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# Perceived Risks of Flooding in the North End

EEC 432 Capstone in Environmental Economics and Policy

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University of Rhode Island  
May 2021

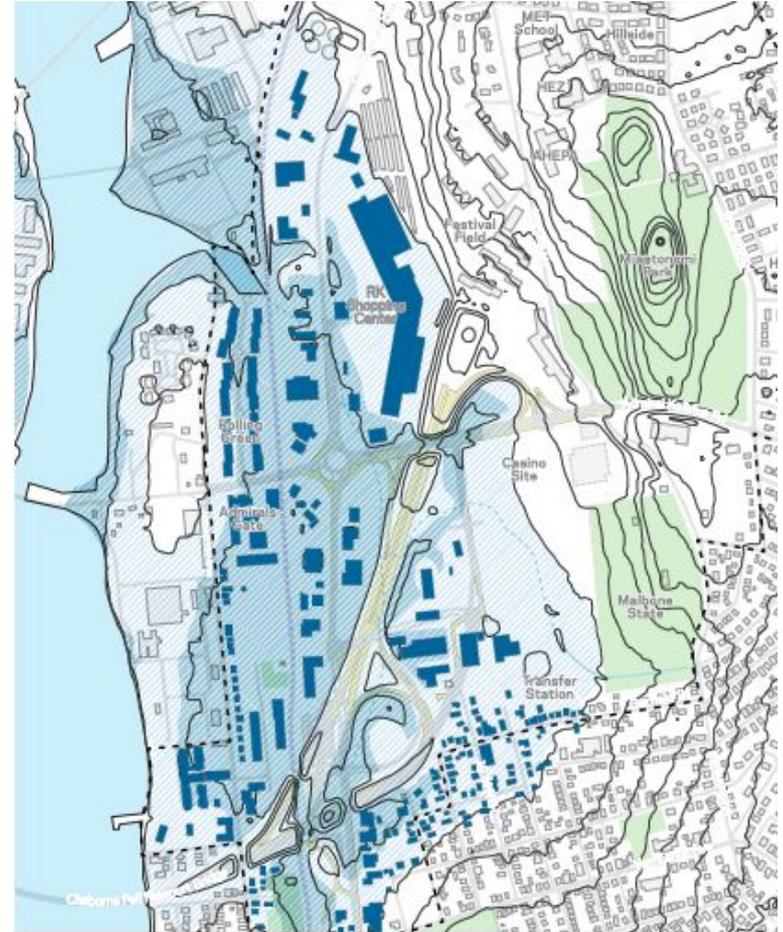


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For any questions and comments, please contact Prof. Emi Uchida (Dept of Environmental and Natural Resource Economics, University of Rhode Island | [euchida@uri.edu](mailto:euchida@uri.edu))

# Goal of the Project

- The North End of Newport is currently at a high risk of flooding due to storm surges and sea level rise.
- **How do residents of the North End perceived the risks of flooding?**
- Doing a survey.



# Methodology

- Newport Health Equity Zone has recently finished distributing a similar survey
- With the help of RI State Rep. Lauren Carson and Eastern Rhode Island Conservation District
- 102 surveys. 86 in English and 16 in Spanish. Distribution: 8 done through SurveyMonkey and 94 done on paper.
- Data entry, Data cleaning, Data analysis



Google Sheets

# North End Flooding Survey

Is there flooding on the North End of Newport where you live? We want to know because...  
We want your opinion on making the North End Green and healthy for all residents

**1. Tell us about yourself:**

So that we know how to reach you, please provide the following information... (this is only for internal purposes - we will not share your information). Optional.

Name \_\_\_\_\_ Neighborhood \_\_\_\_\_

Email Address \_\_\_\_\_ Phone Number \_\_\_\_\_

Do you own your home or rent? \_\_\_\_\_

Your age group:

18-30 \_\_\_\_\_ 31-45 \_\_\_\_\_ 46-60 \_\_\_\_\_ Over 60 \_\_\_\_\_

**2. Are there floods in your neighborhood after it rains?**

Yes \_\_\_\_\_ No \_\_\_\_\_

**3. How often does this happen?**

every time it rains \_\_\_\_\_ only once a year \_\_\_\_\_

several times a year \_\_\_\_\_ once every 2-5 years \_\_\_\_\_

I don't know/other \_\_\_\_\_

**4. If yes, where?:**

Severe yard flooding \_\_\_\_\_ Severe street flooding \_\_\_\_\_

I don't know/other \_\_\_\_\_

**5. Do you know where the flooding comes from? (tick all that apply)**

off your roof \_\_\_\_\_ neighbor's property \_\_\_\_\_

general flooding in the area \_\_\_\_\_

drain running through your property \_\_\_\_\_

off the road \_\_\_\_\_

blocked or no drains \_\_\_\_\_ new construction \_\_\_\_\_

I don't know/other \_\_\_\_\_

**6. Where does it flood? (tick all that apply)**

comes inside the house \_\_\_\_\_ under the house \_\_\_\_\_

inside the garage or other building \_\_\_\_\_

under garage or other building \_\_\_\_\_ driveway under water \_\_\_\_\_

backyard \_\_\_\_\_ front yard \_\_\_\_\_

street \_\_\_\_\_ I don't know/other \_\_\_\_\_

**7. Did your neighbors or others in your area experience flooding?**

Yes \_\_\_\_\_ No \_\_\_\_\_ Where do they live? \_\_\_\_\_

**8. If you have children, do they walk in floods on the way to school after it rains?**

Yes \_\_\_\_\_ No \_\_\_\_\_

**9. If there was a flood tomorrow would you feel prepared to handle it?**

Yes, I know what to do \_\_\_\_\_

No, I don't know what to do \_\_\_\_\_

I have a plan but I would not feel prepared \_\_\_\_\_

**10. How concerned are you about pollution in the bay?**

Very concerned \_\_\_\_\_

Somewhat concerned It doesn't bother me \_\_\_\_\_

Unsure \_\_\_\_\_

**11. What does environmental justice mean to you?**

**12. What environmental issues are of concern in your North End Neighborhood?**

Air pollution \_\_\_\_\_ Lack of open space \_\_\_\_\_

Garbage and waste in the streets \_\_\_\_\_ Too many cars \_\_\_\_\_

Other \_\_\_\_\_

**13. Would you be interested in getting involved with a project to make our community more environmentally green and healthy?**

Yes \_\_\_\_\_ no \_\_\_\_\_

If yes, name and Phone number \_\_\_\_\_

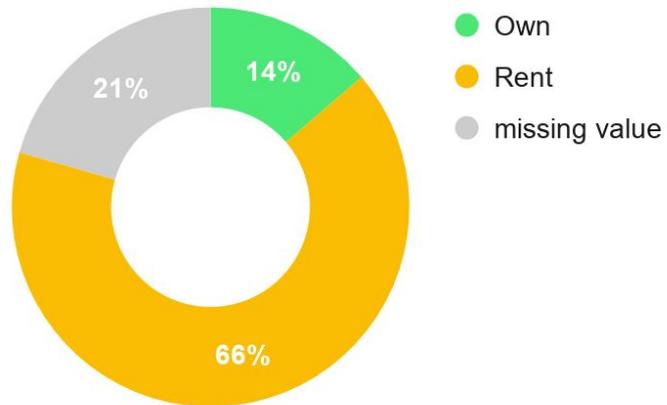
Thank you for your time and feedback.

(OVER)

# Demographics

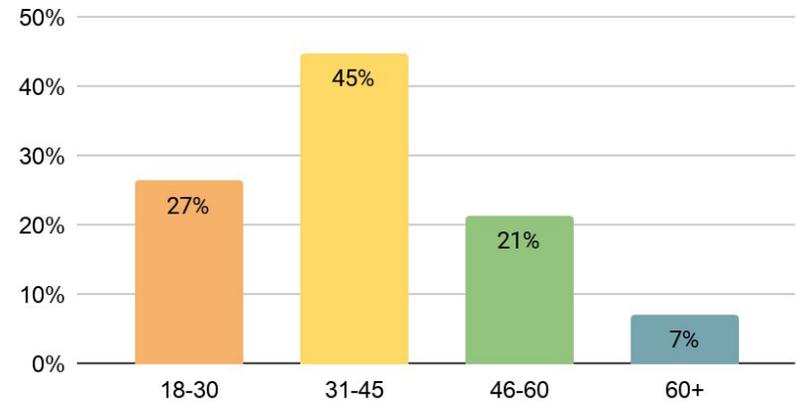
- N=102

## Own or Rent



- Do you own your home or rent?

## Age Group



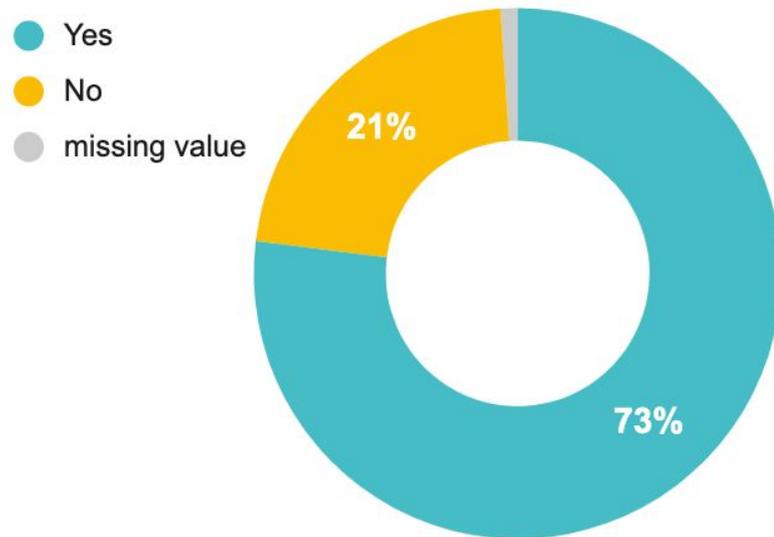
- Your age group:

# Floods after Rain

- Are there floods in the neighborhood after it rains?
- 74 Yes, 24 No, 1 missing

• N=102

## Flooding In Your Neighborhood After Rain?

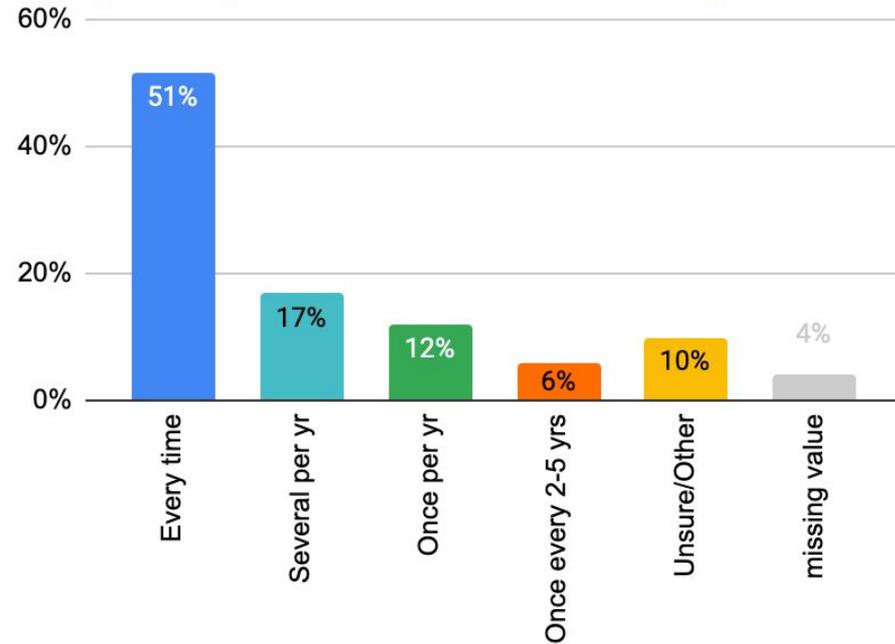


# Frequency

- How often does this happen?
- Follow up question to the previous one.
  - Percentages same as actual counts.

• N=102

## Frequency of Post-Rain Flooding



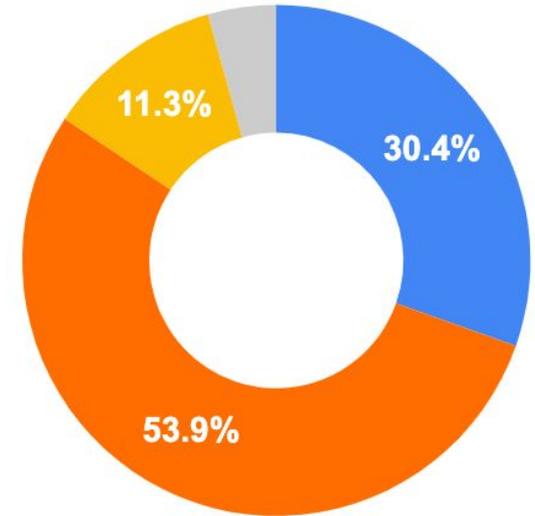
# General Area

- If yes, where?
- Follow up question to the previous one.
- 5 people (4%) did not respond

• N=102

## Flooding in General Area

- Severe Yard
- Severe Street
- Unsure/Other
- missing value

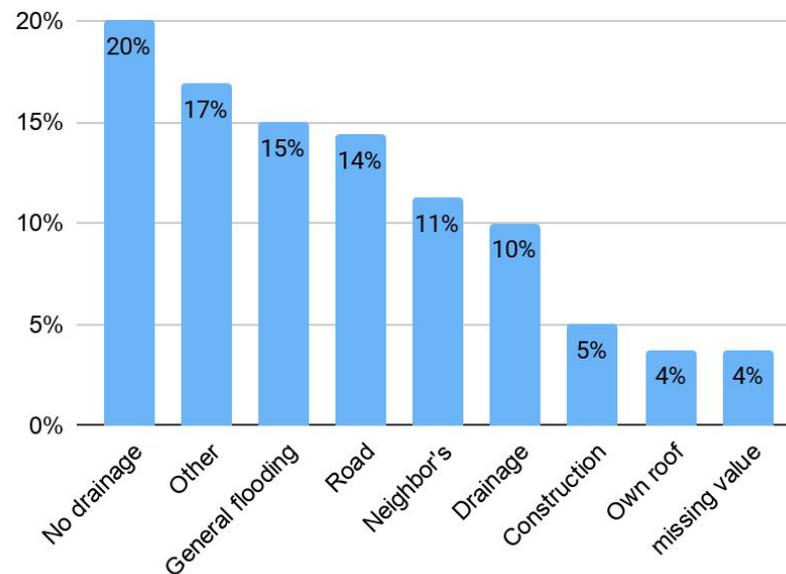


# Origin of Flood

- Do you know where the flooding comes from? (Check all that apply)
- Starting with the most common answer
- 6 missing value

• N=102

## Origin of Flooding

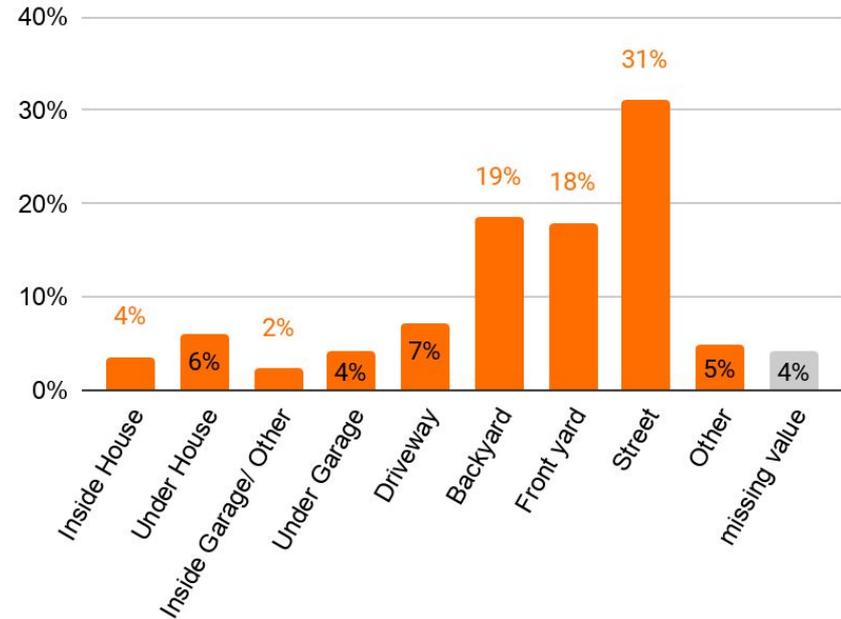


# Specific Locations

- Where does it flood? (check all that apply)

• N=102

## Flood Prone Areas on Property

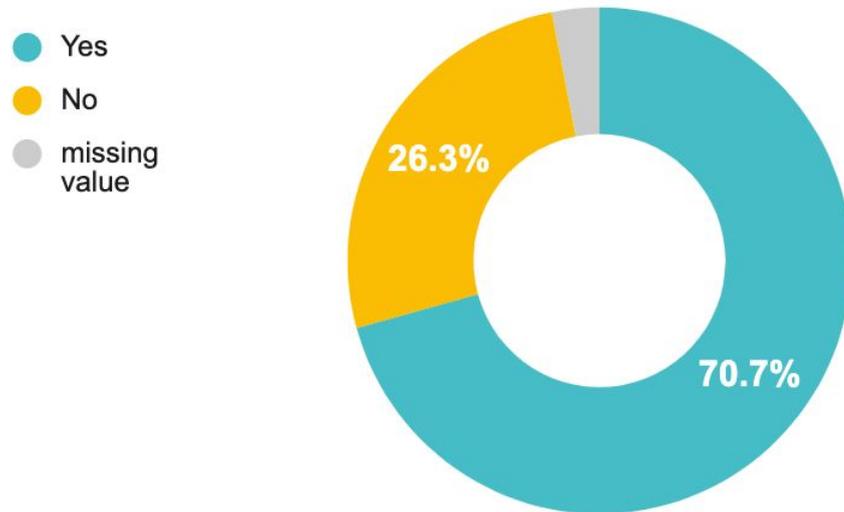


# The Neighbors

- Did your neighbors or others in your area experience flooding?
- 3 missing values

• N=102

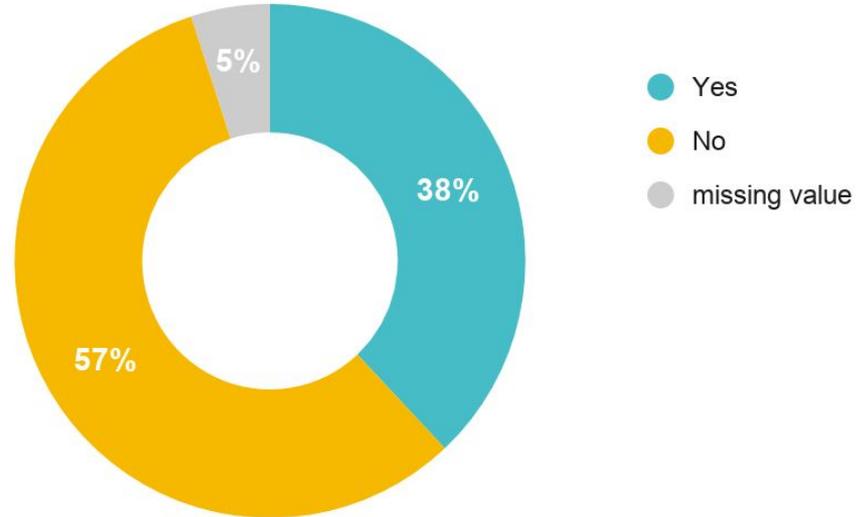
## Neighbor experiencing flooding?



# Children

- N=102

## Children walking through flood

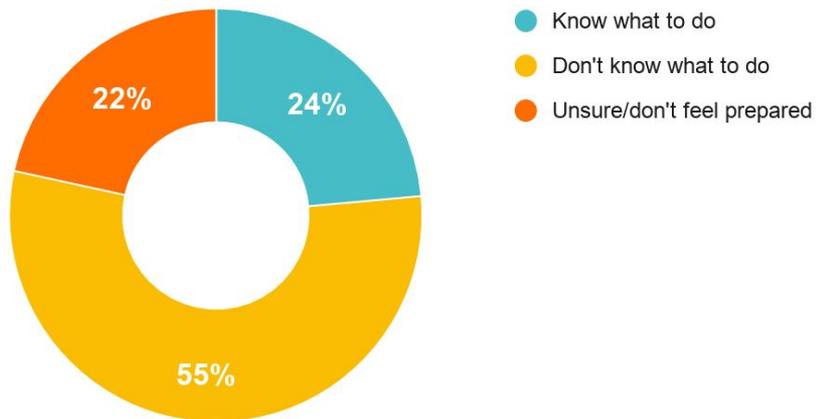


- If you have children, do they walk in floods on the way to school after it rains?

# Perception of the North End

• N=102

## Sense of Preparedness



- If there was a flood tomorrow, would you feel prepared to handle it?

# What does Environmental Justice mean to you?

**“Is the equal treatment and meaningful involvement of ALL people (regardless of color, national origin, income, etc) with development, implementation, enforcement of environmental policies, laws, regulations, and needs of the community”**

**“Doing right by our environment”**

**“Everyone should have equal access to flooding prevention.”**

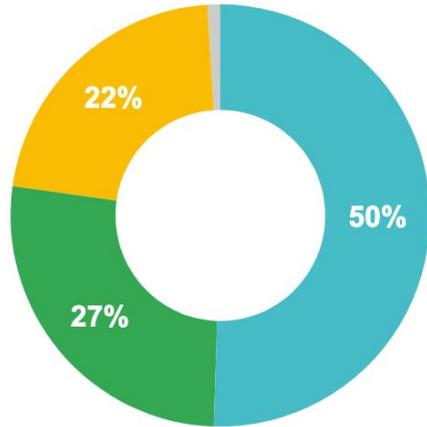
**“Neighborhood's having a voice. City and state leaders listening and prioritizing it.”**

**“That we are all stewards of the planet and we all must do our part in keeping it environmentally healthy, not one group's land bears the greater burden of pollution”**

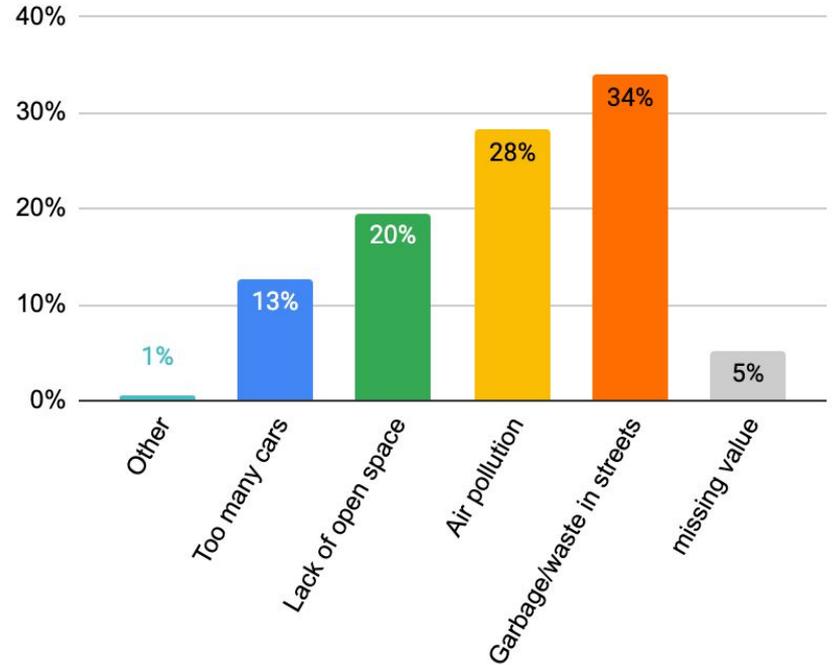
# Environmental Concerns

## Overall Pollution concern

- Very Concerned
- Somewhat Concerned
- Unsure
- missing value



## Other Environmental Concerns

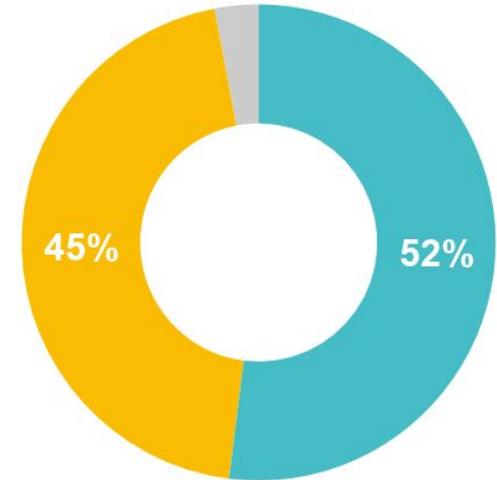


# Interest in Future Projects

- Would you be interested in getting involved with a project to make our community more environmentally green and healthy?
- 3 people didn't respond

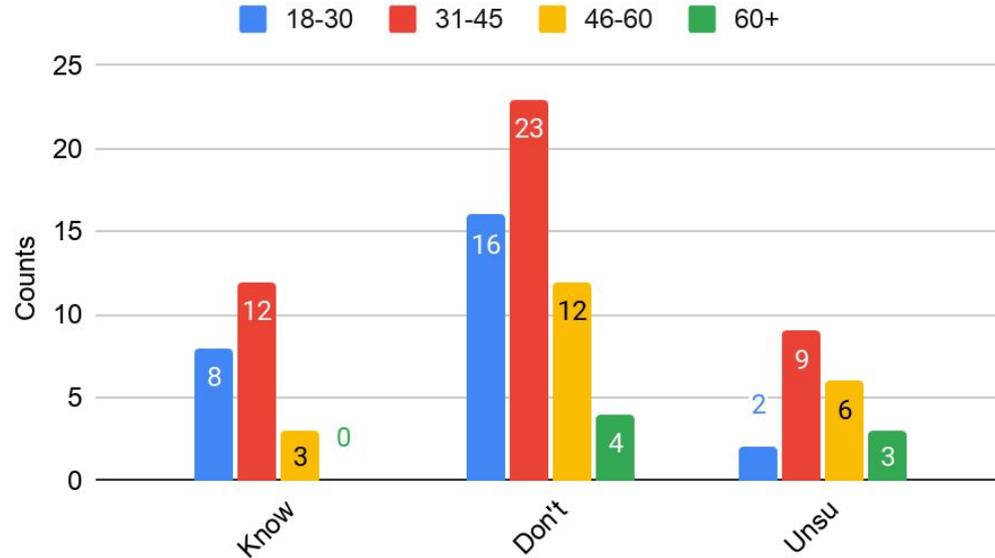
## Want to get involved?

- Yes
- No
- missing value



# Age

## Age and Preparation



• N=98

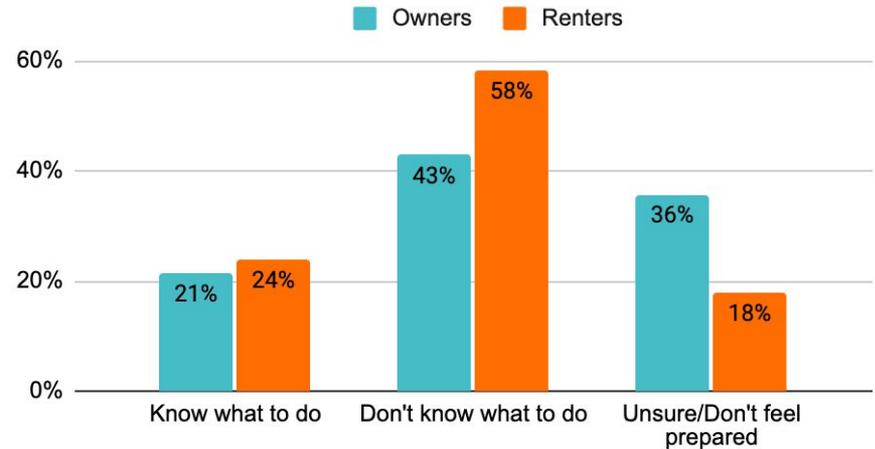
- If there was a flood tomorrow, would you feel prepared to handle it?

# Ownership

- If there was a flood tomorrow, would you feel prepared to handle it?
- Seeing how Ownership affects the sense preparation
- Keep in mind that our Owners population is small at 14

• N=81

## Ownership and Preparation



- Total of 67 Renters and 14 Owners

# Conclusion

- Residents are concerned
- Areas affected most are street, backyard, and front yard
- Higher need to prepare for storms and floods.
- Prepareathon
- This survey is a good start to help local officials gain more understanding
- Keep raising awareness

# Prepare-a-thon

- Initiative designed by FEMA to motivate communities to be prepared for disasters
- Goals of a Prepare-a-thon
  - Understand the types of disasters that could affect the area
  - Know how to stay safe and take action
  - Improve ability to recover from a disaster
- Sara Varela
  - Put together the “Prepare-a-thon” for Common Fence Point in Portsmouth, RI
  - [sara.varela@associates.fema.dhs.gov](mailto:sara.varela@associates.fema.dhs.gov)



# Acknowledgements and Thanks

- RI State Representative Lauren Carson
- Individuals from the North End who took time to complete the survey
- Newport Health Equity Zone and Resident Consultants
- Sara Churgin from the Eastern RI Conservation District



**Thank you!**

University of Rhode Island  
Environmental & Natural Resource Economics  
Capstone Class





# Links.

Link to the Google Sheets is in the speaker notes.