### Hurricane Risk Perception and Emergency Communication Effectiveness in Coastal Zones

# 2008-2010 Surveys Preliminary Reports

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Where do people today turn for information when a storm threatens? How do people use new and traditional communication technologies to get hurricane and tropical storm information? How do they rate weather information sources? What information makes a difference as they evaluate risks and make decisions? In 2008-2010 telephone surveys, we asked these and other questions about risk perception and decision making of 1079 randomly selected residents and 603 businesses and other organizations in 20 eastern North Carolina counties covered by the Coastal Area Management Act (CAMA). Our purpose is to take an updated look at hazardous weather risk and emergency communication now.

Here, we report preliminary results of the surveys. Based on survey responses, we draw a current statistical portrait of the ways that North Carolinians living and working in the eastern coastal zone access, evaluate, and use hurricane risk and emergency information. We look forward to discussing results of our research project with its participants and intended beneficiaries—public administrators, emergency service providers, public information providers, risk communication researchers, and others concerned with community hurricane vulnerability and resilience—to derive the practical applications of the study.

#### **Coastal Areas Included**

We report survey results representing these CAMA coastal zone counties: Craven, New Hanover, Beaufort, Brunswick, Onslow, Pasquotank, Dare, Carteret, Pamlico, Chowan, Bertie, Washington, Camden, Hertford, Perquimans, Currituck, Pender, Gates, Hyde, and Tyrrell.

### **Organization of the Report**

An all-counties report is followed by a report on your county. Results are provided first for residents, then for businesses and organizations. Detailed data tables accompany each report.

#### Limitations

These surveys were conducted in English by telephone. Only households and businesses with land-line phone numbers were surveyed. Hispanic/Latino/Latina households and businesses are under represented in the survey. We are in the process of gathering additional data on this population. We do not draw conclusions or make recommendations in these preliminary reports.

### **Forthcoming Results**

As noted, results from telephone surveys in 20 counties are reported here. In 6 counties, we also conducted in-depth, face-to-face interviews or focus groups with approximately 133 residents and 116 business or organization managers as well as 24 local government officials. Those results are not reported here. Additional reports on interviews and focus groups will be posted on our website (<a href="http://www.ecu.edu/riskcomm">http://www.ecu.edu/riskcomm</a>) as data analysis is completed. Data by county from all methods will also be available on the website.

As further analyses and subsequent reports from this project become available, they will be posted on our website. Visit the website to sign up for alerts on forthcoming reports or to request electronic copies of current and future reports.

#### **Acknowledgements**

We appreciate the interest and time given by survey respondents. We are grateful to the National Oceanic and Atmospheric Administration (NOAA) Sea Grant-North Carolina for funding the study. We also thank research assistants Michelle Covi, Daniel Siepert, Doug Solomon, Amanda Drozdowski, Cliff Nelson, Tabitha Miller, April Evans, and Kelly Jochim.

### Storm Risk Communication and Behavior Survey Residents Summary Report

### 20 CAMA Counties (N = 1079 margin of error = +/- 3%)

When a hurricane threatens, most residents seek information from a mix of information sources. Few use government sources. Television is the most used and most highly rated source. The internet has not superseded television.

### **Participant Characteristics**

Survey participants are predominantly married (68%), female (66%), with no children living at home (66%). Their median age is 50-65; median education level is a 2-year degree from a community or junior college; and median range of household income is \$50,000–\$74,999. The racial composition of the sample is 84% white, 13% African American or black, and 1% Hispanic or Latino. We asked about the areas (relative to risks) and types of housing in which participants live:

### **Area Type**

- 10% live on an island
- 27% live in a storm surge zone
- 13% live in areas with a high risk of flooding
- 32% live in areas with a high risk of wind damage

### Housing type

- 83% live in houses
- 10% live in mobile homes
- 7% live in apartments, townhouses, or other structures

(For additional information, see Tables R1—R15)

### **Weather Emergency Information Sources**

**Television**. When a hurricane is threatening, 95% of people responding to a question about television use say they consult television sources daily to several times per hour. Respondents who reported on the type of television service they have indicated that 65% have cable and 31% have satellite. The most frequently consulted television sources cited by participants indicating preferences include The Weather Channel (24%), WITN (14%), and WCTI (13%). Less than 1% of those reporting get information from public access channels. Information provided by television was rated excellent (40%), very good (38%), or good (18%) by those who rated it.

*Radio*. When a hurricane is threatening, 53% of people responding to a question about commercial radio use say they consult radio sources daily to several times per hour; 47% report that they never use radio, though 81% say they have a radio that can operate when the power is out. A variety of radio sources are consulted (see appendices). Information from commercial radio was rated excellent (22%), very good (41%), or good (29%) by those who rated it. When we asked about NOAA weather radio, 64% of those responding to the question say they never use it.

**Internet**. When a hurricane is threatening, 48% of people responding to a question about internet use say they consult the internet daily to several times per hour. Those who told us about their preferences most frequently consult the Weather Channel website (34.7%) and the NOAA website (14%). Internet information was rated excellent (37%), very good (35%), or good (21%) by those who rated it.

**Telephone**. When we asked people about their access to telephone services, 93% of the respondents reported that they have landline phones and 86% have cell phones; 42% have text messaging capability but only about 20% report that they receive text alerts.

**Alert and Emergency Notification**. When we asked whether people receive information from alert services or emergency notification systems, of the 87% of people responding to the question, 48% reported receiving alerts: 49% from television, 11% from radio, and 8% from local county sources.

**Social Networks.** We asked people about communication with other people in their social networks (family, friends, co-workers, neighbors, church, etc.). About 67% of people responding to that question said that they speak with people in their networks daily or more frequently when severe weather threatens. Family and friends are most frequently consulted (73.5%) followed by neighbors (13%). Information from social network sources was rated excellent (24%), very good (29%), or good (34%) by people who rated them.

**Official Sources.** We asked people whether they received information from official sources; 74% of people responding to the question report that they never receive information from official sources. Of the 26% who do, 31% report getting information from local law enforcement and 13% from local emergency management. Information from official source was rated excellent (26%), very good (32%), and good (30%) by those who rated it.

(For additional information, see Tables R16—R42)

### Knowledge and Preparedness, Risk Evaluation, and Behavior

**Knowledge and Preparedness**. We asked participants about their preparedness and knowledge of important information for people in a storm-prone area:

- 68% reported that they have a disaster preparedness plan
- 76% know the location of an emergency shelter
- 91% know the evacuation route from their home.

When an evacuation order is issued, 54% know that it includes their homes and 28% know that it does not cover their homes. The rest were less certain.

**Risk Evaluation**. When they learn that a hurricane is threatening the area, 33% of people prepare to ride out the storm, 7% prepare to evacuate, and 60% seek information to help them decide if they should evacuate. Respondents were asked, "Once you think your safety may be at risk, what are the most important considerations when deciding whether or not to evacuate?" Respondents could cite more than one important consideration. The most common responses were the strength of the hurricane (93% of the respondents), the direction of the hurricane (78%), and whether there was a mandatory evacuation order (67%). When asked whether they were more likely to evacuate if an evacuation order is issued, 39% reported that they were "much more likely to evacuate" while 26% said that an evacuation order would have no "effect on my decision."

**Past Evacuation Behavior.** Of the people we surveyed, 27% have evacuated for at least one storm and 73% have decided not to evacuate for at least one storm. Most (90%) reported that they were "always" or "almost always" confident that they had made the right decision. Only 15% reported that most or all of their neighbors evacuated when a hurricane threatened their area. Of respondents, 14% reported that there was a time when they wanted to evacuate but did not. Those who reported that they considered evacuating but did not were asked why they stayed. The most common answers were that they did not feel threatened (28%), did not realize how bad the storm would be (22%), or thought the storm was not severe or close enough (15%). Most (79%) respondents reported that evacuation orders were issued at "about the right time."

(For additional information, see Tables R43—R62)

## Storm Risk Communication and Behavior Survey Businesses and Organizations Summary Report

### 20 CAMA Counties (N=603 margin of error = +/- 4%)

When a hurricane threatens, businesses and organizations seek information from a mix of sources. Many rely on television, followed by the internet and other sources. During storm emergencies, many rely on county government sources. Most have plans for emergency preparation and response, although few plans are written and even fewer plans are shared with local emergency managers.

### **Business and Organization Characteristics**

Businesses and organizations surveyed are predominantly locally owned with a single location (68%). Participating businesses or organization types include:

- service (27%)
- retail (13%)
- medical (11%)
- restaurant (8%)
- manufacturing (7%)
- construction (7%)

- government or school (6%)
- church or faith-based nonprofit organization (5%)
- banking/finance (2%)
- fishing/farming (2%)
- hospitality/leisure (2%)

Most (69%) are not dependent on tourism or recreation. Most have 50 or fewer employees (40% have 0–10; 24% have 11–20; 16% have 21–50). About 23% began operations in 2000 or later; 43% before 1990; and 24% before 1970.

(For additional information, see Tables B1—B7.)

### **Weather Emergency Information Sources**

**Most Used information Source**. Of businesses and organizations responding to questions about information sources they consult when a hurricane is threatening, 88% of business and organizations rely most on television for information while 73.5% look to the Internet first. Another 60% rely most on messages from local emergency management. Based on additional interviews and focus groups, we found that a number of businesses are on emergency management list-serves or e-mail lists. Also 76% of businesses rely on commercial and public radio as a primary source of information and 42.5% consult NOAA weather radio.

**New Media.** When asked whether they would use a new technology, such as cell phone text alerts or social networking (such as Twitter or Facebook), if local emergency management adopted it to provide information about severe weather emergencies, 58% said they would; 24% said they would not use it; 16% were not sure whether they would use it or not.

**Information Networks**. We were particularly interested in whether businesses and organizations interacted with other groups to exchange information during severe weather emergencies. When asked who they worked with during emergencies, the most common responses were the county emergency management group (48%) or the city or county government (44%). The other common responses were the Red Cross (29%) and the Chamber of Commerce (22%). Only 12% worked with another civic group, 8% with amateur radio groups, and 6% with realtors; 38% reported that they did not work with any of these groups.

When asked who they communicate with, the most common responses were their customers (45%) or clients (36%). Other responses were suppliers (23%), visitors to the area (22%), others not listed (19%), headquarters (16%), renters (11%) and patients (10%). Another 30% of businesses did not communicate with any of these groups.

(For additional information, see Tables B8—B12.)

### **Preparedness Plans, Perceptions of Risk**

Most businesses (72%) reported they had a plan for dealing with severe weather emergencies. Over half (55%) of businesses that have plans have had their plan for 10 years or more. Of those responding to a question about whether they've used their plan, 55% said they have used their emergency plan for a severe weather event (38% of all businesses surveyed). When asked about the probability that a hurricane will seriously impact the area in the next 10 years, about half of the business owners placed the odds at 70% or greater.

When asked about the characteristics of their plans, businesses reported that they were provided to (71%) or available to (67%) their employees. Roughly half (52%) had a written plan. Only one-third (33%) shared their plan with the local emergency managers. Few businesses had plans developed by a group of businesses (18%), a parent company (14%), a business association (5%), or their insurance company (4%).

The most common way of communicating their emergency plan to employees was individually, one-on-one (49%). Other common approaches were in a meeting (41%), in a newsletter (39%), or during training (30%). The least common means of communicating the plan was by posting it on a website (13%).

When asked what prompted their business to adopt the severe weather plan, the most common response was their experience with a severe weather event (48%) and another 8% reported that it was due to another type of emergency. Thirty-five percent did not attribute any specific event or circumstance that caused their company to adopt the policy. Only 16% reported that it was due to a law or regulation, 9% insurance requirements and 7% required by the home office.

Asked what their plan includes, the most common response was preparation for severe weather events (95%) but most companies reported that plans included several important parts. Other common responses were closing during an emergency (82%)

- re-entry and re-opening (80%)
- internal communications (76%)
- assisting employees to evacuate (67%)
- business continuity (64%)
- remaining open during an emergency (63%)
- using back-up power (62%)

- dealing with the public (62%)
- external communications (55%)
- long term recovery (53%)
- assisting employees to return to the area (52%)
- informing the public (51%)
- talking with the press (34%).

(For additional information, see Tables B13—B27.)

# **Storm Risk Communication and Behavior Survey Residents Survey Results Tables**

(**Note**: "Valid %" calculates the percent of responses excluding items for which a value is missing or invalid. In tables that use the "Valid %," the number of "No/Invalid" responses is indicated at the bottom of the table.)

#### Participant Characteristics

This section contains information about where survey participants live, including the types of homes and locations. Additional demographic characteristics of the sample, such as age, education, and income are also provided.

Table R1. County type

	Number	Valid %
Sound-front	615	57.0
Oceanfront	464	43.0
Total	1079	100.0

Table R2. What county do you live in?

	Number	Valid %
Craven	174	16.1
New Hanover	127	11.8
Beaufort	121	11.2
Brunswick	80	7.4
Onslow	78	7.2
Pasquotank	71	6.6
Dare	60	5.6
Carteret	52	4.8
Pamlico	39	3.6
Chowan	30	2.8
Bertie	29	2.7
Washington	29	2.7
Camden	28	2.6
Hertford	28	2.6
Perquimans	28	2.6
Currituck	25	2.3
Pender	22	2.0
Gates	20	1.9
Hyde	20	1.9
Tyrrell	18	1.7
Total	1079	100.0

Table R3. How many years have you lived in this county?

	Number	Valid %
1 Year Or Less	28	2.6
2	44	4.1
3	39	3.6
4	42	3.9
5	44	4.1
6	33	3.1
7	22	2.0
8	29	2.7
9	12	1.1
10	44	4.1
11	18	1.7
12	23	2.1
13	22	2.0
14	25	2.3
15	31	2.9
16	12	1.1
17	10	.9
18	18	1.7
19	6	.6
20 Or More	573	53.3
Total	1075	100.0
No/Invalid Answers	4	
	1079	

Table R4. Which of the following best describes the place you are living?

	Number	Valid %
A House	859	83.2
Apartment or Townhouse	54	5.2
Mobile Home	106	10.3
Other Structure	14	1.4
Total	1033	100.0
No/Invalid Answers	46	
	1079	

Table R5. Is your home on a barrier island?

	Number	Valid %
Yes	100	9.7
No	930	90.3
Total	1030	100.0
No/invalid answers	49	
	1079	

Table R6. Are you living in a designated storm surge zone ("storm surge" is the rise in sea level during a hurricane)?

	Number	Valid %
Yes	252	27.2
No	674	72.8
Total	926	100.0
No/Invalid Answers	153	
	1079	

Table R7. Consider the risks from coastal flooding from a hurricane. In your opinion, is the home where you live located in a high-risk site, a medium risk site, a low-risk site or a very low-risk site?

	Number	Valid %
High Risk	132	12.9
Medium Risk	223	21.7
Low Risk	390	38.0
Very Low Risk	282	27.5
Total	1027	100.0
No/Invalid Answers	52	
	1079	

Table R8. Now consider the risks from wind damage from a hurricane. In your opinion, is your home located in a high-risk site, a medium risk site, a low-risk site, or a very low-risk site?

	Number	Valid %
High Risk	314	31.7
Medium Risk	405	40.8
Low Risk	209	21.1
Very Low Risk	64	6.5
Total	992	100.0
No/Invalid Answers	87	
	1079	

Table R9. Are you currently married?

	Number	Valid %
Yes	701	68.3
No	325	31.7
Total	1026	100.0
No/Invalid Answers	9	
	1079	

Table R10. What is your gender?

	Number	Valid %
Male	349	33.6
Female	690	66.4
Total	1039	100.0
No/Invalid Answers	40	
	1079	

Table R11. How much education have you completed?

	Number	Valid %
Did not complete high school	52	5.1
High school graduate	225	22.2
Some post high school but no degree	146	14.4
2 year community or junior college degree	177	17.5
4 year college degree	277	27.4
Graduate degree	135	13.3
Total	1012	100.0
No/invalid answers	67	
·	1079	

Table R12. What is your current age?

	Number	Valid %
18 – 29.	62	6.1
30 – 39	120	11.8
40 – 49	149	14.6
50 – 65	384	37.7
Over 65.	303	29.8
Total	1018	100.0
No/Invalid Answers	61	
	1079	

Table R13. Do you have any children living with you?

	Number	Valid %
Yes	346	33.9
No	676	66.1
Total	1022	100.0
No/Invalid Answers	57	
	1079	

Table R14. What is your race or ethnic group?

	Number	Valid %
White	855	84.2
African-American	135	13.3
Hispanic/Latino	11	1.1
Native American	1	.1
Asian	2	.2
Mixed Races	11	1.1
Total	1015	100.0
No/Invalid Answers	64	
	1079	

Table R15. What is your approximate house-hold income?

	Number	Valid %
Under \$15,000	56	8.0
\$15,000 - \$24,999	67	9.6
\$25,000 - \$34,999	85	12.1
\$35,000 - \$49,000	106	15.1
\$50,000 - \$74,999	165	23.5
\$75,000 - \$99,999	111	15.8
Over \$100,000	111	15.8
Total	701	100.0
No/Invalid Answers	378	
	1079	

### Weather Emergency Information Sources

This section contains information about the ways that people get information about severe weather and the sources they use. We also asked people to discuss the frequencies with which they consult sources and to rate the quality of information sources.

Table R16. We asked people about their access to communication sources, devices, and services. The following table indicates which of those listed respondents indicate that they have or use. Respondents could choose more than one. (Of the 1079 people surveyed, valid responses of 1072 respondents are included.).

	"Yes"	"Yes"
	Number	Valid %
Do you have cable TV?	700	65.3%
Do you have satellite TV?	328	30.6%
Do you have a radio that operates when the power is off?	873	81.4%
Do you have a land-line telephone?	992	92.5%
Do you have a cell phone?	923	86.1%
Do you have text messaging?	453	42.3%
Do you receive text alerts?	213	19.9%

Table R17. When a hurricane is threatening this county, how often do you get information from television?

	Number	Valid %
Never	55	5.5
Daily	121	12.0
Several times a day	288	28.6
Every hour	196	19.5
More than once/hour	347	34.5
Total	1007	100.0
No/invalid answers	72	
	1079	

Table R18. Which TV channels or stations do you use most frequently to get weather information?

(People could indicate more than one source. The responses below include respondents' first three cited sources. Number indicates the number of times a source was mentioned; percent indicates the portion of total responses represented by that source.)

	Number	Percent
The Weather Channel	298	24.1%
WITN	179	14.4%
WCTI	164	13.2%
Local Stations (Station not specified)	100	8.1%
WNCT	90	7.3%
WAVY	80	6.5%
WECT	76	6.1%
WTKR	56	4.5%
Other	54	4.4%
WWAY	40	3.2%
Government Access	31	2.5%
WVEC	24	1.9%
WFXI	17	1.4%
FOX	14	1.1%
CNN	6	.5%
NBC	4	.3%
Wilmington station	2	.2%
WSFX	1	.1%
W MAZ	1	.1%
Channel 5	1	.1%
ABC	1	.1%
		100.0%

Table R19. How would you rate the information you get from television?

	Number	Valid %
Excellent	379	39.9
Very Good	358	37.7
Good	174	18.3
Ok	34	3.6
Poor	4	.4
Total	949	100.0
No/Invalid Answers	130	
	1079	

Table R20. When a hurricane is threatening, how often do you get information from NOAA weather radio?

	Number	Valid %
Never	663	64.2
Daily	140	13.6
Several times a day	118	11.4
Every hour	54	5.2
More than once an hour	58	5.6
Total	1033	100.0
No/invalid answers	46	
	1079	

Table R21. How would you rate the information you get from NOAA weather radio?

	Number	Valid %
Excellent	128	34.8
Very Good	138	37.5
Good	79	21.5
Ok	22	6.0
Poor	1	.3
Total	368	100.0
No/Invalid Answers	711	
	1079	

Table R22. When a hurricane is threatening, how often do you get information from commercial or public radio stations?

	Number	Valid %
Never	453	47.2
Daily	168	17.5
Several times a day	153	15.9
Every hour	100	10.4
More than once an hour	86	9.0
Total	960	100.0
No/invalid answers	119	
	1079	

Table R23. Which radio stations do you use for information about severe weather? (People could list more than one.)

Description/name		14 11 104
of station	Number	Valid %
Public Radio	40	10.8
Don't know (which	0.5	0.4
stations)	35	9.4
Other	28	7.5
Local Stations	26	7.0
I Don't Listen To Radio/ I	17	4.6
Watch TV	17	4.0
WRNS	16	4.3
WCXL	12	3.2
WNCT	12	3.2
WGNI	11	3.0
WMGV	11	3.0
WRSF	11	3.0
Any Station/Any Station	11	3.0
With Weather		
WIKS	9	2.4
National Weather		
Station/ Am Nat'l	9	2.4
Weather Service/	-	
Weather Channel	7	4.0
WERO	7	1.9
WITN	6	1.6
WTKF	5	1.3
WERX	5	1.3
WTKR	5	1.3
New Bern Radio	5	1.3
Stations WNBR	4	1.1
WXNR	4	1.1
WAFX	4	1.1
WKXB	3	.8
WQSL	3	.8
WTIB	3	.8
WLTT	3	.8
Am Radio Stations	3	.8
WAAV	3	.8
WSFL	3	.8
WWQQ	3	.8
WCMS	2	.5
WHQR	_	.5
WYND	2	.5
WLGT	2	.5
WRHD	2	.5
WXQR	2	.5
WSFL	2	.5
WUIN	2	.5
Don't Have A Radio	2	.5
Weather Band	2	.5
Sirius Satellite/ Satellite		
Stations/ XM Radio	2	.5
WWAY	1	.3
WBBB	1	.3
WHRV	1	.3
WVKL	1	.3

Description/name	Number	Valid %
of station	Number	Valid 70
WZGO	1	.3
WCDG	1	.3
WNTB	1	.3
WKXS	1	.3
WVCO	1	.3
WKJX	1	.3
WMNX	1	.3
WVHT	1	.3
WFXK	1	.3
WFMZ	1	.3
WKUS	1	.3
WXNR	1	.3
WWIL	1	.3
Marine Band Radio	1	.3
V/Norfolk Stations	1	.3
WZFX	1	.3
WGAI	1	.3
WHRO	1	.3
WIST	1	.3
WJCB	1	.3
WTKS	1	.3
WTOW	1	.3
WWDR	1	.3
WRCF	1	.3
WRMF	1	.3
WRNL	1	.3
WSOS	1	.3
NOAA	1	.3
WJNC	1	.3
Total	372	100.0
No/Invalid Answers	707	
	1079	

Table R24. How would you rate the information you get from radio?

	Number	Valid %
Excellent	117	22.0
Very Good	217	40.8
Good	152	28.6
Ok	38	7.1
Poor	8	1.5
Total	532	100.0
No/Invalid Answers	547	
	1079	

### Table R25. When a hurricane is threatening, how often do you get information from newspapers?

	Number	Valid %
Never	650	66.4
Daily	327	33.4
Every Hour	2	.2
Total	979	100.0
No/Invalid Answers	100	
	1079	

Table R26. Which newspapers do you consult for weather information?

	Number	Valid %
Wilmington Star News	50	15.1
Sun Journal (New Bern)	48	14.3
Daily Advance	40	11.9
VA Pilot	39	11.6
Washington Daily News	37	11.0
Do Not Get/ Do Not Read/ N/A	22	6.5
Jacksonville Daily News	14	4.2
Daily Reflector (Greenville)	9	2.7
Raleigh News and Observer	9	2.7
Daily News	8	2.4
News Herald	6	1.8
Local Paper	5	1.5
Paper Is Not Reliable, Reports Old News After The Fact	5	1.5
Other	5	1.5
Chowan Herald	4	1.2
Daily Herald	4	1.2
Brunswick Beacon	4	1.2
Beaufort Hyde	3 2	.9
Herald (Bertie)	2	.6
Hertford County Herald	2	.6
VA Ledger	2 2 2	.6
Wilson Star News	2	.6
Morning Star News	2 2 2	.6
Pamlico News	2	.6
Coastal Times	2	.6
Kinston	2	.6

Newspaper/Kinston Free		
Press		
VA Herald News	1	.3
Craven County Sun	1	.3
Sun News	1	.3
Bi Weekly Newspaper From Hertford County	1	.3
Weekly Paper ("Neighbors")	1	.3
Gates County Index	1	.3
Coastland Times	1	.3
Local Paper On The Internet	1	.3
Total	336	100.0
No/Invalid answer	743	
	1079	

Table R27. How would you rate the information you get from newspapers?

	Number	Valid %
Excellent	46	12.9
Very Good	83	23.3
Good	114	32.0
Ok	78	21.9
Poor	35	9.8
Total	356	100.0
No/Invalid Answers	723	
	1079	

Table R28. When a hurricane is threatening, how often do you get information from websites or the internet?

	Number	Valid %
Never	520	53.2
Daily	186	19.0
Several Times A Day	174	17.8
Every Hour	49	5.0
More Than Once An Hour	48	4.9
Total	977	100.0
No/Invalid Answers	102	
	1079	

Table R29. Which websites do you consult for weather information? (People who responded could choose more than one.)

Websites	Number	Percent
Weather Channel	169	32.8%
NOAA	70	13.6%
N/A; Don't Use Internet,		
Don't Own Computer	28	5.4%
WITN Ch 7	25	4.9%
Wunderground	23	4.5%
Yahoo	22	4.3%
MSN	19	3.7%
Don't Know	15	2.9%
Weatherbug	15	2.9%
Local News		
Websites/Local TV	13	2.5%
Website		
AOL	12	2.3%
National Weather Center	9	1.7%
Acuweather	8	1.6%
National Hurricane	7	4.40/
Center NHC	7	1.4%
Google	6	1.2%
Channel 12 (WCTI)	5	1.0%
Weather Websites	5	1.0%
(General)	5	1.0%
CNN	5	1.0%
Just Ran A Search,		
Varies, Whatever	5	1.0%
Interests		
Other	5	1.0%
Hurricanetrack.Com	4	.8%
Wavy TV 10	3	.6%
Us Weather Bureau	3	.6%
TV Station Website	2	.4%
WRAL	2	.4%
Fox	2	.4%
Dopplarradar.Com	2	.4%
WECT	2	.4%
ABC	2	.4%
Dare County Emergency	2	.4%
Management		
Terrapin	2	.4%
Local Newspaper	1	.2%
Channel 13	1	.2%

	1	
Channel 9	1	.2%
Weather Browser	1	.2%
Tricounty	1	.2%
Onestop	1	.2%
Hughs.Net	1	.2%
Miami Hurricane Center	1	.2%
Town Hall	1	.2%
Southport	1	.2%
Embarq	1	.2%
WWAY	1	.2%
Hotmail	1	.2%
Earthlink	1	.2%
Marine Channel	1	.2%
Time Warner Cable	1	.2%
Crown Weather	1	.2%
Stormpulse.Com	1	.2%
Email	1	.2%
Virginianpilot.Com	1	.2%
WNCT	1	.2%
Firefox	1	.2%
Storm Track	1	.2%
Total	515	100.0%

Table R30. How would you rate the information you get from internet websites?

	Number	Valid %
Excellent	170	37.0
Very Good	161	35.0
Good	98	21.3
Ok	24	5.2
Poor	7	1.5
Total	460	100.0
No/Invalid Answers	619	
	1079	

Table R31. When a hurricane is threatening, how often do you get information from an alert service or emergency notification system?

	Number	Valid %
Never	487	52.0
Daily	135	14.4
Several Times A Day	145	15.5
Every Hour	77	8.2
More Than Once An Hour	93	9.9
Total	937	100.0
No/Invalid Answers	142	
	1079	

Table R32. Which alert services or emergency notification systems do you use most?

	Number	Valid %
TV	149	47.9
Radio	33	10.6
N/A; don't know	28	10.0
Local County Alerts, Local Weather Service, County Government	26	8.4
Phone Alerts Or Text Messages	18	5.8
Public Service Announcement- Emergency Broadcasting System	13	4.2
NOAA Weather Radio	11	3.5
Other	7	2.3
Emergency Management/ EMS	6	1.9
Internet	4	1.3
Scanner	3	1.0
Pager	3	1.0
National Weather Service	3	1.0
Police/Fire Dept	3 3 3 3	1.0
School Systems	3	1.0
Military Base	1	.3
Total	311	100.0
No/Invalid Answers	768	
	1079	

Table R33. How would you rate the information you get from alert services or emergency notification systems?

	Number	Valid %
Excellent	154	32.4
Very Good	177	37.3
Good	113	23.8
Ok	23	4.8
Poor	8	1.7
Total	475	100.0
No/Invalid Answers	604	
	1079	

Table R34. When a hurricane is threatening, how often do you get information from your social network?

	Number	Valid %
Never	318	32.5
Daily	296	30.2
Several Times A Day	256	26.1
Every Hour	51	5.2
More Than Once An Hour	58	5.9
Total	979	100.0
No/Invalid Answers	100	
	1079	

Table R35. Who do you talk to the most?

	Number	Valid %
Family	336	50.1
Neighbors	90	13.4
Family And Friends	87	13.0
Friends	70	10.4
Co-Workers	52	7.7
Don't Know	10	1.5
Church members	8	1.2
Everybody	5	.7
Community	2	.3
Girlfriend / Boyfriend	1	.1
Other	10	1.5
Total	671	100.0
No/Invalid Answers	408	
	1079	

Table R36. How would you rate the information you get from these conversations?

	Number	Valid %
Excellent	162	24.3
Very Good	190	28.5
Good	224	33.6
Ok	78	11.7
Poor	13	1.9
Total	667	100.0
No/Invalid Answers	412	
	1079	

Table R37. When a hurricane is threatening, how often do you get information from local officials?

	Number	Valid %
Never	701	74.3
Daily	146	15.5
Several Times A Day	57	6.0
Every Hour	20	2.1
More Than Once An Hour	19	2.0
Total	943	100.0
No/Invalid Answers	136	
	1079	

Table R38. How would you rate the information you get from local officials?

	Number	Valid %
Excellent	71	25.7
Very Good	87	31.5
Good	83	30.1
Ok	21	7.6
Poor	14	5.1
Total	276	100.0
No/Invalid Answers	803	
	1079	

Table R39. Which local officials do you hear from the most?

	Number	Valid %
Police/ Sheriff/ State trooper/ Hwy Patrol	80	30.7
Emergency Services/		
Network/Personnel/ Mgmt		
Team/ Preparedness	32	12.3
Groups/ Hurricane		
Committee		
TV/ Scanner/ Internet/ Radio	26	10.0
County Officials/ County		
Mgmt/ County Emergency	27	10.4
Mgmt/EMS		
N/A; don't know	28	10.7
Fire Dept	11	4.2
Other	11	4.2
Mayor	9	3.4
News/ News Reporters	7	2.7
Town Planner	6	2.3
Community Alert	3	1.1
Schools	2	.8
Weather People/	2	.8
Meteorologist	_	.0
City Hall	2	.8
Street or Thru Grapevine	2	.8
Alderman	1	.4
Wildlife Officer	1	.4
СЕМА	1	.4
Reps From Retirement	1	.4
Community		
Courthouse	1	.4
Administration	1	.4
Governor	1	.4
Rescue Squad	1	.4
"At Work"	1	.4
Red Cross	1	.4
Airport Forecasters	1	.4
Health Dept	1	.4
Government	1	.4
Total	261	100.0
No/Invalid Answers	818	
	1079	

Table R40. When a hurricane is threatening, how often do you get information from state or national officials?

	Number	Valid %
Never	802	85.0
Daily	93	9.9
Several times a day	29	3.1
Every hour	12	1.3
More than once an hour	7	.7
Total	943	100.0
No/invalid answers	136	
	1079	

Table R41. How would you rate the information you get from state or national officials?

	Number	Valid %
Excellent	26	15.5
Very Good	43	25.6
Good	63	37.5
Ok	24	14.3
Poor	12	7.1
Total	168	100.0
No/Invalid Answers	911	
	1079	

Table R42. Which state or national officials do you hear from the most?

	Number	Valid %
TV	39	25.3
N/A; don't know	29	17.8
Governor	24	15.6
State Officials/ State	8	5.2
Representatives	0	5.2
News	7	4.5
National Weather Service	5	3.2
NC Emergency	5	3.2
Preparedness	-	
National Weather Channel	4	2.6
Weather/Weather Channel/	4	2.6
Weather Station	·	
NOAA	3	1.9
Federal Assistance	3	1.9
Other	3	1.9
Radio	2	1.3
Police, Hwy Patrol, Sheriff	2	1.3
NC Wildlife Officers	1	.6
State EOC	1	.6
Rescue	1	.6
Natural Disaster	1	.6
Co-Workers	1	.6
State Warnings on	1	.6
Weather.Com		
Local Officials	1	.6
Newspapers	1	.6
Dept Of Transportation Dot	1	.6
NY Radio	1	.6
NC	1	.6
Government	1	.6
Media	1	.6
Radio Broadcasting Systems	1	.6
NCIC	1	.6
National Hurricane Center	1	.6
Total	154	100.0
No/Invalid Answers	925	
	1079	

### Knowledge and Preparedness, Risk Evaluation, and Behavior

This section includes data about respondents' decisions to evacuate or stay when faced with a threat from severe weather including the factors that influence decisions. Data also includes responses to questions about respondents' preparedness, situational knowledge, and perceptions of risks based on location.

Table R43. Have you ever decided to evacuate?

	Number	Valid %
Yes	270	26.6
No	744	73.4
Total	1014	100.0
No/Invalid Answers	65	
	1079	

Table R44. How many times have you evacuated while living in this county?

	Number	Valid %
None	744	73.4
1	119	11.7
2	53	5.2
3	32	3.2
4	18	1.8
5	11	1.1
6	8	.8
7	3	.3
8	6	.6
10 or More	20	2.0
Total	1014	100.0
No/Invalid Answers	65	
	1079	

Table R45. Once you think your safety may be at risk, what are the most important considerations when deciding whether or not to evacuate? (People could indicate more than one.)

Consideration	Number	Percent
Strength of the hurricane	922	13.2%
Direction the hurricane is going	776	11.1%
Whether there was a mandatory evacuation order or not	665	9.5%
Past experience with hurricanes	610	8.7%
Having a place to stay for you and your family	564	8.1%
The information provided by the mass media	555	7.9%
Having a way to transportation	507	7.2%
Whether the utilities (water, gas, etc) get cut off or not	353	5.0%
Having a way to take your pets	342	4.9%
Whether the media people are leaving or not	303	4.3%
Fear that I will not be allow back after the hurricane passes	280	4.0%
Having the money to pay for evacuation related expenses	268	3.8%
What the neighbors are doing	255	3.6%
Fear that my house will be vandalized	248	3.5%
How much work it is to pack up and go someplace else	181	2.6%
Other	94	1.3%
Safety of family, friend, self and/or pets	20	.3%
Other, tsunami, tornado	10	.1%
Flooding	9	.1%
Never evacuates	5	.1%
What route to leave by/ whether or not the exit routes are open	4	.1%
I trust in God	4	.1%
Traffic	3	.0%
Having medications	3	.0%

Consideration	Number	Percent
Whether or not self or other household members are sick/ health issues	3	.0%
Employment/job keeps me here	3	.0%
Damage to home from storm	2	.0%
Time of day storm is expected to hit	2	.0%
Bringing important documents	2	.0%
Knowing where family is going	1	.0%
Whether or not a generator is available	1	.0%
Having sentimental things in home	1	.0%
Town alert	1	.0%
High tide	1	.0%
Having gasoline	1	.0%
Total	6999	100.0%

Table R46. Have you ever decided not to evacuate when a hurricane threatened this county?

	Number	Valid %
Yes	747	73.3
No	272	26.7
Total	1019	100.0
No/Invalid Answers	60	
	1079	

Table R47. Why didn't you leave? (People could indicate more than one reason.)

Reason	Number	Percent
Did not feel threatened/ felt safe/ live on high ground/no danger/no need/ not necessary	203	24.5%
Did not know how bad it would be	156	18.8%
Storm not severe/close enough; path didn't look like it would hit	106	12.8%
Other	74	8.9%
Needed to protect my property	66	8.0%
No reason	63	7.6%
Couldn't miss work/school	34	4.1%
Family wanted to stay	34	4.1%
Concern over returning after the storm	15	1.8%
No evacuation orders	14	1.7%
Needed to care for my pets	11	1.3%
No place to stay	10	1.2%
Roads closed (or very busy/traffic)	9	1.1%
Costs too much to evacuate	8	1.0%
No car or other transportation	7	.8%
Family member could not travel	7	.8%
God will take care of me	5	.6%
No previous experience with hurricanes	5	.6%
Car trouble	1	.1%
Total	828	100.0%

Table R48. How many times have you decided not to evacuate while living in this county?

	Number	Valid %
1	89	19.2
2	47	10.1
3	54	11.6
4	31	6.7
5	33	7.1
6	32	6.9
7	12	2.6
8	12	2.6
9	9	1.9
10 Or More	145	31.2
Total	464	100.0
No/Invalid Answers	615	
	1079	

Table R49. Has there ever been a time when you wanted to evacuate but did not?

	Number	Valid %
Yes	103	13.6
No	654	86.4
Total	757	100.0
No/Invalid Answers	322	
	1079	

Table R50. When you decide whether or not to evacuate, are you confident that you have made the right decision?

	Number	Valid %
Always	735	79.4
Almost Always	97	10.5
Usually	44	4.8
Sometimes	23	2.5
Rarely	4	.4
Never	23	2.5
Total	926	100.0
No/Invalid Answers	153	
	1079	

Table R51. Have you ever been threatened by a hurricane while living somewhere else?

	Number	Valid %
Yes	368	34.4
No	701	65.6
Total	1069	100.0
No/Invalid Answers	10	
	1079	

Table R52. How many hurricanes have you lived through while living outside of this county?

	Number	Valid %
1	90	26.9
2	64	19.1
3	28	8.4
4	28	8.4
5	30	9.0
6	21	6.3
7	5	1.5
8	8	2.4
9	1	.3
10 Or More	60	17.9
Total	335	100.0
No/Invalid Answers	744	
	1079	

Table R53. Do you have a disaster preparedness plan?

	Number	Valid %
Yes	703	67.6
No	337	32.4
Total	1040	100.0
No/Invalid Answers	39	
	1079	

Table R54. When you learn that a hurricane is threatening this county, what is your usual response?

	Number	Valid %
I get prepared to ride the storm out.	349	33.4
I get information to decide if I should evacuate or ride the storm out	624	59.8
I get prepared to evacuate.	71	6.8
Total	1044	100.0
No/invalid answers	35	
	1079	

Table R55. Are evacuation orders usually issued too early, about the right time or too late?

	Number	Valid %
Too Early	105	13.7
About The Right Time	606	79.1
Too Late	55	7.2
Total	766	100.0
No/Invalid Answers	313	
	1079	

Table R56. When an evacuation order is issued, are you more likely to evacuate?

	Number	Valid %
Much more likely	363	39.0
More likely	206	22.1
A little more likely	123	13.2
It has no effect on my decision	239	25.7
Total	931	100.0
No/Invalid Answers	278	
	1079	

Table R57. When a hurricane threatens this county, do your neighbors evacuate?

	Number	Valid %
All or almost all of them	40	4.8
Most of them	86	10.2
Some of them	209	24.8
A few of them	86	10.2
None of them	421	50.0
Total	842	100.0
No/invalid answers	237	
	1079	

Table R58. When an evacuation order is issued, do you know if it includes your home?

	Number	Valid %
I know it covers my home.	557	53.6
I think it covers my home but I am not sure.	78	7.5
I don't know if it covers my home	288	27.7
I think it does not cover my home but I am not sure	42	4.0
I know it does not cover my home.	75	7.2
Total	1040	100.0
No/invalid answers	39	
	1079	

Table R59. Do you know the location of an emergency shelter close to you?

	Number	Valid %
Yes	787	76.2
No	246	23.8
Total	1033	100.0
No/Invalid Answers	46	
	1079	

Table R60. Do you know the evacuation route from your home?

	Number	Valid %
Yes	927	89.1
No	113	10.9
Total	1040	100.0
No/Invalid Answers	39	
	1079	

Table R61. If someone wanted to find more information about shelters or evacuation routes, do you know where they could get this information?

	Number	Valid %
Yes	782	78.3
No	217	21.7
Total	999	100.0
No/Invalid Answers	80	
	1079	

Table R62. Where would you suggest people look for information about evacuation routes and emergency shelters?

Source	Number	Valid %
TV	158	22.4
Internet	111	15.8
Police, Sheriff, Hwy Patrol	73	10.4
Town hall/ City hall	42	6.0
Emergency Organizations	41	5.8
Radio	31	4.4
Newspaper	28	4.4
News Media	22	3.1
Schools		
	19	2.7
Red Cross	16	2.3
Fire Dept	15	2.1
Chamber Of Commerce/	13	1.8
Town Commerce		
Phone book	13	1.8
Courthouse	11	1.6
911	10	1.4
Other	10	1.4
Road Signs	9	1.3
Local Government	9	1.3
(County)	J	
Ask Me, I Would Tell Them	7	1.0
Community/	7	1.0
Neighborhood	,	1.0
Hurricane Pamphlets,		
Tracking Charts available	6	.9
at stores		
WITN	6	.9
Public Library	5	.7
Health Dept	4	.6
County Manager	3	.4
Dept Of Social Services	3	.4
Safe Refuge	3	.4
Church	3	.4
Information Center	3	.4
Don't Know	3	.4
CEMA	2	.3
State Map	2	.3
Military Base	2	.3
DMY Or DOT	2	.3
Salvation Army	2	.3
Community Emergency		
Response Team	2	.3
Disaster Headquarters	1	.1
Town Magazine	1	.1
Home Owners Association	1	.1
Friends Family	1	.1
Hospital	1	.1
Disaster Control Center	1	.1
National Weather Service	1	.1
County Safety Dept.	1	.1
Total	704	100.0
No/Invalid Answers	375	100.0
INO/IIIValiu AliSWelS	1079	
	10/9	

Resident Survey Results Tables

### **Storm Risk Communication and Behavior Survey Businesses and Organizations Survey Results Tables**

(**Note**: "Valid %" calculates the percent of responses excluding items for which a value is missing or invalid. In tables that use the "Valid %," the number of "No/Invalid" responses is indicated at the bottom of the table.)

### **Business and Organization Characteristics**

This section contains data about the types of businesses and organizations that participated in the survey including location, sector, size, time in business, and other factors. We also asked about the number of storms the businesses and organizations have experiences.

Table B1. What county is your business in?

	Number	Valid %
Beaufort	41	6.9
Bertie	16	2.7
Brunswick	49	8.2
Camden	10	1.7
Carteret	47	7.9
Chowan	12	2.0
Craven	74	12.4
Currituck	13	2.2
Dare	29	4.9
Gates	12	2.0
Hertford	24	4.0
Hyde	15	2.5
New Hanover	94	15.7
Onslow	74	12.4
Pamlico	7	1.2
Pasquotank	21	3.5
Pender	16	2.7
Perquimans	22	3.7
Tyrrell	8	1.3
Washington	13	2.2
Total	597	100.0
Missing/Invalid Answer	6	
	603	

Table B2. Which one of the following best describes your business or organization?

	Number	Valid %
Service	130	21.6
Retail	80	13.3
Medical	66	10.9
Restaurant	47	7.8
Manufacturing	42	7.0
Construction	41	6.8
Government/school	33	5.5
Non-Profit	32	5.3
Church/Non-profit (religious)	31	5.1
Professional	25	4.1
Other	23	3.8
Real Estate	10	1.7
Banking/Finance	9	1.5
Fishing/Farming	9	1.5
Hospitality/Leisure	9	1.5
Wholesale	6	1.0
Hotel	4	.7
Not Answered	6	1.0
Total	603	100.0

Table B3. Is your business or organization on or more of the following? (Indicate all that apply)

	Number	Percent
Locally owned, single location	402	65.5
Locally owned, multi-location	117	19.1
Owned by an entity out of the area	73	11.9
A franchise	22	3.6
Total	614	100.0

Table B4. Is your business primarily, partially or not at all dependent on tourism or recreation?

	Number	Valid %
Not Answered	2	.3
Primarily	45	7.5
Partially	138	22.9
Not At All	418	69.3
Total	603	100.0

Table B5. In what year did your business start operating in its current location?

	Number	Valid %
2008-2009	18	3.1
2006-2007	29	5.0
2004-2005	21	3.7
2002-2003	36	6.3
2000-2001	22	3.8
1995-1999	65	11.3
1990-1994	54	9.4
1985-1989	67	11.7
1980-1984	46	8.0
1970-1979	78	13.6
before 1970	139	24.2
Total	575	100.0
Missing/Invalid Answer	28	
	603	

Table B6. How many people does your business or organization employ?

	Number	Valid %
Not Answered	9	1.5
LESS THAN 10	238	39.5
10 TO 20	144	23.9
21 TO 50	94	15.6
51-75	24	4.0
76 TO 100	15	2.5
101 TO 200	53	8.8
500 TO 100	15	2.5
1001 OR MORE	11	1.8
Total	603	100.0

Table B7. Has your business or organization experienced any severe storm while at your current location? (Indicate all that apply.)

Data are number and percent of businesses that report experiencing each storm.

	Number	Percent
Floyd (1999)	254	42.1
Isabel (2003)	198	32.8
Fran (1996)	196	32.5
Dennis (1999)	163	27.0
Bonnie (1996)	118	19.6
Ophelia (2005)	95	15.8
Hanna (2008)	86	14.3
Ernesto (2006)	80	13.3
Gabrielle (2007	67	11.1
Cristobal (2008)	60	10.0
Hugo (1989)	56	9.3
Emily (1993)	47	7.8
Charlie (1986)	42	7.0
Diana(1984)	38	6.3
Gloria (1985)	36	6.0
David (1979)	28	4.6
Hazel (1954)	24	4.0
Ginger (1971)	23	3.8
Donna (1960)	23	3.8
Agnes (1972)	20	3.3
Ione (1955)	12	2.0
Diane (1955)	12	2.0

### Weather Emergency Information Sources

This section contains data about the ways that businesses and organization get information about severe weather, the sources they use, and the people they share information with. We also asked about attitudes toward adoption of new technologies and suggestions for improving communication.

Table B8. From what sources do you receive severe weather information? (Indicate all that apply.)

	Number	Percent
Television	504	86.7
Radio (commercial or public)	443	76.2
Internet	427	73.5
Local emergency management	346	59.6
Word of mouth (co-workers, customers, family, etc.)	254	43.7
NOAA Weather Radio	247	42.5
Text messages or other alert visa cell phone, land line or pager	159	27.4
Newspaper	147	25.3
Other local businesses	137	23.6
Business group or association (i.e., Chamber of Commerce, professional assn)	102	17.6
Satellite radio or subscriber service	95	16.4
Other weather radio	50	8.6
Other	47	8.1

Table B9. Does your business or organization provide information about weather emergency situations to any of the following? (Indicate all that apply.)

	Number	Percent
Customers	253	45.1
Clients	204	36.4
Suppliers	126	22.5
Visitors to the area	125	22.3
Others	105	18.7
Headquarters	92	16.4
Renters	60	10.7
Patients	55	9.8
None of the above	167	29.8

Table B10. When your business or organization closes for a severe weather event, what (event, information, signal, or other) triggers that decision?

	Number	Valid %
Storm category or severity	91	25.3
Evacuation orders or EM information	69	19.2
Weather report	67	18.7
Safety	46	12.8
Personal judgment	25	7.0
NWS warning	18	5.0
Decision by corporate office	14	3.9
Damage or no electricity	8	2.2
Other businesses close	7	1.9
Cannot close	7	1.9
Common sense	5	1.4
N/a	2	.6
Total	359	100.0
No/invalid answer	244	
	603	

Table B11. If local emergency management adopted a new technology such as cell phone text alerts or social networking (such as Twitter or Facebook) to provide information about severe weather emergencies, would you use it?

	Number	Valid %
Not answered	21	3.5
Yes	344	57.6
No	140	23.5
Unsure	92	15.4
Total	597	100.0
No/Invalid Answer	6	
	603	

Table B12. What's the one information source that you rely on most for making plans at work related to severe weather?

	Number	Valid %
Television	241	40.4
Local emergency management	95	15.9
Internet	90	15.1
NOAA Weather Radio	53	8.9
Radio (commercial or public)	42	7.0
Other	42	7.0
Not Answered	21	3.5
Word of mouth (co-workers, customers, family, etc.)	5	.8
Satellite radio or subscriber service	3	.5
Text messages or other alert visa cell phone, land line or p	2	.3
Business group or association (i.e., Chamber of Commerce)	2	.3
Newspaper	1	.2
Total	597	100.0
Missing/Invalid Answer	6	
	603	

### Preparedness Plans, Perceptions of Risk

This section contains data about emergency preparedness plans used by businesses and organizations including whether they have a plan, how it came to be developed, what it covers, and how it is shared. Data also includes information about decision making for evacuation or staying and businesses' and organizations' collaboration with and attitudes about other groups and agencies. The last table includes attitudes about and suggestions for improving local emergency communication practices.

Table B13. Does your business or organization currently have a plan for dealing with severe weather emergencies?

	Number	Valid %
Not Answered	1	.2
YES	432	71.8
NO	169	28.1
Total	602	100.0
Missing/Invalid Answer	1	
	603	

Table B14. How long have you had a plan?

	Number	Valid %
1 year	19	5.3
2 years	18	5.0
3 years	16	4.5
4 years	14	3.9
5 years	36	10.1
6 years	17	4.7
7 years	18	5.0
8 years	12	3.4
9 years	11	3.1
10 years	52	14.5
Longer than 10 years	145	40.5
Total	358	100.0
No/Invalid Answer	245	
	603	

Table B15. Which of the following prompted your organization to prepare a plan? (Indicate all that apply.)

	Number	Percent
Experience with a severe weather event	202	48.3
Nothing specific; don't know	146	34.9
Required by law or regulation	66	15.8
Required by insurance company or other stakeholder	39	9.3
Experience with another type of emergency	32	7.7
Required by home office	31	7.4

Table B16. Is your emergency plan (Indicate all that apply):

	Number	Percent
Available to employees	309	71.4
Provided to employees	289	66.7
Formal (written)	224	51.7
Informal (not written)	209	48.3
Provided to or shared with	141	32.6
local emergency managers	141	32.0
Used by a group of	78	18.0
businesses	70	10.0
Developed or provided by a	59	13.6
parent company		10.0
Developed or provided by a	22	5.1
business association		0.1
Developed or provided by an	18	4.2
insurance company	10	7.2

Table B17. How do you communicate the plan to others in your business or organization? (Indicate all that apply)

	Number	Percent
Individually, or one on one	210	49.3
In a meeting	173	40.6
In a newsletter, memo, or other internal communication	165	38.7
In training	129	30.3
On a website	56	13.1

Table B18. What does your plan cover? (Indicate all that apply.)

	Number	Percent
Preparation for severe weather events	402	94.8
Closing during an emergency	348	82.1
Re-entry and reopening	341	80.4
Internal communication procedures	320	75.5
Assisting employees to evacuate	285	67.2
Business continuity	273	64.4
Remaining open during an emergency	265	62.5
Using back-up power	262	61.8
Dealing with the public	262	61.8
External communication procedures	232	54.7
Long term recovery	224	52.8
Assisting employees to return to the area	222	52.4
Informing the public	218	51.4
Talking to the press	147	34.7

Table B19. Did you have input or advice from local emergency management in preparing your plan?

	Number	Valid %
Not Answered	14	3.2
YES	184	42.3
NO	194	44.6
UNSURE	43	9.9
Total	435	100.0
Missing/Invalid Answer	168	
	603	

Table B20. Have you needed to use your emergency plan for a severe weather event?

	Number	Valid %
Not Answered	8	1.8
YES	232	53.3
NO	195	44.8
Total	435	100.0
Missing/Invalid Answer	168	
	603	

Table B21. Which of the following influences your business decisions about whether to stay or evacuate during a storm? Please rate these influences as very important, somewhat important, unimportant.

B21a. Cost to the business	Number	Valid %
Not Answered	29	4.9
Very Important	197	33.0
Somewhat Important	136	22.8
Unimportant	235	39.4
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21b. Evacuation orders	Number	Valid %
Not Answered	30	5.0
Very Important	421	70.5
Somewhat Important	107	17.9
Unimportant	39	6.5
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21c. Your or employees' home situations	Number	Valid %
Not Answered	35	5.9
Very Important	353	59.1
Somewhat Important	156	26.1
Unimportant	53	8.9
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21d. Staffing (need employees at the business during an emergency)	Number	Valid %
Not Answered	42	7.0
Very Important	212	35.5
Somewhat Important	139	23.3
Unimportant	204	34.2
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21e. Protection of the business	Number	Valid %
Not Answered	35	5.9
Very Important	334	55.9
Somewhat Important	153	25.6
Unimportant	75	12.6
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21f. Public needs	Number	Valid %
Not Answered	34	5.7
Very Important	279	46.7
Somewhat Important	150	25.1
Unimportant	134	22.4
Total	597	100.0
Missing/Invalid Answer	6	
	603	

B21g. Re-entry	Number	Valid %
Not Answered	47	7.9
Very Important	317	53.1
Somewhat Important	173	29.0
Unimportant	60	10.1
Total	597	100.0
Missing/Invalid Answer	6	
	603	

Table B22. Do you or your organization work with any of the following during weather emergencies? (Indicate all that apply.)

	Number	Percent
County Emergency management group	264	43.8
City or county Government	243	40.0
Red Cross	157	26.0
Chamber of Commerce	122	20.0
Other civic group	66	10.9
Visitors Center	51	8.5
Amateur radio group	42	6.9
Board of Realtors	31	5.1
None of the above	210	34.8

Table B23. What is your assessment of the general level of emergency preparedness in your local area?

	Number	Valid %
Not Answered	4	.7
Excellent	168	27.9
Good	273	45.3
Adequate or	123	20.4
Lacking	19	3.2
Very poor	16	2.7
Total	603	100.0

Table B24. How confident are you that local emergency management has made sufficient plans and preparations for severe weather?

	Number	Valid %
Not Answered	6	1.0
Very confident	223	37.0
Confident	220	36.5
Somewhat confident	105	17.4
A little confident	28	4.6
Not at all confident	21	3.5
Total	603	100.0

Table B25. What do you think the probability is that a hurricane will seriously impact your area within the next 10 years?

	Number	Valid %	
Not Answered	35	5.9	
10	27	4.6	
20	24	4.0	
30	29	4.9	
40	12	2.0	
50	85	14.3	
60	21	3.5	
70	65	11.0	
80	86 68	14.5 11.5	
90			
100	141	23.8	
Total	593	100.0	
Missing/Invalid Answer	10		
	603		

Table B26. What makes you think so?

	Number	Valid %	
Probability/history	157	42.2	
Location on the coast	88	23.7	
We're due	57	15.3	
Personal experience	22	5.9	
It's inevitable	19	5.1	
Storms are getting worse	10	2.7	
Cannot predict	7	1.9	
Unlikely since no storms recently	7	1.9	
Cycle of weather patterns	3	.8	
No answer	1	.3	
Because weather forecasters say so	1	.3	
Total	372	100.0	
Missing/Invalid Answer	231		
	603		

Table B27. How could communication be improved to help businesses like yours better prepare for and recover from the next severe weather event here?

	Number	Valid %
No Answer; don't know; not sure; no clue/idea	315	52.2
Things are fine as they are; satisfied with EM and/or media; no improvement needed; things are working	95	15.8
More/better use of technologies: use e-mail; new media; alert systems; automatic notification; improve websites; add cell phone alerting; reverse 911; fax	46	7.6
Other	27	4.5
Improve after storm activities: restore services as fast as possible; remove debris in roads, open roads faster; improve re-entry; improve communication	16	2.7
General comment about media (TV, radio): Positive (use media; people rely on media; they do a good job)	12	2.0
Closer contact with emergency management; more contact with EM	12	2.0
Improve notification; provide more alerts (non-specific); (EM) expand contact list	10	1.7
Conduct drills, practices, table-tops, meetings, training; provide more education and updates about preparedness	9	1.5
General: Stay informed; keep lines of communication open; get the word out	8	1.3
Improve coordination: between agencies; between agencies and businesses	8	1.3
Have a plan; prepare before the storm	8	1.3
Use a siren-type alert; more on-the-ground communication when power is out	8	1.3
General: Always room for improvement	6	1.0
Make available more detailed information about storm surge, winds, and other data points; improve forecasting	6	1.0
General comment about media (TV, radio): Negative (they sensationalize; we need less commercialized forecasts)	5	.8
Media should provide more frequent updates	3	.5
Make sure to have multiple and/or redundant communication systems	3	.5
Send information about preparedness through the mail	2	.3
Attend more to underserved populations: speakers of other languages; people without access to communication technologies; low literacy; new residents	2	.3
Use common sense	1	.2
Share emergency plans with others (b-to-b and EM to businesses)	1	.2
Total	603	100.0