

Appendix A: Subjective Risk Questions

1. **Experienced flood damage variable:** Respondents who answered "Yes, once," "Yes, 2 – 5 times," or "Yes, more than 5 times," were coded as a 1 and those who answered "No" were coded as 0.

Have you ever experienced flood damage either at your current home or elsewhere?

- No
 - Yes, once
 - Yes, 2 – 5 times
 - Yes, more than 5 times
2. **Expected future flooding variables:** Respondents who answered "1-2 times" for either or both questions were placed in the "1-2 times expected future flooding" category, while those who answered "3-4 times," "5-6 times," "7-8 times," or "9-10 times or more" for either or both questions were placed in the "3-4 times or more expected future flooding" category. Respondents who answered "None" to both questions are in the "Zero expected future flooding" category.

How many times do you think you will have basement or crawlspace flooding at your home over the next 30 years?

- None
- 1-2 times
- 3-4 times
- 5-6 times
- 7-8 times
- 9-10 times or more

How many times do you think you will have ground floor flooding (or above) at your home over the next 30 years?

- None
- 1-2 times
- 3-4 times
- 5-6 times
- 7-8 times
- 9-10 times or more

3. Current home's flood risk variable

How would you describe your current home's flood risk?

- Much lower than average for your neighborhood
- Somewhat lower than average for your neighborhood
- Average for your neighborhood
- Somewhat higher than average for your neighborhood
- Much higher than average for your neighborhood
- I don't know

Appendix B: Willingness to Pay Questions

B.1: Willingness-to-Pay question for respondents in the 100-year floodplain

Based on current FEMA flood maps for your neighborhood, your home is located in a 100-year floodplain. This means that you are required to have flood insurance if you have a mortgage. It also means there is a greater than 1-in-4 chance you will experience a flood over the life of a 30-year mortgage. In the Lents and Powellhurst-Gilbert neighborhoods this could result in 1 to 3 feet of water in your home.

Flood insurance is not typically covered in a homeowner's insurance policy, so assume you are considering the purchase of a separate flood insurance policy. The flood insurance policy would fully cover any damage to your home if you are flooded. It has a deductible of \$1,000. That means that you need to pay for the first \$1,000 of damage and then any damage above that amount will be covered by your flood policy.

Think about your expenses and your household budget. Consider the **maximum amount of money you would be willing to pay this year for flood insurance**. Please consider how much you would pay for the policy described above and not the cost of any flood policy you may currently have. Remember that if you choose not to purchase flood insurance, and a flood occurs, you will have to pay for any damage to your home and contents. Any money from the government would likely be minimal. Also remember that any amount you spend on flood insurance cannot be spent on other items.

Consider the dollar amounts below. Circle the maximum amount you would be willing to pay this year for flood insurance:

\$0	\$100	\$150	\$250
\$350	\$550	\$850	\$1,250
\$2,000	\$3,000	More than \$3,000	I don't know

B.2: Willingness-to-Pay question for respondents outside the 100-year floodplain

Suppose you own a home in the Lents or Powellhurst-Gilbert neighborhoods that is located in a 100-year floodplain. This means you are required to have flood insurance if you have a mortgage. It also means there is a greater than 1-in-4 chance you will experience a flood over the life of a 30-year mortgage that could result in 1 to 3 feet of water in your home.

Flooding is generally not covered in a homeowner's insurance policy, so consider purchasing a separate flood insurance policy. Your flood policy will fully cover any damage to your home if you are flooded. It has a deductible of \$1,000. That means you need to pay for the first \$1,000 of damage and then any damage above that amount will be covered by your flood insurance policy.

Think about your expenses and your household budget. Consider the **maximum amount of money you would be willing to pay this year for flood insurance**. Remember that if you choose not to purchase flood insurance, and a flood occurs, you will have to pay for any damage to your home and contents. Any money from the government would likely be minimal. Also remember that any amount you spend on flood insurance cannot be spent on other items.

Consider the dollar amounts below. Circle the maximum amount you would be willing to pay this year for flood insurance:

\$0	\$100	\$150	\$250
\$350	\$550	\$850	\$1,250
\$2,000	\$3,000	More than \$3,000	I don't know

Appendix C

Table C1: Marginal Effects Evaluated at the Mean for Interval-Censored Survival Regression Models

	<i>Model 1 Floodplain</i>	<i>Model 2 AE and AH Zones</i>	<i>Model 3 Volume</i>
In 100-year floodplain	0.4102** (0.2024)		
AE zone		0.6203 (0.4240)	
AH zone		0.3644* (0.2139)	
In 500-year floodplain	-0.1861 (0.2215)	-0.1874 (0.2215)	
Volume of expected flooding			0.1051* (0.0604)
Experienced flood damage	0.0125 (0.2049)	0.0238 (0.2055)	0.0077 (0.2042)
1-2 times expected future flooding	0.3377** (0.1421)	0.3416** (0.1421)	0.3514** (0.1424)
3 or more times expected future flooding	0.1760 (0.2784)	0.1761 (0.2780)	0.1459 (0.2773)
Home's risk much lower than neighborhood	0.3736** (0.1750)	0.3834** (0.1758)	0.3975** (0.1750)
Home's risk somewhat lower than neighborhood	0.3373* (0.1823)	0.3336* (0.1824)	0.3429* (0.1824)
Home's risk average for neighborhood	0.3676* (0.2019)	0.3784* (0.2027)	0.3665* (0.1960)
Home's risk somewhat higher than neighborhood	0.2482 (0.3043)	0.2544 (0.3046)	0.3010 (0.3052)
Home's risk much higher than neighborhood	1.2305* (0.6688)	1.0870 (0.7117)	1.5555** (0.6620)
Mortgage	0.2141 (0.1536)	0.2223 (0.1542)	0.2188 (0.1533)
Property has a basement and/or crawlspace	0.1234 (0.2551)	0.1276 (0.2551)	0.1148 (0.2556)
Property's total value	-0.0115 (0.0098)	-0.0116 (0.0097)	-0.0129 (0.0099)

In FEMA map error area	-0.2725 (0.2411)	-0.2195 (0.2553)	0.0715 (0.1657)
Log Euclidean distance to Johnson Creek	-0.0574 (0.0716)	-0.0394 (0.0779)	-0.1054 (0.0661)
Natural log of income	0.2562** (0.1122)	0.2534** (0.1120)	0.3188*** (0.1147)
Education	0.0089 (0.1268)	0.0123 (0.1270)	-0.0116 (0.1247)
Asian	-0.5687** (0.2749)	-0.5678** (0.2746)	-0.5692** (0.2718)
Race is "prefer not to answer"	-0.7035** (0.2756)	-0.7024** (0.2763)	-0.7317*** (0.2790)
Race is "other"	0.0920 (0.2431)	0.1020 (0.2436)	0.1038 (0.2445)
Respondent's age	0.0001 (0.0057)	0.0005 (0.0058)	-0.0003 (0.0056)
Female	-0.0636 (0.1159)	-0.0629 (0.1159)	-0.0312 (0.1151)
Gender is non-binary or prefer not to answer	0.4737 (0.3837)	0.4810 (0.3847)	0.5059 (0.3853)
Tenancy of 1-3 years	0.1040 (0.2167)	0.1046 (0.2167)	0.0419 (0.2149)
Tenancy of 4-7 years	-0.1099 (0.2211)	-0.1162 (0.2213)	-0.1500 (0.2202)
Tenancy of 8-15 years	0.0350 (0.2242)	0.0405 (0.2244)	-0.0517 (0.2211)
Tenancy of more than 15 years	-0.3708 (0.2400)	-0.3855 (0.2415)	-0.3752 (0.2414)
Observations	279	279	279
Log likelihood	-573.14	-572.97	-574.28
AIC	1204.27	1205.94	1204.56
BIC	1309.58	1314.87	1305.24

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table C2: Summary Statistics for Predicted WTP (Weibull Distribution)

	<i>Model 1 Floodplain</i>	<i>Model 2 AE and AH Zones</i>	<i>Model 3 Volume</i>
All respondents (N=279)			
Mean	\$404.35	\$404.27	\$407.24
Median	\$349.93	\$349.14	\$354.49
Standard Deviation	\$259.55	\$259.67	\$278.24
Respondents in 100-year floodplain (N=70)			
Mean	\$572.43	\$571.74	\$540.13
Median	\$496.69	\$505.63	\$454.86
Standard Deviation	\$374.15	\$373.43	\$408.21
Respondents outside 100-year floodplain (N=209)			
Mean	\$348.06	\$348.18	\$362.60
Median	\$317.79	\$316.88	\$318.48
Standard Deviation	\$175.81	\$176.80	\$200.63

**Table C3: Summary Statistics for Predicted WTP
 ("I Don't Know" Responses Coded as \$0 WTP)**

	<i>Model 1 Floodplain</i>	<i>Model 2 AE and AH Zones</i>	<i>Model 3 Volume</i>
All respondents (N=310)			
Mean	\$326.29	\$329.05	\$322.36
Median	\$264.56	\$258.58	\$261.86
Standard Deviation	\$279.69	\$305.40	\$262.39
Respondents in 100-year floodplain (N=80)			
Mean	\$490.90	\$501.44	\$435.20
Median	\$369.56	\$351.35	\$297.46
Standard Deviation	\$457.79	\$514.55	\$425.00
Respondents outside 100-year floodplain (N=230)			
Mean	\$269.04	\$269.09	\$283.11
Median	\$227.64	\$231.97	\$240.84
Standard Deviation	\$143.17	\$143.27	\$156.83