

Hurricane Bonnie Response Questionnaire (11-16-98)

Hello, my name is _____ and I'm calling on behalf of the Army Corps of Engineers and the North Carolina Division of Emergency Management. I'm conducting a telephone survey of residents in North Carolina concerning experiences in hurricane Bonnie last summer. May I speak with the (ROTATE):

1. Youngest male over 18
2. Oldest male
3. Youngest female over 18
4. Oldest female in your household?

My questions will only take a few minutes. Your responses are important to us so that we may have accurate information about hurricane preparedness. Before we begin, let me assure you everything you say will remain strictly confidential.

1. Do you live at this residence year-round?

- 1 Yes (GO TO Q3)
 2 No (GO TO Q2)
 3 Other (GO TO Q2)

2. Do you live here at least part of the time during the summer or fall?

- 1 Yes (GO TO Q3)
 2 No (THANK & TERMINATE)
 3 Other (THANK & TERMINATE)

IF "NO," TERMINATE THE INTERVIEW BY RESPONDING "THANK YOU FOR YOUR TIME, BUT WE ARE LOOKING FOR PEOPLE WHO ARE IN THIS REGION DURING THAT TIME FRAME. THANK YOU AGAIN. GOODBYE.

3. As you may recall hurricane Bonnie affected North Carolina in late August this last summer. Were you in the area, i.e., not out of town, when **HURRICANE BONNIE** began to threaten your area last August?

- 1 Yes (GO TO Q4)
 2 No (THANK AND TERMINATE)
 3 Other (THANK AND TERMINATE)

IF "NO," TERMINATE THE INTERVIEW BY RESPONDING "THANK YOU FOR YOUR TIME, BUT WE ARE LOOKING FOR PEOPLE WHO

**WERE IN THIS AREA AT THAT TIME. THANK YOU AGAIN.
GOODBYE."**

4. As you may recall, the center of Hurricane Bonnie made landfall near Wilmington, North Carolina on the Wednesday, August 26. Did you leave your home to go someplace safer before the hurricane?

- 1 Yes (GO TO Q6)
2 No (GO TO Q5)
3 Other, _____ (GO TO Q19)
9 Don't know (GO TO Q19)

5. What made you decide *not* to go anyplace else? (CATEGORIZE - PROBE UP TO 3) (THEN GO TO Q19)

- a. 0/1 Storm not severe/house adequate
b. 0/1 Officials said evacuation unnecessary
c. 0/1 Media said evacuation unnecessary
d. 0/1 Friend/relative said evacuation unnecessary
e. 0/1 Officials didn't say to evacuate
f. 0/1 Probabilities indicated low chance of a hit
g. 0/1 Other information indicated storm wouldn't hit
h. 0/1 Had no transportation
i. 0/1 Had no place to go
j. 0/1 Wanted to protect property from looters
k. 0/1 Wanted to protect property from storm
l. 0/1 Left unnecessarily in past storms
m. 0/1 Job required staying
n. 0/1 Waited too long to leave
o. 0/1 Traffic too bad
p. 0/1 Tried to leave, but returned home because of traffic
q. 0/1 Too dangerous to evacuate
r. 0/1 Other, specify:
s. 0/1 Don't know

(IF ANSWERING Q5, GO TO Q19)

6. Did you go to a public shelter, a friend or relative's house, a hotel, or somewhere else? (DO NOT READ)

- 1 Public shelter (Red Cross)
2 Church
3 Friend/relative
4 Hotel
5 Second home
6 Workplace
7 Mobile home park clubhouse
8 Other, specify:
9 Don't know

7. Is that (ANSWER FROM #6) located in your neighborhood or someplace else?

- 1 Neighborhood (SKIP TO Q11)
2 Somewhere else
9 Don't know

8. In which city is that located?

9. Is that (ANSWER FROM #8) located in your county?

- 1 Yes (SKIP TO Q11)
- 2 No
- 9 Don't know

10. In which state is that located?

- 1 North Carolina
- 2 Virginia
- 3 Other,
- 9 Don't know

11. What convinced you to go someplace else? (CATEGORIZE - PROBE UP TO

3)

- a. 0/1 Advice or order by elected officials
- b. 0/1 Advice from Weather service
- c. 0/1 Advice/order from police officer or fire fighter
- d. 0/1 Advice from media
- e. 0/1 Advice from friend or relative
- f. 0/1 Concerned about severity of storm
- g. 0/1 Storm increased in strength
- h. 0/1 Concerned storm would cause home to flood
- i. 0/1 Concerned strong winds would make house unsafe
- j. 0/1 Concerned flooding would cut off roads
- k. 0/1 Concern that storm might hit
- l. 0/1 Heard probability (odds) of hit
- m. 0/1 Other, specify:
- n. 0/1 Don't know

12a. The National Hurricane Center issued a hurricane watch for Bonnie at 5 PM on Monday, August 24th, and they issued a hurricane warning at 5AM on Tuesday, August 25th. Bonnie hit the Wilmington area of North Carolina on the afternoon of Wednesday, August 26th. On which day did you leave your home to go someplace safer? (WAS IT BEFORE OR AFTER THE NATIONAL HURRICANE CENTER ISSUED A HURRICANE WARNING AT 5 AM ON WEDNESDAY MORNING?)

- 1 Monday, August 24th →READ: The hurricane warning didn't come until 5 AM on Tuesday the 25th. Are you sure you left on Monday? (REVISE ANSWER IF NECESSARY)
- 2 Tuesday, August 25th
- 3 Wednesday, August 26th
- 4 Thursday, August 27th
- 5 Other
- 9 Don't know

12b. About what time on the (REPEAT DATE) did you leave? (WAS IT BEFORE OR AFTER THE HURRICANE WARNING AT 5 AM on the 25th?) (USE 1 HOUR INCREMENTS) (TAKE MIDPOINT) (99=DK)
_____ Hour (IF 99, SKIP TO Q13)

12c. Was that AM or PM? (NOTE: 12 O'CLOCK NOON = 12 PM)
(NOTE: 12 O'CLOCK MIDNIGHT = 12 AM
ON THE "NEW" DAY)

 1 AM
 2 PM

13. Did you or anyone in your household require assistance in evacuating?

 1 Yes
 2 No (SKIP TO Q15)
 3 Not sure (SKIP TO Q15)

13a. Did the person just need transportation, or did they have a disability of medical problem that required special assistance?

 1 Transportation only
 2 Special need (disability or medical problem)
 3 Both
 4 Other, specify:
 5 Don't know

14. Was that assistance provided by someone within your household, or by an outside agency, or by a friend or relative outside your household?

 1 Within household
 2 Friend/relative (outside)
 3 Outside agency
 4 Other,
 9 Don't know

15. How many vehicles were available in your household that you could have used to evacuate?

_____ Number of vehicles (IF 0, GO TO Q16; OTHERWISE GO TO Q17)
(9 = DK) (IF 1 OR MORE IN Q15, SKIP TO Q17) (8 =NA)
(RECORD "0" IF NO VEHICLES ARE AVAILABLE)

16. Did your household members leave in someone else's vehicle, did they use public transportation, or did you evacuate another way?

 1 Other's vehicles (GO TO Q19)
 2 Public transportation (GO TO Q19)
 3 Other, specify: _____ (GO TO Q19)
 9 Don't know (GO TO Q19)

17. How many vehicles did your household take in evacuating? (9 = DK) (8 =NA)
(RECORD "0" IF NO VEHICLES ARE AVAILABLE)
 _____ Number of vehicles
18. When you evacuated, did you take a motor home or pull a trailer, boat, or camper?
 1 Yes
 2 No
 3 Other, specify:
 9 Don't know
19. During the threat, did you hear anyone in an official position - such as emergency management, police, etc. - say that you **should** evacuate from your location to a safer place?
 1 Yes (**GO TO Q20**)
 2 No (**GO TO Q22**)
 9 Don't know (**GO TO Q22**)
20. Did officials recommend that you **should** evacuate or did they say it was mandatory that you **must** evacuate?
 1 Should
 2 Must
 9 Don't know
21. Did police or other authorities come into your neighborhood going door-to-door or with loudspeakers, telling people to evacuate?
 1 Yes
 2 No
 9 Don't know
22. Would you do anything differently in the same situation again? (**CATEGORIZE**)
(PROBE UP TO 3)
 a 0/1 Would evacuate
 b 0/1 Wouldn't evacuate
 c 0/1 Would leave earlier
 d 0/1 Would wait later to leave
 e 0/1 Would go further away
 f 0/1 Wouldn't go as far away
 g 0/1 Would go to public shelter
 h 0/1 Wouldn't go to public shelter
 i 0/1 Would use different route
 j 0/1 No
 k 0/1 Other, specify:
 l 0/1 Don't know
23. We're interested in how you got most of your information about Bonnie - where the storm was; when it was going to hit; how severe it was. I'm going to list a number of different ways you might have gotten information, and I'd like you to

tell me whether you relied upon that source none at all (0), a little (1), a fair amount (2), or a great deal (3). **(READ & ROTATE)**

	None	Little	Fair Amount	Great Deal	
a	0	1	2	3	Local radio stations
b	0	1	2	3	Local television stations
c	0	1	2	3	CNN on cable
d	0	1	2	3	The Weather Channel on cable
e	0	1	2	3	Other cable television stations
f	0	1	2	3	The Internet * (DO YOU HAVE A COMPUTER WITH A MODEM)
g	0	1	2	3	Services like American Online or Compuserve * (DO YOU HAVE A COMPUTER WITH A MODEM)
h	0	1	2	3	Word of mouth

IF "0" TO ALL, SKIP TO Q 27a

24. Of those sources of information, did you find any one of them to be have more accurate information than the others?

- 1 Yes
- 2 No **(SKIP TO Q26a)**
- 3 Don't Know/Not Sure **(SKIP TO Q26a)**

25. Which one was that?

- 1 Local radio stations
- 2 Local television stations
- 3 Out of town television stations you could only get on cable
- 4 CNN on cable
- 5 The Weather Channel on cable
- 6 The Internet, if you have a computer
- 7 Computer services like American Online or CompuServe, if you have a computer
- 8 All equally accurate
- 9 Don't know

26a. Of those sources of information, did you find any one of them to have **less** accurate information than the others?

- 1 Yes
- 2 No **(SKIP TO Q27a)**
- 9 Don't Know/Not Sure **(SKIP TO Q27a)**

26b. Which one was that?

- 1 Local radio stations
- 2 Local television stations
- 3 Out of town television stations you could only get on cable
- 4 CNN on cable
- 5 The Weather Channel on cable
- 6 The Internet, if you have a computer

7 Computer services like American Online or CompuServe, if you have a
computer
8 All equally inaccurate
9 Don't know

27a. Did you receive any information from local government officials about whether Bonnie was going to be a danger to your safety or how to protect your home and property?

- 1 Yes
2 No (**SKIP TO Q28a**)
9 Don't Know/Not Sure (**SKIP TO Q28a**)

27b. How would you rate the information you received from **local government officials**? Would you say it was generally accurate or generally not accurate?

- 1 Generally accurate
2 Generally not accurate
3 Some accurate, some not
9 Don't Know/No Opinion

27c. Would you say it was generally useful or generally not useful?

- 1 Generally useful
2 Generally not useful
3 Some useful, some not
9 Don't Know/No Opinion

28a. Did you receive any information from **state officials** about whether Bonnie was going to be a danger to your safety or how to protect your home and property?

- 1 Yes
2 No (**SKIP TO Q29**)
9 Don't Know/Not Sure (**SKIP TO Q29**)

28b. How would you rate the information you received from state government officials? Would you say it was generally accurate or generally not accurate?

- 1 Generally accurate
2 Generally not accurate
3 Some accurate, some not
9 Don't Know/No Opinion

28c. Would you say it was generally useful or generally not useful?

- 1 Generally useful
2 Generally not useful
3 Some useful, some not
9 Don't Know/No Opinion

29. What information did you need that you were unable to find any place as Bonnie approached? **(RECORD VERBATIM)**

30. At one point Bonnie's maximum sustained winds were almost 115 MPH. If Bonnie had made landfall near your location with winds of 115 MPH, do you believe your home would have been at risk to dangerous flooding from storm surge or waves?

- 1 Yes
2 No
9 Don't Know/Depends

31. Considering both wind and water, do you think it would have been safe for you to have stayed in your home if Bonnie had hit near your location with winds of 115 MPH?

- 1 Yes
2 No
9 Don't Know/Depends

32. In Bonnie, what kinds of steps, if any, did you take before the storm arrived to protect your property? **(CATEGORIZE) (PROBE UP TO 3)**

- a 0/1 Apply window protection
b 0/1 Apply door/garage door protection
c 0/1 Secure or remove loose objects from yard
d 0/1 Move boat, camper, etc.
e 0/1 Prepare pool
f 0/1 Elevate furniture, appliance, rugs, etc.
g 0/1 Protect documents, photos, etc.
h 0/1 Sandbag property
i 0/1 Purchase items for repair after/during storm (plastic film, plywood)
j 0/1 Buy/rent generator
k 0/1 Secure plants
l 0/1 Cut limbs
m 0/1 Other (Specify)
n 0/1 None
o 0/1 Don't Know/Not Sure

33. Now let's talk about Hurricane Fran back in 1996. Were you in the area, i.e., living here and not out of town, when Hurricane Fran threatened? Fran was the storm that struck between Wrightsville Beach and Topsail Beach North Carolina on the afternoon of Friday, July 12th, 1996. It was the second storm to hit North Carolina that year, after Bertha.

- 1 Yes **(GO TO Q34)**
2 No **(GO TO Q43)**
3 Other _____ **(GO TO Q43)**
9 Don't Know **(GO TO Q43)**

34. In Fran did you leave your home to go someplace safer before the hurricane?
- 1 Yes (GO TO Q35)
 - 2 No (GO TO Q40)
 - 3 Other _____ (GO TO Q40)
 - 9 Don't Know (GO TO Q40)
35. Did you go to a public shelter, a friend or relative's house, a hotel, or somewhere else? (DO NOT READ)
- 1 Public Shelter (Red Cross)
 - 2 Church
 - 3 Friend/Relative
 - 4 Hotel/Motel
 - 5 Home
 - 6 Workplace
 - 7 Mobile home park clubhouse
 - 8 Other
 - 9 Don't Know
36. Is that (ANSWER TO Q35) in your neighborhood or somewhere else?
- 1 Neighborhood (SKIP TO Q40)
 - 2 Somewhere else
 - 9 Don't Know (SKIP TO Q40)
37. In what city is that located?
38. Is that (ANSWER TO Q37) located in your county?
- 1 Yes (SKIP TO Q40)
 - 2 No
 - 9 Not Sure (SKIP TO Q40)
39. In which state is that located?
- 1 North Carolina
 - 2 Virginia
 - 3 Other
 - 9 Don't Know
40. Did you hear anyone in an official position -- emergency management, police, etc. -- say that you **should** evacuate to a safer place?
- 1 Yes
 - 2 No (GO TO Q43)
 - 9 Don't Know (GO TO Q43)

41. Did they say that you **should** evacuate or that it was mandatory that you **must** evacuate?
- 1 Should
 2 Must
 9 Don't Know
42. Did police or other authorities come into your neighborhood going door-to-door or with loudspeakers, telling people to evacuate?
- 1 Yes
 2 No
 9 Don't Know
43. Have you identified the safest location in your home to ride out a strong hurricane if you had to?
- 1 Yes
 2 No
 9 Don't Know/Not Sure
44. Do you have any kind of window protection such as storm shutters, security film, or plywood sheets designed to protect the windows during a strong hurricane?
- 1 Yes (SKIP TO Q46)
 2 Would Attach Them Before Storm (SKIP TO Q46)
 3 No (ASK Q45)
 9 Don't Know/Not Sure (SKIP TO Q46)
- 44b. What kind of protection is it?
- 1 Permanent roll-down metal panels
 2 Removable metal panels
 3 Plywood sheets
 4 Security Film
 5 Impact-resistant glass
 6 Other
 9 Don't Know/Not Sure (SKIP TO Q46)
45. If not, why not? (CATEGORIZE)
- 1 Don't need it
 2 Too expensive
 3 Don't think it works
 4 Don't have enough time to do it
 5 Other (specify) _____
 9 Don't know
46. About how much do you think window protection such as storm shutters would cost per window? (PAUSE - READ IF NECESSARY)
- 1 Under \$10
 2 \$10 to \$50
 3 \$50 to \$100
 4 \$100 to \$200
 5 \$200 to \$500
 6 Over \$500
 9 Don't Know/Not Sure

47. Do you believe window protection like that would mainly just prevent the windows from breaking and reduce the danger of flying glass, or do you believe they would also significantly reduce the total damage your house would suffer in other ways?

- 1 Mainly Windows
- 2 Total Damage Also
- 9 Don't Know/Not Sure

48. Other than window protection, what permanent improvements have you added or built into your home reduce the damage to your property in a hurricane?
(CATEGORIZE) (PROBE UP TO 2)

- a 0/1 Roof/truss Strengthening
- b 0/1 Door/Garage Door Protection
- c 0/1 Flood proofing
- d 0/1 Other (Specify)
- e 0/1 None
- f 0/1 Don't Know/Not Sure

49. Is your home or building elevated on pilings or fill material to raise it above flood water?

- 1 Yes
- 2 No
- 9 Don't Know/Not Sure

49a. In addition to elevating the entire structure, have you ever elevated any of the following above their normal height to raise them above flood water?

- 0/1 Water heater
- 0/1 Electrical panel (i.e., circuit breaker box)
- 0/1 Furnace
- 0/1 Electrical wall outlets

49b. Have you installed backflow valves to prevent sewer backup in case of flooding?

- 1 Yes
- 2 No
- 9 Don't Know/Not Sure

50. How much money do you plan to spend **this year** on changes to your home to make it stronger, if any? (999=DK)
\$ _____

51. If your homeowners insurance company offered to reduce the price of your insurance premium if you were to make your home stronger, would you consider doing it?

- 1 Yes
- 2 No
- 3 Depends on Cost/Savings
- 9 Don't Know

52. How much damage to your property did you experience in Bonnie? (999=DK)
\$ _____

53. Do you feel that local building officials are making sure that repairs after Fran and Bonnie meet the parts of the building code that deal with hurricane protection?
- 1 Yes
2 No
9 Don't Know
54. Do you believe that you are receiving as much information as you need on how to reduce damage to your home and property from hurricanes and flooding?
- 1 Yes (Skip to Q.55)
2 No (Go to Q. 54a)
9 Don't Know (Skip to Q.55)
- 54a. What additional information do you need?
-

WE HAVE JUST A FEW MORE QUESTIONS FOR BACKGROUND PURPOSES ONLY.

55. Which of the following types of structures do you live in? Do you live in a:
(READ)
- 1 Detached single family home?
2 Duplex, triplex, quadruple home?
3 Multi-family building -- 4 stories or less? (Apartment/condo)
4 Multi-family building -- more than 4 stories (Apartment/condo)
5 Mobile home
6 Some other type of structure
9 Don't Know
10 Refused
56. How old were you on your last birthday?
 ___ Number of years (99 = DK) (88=REFUSED)
57. How long have you lived in your present home? **(ROUND UP) (99 = DK)**
(88=REFUSED)
 ___ Number of years
58. How long have you lived on the North Carolina Coast? **(ROUND UP) (99 = DK)**
(88=REFUSED)
 ___ Number of years
59. How many people live in your household, including yourself? **(99 = DK)**
(88=REFUSED)
 ___ Number of people **(IF 1, SKIP TO Q61)**
60. How many of these are children, 17 or younger? **(99 = DK) (88=REFUSED)**
 ___ Number of children

61. Do you own your home or rent?

- 1 Own
- 2 Rent
- 3 Other

62. Do you have any pets?

- 1 Yes
- 2 No
- 9 Refused

63. Which race or ethnic background best describes you? (READ)

- 1 African American or Black
- 2 Asian
- 3 Caucasian or White
- 4 Hispanic
- 5 American Indian
- 6 Other
- 9 Refused

64. Which of the following ranges best describes your total household income for 1997? (READ)

- 1 Less than \$12,000
- 2 \$12,000 to \$24,999
- 3 \$25,000 to \$39,999
- 4 \$40,000 to \$79,999
- 5 Over \$80,000
- 9 Refused

Thank you so much. Sometimes my supervisor will call people to check on my work. May I get your first name in case she wants to check?

65.

RECORD INTERVIEW INFORMATION ON RESPONDENT DISPOSITION SHEET

66. Sex of respondent 1 Male 2 Female

67. Interviewer ID

68. Date of survey

69. Phone number

70. Risk Zone _____ (1= Out Banks) (2= Coastal Sound) (3= Non-surge)

71. County

72. Zip code