

NWS Tornado

Start of Block: Consent

Q1.1 TORNADO RESPONSE SURVEY

Thank you for helping us understand how people respond to hazardous weather!

This brief survey asks about your experience during the {DATE} weather event in your area. Your responses will help improve how weather alerts and information are delivered to the public. It should take 5–10 minutes to complete.

Your participation is:

- Voluntary – You can skip any question or stop at any time.
- Anonymous – We will not collect your name or contact information.
- Confidential – We will not reveal any personally identifiable information.

There is no risk or penalty if you choose not to take part. We are not offering any payment for participation. Results may be shared with local officials and made publicly available, but without any identifying details.

Questions?

- Contact Brenda Philips at bphilips@ecs.umass.edu or Cedar League at cedarleague@gmail.com
- For questions about your rights as a research participant, contact the UMass Amherst IRB at (413) 545-3428.

This study is approved under OMB Control Number: 0648-0805.

You can read more about your rights under the Paperwork Reduction Act here (with link)

BEGIN THE SURVEY BY PRESSING >> BELOW

Link

PRA Burden Statement

This survey is funded by the National Oceanic and Atmospheric Administration.

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject

to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0805. Without this approval, we could not conduct this survey collection. Public reporting for this information collection is estimated to be approximately 5-10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to Ji Sun Lee, DOC/NOAA/NWS/OSTI, 1325 East West Highway, Silver Spring, MD 20910, (301) 349-6175, jisun.lee@noaa.gov.

End of Block: Consent

Start of Block: Panel Questions

Start of Block: INTRO

Q3.1 What is your 5 digit Zip Code?

Q3.2 How did you get the link to this survey?

- ☐ National Weather Service website/social media (1)
- ☐ Local news website/social media (2)
- ☐ Public Safety email list, website, or social media (3)
- ☐ A friend forwarded it to me (4)
- ☐ Community group email list, website or social media (5)
- ☐ Other (6) _____



Q3.3 Severe weather event(s) (high winds, hail, or tornados) recently occurred in your area. Please select the event date you recall the most.

[IF BOTH TORNADO/FLASH FLOOD EVENT OCCURS, QUESTION DISPLAYED WILL READ: "Severe weather (high winds, hail, tornadoes and/or flash flooding) recently occurred in your area. Please select the event date you recall the most."]

Display this choice:
If BEGIN_DATE_1 Is Not Empty

☐ \${e://Field/BEGIN_DATE_1} (1)

Display this choice:
If BEGIN_DATE_2 Is Not Empty

☐ \${e://Field/BEGIN_DATE_2} (2)

Display this choice:
If BEGIN_DATE_3 Is Not Empty

☐ \${e://Field/BEGIN_DATE_3} (3)

Display this choice:
If BEGIN_DATE_4 Is Not Empty

☐ \${e://Field/BEGIN_DATE_4} (4)

☐ Other date (enter date mm/dd/yyyy) (7)

☐ I don't recall this event (5)

☐ I was out of town (6)

Skip To: End of Survey If Q3.3 = 5

Skip To: End of Survey If Q3.3 = 6

Q3.4 What type of weather were you most impacted by? [THIS QUESTION ONLY DISPLAYED IF AREA WAS IMPACTED BY BOTH A TORNADO AND FLASH FLOOD EVENT. IF FLOOD IS SELECTED, RESPONDENT ROUTED TO FLOOD SURVEY. IF TORNADO/SEVERE SELECTED, RESPONDENT WILL GET SEVERE WEATHER/TORNADO SURVEY.]

- ☐ High winds, hail or tornado (1)
- ☐ Flash flooding or heavy rain (2)

End of Block: INTRO

Start of Block: PRE EVENT

Q4.1 Please answer the rest of the survey based on what you experienced on [Q3.3/ChoiceGroup/SelectedChoices](#) BEFORE the event began, did you know about the POTENTIAL for a severe weather threat to occur?

- ☐ Yes (1)
- ☐ No (0)
- ☐ I don't know (2)

Skip To: Q4.15 If Q4.1 = 0

Skip To: Q4.15 If Q4.1 = 2



Q4.2 How far in advance were you made aware that severe weather was POSSIBLE for your area?

- ☐ Minutes before (1)
- ☐ Less than an hour before (2)
- ☐ Between 1 hour and 6 hours before (3)
- ☐ Between 7 hours and 24 hours before (4)
- ☐ Between 1 and 2 days before (5)
- ☐ 3 or more days before (6)
- ☐ I don't know (7)

Skip To: Q4.15 Event Phase If Q4.2 = 1 (Minutes before) is selected

Q4.5 People get their weather information in many ways. BEFORE the event happened, how did you access or receive information about possible severe weather? (Select all that apply.)

- ☐ Social media (ex. Facebook, Twitter/X, YouTube) (1)
- ☐ TV or cable news (2)
- ☐ Website (ex. weather.com, news website, NWS) (3)
- ☐ Wireless Emergency Alert (NWS mobile phone alert) (4)
- ☐ City or county notification (ex. Reverse 911, Code Red, Everbridge) (5)
- ☐ Smartphone app (ex. weather app, news app, neighborhood app) (7)
- ☐ Text message (ex. SMS, WhatsApp, App notification) (8)
- ☐ Phone call (9)
- ☐ Radio (10)
- ☐ NOAA weather radio (11)
- ☐ Sirens (12)
- ☐ Talking in-person with someone (14)
- ☐ Going outdoors or looking out a window (15)
- ☐ Voice assistant (ex. Alexa, Google Home, Siri, Security System) (17)
- ☐ Other (please specify): _____ (19)

Q4.3 Thinking about the information you received before the event, which people, organizations, or groups provided you with the most useful information about possible severe weather? (Select up to 3 that were the most useful for you.)

- ☐ Commercial national weather or media organization (ex. Weather Channel, AccuWeather, Google Weather, Good Morning America) (1)
- ☐ Local TV station or local weather broadcaster (ex. local meteorologist or anchor) (2)
- ☐ National Weather Service (NWS) (3)
- ☐ Other federal agency (ex. FEMA, Department of Transportation) (4)
- ☐ Friends or family (5)
- ☐ Community leader (ex. school official, mayor, clergy, governor) (6)
- ☐ Local public safety official (ex. emergency manager, police, firefighter) (7)
- ☐ Local weather blogger or independent streamer (ex. updates on Facebook, YouTube, or Twitter/X) (8)
- ☐ Other (please specify) (9): _____

Q4.13 Based on the information you were given BEFORE the event, did you think any of the threats listed below might impact you or your family? (Select all that apply.)

- ☐ Damaging winds (1)
- ☐ Destructive hail (2)
- ☐ Flash flooding (3)
- ☐ Frequent lightning (4)
- ☐ Tornado (5)
- ☐ Heavy rains (6)
- ☐ Power outage (7)
- ☐ Destruction of property (8)
- ☐ Injury/losses (9)
- ☒ No threats/impacts (10)
- ☐ Other (11) _____

Q4.14

What, if any, special preparations did you take in the day(s) and hour(s) BEFORE the severe weather event? (Please select all that apply)

- ☐ Looked for additional weather information (1)
 - ☐ Shared information with someone else (2)
 - ☐ Changed travel plans, activities or appointments that might be impacted by the weather (3)
 - ☐ Purchased emergency supplies (Ex. survival kit, prescription, generator, extra food/water, gas) (5)
 - ☐ Protected my property or belongings (ex. move car, secure property) (6)
 - ☐ Made a sheltering/evacuation plan (7)
 - ☐ Took steps to care for pets or livestock (ex. moving animals, securing supplies)
 - ☐ Checked in on family or others who might need help (ex. making sure everyone was safe, in the same place, or had a plan)
 - ☐ No action taken (8)
 - ☐ Other (please specify) (9)
-



Q4.12 BEFORE the event began, what was your level of concern based on the information you were given?

- ☐ No concern (1)
- ☐ Slightly concerned (2)
- ☐ Moderately concerned (3)
- ☐ Very concerned (4)
- ☐ Extremely concerned (5)

Q4.15

Did you receive any weather warning(s) for this event?

- ☐ A Tornado Warning (1)
- ☐ A Severe Thunderstorm Warning (2)
- ☐ A Tornado Warning and a Severe Thunderstorm Warning (3)
- ☐ No Warning (4)
- ☐ Other (6) _____

End of Block: PRE EVENT

Start of Block: WARNING/EVENT PHASE



Q180 Thinking about the time period MINUTES BEFORE and DURING the severe weather event, how did you access or receive information about this event?

- ☐ Social media (ex. Facebook, Twitter/X, YouTube) (1)
- ☐ TV or cable news (2)
- ☐ Website (ex. weather.com, news website, NWS) (3)
- ☐ Wireless Emergency Alert (NWS mobile phone alert) (4)
- ☐ City or county notification (ex. Reverse 911, Code Red, Everbridge) (5)
- ☐ Smartphone app (ex. weather app, news app, neighborhood app) (7)
- ☐ Text message (ex. SMS, WhatsApp, App notification) (8)
- ☐ Phone call (9)
- ☐ Radio (10)
- ☐ NOAA weather radio (11)
- ☐ Sirens (12)
- ☐ Talking in-person with someone (14)
- ☐ Going outdoors or looking out a window (15)
- ☐ Voice assistant (ex. Alexa, Google Home, Siri, Security System) (17)
- ☐ Other (please specify): _____ (19)

5.1 Thinking about the information you received MINUTES BEFORE and DURING the severe weather event, which people, organizations, or groups provided you with the most useful information about this event? (Select up to 3 that were the most useful for you.)

- ☐ Commercial national weather or media organization (ex. Weather Channel, AccuWeather, Google Weather, Good Morning America) (1)
- ☐ Local TV news or local weather broadcaster (ex. local meteorologist or anchor) (2)
- ☐ National Weather Service (NWS) (3)
- ☐ Other federal agency (ex. FEMA, Department of Transportation) (4)
- ☐ Friends or family (5)
- ☐ Community leader (ex. school official, mayor, clergy, governor) (6)
- ☐ Local public safety official (ex. emergency manager, police, firefighter) (7)
- ☐ Local weather blogger or independent streamer (ex. updates on Facebook, YouTube, or Twitter/X) (8)
- ☐ Other (please specify) (9): _____

Q5.10 **DURING the event, what was your level of concern based on the information you were given?**

- ☐ No Concern (1)
- ☐ Slightly Concerned (2)
- ☐ Moderately Concerned (3)
- ☐ Very Concerned (4)
- ☐ Extremely Concerned (5)

Q5.11 You said you received [pipe in warning type received from Q4.15]. **Please let us know if any of these weather condition(s) were present near you during this time.**

	Not present (1)	Present, not intense (2)	Present, moderately intense (3)	Present, very intense (4)
RAIN (1)	☐	☐	☐	☐
FLOODING (7)	☐	☐	☐	☐
WIND (2)	☐	☐	☐	☐
HAIL (3)	☐	☐	☐	☐
LIGHTNING (4)	☐	☐	☐	☐
TORNADO (5)	☐	☐	☐	☐

Q5.12 Approximately what time did you receive a warning, or knew a severe weather event was imminent?

Hour (4)

Minutes (5)

AM/PM (6)

▼ 12 (1) ... I Don't Know ~ ~ (447)

Q5.13 Please tell us the closest INTERSECTION and CITY you were in when you received a warning, or knew the event was imminent?

☐ Intersection (4) _____

☐ City (5) _____



Q5.14 When you received [pipe in warning type received from Q4.15], where you indoors or outdoors during this time?

☐ Indoors (1)

☐ Outdoors (2)

☐ I don't know (3) _____

Q5.15 What were you doing at the time you received [pipe in warning type received from Q4.15]?

- ☐ Driving (1)
- ☐ At Home (2)
- ☐ Watching TV (3)
- ☐ At Work or School (4)
- ☐ Shopping/Errands/Restaurant/Recreation (5)
- ☐ Appointment (6)
- ☐ Sleeping (8)
- ☐ Other (9) _____

Q5.16 About how close was the storm to you when you received [pipe in warning type received from Q4.15]?

- ☐ The storm was on top of me / on my street (1)
- ☐ The storm was in my neighborhood (2)
- ☐ The storm was in my town/city (3)
- ☐ The storm was in the next town/city over (4)
- ☐ The storm was in the next county over (5)
- ☐ I don't know (6)
- ☐ Other (7) _____



Q5.17 What action(s) did you first take after receiving [pipe in warning type received from Q4.15]? (Select all that apply.)

- ☐ Looked for additional weather information (1)
- ☐ Observed the weather around me (go outside, look out the window) (2)
- ☐ Protected property (home, yard, car, business) (3)
- ☐ Took shelter at my current location (4)
- ☐ Drove to safety/shelter (5)
- ☐ Stopped driving (6)
- ☐ Shared information with somebody (7)
- ☐ Gathered Friends/Family/Pets (8)
- ☐ Cancelled or rescheduled plans (9)
- ☐ None, the warning was not relevant for my location (10)
- ☐ I did not take any action(s) (11)
- ☐ Other (please list) (12) _____

End of Block: WARNING/EVENT PHASE

Start of Block: Sheltering

Q6.1 This next set of questions focuses on your response to the event.

Did you take shelter?

- ☐ Yes (1)
- ☐ No (0)
- ☐ Other (2) _____

Skip To: Q6.6 If Q6.1 = 0

Display this question:

If Q6.1 = 1

Or Q6.1 = 2

Q6.2 Where did you shelter?

- ☐ In a house, condo, or apartment (1)
 - ☐ In a mobile home (2)
 - ☐ In my school or workplace (3)
 - ☐ In a community storm shelter
 - ☐ In a sturdy building (not a residence) (4)
 - ☐ In a vehicle (5)
 - ☐ In a big box retail establishment (Home Depot, supermarket, etc.) (6)
 - ☐ I was outside (7)
 - ☐ Other (please describe) (8)
-

Skip To: Q6.3 If Q6.2 = 1

Skip To: Q6.3 If Q6.2 = 2

Skip To: Q6.3 If Q6.2 = 3

Skip To: Q6.3 If Q6.2 = 4

Skip To: Q193 If Q6.2 = 5

Skip To: Q6.3 If Q6.2 = 6

Skip To: Q6.3 If Q6.2 = 7

Skip To: Q6.3 If Q6.2 = 8

Q6.3 Did you shelter in any of the following locations? (Select one.)

- ☐ I sheltered indoors, but I did not go to an interior room or a safe room (1)
- ☐ I sheltered in an interior room without windows, such as a bathroom, closet, or walk-in cooler (2)
- ☐ I sheltered in a basement (3)
- ☐ I sheltered in a safe room or underground storm cellar designed to withstand tornadoes (4)
- ☐ Other (5) _____

Q193 Did you take any of the actions listed below when you sheltered? (Check all that apply.)

- ☐ I stayed away from the windows (1)
- ☐ I got under a sturdy object (ex. table, desk) (2)
- ☐ I protected myself (wore helmet, shoes, used blankets/padding) (3)
- ☐ I remained buckled in my vehicle (4)
- ☐ ☒ I did not take any of these actions (5)
- ☐ Other (please describe) (6)
- _____

Q6.4 When did you shelter?

- ☐ Less than 5 minutes after I received the warning (1)
- ☐ 5- 15 minutes after I received the warning (2)
- ☐ 15-30 minutes after I received the warning (3)
- ☐ 30 minutes or more after I received the warning (4)
- ☐ I did not receive a warning (Please explain when you took shelter) (5)_____
- ☐ Other (6) _____

Display this question:

If Q6.1 = 0



Q6.6 You indicated you did not shelter. Please tell us which of the following actions you took. (Select all that apply)

- ☐ I remained outdoors (1)
 - ☐ I observed the weather (from outdoors or indoors) (4)
 - ☐ I moved or remained indoors, but I did not go to an interior room or a safe room (2)
 - ☐ No action taken (3)
 - ☐ Other (please describe) (5)
-

Q6.7 This next set of questions asks about different factors that may have influenced your decision to shelter, or not to shelter.

Please indicate how much the following warning and environmental factors influenced whether or not you took shelter. Select "Not a Factor" if the factor was not relevant to your decision.

	1. Not influential at all (1)	2. Slightly influential (2)	3. Somewhat influential (3)	4. Very influential (4)	5. Extremely influential (5)	Not a factor (0)
Receipt of an NWS warning	0	0	0	0	0	0
I did not trust the warning	0	0	0	0	0	0
I heard Sirens	0	0	0	0	0	0
I did not think I would be impacted by the weather	0	0	0	0	0	0
Storm was intense	0	0	0	0	0	0
Storm was close to me	0	0	0	0	0	0



Q6.8 Please indicate how much the following social factors influenced whether or not you took shelter. Select "Not a Factor" if the factor was not relevant to your decision.

	1. Not influential at all (1)	2. Slightly influential (2)	3. Somewhat influential (3)	4. Very influential (4)	5. Extremely influential (5)	Not a factor (0)
Friends / family urged me to shelter	0	0	0	0	0	0
I saw other people taking action	0	0	0	0	0	0
Previous negative experience with severe weather	0	0	0	0	0	0
Fear for self, family, friends, pets	0	0	0	0	0	0
Having a family emergency plan	0	0	0	0	0	0

Q6.10 Please indicate how much the following situational factors influenced whether or not you took shelter. Select "Not a Factor" if the factor was not relevant to your decision.

	1. Not influential at all (1)	2. Slightly influential (2)	3. Somewhat influential (3)	4. Very influential (4)	5. Extremely influential (5)	Not a factor (0)
Having enough time to shelter	0	0	0	0	0	0
Difficulty in finding a place to shelter	0	0	0	0	0	0
This event caught me by surprise	0	0	0	0	0	0
I was driving	0	0	0	0	0	0
I was sleeping	0	0	0	0	0	0

End of Block: Sheltering

Start of Block: IMPACTS



Q7.1 Which of the following impacts did you personally experience from this severe weather event? (Select all that apply.)

- ☐ Disruption to work/school/life (1)
- ☐ Disruption related to transportation (2)
- ☐ Power outage (3)
- ☐ Food/water shortages (4)
- ☐ Public health impacts (boil water, disease, etc.) (5)
- ☐ Personal economic impacts (loss of wages) (6)
- ☐ Injury (myself/friend/family) (7)
- ☐ Property loss/damage (8)
- ☐ Death of a friend/relative (9)
- ☒ No impacts (10)
- ☐ Other (please state) (11) _____

Display question Q7.3 NWS Ratings:

If Q4.3 = 3 (Received NWS info pre-event)

Or Q4.15 = 1 (Received an NWS Tornado Warning)

Or Q4.15 = 2 (Received an NWS Severe Warning)

Or Q4.15 = 3 (Received an NWS Tornado and Severe Warning)

Or 5.1 = 3 (Received NWS info during event)



Q7.3 Now consider the information you received from the National Weather Service regarding this severe weather event. Using a scale from 1 to 10 where 1 is “Poor,” and 10 is “Excellent,” please rate the NWS on the following:

	1 (poor) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 (excellent) (10)	Don't know/ NA (0)
Ease of finding winter weather forecast information specific to your geographic area	0	0	0	0	0	0	0	0	0	0	0
Accuracy of information for this winter weather event	0	0	0	0	0	0	0	0	0	0	0
Explaining the threat and expected impacts of this winter weather event	0	0	0	0	0	0	0	0	0	0	0
Providing information to help you make decisions relative to this winter weather event	0	0	0	0	0	0	0	0	0	0	0
Overall satisfaction with information or services received by the NWS	0	0	0	0	0	0	0	0	0	0	0

Q7.4 Is there anything else you would like to share about your experience this day?

☐ Yes (please describe) (1)

☐ No (0)

End of Block: IMPACTS

Start of Block: DEMOGRAPHICS



Q8.1 We are interested in learning about your previous experience with severe weather. Please answer the following statements.

	Yes (1)	No (0)	I don't know (2)
I have previously experienced a severe weather event	☐	☐	☐
I have experienced a personal loss due to severe weather (ex. financial, belongings, injury)	☐	☐	☐
My home has previously been damaged due to severe weather	☐	☐	☐

Q8.1b I have an emergency survival kit at home.

☐ Yes (1)

☐ No (0)

☐ I don't know (2)

Q8.1c I have a tornado sheltering plan that I have shared with others (families, others)

- ☐ Yes (1)
- ☐ No (0)
- ☐ I don't know (2)

Q8.1d I know where I can shelter safely if a tornado occurs (Ex. basement, safe room, community shelter).

- ☐ Yes (1)
- ☐ No (0)
- ☐ I don't know (2)

Q8.2 Please select how much you agree or disagree with the following statements.

	1. Strongly disagree (1)	2. Disagree (2)	3. Neutral (3)	4. Agree (4)	5. Strongly agree (5)
I am fearful of severe weather	☐	☐	☐	☐	☐
I follow the weather very closely	☐	☐	☐	☐	☐
I take severe weather warnings seriously	☐	☐	☐	☐	☐
I feel that I am completely capable to keep myself safe during severe weather	☐	☐	☐	☐	☐



Q8.3 In what year were you born?

▼ 2005 (1) ... 1922 (84)

Q8.4 What is your sex?

☐ Male (1)

☐ Female (2)

Q198 What is your race and/or ethnicity? Select all that apply.

☐ **American Indian or Alaska Native**

For example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, Maya, etc.

☐ **Asian**

For example, Chinese, Asian Indian, Filipino, Vietnamese, Korean, Japanese, etc.

☐ **Black or African American**

For example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.

☐ **Hispanic or Latino**

For example, Mexican, Puerto Rican, Salvadoran, Cuban, Dominican, Guatemalan, etc.

☐ **Middle Eastern or North African**

For example, Lebanese, Iranian, Egyptian, Syrian, Iraqi, Israeli, etc.

☐ **Native Hawaiian or Pacific Islander**

For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese, etc.

☐ **White**

For example, English, German, Irish, Italian, Polish, Scottish, etc.

Q8.7 Please tell us who lives in your household, including yourself. (Select all that apply.)

- ☐ Adult(s) 18-64 years old (1)
- ☐ Adult(s) 65+ years old (2)
- ☐ Child(ren) 17 years old or younger (3)
- ☐ Pets (4)
- ☐ Person(s) with disabilities (5)
- ☐ I prefer not to answer (6)

Q8.8 Please select the range that best describes your annual household income from all sources before taxes and other deductions.

- ☐ \$0-\$25,000 (1)
- ☐ \$25,000 - \$50,000 (2)
- ☐ \$50,000 - \$100,000 (3)
- ☐ \$100,000 - \$150,000 (4)
- ☐ \$150,000 + (5)
- ☐ I prefer not to answer (6)

Q8.10 For your primary job, do you have the flexibility to change your working schedule or location on short notice?

- ☐ Yes (1)
- ☐ No (0)
- ☐ Not Applicable (2)

Q8.11 What is the highest level of school you have completed or the highest degree you have received?

- ☐ Less than high school degree (1)
- ☐ High school graduate (high school diploma or equivalent including GED) (2)
- ☐ Some college but no degree (3)
- ☐ Associate degree in college (2-year) (4)
- ☐ Bachelor's degree in college (4-year) (5)
- ☐ Master's degree (6)
- ☐ Doctoral degree (7)
- ☐ Professional degree (JD, MD) (8)
- ☐ I prefer not to answer (9)

Q8.12 In which type of housing do you currently live?

- ☐ Apartment (1)
- ☐ Townhouse, condo, duplex (2)
- ☐ House with a basement (4)
- ☐ House without a basement (8)
- ☐ Manufactured/mobile home (5)

End of Block: DEMOGRAPHICS
