

SURVEY OF PROTECTIVE ACTION EXPERIENCES IN HURRICANE IAN



UNIVERSITY OF FLORIDA
CIVIL AND COASTAL
ENGINEERING

JACKSONVILLE STATE UNIVERSITY
CENTER FOR EMERGENCY
PREPAREDNESS

1. When Hurricane Ian struck, what was the address of your home/residence? _____

2. On average, how many times per day did you check each of the following sources for information about Hurricane Ian in the *three days* before landfall?

	0	1-2	3-4	5-6	7 or more
a. Local authorities (e.g., Mayor, Sheriff/Police Chief, Emergency Coordinator)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Local news media (e.g., newspapers, radio stations, television stations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. National news media (e.g., network news, Weather Channel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. The Internet (e.g., National Hurricane Center)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Social media (e.g., Facebook, Twitter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Phone or face-to-face contact with peers such as friends, relatives, or neighbors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. As the storm approached, did you see any of the following displays on TV, Internet, or social media (e.g., Facebook, Twitter)...

	Never				Very Frequently
a. a forecast track showing the "best estimate" of the hurricane center?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. an uncertainty cone only (also called an error cone)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. an uncertainty cone with a forecast track inside it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. an ensemble forecast ("spaghetti plot") showing the results of different models? ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. a wind swath showing the locations expected to be affected by hurricane wind? ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. As the storm approached, how likely did you think it was that...

	Not at all likely				Almost certain
a. the eye of the storm would track through your community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. the storm would be a major (Category 4 or 5) hurricane when it struck?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. you and or household members would be injured or killed if you stayed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. job disruptions would prevent you or household members from working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. traffic disruptions would prevent normal travel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. As the storm approached, how likely did you think...

	Not at all likely				Almost certain
a. your home would be inundated by (saltwater) storm surge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. your home would be inundated by (freshwater) inland flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. your home would be severely damaged or destroyed by storm wind?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. your home's structure or foundation would be damaged, making it unlivable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. basic services (water, electric power, telecommunications) would be lost?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. your roof, windows, or entrances would be broken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. your pool, fence, annex buildings, or landscaping would be damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. your air conditioner, appliances, and other equipment would be damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. flying debris or flood water would damage your furnishings, walls, and floors? ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. What is the maximum water level above ground that you thought your home could tolerate before being damaged by storm surge or flooding?

☐ Less than 2.0 ft ☐ 2-3.9 ft ☐ 4-5.9 ft ☐ 6-7.9 ft ☐ 8-9.9 ft ☐ 10 ft or more

7. What is the maximum wind speed that you thought your home could tolerate before being damaged by wind impacts?

☐ Less than 73 mph ☐ 73-94 mph ☐ 95-109 mph ☐ 110-128 mph ☐ 129-155 mph ☐ 156 mph or more

As a reminder: The National Hurricane Center issued a *Storm Surge Watch* and *Hurricane Watch* for Florida at 11:00 PM EDT on Sunday, September 25. These were upgraded to a *Storm Surge Warning* for *Anclote River south to Flamingo* at 5:00 PM EDT on Monday, September 26 and a *Hurricane Warning* for *Englewood to Anclote River* at 8:00 PM EDT that same day. The *Hurricane Warning* was extended south to *Bonita Beach* at 5:00 AM EDT on Tuesday, September 27 and to *Chokoloskee* at 5:00 PM EDT that same day. The hurricane made landfall at Fort Myers Beach about 3:05 PM on Wednesday, September 28.

8. When did you learn that your area might be threatened by the storm?

a. Day: ☐ Fri 9/23 ☐ Sat 9/24 ☐ Sun 9/25 ☐ Mon 9/26 ☐ Tue 9/27 ☐ Wed 9/28 ☐ Thu 9/29

b. Time: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ Noon ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ Midnight

9. After you noticed the potential storm risk, which actions did you take, and how many *hours* did your household spend doing them?

	Didn't do	Less than 2	Between 2-4	Between 4-8	Between 8-16	More than 16
a. Brace or reinforce the structure and/or foundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Inspect and strap down roofs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Inspect each window and door and caulk and/or make a cover for them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Clean the yard and gutters and trim trees and foliage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Tighten and secure outdoor items and eliminate flying objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Reinforce fence and/or other annexes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Pile sandbags in front of doorways and garages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Protect electronic appliances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Collect necessary supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Did you make any local trips within your community to prepare for the approaching storm?
☐ **No** (Go to Question 12) ☐ **Yes** (How many trips? _____)
11. During those local trips, how much did your household spend on supplies? \$ _____ **Property protection materials**
 \$ _____ **Nonperishable food** \$ _____ **Bottled water** \$ _____ **Gas** \$ _____ **Batteries** \$ _____ **Flashlights**
 \$ _____ **Medications** \$ _____ **Toilet paper** \$ _____ **Other** (please specify) _____
12. To what extent did you consider the following reasons when deciding whether to **protect your property**? Not at all Very great extent
- | | Not at all | | | | Very great extent |
|---|--------------------------|--|--------------------------|--|--------------------------|
| a. Feeling your property was unsafe | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| b. Seeing friends, relatives, neighbors, or coworkers protecting their property | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| c. Hearing advice from government authorities | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| d. Hearing advice from insurance companies or other businesses | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| e. Previous personal experience with hurricane storm conditions | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
13. To what extent did you consider the following issues when deciding whether or not to **evacuate**? Not at all Very great extent
- | | Not at all | | | | Very great extent |
|--|--------------------------|--|--------------------------|--|--------------------------|
| a. Seeing area businesses closing | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| b. Seeing friends, relatives, neighbors, or coworkers evacuating | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| c. Hearing an announcement of a hurricane "watch" or "warning" | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| d. Hearing local authorities issue a <i>voluntary</i> evacuation order | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| e. Hearing local authorities issue a <i>mandatory</i> evacuation order | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| f. Previous personal experience with hurricane storm conditions | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| g. Previous experience with an unnecessary evacuation | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| h. Concern about being infected by a contagious disease (e.g., COVID-19) | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| i. Concern about protecting your home from looters | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| j. Concern about protecting your home from storm impact | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| k. Concern about evacuation expenses such as gas, food, and lodging | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| l. Concern about lost income from your job | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| m. Concern about traffic accidents during evacuation | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
| n. Concern about traffic jams during evacuation | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> |
14. My household made the decision to either evacuate or stay on...
 a. Day: ☐ **Fri 9/23** ☐ **Sat 9/24** ☐ **Sun 9/25** ☐ **Mon 9/26** ☐ **Tue 9/27** ☐ **Wed 9/28** ☐ **Thu 9/29**
 b. Time:
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Midnight

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Midnight
15. Did anyone in your household evacuate ☐ **No** (Go to Question 18) ☐ **Yes** (How many members evacuated? _____)
16. My household or the first group of my household evacuated on...
 a. Day: ☐ **Fri 9/23** ☐ **Sat 9/24** ☐ **Sun 9/25** ☐ **Mon 9/26** ☐ **Tue 9/27** ☐ **Wed 9/28** ☐ **Thu 9/29**
 b. Time:
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Midnight
17. How much do you estimate it cost your household to evacuate (or your cost to date if still evacuated)?
 \$ _____ **Transportation (e.g., gas)** \$ _____ **Food** \$ _____ **Lodging** \$ _____ **Lost income**
18. After the storm, how much damage was there to your home's... None Minor Moderate Major Total
- | | None | Minor | Moderate | Major | Total |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. house structure and foundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. roof? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. doors and windows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. interior walls, floors, and furnishings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. basic services (water, electric power, telecommunications)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. air conditioner, home appliances, and other equipment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. pool, fence, annex buildings, and landscaping? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
19. Assume you had no other insurance, but you could purchase insurance that would compensate you if you experienced each of the following impacts from a future hurricane. How much would you be willing to invest as a *single payment* to insure your household against...
- | | |
|--|----------|
| a. a minor injury (no hospitalization) of a household member | \$ _____ |
| b. a major injury (hospitalization) of a household member | \$ _____ |
| c. a casualty of a household member (including yourself) | \$ _____ |
| d. minor property damage (some repairs required) | \$ _____ |
| e. moderate property damage (remodel required) | \$ _____ |
| f. major property damage (the home is unlivable) | \$ _____ |

20. Before Hurricane Ian threatened your area, did you have any of the following in your home?
- | | No | Unsure | Yes |
|---|--------------------------|--------------------------|--------------------------|
| a. a battery powered radio with spare batteries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. a smartphone or other handheld device that can access data services..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. at least 4 gallons of water stored in plastic containers | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. a 4 day supply of dehydrated or canned food for yourself and your family | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. a first-aid kit..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. a flashlight and spare batteries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. security film, shutters, or plywood to protect your windows from wind and debris | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. sandbags and sand to protect your house from flooding | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. an electric generator..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. a household emergency plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. flood insurance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

21. How many registered vehicles did your household have when Hurricane Ian struck? _____ vehicles

22. Did you rent or own the home where you lived at the time Hurricane Ian struck? ☐ Rent ☐ Own ☐ Other _____

23. About how many years had you been living in your neighborhood when Hurricane Ian struck? _____ years

24. Was this your primary or secondary residence? ☐ Primary ☐ Secondary

25. Which of the following best describes the type of structure in which you lived at the time you evacuated?

- ☐ Detached single family home ☐ Multi-family, 1-2 stories ☐ Multi-family, 3 or more stories
☐ Mobile or manufactured home ☐ Other (please specify) _____

26. When Hurricane Ian struck, were you living in a... No Unsure Yes

- a. hurricane risk area?..... ☐ ☐ ☐
b. Federal Emergency Management Agency (FEMA) flood zone..... ☐ ☐ ☐

27. What is your age? _____ years old

28. What is your gender ☐ Male ☐ Female ☐ Prefer to self-identify _____

29. Which of the following best describes your race/ethnicity? ☐ Caucasian ☐ African American ☐ Asian/Pacific Islander
☐ Hispanic ☐ American Indian/Alaskan Native ☐ Other (please specify) _____

30. What is your marital status? ☐ Married ☐ Single ☐ Divorced ☐ Widowed

31. How many people (including yourself) in your household are: ____ Under 18 ____ 18-65 ____ Over 65 years

32. Did any household members need medical assistance? ☐ No ☐ Yes, they evacuated ☐ Yes, they didn't evacuate

33. Did your household have any livestock or pets at the time Hurricane Ian struck? (Check all that apply.)

- ☐ Yes, we had _____ livestock; we evacuated _____ of them.
☐ Yes, we had _____ pets; we evacuated _____ of them.
☐ No, we had neither.

34. What is your highest level of education? ☐ Some high school ☐ High school graduate/GED
☐ Some college/vocational school ☐ College graduate (2- or 4-year) ☐ Graduate school (Master, Doctor)

35. What is your yearly household income?

- ☐ Less than \$21,500 ☐ \$21,500–34,999 ☐ \$35,000–44,999 ☐ \$45,000–54,999
☐ \$55,000–64,999 ☐ \$65,000–74,999 ☐ \$75,000–99,999 ☐ \$100,000 or more

If you have any additional comments about your Hurricane Ian experience, please write them below.

Thank you for the time you have taken to fill out this questionnaire. Please return it in the envelope provided.