**Cascadia Earthquakes and Tsunamis in Oregon:**

**Perceptions and Behavioral Intentions of Local Residents**

*Fall 2017*



*Please return survey to:*

**Cascadia Perception Survey**

**School of Public Policy**

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ID # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[for mailing purposes only]

**SECTION 1**

This section will ask you about your knowledge, perceptions, and preparation for Cascadia earthquakes and tsunamis. As you are answering the questions, we ask you to consider the **case of 9.0 magnitude (M9) Cascadia earthquake that triggers a tsunami wave affecting the entire Oregon coast.** Please remember that ‘you’ in this questionnaire refers to you personally, unless otherwise noted.

**Q1. How likely or unlikely is a M9 Cascadia earthquake and tsunami to happen in the next 50 years?** *(Circle one number)*

1. Very unlikely
2. Unlikely
3. Neither
4. Likely
5. Very likely

**Q2. How much do you trust experts, if at all, to accurately estimate the likelihood of a M9 Cascadia earthquake and tsunami happening in the next 50 years?** *(Circle one number)*

1. Don’t trust at all
2. Trust a little
3. Somewhat trust
4. Trust
5. Trust a lot

**Q3. Have you ever experienced a natural disaster such as flood, earthquake, wildfire, or other types of natural disasters?** *(Circle one number)*

1. No *(Pass to Q4.)*
2. Not sure *(Pass to Q4.)*
3. Yes *(Answer Q3.1. and Q3.2.)*

**Q3.1. Which of these natural disasters have you experienced?** *(Check all that apply)*

|  |  |
| --- | --- |
| * Hurricane
* Wildfire
* Landslide
* Flood
* Tornado
 | * Earthquake
* Tsunami
* Dam Failure
* Other *(specify)*
 |

**Q3.2. Was your life or lives of your family members in danger during any of those events?** *(Circle one number)*

1. No
2. Yes

**Q4. Have you ever experienced a natural disaster where you needed to evacuate?** *(Circle one number)*

1. No.
2. Yes. What kind of disaster was it and where? *(Briefly describe)*

**Q5. How confident are you about each of the following statements?** *(Circle one number for each statement)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Statement | Not at all confident | A little confident | Somewhat confident | Confident | Very confident |
| 1. I know the difference between local and distant tsunami events | 1 | 2 | 3 | 4 | 5 |
| 2. I understand natural warning signs of tsunamis | 1 | 2 | 3 | 4 | 5 |
| 3. I understand emergency warning messages of tsunamis | 1 | 2 | 3 | 4 | 5 |
| 4. I know where to get the information about preparation for tsunamis  | 1 | 2 | 3 | 4 | 5 |
| 5. I know government recommendations on how to prepare for tsunamis | 1 | 2 | 3 | 4 | 5 |
| 6. I know what to do when there is a warning about a tsunami | 1 | 2 | 3 | 4 | 5 |
| 7. I know tsunami evacuation routes from my home | 1 | 2 | 3 | 4 | 5 |
| 8. I know a tsunami safe place close to my home | 1 | 2 | 3 | 4 | 5 |

**Q6. If a M9 Cascadia earthquake and tsunami were to happen tomorrow, how likely or unlikely are they to result in the following?** *(Circle one number for each statement)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Statement | Very unlikely | Unlikely  | Neither | Likely | Very likely |
| 1. Lead to injuries for you or your family | 1 | 2 | 3 | 4 | 5 |
| 2. Create a life-threatening situation for you or your family | 1 | 2 | 3 | 4 | 5 |
| 3. Severely damage or destroy your home | 1 | 2 | 3 | 4 | 5 |
| 4. Create a severe financial burden for you or your family | 1 | 2 | 3 | 4 | 5 |
| 5. Destroy or severely damage roads, homes, etc. in your town | 1 | 2 | 3 | 4 | 5 |
| 6. Create a life-threatening situation for people in your town | 1 | 2 | 3 | 4 | 5 |

**Q7. Given your personal skills and resources, how confident are you that you could effectively protect yourself and reduce the chance of severe injuries in the event of a M9 Cascadia earthquake and tsunami?** *(Circle one number)*

1. Not at all confident
2. A little confident
3. Somewhat confident
4. Confident
5. Very confident

**Q8. Do you agree or disagree that people could increase their chances of surviving a M9 Cascadia earthquake and tsunami by making various emergency plans or preparatory actions?** *(Circle one number)*

1. Strongly disagree
2. Disagree
3. Neither
4. Agree
5. Strongly agree

**Q9. Check all the measures that you have taken in the past 2 years, if any, that can assist you in the event of Cascadia earthquakes and tsunamis.** *(Check all that apply)*

* Attended a meeting or received written information on how to be better prepared for Cascadia earthquakes and tsunamis.
* Prepared an ‘emergency supply kit’ (stored extra food, water, batteries, etc.).
* Discussed the topic of preparedness for Cascadia earthquakes and tsunamis with others in the community.
* Developed an ‘emergency plan’ with family or friends in order to decide what everyone would do in the event of Cascadia earthquakes and tsunamis.
* Developed a communication plan (e.g. a plan that establishes how to get in touch with each other if meeting at home is not possible and phones do not work).
* Attended First Aid or Cardio-Pulmonary Resuscitation (CPR) training.
* Identified an emergency contact person outside of the Northwest.
* Other *(Specify)*

**SECTION 2**

This section will ask you about your potential behavior and factors related to how you would respond in the event of a M9 or greater Cascadia earthquake and tsunami.

**Q10. If you were at home and you feel the ground shaking, would you try to evacuate to a safe or high ground to escape a tsunami?** *(Circle one number)*

1. No, *(Please explain)*
2. Not sure, *(Please explain)*
3. Yes

**Q11. Is your home located in Cascadia tsunamis inundation area?** *(Circle one number)*

1. No
2. Not sure
3. Yes

**Q12. How likely or unlikely are you to adopt each of the following behaviors if you were at your home in the event of a M9 Cascadia earthquake and tsunami?** *(Circle one number for each statement)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Behavior | **Very unlikely** | **Unlikely**  | **Neither** |  **Likely** | Very likely |
| 1. Continue normal routine behavior  | 1 | 2 | 3 | 4 | 5 |
| 2. Follow earthquake emergency guidelines (e.g. shelter under a table if inside) | 1 | 2 | 3 | 4 | 5 |
| 3. Evacuate to higher ground immediately after ground shaking | 1 | 2 | 3 | 4 | 5 |
| 4. Wait to hear from an authority figure/sirens/warning for tsunami confirmation | 1 | 2 | 3 | 4 | 5 |
| 5. Check social media, radio, TV for additional information about a tsunami  | 1 | 2 | 3 | 4 | 5 |
| 6. Contact loved ones (phone or text family or friends to see what they are doing and if they are safe) | 1 | 2 | 3 | 4 | 5 |
| 7. Collect important documents and other items  | 1 | 2 | 3 | 4 | 5 |
| 8. Travel to gather family or friends (e.g. kids at school, parents or grandparents at their house) | 1 | 2 | 3 | 4 | 5 |
| 9. Go towards the ocean to see if a tsunami is coming | 1 | 2 | 3 | 4 | 5 |
| 10. Talk with neighbors | 1 | 2 | 3 | 4 | 5 |
| 11. Take the lead to evacuate and encourage people to leave with me | 1 | 2 | 3 | 4 | 5 |
| 12. Wait for my family at home before evacuating | 1 | 2 | 3 | 4 | 5 |
| 13. Wait to see if my friends or neighbors are evacuating, then I would follow them | 1 | 2 | 3 | 4 | 5 |
| 14. Try to help and rescue people  | 1 | 2 | 3 | 4 | 5 |
| 15. Panic | 1 | 2 | 3 | 4 | 5 |

**Q13. If you were at your home, how confident are you that you could escape to a tsunami safe zone in the event of a M9 Cascadia earthquake and tsunami?** *(Circle one number)*

1. Not at all confident
2. A little confident
3. Somewhat confident
4. Confident
5. Very confident
6. Not relevant (my home is not in an inundation zone)

**Q14. If you were at home, what is the most likely mode you would try to use to reach the safe zone?** *(Circle one number)*

1. Drive
2. By bicycle
3. By foot
4. Other (specify)
5. Not relevant (my home is not in an inundation zone)

**Q15. If you were to use the evacuation mode of your choice, how long would it take you to reach a tsunami safe zone from your home?** *(Circle one number)*

|  |
| --- |
| 1. Less than 15 minutes
2. Between 15 and 30 minutes
3. Between 30 and 45 minutes
4. Between 45 minutes and 1 hour
5. Between 1 and 1.5 hours
6. Between 1.5 and 2 hours
7. Not relevant (my home is not in an inundation zone)
 |

**Q16.** *The next two questions ask you about your personal networks. Exploring personal contacts will help us better understand people’s potential movements on the ground in a case of emergency and better plan for a real event.*

 **Q16.1. Imagine that you are at home and you feel an earthquake and/or you learn of a public warning of a tsunami. How many people in your community would you try to immediately contact to check on their safety, if any at all?** (*Write a number)*

**Q16.2. How many of these contacts would you try to reach in person to assist them in their mobility or evacuation?** *(Write a number)*

**Q17. Approximately, how many times in the past 5 years have you either participated in tsunami evacuation drills in your community or walked your neighborhood evacuation route?** *(Circle one number)*

1. Never
2. 1-2 times
3. 3-5 times
4. More than 5 times

**Q18. How effective are tsunami evacuation drills (e.g. “walking the evacuation route”) in preparing for evacuation in a real event?** *(Circle one number)*

1. Not at all effective
2. A little effective
3. Somewhat effective
4. Effective
5. Very effective

**Q19. What is your assessment of the general level of community preparedness for Cascadia earthquakes and tsunamis in your local area?** *(Circle one answer)*

1. Lacking
2. Poor
3. Adequate
4. Good
5. Excellent
6. I don’t know

**Q20. How effective have each of the following individuals or groups been in earthquakes and tsunamis preparedness in your community?** *(Circle one number for each statement; check “Not familiar” if you haven’t heard of a group or an individual participating in preparedness activities)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Organization** | **Not familiar** | **Not at all effective** | **A little effective** | **Somewhat effective** | **Effective** | **Very effective** |
| 1. American Red Cross |  | 1 | 2 | 3 | 4 | 5 |
| 2. University or research institutions |  | 1 | 2 | 3 | 4 | 5 |
| 3. Local government |  | 1 | 2 | 3 | 4 | 5 |
| 4. County government |  | 1 | 2 | 3 | 4 | 5 |
| 5. Tribal authorities or governments |  | 1 | 2 | 3 | 4 | 5 |
| 6. State of Oregon Department of Emergency Management |  | 1 | 2 | 3 | 4 | 5 |
| 7. Oregon Parks and Recreation Department |  | 1 | 2 | 3 | 4 | 5 |
| 8. Local police department |  | 1 | 2 | 3 | 4 | 5 |
| 9. Local fire department |  | 1 | 2 | 3 | 4 | 5 |
| 10. Governor of Oregon |  | 1 | 2 | 3 | 4 | 5 |
| 11. US Coast Guard |  | 1 | 2 | 3 | 4 | 5 |
| 12. National Oceanic and Atmospheric Administration |  | 1 | 2 | 3 | 4 | 5 |
| 13. Federal Emergency Management Agency (FEMA) |  | 1 | 2 | 3 | 4 | 5 |

**SECTION 3**

To best evaluate our survey results we need some information about your background. Remember that all responses **will be confidential**.

**Q21. What is your sex?** *(Circle one number)*

1. Female
2. Male
3. Other

**Q22. What is your current age in years?** *(Write the response)*

**Q23. Because of a physical, mental, or emotional condition, do you have serious difficulty:** *(Check one answer for each statement)*

1. Concentrating, remembering, or making decisions Yes No
2. Walking or climbing stairs Yes No
3. Dressing or bathing Yes No

**Q24. How many people, besides you, are living or staying at this address right now?**

*(Write the response)*

**Q25. What are their ages?** *(Provide your best estimates)*

**Q26. What is your ownership status of this residence?** *(Circle one number)*

1. My family or I are the primary owners
2. I am a renter/occupier (with or without payment of rent)
3. Other *(Specify)*

**Q27. Is the address where you received this survey your:** *(Circle one number)*

1. Primary residence
2. Part-time residence/vacation home
3. Other *(Specify)*

**Q28. Approximately how many months or years have you lived in this community (not necessarily at this address)?** *(Circle one number)*

1. Less than a year
2. A year and more. How many years? *(Write the response)* *years*

**Q29. Approximately how many months or years have you lived at this address?** *(Circle one number)*

1. Less than a year
2. A year and more. How many years? *(Write the response)* *years*

**Q30. In the past 12 months have you been involved in any emergency response organizations or organizations related to earthquakes and tsunamis preparedness (e.g. Red Cross, CERTs)?** *(Circle one number)*

1. No
2. Yes. If yes, what organization(s) have you been involved with? *(Write the response)*

**Q31. What is the highest year of formal education that you have completed?** *(Circle one number)*

|  |  |
| --- | --- |
| 1. Less than high school diploma2. High school diploma or GED equivalent3. Vocational, trade, or business school4. Some college | 5. Associate's degree6. Bachelor’s degree7. Graduate degree or other professional degree |

**Q32. Which category best describes your household income before taxes in 2016?** *(Circle one number)*

|  |  |
| --- | --- |
| 1. Less than $10,000 2. $10,000-$14,999 3. $15,000-$19,999 4. $20,000-$29,9995. $30,000-$39,999 | 6. $40,000-$49,0007. $50,000-$59,9998. $60,000-$74,9999. $75,000 or higher |

**If you want to add explanations for your responses and/or if you have any comments, questions, suggestions regarding this questionnaire, please write those below.**

We appreciate you taking the time to fill out this survey. Please return this completed survey as soon as possible in the enclosed postal paid envelope. If you have any additional questions, please feel free to contact Dr. Lori Cramer at 541-737-5382 or lcramer@oregonstate.edu. For information regarding your rights as a participant, contact the Institutional Review Board at irb@oregonstate.edu or 541-737-3467.