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Social Sciences Branch Northeast Fisheries Science Center Narragansett, RI



SOCIAL AND ECONOMIC IMPACTS OF HURRICANE SANDY ON THE COMMERCIAL AND RECREATIONAL FISHING INDUSTRIES OF NEW YORK AND NEW JERSEY



Principal Investigator: Dr. Lisa L. Colburn, NOAA/NMFS/NEFSC **Co-Principal Investigator:** Dr. Patricia M. Clay, NOAA/NMFS/NEFSC

Your responses and participation in this survey are **CONFIDENTIAL**.

Questions about the survey? Phone: 401-782-3253/Fax: 401-782-3201/Email: lisa.l.colburn@noaa.gov

Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Lisa L. Colburn, 28 Tarzwell Dr., Narragansett, RI 02882. Email: lisa.l.colburn@noaa.gov

Responses to this information request are confidential under section 402(b) of the Magnuson-Stevens Act as amended in 2006. Responses are also confidential under NOAA Administrative Order 216-100, which sets forth procedures to protect confidentiality of fishery statistics. Notwithstanding any other provisions of the law, no person is required to respond to,

nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. Version 1.A.

Brief Information

Project Summary

Our research involves assessing the impacts that Hurricane Sandy had on the fishing industry of New York and New Jersey during the year following the storm. Our emphasis will be on impacts on commercial and recreational fishing businesses, individual well-being, and fishing communities. The individuals interviewed will be representative of the diversity of the fishing industry in the states of New York and New Jersey.

Why am I Being Invited to Take Part in This Study?

You are being invited to take part in the research project we have already described to you. Our intent is to determine the extent that you were affected by Hurricane Sandy during the year following the storm and how you feel about your ability to recover. Responses to our questions will not be associated with your name.

<u>If you decide to take part in this study</u>, your participation will involve responding to several questions concerning the impacts of Hurricane Sandy on your business or fishing activity.

<u>Your part in this study is anonymous</u>. That means that your answers to all questions are private. No one else can know if you participated in this study and no one else can find out what your answers were. Scientific reports will be based on group data and will not identify you or any individual as being in this project.

How much time is required?

The average time to complete the survey is 25 minutes.

Who will see the information you give?

The information you provide will be combined with responses from other participants and analyzed. The analysis of the data will be added to reports or publications and available by anyone whom is interested in the research.

The decision to participate in this research project is up to you.

Participation is entirely voluntary. You do not have to participate and you can refuse to answer any question.

<u>If you have any questions</u>, please feel free to contact Lisa L. Colburn the person responsible for this study.

THANK YOU FOR YOUR TIME AND PARTICIPATION IN THIS STUDY.

Survey Type: Businesses

Post-Hurricane Sandy One Year Assessment Survey Questions

| The Information you provide will remain strictly confidential. |
|--|
| You will not be identified with your answers |

| Interviewer: Date: | | Location (home/business): Community: |
|-----------------------|------------------------------------|---|
| Type o | f business (Check all that apply): | |
| | Bait & tackle | |
| | Marina | |
| | Seafood dealer | |
| | Aquaculture | |
| | Other business: | |
| | | |

Demographic information will allow us to better understand the unique characteristics of the fishing industry participants in New York and New Jersey

SECTION A - DEMOGRAPHIC INFORMATION

| Name: | Age: |
|-----------|----------------|
| Position: | Business name: |
| Address: | |

SECTION B – BUSINESS IMPACTS

This section will help understand impacts of Hurricane Sandy on business in terms of physical damages, lost revenue and income, attribution of recovery, impediments to recovery and level of recovery

- 1. How many years have you been involved in this business?_____
- 2. Is this business your primary source of income? **Yes** \Box **No** \Box (If *yes* go to question **3**)
 - 2.1. If *no*, what other jobs/businesses do you currently have?_____
- 3. Did this business close due to Hurricane Sandy? **Yes** \Box **No** \Box (If *no* go to question **3.2**)
 - 3.1. If *yes*, how long?____
 - 3.2. If *no*, was the normal business schedule affected by Sandy? **Yes** □ **No** □ (If *no* go to question **4**) 3.2.1. If *ves*, how?
- 4. Were you prevented from accessing your business? **Yes** \Box **No** \Box (If *no* go to question **5**)
 - 4.1. If *yes*, how long? _____
- 5. If applicable: Has the business returned to a normal schedule since the storm? Yes 🗆 No 🗔 (If yes go to question 5.2
 - 5.1. If no, what percent is it to normal? (Circle) 75%, 50%, 25%, 10%, 0%
 - 5.2. If yes, how long did it take for it to return to a normal schedule?_____

6. Average number of people employed annually before Hurricane Sandy_____

- 6.1. Changes due to the storm (circle): **increased** or **decreased** to______
- 6.2. *If applicable*: has the number of employees gone back to what it was before the storm? **Yes** \Box **No** \Box (If *no* go to question **7**)
 - 6.2.1 If yes, how long did it take for it to go back?_____
- 7. Did this business experience physical damages or losses due to Hurricane Sandy? Yes \Box No \Box (If *no* go to question 8)

Survey Type: Businesses

7.1. If *yes*, check all that apply and indicate value of damages or losses and percentage insured:

 Damages/losses
 % Insured (Circle)

 Buildings
 \$______<</td>
 100%, 75%, 50%, 25%, 10%, 0%

- Floating docks
 \$______
 100%, 75%, 50%, 25%, 10%, 0%

 Bait
 \$______
 100%, 75%, 50%, 25%, 10%, 0%
- Bait
 \$_____
 100%, 75%, 50

 Bait
 \$_____
 100%, 75%, 50
- Product (fresh fish or bait)
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%

 Image: Comparison of the second second
- Merchandise
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%
- Gear (nets, pots, traps, etc...) \$_____ 100%, 75%, 50%, 25%, 10%, 0%
- Vessel
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%

 Other:
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%
- 7.2. What is the total estimated value of physical damages or losses to your business before insurance? **\$**
- 7.3. Where are you getting your calculation? (e.g. Insurance company) _
- 8. Was revenue affected *by* Hurricane Sandy during the 12 months following the storm? **Yes** \Box **No** \Box (If *no* go to question **9**)
 - 8.1. If *yes*, how? (Compare to the 12 months prior to Sandy)
 - 8.1.1. Increased____%
 - 8.1.2. Decreased____%
 - 8.2. If *yes*, describe why your revenue was affected:
 - 📋 Business was/is down
 - Closed early for the season
 - 🛛 No fish

Π

Π

- Physical damages
- Other: _____
- 8.3. What is the estimated value of lost revenue for the 12 months following Sandy? \$_____
- 9. Do you attribute any changes in your business to Hurricane Sandy? Yes \Box No \Box (If *no* go to question 10)
 - 9.1. If *yes*, describe: _____
- 10. Are there other factors affecting your business? **Yes** \Box **No** \Box (If *no* go to question **11**)
 - 10.1. If *yes*, describe:
 - □ Weather
 - □ Economy
 - Market prices
 - Fuel prices
 - Pollution
 - Climate Change
 - Regulations
 - Other_

11. Did you relocate your business operation due to the storm? Yes \Box No \Box (If yes go to question 11.2)

- 11.1. If *no*, do you plan to relocate your business?_____
- 11.2. If *yes*, why?____
- 12. What, if any, impediments to recovery did you experience?
 - Building permits
 - □ Zoning, ordinances etc...
 - Time to get assistance
 - Other______
- 13. If affected by Hurricane Sandy, what do you credit your level of recovery to?
 - □ Family, friends, church, community groups etc....

- Bank loan
- Unemployment benefits
- ☐ FEMA
- □ SBA
- □ Other_____

14. Would you say that Hurricane Sandy had any positive impacts on your business? **Yes** \Box **No** \Box (If *no* go to question **15**)

14.1. If yes, what?_____

SECTION C – COMMUNITY RECOVERY

This section helps understand how communities may have been affected by Hurricane Sandy as well as perceptions of potential changes in the communities in the future

15. Have there been any major changes to the community where your business is located since Hurricane Sandy? Yes \Box

No (If *no* go to question **16**)

15.1. If yes, what? (Zoning, ordinances, redevelopment etc...):_____

16. What, if any, changes *do you foresee* for this community as a result of Hurricane Sandy?______

SECTION D – WELL-BEING

This section is intended to capture the ability of the participant to be prepared for and cope with change in general and in relation to natural disasters

Please state level of agreement with the statements below:

| 17. I have other options available if I decide to no longer be in my current occupation. | | | | | | | |
|--|--|-----------------|-------------|------------------|--|--|--|
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 18. I am confident that I could | 18. I am confident that I could get work elsewhere if I needed to. | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 19. I would be nervous trying | something outsid | e of my current | occupation. | | | | |
| 5 strongly disagree | 4 disagree | 3 neutral | 2 agree | 1 strongly agree | | | |
| 20. I have planned for my fina | ncial security. | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 21. Every time there is a change I plan a way to make it work for myself. | | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 22. I am more likely to adapt | 22. I am more likely to adapt to change compared to others in this business. | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 23. I do not think I am competitive enough to continue in this business much longer. | | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 24. I am confident things will turn out well for me. | | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |

| Survey Type: | Businesses |
|--------------|------------|
|--------------|------------|

| 25. | If there are any more natural disasters on the scale of Hurricane Sandy I will not be able to continue in this |
|-----|--|
| | business much longer. |

| 5 strongly disagree 4 disagree 3 neutral 2 agree 1 strongly d |
|---|
|---|

| 26. | I can cope with impacts to my | y business due to natural disasters such a | | rs such as Hurri | s Hurricane Sandy. | |
|-----|-------------------------------|--|-----------|------------------|--------------------|--|
| | 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | |

27. I am interested in learning new skills outside my current occupation.1 strongly disagree2 disagree3 neutral4 agree5 strongly agree

SECTION E – VIEWS ON CLIMATE CHANGE

This section is intended to capture the respondents' perceptions on the causal effects of climate change on Hurricane Sandy

- 28. Do you think Hurricane Sandy was caused by natural or man-made climate change? Yes 🗆 No 🗆 I don't know 🗆
 - 28.1. Why or why not?_____

SECTION F - LEARNING AND ADAPTATION

This section is intended to capture lessons learned from Hurricane Sandy that will help in future preparedness and adaptation to natural disasters

29. Would you say you learned anything from Hurricane Sandy that will help you prepare for future natural disasters?

Yes \Box **No** \Box (If *no*, this is the end of the survey)

- 29.1 If yes, what did you learn?____
 - 29.1.1 What, *if any*, **different** measures will you take in the future to prepare for natural disasters such as Hurricane Sandy?_____

END OF SURVEY - THANK YOU FOR YOUR PARTICIPATION

| Comments: | |
|-----------|--|
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Post-Hurricane Sandy One Year Assessment Survey Questions

The Information you provide will remain strictly confidential. You will not be identified with your answers

Interviewer:_____ Date:_____ Location of interview:_____ Community:_____

SECTION A - DEMOGRAPHIC INFORMATION

Demographic information will allow us to better understand the unique characteristics of the fishing industry participants in New York and New Jersey

| Name: | Age: |
|-----------------------|---------------------------|
| Position on the boat: | _Primary gear type: |
| Address: | |
| Number of vessels | Length of primary vessel: |
| Primary species: | |

Do you fish **inshore** or **off shore**? (circle all that apply)

Do you have **federal** or **state** fishing permits? (circle all that apply)

SECTION B – BUSINESS IMPACTS

This section will help understand impacts of Hurricane Sandy on business in terms of physical damages, lost revenue and income, attribution of recovery, impediments to recovery and level of recovery

1. How many years of fishing experience do you have?_____

| 2. | Is fishing your primary source of income? Yes \Box No \Box (If yes go to question 3) |
|----|--|
| | \mathbf{O} |

2.1. If *no*, what other jobs/businesses do you currently have? _____

- 3. Did you have to stop fishing at all due to Hurricane Sandy? Yes 🗌 No 🗌 (If *no* go to question **3.2**)
 - 3.1. If *yes*, how long?_____
 - 3.2. If *no*, was your normal fishing schedule affected by Sandy? **Yes** □ **No** □ (If *no* go to question **4**) 3.2.1. If *yes*, how?______
- Were you prevented from accessing the docks, vessel or other infrastructure indispensable for your fishing activity?
 Yes □ No □ (If no go to question 5)

4.1. If yes, how long? _____

- 5. *If applicable*: Has your fishing activity returned to a normal schedule since the storm? **Yes** \Box **No** \Box (If *yes* go to question **5.2**)
 - 5.1. If no, what percent is it to normal? (Circle) 75%, 50%, 25%, 10%, 0%
 - 5.2. If yes, how long did it take for it to return to a normal schedule?_____
- 6. Average crew size before Hurricane Sandy_____
 - 6.1. Changes due to the storm (circle): **increased** or **decreased** by_____
 - 6.2. *If applicable*: has the number of employees gone back to what it was before the storm? **Yes** \Box **No** \Box (If *no* go to question **7**)

6.2.1. If yes, how long did it take for it to go back?_____

- 7. Did your fishing business experience physical damages or losses due to Hurricane Sandy? **Yes** \Box **No** \Box (If *no* go to question **8**)
 - 7.1. If *yes*, check all that apply and indicate value of damages or losses and percentage insured:
 - Damages/losses <u>% Insured (Circle)</u>
 - Bait \$_____ 100%, 75%, 50%, 25%, 10%, 0%
 - Product (e.g. fresh fish)
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%
 - Gear (e.g. nets, pots, traps)
 \$_____
 100%, 75%, 50%, 25%, 10%, 0%

 Understand
 100%, 75%, 50%, 25%, 10%, 0%
 - Vessel
 \$_____<</td>
 100%, 75%, 50%, 25%, 10%, 0%
 - Other: ______ \$____ 100%, 75%, 50%, 25%, 10%, 0%
 7.2. What is the total estimated value of physical damages or losses to your fishing business before insurance?
- 8. Was your revenue affected *by* Hurricane Sandy during the 12 months following the storm? **Yes** \Box **No** \Box (If *no* go to question **9**)
 - 8.1. If *yes*, how? (Compare to the 12 months prior to Sandy)
 - 8.1.1. Increased_____%
 - 8.1.2. Decreased____%
 - 8.2. If *yes*, describe why your revenue was affected:
 - Business was/is down
 - Ended season early
 - No fish

Π

- Physical damages
- Other: _____

8.3. What is the estimated value of lost revenue for the 12 months following Sandy? \$_____

- 9. Do you attribute any changes in your fishing business to Hurricane Sandy? Yes 🗆 No 🗔 (If *no* go to question 10)
 - 9.1. If *yes*, describe:_____
- 10. Are there other factors affecting your fishing business? Yes 🗆 No 🗔 (If *no* go to question 11)
 - 10.1. If *yes*, describe:
 - [] Weather
 - Economy
 - □ Market prices
 - Fuel prices
 - Pollution
 - Climate Change
 - □ Regulations
 - Other___
- 11. Did you relocate any aspect of your fishing operation (e.g. homeport, fishing grounds) due to the storm? Yes 🗆 No 🗌 (If *yes* go to question 11.2)
 - 11.1. If no, do you plan to relocate?_____
 - 11.2 If *yes*, why?____
- 12. What, if any, impediments to recovery did you experience?
 - Building permits
 - Zoning, ordinances etc...
 - Time to get assistance
 - Other_____

- Family, friends, church, community groups etc....
- Bank loan
- □ Unemployment benefits
- ☐ FEMA
- □ SBA
- ☐ Other_
- 14. Would you say that Hurricane Sandy had any positive impacts on the fishery? **Yes** \Box **No** \Box (If *no* go to question **15**)
 - 14.1. If yes, what?_

SECTION C – COMMUNITY RECOVERY

This section helps understand how communities may have been affected by Hurricane Sandy as well as perceptions of potential changes in the communities in the future

15. Have there been any major changes to the community where your business is located *since* Hurricane Sandy? Yes \Box

No \Box (If *no* go to question **16**)

16. What, if any, changes *do you foresee* for this community as a result of Hurricane Sandy?_____

SECTION D - WELL-BEING

This section is intended to capture the ability of the participant to be prepared for and cope with change in general and in relation to natural disasters

Please state level of agreement with the statements below:

| 17. I have other options available if I decide to no longer be a fisherman. | | | | | | |
|---|---|------------------|---------|------------------|--|--|
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| | | | | | | |
| 18. I am confident that I co | uld get work else | where if I need | ed to. | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 19. I would be nervous try | ing something ou | tside the fisher | V | | | |
| | 0 0 | | • | 1 - 4 | | |
| 5 strongly disagree | 4 disagree | 3 neutral | 2 agree | 1 strongly agree | | |
| 20. I have planned for my financial security. | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 21. Every time there is a change I plan a way to make it work for myself. | | | | | | |
| 1 strongly disagree | 2 disagree | | • | 5 strongly agree | | |
| i strongry uisagree | 2 uisagiee | 5 neutrai | 4 agree | 5 strongry agree | | |
| 22. I am more likely to adapt to change compared to other fishermen. | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 22. I de net think I am commetitive en such to continue to be a fishermon much lander | | | | | | |
| 23. I UU HUL HIIIK I AIII COII | 23. I do not think I am competitive enough to continue to be a fisherman much longer. | | | | | |

1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

24. I am confident things will turn out well for me.

| | 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
|-----|--|------------------|------------------|------------------|---|--|--|
| 25. | If there are any more chan a fisherman much longer. | ges due to natur | al disasters suc | h as Hurricane S | Sandy I will not be able to continue <mark>to be</mark> | | |
| | 5 strongly disagree | 4 disagree | 3 neutral | 2 agree | 1 strongly agree | | |
| 26. | 26. I can cope with impacts to the fishery due to natural disasters such as Hurricane Sandy. | | | | | | |
| | 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 27. | 7. I am interested in learning new skills outside the fishery. | | | | | | |
| | 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |

SECTION E – VIEWS ON CLIMATE CHANGE

This section is intended to capture the respondents' perceptions on the causal effects of climate change on Hurricane Sandy

28. Do you think Hurricane Sandy was caused by natural or man-made climate change? Yes Do No DI don't know D
28.1. Why or why not?

SECTION F – LEARNING AND ADAPTATION

This section is intended to capture lessons learned from Hurricane Sandy that will help in future preparedness and adaptation to natural disasters

Would you say you learned anything from Hurricane Sandy that will help you prepare for future natural disasters?
 Yes □ No □ (If no, this is the end of the survey)

 $\operatorname{res} \square \operatorname{No} \square$ (II no, this is the end of the surve

- 29.1 If *yes*, what did you learn?____
 - 29.1.1 What, *if any*, **different** measures will you take in the future to prepare for natural disasters such as Hurricane Sandy?______

END OF SURVEY - THANK YOU FOR YOUR PARTICIPATION

| Comments: | |
|-----------|--|
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Post-Hurricane Sandy One Year Assessment Survey Questions

The Information you provide will remain strictly confidential. You will not be identified with your answers

Interviewer:_____ Date:_____ Location of interview:_____ Community:_____

SECTION A - DEMOGRAPHIC INFORMATION

Demographic information will allow us to better understand the unique characteristics of the fishing industry participants in New York and New Jersey

| Name: | Age: |
|-------------------|---------------------------|
| Position: | Business type: |
| Address: | |
| Number of vessels | Length of primary vessel: |
| Primary species: | |
| | |

Do you fish **inshore** or **off shore**? (circle all that apply)

Do you have **federal** or **state** fishing permits? (circle all that apply)

SECTION B – BUSINESS IMPACTS

This section will help understand impacts of Hurricane Sandy on business in terms of physical damages, lost revenue and income, attribution of recovery, impediments to recovery and level of recovery

- 1. How many years of experience on the party/charter business do you have?_____
- 2. Is the party/charter business your primary source of income? Yes \Box No \Box (If yes go to question 3)
 - 2.1. If no, what other jobs/businesses do you currently have? _____
- 3. Did you have to stop operating at all due to Hurricane Sandy? **Yes** \Box **No** \Box (If *no* go to question **3.2**)
 - 3.1. If *yes*, how long?_____
 - 3.2. If *no*, was your normal business schedule affected by Sandy? Yes □ No □ (If *no* go to question 4) 3.2.1. If *yes*, how?
- 4. Were you prevented from accessing the docks, vessel or other infrastructure indispensable for your party/charter
 - activity? Yes \Box No \Box (If *no* go to question 5)
 - 4.1. If *yes*, how long? _____

6.

- 5. *If applicable*: Has your business returned to a normal schedule since the storm? Yes □ No □ (If yes go to question 5.2)
 - 5.1. If no, what percent is it to normal? (Circle) 75%, 50%, 25%, 10%, 0%
 - 5.2. If yes, how long did it take for it to return to a normal schedule?_____
 - Average crew size before Hurricane Sandy____
 - 6.1. Changes due to the storm (circle): **increased** or **decreased** by_____
 - 6.2. *If applicable*: has the number of employees gone back to what it was before the storm? **Yes** \Box **No** \Box (If *no* go to question **7**)

6.2.1. If yes, how long did it take for it to go back?_____

- 7. Did your party/charter business experience physical damages or losses due to Hurricane Sandy? Yes \Box No \Box (If no go to question **8**)
 - 7.1. If yes, check all that apply and indicate value of damages or losses and percentage insured:

| | <u>Damages/losses</u> | <u>% Insured (Circle)</u> |
|------|-----------------------|------------------------------|
| Bait | \$ | 100%, 75%, 50%, 25%, 10%, 0% |

- Product (e.g. fresh fish) \$ 100%, 75%, 50%, 25%, 10%, 0%
- Gear (e.g. nets, pots, traps) \$_____ 100%, 75%, 50%, 25%, 10%, 0%
- □ Vessel 100%, 75%, 50%, 25%, 10%, 0%
- \$_____ \$_____ \$_____ □ Other: _____ 100%, 75%, 50%, 25%, 10%, 0%
- What is the total estimated value of physical damages or losses to your party/charter business before 7.2. insurance? \$ _____
- From where are you getting your calculation? (e.g. Insurance company) _____ 7.3.
- Was revenue affected by Hurricane Sandy during the 12 months following the storm? Yes \Box No \Box (If no go to question **9**)
 - If *yes*, how? (Compare to the 12 months prior to Sandy) 8.1.
 - 8.1.1. Increased %
 - Decreased_____% 8.1.2.
 - 8.2. If *yes*, describe why your revenue was affected:
 - ☐ Business was/is down
 - □ Ended season early
 - □ No fish

8.

- Physical damages
- □ Other:
- What is the estimated value of lost revenue for the 12 months following Sandy? \$ 8.3.
- 9. Do you attribute any changes in your party/charter business to Hurricane Sandy? Yes \Box No \Box (If no go to question **10**)
 - 9.1. If *ves*, describe:

Are there other factors affecting your party/charter business? Yes \Box No \Box (If no go to question 11) 10.

- 10.1 If *yes*, describe:
 - □ Weather
 - □ Economy
 - ☐ Market prices
 - ☐ Fuel prices
 - □ Pollution
 - □ Climate Change
 - **Regulations**
 - □ Other_

Did you relocate any aspect of your party/charter operation (e.g. marina, fishing grounds) due to the storm? Yes 11.

No \Box (If *yes* go to question **11.2**)

- If no. do you plan to relocate? 11.1.
- 11.2. If *ves*, why?
- What, if any, impediments to recovery did you experience? 12.
 - Building permits
 - Zoning, ordinances etc...
 - ☐ Time to get assistance
 - □ Other____

- Family, friends, church, community groups etc....
- Bank loan
- □ Unemployment benefits
- ☐ FEMA
- □ SBA
- Other_
- 14. Would you say that Hurricane Sandy had any positive impacts on the party/charter business? **Yes** \Box **No** \Box (If *no* go to question **15**)
 - 14.1. If yes, what?_____

SECTION C - COMMUNITY RECOVERY

This section helps understand how communities may have been affected by Hurricane Sandy as well as perceptions of potential changes in the communities in the future

15. Have there been any major changes to the community where your business is located *since* Hurricane Sandy? Yes \Box

No \Box (If *no* go to question **16**)

- 15.1. If yes, what? (Zoning, ordinances, redevelopment etc...):____
- 16. What, if any, changes *do you foresee* for this community as a result of Hurricane Sandy?_____

SECTION D – WELL-BEING

This section is intended to capture the ability of the participant to be prepared for and cope with change in general and in relation to natural disasters

Please state level of agreement with the statements below:

| 17. I have other optio | ns available if I d | ecide to no long | ger be in my cur | rent occupation | | | |
|---|---------------------|------------------|-------------------|-----------------|------------------|--|--|
| 1 strongly disa | gree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 18. I am confident that I could get work elsewhere if I needed to. | | | | | | | |
| 1 strongly disag | ree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 19. I would be nervous trying something outside of my current occupation. | | | | | | | |
| 5 strongly disag | ree | 4 disagree | 3 neutral | 2 agree | 1 strongly agree | | |
| 20. I have planned for | my financial sec | urity. | | | | | |
| 1 strongly disag | ree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 21. Every time there i | s a change I plan | a way to make i | it work for myse | lf. | | | |
| 1 strongly disag | ree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 22. I am more likely t | o adapt to chang | e compared to o | thers in this bus | siness. | | | |
| 1 strongly disag | ree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| 23. I do not think I am | competitive end | ough to continue | e in this busines | s much longer. | | | |
| 1 strongly disag | - | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | |
| | | | | | | | |

24. I am confident things will turn out well for me.

| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
|---|------------|-----------|---------|------------------|--|--|--|
| 25. If there are any more changes due to natural disasters such as Hurricane Sandy I will not be able to continue in this business much longer. | | | | | | | |
| 5 strongly disagree | 4 disagree | 3 neutral | 2 agree | 1 strongly agree | | | |
| 26. I can cope with impacts to my business due to natural disasters such as Hurricane Sandy. | | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| 27. I am interested in learning new skills outside my current occupation. | | | | | | | |
| 1 strongly disagree | 2 disagree | 3 neutral | 4 agree | 5 strongly agree | | | |
| | CECTION E | | | | | | |

SECTION E – VIEWS ON CLIMATE CHANGE

This section is intended to capture the respondents' perceptions on the causal effects of climate change on Hurricane Sandy

- 28. Do you think Hurricane Sandy was caused by natural or man-made climate change? Yes 🗆 No 🗆 I don't know 🗆
 - 28.1. Why or why not?_____

SECTION F - LEARNING AND ADAPTATION

This section is intended to capture lessons learned from Hurricane Sandy that will help in future preparedness and adaptation to natural disasters

29. Would you say you learned anything from Hurricane Sandy that will help you prepare for future natural disasters?

Yes \Box **No** \Box (If *no*, this is the end of the survey)

- 29.1 If yes, what did you learn?____
 - 29.1.1 What, *if any*, **different** measures will you take in the future to prepare for natural disasters such as Hurricane Sandy?______

| END OF SURVEY – THANK YOU FOR YOUR PARTICIPATION | |
|--|--|
| Comments: | |
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