

# Hurricane Attitudes of Coastal Connecticut Residents: A Segmentation Analysis



**First Out**



**Constrained**



**Optimists**



**Reluctant**



**Diehards**

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Study Conducted By:



Study Sponsored By:



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## Principal Investigators:

### **Jennifer Marlon, Ph.D.**

Yale Project on Climate Change Communication  
School of Forestry & Environmental Studies  
Yale University  
(203) 436-2598  
[jennifer.marlon@yale.edu](mailto:jennifer.marlon@yale.edu)

### **Anthony Leiserowitz, Ph.D.**

Yale Project on Climate Change Communication  
School of Forestry & Environmental Studies  
Yale University  
(203) 432-4865  
[anthony.leiserowitz@yale.edu](mailto:anthony.leiserowitz@yale.edu)

Co-authors:

### **Seth Rosenthal, Ph.D.**

Yale Project on Climate Change Communication  
School of Forestry & Environmental Studies  
Yale University  
[seth.rosenthal@yale.edu](mailto:seth.rosenthal@yale.edu)

### **Geoff Feinberg**

Yale Project on Climate Change Communication  
School of Forestry & Environmental Studies  
Yale University  
(203) 432-7438  
[geoffrey.feinberg@yale.edu](mailto:geoffrey.feinberg@yale.edu)

### **Sujata Pal**

Abt SRBI  
275 Seventh Avenue  
Suite 2700  
New York, NY 10001 USA  
[s.pal@srbi.com](mailto:s.pal@srbi.com)

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# Introduction

Social scientists who conduct post-disaster studies have long understood that people are often surprised by and unprepared for the severity or extent of natural hazards. Such results are found even despite major advances in the technical accuracy and advanced warning of storm forecasts. In fact, a post-storm review of Superstorm Sandy concluded that progress in forecasting may have reached a point of diminishing returns; the critical need now is progress in risk communication.

*“The quality of the meteorology is so far ahead of the quality of threat communications in the U.S. that progress in forecasting is becoming less and less relevant.”*

– The Weather Channel hurricane specialist Bryan Norcross

Decades of social science research demonstrates that communication is most effective when it is informed by the specific and diverse needs of the audience. In the context of disaster preparedness, this requires gaining a deep understanding of the psychological, cultural and sociological factors that shape public responses to hazards; these insights can then inform emergency managers’ communication strategies.

Audience segmentation is an analytical research tool that identifies cohesive differentiated audiences within a population that each respond to messages in a different way. In the case of coastal storm preparedness and response, the key audience attributes of interest are hazard awareness and knowledge, risk perceptions, prior experience, and related behaviors and behavioral barriers.

Here we present the results from a segmentation analysis of coastal Connecticut residents. We find residents align along a spectrum that ranges from one group (the First Out) that feels the most anxious and are the most likely to leave prior to a storm making landfall, to another (the Diehards) that feels the most prepared and is the most *unlikely* to respond to officials calling for evacuations. Three additional segments exist, roughly along a spectrum, between these two poles.

This report describes and characterizes the five audience segments based on an analysis of their hurricane attitudes and risk perceptions, barriers to evacuation, and storm-related behaviors. We also provide demographic and geographic profiles of the segments. The findings help explain how coastal CT residents vary in their understanding and misunderstanding of coastal storm risks, whom they trust as information sources, where they get their news and information about coastal storms, and their past and future likelihood of taking preparedness or evacuation actions. The analysis also reveals which factors – risk perceptions, prior experiences, behavioral barriers, or something else – most influence the storm-related decisions of each group.

This report is based on results from a 12-page mail-out/mail-back representative survey of households located in Connecticut coastal evacuation zones A and B (as defined by the U.S. Army Corps of Engineers). The survey was conducted in October, 2014 among 1,130 adults (18+) by Abt SRBI and the Yale Project on Climate Change Communication (<http://environment.yale.edu/climate-communication>). The survey completion rate was 31.4%. Of the 1,130 surveys completed, 684 were in Zone A (38.0% completion rate) and 446 in Zone B (24.8%). The difference in completion rates is likely due to topic salience for respondents who live in Zone A, who are more likely to be directly affected by hurricanes. The average margin of error for the total sample is +/- 3 percentage points at the 95% confidence level.

The project was funded by NOAA under the Coastal Storm Awareness Program (NOAA awards NA13OAR4830227, NA13OAR4830228, NA13OAR4830229) from the National Sea Grant College

Program, National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The Federal funds were provided via appropriations under the Disaster Relief Appropriations Act of 2013 (P.L. 113-2) and the Sea Grant Act (33 U.S.C. 1121 et seq.). Funding was awarded to the financial hosts of the Sea Grant College Programs in Connecticut, New Jersey, and New York via their financial host institutions, the University of Connecticut, the New Jersey Sea Grant Consortium, and the Research Foundation of State University of New York, respectively. The statements, findings, conclusions, and recommendations are those of the author(s) do not necessarily reflect the views of the National Sea Grant College Program, National Oceanic and Atmospheric Administration, the U.S. Department of Commerce, or any of the other listed organizations.

## *Executive Summary*

Five distinct groups of CT coastal residents are identified based on their attitudes towards hurricanes: the “First Out” (21% of the population); the “Constrained” (14%); the “Optimists” (16%); the “Reluctant” (27%); and the “Diehards (22%).” The First Out are the most likely to evacuate during a hurricane whereas the Diehards are the least likely to leave. Each group, however, has unique characteristics.

- The **First Out** perceive the greatest risk from hurricanes and are likely to evacuate if one is forecast to make landfall nearby. Of the First Out residents who experienced Superstorm Sandy, 55% evacuated.
- The **Constrained** understand the risks of staying home during a hurricane, but feel they would have trouble evacuating if they wanted (or needed) to due to poor health/disability, pets, or lack of money. 22% of the Constrained evacuated during Superstorm Sandy – the highest proportion aside from the First Out.
- **Optimists** have the lowest expectations of all the groups that a hurricane of any strength will occur in the next 50 years, although they say they would evacuate if one did occur. Perhaps because they think hurricanes are so unlikely, Optimists are the least prepared and most likely of all the groups to perceive significant barriers to evacuating, such as health/disability issues, lack of money, and lack of know-how.
- The **Reluctant** are less afraid of hurricanes than average and tend to live farther from the coast than the other groups. However, Reluctant individuals would evacuate if told to do so by a relevant authority – especially local police or fire departments, another local government official, or the Governor’s Office. Like the First Out, the Reluctant do not perceive significant barriers to their evacuation, and with an evacuation order, they are likely to evacuate at levels similar to the First Out.
- **Diehards** have the lowest hurricane risk perceptions of all the groups and are the least likely to evacuate. Diehards feel self-reliant and confident that they can protect themselves; they also believe it is safer to stay home than to evacuate so they can protect their property. Pets are an important barrier to leaving for 25% of the Diehards. Of the Diehards who experienced Superstorm Sandy, only 6% evacuated.
- All of the segments are most likely to evacuate if they receive an evacuation order from *local* officials, whether police, fire, or other government workers (as compared with announcements from weather broadcasters or other sources on the TV or radio).

The unique perceptions and needs of coastal Connecticut residents in the event of a hurricane underscores the importance of tailoring messages about storm preparedness, the nature of storm hazards and the likelihood of different damages, as well as evacuation resources. Some groups understand the risks and need minimal information in order to respond appropriately, whereas others understand the risks but need assistance. Still others misunderstand the risks and thus require education and outreach efforts well before a hurricane makes landfall.

## *Acknowledgements*

We are grateful to our NOAA Sea Grant collaborators as well as the YPCCC staff, including Lisa Fernandez, Bessie Schwarz, Zena Grecni, and Laurie Bozzuto for their assistance with the project. We would like to thank Peg Van Patten at Connecticut Sea Grant in particular for her efforts in developing the project. We also greatly appreciate the support from Governor Dannel Malloy for this project. Many people in the CT State Government spoke with us and improved the survey instrument, including William P. Shea, Deputy Commissioner, Department of Emergency Services & Public Protection; John Gustafson, Emergency Telecommunications Manager, Division of Emergency Management and Homeland Security and Department of Emergency Services and Public Protection; William J. Hackett, State Emergency Management Director, State of Connecticut, Division of Emergency Management and Homeland Security, Department of Emergency Services and Public Protection; Robert F. Kenny, Jr., Emergency Management Area Coordinator, Connecticut Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security, Region 1 Office. Conversations with Scott Devico, DEMHS Public Information Officer, Peter Sandgren, Radiological Emergency Preparedness, DESPP Division of Emergency Management and Homeland Security, Matthew Walsh of the Army Corps of Engineers, and Elizabeth Ban, Director of Communication, NOAA Sea Grant College Program, were extremely helpful. Jay Baker provided valuable information about a recent survey on hurricane evacuation behavior that greatly improved this study.



# Hurricane Audience Segments

This report describes the results of an audience segmentation of Connecticut coastal residents (n=996) who say they experienced a hurricane or tropical storm within the past five years (since 2009). The segmentation is based on 39 attitudinal and behavioral variables relating to storm awareness, attitudes, preparedness and media behavior (Appendix A). The study data were weighted, so that the cluster distributions would accurately reflect their proportions in the population. In addition, all variables were standardized to compensate for any possible effect of differences in the scales of the various measures.

The audience analysis resulted in five unique segments: 1) the First Out; 2) the Constrained; 3) the Optimists; 4) the Reluctant; and 5) the Diehards. A short summary of each segment is provided in Figure 1, and brief descriptions of each group's characteristics and tendencies follow.

<b>First Out</b> 21%	Anxious and eager to leave if a hurricane is in the forecast
<b>Constrained</b> 14%	Aware of risks & willing to evacuate but face barriers
<b>Optimists</b> 16%	Doubt that a hurricane will occur but willing to evacuate
<b>Reluctant</b> 27%	Reluctant to evacuate but will leave if ordered to
<b>Diehards</b> 22%	Confident they can safely ride out hurricanes at home

**Figure 1.** Titles, relative proportion of coastal population, and descriptions for the five audience segments identified from hurricane survey data collected during a 2014 survey of CT coastal residents (Marlon et al. 2015).

## *First Out*

The First Out (21%) are worried about all severe storms, and say they will evacuate for most hurricanes under most circumstances. The First Out perceive the greatest risk from both winds and flooding and are the most likely to believe that they or someone in their households would be at risk of injury or death and personally in danger from storm surge; they also have highest levels of worry when a storm is approaching.

The First Out are less prepared for another storm than average, and less confident that they can keep their family safe. Furthermore, they are more likely to know that they live in an evacuation zone. The First Out are also less likely to perceive any barriers to evacuating. Accordingly, they are more likely to evacuate in the event of a storm of any intensity, with or without an official notice.

## *Constrained*

The Constrained (14%) understand the risks of staying in place during a hurricane, but think they would have trouble evacuating if they wanted (or needed) to. They are less likely to be prepared to go through a hurricane, and less likely to say they could protect their home and family; yet they have a higher than average assessment of all of the risks of riding out a storm. They are more likely to cite barriers to evacuation, including lack of knowledge, transportation or money, poor health, or the inability to transport pets.

## *Optimists*

The Optimists (16%) are unique among the segments in the low probability they assign to a future hurricane of any category happening in the next 50 years; they say that they would evacuate if one did occur, however. If a hurricane does occur, they see significant barriers to evacuating – even more so than the Constrained. While the Constrained tend to say that they won't evacuate because they can't, the Optimists are more likely to say that they would evacuate if necessary, but that it won't be necessary because a hurricane isn't going to happen.

## *Reluctant*

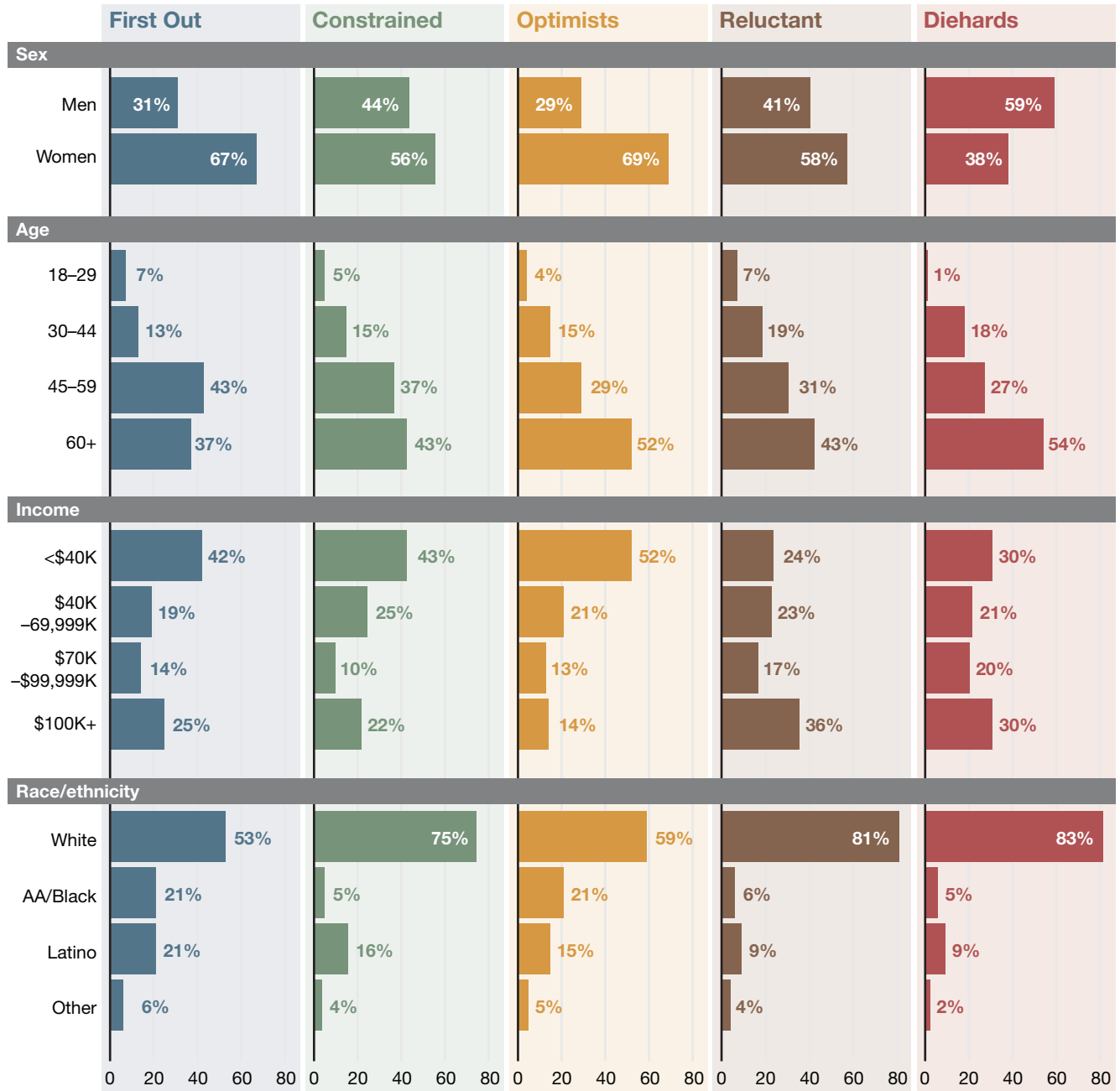
The Reluctant (27%) are less worried about hurricanes than average. However, they would evacuate if told to do so by a relevant authority – especially local police or fire departments, another local government official, or the Governor's Office. Like the First Out, the Reluctant do not perceive significant barriers to their evacuation, and with an evacuation order, this group is likely to evacuate at levels similar to those in the First Out segment.

## *Diehards*

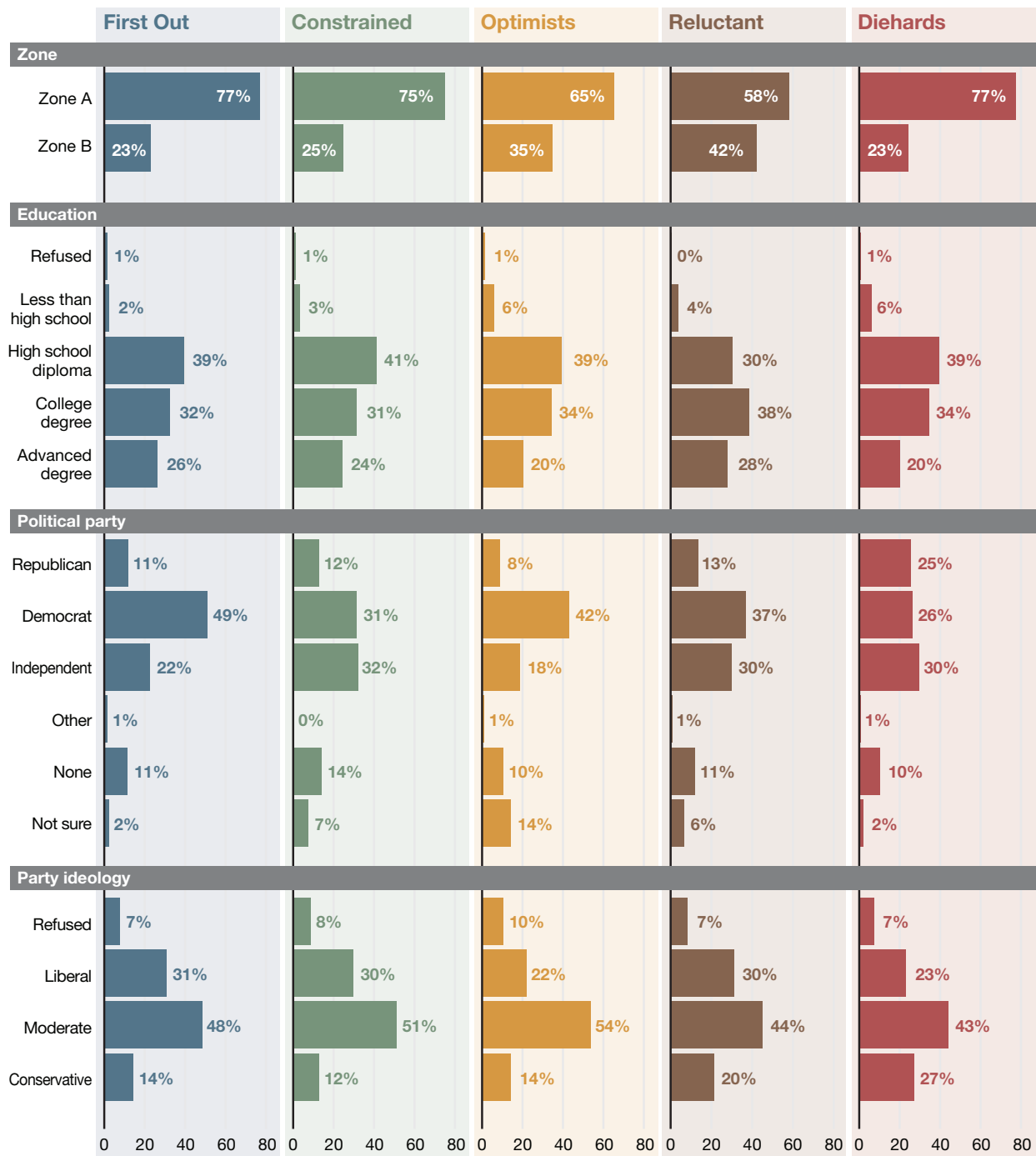
The Diehards (22%) are in most ways a mirror image of the First Out. The Diehards feel capable of “riding out” a hurricane in place. They are more likely to feel they were prepared for the last storm they went through, and less likely than average to be worried about an upcoming hurricane. They feel more prepared than average for future storms, and they are more confident that they can protect their family and property. In addition, they have a lower than average assessment of any of the risks of a hurricane, and are more likely to think that it's safer to stay than to go. They are less likely than average to evacuate for any strength of hurricane, with or without official notice. They would tend to stay in order to safeguard their property – or simply to watch the storm.

# Segment Profiles

## Demographics

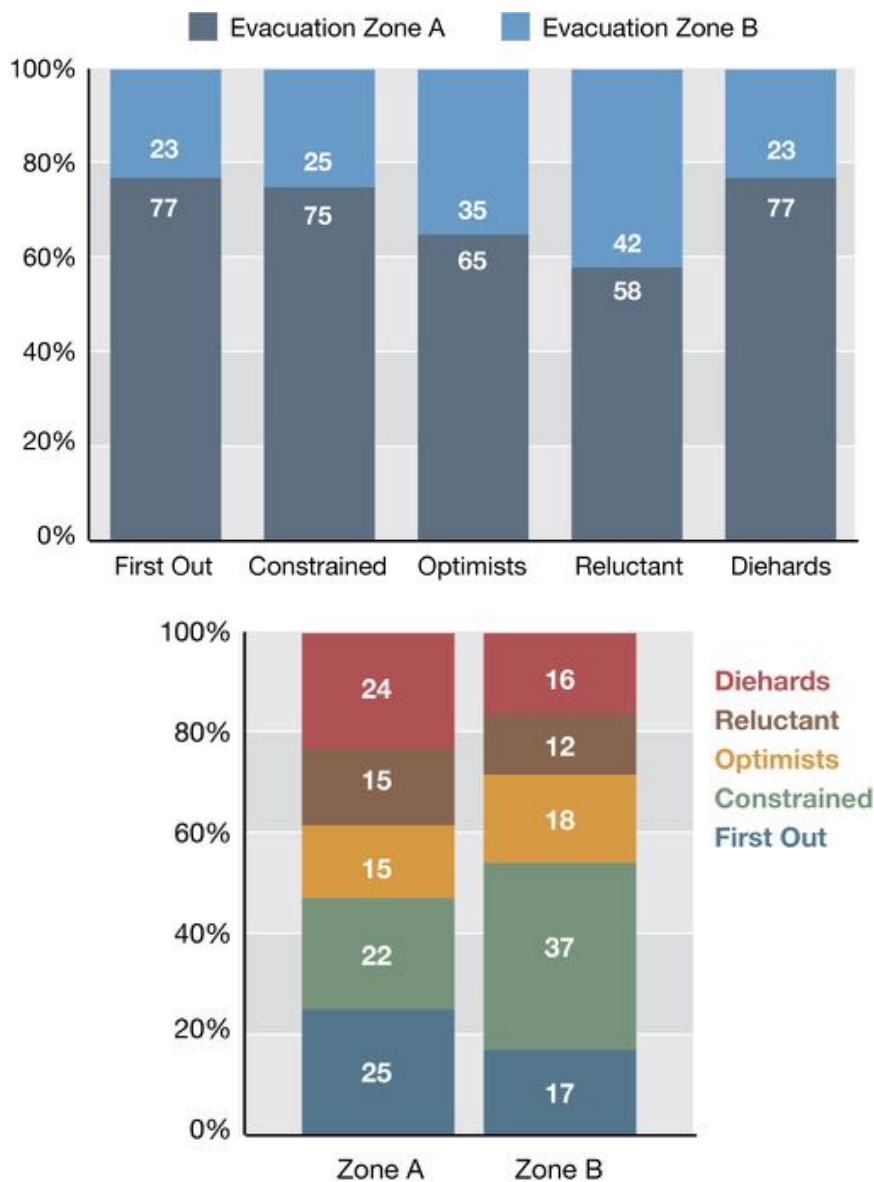


## Demographics (continued)



## Segments by evacuation zone

Most of the survey respondents in the audience analysis reside in Evacuation Zone A (closest to the shoreline) as defined by the Army Corps of Engineers. The Optimists and Reluctant groups have proportionally fewer members in Zone A (65% and 58%, respectively) than do the other three groups, who all have approximately three quarters living in Zone A (77% of the First Out, 75% of the Constrained, and 77% of the Diehards).



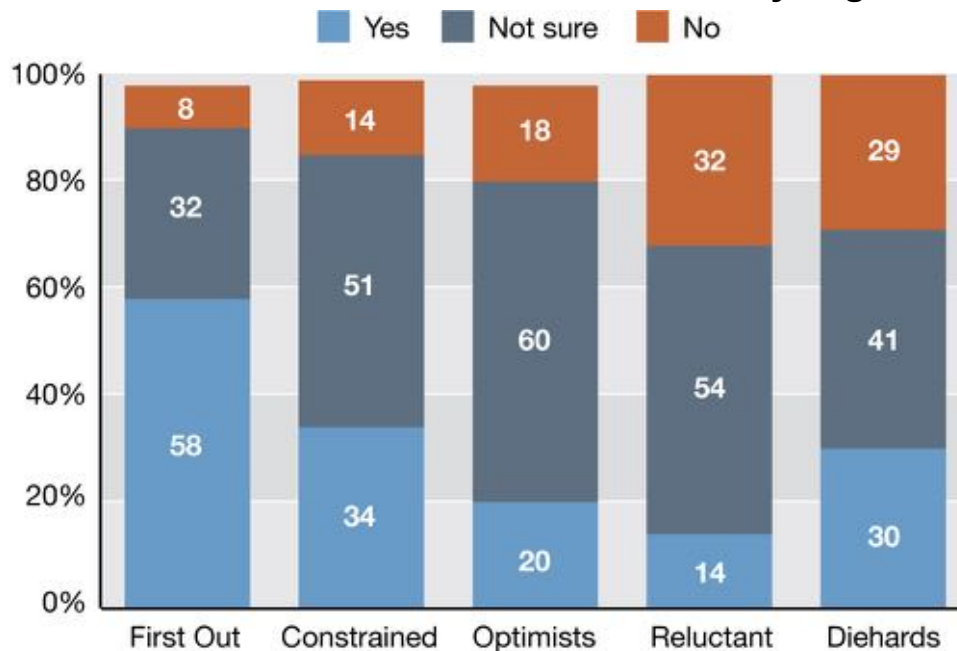
Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>

## Risk Perceptions

### *Home is in an evacuation zone*

The First Out have the largest percentage of residents (58%) who understand that their home is located in an evacuation zone. About one third of the Constrained and Diehards (34% and 30%, respectively) understand this, whereas the Optimists and Reluctant are the least likely to (20% and 14%, respectively). Distance from the coast likely explains some of the differences in these results, as the Optimists and the Reluctant have fewer members living in Zone A. The Optimists are the most likely to be unsure as to whether they live in an Evacuation Zone or not (60% are unsure). Note that all the participants surveyed live in an evacuation zone.

**% of CT coastal residents who understand that their home is in an evacuation zone by segment**



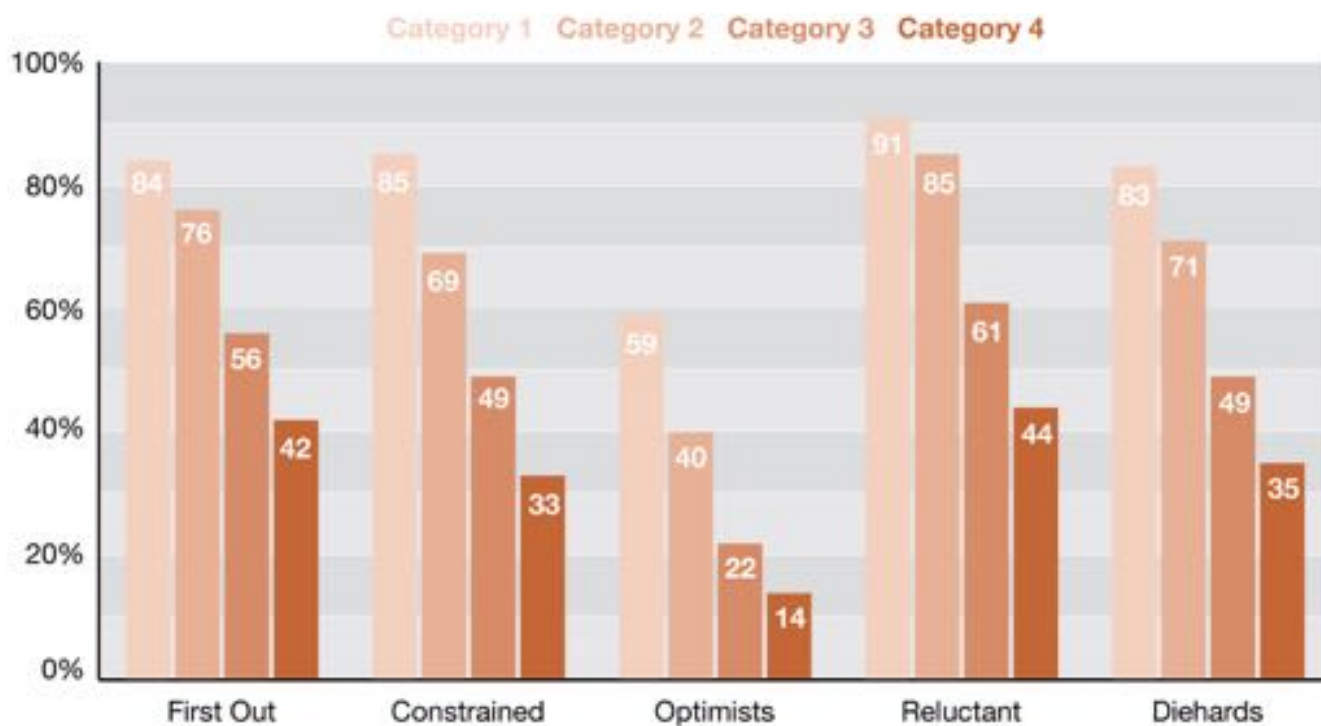
**Questions: Is your home located in an evacuation zone? (Note: only residents living within an evacuation zone were surveyed)**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Estimates of hurricane likelihood*

Using a scale of 0% – 100%, residents were asked to estimate the likelihood that hurricanes of different categories would occur along the CT coast in the next 50 years. Responses were similar across all segments except the Optimists, who consistently assigned a lower probability to hurricanes of any category occurring. For example, on average, the Optimists estimated a 59% chance that a Category 1 hurricane would occur in the next 50 years, whereas the other groups estimated over an 80% chance (on average) that this would occur. Moreover, the estimates of all the non-Optimists groups are relatively accurate, whereas the Optimists are substantially underestimate storm likelihoods.

### **Estimated likelihood that a Category 1, 2, 3, or 4 hurricane will occur in the next 50 years by segment**



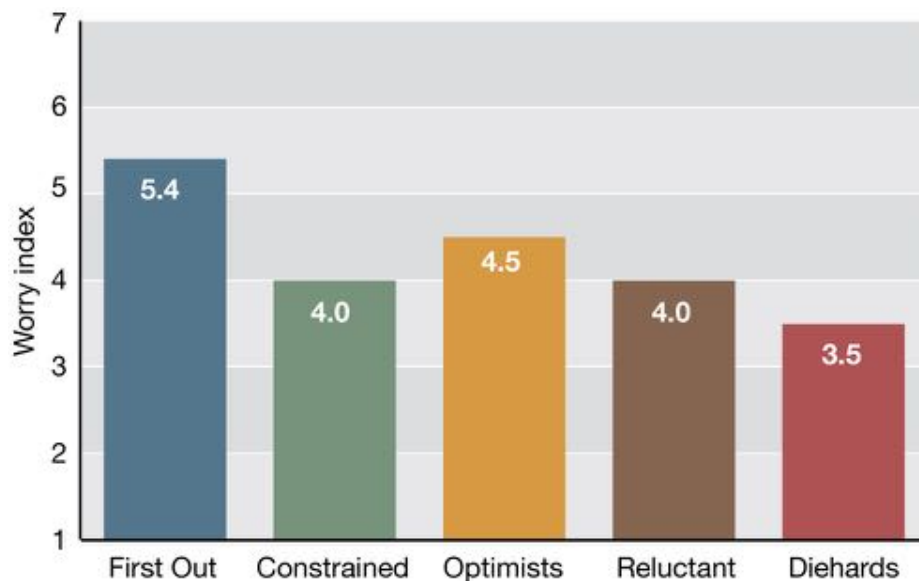
**Questions:** On a scale of 0%-100%, with 0% being it definitely will NOT happen and 100% being it definitely WILL happen, how likely do you think it is that each of the following types of hurricane will hit somewhere along the Connecticut coast in the next 50 years? Enter your response in the box next to each. If you're not sure, just give your best estimate; a) Category 1 (80 MPH winds); b) Category 2 (100 MPH winds); c) Category 3 (120 MPH winds); d) Category 4 (140 MPH winds).

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Worry about approaching storms*

Levels of worry about hurricanes and tropical storms were measured with a 7-point response scale, with 0 being “Not worried at all” and 7 being “Extremely worried.” Most CT coastal residents express moderate to high levels of worry about approaching severe storms, but the First Out stand apart with higher-than-average levels of worry. The Constrained, Optimists, and Reluctant are less worried than the First Out, and the Diehards report the least worry of all the groups.

### **Average level of worry when a hurricane is approaching by segment**



**Questions: Generally speaking, when a hurricane or tropical storm is approaching your city or town, how worried do you feel? Please answer using the following scale ranging from 1 (not at all worried) to 7 (extremely worried).**

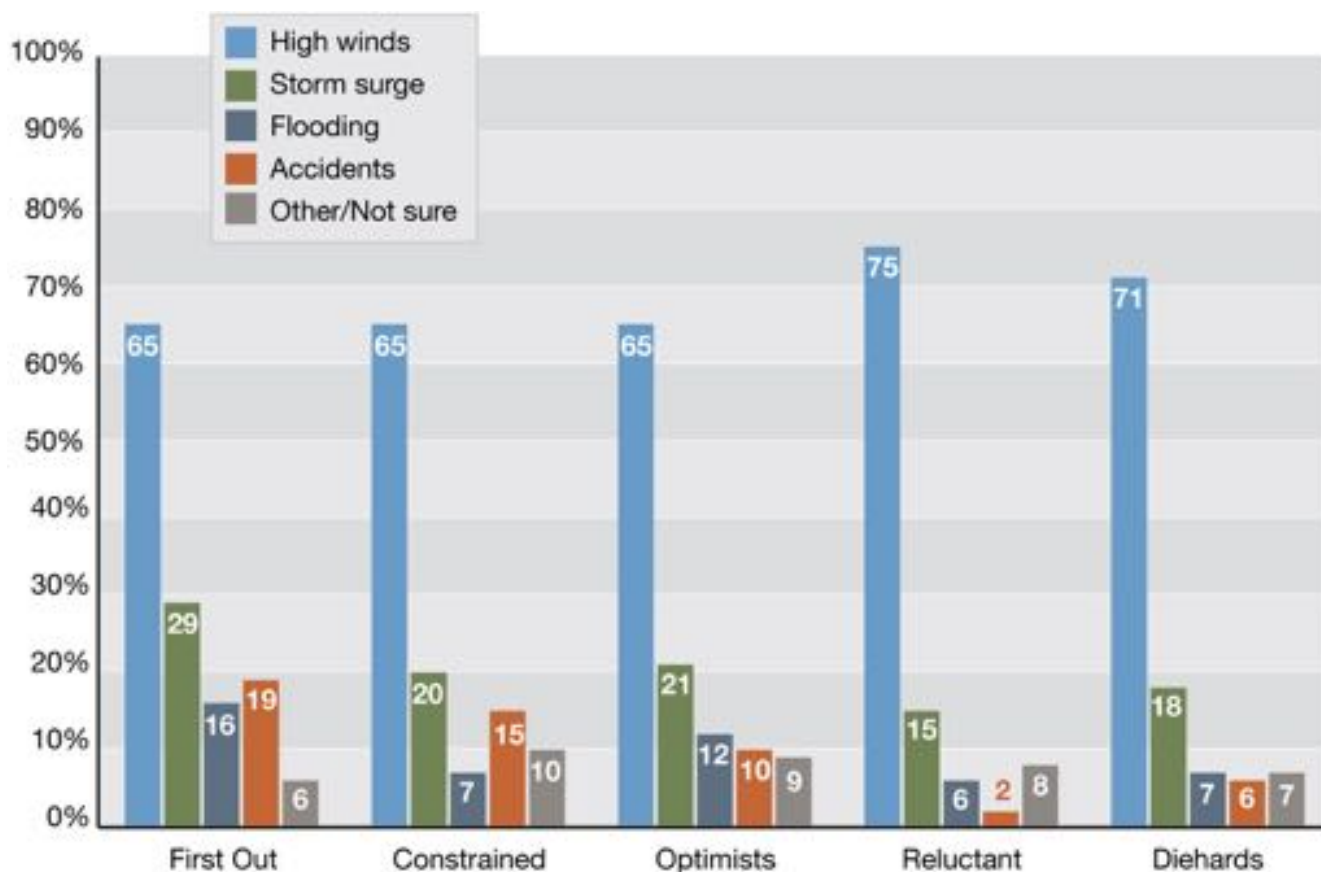
*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*



## Understanding of hurricane hazards

Between two thirds and three quarters of every segment believe that high winds are the greatest threat during a hurricane. In reality, storm surge causes the most fatalities during coastal storms, due to drowning. The First Out are the most likely among the five segments to recognize the danger of storm surge, with 29% saying it is the most likely cause of injury or death during a hurricane. In contrast, the Reluctant are the least likely to identify storm surge and the most likely to identify wind as the primary danger. Geography likely plays a role in these results, as 77% of the First Out live in Zone A, closest to the shoreline, whereas fewer of the Reluctant (58%) do. Still, none of the groups recognize that water can be a greater threat to personal safety than winds.

### Primary cause of injury and death during a hurricane by segment



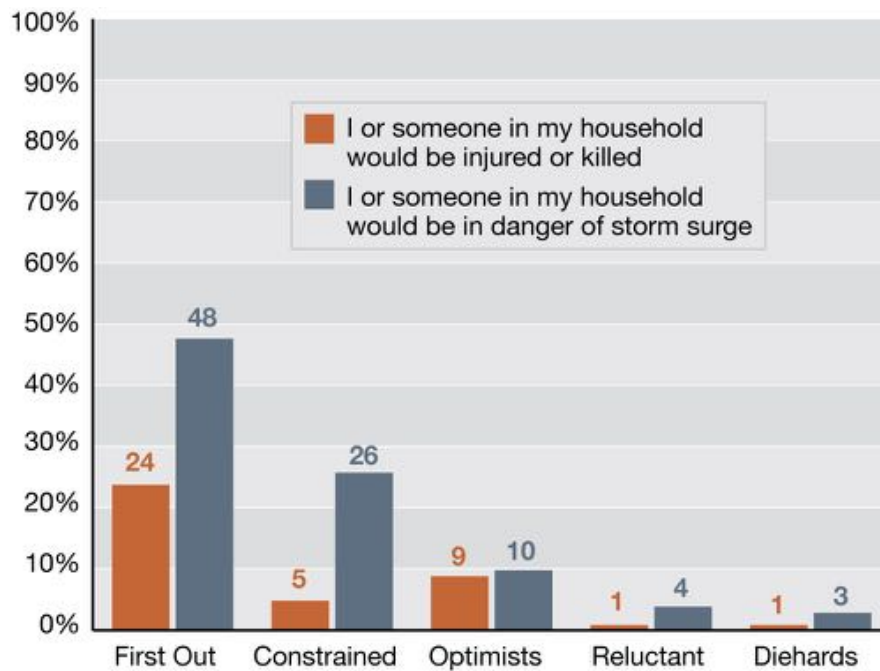
**Questions:** To the best of your knowledge, which one of the following is the most likely cause of injury or death during a hurricane? Blown or falling objects from high winds; Rising water levels and high waves (storm surge); Flooding from heavy rains; Accidents during evacuation; Other; Not sure.

Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>

## *Likelihood of hurricane damage*

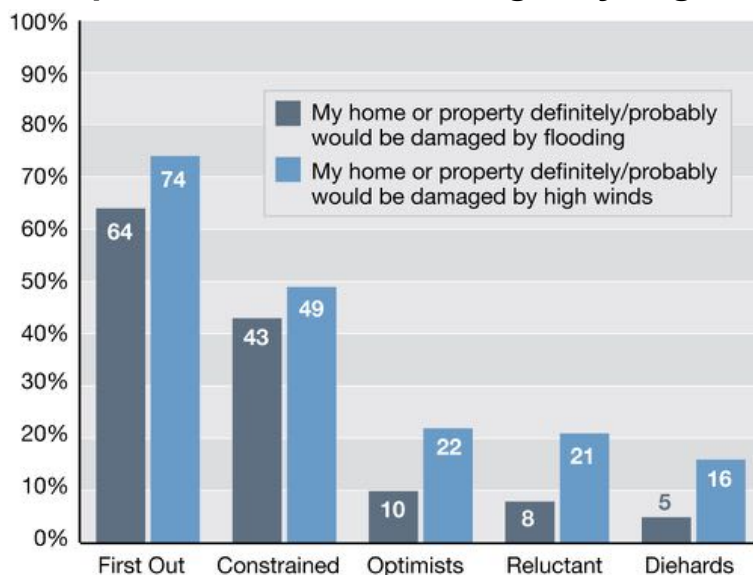
Expectations about the likelihood of damage from a hurricane were measured using a set of five questions about personal injury, injury to one's family, home or property damage from flooding and high winds, and risk of isolation due to blocked roads. The First Out perceive the greatest likelihood of damage to themselves and property, whereas the Diehards predict that such damages are less likely. The Constrained, Optimists, and Reluctant fall between these two extremes on the scale. From two thirds (64%, from flooding) to three quarters (74%, from winds) of the First Out expect property damage, and over half (52%) expect their home to be isolated.

### Perceptions of hurricane danger by segment



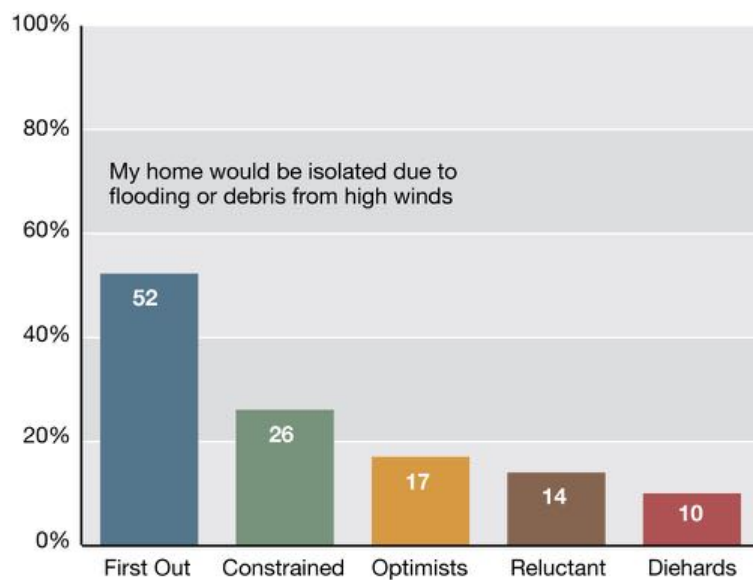
**Questions:** Definitely/probably would. If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? a) I or someone in my household would be in danger from storm surge (water from the ocean or Long Island Sound); b) I or someone in my household would be injured or killed.

## Perceptions of hurricane danger by segment



**Questions:** Definitely/probably would. If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? My home or property would be damaged by flooding; My home or property would be damaged by high winds.

## Perceptions of hurricane danger by segment

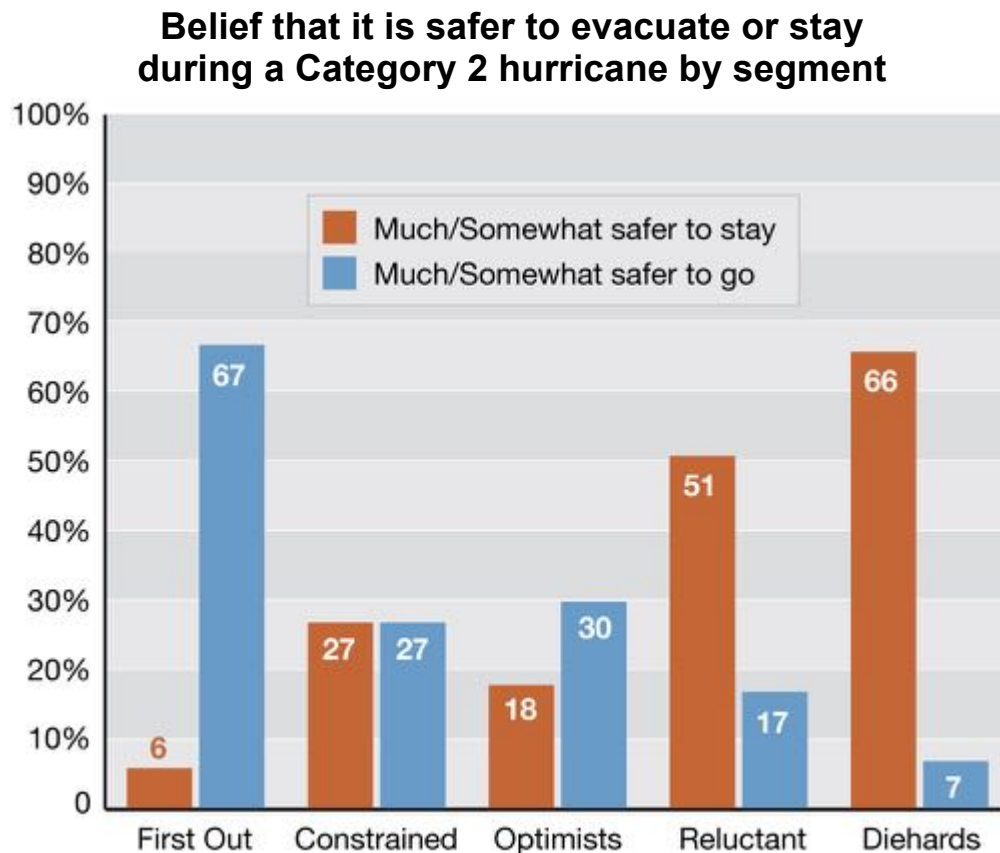


**Questions:** Definitely/probably would. If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? My home would be isolated due to flooding or debris from high winds.

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Safer to stay or go?*

The First Out are the most likely of all the segments to believe that it is safer to evacuate than to stay at home during a Category 2 hurricane. Two thirds (67%) of the First Out say it would be somewhat or much safer to evacuate than to stay, whereas the Optimists and Constrained do not consistently believe that either evacuating or staying is safer. The Diehards (66%) and the Reluctant (51%), however, tend to believe that staying at home during a Category 2 hurricane is safer than evacuating. In the case of the First Out, respondents are likely thinking about their personal safety, whereas the Reluctant and Diehards are likely thinking about their property when considering whether to stay or go during a storm.

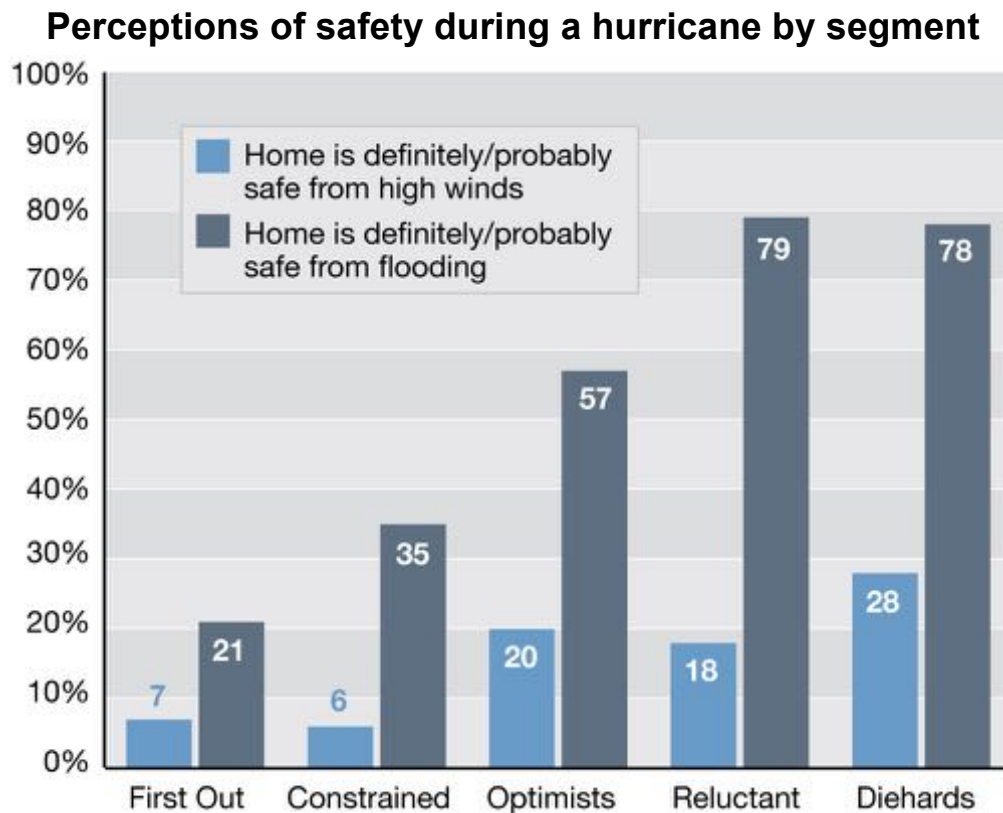


**Questions: During a Category 2 hurricane, do you think it would be safer to evacuate or to stay in your home or building?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Reasons to stay at home & perceptions of safety*

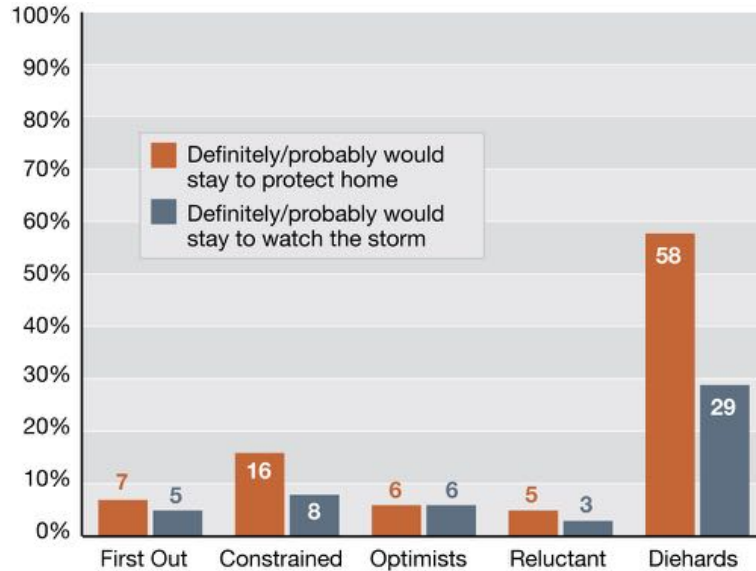
Risk perceptions are key drivers of behavior during extreme weather events and other natural hazards. Individuals who perceive negative impacts from a hazard as more likely to occur and be severe are more likely to take appropriate actions to avoid the threat. The First Out are the least likely to believe that their home would be safe from high winds or flooding during a Category 2 hurricane. In contrast, over three quarters of the Reluctant (79%) and Diehards (78%) believe that their home would be safe from damages caused from flooding and high winds. In addition, almost three quarters (72%) of the First Out would evacuate to avoid being stuck or isolated in their home after the storm – many more than any of the other segments. The Diehards are the most likely of any segment to say that they would stay during a storm to protect their home or business (58%).



**Question: Is your home safe from flooding from the ocean or Long Island Sound? Is your home safe from high winds and blowing objects?**

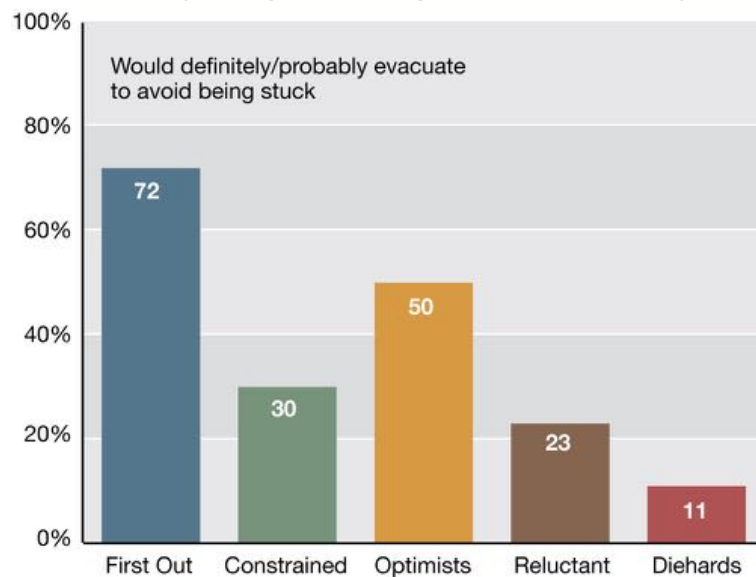
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## Reasons to stay or go during a hurricane by segment



**Question: If asked to evacuate, would you instead stay to protect your home or business? Would you not evacuate so you could stay to watch the storm?**

## Reasons to stay or go during a hurricane by segment



**Question: Would you evacuate to avoid being stuck in your local area due to blocked roads after the storm?**

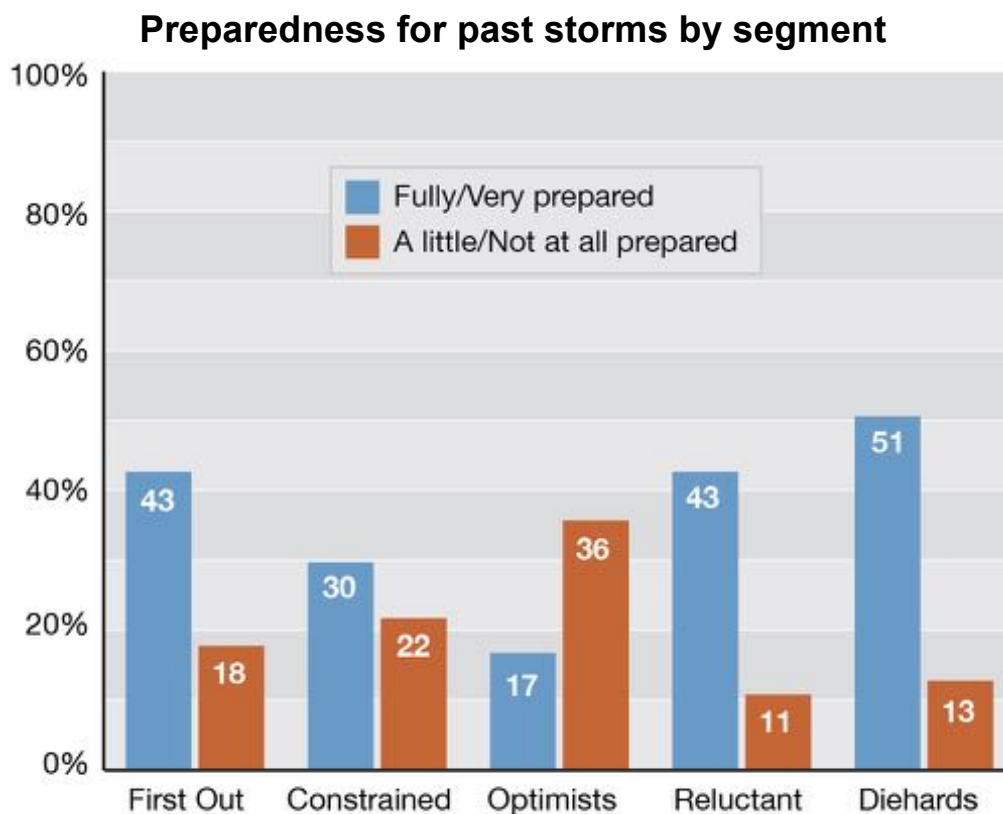
*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Preparedness

We included questions about how prepared CT coastal residents felt and what actual preparations they have already taken, such as storing extra water and food for use during an emergency. In addition, we asked residents how confident they felt in their ability to keep themselves and their families safe in the event of a severe storm.

### *Perceived preparedness*

The Optimists report the lowest levels of preparedness of the five segments for past storms, with only 17% saying they were very or fully prepared. However, the Optimists' low expectations about the likelihood of future hurricanes prevent them from worrying much about preparations. The Diehards, in contrast, feel the most prepared of the five groups, with half (51%) feeling very or fully prepared. The Constrained and the Reluctant reported intermediate levels of preparedness, with 30% and 43% saying they felt very or fully prepared, respectively.



**Questions: Generally speaking, how prepared were you for the storm(s) you experienced?**

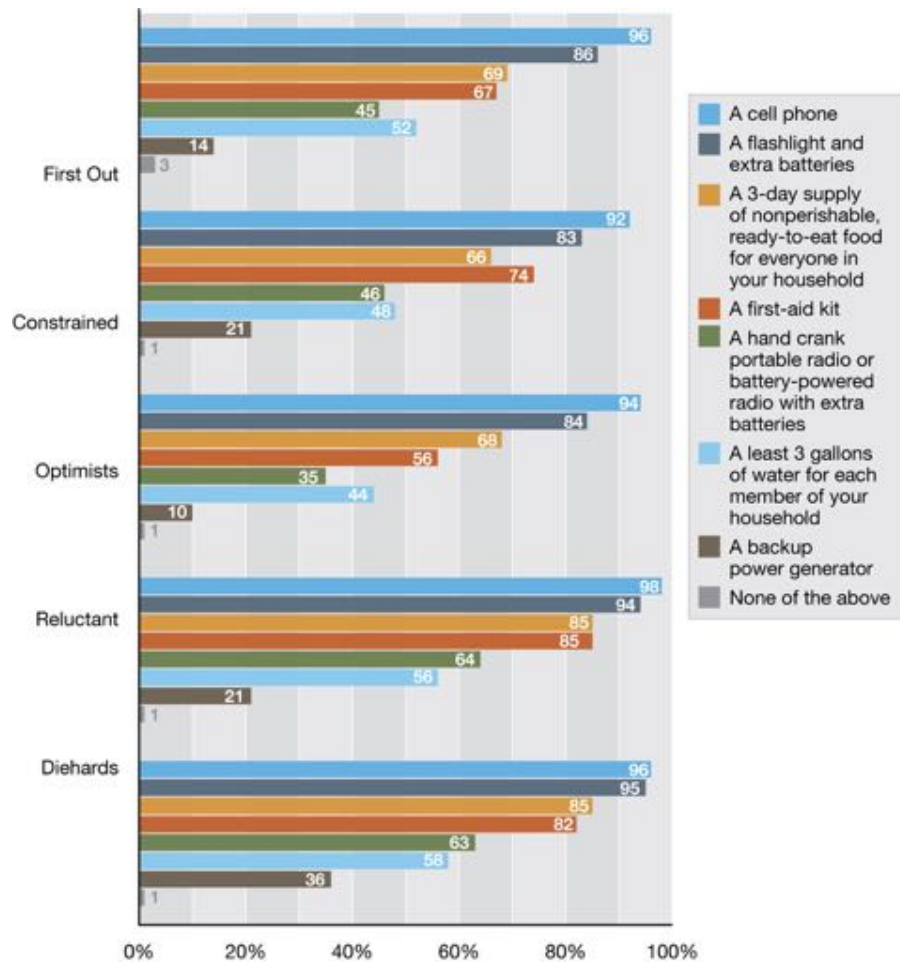
*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*



## Actual preparedness

Actual preparedness was measured through a set of questions about emergency supplies, including food, water, flashlight, first aid kit, etc. An index of preparedness was also created by adding the number of supplies that each respondent reported having in their home. By this measure, the Diehards and the Reluctant were significantly more likely to say they had a three-day supply of food and water, a backup generator, etc. than the other groups. The Optimists report the lowest number of supplies in their home.

### Actual preparations taken in case of an emergency by segment

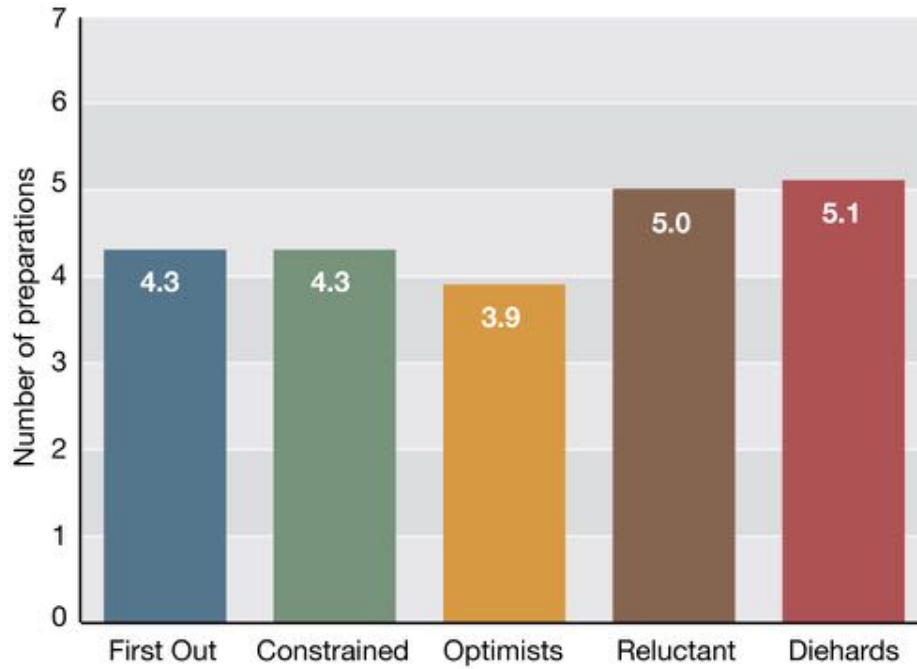


**Question: Preparation index - In case of an emergency, do you have the following supplies in your home, or not? Check all that you have: a 3-day supply of non-perishable, ready-to-eat food for everyone in your household; at least 3 gallons of water for each member of your household; a flashlight and extra batteries; a hand crank portable radio or battery-powered radio with extra batteries; a first aid kit; a cell phone; a backup power generator; None of the above.**

Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>



### Storm preparedness index by segment

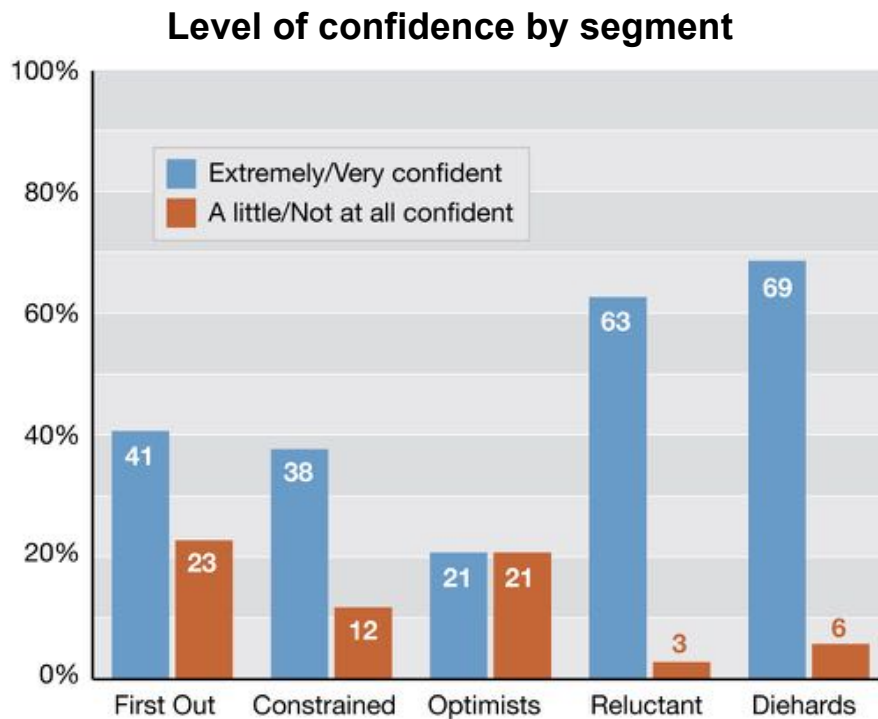


**Question: Preparation index - In case of an emergency, do you have the following supplies in your home, or not? Check all that you have: a 3-day supply of non-perishable, ready-to-eat food for everyone in your household; at least 3 gallons of water for each member of your household; a flashlight and extra batteries; a hand crank portable radio or battery-powered radio with extra batteries; a first aid kit; a cell phone; a backup power generator; None of the above.**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Confidence in ability to stay safe*

Over two thirds (69%) of the Diehards and just under two thirds of the Reluctant (63%) say they are extremely or very confident that they can keep themselves and their families safe during a hurricane. More of the First Out and the Constrained report feeling very/extremely confident (41% and 38%, respectively) than only a little or not at all confident (23% and 12%, respectively), whereas the Optimists are evenly divided (21% in both cases).



**Question: How confident do you feel about your ability to keep yourself and the people in your household safe during a hurricane or tropical storm?**

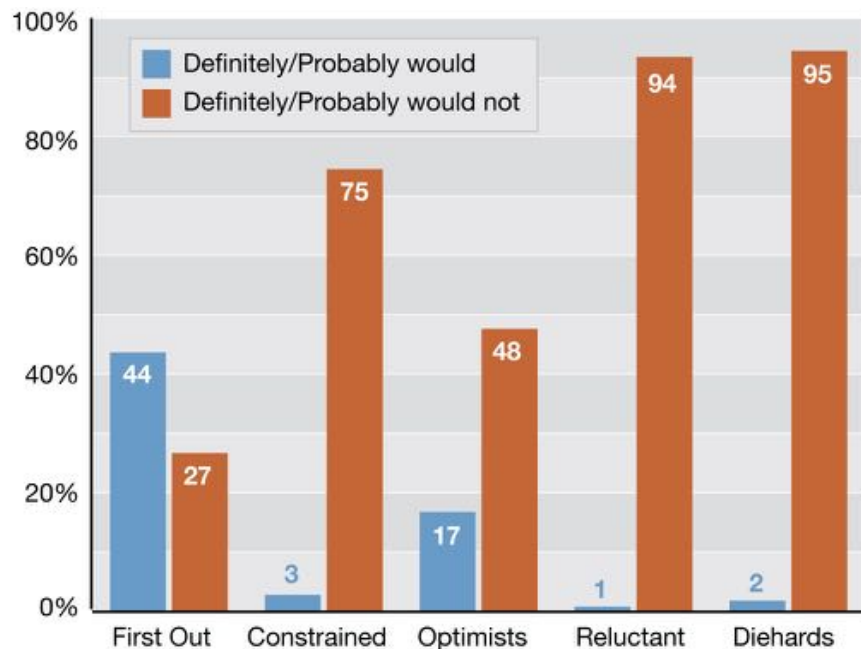
*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Future Evacuation Behavior

### *Intended evacuation behavior (Categories 1-4)*

Evacuation behavior varies substantially by segment. Intended evacuation is highest among the First Out and lowest among the Diehards for all hurricane strengths. As expected, the number of residents who say they would evacuate increases with storm strength. For a Category 1 hurricane, 44% of the First Out say they would definitely or probably evacuate, whereas only 2% of the Diehards say they would evacuate. For a Category 4 hurricane, however, 94% of the First Out, and 46% of the Diehards say they would definitely/probably evacuate. The Optimists are often more likely than the Constrained to say they would evacuate. For example, for a Category 3 hurricane (Categories 3 and 4 are considered “major” hurricanes), 84% of the Optimists say they would definitely/probably evacuate, whereas only 55% of the Constrained say this.

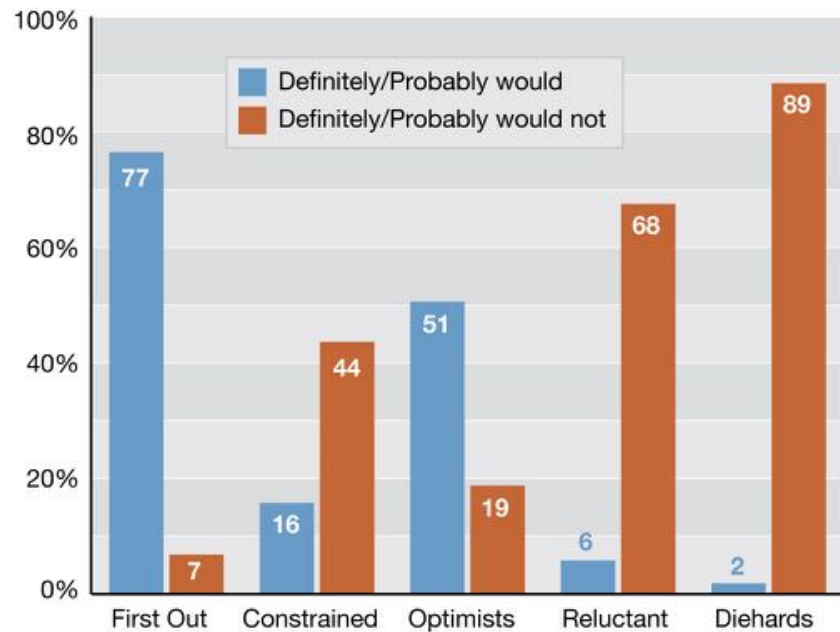
### **Likelihood of evacuating for a Category 1 hurricane by segment**



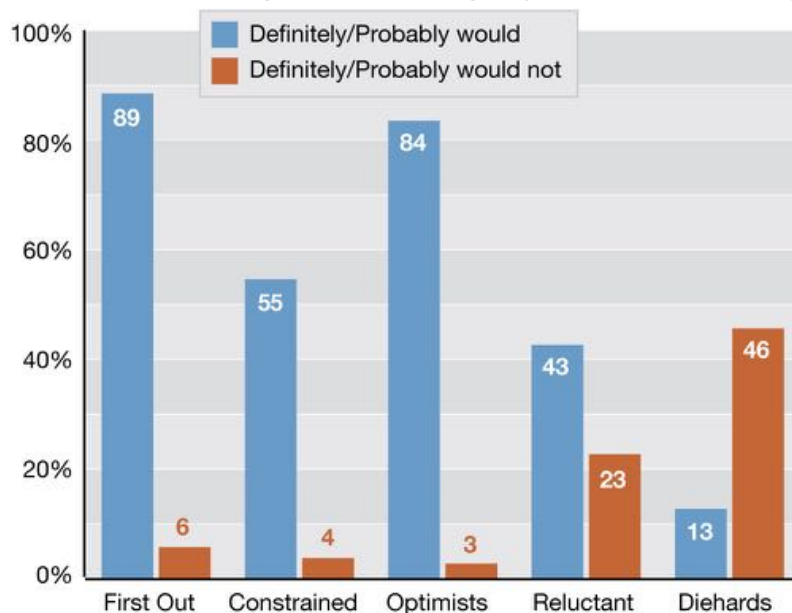
**Questions: How likely is it that you would evacuate if the following were forecast to hit your local area?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Likelihood of evacuating for a Category 2 hurricane by segment



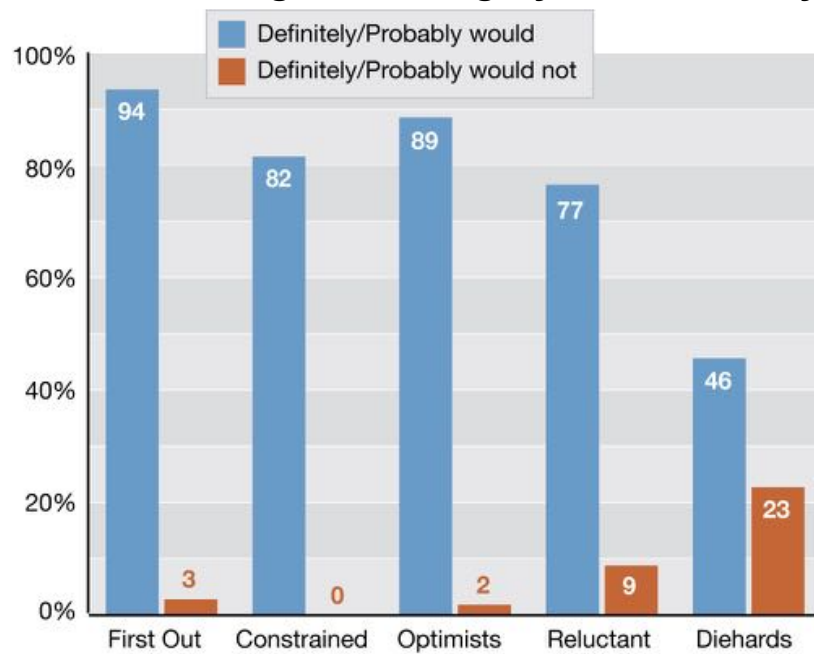
## Likelihood of evacuating for a Category 3 hurricane by segment



**Questions: How likely is it that you would evacuate if the following were forecast to hit your local area?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Likelihood of evacuating for a Category 4 hurricane by segment



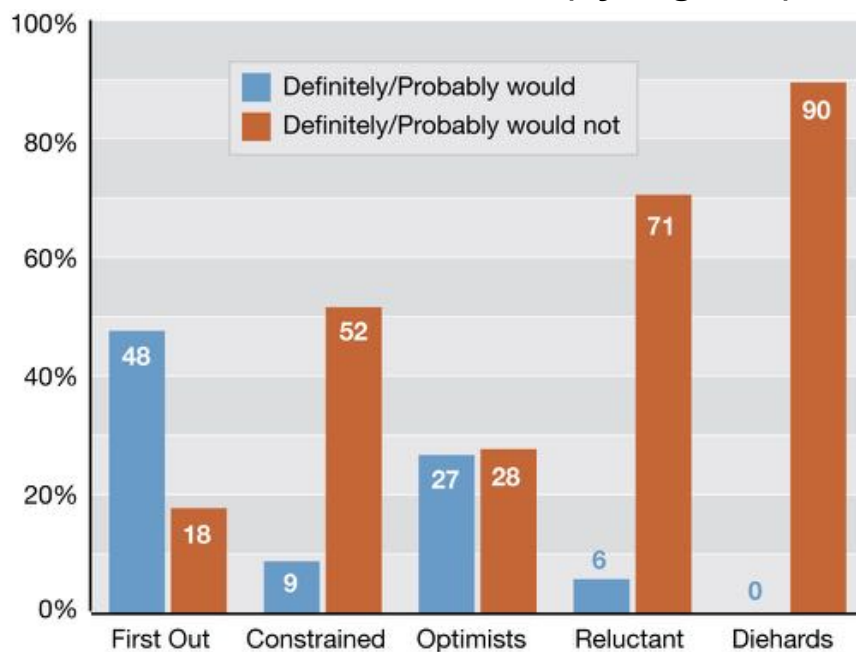
**Questions: How likely is it that you would evacuate if the following were forecast to hit your local area?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Evacuation intent with and without notice*

All of the segments are much more likely to evacuate if they receive some kind of official notice to evacuate, but the importance of the notice varies across the segments. For the First Out, 89% say they definitely/probably would evacuate for a Category 2 hurricane if they received an official notice, whereas only 48% say they definitely/probably would without such notice – a 41 percentage point difference. The proportion of the Constrained who say they definitely/probably would leave increases by 26 percentage points in the event that they receive official notice, and proportion of Optimists increases by 50 percentage points. The largest effect occurs for the Reluctant, however – only 6% say they definitely/probably would leave for a Category 2 hurricane without notice, whereas 78% say they definitely/probably would leave if ordered – a 72 percentage point difference. The Diehards are the least likely to be influenced by an official notice; none say they definitely/probably would evacuate without a notice and only 8% say they would with official notice for a Category 2 hurricane.

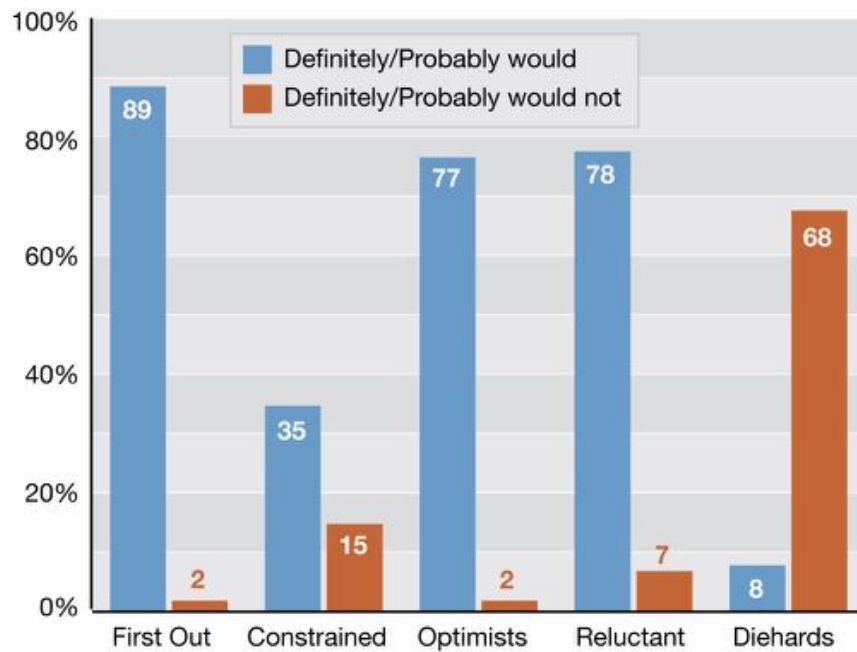
### **Would evacuate for a Category 2 hurricane if they do NOT receive official notice (by segment)**



**Questions: If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely would you be to evacuate if you did NOT receive an official notice advising everyone in your local area to evacuate?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Would evacuate for a Category 2 hurricane if they receive official notice (by segment)



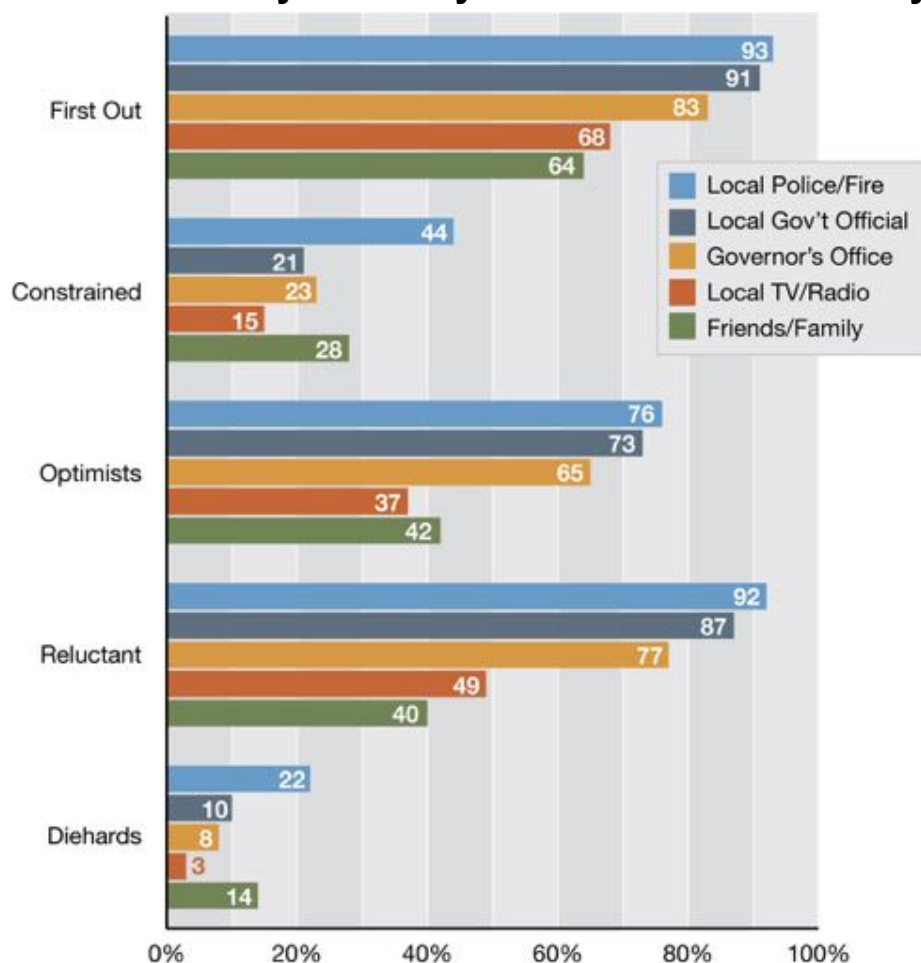
**Questions: If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely would you be to evacuate if you received an official notice advising everyone in your local area to evacuate?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Intended evacuation behavior if advised by...*

Regardless of segment, people say they are most likely to evacuate if a local police or fireman tells them to. Receiving official notice has varying effects on each segment, however. For example, very high proportions of the First Out and the Reluctant (between 80% to 95%) say they would probably or definitely evacuate if told to by an official source (i.e., local Police/Fire, or the Governor's Office). Slightly fewer of the Optimists say this (71% to 81%), and even fewer of the Constrained (between 23% and 45%). Official notices have little influence on the Diehards – only between 8% and 22% say they would probably/definitely evacuate even if official notice were received.

### **Probably/Definitely would evacuate if told by... (by segment)**



**Question: When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if each of the following asked or told you to?**

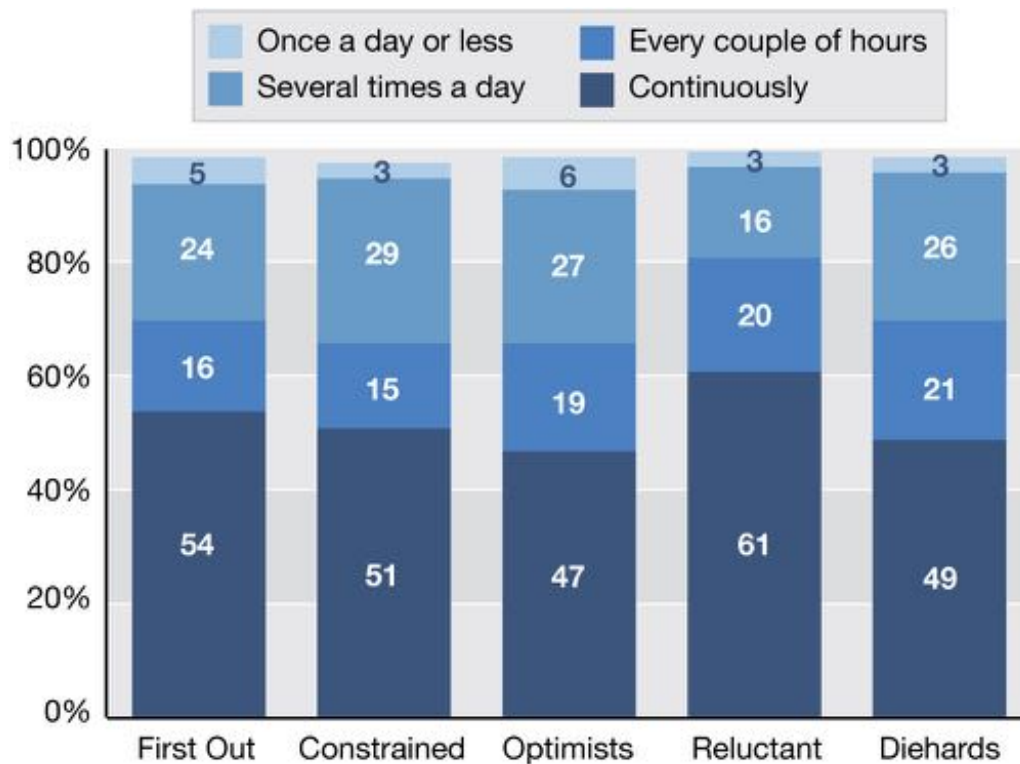
Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>



## Information seeking

When a storm approaches, approximately half of coastal residents (51%) say they keep the TV or radio on continuously throughout the day for news and updates about the storm. About one in five (18%) check the forecast every couple of hours, and about one quarter (24%) check at least a few times a day.

### % of residents who say they check storm forecasts when a storm is approaching... (by segment)



**Question: When a hurricane or tropical storm approaches your local area, how frequently, if ever, do you check the forecasts on TV, radio, and/or on the Internet?**

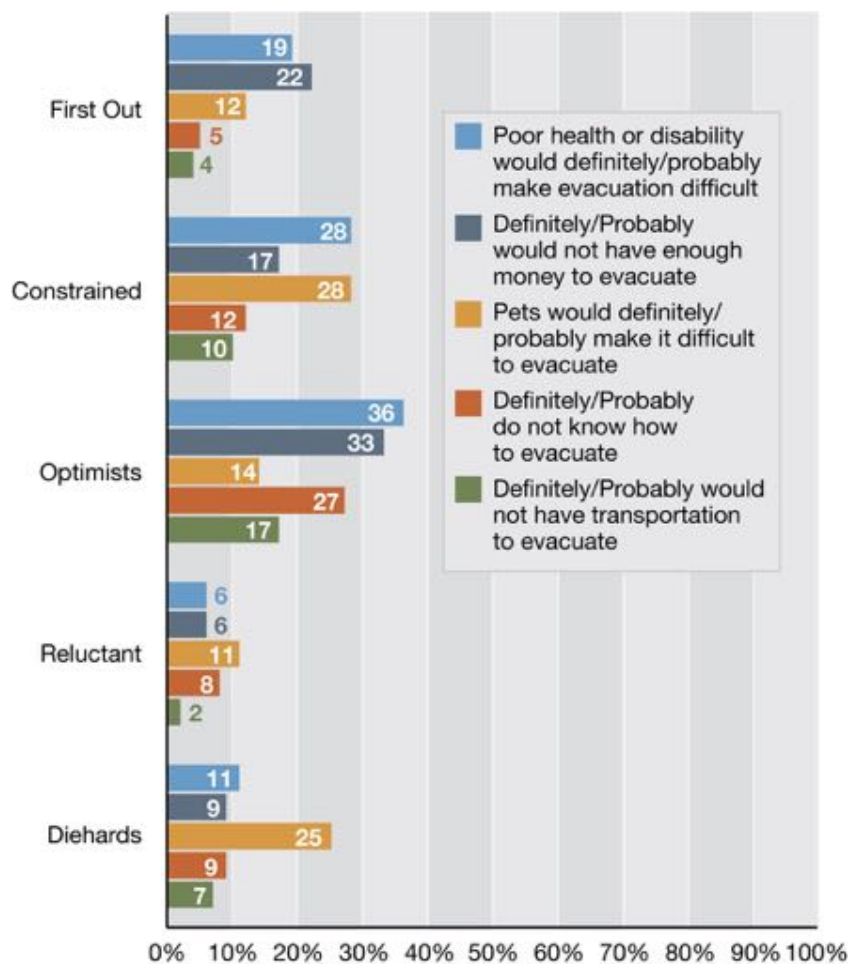
*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Barriers to evacuation

The greatest barriers to evacuating vary among different groups of coastal CT residents. Two of the middle groups – the Constrained and the Optimists – perceive more barriers overall than do the First Out, Reluctant, or Diehards. Although the Optimists perceive more barriers even than the Constrained, the Optimists are less likely to believe that these barriers would prevent them from evacuating. To the Constrained, however, issues such as pets and the poor health or disability of a family member are seen as substantial obstacles to leaving in the event of a hurricane.

Pets are a more frequently-cited obstacle to evacuating for the Constrained and the Diehards (28% and 25%, respectively), although they are cited relatively frequently by all groups (17% on average). The poor health or disability of a family member is a common barrier to evacuating for at least three of the groups; the First Out (19%), the Constrained (28%), and the Optimists (36%). During Superstorm Sandy, over half of fatalities occurred among the elderly and those with health or disability issues. In addition, many accidents among the elderly happened after the hurricane had passed, when services were limited.

### % of residents facing different barriers to evacuation by segment



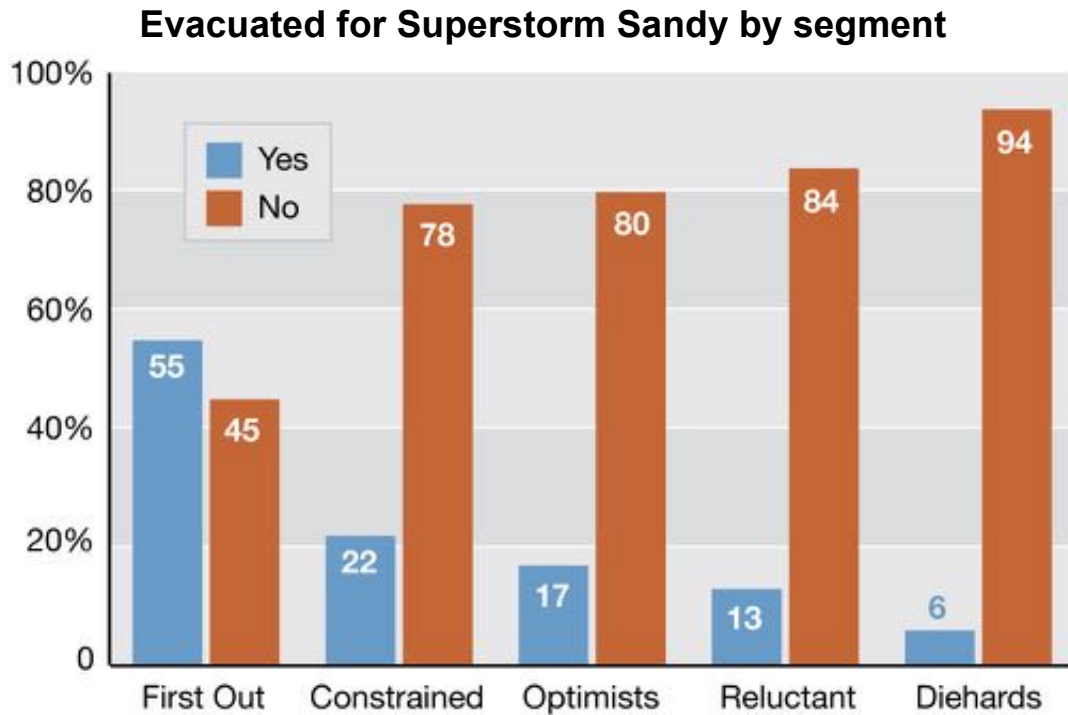
**Questions: A) Would your pet(s) or animals make it difficult to evacuate (Yes, probably/Yes, definitely)? B) Do you know how to evacuate to a safer location (No, probably not/No, definitely not)? C) Would poor health or disability of you or a member of your household make evacuation difficult (Yes, probably/Yes, definitely)? D) Would you have transportation to evacuate to a safer location (No, probably not/No, definitely not)? E) Would you have enough money to evacuate to a safer location (No, probably not/No, definitely not)?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

# Superstorm Sandy Evacuation Behavior

## *Evacuated for Superstorm Sandy*

Those who evacuated for Superstorm Sandy overwhelmingly came from the First Out – 55% of this group evacuated. After the First Out, the proportion of people evacuating from any segment drops substantially: 22% of the Constrained evacuated, 17% of the Optimists, 13% of the Reluctant, and 6% of the Diehards evacuated.



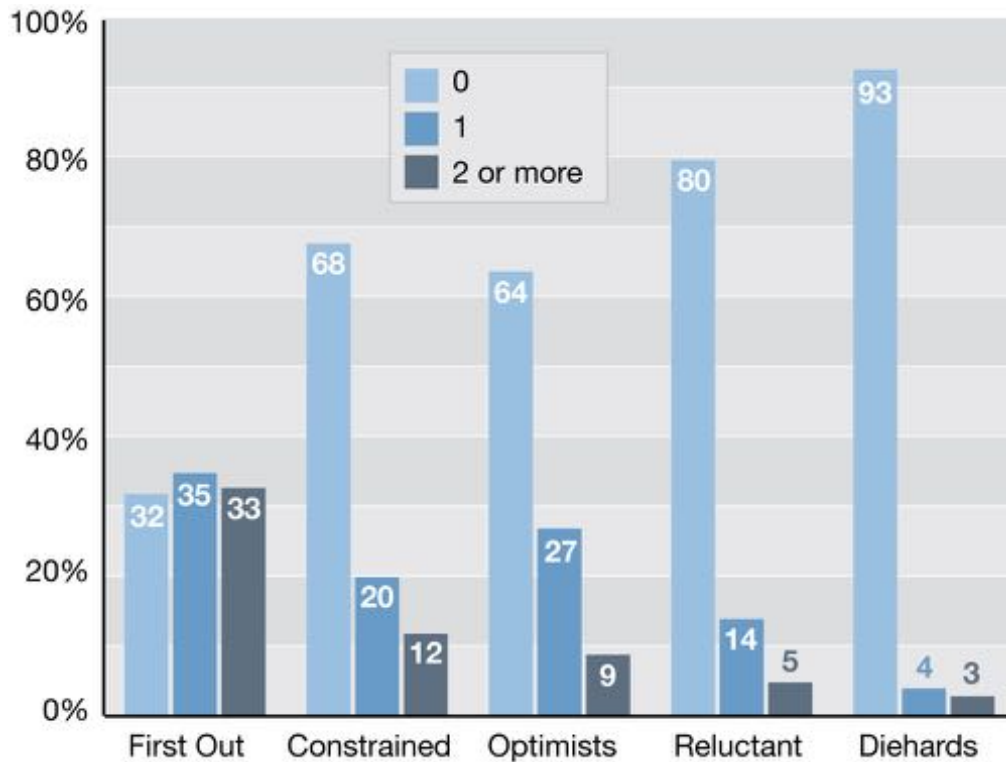
**Question: Before Superstorm Sandy hit your area, did you leave your home to go someplace safer; that is, did you evacuate?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Number of evacuations*

The number of times that members of each segment have evacuated in the past varies significantly. Over two thirds (68%) of the First Out have evacuated at least once, whereas only one third of the Optimists (36%) and Constrained (32%) have done so. The Reluctant and Diehards evacuated the fewest number of times, with 19% and 7%, respectively, saying they evacuated at least once.

### **Number times each segment evacuated between 2009 – 2014 by segment**



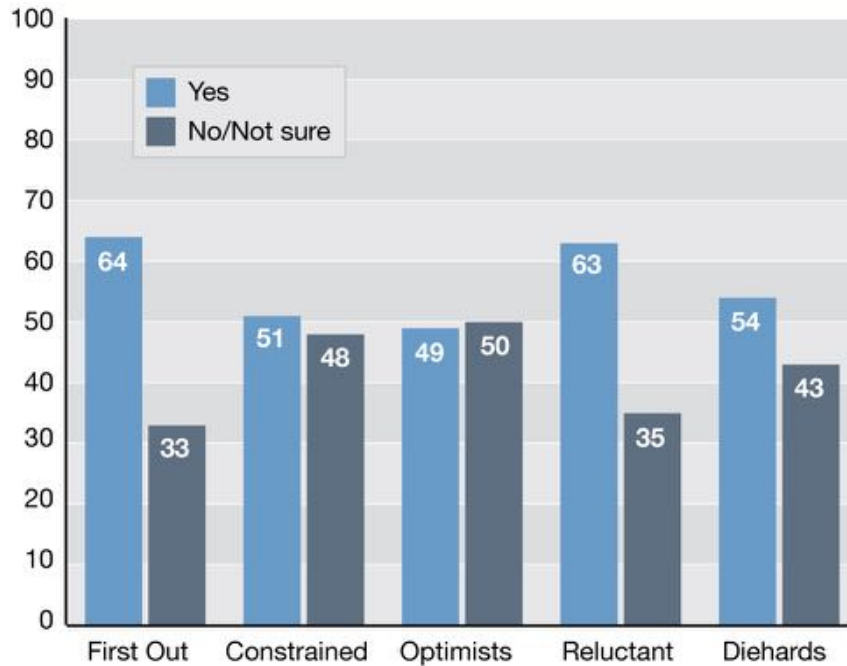
**Question: How many times have you evacuated?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## *Connecticut emergency alerting & notification systems*

On average, over half of all Connecticut coastal residents (55%) say they receive messages from the Connecticut Emergency Alerting and Notification Systems, either through email or alerts to their cell phone. The First Out (64%) and Reluctant (63%) are more likely to say they receive such messages than the other groups. Optimists are the least likely to say they receive emergency alerts (50%).

### **Do you receive emergency alerts through your cell phone or email? (by segment)**



**Question: Have you ever received messages from the Connecticut Emergency Alerting and Notification Systems, either through email or alerts to your cell phone?**

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996). Data collected Sept.-Oct., 2014. Source: <http://environment.yale.edu/climate-communication/article/coastal-ct-hurricane-segments/>*

## Appendix A: Direct Quotes from Respondents

A write-in option was provided for the following question: *“How much, if at all, did each of the following factors influence your decision to remain at home during Superstorm Sandy? For each factor, please use the following scale, ranging from “very strong influence” to “no influence.” The factors provided were 1) I did not expect a very strong storm; 2) My home is very well built; 3) My home is in a safe location; 4) I did not receive a notice to evacuate; 5) In my experience, it is better to stay home. The quotes below were hand written in response to the final “Other” option.*

### *First Out*

“I do not want people to endanger themselves in a possible rescue attempt.”

“Just was praying it would not be too bad but I started getting more nervous so I left, went to an evacuation site”

“N/A – I evacuated!”

“All the hotels were occupied within 50 miles”

### *Constrained*

“I live in senior housing with people who help the elderly.”

“Animals (dogs) huge factor”

“My dog couldn’t go most places available.”

“We were prepared to leave if storm was more severe.”

“Didn’t have a place to go.”

### *Optimists*

“...by the time we were asked to evacuate it was safer to stay home; power lines down everywhere and no where to go!!”

“Next time I may think of leaving cause it was pretty bad.”

“Grew up in Florida and experienced stronger storms.”

### *Reluctant*

“First responder said I probably wouldn’t experience flooding”

“Was prepared”

“We had power and heating throughout”

“All hotels were full anyway, even if we wanted to evacuate.”

### *Diehards*

“Being prevented from returning – this was true! Looters made it in but not residents.”

“Confluence of weather reports and tide times indicated I’d be OK”

“Lived here 28 years; been through a lot of storms”

“Prepared with generator and precooked food.”

“Sometimes there is too much hype”

“This house survived the 1938 hurricane”

“Try to stay to prevent more damage”

## Appendix B: Data Tables

### *Segment Demographics*

	Total	First Out	Constrained	Optimist	Reluctant	Diehard
(Unweighted base)	(996)	(178)	(129)	(140)	(296)	(253)
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<b>Sex</b>						
Male	41	31	44	29	59	59
Female	57	67	56	69	38	38
<b>Age</b>						
18-29	5	7	5	4	7	1
30-44	16	13	15	15	19	18
45-59	33	43	37	29	31	27
60 or older	45	37	43	52	43	54
<b>Ethnicity/Race</b>						
White, non-Hispanic	67	51	71	55	77	78
Black/African-American, non-Hispanic	11	20	5	20	6	5
Asian, non-Hispanic	2	3	2	1	3	1
Mixed, non-Hispanic	1	1	1	4	0	1
Hispanic	13	20	15	14	9	9
<b>Household Income</b>						
<\$15K	10	16	9	14	6	8
\$15K - \$39.9K	24	23	32	36	17	19
\$40K - \$69.9K	20	18	23	19	22	19
\$70K - \$99.9K	14	14	9	12	16	18
\$100K - \$199.9K	15	12	12	8	21	16
\$200K or more	10	12	9	5	13	11
<b>Education</b>						
< High school diploma	4	3	3	6	3	6
High school graduate/GED	18	19	23	21	12	20
Some college, no degree	18	20	18	17	18	18
Associates degree	8	10	7	5	9	9
College degree	25	22	25	29	28	24
Masters degree	14	15	13	13	17	11
Ph.D./Professional degree	9	10	11	6	10	8

*Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996).*

*Data collected Sept. – Oct., 2014.*

	Total	First Out	Constrained	Optimist	Reluctant	Dichard
(Unweighted base)	(996)	(178)	(129)	(140)	(296)	(253)
	%	%	%	%	%	%
<b>Ideology</b>						
Liberal	27	31	30	22	30	23
Moderate	47	48	51	54	44	43
Conservative	18	14	12	14	20	27
<b>Party</b>						
Democrat	37	49	31	42	37	26
Republican	14	11	12	8	13	25
Independent	26	22	32	18	30	30
None	11	11	14	10	11	10
<b>Zone</b>						
Zone A	70	77	75	65	58	77
Zone B	30	23	25	35	42	23

Base: Connecticut residents in Coastal Flood Zones A and B who have experienced a storm (n=996).  
Data collected Sept. – Oct., 2014.

## Demographics by segment

Zone	Zone A	Zone B
First Out	24%	16%
Constrained	15%	12%
Optimists	15%	18%
Reluctant	22%	37%
Dichard	25%	17%

Age	18 thru 29	30 thru 44	45 thru 59	60 or over
First Out	32%	17%	27%	17%
Constrained	14%	13%	16%	13%
Optimists	11%	15%	14%	18%
Reluctant	39%	31%	25%	25%
Dichard	4%	24%	18%	26%



<b>Race/Ethnicity</b>	White	AA/Black	Latino	Other
First Out	16%	39%	33%	29%
Constrained	15%	7%	16%	15%
Optimists	13%	29%	17%	20%
Reluctant	30%	14%	18%	26%
Dichard	26%	11%	15%	11%

<b>Income</b>	Less than \$40,000	\$40,000-\$69,999	\$70,000-\$99,999	\$100,000 or more
First Out	25%	19%	20%	20%
Constrained	17%	16%	9%	12%
Optimists	23%	15%	13%	8%
Reluctant	18%	29%	30%	36%
Dichard	18%	21%	28%	24%

<b>Education</b>	Refused	Less than high school	High school diploma	College degree	Advanced degree
First Out	19%	13%	23%	20%	23%
Constrained	13%	9%	16%	13%	14%
Optimists	25%	22%	17%	16%	13%
Reluctant	16%	24%	22%	30%	31%
Dichard	27%	31%	23%	22%	18%

<b>Party</b>	Refused	Republican	Democrat	Indepen.	Other	None	Not sure
First Out	19%	16%	28%	18%	34%	21%	7%
Constrained	10%	12%	12%	17%	0%	19%	17%
Optimists	19%	9%	18%	10%	24%	15%	40%
Reluctant	17%	24%	26%	30%	23%	26%	29%
Dichard	35%	39%	16%	25%	18%	19%	6%

## *Segments by evacuation zone*

Is your home located in a hurricane evacuation zone, or not?

	First Out	Constrained	Optimists	Reluctant	Diehard
Yes	58%	34%	20%	14%	30%
No	8%	14%	18%	31%	29%
Not Sure	32%	51%	60%	54%	41%

	Refused	Yes	No	Not Sure
First Out	36%	40%	8%	15%
Constrained	16%	16%	9%	15%
Optimists	37%	10%	13%	20%
Reluctant	11%	12%	39%	31%
Diehard	0%	22%	30%	19%

## *Estimates of hurricane likelihood*

On a scale of 0%-100%, how likely do you think it is that each of the following types of hurricane will hit somewhere along the Connecticut coast in the next 50 years?

		Category 1	Category 2	Category 3	Category 4
First Out	Mean	84	76	56	42
	SD	26	26	32	35
Constrained	Mean	85	69	49	33
	SD	22	29	33	33
Optimists	Mean	59	40	22	14
	SD	32	29	23	21
Reluctant	Mean	91	85	61	44
	SD	20	22	29	33
Diehard	Mean	83	71	46	31
	SD	25	28	29	29
Total	Mean	83	71	49	35
	SD	27	30	32	33

## *Worry about approaching storms*

Generally speaking, when a hurricane or tropical storm is approaching your city or town, how worried do you feel? Please answer using the following scale ranging from 1 (not at all worried) to 7 (extremely worried).

	Mean	Std. Deviation
First Out	5.4	1.5
Constrained	4.0	1.7
Optimists	4.5	1.6
Reluctant	4.0	1.7
Diehard	3.5	1.6
Total	4.2	1.8

## *Understanding of storm hazards*

To the best of your knowledge, which one of the following is the most likely cause of injury or death during a hurricane? Blown or falling objects from high winds; Rising water levels and high waves (storm surge); Flooding from heavy rains; Accidents during evacuation; Other; Not sure.

	First Out	Constrained	Optimists	Reluctant	Diehard
Wind	65%	65%	65%	75%	71%
Storm surge	29%	20%	21%	15%	18%
Flooding	16%	7%	12%	6%	7%
Accidents	19%	15%	10%	2%	6%
Other	1%	5%	0%	1%	3%
Not sure	5%	5%	9%	7%	4%

	Wind	Storm surge	Flooding	Accidents	Other	Not sure
First Out	20%	30%	36%	42%	15%	17%
Constrained	13%	14%	11%	22%	32%	12%
Optimists	15%	16%	19%	17%	3%	23%
Reluctant	29%	20%	18%	5%	15%	32%
Diehard	23%	19%	16%	13%	35%	15%

## *Likelihood of storm damage*

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? I or someone in my household would be in danger from storm surge (water from the ocean or Long Island Sound)

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	0%	3%	3%	1%	2%
Definitely/Probably would not	18%	41%	55%	85%	81%
About 50/50	33%	30%	32%	11%	13%
Definitely/Probably would	48%	26%	10%	4%	3%

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? I or someone in my household would be injured or killed

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	2%	4%	2%	2%
Definitely/Probably would not	48%	72%	60%	90%	93%
About 50/50	28%	20%	27%	6%	3%
Definitely/Probably would	24%	5%	9%	1%	1%

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? My home or property would be damaged by flooding.

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	5%	2%	2%
Definitely/Probably would not	9%	28%	54%	72%	73%
About 50/50	27%	28%	30%	18%	19%
Definitely/Probably would	64%	43%	10%	8%	5%

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? My home or property would be damaged by high winds

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	2%	2%	5%	1%	2%
Definitely/Probably would not	3%	12%	21%	29%	28%
About 50/50	21%	37%	52%	50%	54%
Definitely/Probably would	74%	49%	22%	21%	16%

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely do you think it is that each of the following would happen? My home would be isolated due to flooding or debris from high winds.

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	0%	1%	3%	1%	2%
Definitely/Probably would not	16%	35%	41%	61%	61%
About 50/50	32%	38%	39%	24%	26%
Definitely/Probably would	52%	26%	17%	14%	10%

## *Safer to Stay or Go*

During a Category 2 hurricane, do you think it would be safer to evacuate or to stay in your home or building? If you're not sure, please give your best estimate.

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	1%	0%	1%
Much/Somewhat safer to evacuate	67%	27%	30%	17%	7%
About 50/50	27%	46%	51%	32%	26%
Much/Somewhat safer to stay	6%	27%	18%	51%	66%

## *Reasons to Stay at Home and Perceptions of Safety*

If asked to evacuate, would you instead stay to protect your home or business?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	2%	0%	1%
Yes, definitely/Yes, probably	7%	16%	6%	5%	58%
About 50/50	12%	53%	21%	19%	24%
No, definitely not/No, probably not	80%	30%	71%	76%	18%

Would you not evacuate so you could stay to watch the storm?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	2%	3%	1%	2%
Yes, definitely/Yes, probably	5%	8%	6%	3%	29%
About 50/50	3%	15%	14%	11%	20%
No, definitely not/No, probably not	91%	75%	78%	85%	50%

Would you evacuate to avoid being stuck in your local area due to blocked roads after the storm?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	2%	2%	2%	2%	1%
Yes, definitely/Yes, probably	72%	30%	50%	23%	11%
About 50/50	15%	36%	24%	29%	17%
No, definitely not/No, probably not	12%	32%	23%	47%	71%

Is your home safe from flooding from the ocean or Long Island Sound?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	3%	2%	2%	0%
Yes, definitely/Yes, probably	21%	35%	57%	79%	78%
About 50/50	26%	28%	21%	10%	14%
No, definitely not/No, probably not	52%	34%	20%	9%	7%

Is your home safe from high winds and blowing objects?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	4%	2%	1%	0%
Yes, definitely/Yes, probably	7%	6%	20%	18%	28%
About 50/50	29%	37%	28%	38%	41%
No, definitely not/No, probably not	62%	53%	50%	44%	31%

## *Perceived preparedness*

Generally speaking, how prepared were you for the storm(s) you experienced?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	0%	1%	0%	1%	0%
Fully/Very prepared	43%	30%	17%	43%	51%
Moderately prepared	39%	47%	47%	45%	36%
A little/Not at all prepared	18%	22%	36%	11%	13%

## *Actual preparedness*

In case of an emergency, do you have the following supplies in your home, or not?

	First Out	Constrained	Optimists	Reluctant	Diehard
A 3-day supply of non-perishable, ready-to-eat food for everyone in your household	69%	66%	68%	85%	85%
At least 3 gallons of water for each member of your household	52%	48%	44%	56%	58%
A flashlight and extra batteries	86%	83%	84%	94%	95%
A hand crank portable radio or battery-powered radio with extra batteries	45%	46%	35%	64%	63%
A first aid kit	67%	74%	56%	85%	82%
A cell phone	96%	92%	94%	98%	96%
A backup power generator	14%	21%	10%	21%	36%
None of the above	3%	1%	1%	0%	1%

## *Confidence in ability to stay safe*

How confident do you feel about your ability to keep yourself and the people in your household safe during a hurricane or tropical storm?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	2%	1%	0%
Extremely/Very confident	41%	38%	21%	63%	69%
Moderately confident	36%	49%	55%	33%	25%
A little/Not at all confident	23%	12%	21%	3%	6%



## *Intended evacuation behavior*

How likely is it that you would evacuate if the following were forecast to hit your local area? Category 1.

	First Out	Constrained	Optimists	Reluctant	Dichard
Refused	2%	4%	4%	2%	1%
Definitely/Probably would not	27%	75%	48%	94%	95%
About 50/50	27%	19%	32%	3%	2%
Definitely/Probably would	44%	3%	17%	1%	2%

How likely is it that you would evacuate if the following were forecast to hit your local area? Category 2.

	First Out	Constrained	Optimists	Reluctant	Dichard
Refused	1%	4%	2%	1%	2%
Definitely/Probably would not	7%	44%	19%	68%	89%
About 50/50	15%	36%	28%	25%	8%
Definitely/Probably would	77%	16%	51%	6%	2%

How likely is it that you would evacuate if the following were forecast to hit your local area? Category 3.

	First Out	Constrained	Optimists	Reluctant	Dichard
Refused	2%	6%	4%	2%	2%
Definitely/Probably would not	6%	4%	3%	23%	46%
About 50/50	3%	35%	9%	32%	40%
Definitely/Probably would	89%	55%	84%	43%	13%

How likely is it that you would evacuate if the following were forecast to hit your local area? Category 4.

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	2%	3%	4%	2%	2%
Definitely/Probably would not	3%	0%	2%	9%	23%
About 50/50	1%	15%	5%	12%	30%
Definitely/Probably would	94%	82%	89%	77%	46%

### *Intended evacuation behavior with and without notice*

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely would you be to evacuate if you received an official notice advising everyone in your local area to evacuate?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	5%	3%	1%	1%
Definitely/Probably would not	2%	15%	2%	7%	68%
About 50/50	8%	45%	18%	14%	23%
Definitely/Probably would	89%	35%	77%	78%	8%

If a Category 2 hurricane (100 MPH winds) were going to hit your local area, how likely would you be to evacuate if you did NOT receive an official notice advising everyone in your local area to evacuate?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	6%	9%	11%	3%	6%
Definitely/Probably would not	18%	52%	28%	71%	90%
About 50/50	28%	30%	34%	20%	4%
Definitely/Probably would	48%	9%	27%	6%	0%

## *Intended evacuation behavior if advised by...*

When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if the Governor's Office asked or told you to?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	3%	3%	9%	3%	1%
Definitely/Probably would not	3%	28%	4%	4%	60%
About 50/50	10%	37%	19%	14%	27%
Definitely/Probably would	83%	23%	65%	77%	8%
Not sure	1%	10%	3%	1%	4%

When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if a local government official asked or told you to?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	5%	5%	1%	1%
Definitely/Probably would not	1%	22%	4%	1%	53%
About 50/50	5%	43%	16%	10%	33%
Definitely/Probably would	91%	21%	73%	87%	10%
Not sure	1%	9%	2%	1%	3%

When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if the local police/fire department asked or told you to?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	3%	1%	5%	1%	0%
Definitely/Probably would not	2%	15%	2%	0%	40%
About 50/50	2%	37%	16%	6%	36%
Definitely/Probably would	93%	44%	76%	92%	22%
Not sure	0%	3%	1%	0%	2%

When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if local TV and radio stations asked or told you to?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	4%	2%	9%	3%	1%
Definitely/Probably would not	3%	31%	10%	12%	63%
About 50/50	22%	50%	42%	32%	30%
Definitely/Probably would	68%	15%	37%	49%	3%
Not sure	3%	3%	2%	3%	4%

When a hurricane or tropical storm approaches your local area, different people and organizations might ask you to evacuate your home or building. How likely would you be to evacuate if friends or family asked or told you to?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	5%	3%	8%	3%	1%
Definitely/Probably would not	6%	29%	11%	19%	48%
About 50/50	22%	37%	35%	34%	32%
Definitely/Probably would	64%	28%	42%	40%	14%
Not sure	3%	3%	4%	5%	4%

## *Information seeking*

When a hurricane or tropical storm approaches your local area, how frequently, if ever, do you check the forecasts on TV, radio, and/or on the Internet?

	First Out	Constrained	Optimists	Reluctant	Diehard
Not sure	0%	1%	1%	0%	0%
Once a day or less	5%	3%	6%	3%	3%
Several times a day	24%	29%	27%	16%	26%
Every couple of hours	16%	15%	19%	20%	21%
Continuously	54%	51%	47%	61%	49%

## *Barriers to Evacuation*

Do you know how to evacuate to a safer location?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	2%	2%	0%	2%
Yes, definitely/Yes, probably	88%	70%	53%	86%	83%
About 50/50	6%	15%	18%	6%	7%
No, definitely not/No, probably not	5%	12%	27%	8%	9%

Would your pet(s) or animals make it difficult to evacuate?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	9%	6%	14%	7%	5%
Yes, definitely/Yes, probably	12%	28%	14%	11%	25%
About 50/50	12%	14%	7%	7%	6%
No, definitely not/No, probably not	68%	52%	65%	75%	64%

Would poor health or disability of you or a member of your household make evacuation difficult?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	2%	0%	0%
Yes, definitely/Yes, probably	19%	28%	36%	6%	11%
About 50/50	7%	17%	8%	5%	8%
No, definitely not/No, probably not	73%	54%	54%	88%	81%

Would you have transportation to evacuate to a safer location?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	1%	1%	5%	0%	0%
Yes, definitely/Yes, probably	90%	65%	69%	97%	89%
About 50/50	4%	24%	10%	1%	4%
No, definitely not/No, probably not	4%	10%	17%	2%	7%

Would you have enough money to evacuate to a safer location?

	First Out	Constrained	Optimists	Reluctant	Dichard
Refused	1%	1%	2%	1%	1%
Yes, definitely/Yes, probably	63%	54%	45%	86%	78%
About 50/50	14%	28%	19%	6%	11%
No, definitely not/No, probably not	22%	17%	33%	6%	9%

### *Evacuated for Superstorm Sandy*

Before Superstorm Sandy hit your area, did you leave your home to go someplace safer; that is, did you evacuate?

	First Out	Constrained	Optimists	Reluctant	Dichard
Refused	1%	0%	3%	3%	0%
Yes	55%	22%	17%	13%	5%
No	45%	78%	80%	84%	94%

	Yes	No	Refused
First Out	53%	12%	9%
Constrained	14%	14%	0%
Optimists	12%	16%	35%
Reluctant	16%	29%	52%
Dichard	5%	27%	4%

## *Number of evacuations*

How many times have you evacuated?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	0%	0%	0%	0%	0%
0	32%	68%	64%	80%	93%
1	35%	20%	27%	14%	4%
2 or more	33%	12%	9%	5%	3%

	0	1	2 or more
First Out	10%	39%	58%
Constrained	14%	14%	14%
Optimists	15%	22%	12%
Reluctant	31%	19%	12%
Diehard	30%	5%	5%

## *Connecticut Emergency Alerting and Notification Systems*

Have you ever received messages from the Connecticut Emergency Alerting and Notification Systems, either through email or alerts to your cell phone?

	First Out	Constrained	Optimists	Reluctant	Diehard
Refused	2%	0%	2%	2%	3%
Yes	64%	51%	49%	63%	54%
No	21%	34%	35%	24%	33%
Not Sure	13%	15%	14%	11%	11%