioning the particular motivator from the list.
** Was not included in the 2003 survey

Demographic and Contextual Differences

- **Age**: Individuals ages 18 to 54 (37–46%) were significantly more likely to have taken a CPR class than older adults (23%). Individuals over the age of 35 (18–22%) were significantly more likely than younger individuals (8%) to have taken part in preparedness training with the motivation of becoming personally prepared. Individuals between the ages of 18 to 54 (52–57%) were significantly more likely to have taken training because it was mandatory for their school or job than individuals over 55 (40%).
- **Employment**: Employed individuals were significantly more likely to have taken part in some sort of preparedness training (preparedness meeting, CPR, first aid skills, or CERT training) than those without a job.
- **Geography**: Suburban residents (29%) were significantly more likely to have attended a meeting on how to be better prepared for a disaster than urban residents (19%).
- **Household Income**: Individuals with an annual household income of $75K or more were more likely to had attended a meeting on how to become better prepared for a disaster or taken a CPR class (32% and 41% respectively) than individuals with a household annual income of $25K or less (12% and 27% respectively).
- **Race**: Black individuals (42%) were significantly more likely than White individuals (32%) to have attended first aid skills training.
- **Religiousness**: Individuals that considered themselves to be somewhat religious (24%) were significantly more likely to have attended a preparedness meeting than those that considered themselves barely religious (17%).

How Does Perceived Preparedness Compare with Actual Preparedness?

Past research has found that often, participants perceive themselves to be more prepared than their reported actions would indicate. In this survey, Citizen Corps asked individuals to name specific preparedness actions that they had taken including household planning, gathering supplies, preparedness training, volunteering, etc., as well as to self assess their preparedness stage (from contemplating becoming prepared to having been prepared for the last six months). Individuals' perceptions of their level of preparedness were compared with their self reports of specific preparedness activities. Individuals who reported being prepared were indeed more likely to have taken specific preparedness measures. It should be noted, however, that even those who reported being prepared were lacking some critical elements of preparedness, e.g. nearly 40 percent who said they "have been prepared for at least the past six months" did not have a household plan, 80 percent had not conducted a home evacuation drill, and nearly 60 percent did not know their community's evacuation routes. Respondents who stated they had been prepared for at least the last six months compared to those who had not prepared were significantly more likely to:

- Have a kit in their home, car, and workplace
    - Home kit: 86% compared to 39%
    - Car kit: 48% compared to 24%
    - Workplace kit: 57% compared to 40%
- Have a household plan and have discussed it with household members
    - Have a household plan: 61% compared to 34%
    - Of those with a plan, discussed plan with household members: 93% compared to 85%

- o Have copies of important financials and insurance documents: 83% compared to 64%
- Be aware of community preparedness resources
  - o Alerts and warning systems: 59% compared to 39%
  - o Official sources of public safety information: 46% compared to 27%
  - o Evacuation routes: 42% compared to 19%
  - o Shelter locations: 46% compared to 25%
  - o How to get help with evacuating or getting to a shelter: 42% compared to 24%
  - o Children's school emergency/evacuation plan: 68% compared to 54%
- Be confident in their abilities to handle each type of disaster
  - o Dirty bombs: 33% compared to 13%
  - o Chemical agents: 33% compared 18%
  - o Explosion/bombs: 52% compared to 25%
  - o Natural disaster: 75% compared to 50%
- Be confident that preparing for disasters that may affect them is helpful and worthwhile
  - o Help very much: 69% compared to 48%
  - o Help somewhat: 26% compared to 38%
  - o Help very little: 4% compared to 10%
  - o Help not at all: 1% compared to 4%
- Have taken training
  - o Preparedness meeting: 37% compared to 17%
  - o CPR training: 43% compared to 32%
  - o First Aid skills training: 44% compared to 28%
  - o CERT training: 17% compared to 7%
  - o Disability-specific emergency training: 50% compared to 22%
  - o Willing to take a 20-hour training: 67% compared to 64%
- Have taken part in drills or exercises
  - o Home evacuation: 20% compared to 10%
  - o Home shelter-in-place: 17% compared to 7%
  - o Workplace shelter-in-place: 31% compared to 25%
  - o School evacuation: 23% compared to 18%
  - o School shelter-in-place: 18% compared to 12%
- Have volunteered
  - o Community safety: 35% compared to 18%
  - o Disaster response: 46% compared to 26%

What Barriers Do Individuals Perceive in Preparing for Disasters?

What Are the Barriers to Undertaking Disaster Preparedness Activities?
In order to identify the barriers to preparedness, respondents who said they had not yet begun to prepare or were not intending to prepare were asked to respond to a list of potential barriers and asked to indicate whether the stated barrier was a primary reason, somewhat of a reason, or not a reason at all. The most commonly mentioned reason for not preparing was the belief that emergency responders such as fire, police, or emergency personnel would help them (37%). Other primary reasons included lack of knowledge (27%) and lack of time (24%). Almost one in five also cited that they did not want to think about it (19%). Some individuals didn't think preparing for a disaster would make a difference (17%; although 26% cited that as somewhat of a reason). Fewer (13%) cited as a primary reason that they didn't think they would be able to prepare, and 70 percent of individuals felt that inability was not a reason at all.

Table 11: Barriers to Preparedness

	Primary Reason	Not a Reason at All
I think that emergency responders, such as fire, police or emergency personnel, will help me.	37%	28%
I don't know what I'm supposed to do	27%	43%
I just haven't had the time	24%	48%
I don't want to think about it	19%	56%
It costs too much	17%	63%
I don't think it will make a difference	17%	57%
I don't think I'd be able to	13%	70%

Demographic and Contextual Differences
- **Age**: Individuals over the age of 55 (46%) were significantly more likely to not take disaster preparedness steps due to reliance on emergency responders such as fire, police, or emergency personnel than younger individuals (33–36%). Individuals less than 54 years of age (23–30%) were significantly more likely than individuals 55 and older (17%) to say a lack of time was their primary reason for not preparing. As age increased, individuals were significantly more likely to say that not believing their actions would make a difference (low response-efficacy) was their primary reason for not preparing. Individuals over 55 (21%) were also significantly more likely than younger individuals (8–13%) to indicate that doubts of their abilities (low self-efficacy) were a primary reason for not preparing.
- **Education**: Individuals with less than a high school degree (51%) were significantly more likely not to have prepared because of perceived reliance on emergency responders such as fire, police, or emergency personnel, than more educated individuals (30%). Individuals with less than a high school degree (34%) were significantly more likely than higher educated individuals (23%) to state that a lack of knowledge was their primary reason for not preparing.
- **Employment**: Unemployed individuals (47%) were significantly more likely to rely on emergency responders to help them as a primary reason for not preparing than were employed individuals (31%).

- **Household Income**: Households earning less than $25K annually (33%) were significantly more likely to not prepare because of reliance on emergency responders—fire, police, or emergency personnel—than those earning more annually (31–19%). As income levels increased, individuals were significantly less likely to say that cost was their primary reason for not taking any preparedness steps.

What Are the Barriers to Taking Preparedness Training?

Participants who indicated they had not taken any type of disaster preparedness training were asked what had prevented them from doing so. Unaided responses were then coded according to predetermined categories. Of these participants, the most common reasons given were either they had not had the time (16%), they hadn't thought about it (15%), or that it was difficult for them to get information on what to do (15%). Few respondents (2%) provided as a reason that they did not believe that this training would be effective. The majority of individuals (53%) provided reasons not included in the survey's predetermined categories. Many of these "other" reasons referred to not knowing about any available training courses, not having been offered training, or having taken training prior to the 2-year limit stated in the question. Again, these barriers were similar to the ones noted in the 2003 survey.

Table 12: Barriers to Preparedness Training*

	2003	2007	+/-
Lack of time	19%	16%	-3%
Haven't thought about it**	---	15%	---
Difficult to get information on what to do	14%	15%	1%
Don't think it is important	16%	5%	-11%
Lack of money/Too expensive	2%	2%	0%
Don't think it will be effective**	---	2%	---
Other	53%	53%	0%

*These responses were unaided and asked as part of a multiple response question. The results represent the total percent of respondents mentioning the particular motivator from the list.
** Was not included as a pre-coded option for the interviewer in the 2003 survey

Demographic and Contextual Differences

- **Age:** Individuals ages 18-34 (24%) were more likely to report a lack of time being a primary barrier to not taking part in any preparedness training than individuals 55+ (8%).
- **Education:** Individuals with less than a high school degree compared to individuals with some college were more likely to report primary barriers of having not thought about (19% and 13% respectively) or having difficulty getting information on what to do (20% and 12% respectively) to take part in any preparedness training.
- **Ethnicity**: Hispanic individuals (29%) were significantly more likely than non-Hispanics (14%) to report a lack of time as being their primary barrier to not taking part in any preparedness training.

Who Will Individuals Look To For Help During the First 72 Hours?

Participants were asked to describe how much they believed they would rely on certain groups of individuals or organizations for assistance in the first 72 hours following a disaster. A large majority of individuals (71%) indicated that they would rely on household members most, a slight increase from 2003 (+3%). There was also a considerable increase in the number of individuals who would expect to rely on others in their neighborhood, increasing from 39 to 48 percent.

However, only 29 percent of individuals would expect to rely on State and Federal Government agencies, including FEMA, in the first 72 hours following a disaster. In fact, over a quarter of individuals (27%) said they would not expect to rely on State and Federal Government agencies at all. Two new categories of organizations were added in this 2007 survey—non-profit organizations and faith communities. Both of these rated fairly high, with 4 of 10 individuals indicating they would rely on these types of organizations.

Table 13: Expectation of Reliance on Others*

	2003	2007	+/-
Household members	68%	71%	3%
Fire, police, emergency personnel	62%	57%	-5%
People in my neighborhood	39%	48%	9%
Non-profit organizations, such as the American Red Cross or the Salvation Army**	---	40%	---
My faith community, such as a congregation**	---	39%	---
State and Federal Government agencies, including FEMA	34%	30%	-4%

*Each percentage represents top-box scores, respectively. Those stating 4 or 5 (top-box, most relied upon) are on a scale of 1 to 5, with 5 being 'expect to rely on a great deal' and 1 being 'do not expect to rely on at all' for assistance in the first 72 hours following a disaster
** Was not included in the 2003 survey

Demographic and Contextual Differences
- **Education**: Individuals with college experience (60%) were significantly more likely than individuals with only a high school education (54%) to rely on household members. Individuals without college experience (25%) were significantly more likely than individuals with college experience (15%) to rely on State and Federal Government agencies, as well as fire, police, and emergency personnel.
- **Gender**: Women were significantly more likely to rely on household members and people in their neighborhood (65% and 31%, respectively) than men (50% and 24%, respectively).
- **Geography**: Suburban and rural residents (both 61%) were significantly more likely than urban individuals (50%) to rely a great deal on household members in the first 72 hours of a disaster. Individuals from rural areas (31%) were significantly more likely than urban residents (24%) to rely on people in their neighborhood.
- **Household Income**: Individuals with an annual household income of less than $25K were significantly more likely to rely a great deal on State and Federal Government agencies (26%), as well as fire, police, and emergency personnel (42%), in the first 72

hours of a disaster than individuals with an annual household income of $75K or more (14% and 33% respectively).

- **Race**: Black individuals (35%) were significantly more likely to rely a great deal on their faith community or non-profit organizations in the first 72 hours of a disaster than White individuals (24%).
- **Religiousness**: Individuals that considered themselves to be somewhat religious (45%) were significantly more likely to rely on their faith-based community than those that considered themselves barely religious (16%) in the first 72 hours following a disaster. Religious individuals (60%) were also more likely to rely a great deal on household members than non-religious individuals (49%).

Do Individuals Expect to Need Help During an Evacuation?

Respondents were also asked specifically if they would expect to need help to evacuate or get to a shelter in the event of a disaster. Nearly 4 in 10 individuals (38%) said they would expect to need help to evacuate or get to a shelter in the event of a disaster.

Table 14: Reliance on Help from Others During an Evacuation

	National
Yes	38%
No	62%

> **Relevant TCL Measure:**
>
> The number of citizens prepared to evacuate or relocate to designated shelter (to include citizens with special needs).

Demographic and Contextual Differences

- **Education**: Individuals with no high school diploma (70%) were significantly more likely to need help from others during an evacuation than individuals with a bachelor's degree (28%).
- **Employment**: Unemployed individuals (45%) were significantly more likely to need help from others than employed individuals (34%).
- **Race**: Blacks (61%) were twice as likely as Whites (31%) to need help to evacuate or get to a shelter.
- **Ethnicity**: Hispanic individuals (66%) were significantly more likely than non-Hispanic individuals (34%) to need help from others during an evacuation.
- **Gender**: Women (46%) were significantly more likely to need help from others during an evacuation than men (31%).
- **Geography**: Individuals living in urban areas (47%) were significantly more likely to need help from others in the event of an evacuation than suburban (35%) or rural residents (31%).
- **Household Income**: Individuals with an annual household income of $25K or less (63%) were significantly more likely to need help to evacuate or get to a shelter than individuals with an annual household income of $75K or more (27%).
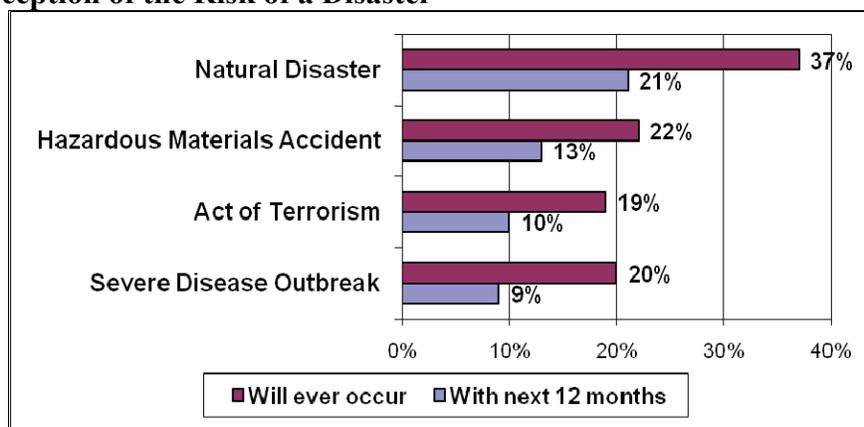
> ## What Is the Perception of Vulnerability to Different Types of Disasters? How Do People Perceive the Utility of Preparedness?

What Are Individuals' Perceptions of Risks of Different Types of Disasters?

Individual's perceptions of their vulnerability to disasters and the relative urgency of the risks to their community (for different categories of disasters) were assessed in two different ways. First, participants were asked to state how likely (using a scale of 1 to 5, with 1 signifying not very likely and 5 signifying very likely) they thought it was that a specific type of disaster would occur in their community in the next 12 months. Then, participants were asked how likely they thought it was that a specific disaster would *ever* occur in their community.

Of the four specific types of disasters investigated, a natural disaster such as an earthquake, flood, hurricane, tornado, or wildfire was rated as the disaster most likely to occur. However, only 2 in 10 individuals thought a natural disaster would occur in the next 12 months, and fewer than 4 in 10 (37%) reported thinking that a natural disaster would *ever* affect their community. Only 10 percent of individuals felt an act of terrorism would impact their community in the next 12 months, and only 19 percent felt a terrorist act would *ever* occur in their community. These low levels of susceptibility and urgency were echoed in the responses related to a severe disease outbreak (9% within 12 months and 20% *ever*).

Figure 1: Perception of the Risk of a Disaster*

*Likeliness each disaster would occur, top-box scores (those stating 4 or 5, on a scale of 1 to 5; 5 being 'very likely' that the disaster would occur and 1 being 'not very likely' that the disaster would occur)

Demographic and Contextual Differences

- **Age**: As individuals' age increased, the percentage that believed a natural disaster would very likely impact their community in the next 12 months also increased.
- **Education**: Across all disaster categories, individuals with less than a college education were significantly more likely to believe that a disaster would occur in their community in the next 12 months than individuals with college experience.
- **Geography:** Suburban residents (24%) were significantly more likely than urban residents (18%) to believe that a natural disaster was very likely to ever occur in their
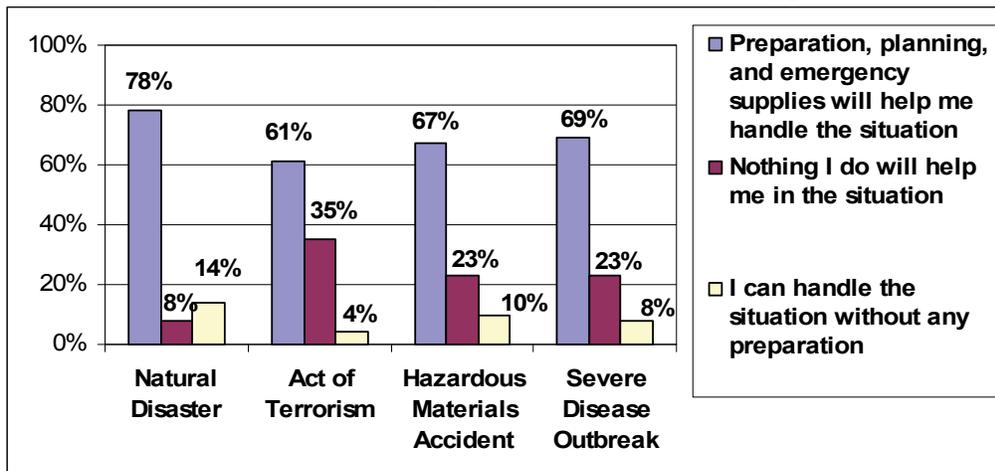
community. Rural residents (60%) were significantly more likely than urban (46%) and suburban residents (47%) to believe that an act of terrorism was not very likely to occur in the next 12 months.

- **Household Income**: Households earning less than $25K annually (12%) were significantly more likely than individuals earning more (<6%) to believe that a terrorist attack was very likely to occur in the next 12 months. As household income increased, however, the percentage that believed a hazardous materials accident would occur in their community in the next 12 months decreased.

- **Race**: Across disaster categories, Blacks were significantly more likely than Whites to believe that all types of disasters were very likely to occur in their communities in the next 12 months.

- **Religiousness**: Individuals that considered themselves to be somewhat religious were significantly more likely to believe that some type of hazardous materials accident or widespread disease outbreak (14% and 10% respectively) would occur in the next 12 months than were those that considered themselves barely religious (7% and 4% respectively).

What Is the Perceived Effect of the Utility of Advance Preparation for Different Types of Disasters?

The survey sought to measure individual's perceptions of the efficacy or utility of preparing in advance of a disaster. Participants were asked about whether preparation, planning, and emergency supplies would help them handle the situation in the event of four different categories of disasters—a natural disaster, an act of terrorism, a hazardous materials accident, and a severe disease outbreak. Almost 8 out of 10 (78%) individuals felt that preparation, planning, and emergency supplies would help them handle a natural disaster. Fourteen percent of individuals believed they could handle a natural disaster without advance preparation. In response to dealing with an act of terrorism, only 61 percent of individuals felt preparation, planning, and supplies would help them deal with an act of terrorism. This lower level of response efficacy for a terrorist event (lack of belief that recommended preparedness measures will mitigate the personal impact of a disaster) is coupled with relatively high levels of fatalism, with over one-third of individuals (35%) reporting the belief that nothing they could do to prepare would help them handle an act of terrorism. While participants indicated greater response efficacy related to threats such as a severe disease outbreak or hazardous materials accidents (69% and 67%, respectively), more than 2 out of 10 individuals believed that nothing would help them respond to those threats.

Figure 2: Utility of Advance Preparations for Different Types of Disasters
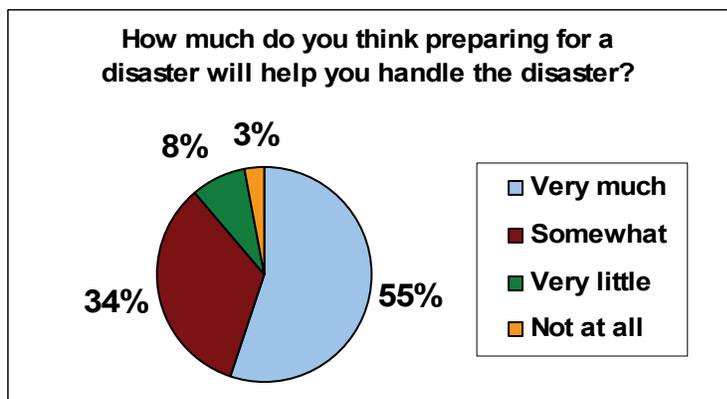

Demographic and Contextual Differences

- **Employment**: Employed individuals (69%) were significantly more likely to think preparation, planning, and emergency supplies would help them handle a hazardous materials accident than those without a job (64%).

- **Gender**: Men were significantly more likely than women to believe they could handle a natural disaster or a hazardous materials accident without any preparation (19% vs. 10%; and 14% vs. 7%, respectively). Women (26%) were significantly more likely than men (19%) to feel that nothing they did to prepare for a hazardous materials accident would help them handle it.

- **Geography**: Suburban residents (64%) were significantly more likely than urban (58%) or rural residents (59%) to believe that preparation, planning, and emergency supplies would help them handle an act of terrorism.

- **Household Income**: Individuals with an annual household income of $75K or more were significantly more likely to believe that preparation, planning, and emergency supplies would help them handle a natural disaster (83%) or severe disease outbreak (72%) than individuals with an annual household income of $25K or less (74% and 64% respectively).

- **Race**: Black individuals (14%) were significantly more likely than White individuals (7%) to feel that nothing they did to prepare for a natural disaster would help them handle it.

- **Religiousness**: Individuals who reported being not at all religious (15%) were more likely to think they could handle a natural disaster without any preparation than those that considered themselves to be very religious (12%). Very religious individuals were significantly more likely to think preparation, planning, and emergency supplies would help them handle an act of terrorism or a severe disease outbreak (64%, 71%) than were individuals who reported being not at all religious (49%, 60%).

What Is the Perceived Effect of Advance Preparation on Ability to Respond to Disasters?
Participants were also asked if preparing in advance would help them personally be able to handle a disaster. While the majority of individuals (89%) agreed that preparing would help them to handle the disaster either very much (55%) or somewhat (34%), only half of individuals (50%) had confidence in their own personal ability to respond to a disaster (rated as 4 or 5 on a 5 point scale), and 15 percent indicated low levels of confidence (rated 1 and 2 on a 5 point scale). One in four individuals (39%) indicated that they had talked to someone about the need to be prepared for disasters that might affect their community. These individuals had primarily talked to other household members (34%) or people from their neighborhood (26%) about disaster preparedness.

Figure 3: Perceptions of Effectiveness of Advance Preparations

Demographic and Contextual Differences
- **Age**: Individuals ages 18 to 54 (55–59%) were significantly more likely than those over the age of 55 (48%) to think that preparing for a disaster would help them very much.
- **Employment**: Employed individuals (57%) were significantly more likely to think preparing for a disaster would help them very much, than were those without a job (52%).
- **Household Income**: Individuals with a household income of less than $25K (14%) were significantly more likely to have no confidence in their own ability to handle a disaster than households earning more (3–7%). As household income increased, so did the likelihood that the individuals had talked to someone about the need to be prepared for disasters.
- **Race**: White individuals (41%) were significantly more likely to have talked to someone about the need to be prepared for disasters that may affect their community than Black individuals (30%).
- **Religiousness**: Individuals who considered themselves to be religious (57%) were significantly more likely to think that preparing for a disaster would help them very much, than were those who did not consider themselves to be religious (44%).
- **Volunteerism**: Individuals who had volunteered to help in a disaster in the past (34%) were significantly more likely than those who had not (20%) to have confidence in their abilities to handle a disaster.

> **In Which Stage of the Stages of Change Model (Precontemplation,
> Contemplation, Preparation, Action, Maintenance)
> Are Individuals Relative to Disaster Preparedness?**

Developed by Prochaska and DiClemente, the Stages of Change Model, or Transtheoretical Model of Behavior Change[5], states that behavior change is not an event, but rather a process. In this conceptualization, individuals move through five distinct stages that indicate their readiness to attempt, make, or sustain behavior change. These five stages are *precontemplation, contemplation, preparation, action,* and *maintenance*. The stages are not linear, as individuals do not necessarily progress from one stage to the next, but instead individuals may relapse to earlier stages and begin the change process again. Often, social marketing campaigns are targeted towards individuals in the contemplation stage, as these individuals may be more readily prompted to take action if given assistance.
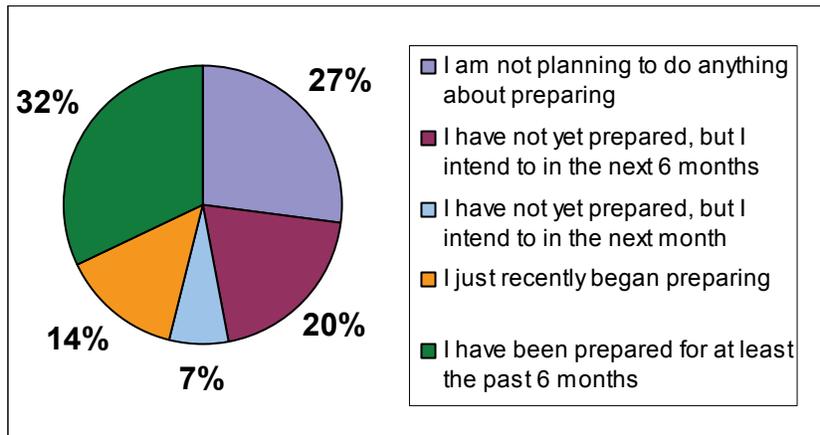
Figure 4: Stages of Change Model

STAGE	DESCRIPTION
Precontemplation	The individual is not intending to change or even thinking about change in the near future (usually measured as the next 6 months).
Contemplation	The individual is not prepared to take action at present, but is intending to take action within the next 6 months.
Preparation	The individual is actively considering changing his or her behavior in the immediate future (e.g., within the next month).
Action	The individual has actually made an overt behavior change in the recent past, but the changes are not well established (maintained for 6 months or less).
Maintenance	The individual has changed his or her behavior, maintained the change for more than 6 months, and is working to sustain the change.

The Stages of Change Model was used in this survey to determine individuals' perceptions of their relative stage of change within the preparedness change process. Participants were asked which of the statements in the chart below best matched their level of preparedness. The stages with the greatest percentage of individuals represented both ends of the Stage of Change spectrum, with nearly one-third of individuals (32%) stating that they had been prepared for at least the past 6 months, and the second largest number stating they were not planning to do anything about preparing (27%). (See Figure 5)[6].

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[5] Prochaska, J.O., and C.C. DiClemente. 1982. Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice,*20, 161-173.

[6] The question on Stages of Change originated from and was used with the permission of the National Center for Disaster Preparedness (NCDP). 2007. *The American Preparedness Project: Where the US public stands in 2007 on terrorism, security, and disaster preparedness.* New York, NY: NCDP.

Figure 5: Stages of Change Preparedness

Demographic and Contextual Differences

- **Age**: Individuals over 35 (33–34%) were significantly more likely to have been prepared for the last 6 months than individuals ages 18 to 34 (26%); however, this younger group was significantly more likely to fall within the *contemplation* stage of preparedness (28%) than any other age range (<18%).
- **Disability**: Individuals with a disability (34%) were more likely to not have plans for preparing than those without disabilities (25%).
- **Employment**: Unemployed individuals (29%) were more likely to be in the *precontemplation* stage (not planning to do anything about preparing) than employed individuals (25%).
- **Gender**: Men were significantly more likely than women to have been prepared for the last 6 months (36% vs. 27%, respectively).
- **Household Income**: Households earning less than $25K annually (20%) were significantly less likely to have been prepared for the last 6 months than those earning more annually (28% to 39%, depending on income level).
- **Religiousness**: Individuals that considered themselves not to be religious (34%) were significantly more likely to be in the *precontemplation* stage (not planning to do anything about preparing) than those that considered themselves to be religious (25%).
- **Volunteerism**: Individuals who had volunteered to help in a disaster (45%) were significantly more likely than those who had not volunteered to have been prepared for the last 6 months (25%).

How Does Disaster Preparedness Differ by Demographic Characteristics?

What Is the Potential Impact of Disability on Disaster Preparedness?
In the event of a disaster, individuals with physical or mental disabilities may have unique challenges relative to their abilities to respond to a disaster. Of the survey participants, almost 2 in 10 individuals (19%) reported having a physical

Relevant TCL Measure:

Number of citizens prepared to evacuate or relocate to designated shelter (to include citizens with special needs).

or other disability that would affect their capacity to respond to an emergency situation. These participants were then asked if they had received training or had made special preparations that would allow them to better respond. Of these individuals, only one-quarter (24%) had either received training or made preparations specific to their disability that would allow them to respond better in the event of a disaster or emergency situation. Another 13 percent of survey participants reported that they currently lived with or cared for someone with a physical or other disability, including someone elderly. Of these individuals, only 30 percent reported receiving specific information or training in order to assist that person in the event of a disaster. To compare these two groups, more individuals with the responsibility for caring for someone else have reported taken any training or preparation (32%) than individuals with disabilities who reported undertaking training for themselves (23%). When combined (individuals having a disability or caring for someone with a disability), 32 percent of individuals may need extra help for themselves or those they care for in the event of a disaster.

- **Home Supply Kit**: Individuals who reported having a disability (55%) were as likely to have prepared a home disaster supply kit as individuals without a disability (53%).
- **Household Emergency Plan**: Individuals with a disability (43%) were just as likely to have a household emergency plan as those without a disability (42%).
- **Training Programs**: Individuals with a disability were significantly less likely to have attended a preparedness meeting (19%), taken a CPR training class (22%), or taken first aid skills training (21%) than those without a disability (24%, 35%, and 33% respectively).

What Is the Potential Impact of Gender on Disaster Preparedness?
Per survey protocol, gender was determined by the interviewer, based on the voice of the participant. In general, men reported greater levels of preparedness and confidence in their abilities to handle the situation. This was also reflected in that fewer men expected to need help in the event of an evacuation.

- **Ability to respond in the first five minutes of a disaster**: Men (17–37%) were significantly more confident in their abilities to know what to do in the first 5 minutes of any type of disaster than women (8–25%), and more likely to be very confident in their own ability to handle a disaster (31% vs. 18%).

- **Perceptions of the utility of preparing in advance of a disaster**: Men were significantly more likely than women to believe they could handle a natural disaster, or a hazardous materials accident, without any preparation (19% vs. 10%; and 14% vs. 7%, respectively). Women (26%) were significantly more likely than men (19%) to feel that nothing they did to prepare for a hazardous materials accident would help them handle it.
- **Reliance on others and the need for help during an evacuation**: Women were significantly more likely to rely on household members and people in their neighborhood (65% and 31%, respectively), than men (50% and 24%, respectively). Women (46%) were also significantly more likely to report needing help to evacuate or get to a shelter than men (31%).
- **Stages of Change**: Men were significantly more likely than women to report having been prepared for the last 6 months (36% vs. 27%, respectively).
- **Volunteering**: Men (37%) were significantly more likely to have volunteered during a disaster than women (27%).
- **Disaster Supplies**: Men (57%) were significantly more likely than women (50%) to have a home disaster kit.

What Is the Potential Impact of Community Type on Disaster Preparedness?

Each respondent was asked to describe his/her location as; urban, suburban, or rural. Overall, suburban respondents were more likely to report having volunteered and taken preparedness training, having more confidence about preparedness (that is, in their abilities to respond in the early stages of a disaster as well as believing that preparing for a disaster could actually aid in reducing harm), and having more awareness of external programs such as Citizen Corps.

Rural respondents overall were less prepared than were suburban respondents; although, they were equally confident in their abilities to respond early in a disaster. Rural residents also were significantly more aware of community plans.

Although urban residents were not as prepared and aware in categories of preparedness, they indicated that they would rely less on others in the event of an evacuation than did suburban and rural respondents.

- **Volunteering**: Individuals living in suburban or rural residential areas (25% and 26%, respectively) were significantly more likely to have volunteered time than urban residents (18%). Suburban residents (69%) were significantly more willing than rural or urban residents (60% and 63%) to express willingness to take a 20-hour disaster recovery training course.
- **Ability to respond in the first five minutes of a disaster**: Suburban and rural residents (32% and 35%) were significantly more confident in their abilities to know what to do in the first five minutes of a natural disaster than those living in an urban residential area (26%).
- **Community Plan**: Rural residents (68%) were significantly more likely to know the details of their children's school emergency and evacuation plans than individuals from suburban and urban residential areas (both 55%).
- **Perceptions of the utility of preparing in advance of a disaster**: Suburban residents (64%) were significantly more likely than urban or rural residents (58% and 59%,

respectively) to believe that preparation, planning, and emergency supplies would help them handle an act of terrorism.

- **Preparedness training programs**: Suburban residents (29%) were significantly more likely to have attended a meeting on how to be better prepared for a disaster than urban residents (19%) and rural areas (22%).
- **Reliance on Others**: Suburban and rural residents (both 61%) were significantly more likely than urban individuals (50%) to rely a great deal on household members in the first 72 hours of a disaster. Individuals from rural areas (31%) were significantly more likely than urban residents (24%) to rely on people in their neighborhoods.

What Is the Potential Impact of Race and Ethnicity on Disaster Preparedness?

A respondent's race was solicited by asking the respondent to select one of the following categories: White, Black or African American, Asian, American Indian, Alaska Native, Native Hawaiian, Other Pacific Islander, or something else (which was then specified by the respondent). A respondent's ethnicity was solicited by asking whether or not they were of Hispanic, Latino, or Spanish origin.

Black respondents were more likely to have higher risk perceptions about disasters; that is, they were more likely than White respondents to believe that all of the disasters discussed were likely to occur in the next 12 months in their communities. Despite the higher perception of the threat of a disaster, Black respondents were less likely than White respondents to have prepared a disaster kit. Black respondents were more likely to expect to rely on others in the event of an evacuation. Black respondents were more prepared in terms of having taken first aid training as well as having participated in a workplace evacuation drill.

Regarding attitudes around disaster preparedness, White respondents reported higher levels of response efficacy, more confidence in sharing preparedness information, and stronger beliefs in their own responsibility to report suspicious behavior. White respondents were more likely than respondents from all other races to have heard of CERT.

Non-Hispanic respondents were more likely to be prepared across a number of measures, including having certain supplies in their disaster kits, having put important financial and insurance documents in a safe place, and volunteering time to a preparedness group. Hispanics were more likely to cite lack of time as a barrier to being prepared for disasters.

- **Kit**: White individuals (55%) were significantly more likely than Black individuals (41%) to have a disaster supply kit set aside in their home. Specifically, Whites (76%) were significantly more likely than Blacks (59%) to have a supply of bottled water and a supply of packaged food set aside as part of their home disaster supply kit. Blacks (59%), however, were significantly more likely to have a flashlight as part of their kit than Whites (37%). Non-Hispanic individuals were significantly more likely to have a supply of bottled water and a supply of packaged food set aside (75% and 73%, respectively) as part of their home disaster supply kit than Hispanic individuals (60% and 57%, respectively).

- **Plan**: Non-Hispanic individuals (71%) were significantly more likely to have copies of important financial and insurance documents in a safe place than Hispanic individuals (58%).
- **Reliance on others during an evacuation**: Black individuals (35%) were significantly more likely to rely a great deal on their faith community or non-profit organizations in the first 72 hours of a disaster than White individuals (24%). Blacks (61%) were also significantly more likely to expect needing help to evacuate or get to a shelter than were Whites (31%).
- **Confidence in ability to respond in a disaster**: White individuals (41%) were significantly more likely to have talked to someone about the need to be prepared for disasters that may affect their communities than Black individuals (30%).
- **Preparedness training programs**: Black individuals (42%) were significantly more likely than White individuals (32%) to have attended first aid skills training. Hispanic individuals (28%) were less likely to have attended first aid skills training than non-Hispanics (34%). Hispanic individuals (29%) were significantly more likely than non-Hispanics (14%) to report a lack of time as being their primary barrier to not having received any preparedness training.
- **Perceptions of the utility of preparing in advance of a disaster**: Black individuals (14%) were significantly more likely than were White individuals (7%) to have a fatalistic perception and believe that nothing they did to prepare for a natural disaster would help them handle it.
- **Perception of risks**: Across disaster categories, Blacks were significantly more likely than Whites to believe that all types of disasters were very likely to occur in the next 12 months.
- **Volunteering**: Non-Hispanic individuals (24%) were significantly more likely than Hispanic individuals (14%) to have given time to help support emergency responder organizations or organizations that focus on community safety.
- **Participation in preparedness drills and exercises**: Black individuals (56%) were significantly more likely to have participated in workplace evacuation drills than White individuals (40%).
- **Willingness to report suspicious behavior**: White individuals (97%) were significantly more likely than Black individuals (91%) to feel that they had a personal responsibility to report suspicious behavior or circumstances to the authorities.

What Is the Potential Impact of Income on Disaster Preparedness?

A respondent's household income was solicited by asking which of the following categories applied to his/her household: Less than $25,000; $25,000 to less than $50,000; $50,000 to less than $75,000; and $75,000 or more. Across several constructs measuring preparedness—including self-reported preparedness activities, attitudes around preparedness, and awareness of preparedness groups and plans—the data indicate a direct relationship between income level and preparedness, in that as income increased, so did these measures of preparedness. For example, respondents with household incomes of $50,000 or more were more likely than those with lower incomes to have a disaster kit, to have disaster supplies in their cars, to have a household disaster plan, to have communicated this plan with others, to have volunteered with a preparedness group, to have taken a preparedness training course, to have taken a CPR course, to have communicated the importance of preparing to someone else, to believe that preparedness would

actually reduce harm in the event of a disaster, and to have heard of CERT. Respondents with household incomes over $50,000 preferred to receive preparedness information through email.

Conversely, those with lower household incomes were less likely to have taken preparedness measures and indicated an increased need for help in an evacuation. Individuals with lower household incomes were less likely to have been prepared during the past six months, and they were more likely to cite cost as a barrier to preparing than were those with higher incomes. Furthermore, individuals reporting lower household incomes were also more likely to have different attitudes about preparedness than those with higher incomes, such as little to no confidence in their abilities to handle disaster and increased belief that a terrorist attack was likely in the next 12 months. Finally, lower income respondents were more likely to prefer personal communication about preparedness than mediated communication.

- **Kit**: Households making over $50K (58%) were significantly more likely than households earning less than $49K (48%) to have a disaster supply kit in their home. Households earning over $50K (33%) were significantly more likely to have supplies set aside in their cars than households making less than $25K (22%).
- **Plan**: Households with an income over $50K (47%) were significantly more likely to have a household plan in the event of a disaster than households earning less (38%). Those with incomes over $50K were significantly more likely to have discussed their household plan with other household members (95%) than those earning less than $49K (82%). Households making over $75K (76%) were significantly more likely to have copies of important financial and insurance documents in a safe place than households earning less than $49K (62%).
- **Volunteering**: Individuals with an annual household income of $75K or more (39%) were significantly more likely to have volunteered to help in a disaster than individuals with an annual household income of $25K or less (26%).
- **Reliance on others during an evacuation**: Households earning less than $25K expected to rely on State and Federal Government agencies (27%), as well as fire, police, and emergency personnel (44%) in the first 72 hours of a disaster. Additionally, individuals in this household income range were significantly more likely to need help to evacuate or get to a shelter (60%).
- **Confidence in ability to respond in a disaster**: Individuals with a household income of less than $25K were significantly more likely to have no confidence in their own ability to handle a disaster (14%) than were households earning more (3–7%). As household income increased, so did the likelihood that the individuals had talked to someone about the need to be prepared for disasters.
- **Preparedness training programs**: Individuals in households earning $75K or more annually were more likely to attend a meeting on how to become better prepared for a disaster (37%) or take a CPR class (33%).
- **Barriers**: Households earning less than $25K annually were significantly more likely to not have taken disaster preparedness steps due to reliance on emergency responders (33%)—fire, police, or emergency personnel—than those earning more annually (19-31%). As income level increased, individuals were significantly less likely to say that cost was their primary reason for not taking any preparedness steps.

- **Perceptions of the utility of preparing in advance of a disaster**: Individuals in households annually earning $75K or more believed that preparation, planning, and emergency supplies would help them handle a natural disaster (29%) or a severe disease outbreak (28%).
- **Perception of risks**: Households earning less than $25K annually were significantly more likely to believe that a terrorist attack was very likely to occur in the next 12 months (12%) than individuals earning more (<6%). As household income increased, however, the percentage that believed a hazardous materials accident would occur in the next 12 months decreased.
- **Stages of Change**: Households earning less than $25K annually were significantly less likely to have been prepared for the last 6 months (20%) than those earning more annually (28-39%, varying by income level).
- **Communication/Outreach**: Individuals in households annually earning $75K or more preferred to receive preparedness training and information through e-mail as their primary choice (28%). Conversely, individuals in households earning $25K or less annually most preferred to receive preparedness training and information through personal contact by phone or in person (34%).

What Is the Potential Impact of Education on Disaster Preparedness?

A respondent's education was solicited by asking which of the following categories applied to him or her: less than 12th grade (no diploma); high school graduate or GED; some college but no degree; associate degree in college; bachelor's degree; master's degree; or doctorate degree. These data show that individuals with some college experience were overwhelmingly more aware, prepared, and positive about disaster preparedness. These measures include having a disaster kit at home, keeping disaster supplies in their vehicles, having volunteered with a local emergency response group, having participated in a workplace or school-based disaster drill, feeling confident in their abilities to respond early in a disaster, and feeling personal responsibility to report suspicious behavior.

Individuals with no college education were less prepared among all the measures mentioned previously. Furthermore, people with no college experience perceived two significant barriers to personal preparedness: reliance on emergency responders and a lack of knowledge about how to prepare. Also, people with no college experience perceived that each disaster would occur in their community in the next 12 months. Both groups (those with some college and those with no college) predicted a reliance on others in the event of an evacuation: individuals with some college predicted they would rely on family members, while people without college experience expected to rely on State and Federal Government agencies.

- **Kit**: Individuals with some college education (57%) were significantly more likely than less educated individuals (44%) to have supplies set aside in their homes. Likewise, individuals with some college education (33%) were significantly more likely than those with less education (22%) to have supplies set aside in their cars.
- **Volunteering**: Individuals with college experience (36%) were significantly more likely to have volunteered in a disaster than individuals with less education (23%).

- **Reliance on others during an evacuation**: Individuals with college experience (60%) were significantly more likely than individuals with only a high school education (54%) to rely on household members. Individuals without college experience were more likely to rely a great deal on State and Federal Government agencies (25%), as well as fire, police, and emergency personnel (42%) than individuals with college experience (15% and 35% respectively).
- **Ability to respond in the first five minutes of a disaster**: Individuals with some college experience (33%) were significantly more confident in their abilities to know what to do in the first 5 minutes of a natural disaster than those with less education experience (26%).
- **Barriers**: Individuals with less than a high school degree were significantly more likely to not have taken disaster preparedness steps due to reliance on emergency responders such as fire, police, or emergency personnel (51%) than were higher educated individuals (30%). Individuals with less than a high school degree (34%) were significantly more likely than higher educated individuals (23%) to state that a lack of knowledge was their primary reason for not taking any preparedness steps.
- **Perception of risks**: Across disaster categories, individuals without college education were more likely to believe that a natural disaster (14%), hazardous materials accident (9%), act of terrorism (11%) or severe disease outbreak (11%) was very likely to occur in the next 12 months than individuals with college experience (9%, 5%, 3%, and 2% respectively).
- **Communication/Outreach**: Individuals with college experience (11–14%) were significantly more likely than those with less education (7%) to prefer e-mail or the Internet as a channel of communication for preparedness information.
- **Participation in preparedness drills and exercises**: Besides home-based drills, individuals with some college experience were significantly more likely to have participated in a workplace evacuation drill (44%), workplace shelter-in-place drill (29%), school evacuation drill (22%), or school shelter-in-place drill (16%) than those without college experience (33%, 21%, 11%, 8% respectively).
- **Willingness to report suspicious behavior**: Individuals with college experience were significantly more likely to feel that they had a personal responsibility to report suspicious behavior (97%) than those with less education (92%).

What Is the Potential Impact of Age on Disaster Preparedness?

A respondent's age was solicited by asking in what year the respondent was born. The data suggest that the most prepared age group was individuals 18 to 34 years old and 35 to 54 years old. For example, these groups were more likely than older individuals to have disaster kits in their workplaces; to have household plans; to be willing to volunteer to take a 20-hour disaster training course; to have taken a CPR course; to have taken a preparedness course in order to become personally prepared or because it was mandatory for either school or a job; to have participated in an evacuation drill; and to believe that preparing would be effective in preventing harm in the event of a disaster (high response efficacy). The primary barrier to being prepared reported by these groups was a lack of time to prepare.

There were some nuances among these two more prepared groups, however. For example, the 35- to 54-year-olds were more likely to be in the *action* stage of the Stages of Change Model;

whereas, the 18- to 34-year-olds were more likely than other groups to be in the *contemplation* stage. Also, individuals 35+ years old were more likely to feel it was their responsibility to report suspicious behavior.

Adults 55+ years old were less prepared among some of the measures mentioned earlier. For example, this age group perceived many barriers to being prepared, including feeling low response efficacy about preparedness actions, higher reliance than younger groups on emergency responders in the event of a disaster, and low confidence in their abilities to respond early in a disaster. This group was also more likely than any other age group to believe that all types of disasters would occur in the next 12 months. The data do suggest, however, that older adults are aware of community groups and plans. For example, individuals 55+ years old were more likely to be aware of their community's warning/alert systems and evacuation routes.

- **Kit**: Individuals between the ages of 18 to 34 were significantly more likely to have disaster supply kits set aside in their workplaces (54%) than older individuals (39-41%).
- **Plan**: Individuals between the ages of 35 to 54 were significantly more likely to have discussed their household plan with other members in their household (94%) than other age groups (82-85%).
- **Volunteering**: Individuals between the ages of 18 to 54 were significantly more likely to indicate willingness to take a 20-hour disaster recovery training course (67–74%) than older individuals (52%).
- **Confidence in ability to respond in a disaster**: Individuals ages 18 to 54 (55–59%) were significantly more likely than those over the age of 55 (48%) to think that preparing for a disaster would help them very much.
- **Preparedness training programs**: Individuals ages 18 to 54 (37–46%) were significantly more likely to have taken a CPR class than older adults (23%). Individuals over the age of 35 (18–22%) were significantly more likely than younger individuals (8%) to have taken part in preparedness training with the motivation of becoming personally prepared. Individuals between the ages of 18 to 54 (52–57%) were significantly more likely to have taken training because it was mandatory for their school or job than individuals over 55 (40%).
- **Barriers**: Individuals over the age of 55 (46%) were significantly more likely to not have taken disaster preparedness steps due to reliance on emergency responders such as fire, police, or emergency personnel than younger individuals (33–36%). Individuals less than 54 years of age (23-30%) were significantly more likely than individuals 55 and older (17%) to say a lack of time was their primary reason for not preparing. As age increased, individuals were significantly more likely to say that not believing their actions would make a difference (low response-efficacy) was their primary reason for not taking any preparedness steps. Individuals over the age of 55 (21%) were significantly more likely than younger individuals (8–13%) to indicate that doubts of their abilities (low self-efficacy) were a primary reason for not taking any preparedness steps.
- **Perception of risks**: As the age of the participant increased, the percentage that believed a natural disaster would very likely occur in the next 12 months also increased.
- **Stages of Change**: Individuals over 35 (33–34%) were significantly more likely to have been prepared for the last 6 months than individuals ages 18 to 34 (26%. This younger

group was significantly more likely to fall within the *contemplation* stage of preparedness (28%) than any other age range (<18%).

- **Communication/Outreach**: Individuals between the ages of 18 to 54 (13–15%) were significantly more likely to prefer contact through e-mail than those over the age of 55 (7%).
- **Community Plan**: Individuals over the age of 55 (32%) were significantly more likely to be very familiar with their community's alert and warning systems, as well as evacuation routes than were younger individuals (25–26%).
- **Participation in preparedness drills and exercises**: Individuals between the ages of 18 to 54 (13–16%) were significantly more likely to have participated in a home evacuation drill than older individuals (7%).
- **Willingness to report suspicious behavior**: Individuals over the age of 35 (97%) were significantly more likely than younger individuals (91%) to feel that they had a personal responsibility to report suspicious behavior to the authorities.

What Are Other Demographic and Sociographic Impacts on Disaster Preparedness?
Other characteristics further explained how people from particular backgrounds were differentially prepared. For example, unemployed individuals were more likely than employed individuals to be in the *contemplation* phase of the Stages of Change Model; whereas, employed individuals were more likely to be in the *action* stage. Individuals who had volunteered to help during a disaster were also more likely to be in the *action* stage of the model. Finally, individuals who had volunteered were more likely to be confident in their abilities to respond in the event of a disaster.

- **Employment - Stages of Change**: Unemployed individuals were more likely to be contemplating preparing in the next 6 months (9%), compared to full-time or part-time employed individuals, who were more likely to have been prepared for the last 6 months (53%).
- **Volunteerism - Confidence in ability to respond in a disaster**: Individuals who had volunteered to help in a disaster in the past (34%) were significantly more likely to have confidence in their abilities to handle a disaster than those who had not (20%).
- **Volunteerism - Stages of Change**: Individuals who had volunteered to help in a disaster (45%) were significantly more likely than those who had not volunteered to have been prepared for the last 6 months (25%).

How Do the Findings Inform the Citizen Corps Personal Disaster Preparedness (PDP) Model?

In addition to assessing the level of individual preparedness in America, another objective of the 2007 Citizen Corps National Survey was to test and evaluate the Citizen Corps Personal Disaster Preparedness Model and to inform a model for community preparedness.

What Are the Model Constructs?
Building on the Extended Parallel Process Model (EPPM), the Citizen Corps PDP Model categorizes individuals by how motivated they are to engage in sustained preparedness activities. According to the model, individuals fall into one of three "Threat-Efficacy Profiles constructed by their awareness and attitudes about threats and protective actions."The Threat-Efficacy Profiles include: 1) Unaware or dismissive of threat because of low perceived susceptibility, urgency, and/or severity—unreceptive to preparedness messages; 2) Understands susceptibility to and severity of threat, yet perceives varied barriers to preparedness behaviors—unprepared; and 3) Understands threat and has high belief in self- and response-efficacy—prepared. Based upon these Threat-Efficacy Profiles, the PDP Model identifies appropriate messages for each profile to reduce barriers and increase motivation to take action or maintain their preparedness behaviors. In the PDP Model, the focus and outcomes of the targeted outreach and social marketing approaches are color-coded to match the designated Threat/Efficacy Profiles to which each applies.

Perceived Threat Profile: The factors that lead to active preparedness include an assessment of the threat. According to the EPPM, individuals consider two aspects of the threat; susceptibility (e.g., *How at risk am I of experiencing this threat?*) and severity (e.g., *How severely could I be harmed by this threat?*). Because the timing of most disasters is unpredictable, the Citizen Corps PDP Model includes the factor of urgency (e.g., *How imminent is this threat?*). Though urgency can be included in the assessment of susceptibility, it is a useful distinction in this instance because a person might believe that a disaster will occur at some point, but might not believe that there is any urgency to the threat.

Perceived Efficacy Profile: The EPPM also identifies perceived efficacy as a factor that influences a person's response to a threat. Two components make up an individual's perceived efficacy: self-efficacy (e.g., *I am able to create a disaster preparedness kit for my home*) and response efficacy (e.g., *Having a disaster preparedness kit for my home will help me survive in the event of a hurricane*). In addition to the efficacy factors represented in the EPPM, real and perceived external barriers can also greatly influence a person's perceived self- or response-efficacy. These include factors such as cost or access to information. For example, when individuals state that they do not have proper preparedness materials in their home because they cannot afford to buy the materials, they are revealing that their perceived ability to prepare is compromised because of an external barrier (external meaning outside of their own control).

Finally, preparedness behavior can also be examined using the Stages of Change Model. According to this model, people demonstrate varying degrees of readiness to change at different

stages of actual activity. As previously addressed, the Citizen Corps PDP Model places individuals into five stages that indicate their readiness to attempt, make, or sustain behavior change. The five stages are *precontemplation, contemplation, preparation, action,* and *maintenance*.

PDP Model Analysis
Table 15 shows the items from the 2007 Citizen Corps National Survey designed to correspond with the Citizen Corps PDP Model constructs. These survey items were used in the analysis to test the PDP Model.

Table 15: 2007 Citizen Corps National Survey Questions Used to Assess Citizen Corps PDP Model Constructs

Constructs of the Citizen Corps PDP Model	Associated 2007 Citizen Corps National Survey Questions
Perceived Threat *(urgency, susceptibility, severity)*	• C1 (natural disaster - threat urgency) • C2 (natural disaster - threat susceptibility) • B1 (natural disaster - threat severity) • C3 (terrorism - threat urgency) • C4 (terrorism - threat susceptibility) • B2 (terrorism - threat severity) • C5 (hazmat accident - threat urgency) • C6 (hazmat accident - threat susceptibility) • B3 (hazmat accident - threat severity) • C7 (disease outbreak - threat urgency) • C8 (disease outbreak - threat susceptibility) • B4 (disease outbreak - threat severity)
Perceived Efficacy *(knowledge, self-efficacy, response-efficacy)*	• F1 (knowledge about preparedness; self-efficacy) • F2 (response efficacy) • F3 (self-efficacy)
Stages of Change	• D1(stage of change)
Preparedness Outcomes (*preparedness score***)**	• H1, H2, H4, H5 (supplies); • I1-I3 (household plan); • K1a-f (drills/exercises); • L1, L3, L5 (volunteering);
Individual Factors	• A1-A4, M1, M3, P1-P14

Threat-Efficacy Profile Construction
According to the Citizen Corps PDP Model, individuals fall into one of three categories: Low Threat (LT) based on low perceived threat susceptibility, urgency, or severity; High Threat/Low Efficacy (HT/LE), based on some perceived threat and low self- or response-efficacy; and High Threat/High Efficacy (HT/HE), based on some perceived threat and some self- and response-efficacy.
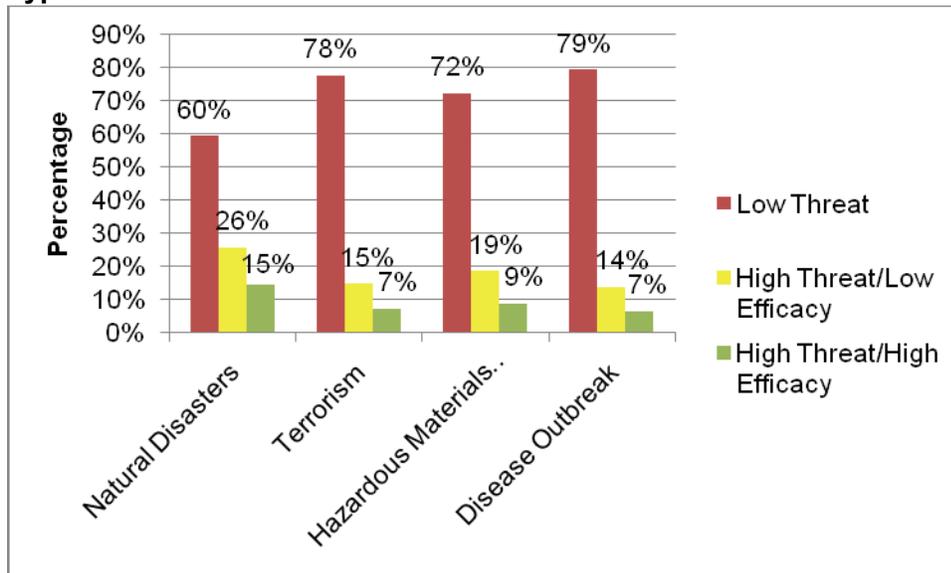
Figure 6: Threat-Efficacy Profiles

The three Threat-Efficacy Profiles were based on the frequency distribution for the four types of hazards included in the 2007 Citizen Corps National Survey (natural disasters, terrorism, hazardous materials accidents, and disease outbreaks). For each hazard type, a large majority of individuals were categorized as having a Low Threat profile, meaning they perceived low severity, urgency, or susceptibility for each of the disaster types. Close to 8 out of 10 respondents fell into this category for disease outbreaks (79%), and 77 percent fell into this category for the threat of a terrorist attack. This would indicate that many respondents did not perceive these events as "high" threats (either because they perceived low severity, low urgency, or low likelihood of the event ever happening). A significantly lower percentage of respondents (59%) were categorized as Low Threat for natural disasters.

Individuals who perceived high severity, urgency, or susceptibility but low self- or response-efficacy (High Threat/Low Efficacy) were the second largest grouping for each type of hazard, ranging from disease outbreaks (14%) to natural disasters (26%). Lastly, individuals categorized as High Threat/High Efficacy ranged from 7 percent for disease outbreak and terrorism to 15 percent for natural disasters. This finding indicates that few respondents perceive some threat of disaster *and* feel they are able to take effective steps to prepare themselves for a disaster.

Figure 7: Percentage of Respondents Categorized by Threat-Efficacy Profiles for Hazard Types

How Do Individual Factors Affect the Threat-Efficacy Profiles?

Citizen Corps examined the differences between respondents who were categorized as Low Threat, High Threat/Low Efficacy, and High Threat/High Efficacy for each of the hazards. Summary results are listed below for each of the hazard types.

Natural Disaster- Demographic and Contextual Differences

- **Age group**: Younger individuals were more likely to be in the LT category than HT/LE or HT/HE, and a greater percentage of 45- to 54-year-olds were represented in the HT/HE group, indicating that younger respondents were more likely to perceive little or no threat compared with this middle-aged group. **Children under 18 years old living at home**: People with children under 18 years of age living at home were more likely to be categorized as HT/LE than LT or HT/HE, indicating that they perceived some threat, but perceived limited self- or response-efficacy.
- **Children attending school**: There were no differences in Threat-Efficacy Profiles between individuals with children attending school and those without.
- **Disability**: There were no differences in Threat-Efficacy Profiles between individuals who had disabilities and those who did not.
- **Education**: The HT/LE group was the least educated, with a greater number of respondents with a high school degree or less.
- **Employment status**: There were no differences in Threat-Efficacy Profiles between individuals who were employed and those who were not.
- **Geography**: The HT/HE group had a higher percentage of suburban respondents than the LT and HT/LE groups, indicating that suburban respondents perceived greater threat and had higher efficacy.
- **Higher perceived responsibility due to job**: People who perceived a higher responsibility because of their jobs were more likely to be categorized as HT/LE or HT/HE than LT, indicating they perceived some threat; although, only some perceived high efficacy.

- **Household composition**: A greater percentage of individuals in the LT and HT/LE groups lived alone than in the HT/HE group; the HT/HE group members had more family members compared to the individuals in the LT and HT/LE groups, indicating that respondents who lived with family members perceived greater threat and had higher efficacy compared with those who lived alone.
- **Income**: The HT/HE group had higher household incomes compared to the LT and HT/LE groups, indicating that the respondents with higher incomes were more likely to perceive greater threat and have higher efficacy.
- **Pet or service animal**: A higher percentage of respondents in the HT/HE group had a pet or service animal at home compared to individuals in the LT and HT/LE groups.
- **Public transportation**: People who used public transportation were most likely to be categorized as HT/LE, followed by LT, and then HT/HE, indicating that they perceived a greater threat, but did not have high efficacy.
- **Race/Ethnicity**: Within the HT/HE group, the greatest percentage of individuals were White; the LT and HT/LE groups had a greater percentage of Black respondents and Asian respondents compared to the HT/HE group; the HT/LE group had the highest percentage of Hispanic/Latino respondents of the three groups.
- **Religiousness**: Individuals in the LT group were less religious compared to the HT/LE and HT/HE groups, indicating that people who were less religious were more likely to perceive little or no threat.
- **Risk associated with job**: People who perceive that they were at greater risk of a disaster because of their job-type or location were more likely to be categorized as HT/LE or HT/HE than LT.
- **Sex**: Women were more likely to be either in the HT/LE or HT/HE groups than men, whereas men were more likely to be in the LT group, indicating men were more likely to perceive little or no threat.

Terrorism- Demographic and Contextual Differences
- **Age group**: Individuals ages 55 and older were more likely to be in the HT/LE group compared to the LT or HT/HE groups; on the opposite end of the spectrum, a greater percentage of 18- to 24-year-olds were categorized as HT/HE compared to LT and HT/LE (inconsistent with natural disasters); 25- to 34-year-olds were more likely to be categorized as LT or HT/LE compared to HT/HE.
- **Children under 18 years old living at home**: There were no differences in Threat-Efficacy Profiles between individuals with children under 18 years old living at home and those without.
- **Children attending school**: Respondents with children attending school were more likely to be categorized as HT/LE than LT or HT/HE.
- **Disability**: Respondents with a disability were more likely to be categorized as HT/LE than LT or HT/HE; the LT group had fewer respondents who lived with someone with a disability compared to the HT/LE and HT/HE groups.
- **Education**: The HT/LE group was the least educated, with a greater number of respondents having a high school degree or less (consistent with natural disasters).
- **Employment status**: There were no differences in Threat-Efficacy Profiles between individuals who were employed and those who were not.
- **Geography**: The HT/HE group had a higher percentage of suburban respondents than the LT and HT/LE groups (consistent with natural disasters).

- **Higher perceived responsibility due to job**: People who perceive a higher employment responsibility were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters).
- **Household composition**: The HT/LE group had a greater percentage of people who lived alone compared to the LT and HT/HE groups. The HT/HE group had the most family members, followed by the LT group, and then the HT/LE group. The LT group was more likely to live with roommates compared to the HT/HE group (somewhat consistent with natural disasters).
- **Income**: The HT/LE group had the lowest income, with a greater percentage of respondents making less than $25K, compared to the LT and HT/HE groups; the LT group had more respondents making $75K or more than did the HT/LE and HT/HE group (opposite of natural disasters).
- **Pet or service animal**: A higher percentage of respondents in the LT group had a pet or service animal at home compared to the HT/LE group (opposite of natural disasters).
- **Public transportation**: People who used public transportation were most likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters).
- **Race/Ethnicity**: Whites were more likely to be categorized as LT than HT/LE or HT/HE; the HT/LE group had a greater percentage of Black respondents than the LT group; the HT/LE group had the highest percentage of Hispanic/Latino respondents (partial consistency with natural disasters).
- **Religiousness**: The HT/HE group had a greater percentage of "very religious" respondents, compared to the HT/LE and LT groups; whereas the LT and HT/LE groups had more respondents who reported being "not at all" religious, compared to the HT/HE group (consistent with natural disasters).
- **Risk associated with job**: People who perceived that they were at greater risk of a disaster because of their job-type or location were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters).
- **Sex**: Women were more likely to be in the HT/LE group than men; whereas, men were more likely to be in the LT and HT/HE groups (consistent with natural disasters).

Hazardous Materials Accidents- Demographic and Contextual Differences
- **Age group**: Individuals ages 55 and older were more likely to be in the HT/LE group compared to the LT or HT/HE groups; 45- to 54-year-olds were more likely to be in the HT/HE group compared to the LT and HT/LE groups; a greater percentage of 18- to 24-year-olds were categorized as LT compared to HT/LE and HT/HE (consistent with natural disasters).
- **Children under 18 years old living at home**: People who had children less than 18 years of age living at home were more likely to be categorized as HT/LE than HT/HE or LT (consistent with natural disasters).
- **Children attending school**: Respondents with children attending school were more likely to be categorized as HT/LE than LT or HT/HE (consistent with terrorism).
- **Disability**: Respondents with a disability were more likely to be categorized as HT/LE than LT or HT/HE; the LT group had fewer respondents who lived with someone with a disability compared to the HT/LE group.

- **Education**: The HT/LE group was the least educated, with a greater number of respondents having a high school degree or less (consistent with natural disasters and terrorism).
- **Employment**: People who perceived a higher employment responsibility were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters and terrorism).
- **Geography**: The HT/LE group had fewer rural respondents and more urban respondents than the LT and HT/HE groups (inconsistent with natural disasters and terrorism).
- **Household composition**: The LT and HT/LE groups had a greater percentage of people who lived alone compared to the HT/HE group; the LT and HT/HE groups had a greater percentage of family members compared to the HT/LE group (consistent with natural disasters and terrorism).
- **Income**: The HT/LE group had the lowest income, with a greater percentage of respondents making less than $50K compared to the LT group and the HT/HE group; the LT group had more respondents making $75K or more than the HT/LE and HT/HE groups (consistent with terrorism).
- **Pet or service animal**: A higher percentage of respondents in the HT/HE group had a pet or service animal at home compared to the HT/LE group (consistent with natural disasters, but inconsistent with terrorism).
- **Public transportation**: People who used public transportation were most likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters and terrorism).
- **Race/Ethnicity**: Whites were more likely to be categorized as LT than HT/LE or HT/HE. The HT/LE group had a greater percentage of Black respondents than the LT group. Asian/Pacific Islander respondents were more likely to be categorized as LT than HT/LE or HT/HE. The LT group had a lower percentage of Hispanic/Latino respondents compared to the HT/LE and HT/HE groups (consistent with terrorism).
- **Religiousness**: The LT group was more likely to be "barely" or "not at all" religious compared to the HT/LE and HT/HE groups (consistent with natural disasters and terrorism).
- **Risk associated with job**: People who perceived that they were at greater risk of a disaster because of their job type or location were less likely to be categorized as LT than HT/LE or HT/HE (consistent with natural disasters and terrorism).
- **Sex**: Women were more likely to be in the HT/LE group than were men; whereas, men were more likely to be in the LT and HT/HE groups (consistent with natural disasters and terrorism).

Disease Outbreak Demographic and Contextual Differences
- **Age group**: 25- to 34-year-olds were most likely to be categorized as HT/LE, followed by LT, and then HT/HE (consistent with terrorism).
- **Children under 18 years old living at home**: People who had children less than 18 years of age living at home were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters and hazardous materials accidents).
- **Children attending school**: Respondents with children attending school were more likely to be categorized as LT than HT/LE (inconsistent with terrorism and hazardous materials accidents).

- **Disability**: Respondents with a disability were more likely to be categorized as HT/LE than LT; the LT group had fewer respondents who lived with someone with a disability compared to the HT/HE group (consistent with terrorism and hazardous materials accidents).
- **Education**: The HT/LE group was the least educated, with a greater number of respondents having a high school degree or less compared to the LT and HT/HE groups; the LT group was the most educated, with a greater percentage of respondents with bachelor's and graduate degrees, compared to the HT/LE and HT/HE groups (consistent with natural disasters, terrorism, and hazardous materials accidents).
- **Employment status**: Full-time employees were more likely to be categorized as LT than HT/LE or HT/HE; the HT/LE group had more unemployed respondents than the LT and HT/HE groups; the HT/HE group had more part-time employees than the LT and HT/LE groups and more students than the LT group (unique finding).
- **Geography**: The HT/LE group had a greater percentage of urban respondents compared to the LT and HT/HE groups; the HT/LE group also had a greater percentage of rural respondents compared to the LT and HT/HE groups (inconsistent with natural disasters, terrorism and hazardous materials accidents).
- **Higher perceived responsibility due to job**: People who perceived a higher work responsibility were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters, terrorism, and hazardous materials accidents).
- **Household composition**: The LT and HT/LE groups had a greater percentage of people who lived alone compared to the HT/HE group; the HT/HE group had a greater percentage of family members compared to the LT and HT/LE groups (consistent with natural disasters, terrorism, and hazardous materials accidents).
- **Income**: The HT/LE group had the lowest incomes, with a greater percentage of respondents making less than $25K, compared to the LT and HT/HE groups; the LT group had more respondents making $75K or more than did the HT/LE and HT/HE groups (consistent with terrorism and hazardous materials accidents).
- **Pet or service animal**: A higher percentage of respondents in the LT group had a pet or service animal at home compared to the HT/LE group (consistent with terrorism).
- **Public transportation**: People who used public transportation were most likely to be categorized as HT/LE compared with LT or HT/HE (consistent with natural disasters, terrorism, and hazardous materials accidents).
- **Race/Ethnicity**: A greater percentage of Black respondents were categorized as HT/LE and HT/HE than LT. Asian/Pacific Islander respondents were more likely to be categorized as LT or HT/LE than HT/HE. The HT/LE group had a higher percentage of Hispanic/Latino respondents compared to the LT and HT/HE groups (partial consistency with terrorism and hazardous materials accidents).
- **Religiousness**: The LT group was more likely to be "barely" or "not at all" religious compared to the HT/LE and HT/HE groups; the HT/LE and HT/HE groups were more likely to be "very" religious than was the LT group (consistent with natural disasters, terrorism, and hazardous materials accidents).
- **Risk associated with job**: People who perceived that they were at greater risk of a disaster because of their job type or location were more likely to be categorized as HT/LE than LT or HT/HE (consistent with natural disasters, terrorism, and hazardous materials accidents).

- **Sex**: Women were more likely to be in the HT/LE group compared to the LT and HT/HE groups; whereas, men were more likely to be in the LT and HT/HE groups compared to the HT/LE group (consistent with natural disasters, terrorism, and hazardous materials accidents).

How Do Threat-Efficacy Profiles Correlate With the Preparedness Stages of Change?
All of the hazard Threat-Efficacy Profiles were positively correlated with general preparedness stages of change (statistically significant; $p<.01$), indicating that as general preparedness stages of change progress, people move from LT, to HT/LE, to HT/HE, thus supporting the model's presumptions. The threat-efficacy profile for natural disasters was the most closely related hazard to the general preparedness stage of change. Though also statistically significant, the threat-efficacy profile for a hazardous materials accident was related to general preparedness stage of change to a lesser degree, and terrorism and disease outbreaks had the weakest relationships to stage of change.
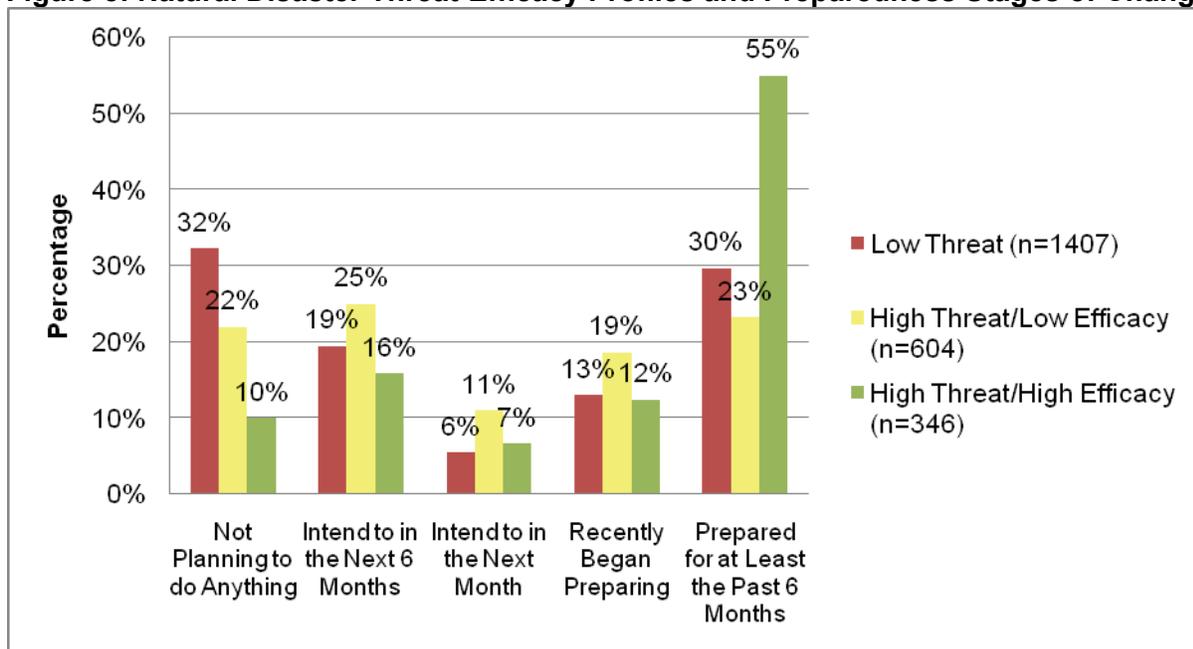
Citizen Corps examined the Stages of Change frequency distributions for the various Threat-Efficacy Profiles. Citizen Corps saw consistent distributions across the four hazard types, with the fewest numbers of individuals, regardless of threat-efficacy profile, responding that they planned to prepare in the next month (see Table 16 and Figures 8-11 below). Differences were also seen between the three threat-efficacy profile categories. Individuals categorized as LT for all of the hazard types follow a reverse bell-curve, indicating that about the same high number of individuals in this group were both not planning on doing anything to prepare and had been prepared for at least the last 6 months. This finding implies that something other than the perception of a threat was motivating some members of this group to take preparedness measures. On the opposite end of the spectrum, the HT/HE group, who should have been the most prepared based on the Citizen Corps PDP Model, did appear to be the most prepared, with most of this group responding that they had been prepared for at least the past 6 months. The HT/LE group was least likely to report being prepared for the past 6 months. Instead, the majority of individuals in the HT/LE group reported that they either planned to prepare in the next 6 months, or they did not plan on preparing. These findings suggest that further examination of the model constructs is needed to better understand the relationship between the Threat-Efficacy Profiles and Stages of Change.

Table 16: Non-Weighted Frequency Distributions and Correlations between Threat-Efficacy and Preparedness Stages of Change

Threat-Efficacy Profile	Statistic[7]	Preparedness Stages of Change
Natural disaster threat-efficacy profile group	Pearson Correlation	0.183*
Terrorism threat-efficacy profile group	Pearson Correlation	0.080*
Hazardous materials accident threat-efficacy profile group	Pearson Correlation	0.131*
Disease outbreak threat-efficacy profile group	Pearson Correlation	0.090*
* Correlation is significant at the 0.01 level (2-tailed). (N=2405)		

Figure 8: Natural Disaster Threat-Efficacy Profiles and Preparedness Stages of Change

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[7] The Pearson Correlation is a number between -1 and +1 that measures the strength of association between two variables.

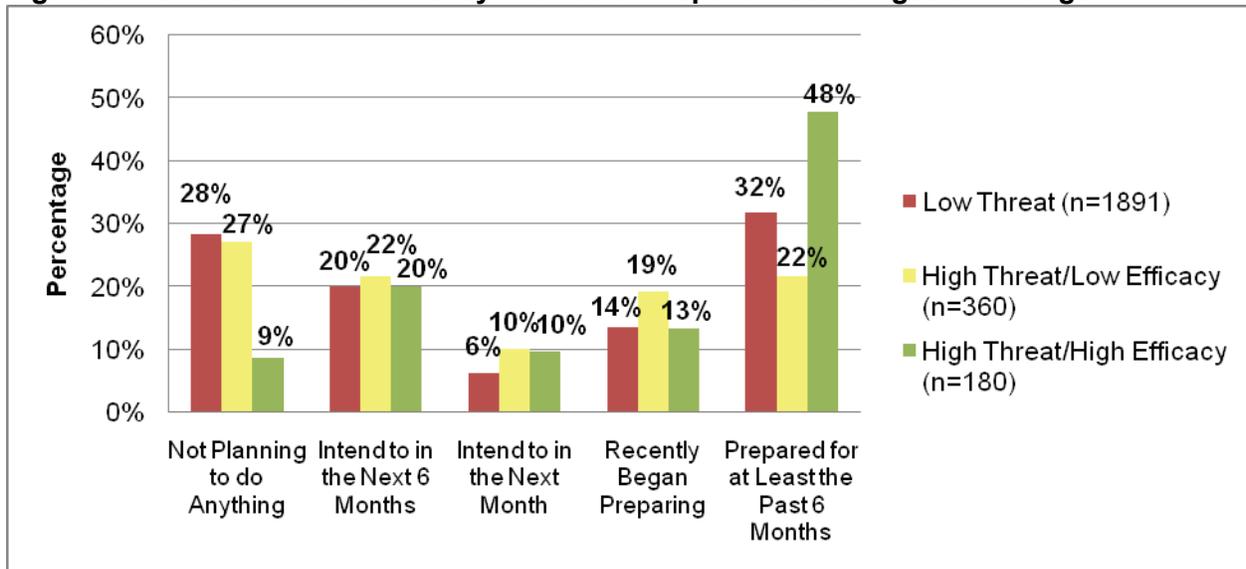**Figure 9: Terrorism Threat-Efficacy Profiles & Preparedness Stages of Change**

Figure 10: Hazardous Materials Accidents Threat-Efficacy Profiles & Preparedness Stages of Change
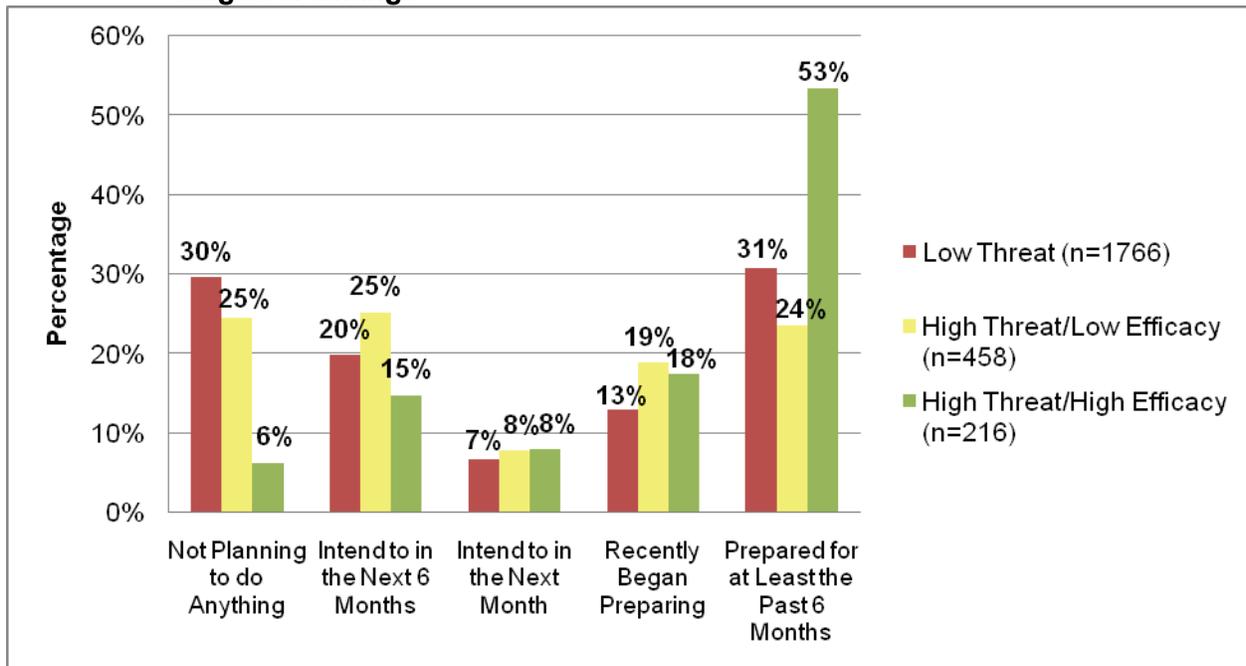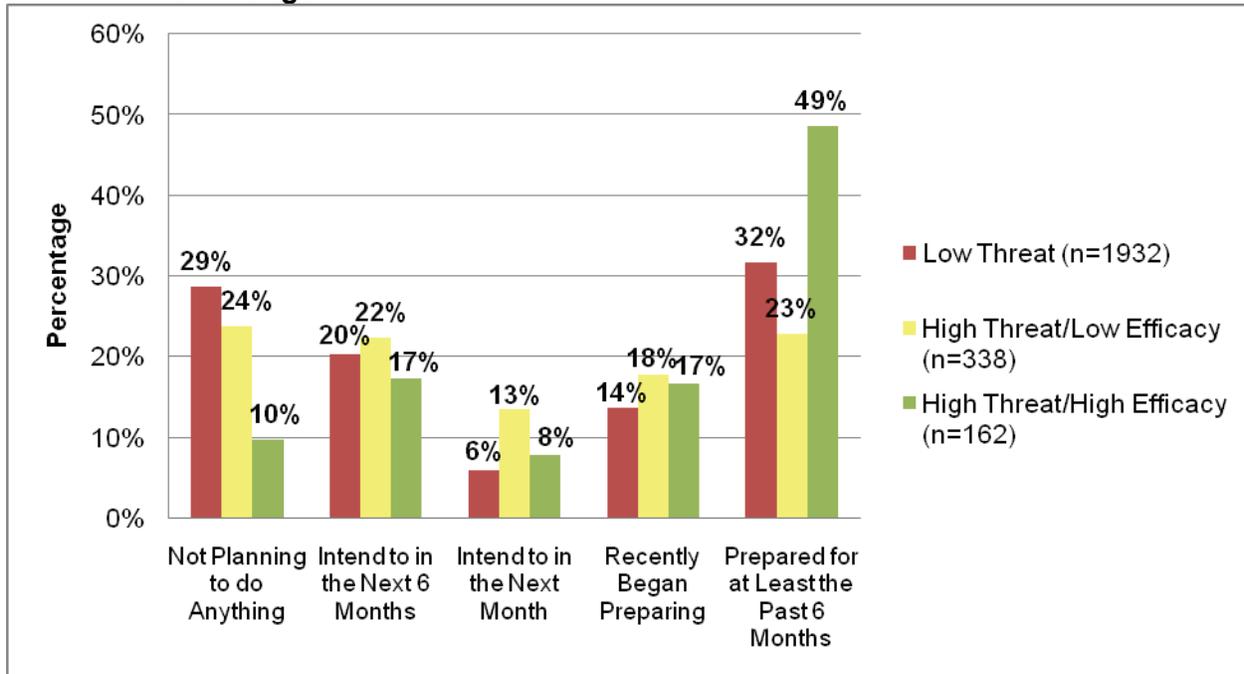
Figure 11: Disease Outbreak Accidents Threat-Efficacy Profiles and Preparedness Stages of Change

Examining Predictors of Preparedness Using Regression Analysis

To better understand how key factors impact an individual's level of preparedness in relation to the four disaster types (natural disaster, terrorism, hazardous materials accidents, and disease outbreak), separate regression analyses were conducted using the Threat-Efficacy Profiles for each disaster. This enabled us to examine threat severity, susceptibility, and urgency, and self-efficacy and response-efficacy to see which of these specific attitudes were most likely influencing the Threat-Efficacy Profile relationship to Stages of Change.

The natural disaster and hazardous materials accident Threat-Efficacy Profiles were significant predictors of preparedness Stages of Change. In both cases, people who held stronger beliefs and perceptions about the severity, urgency, and susceptibility of a disaster were also more likely to rate themselves as being or becoming prepared for a disaster. That is, they had higher levels of awareness for the need to plan and take action in preparation of disaster events. In the case of natural disasters and hazardous materials accidents, susceptibility to disaster emerged as the key predictor of preparedness Stages of Change. Susceptibility was not a significant predictor of preparedness for terrorism or disease outbreak disasters. Instead, severity was a significant predictor of preparedness for terrorism and disease outbreak, with an inverse relationship indicating that higher perceived severity was associated with less preparedness.

For all of the disaster types, age, response-efficacy, self-efficacy, and readiness (self-reported preparedness actions) were significant predictors of preparedness Stages of Change. Specifically, as respondent age increased, respondents were more likely to say that they were further along in being or becoming prepared for a disaster than younger respondents. Additionally, people who reported higher levels of response-efficacy (i.e., preparing for a disaster will help you to handle the disaster) and higher levels of self-efficacy (i.e., confidence in their own ability to handle a

disaster) were more likely to say that they had taken or planned to take steps to prepare for a disaster in general. As the Citizen Corps PDP Model suggests, individuals who were more likely to have plans in place and supplies stored in the event of a disaster were also more likely to rate themselves higher on preparedness stages of change. For all disaster types, readiness had the strongest positive relationship to the Stages of Change, followed by response-efficacy, indicating that these two measures were strong predictors of preparedness Stages of Change.

Evaluation of Citizen Corps PDP Model
The 2007 Citizen Corps National Survey dataset offers a comprehensive source of data on the public's thoughts, perceptions, and behaviors related to disasters and preparedness. Analyses of the 2007 Citizen Corps National Survey data provide support for some aspects of the Citizen Corps PDP Model and raise questions for further inquiry.

First, the survey dataset offers a unique opportunity for comparison of fundamental risk-perception constructs (i.e., perceived threat and efficacy) across multiple hazard types. The results varied depending on the hazard type, which indicates that individuals thought differently about different hazards. In particular, more people perceived natural hazards to be a real threat, but more people also believed that they could do more to prepare for natural hazards. Terrorism and disease outbreaks appeared to be the most "unclear" hazards in terms of threat, self-efficacy, and response-efficacy. This finding supports the need to continue studying the public's thoughts, attitudes, beliefs, and behaviors about specific types of threats rather than surveying the public about threats in general. All-hazards terminology may mask important nuances relative to assessing personal preparedness for specific hazards.

Second, a strong, positive relationship exists between Stages of Change and preparedness outcomes, as measured by a composite score of survey items, meaning respondents who were more prepared tended to fall into the latter stages of change (preparedness and maintenance). This supports the use of Stages of Change in the Citizen Corps PDP Model. The proposed relationship between Threat-Efficacy Profiles and Stages of Change was supported by the data only with respect to natural disasters and a hazardous materials accident, meaning that for these hazards, respondents who were in either the low threat or low efficacy profiles tended to be in a lower stage of change (pre-contemplation or contemplation), and respondents who had high threat perception and high efficacy scores tended to be in latter stages of change (preparation, action, or maintenance). The relationship between Stages of Change and threat-efficacy profile was not supported for terrorism or disease outbreak.

The household data indicate that self-efficacy and response-efficacy were consistent predictors of Stages of Change, while susceptibility was a statistically significant predictor for three of the four disasters (natural disasters, hazardous materials, and disease outbreak) but not for terrorism. Perceived severity had an inverse relationship with preparedness for terrorism and disease outbreaks. This finding is interesting in that it suggests that perceived extreme severity may deter people from preparing and, therefore, there may be a "severity threshold" relevant to disaster preparedness that renders the severity component of the Extended Parallel Process Model (the basis of the Citizen Corps PDP Model) problematic for this particular set of threats.

Third, across the individual factors explored in the survey, several have consistent or partially consistent influences on the profiles for the various disaster types. Specifically, the following factors yielded consistent results across disaster types:

- **Geography**: Suburban respondents perceived greater threat and had higher efficacy.
- **Education**: The HT/LE group was the least educated, with a greater number of respondents being non-college educated compared to the LT and HT/HE groups.
- **Sex**: Men were more likely to be in the LT or HT/HE groups, indicating men were more likely to perceive little or no threat, or perceive some threat and high efficacy, than were women.
- **Ethnicity:** Hispanic/Latino individuals were more likely to perceive some threat and have low efficacy (HT/LE).
- **Age group**: Generally, younger respondents were more likely to perceive little or no threat compared to older respondents, placing them in the LT profile.
- **Household composition**: The LT and HT/LE groups had greater percentages of people who lived alone compared to the HT/HE group; the HT/HE group had a greater percentage of family members compared to the LT and HT/LE groups.
- **Public transportation**: People who used public transportation were more likely to be categorized as HT/LE than LT or HT/HE.
- **Risk associated with job**: People who perceived that they were at greater risk of disaster because of their job type or location were more likely to be categorized as HT/LE than LT or HT/HE.
- **Higher perceived responsibility due to job**: People who perceived a higher responsibility because of their job were more likely to be categorized as HT/LE than LT or HT/HE.
- **Religiousness**: Those in the LT profile were more likely to be "barely" or "not at all" religious compared to the HT/LE and HT/HE groups; the HT/LE and HT/HE groups were more likely to be "very" religious, compared to the LT group.

Recommendations for the Citizen Corps PDP Model Revisions

Overall, the Citizen Corps PDP Model testing results supported the inclusion of Stages of Change in the Model. As expected, Stages of Change was positively correlated with self-reported, objective preparedness (referred to as *readiness* for clarity purposes above), meaning the more preparedness actions people say they have taken, the further along they are in Stages of Change. The Model testing results only partially validated the proposed relationship between the Threat-Efficacy Profiles and Stages of Change for all hazard types, indicating that modifications to the model and further testing is needed.

In-depth analysis of the Threat-Efficacy Profiles (LT, HT/LE, and HT/HE) for the various hazard types revealed an inconsistency in the ways the constructs relate to self-reported preparedness actions. While the Citizen Corps PDP Model was developed for all-hazards, it appears that the Model works best for natural disasters and hazardous materials accidents compared to terrorist related threats and severe disease outbreaks. The analysis indicates that this may be due to issues of perceived severity and associated fatalism with respect to terrorism and disease outbreaks which may counteract a person's willingness to take preparedness actions. The analysis also identified the following areas for further exploration relative to the Model:

- Some challenges with respect to the construction of the Model's threat profiles arose from the analysis of the three types of threat perception— urgency, susceptibility, and severity. The data indicate that perceived severity of the threat is less of a predictor of preparedness than overall susceptibility. Urgency was not a predictor of preparedness for any of the hazards, and should be removed from the Model. The data also suggest that if perceived severity reaches a certain threshold, the perception of threat may no longer motivate preparation and countermeasures, and may instead deter preparedness behavior. This is an important point for further research, for it may be wise to measure severity differently and to develop more refined questions to assess the threat-efficacy profiles in future studies.

- Further examination of the Model related to preparedness is advisable given the large number of participants who reported being prepared for at least the past 6 months. One potential challenge with testing this Model may be that "preparedness" is not a universally defined term that is clearly understood by the public. Therefore, respondents may be responding to questions using their own definition of preparedness, which may or may not reflect the intention of the researchers.

What Is the Perceived Social Responsibility for Reporting Suspicious Behavior?

What Is the Willingness to Report Suspicious Behavior?

As part of the survey, participants were asked about their prior experiences observing and reporting suspicious behavior or circumstances. Only 1 in 10 individuals reported that they had seen any suspicious behavior or circumstances in the past 12 months. Of these individuals, 95 percent agreed that they had a personal responsibility to report such behavior to the authorities. When individuals who had seen suspicious behavior or circumstances were asked what they did in response to the behavior, nearly half of respondents (47%) reported having taken some proactive action (called police or neighbor/friend) in response to observing the behavior/circumstance. However, 28 percent reported not taking any action. These individuals chose to wait for someone else to report the behavior (1%), left the area (7%), or did nothing (20%). The majority of individuals who observed suspicious behavior and took action reported their observation to the police or a tip-line (40%). "Other" responses (29%) were composed primarily of actions taken involving other individuals, such as reporting it to the FBI, reporting to other officials, or at least monitoring the situation until it was safe.

Figure 12: Observation of Suspicious Behavior

Relevant TCL Measure:
Number of citizens within the jurisdiction who are alert to unusual behavior in others that might indicate potential terrorist activity and understand appropriate reporting procedures.

In the past 12 months have you seen any suspicious behavior or circumstances?

10% Yes
90% No

What did you do?	
Called police and/or a tipline	40%
Nothing	20%
Called neighbor/friend	7%
Left the area/situation/event	7%
Waited for someone else to do something	1%
Other	29%

Demographic and Contextual Differences

- **Age**: Individuals over the age of 35 (97%) were significantly more likely than younger individuals (91%) to feel that they had a personal responsibility to report suspicious behavior to the authorities.
- **Education**: Individuals with some college experience (97%) were significantly more likely to feel that they had a personal responsibility to report suspicious behavior than those with less education (92%).
- **Gender**: Women (14%) were significantly more likely than men (2%) to report suspicious behavior to a neighbor or friend.
- **Race**: White individuals (97%) were significantly more likely than Black individuals (91%) to feel that they had a personal responsibility to report suspicious behavior or circumstances to the authorities.
- **Religiousness**: Religious individuals (96%) were significantly more likely to feel a personal responsibility to report suspicious behavior than non-religious individuals (93%).

How Aware Are Individuals of Specific Federally-Sponsored Community Preparedness Programs, and What Are Their Communication Preferences About These Programs?

What Is Individuals' Awareness of Preparedness Campaigns and Programs?
In order to gauge awareness and understanding of Federally-sponsored community preparedness programs, individuals were asked about Citizen Corps, the CERT Program, and Ready.gov. While 50 percent recalled having heard of CERT, only 11 percent and 16 percent of individuals expressed awareness of Citizen Corps or Ready.gov, respectively. When asked to describe each program, however, the majority of respondents were unable to demonstrate a firm understanding. Only 1 percent of the total respondents showed a firm understanding of Citizen Corps, 4 percent of CERT, and 2 percent of Ready.gov. Many were unfamiliar with the specific role and purpose of these organizations in their communities, although some were aware that these organizations were composed of volunteers within their communities. Some participants were able to identify Ready.gov as a Web site that helps to inform people about emergency preparedness steps.

Demographic and Contextual Differences
- **Age**: Individuals under the age of 34 (13%) were significantly more likely to have heard of Citizen Corps than those over the age of 55 (9%). As age decreased, the percentage of individuals who had heard of Ready.gov increased. Conversely, as age increased, the percentage of individuals who had heard of CERT also increased.
- **Employment**: Employed individuals (19%) were significantly more likely to have heard of Ready.gov than unemployed individuals (11%).
- **Geography**: Residents of suburban areas (13%) were significantly more likely to have heard of Citizen Corps than those living in urban residential areas (8%).
- **Household Income**: As household income increased, the percentage of individuals who had heard of CERT also increased.
- **Race**: White individuals (53%) were significantly more likely to have heard of CERT than were other races (35 to 41%).

What Are the Preferred Methods of Communication/Outreach?
Individuals were asked how they would prefer to receive information on preparedness and training from official organizations. Individuals most often cited regular mail (48%) as a preferred communication vehicle for receiving this information. Responses for mail actually increased from 41 percent in 2003 to almost half of all individuals in 2007. Television or radio broadcasts (17%) and e-mail (12%) were also identified as good ways to reach individuals.

Table 17: Communication Preferences*

	2003	2007	+/-
Regular mail	41%	48%	7%
TV or Radio broadcasts	24%	17%	-7%
E-mail	6%	12%	6%
Personal contact by phone or in person	10%	12%	2%
Internet	6%	9%	3%
Local newspaper	15%	8%	-7%
Community events	14%	8%	-6%
Information placed at local businesses, libraries, post offices	4%	4%	0%
Schools	3%	3%	0%
Place of worship	1%	2%	1%
Place of employment	1%	2%	1%
Other	29%	17%	-12%

*These responses were unaided and asked as part of a multiple response question. The results represent the total percent of respondents mentioning the particular communication preference from the list.

Demographic and Contextual Differences
- **Age**: Individuals between the ages of 18 to 54 (13–15%) were significantly more likely to prefer contact through e-mail than those over the age of 55 (7%).
- **Education**: Individuals with a college education (11 to 14%) were significantly more likely than those with less education (both 7%) to prefer e-mail or the Internet as a channel of communication for preparedness information.
- **Household Income**: As household income increased, the percentage of individuals who preferred to receive preparedness training and information through e-mail also increased. Conversely, as household income decreased, the percentage of individuals who preferred to receive preparedness training and information through personal contact by phone or in-person increased.
- **Religiousness**: Non-religious individuals (23%) were more likely to prefer contact through e-mail than religious individuals (14%). Religious individuals (12%) were also more likely to prefer receiving outreach training or preparedness information during community events than non-religious individuals (4%).

Participants were also asked how they would expect to find out what was happening or where to go if a disaster happened in their community. Although the question was an open-ended response question, most individuals answered radio, TV, or calling 911. Since prior surveys had identified these as typical responses, and since electricity is often not available in the aftermath of a disaster, participants were given a follow-up question to ask what they would do if their first option wasn't available. The majority of responses centered on word of mouth, radio, or telephone.

SUMMARY AND RECOMMENDATIONS

The following recommendations are based on specific findings from the 2007 Citizen Corps National Survey and are intended to assist researchers and practitioners in increasing personal preparedness, civic engagement, and community resilience.

- *An awareness of vulnerabilities to natural disasters motivates individuals to prepare. Most individuals, however, did not believe their communities will ever be affected by any type of disaster.*

  The survey data indicated a correlation between awareness of vulnerability to natural disasters and motivation to prepare. Interestingly, this correlation was not as strong for terrorist events or severe disease outbreaks, perhaps due to a lower perceived response efficacy of preparedness measures for these events. Most individuals, however, were skeptical about the likelihood that their communities would ever be impacted by any type of disaster, including natural disasters. Only 37 percent of individuals thought a natural disaster was likely ever to impact their communities, with even less—20 percent—believing in the likelihood that any of the other disasters asked about would ever impact their communities. When asked about the potential for a disaster to occur in the next 12 months, only between 10 and 20 percent of participants thought any of the disasters were likely to impact their communities in this timeframe

  Educating individuals about their communities' vulnerabilities to natural disasters as well as concerns with utility outages, extreme heat or cold, and other disruptive circumstances should increase awareness of risks and, in turn, increase motivation to prepare. Before perceptions of vulnerability to terrorism or disease outbreak lead to an increase in individuals' motivation to prepare for these hazards, a greater appreciation of the utility and effectiveness of advance preparation for these types of events is needed.

- *Perceptions of the utility of preparedness and confidence in ability to respond varied significantly by type of hazard. Because all-hazards messaging may dilute critical differences in preparedness and response protocols, preparedness and response education should include a focus on hazard-specific actions appropriate for each community.*

  The survey results indicated that individuals' perceived utility of preparing and their confidence in their ability to respond varies significantly by disaster type. Over half (57%) of individuals felt confident about their abilities to respond in the event of a *natural disaster*, while only 18 percent did not feel confident in their response abilities. In stark contrast, over half of individuals were *not* confident in their abilities to handle *manmade disasters*, such as a dirty bomb or a chemical agent (64% and 59%, respectively).

Additionally, while most individuals (78%) believed that preparing for a natural disaster would help them better handle the disaster, individuals had significantly lower response-efficacy regarding acts of terrorism, with 35 percent of individuals indicating that preparing for a terrorist attack would *not* help them respond to that type of event.

Outreach, social marketing, and risk communication strategies should take into account that motivators to undertake preparedness activities may be different for natural disasters as compared to other disasters. Communication strategies that seek to increase preparedness for terrorist-related threats must address susceptibility and response-efficacy. Individuals should be better educated about specific disasters and the training necessary to respond to each type of disaster likely for their community. Special attention should be focused on helping engage individuals in basic preparedness for explosions, dirty bombs, and release of chemical agents.

- *Individuals' high expectations of assistance from emergency responders may inhibit individual preparedness. Communicating more realistic expectations and personal responsibilities is critical.*

From among the list of reasons why individuals had not prepared, 37 percent of individuals indicated that a primary reason they had not prepared was because they believed that emergency personnel would help them in the event of a disaster. Further, 57 percent of participants indicated they expected to rely on emergency responders in the first 72 hours following a disaster.

Communication to the public must emphasize the importance of self-reliance and convey a more realistic understanding of emergency response capacity. Especially in large-scale events, emergency responders will not be able to assist all individuals in an affected area. Messaging should speak to a shared responsibility and stress that everyone has a role to play in preparedness and response.

- *Social networks, such as households, neighborhoods, the workplace, schools, and faith communities, and the concepts of mutual support should be emphasized.*

The majority of individuals (70%) expected to rely on their family members in the event of a disaster and a little less than half (48%) expected to rely on others in their neighborhood. Of the 4 in 10 who had spoken to someone regarding the need to be prepared, however, only 34 percent had spoken with household members, and 26 percent had talked with people in their neighborhoods. In an event, the effectiveness of assistance provided by household members and neighbors will be limited by lack of prior discussion and planning.

Messages and activities should encourage greater discussion and evaluation of knowledge, skills, and supplies necessary to support resilience within social networks, such as

households and neighborhoods, the workplace, schools, and faith-communities, and should promote drills and exercises to test response capabilities.

- *Too few people had stocked disaster supplies, and most supplies were incomplete. More emphasis is needed on the importance of stocking disaster supplies in multiple locations, and more specificity is needed on critical items to include, such as flashlights, radios, batteries, first aid kits, and personal documents.*

The lack of progress in the number of individuals with critical disaster supplies at home and in other locations remains a concern. While half of individuals (53%) reported having emergency supplies set aside in their homes to be used only in the case of a disaster, most supplies were incomplete. Beyond bottled water and food, fewer than half of individuals indicated that they had a flashlight, radio, batteries, or a first aid kit, and less than 3 percent had photocopies of personal identification or financial documents. With respect to other locations, less than one-half (45%) of individuals indicated having emergency supplies at their workplaces, and less than one-third (30%) had emergency supplies in their cars.

Because disasters can happen at any time, greater emphasis is needed on the importance of maintaining supplies in multiple locations. In addition, more prominence is needed on the importance of specific supplies and why they are so critical. In any type of disaster that impacts electricity, communications will be limited to battery or crank-operated devices, yet less than one-quarter of respondents reported having a battery-powered radio in the home. Employers and managers should stress the importance of emergency supplies in the workplace and in vehicles and have preparedness days to test and restock supplies. Car dealers, auto stores, car service companies, and motor vehicle departments and administrations should be encouraged to provide information about the need for preparedness supplies in cars.

- *Greater appreciation for the importance of household plans and knowledge of local emergency community procedures and response resources is needed. Individuals who reported being prepared lacked critical plans and information.*

Fewer than half of individuals (42%) had an emergency plan for their home. Additionally, individuals' low level of familiarity with critical local information such as the community alerts and warning systems (45%), shelter locations (31%), and community evacuation routes (26%) indicate that these essential elements are missing or incomplete from household planning efforts. Surprisingly, even those who reported that they had been prepared for the past six months had not completed important preparedness activities or did not have a sound understanding of community plans. Of those who perceived themselves to be prepared, nearly 40 percent did not have a household plan, 80 percent had not conducted a home evacuation drill, and nearly 60 percent did not know their community's evacuation routes.

Local outreach efforts on personal preparedness need to provide individuals with community level preparedness information regarding disaster vulnerabilities, alerts and warning systems, evacuation routes, and other local procedures, and explain how household, workplace, school, and organizational plans support community preparedness and resilience. Messages should also target individuals who may think they are prepared to encourage a reassessment of their preparedness actions and awareness.

- *Practicing response protocols is critical for effective execution. Greater emphasis on drills and exercises is needed.*

Fewer than half of individuals (41%) had participated in a workplace evacuation drill, and only 27 percent had participated in a workplace shelter-in-place drill. Very few individuals had participated in home-based drills (13%) or, of those with children in school, in school drills (14%). While the majority of individuals who indicated their household had an emergency plan reported that they had discussed their plan with other family members (88%), few had ever practiced or drilled those household plans (13% had practiced a home evacuation drill and 10% had practiced a home shelter-in-place drill).

Greater emphasis is needed on drills and exercises for multiple hazards and multiple responses to be conducted through social networks, including households and neighborhoods, the workplace, schools, and faith communities. While many organizations hold required fire drills, far fewer drill on evacuations for other hazards or practice sheltering in place. In addition, community members need to be included more effectively in government-sponsored community exercises.

- *Focusing on individuals in the contemplation stage for personal preparedness may yield greater results. Messaging and community outreach efforts should be designed to support those already considering taking action.*

Over 25 percent of individuals indicated that they intended to prepare in the next 1 to 6 months. A further 14 percent reported that they had recently begun to prepare. Younger individuals (between ages 18 and 34) were more likely to be in the *contemplation* stage (33% of the 25%) than other age groups.

Communication efforts should be designed specifically towards targeting those in the *contemplation* stage of the Stages of Change Model to leverage their interest and intention to prepare and to support them in moving from contemplation to action.

- *Individuals' strong interest in attending training courses and volunteering should be harnessed through social networks. Training and volunteer service should be linked with a responsibility for educating and encouraging others to prepare.*

Encouragingly, over half (65%) of individuals said they would be willing to take a 20-hour training course for the purpose of helping their communities recover from disasters. The most fertile ground for training may lie in partnerships with school and workplaces, as the majority of individuals who participated in training programs (51%) indicated they were motivated to do so because it was mandatory for a job or school.

Individuals are also willing to support their community. Nearly one quarter (23%) of individuals stated they had given some time in the past 12 months to support emergency responder or community safety organizations. Almost one third (32%) indicated they had volunteered to help in a disaster at some point in the past. Those who had volunteered in past disasters were significantly more likely to report that they had been prepared for the last six months and to have confidence in their abilities to handle a disaster.

Training in emergency response skills and basic first aid must become more accessible and more established in the core social network arenas, workplace, neighborhoods, schools, faith communities, and civic organizations. Opportunities to volunteer to support emergency services, both year-round and in a response or recovery effort, must also continue to be offered and valued. Volunteers in past disasters should be marshaled as ambassadors for preparedness in the community.

- *Specific socio-demographic characteristics correlated with attitudes toward and actions for preparedness. Insights into these differences offer the ability to tailor outreach efforts to targeted audiences.*

Individuals with Disabilities: Almost 2 in 10 individuals reported having a physical or other disability that would affect their capacity to respond to an emergency situation. Alarmingly, however, only one-quarter (24%) of individuals with disabilities had made preparations specific to their disability to help them respond safely in the event of an emergency. Those with disabilities were similar to the rest of the population in how many had supplies and a plan, but they were significantly less likely to have attended a preparedness meeting or taken first aid/CPR training. Another 13 percent of survey participants indicated they lived with and/or cared for someone with a physical or other disability. Of these individuals only 30 percent reported having specific information or training to better assist those they cared for.

Gender: In general, men reported greater levels of preparedness and confidence in their abilities to handle situations. Male confidence is also reflected in the finding that fewer men expected to need help in the event of an evacuation.

Race and Ethnicity: Individuals' preparedness and need for support varied largely based on race and ethnicity. In some areas, such as in having assembled disaster kits, White respondents were more prepared. In other areas, such as having participated in preparedness drills, first aid, or volunteer preparedness training, Black respondents were more active. Black individuals were more likely to rely a great deal on their faith communities or non-profit organizations and to expect to need help to evacuate. Regarding the measures of ethnicity, non-Hispanic respondents were more likely to be prepared across a number of measures, while Hispanic respondents were more likely to cite lack of time as a barrier to being prepared.

Income: Across several constructs measuring self-reported attitudes around preparedness, awareness of preparedness groups and plans, and preparedness activities, the data indicated a direct relationship between higher income and higher levels of preparedness. Conversely, those with lower incomes were less likely to have taken preparedness measures and indicated an increased need for help in an evacuation.

Education: Individuals with some college experience were overwhelmingly more prepared, aware, and positive about disaster preparedness than respondents with no college experience. People with no college experience perceived two significant barriers to preparing: expected assistance from emergency responders and a lack of knowledge about how to prepare.

Age: Individuals 18 to 34 years old and 35 to 54 years old are more likely to have undertaken several different preparedness activities. For example, these groups were more likely to have disaster kits in their workplaces, have household plans, have taken training courses, and be willing to volunteer to take a 20-hour disaster training course. Individuals in these groups reported a lack of time to prepare as their primary barrier.

The most unprepared group surveyed were adults 55+ years old. This age group perceived many barriers to being prepared, including feeling low response efficacy about preparedness actions, higher reliance on emergency responders, and low confidence in their abilities to respond early in a disaster.

Research, outreach, and communication should take into account the needs of different audience segments where preparedness disparities exist. Specific strategies should be developed that focus on the barriers of these different segments, such as improving accessibility of education materials and training for people with disabilities, and incorporating preparedness education and training in existing social network activities to alleviate time constraints. Strategies should include working more closely with associations and organizations that provide support services to identified audience segments to integrate preparedness into their activities. Additional research should focus on identifying optimal outreach methods activities, messages, and spokespersons.

- *Residents in urban areas appeared to be least engaged in preparedness activities. With the added vulnerabilities of dense population centers, urban areas should be a targeted focus of preparedness outreach efforts.*

Overall, suburban respondents were more likely to report having volunteered and having taken preparedness training, to hold more confident attitudes around their abilities to respond in the early stages of a disaster, and to believe that preparing for a disaster could make a difference. While rural respondents were less prepared than suburban respondents, they were equally confident in their abilities to respond early in a disaster.

The easy accessibility of transportation, food, and other resources in urban settings may inadvertently provide a false sense of security for urban residents. Because the population density of urban cities makes these locations more vulnerable to certain types of disasters, such as terrorism and disease outbreak, and makes the response to large scale disasters more complex, communications and outreach strategies in urban areas must continue to be a priority.

- *Individuals believed they had a personal responsibility to report suspicious behavior, but greater collaboration between citizens and law enforcement is needed.*

Encouragingly, a very high percentage (95%) of individuals believed that they had a personal responsibility to report suspicious behavior to the appropriate authorities. Despite this high level of perceived responsibility, just over one-quarter (28%) of individuals who had witnessed suspicious behavior or circumstances failed to report the activity or did not take any action.

Additional research should examine why people who have witnessed unusual behavior fail to alert authorities. Outreach and education should address these barriers. Furthermore, because individuals have a high sense of responsibility to report suspicious behavior, individuals should be educated about what behaviors should be considered suspicious, how to contact law enforcement or security, and what types of information or details are most useful to authorities.

CONCLUSION AND NEXT STEPS

FEMA's Community Preparedness Division 2007 Citizen Corps National Survey offers a comprehensive source of data on the public's thoughts, perceptions, and behaviors related to preparedness and community safety for multiple hazard types. Survey questions addressed several critical areas in the field of disaster preparedness research including elements of personal preparedness such as stocked supplies, plans, knowledge of community protocols, and training; elicited insights on barriers and motivators to preparedness; and tested social-behavior modeling on disaster preparedness, the Citizen Corps PDP Model.

Findings from this study have important implications for the development of more effective communication and outreach strategies to achieve greater levels of preparedness and participation. While the Federal government and national leaders must continue to emphasize the importance of preparedness from a national platform, it is clear that effective strategies for preparedness must be implemented at the community level and through social networks. DHS and FEMA national policy and guidelines issued since September 11, 2001 have recognized the importance of government collaboration with non-government sectors and the importance of supporting grassroots efforts such as Citizen Corps.

In addition to repeating the Citizen Corps National Survey periodically to track changes in preparedness and shifts in attitudes and behavior, there are many other areas of needed research to understand more fully the complexities of motivating and sustaining personal preparedness and participation. Areas for future research include:

- An exploration of different perceptions of hazard types and how perception affects preparedness, to include terminology such as "disaster," "terrorism," "pandemic flu," and "preparedness."
- A clearer assessment of the most critical knowledge, skills, and supplies needed for effective personal response, to include an examination of survivor and non-survivor behavior in actual events. Understanding response will, in turn, inform appropriate areas of emphasis for preparedness training and education.
- How socio-demographic factors relate to preparedness and how outreach strategies should be tailored to achieve the greatest impact for targeted audiences.
- Qualitative research such as focus groups or interviews to explore more fully how individuals understand the issues of threat, self-efficacy, and response-efficacy and to explore internal and external barriers and motivators to preparedness.
- Testing specific messages, spokespersons, and social marketing strategies that will have greater impact on individuals' understanding of their role in preparedness and willingness to engage in preparedness activities, to include targeted audiences from socio-demographics segments and from the Stages of Change Model.
- An exploration of better ways to deliver training and to practice response skills through multiple and varied types of exercises.
- How social networks such as neighborhoods, the workplace, schools, and faith communities can be better used to institutionalize preparedness information, training, and

drills, and how civic leaders from these sectors can be more fully engaged in government-led community resilience efforts.

Civic engagement and personal responsibility are rooted in the founding ideology of our nation, and these principles have deep and abiding implications for our continued national resilience. Comprehensive assessment of personal preparedness in America must be multi-faceted, adaptive, and enduring. It requires investment and leadership from all sectors. In the end, it is the toll on human life and on our way of life that makes resilience such a crucial endeavor. We must work together to strengthen social capital, we must learn from each other and learn to help each other, and we must continue to pursue a culture of preparedness through the active participation of all.

APPENDIX A

Survey Respondents' Profile
To understand the National results we begin with the overall demographic profile. The charts below display the distribution of demographics across the national sample:

In your current residence, do you live…?	Weighted
With family members	75%
With roommates (including boyfriend/girlfriend)	5%
With both family members and roommates	2%
Alone	18%

Are there children under the age of 18 living in your residence?	Weighted
Yes	52%
No	48%

Does at least one of the children currently attend a school outside of your home, including day care or part-time kindergarten?	Weighted
Yes	79%
No	21%

Which best describes your job status?	Weighted
Work full-time	46%
Work part-time	10%
Student	6%
Unemployed	7%
Retired	21%
Other	11%

Would you describe the location of your residence as…?	Weighted
Urban	28%
Suburban	43%
Rural	29%

Do you generally use public transportation, such as subways or buses, to get to school or work?	Weighted
Yes	11%
No	89%

Do you feel that, based on the type or location of your job, you are at higher risk for certain types of disasters or emergencies?	Weighted
Yes	42%
No	58%

Do you feel that, based on the type or location of your job, you will have a higher level of responsibility in the event of certain types of disasters or emergencies?	Weighted
Yes	59%
No	41%

Does your household have a pet or service animal?	Weighted
Yes	51%
No	49%

What is the highest level of education you have received?	Weighted
Less than 12th grade	7%
High School Graduate or GED	24%
Some College but No Degree	23%
Associate Degree in College	11%
Bachelor's Degree	20%
Master's Degree	11%
Doctorate Degree	3%

How religious would you say you are? Would you say…	Weighted
Very Religious	37%
Somewhat Religious	43%
Barely Religious	11%
Not at all religious	10%

Are you of Hispanic, Latino, or Spanish origin?	Weighted
Yes	13%
No	87%

Which of the following income ranges represents your annual household income in 2006?	Weighted
Less than $25,000	20%
$25,000 to less than $50,000	27%
$50,000 to less than $75,000	22%
$75,000 or more	30%

APPENDIX B

2007 Citizen Corps National Survey Script

INTRODUCTION

OMB Control #: 1670-0006
Expiration Date: 5/31/2010

S1.   Hello, my name is _____ and I am calling from Macro International. We are conducting public opinion research under contract with the U.S. Department of Homeland Security. For this research, we are obtaining people's views about how well prepared they are for an emergency or disaster in their communities. Is this a private residence?

    01   Yes, continue
    02   No, non-residential   [Go to S1_02]
    03   Hang-up
    04   Answering machine
    07   Termination screen
    14   CONTINUE IN SPANISH
    99   Refused   [TERMINATE, INITIAL REFUSAL]

//If S1=02//

(S1_02) Thank you very much, but we are only interviewing private residences. Thank you for your time.

S2.   I would like to speak with an adult, age 18 or older, who lives in the household. Would that be you?
    01   Yes   //GO TO Intro2//
    02   No   [ASK TO TRANSFER TO ADULT]
    99   REFUSED   //TERMINATE, INITIAL REFUSAL//

NewS2.   May I speak with an adult member of the household?

    01   Yes, transferring
    02   Not available   //schedule callback//
    99   REFUSED   //TERMINATE, INITIAL REFUSAL//

S3.   Hello, my name is _____ and I am calling from Macro International. We are conducting public opinion research under contract with the U.S. Department of Homeland Security. For this research, we are obtaining people's views about how well prepared they are for an emergency or disaster in their communities.

    01   Continue
    99   REFUSED

Intro2a.   The survey will only take about 15 minutes.

Your telephone number was chosen randomly. I will not ask for your name, address, or other personal information that can identify you. You do not have to answer any question you do not want to, and you can end the interview at any time. Your participation in this survey is entirely voluntary. Your answers to the survey questions will be held confidential by Macro International. Your name or any other information that could identify you will not be associated with your responses or used in any reports. If you have any questions, I will provide a telephone number—either here at Macro International or at the Department of Homeland Security—for you to call to get more information or to validate this research. This interview may be monitored for quality assurance purposes.

    01 Continue
    02 RESPONDENT WANTS MORE INFORMATION
    99 REFUSED   //TERMINATE, INITIAL REFUSAL//

//IF Intro2a=02//
Intro2b.

[For questions about the survey administration/confidentiality concerns: Carol Freeman (Macro International) 301-572-0581]

[For questions about the nature of the study or validity of the study: Jacqueline Snelling (DHS) 202 786-9577]

    01 Continue
    02 Requested callback
    99 REFUSED   //TERMINATE, INITIAL REFUSAL//

A. SCREENER

A1. In your current residence, do you live…?

    01 With family members
    02 With roommates (including boyfriend/girlfriend)
    03 With both family members and roommates
    04 Alone
    98 Don't Know
    99 Refused

[if A1=01 or 02 or 03]
A2. Are there children under the age of 18 living in your residence?

    01 Yes
    02 No
    98 Don't Know
    99 Refused

[if A2=01]

A3. Does at least one of the children currently attend a school outside of your home, including day care or part-time kindergarten?

    01 Yes
    02 No
    98 Don't know
    99 Refused

A4. Which best describes your job status?   [READ LIST] [MUL=2]

    01 Work full-time
    02 Work part-time
    03 Student
    04 Unemployed
    05 Retired
    06 Other
    98 Don't know
    99 Refused

B. SEVERITY / EFFICACY

I'd like to ask you some questions about different kinds of disasters. Throughout this survey, when I use the term "disaster", I am referring to events that could disrupt water, power, transportation, and also emergency and public services for up to three days.

//SPECIAL// THROUGHOUT SURVEY MAKE THIS STATEMENT AVAILABLE TO CALLERS WHEN THEY TYPE "SPECIAL":

Throughout this survey, when I use the term "disaster", I am referring to events that could disrupt water, power, transportation, and also emergency and public services for up to three days.

B1. In a **natural disaster**, such as an earthquake, a hurricane, a flood, a tornado, or wildfires, which of the following statements best represents your belief?

    01 I can handle the situation without any preparation.
    02 Preparation, planning, and emergency supplies will help me handle the situation.
    03 Nothing I do to prepare will help me handle the situation.
    98 Don't know
    99 Refused

//ROTATE B2-B4//

B2. In an **act of terrorism**, such as a biological, chemical, radiological, or explosive attack, which of the following statements best represents your belief?

    01 I can handle the situation without any preparation.

02 Preparation, planning, and emergency supplies will help me handle the situation.
03 Nothing I do to prepare will help me handle the situation.
98 Don't know
99 Refused

B3. In a **hazardous materials accident**, such as a transportation accident or a power plant accident, which of the following statements best represents your belief?

01 I can handle the situation without any preparation.
02 Preparation, planning, and emergency supplies will help me handle the situation.
03 Nothing I do to prepare will help me handle the situation.
98 Don't know
99 Refused

B4. In a **severe disease outbreak**, such as a bird flu epidemic, which of the following statements best represents your belief?

01 I can handle the situation without any preparation.
02 Preparation, planning, and emergency supplies will help me handle the situation.
03 Nothing I do to prepare will help me handle the situation.
98 Don't know
99 Refused

C. RISK AWARENESS / PERCEPTION

On a scale of 1 to 5, with 5 being "very likely" and 1 being "not likely at all," how likely do you think…?

C1. …Some type of <u>natural disaster</u> such as earthquakes, floods, hurricanes, tornadoes, and wildfires will occur in your community in the next 12 months?

05   VERY LIKELY
04
03
02
01   NOT VERY LIKELY
98   Don't know
99   Refused

CATI: DISPLAY LEAD STATEMENT FROM SECTION C INTRO FOR ITEMS C2-C8: "On a scale of 1 to 5, with 5 being "very likely" and 1 being "not likely at all," how likely do you think…?"

[If C1=01-04]

C2. Some type of <u>natural disaster</u> **will ever occur** in your community? Please use the same scale of 1 to 5, with 5 being "very likely" and 1 being "not likely at all."

//ROTATE C3, C5, C7//
C3. Some type of <u>terrorism</u>, including biological, chemical, radiological, or explosive attack will occur in your community **in the next 12 months**?

[If C3=01-04]
C4. Some type of <u>terrorism</u> **will ever occur** in your community? [repeat scale as necessary]

C5. Some type of <u>hazardous materials accident</u>, such as a chemical transportation accident or a power plant accident will occur in your community **in the next 12 months**?

[If C5=01-04]
C6. Some type of <u>hazardous materials accident</u> **will ever occur** in your community? [repeat scale as necessary]

C7. Some type of widespread <u>disease outbreak</u> such as the bird flu will occur in your community **in the next 12 months**?

[If C7=01-04]
C8. Some type of <u>disease outbreak</u> **will ever occur** in your community? [repeat scale as necessary]

D. STAGES OF CHANGE

D1. In thinking about preparing yourself for a major disaster, which best represents your preparedness?

[SINGLE RESPONSE]

01	I have not yet prepared but I intend to in the next 6 months
02	I have not yet prepared but I intend to in the next month
03	I just recently began preparing
04	I have been prepared for at least the past 6 months
05	I am not planning to do anything about preparing
98	Don't know
99	Refused

[If D1=01, 02, or 05]
D2. For each of the following statements, please tell me whether it is "The primary reason", "Somewhat of a reason," or "Not a reason at all" why you have not taken any disaster preparedness steps?

01   A Primary Reason
02   Somewhat of a reason
03   Not a reason at all
98   DON'T KNOW
99   REFUSED

//ROTATE LIST//

a. I don't know what I'm supposed to do.
b. I just haven't had the time.
c. I don't want to think about it
d. It costs too much.
e. I don't think it will make a difference
f. I don't think I'd be able to
g. I think that emergency responders, such as fire, police or emergency personnel, will help me.

E. RELIANCE

E1. In the first 72 hours following a disaster, please indicate how much you would expect to rely on the following for assistance. Please use a scale of 1 to 5, with 5 being "expect to rely on a great deal" and 1 being "do not expect to rely on at all."

05   EXPECT TO RELY ON A GREAT DEAL
04
03
02
01   DO NOT EXPECT TO RELY ON AT ALL
98   DON'T KNOW
99   REFUSED

//ROTATE LIST//

a. Household members
b. People in my neighborhood
c. Non-profit organizations, such as the American Red Cross or the Salvation Army
d. My faith community, such as a congregation
e. Fire, police, emergency personnel
f. State and Federal Government agencies, including FEMA

E2a. If a disaster happened in your community, how would you find out what was happening or where to go and what to do?

01 [Record response]
98 Don't know
99 Refused

//IF E2a=01//
E2b. If that does not work, what would you do next?

[IF RESPONDENT SAYS ANYTHING THAT REQUIRES ELECTRICITY OR SIMILAR, ASK THEM WHAT THEY WOULD DO IF THERE WAS NO POWER. PROBE UNTIL UNPRODUCTIVE AND INCLUDE ALL RESPONSES.]

01 [Record response]
98 Don't know
99 Refused

E3. In the event of a disaster, would you expect to need help to evacuate or get to a shelter?

01 Yes
02 No
98 Don't know
99 Refused

F. PERSONAL RESPONSE

F1. How confident are you in your ability to know what to do in the first 5 minutes of [fill in from below]? Please use a scale of 1 to 5, with 5 being "very confident" and 1 being "not at all confident."
//ROTATE//

a. An explosion of a radiological or dirty bomb?
b. The release of a chemical agent?
c. An explosion or bomb?
d. A sudden natural disaster such as an earthquake or tornado?

05   VERY CONFIDENT
04
03
02
01   NOT VERY CONFIDENT
98   Don't know
99   Refused

F2. How much do you think preparing for a disaster will help you to handle the disaster? Would you say…

> 01   Very much
> 02   Somewhat
> 03   Very little
> 04   Not at all
> 98   Don't know
> 99   Refused

F3. How confident are you about your own ability to handle a disaster? Please use a scale of 1 to 5, with 5 being "very confident" and 1 being "not at all confident."

> 05   VERY CONFIDENT
> 04
> 03
> 02
> 01   NOT VERY CONFIDENT
> 98   Don't know
> 99   Refused

F4. Have you talked to anyone about the need to be prepared for disasters that may affect your community?

> 01   Yes
> 02   No
> 98   Don't know
> 99   Refused

[If F4=01]
F5. Who have you talked to? DO NOT READ LIST

   [PROBE: Anyone else? [MUL=5]

> 01   HOUSEHOLD MEMBERS
> 02   PEOPLE IN MY NEIGHBORHOOD
> 03   PEOPLE FROM WORK/SCHOOL
> 04   MY FAITH COMMUNITY
> 05   OTHER [RECORD RESPONSE]
> 98   DON'T KNOW
> 99   REFUSED

F6. In the past 2 years, have you done any of the following? //ROTATE ITEMS a-d//

> 01   Yes
> 02   No

    98   DON'T KNOW
    99   REFUSED

    a.   Attended a meeting on how to be better prepared for a disaster
    b.   Attended CPR training (yes/no)
    c.   Attended first aid skills training (yes/no)
    d.   Attended training as part of a Community Emergency Response Team or CERT
          (yes/no)

[If any of F6a-d=01]
F7.   What motivated you to take this training? DO NOT READ LIST

       [PROBE: Anything else? Record all responses]   MUL=9

       01 MANDATORY FOR JOB/SCHOOL
       02 EASY TO SIGN UP (E.G., OFFERED AT WORK, SCHOOL OR PLACE OF
       WORSHIP)
       03 CONCERN FOR PERSONAL SAFETY
       04 CONCERN FOR SAFETY OF FAMILY OR OTHERS
       05 TO HAVE THE NECESSARY SKILLS TO HELP OTHERS
       06 GENERAL INTEREST/HOBBY
       07 TO BE PREPARED
       08 BECAUSE OTHERS (FAMILY OR FRIENDS) DID
       09 OTHER [RECORD RESPONSE]
       98 DON'T KNOW
       99 REFUSED

[If all of F6a-d <> 01 ask F8]
F8.   What is the main reason you have not received any preparedness training? DO NOT READ
       LIST.

       [PROBE: Anything else? Record all responses]   MUL=7

       01 LACK OF TIME
       02 LACK OF MONEY/TOO EXPENSIVE
       03 DON'T THINK IT'S IMPORTANT
       04 HAVEN'T THOUGHT ABOUT IT
       05 DIFFICULT TO GET INFORMATION ON WHAT TO DO
       06 DON'T THINK IT WILL BE EFFECTIVE
       07 OTHER [RECORD RESPONSE]
       98 DON'T KNOW
       99 REFUSED

G. PREVENTION
Now I'd like to ask you a series of questions about your past experiences …

G1.   In the past 12 months, have you seen any suspicious behavior or circumstances?

    01   Yes
    02   No
    98   Don't know
    99   Refused

[If G1=01]
G2.   What did you do? [DO NOT READ LIST. Record all responses] MUL=5

    01   CALLED POLICE AND/OR A TIPLINE
    02   CALLED NEIGHBOR/FRIEND
    03   WAITED FOR SOMEONE ELSE TO DO SOMETHING
    04   LEFT THE AREA/SITUATION/EVENT
    05   NOTHING
    06   OTHER [RECORD RESPONSE]
    98   DON'T KNOW
    99   REFUSED

G3.   Do you feel you have a personal responsibility to report suspicious behavior or circumstances to the authorities?

    01   Yes
    02   No
    98   Don't know
    99   Refused

H. DISASTER SUPPLIES
For this next set of questions, I'd like to ask you about some specific things you may or may not have done to prepare yourself and/or your household.

H1.   Do you have supplies set aside in your <u>home</u> to be used only in the case of a disaster?

    01   Yes
    02   No
    98   Don't know
    99   Refused

[if H1=01]
H2. Could you tell me the disaster supplies you have in your home? DO NOT READ LIST

[PROBE: Anything else? Record all responses]   MUL=12

1   A SUPPLY OF BOTTLED WATER
2   A SUPPLY OF PACKAGED FOOD
3   A FLASHLIGHT
4   A PORTABLE, BATTERY-POWERED RADIO
5   BATTERIES
6   A FIRST AID KIT
7   EYEGLASSES
8   MEDICATIONS
9   PHOTOCOPIES OF PERSONAL IDENTIFICATION
10 FINANCIAL DOCUMENTS
11 CASH
12 OTHER [RECORD RESPONSE]
98 DON'T KNOW
99 REFUSED

[if H1=01]
H3. How often do you update these supplies? Would you say…

01 Never
02 Less than once a year
03 Once a year
04 More than once a year
98 Don't know
99 Refused

H4. Do you have supplies set aside in your <u>car</u> to be used only in the case of a disaster?

01 Yes
02 No
03 DON'T OWN A CAR
98 Don't know
99 Refused

[if A4=01 or 02]
H5. Do you have supplies set aside in your <u>workplace</u> to be used only in the case of a disaster?

01 Yes
02 No
98 Don't know
99 Refused

I. HOUSEHOLD PLAN

I1.   Does your household have an emergency plan that includes instructions for household members about where to go and what to do in the event of a disaster?

01 Yes
02 No
98 Don't know
99 Refused

[if I1=01]
I2. Have you discussed this plan with other members in your household?

01 Yes
02 No
98 Don't know
99 Refused

I3.   Do you have copies of important financial and insurance documents in a safe place to help you rebuild or seek assistance following a disaster?

01 Yes
02 No
98 Don't know
99 Refused

J. COMMUNITY PLAN

J1.   Using a scale of 1 to 5 with 5 being "very familiar" and 1 being "not at all familiar," how familiar are you with…

//ROTATE//

a. Alerts and warning systems in your community?
b. Official sources of public safety information?
c. Community evacuation routes?
d. Shelter locations near you?
e. How to get help with evacuating or getting to a shelter?

01   NOT AT ALL FAMILIAR
02
03
04
05   VERY FAMILIAR
98   Don't know
99   Refused

[if A3=01]

J2.   Are you aware of the details of the emergency or evacuation plan of the child(ren)'s school including where the school plans to evacuate and how to get information about the child in the event of a disaster?

    01   Yes
    02   No
    98   Don't know
    99   Refused

K. DRILLS/EXERCISES

K1. Aside from a fire drill, in the past 12 months, have you participated in any of the following?

    //ROTATE ITEMS//

  a. A <u>home</u> evacuation drill

    01   Yes
    02   No
    98   Don't know
    99   Refused

  b. A <u>home</u> shelter in place drill (yes/no)

[if A4=01 or 02]
  c. A <u>workplace</u> evacuation drill (yes/no)

[if A4=01 or 02]
  d. A <u>workplace</u> shelter in place drill (yes/no)

[if A3=01 OR A4=03]
  e. A <u>school</u> evacuation drill (yes/no)

[if A3=01 OR A4=03]
  f. A <u>school</u> shelter in place drill (yes/no)

L. VOLUNTEERING

L1.   During the past 12 months, have you given any time to help support emergency responder organizations or an organization that focuses on community safety, such as Neighborhood Watch?

01 Yes
02 No
98 Don't know
99 Refused

[if L1=01]
L2. Which one or ones?

01 [Record all responses]
98 Don't know
99 Refused

L3. Have you ever volunteered to help in a disaster?

01 Yes
02 No
98 Don't know
99 Refused

[if L3=01]
L4. What role did you play?

01 [Record all responses]
98 Don't know
99 Refused

L5. Would you be willing to take a 20-hour training course to be qualified to help your community recover from disasters?

01 Yes
02 No
98 Don't know
99 Refused

M. DISABILITY

M1. Do you have a physical or other disability that would affect your capacity to respond to an emergency situation?

01 Yes
02 No
98 Don't know
99 Refused

[if M1=01]

M2. Have you received any training or done any preparations, specific to your disability, that would allow you to respond better in the event of a disaster or emergency situation?

    01 Yes
    02 No
    98 Don't know
    99 Refused

M3. Do you currently live with or care for someone with a physical or other disability, including someone elderly who requires assistance?

    01 Yes
    02 No
    98 Don't know
    99 Refused

[if M3=01]
M4. Have you received any specific information or training in order to assist that person in the event of a disaster or emergency situation?

    01 Yes
    02 No
    98 Don't know
    99 Refused

N. OUTREACH

There are several organizations that are responsible for helping citizens such as yourself understand preparedness and assist you in being more prepared for disasters.

N1. What would be the best way for an official organization to provide you with information on preparedness and training to help make you safer in a disaster?
DO NOT READ LIST.

  [PROBE: Anything else? Record all responses]   MUL=12

    01 REGULAR MAIL
    02 E-MAIL
    03 INTERNET
    04 TV OR RADIO BROADCASTS
    05 LOCAL NEWSPAPER
    06 COMMUNITY EVENTS
    07 PLACE OF WORSHIP
    08 INFORMATION PLACED AT LOCAL BUSINESSES, LIBRARIES, POST OFFICES
    09 PLACE OF EMPLOYMENT

10 SCHOOLS
11 PERSONAL CONTACT BY PHONE OR IN PERSON
12 OTHER [RECORD RESPONSE]
98 DON'T KNOW
99 REFUSED

O. BRAND AWARENESS

Next I'd like to ask you about a few specific organizations that you may or may not have heard of.

O1. Have you ever heard of Citizen Corps?

01 Yes
02 No
98 Don't know
99 Refused

[if O1=01]
O2. How would you describe Citizen Corps? [Record response]

01   Record response
98   Don't know
99   Refused

O3. Before taking this survey, had you ever heard of Community Emergency Response Teams or CERT?

01 Yes
02 No
98 Don't know
99 Refused

[if O3=01]
O4. How would you describe CERT? [Record response]

02   Record response
98   Don't know
99   Refused

O5. Have you ever heard of Ready.gov?

01 Yes
02 No
98 Don't know
99 Refused

[if O5=01]

O6.   How would you describe Ready.gov? [Record response. Probe for more than "Web site."]

    01 Record response
    98 Don't know
    99 Refused

P. DEMOGRAPHICS AND CONTEXT

Lastly, I would like to ask you for some information about you and your household. Again, all information that you provide will be held confidential.

P1.   Would you describe the location of your residence as…?

    01 Urban
    02 Suburban
    03 Rural
    98 Don't know
    99 Refused

[if A4=01-03]

P2   Do you generally use public transportation, such as subways or buses, to get to school or work?

    01 Yes
    02 No
    98 Don't know
    99 Refused

[if A4=01-02]

P3.   Do you feel that, based on the type or location of your job, you are at higher risk for certain types of disasters or emergencies?

    01 Yes
    02 No
    98 Don't know
    99 Refused

[if A4=01-02]

P4   Do you feel that, based on the type or location of your job, you will have a higher level of responsibility in the event of certain types of disasters or emergencies?

    01 Yes
    02 No
    98 Don't know
    99 Refused

P5.   Does your household have a pet or service animal?

    01 Yes
    02 No
    98 Don't know
    99 Refused

P6.   What is the highest level of education that you attained? Would it be…?

    01 Less than 12th Grade (no diploma)
    02 High School Graduate or GED
    03 Some College but No Degree
    04 Associate Degree in College
    05 Bachelor's Degree
    06 Masters Degree
    07 Doctorate Degree
    98 Don't know
    99 Refused

P7.   How religious would you say you are? Would you say…

    01 Very religious
    02 Somewhat religious
    03 Barely religious
    04 Not at all religious
    98 Don't know
    99 Refused

P8.   Which of the following best describes your race? Would you consider yourself to be…?
MUL=6

    01 White
    02 Black or African American
    03 Asian
    04 American Indian or Alaska Native
    05 Native Hawaiian or Other Pacific Islander
    06 Something else (Specify)
    98 Don't know
    99 Refused

P9.   Are you of Hispanic or Latino or Spanish origin?

    01 Yes
    02 No
    98 Don't know
    99 Refused

P10. In what year were you born?

    01 Enter response   _ _ _ _ //RANGE 1900-1989//
    98 Don't know
    99 Refused

P11. Which of the following income ranges represents your annual household income in 2006? Feel free to stop me at the correct range. Was your household income…?

    01 Less than $25,000
    02 $25,000 to less than $50,000
    03 $50,000 to less than $75,000
    04 $75,000 or more
    98 Don't know
    99 Refused

P12. What state do you live in? _ _

P13. What is your zip code? _ _ _ _ _ //RANGE 5-digit//

P14. Record gender [Do not ask]

    01   Men
    02   Women

Those are all of the questions that I have. On behalf of Macro International and the Department of Homeland Security, I would like to thank you for your time and participation. Thank you again.