

CLARK COUNTY
REGIONAL FLOOD
CONTROL DISTRICT



Flood Awareness Survey

2011

APPLIED
ANALYSIS



Methodology

Flood Awareness Survey 2011

Methodology

Applied Analysis was retained to conduct the 2011 Flood Awareness Survey for the Clark County Regional Flood Control District. Contacting 12,134 local phone numbers, 700 Clark County residents over the age of 18 were surveyed to evaluate their awareness of flooding within the region and the Flood Control District's effectiveness in communicating information to the public. Households currently employed by a media company (e.g. print, radio, television) were excluded.

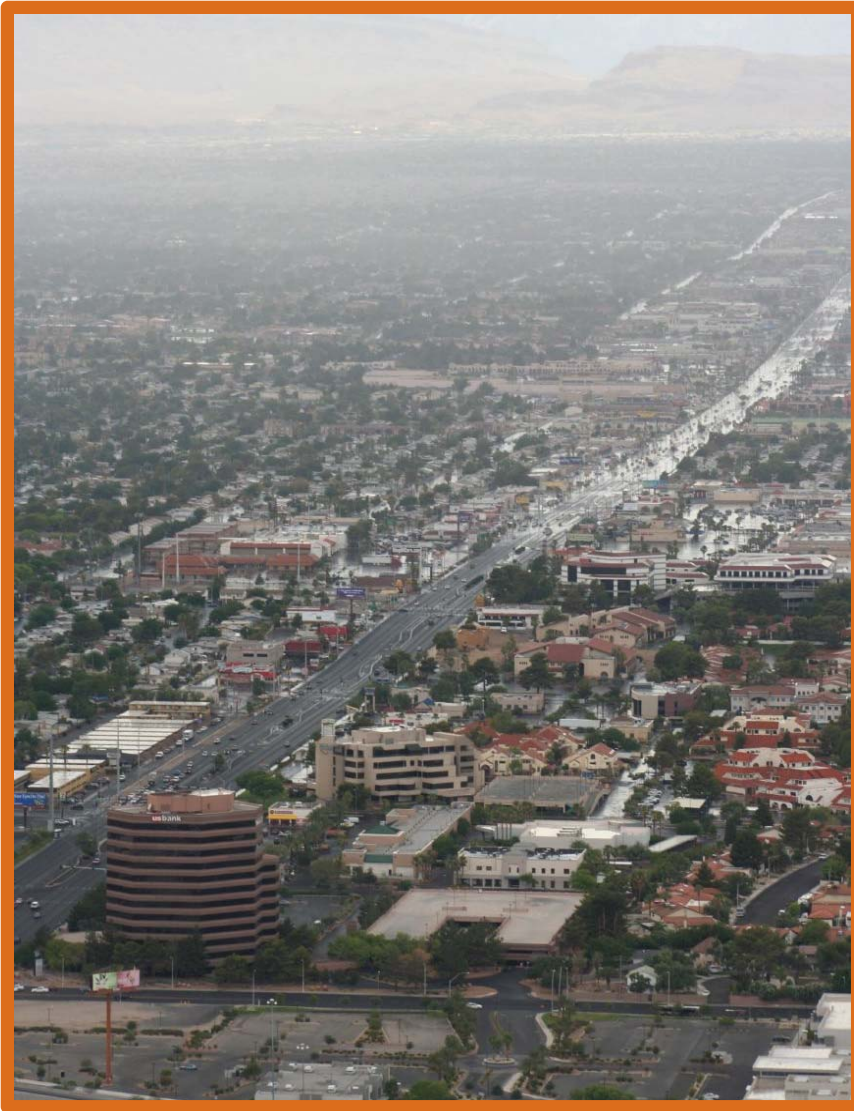
With an average survey time nearing 17 minutes, residents were asked a series of 28 questions, following up with nine additional demographic questions. To gather representation from the entire community of 1.97 million, quotas were established for age groups, ethnicity, homeownership and gender. The survey was conducted in Spanish for 54 responses (7.7 percent).

*The results of the overall study lie herein. Responses obtained from the entire sample have a margin of error of ± 3.7 percent margin at the 95 percent confidence interval. Graphs and tables colored in **dark green** are used to more easily identify questions answered by most, if not all, survey respondents. Responses with a lower incidence rate that provide statistical significance with a higher margin of error have also been colored in **dark green**. Cross tabulations among subsets of respondents are also compiled within this report; however, these have smaller sample sizes and should be viewed as directional data rather than statistically significant. Graphs and tables generated from respondent subsets are colored in **orange**.*

Executive Summary

Executive Summary

Flood Awareness



- *The community is largely aware of weather-related dangers, with nearly half (49.5 percent) of all respondents citing floods as a hazard without being prompted. Notably, this is the lowest reported figure since the survey began, which appears largely attributable to a reduced number of flood related incidents.*
- *Flood awareness is strongest among residents who have participated in post-secondary education, lived in Clark County at least four years, and are between the ages of 35 and 64. Below average awareness was present among renters, those with less formal education, and older and younger residents.*
- *Aided, flooding was ranked the second most serious weather-related threat behind extreme heat.*

Executive Summary

Flood Awareness



- *While flash flooding is believed to likely occur in the next 12 months (78.6 percent), only 40.3 percent of respondents believe it recurs at the same rate as it did ten years ago. Residents living in southern Nevada for more than 20 years, and those with a graduate degree, believe it is less likely to flood today as compared to ten years ago.*
- *The majority of respondents between the age of 18 and 20 do not believe flooding is more likely to occur in the next 12 months. They are also the age group who admitted they knew the least about the dangers of flash flooding.*

Executive Summary

Flood Awareness



- *Also admitting to knowing the least about the dangers of flash flooding were those living in southern Nevada less than one year, identifying themselves as Hispanic, or respondents that had acquired a high school diploma.*
- *Although 84.0 percent agreed that they knew about the dangers of flash flooding, only 59.3 percent thought their neighbors knew of the same dangers.*
- *Approximately 47.4 percent of Hispanics agreed that their neighbors knew about the dangers, suggesting awareness is lower-than-average in this community.*

Executive Summary

Flood Awareness



- *In 2009, 83 percent of those surveyed agreed that they knew the time of year when flooding is most likely to occur, yet in this year's survey, which asked what season flooding is most likely to occur, only 46.6 percent of respondents believed flash flooding is most likely to occur in the summer season.*
- *Subgroups aged 55 to 64 years of age; self-employed; time in Clark County being more than 20 years; Caucasians and African Americans; college educated; and females tended to correctly identify the summer season as having the highest potential for flooding.*

Executive Summary

Flood Awareness



- *While awareness of flooding and its threat remains high, only 39.4 percent of respondents identified flood waters less than six inches deep as dangerous. Additional, 34.0 percent indicated that flood waters had to be one foot or deeper to be dangerous.*
- *No demographic stood out suggesting knowledge, or lack thereof, surrounding dangerous depth of flood waters is universal.*

Executive Summary

Flood Control Communication



- *More than 9 out of 10 respondents surveyed have learned about flash flooding from television (90.9 percent) and news reports (93.0 percent). Billboards also play a significant role with 67.3 percent of respondents saying they've learned about the dangers through this medium. Nationally, 59.0 percent surveyed in a 2011 FEMA study expected local media to update them about their community's risk of flooding.*
- *Of the 53.6 percent who are Cox Digital Cable subscribers, 38.1 percent have watched "The Flood Channel Television Program."*

Executive Summary

Flood Control Communication



- *Messages regarding the dangers of flash flooding are recalled significantly, with more than 90.0 percent surveyed able to respond or recall the last message they heard or witnessed. Overwhelmingly, responses regarding flood waters being dangerous and to avoid them were cited.*



- *The entertaining license plate billboards, “catchy song”, and community channel were largely cited as the source of respondents flood awareness.*

Executive Summary

Flood Control Communication



- *With a rating of between 8 and 10, 56.7 percent of respondents indicated that the dangers of flooding are being communicated well. The average ranking is a 7.43.*
- *The Flood Control District was rated fair or better by 91.9 percent of the respondents.*
- *Based on FEMA's July 2011 Awareness study, 68 percent of citizens are satisfied with their local official's efforts to inform them about flood risk.*



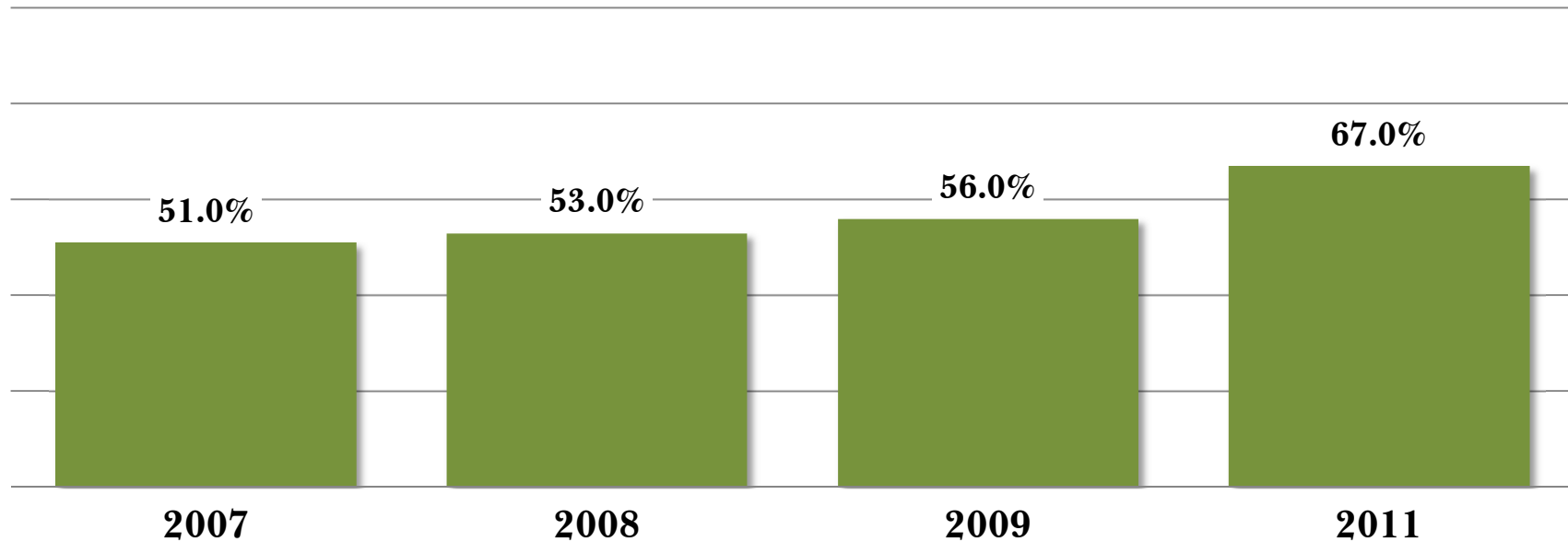
Executive Summary

Flood Control Communication



- *Those who see billboards as a source of education and information on flood-related issues continues to rise.*

Respondents who cited billboards as a source of education and information on flood-related issues



Executive Summary

The Community's Flood Experience



- *Of those encountering a flooded street (8 out of 10 surveyed), 54.2 percent made a decision to turn around or wait for flood waters to recede to a safe level. In 2008 and 2009, 70.0 percent and 67.0 percent made similar choices, respectively.*
- *Similar to past years, the top response (43.8 percent) for driving through the flooded street was because they “didn’t think it was unsafe to do so.” Another 15 percent chose to drive through a flooded street because they “were in a hurry.”*

Executive Summary

The Community's Flood Experience



- *Those most likely to drive through a flooded street are between the ages of 25 and 34; and identify themselves as Asian. The number one reason to drive through a flood due to “being in a hurry” were 18 to 24 year olds or those living in Clark County less than one year.*
- *Unfamiliarity is more often the cause for females to drive through a flooded street, whereas men more often reported driving through a flooded street because they “thought it would be fun to do.”*

Executive Summary

Understanding Flood Control



- *Knowledge of the flood control system continues to widen with nearly 3 out of 4 respondents considering streets as part of the flood control system. This is an improvement over 2008 (57.0 percent) and 2009 (62.0 percent).*
- *Those who believe that urban runoff travels through the flood control system and drains into Lake Mead increased substantially to 81.1 percent, nearly a 35-percentage-point increase from 2009.*

Executive Summary

Understanding Flood Control



- *Respondents who understand that storm water and urban runoff is untreated before it reached Lake Mead posted a modest increase to 57.7 percent, up from 54.0 percent in 2009.*
- *18 to 24 year olds, and those without a high school diploma are more likely to believe that flood waters are cleaned/treated before entering Lake Mead.*
- *Littering was cited as having the most serious negative impact on Lake Mead.*

Survey Responses

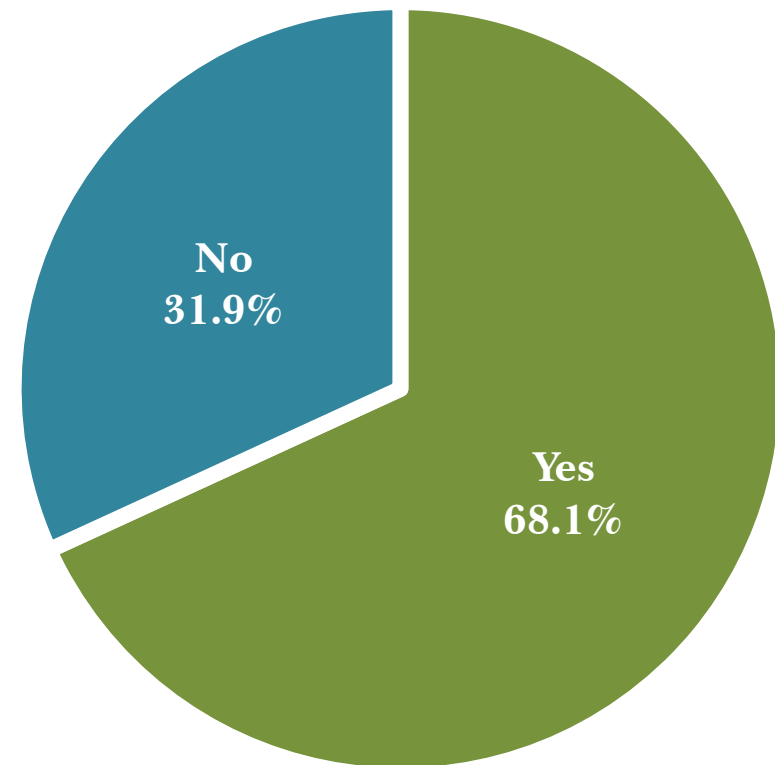
Question 1

Are you aware of any weather related dangers that can occur in the southern Nevada area?

The majority share (68.1%) of respondents are aware of the weather-related dangers in Southern Nevada.

Survey Respondents

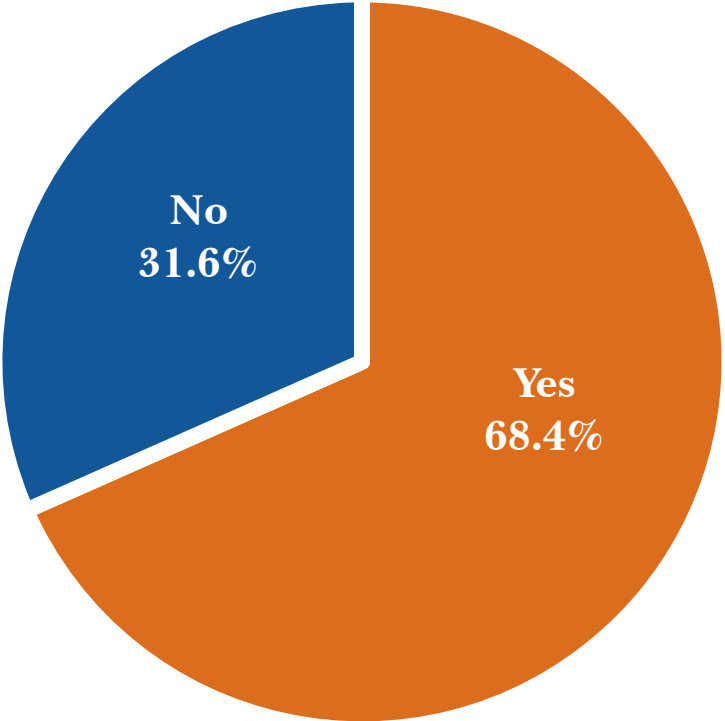
N = 697



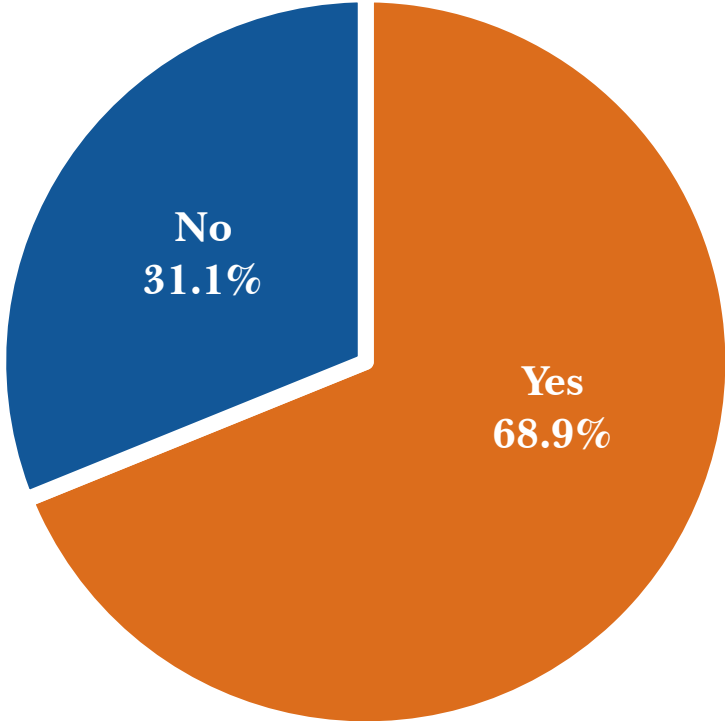
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [with or without Cox Digital Cable TV]

With Cox Digital Cable TV
(N = 373)



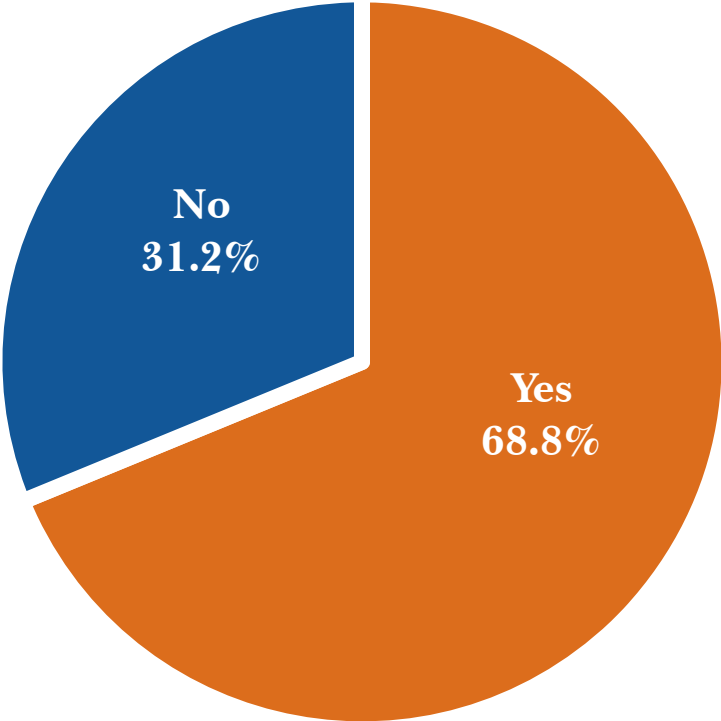
Without Cox Digital Cable TV
(N = 318)



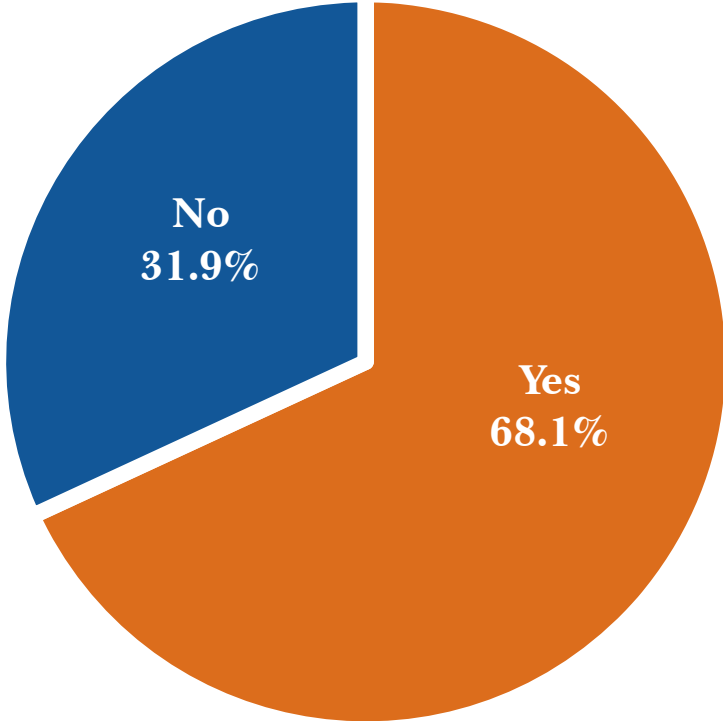
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area?

**Watched the
Flood Channel TV Program**
(N = 141)

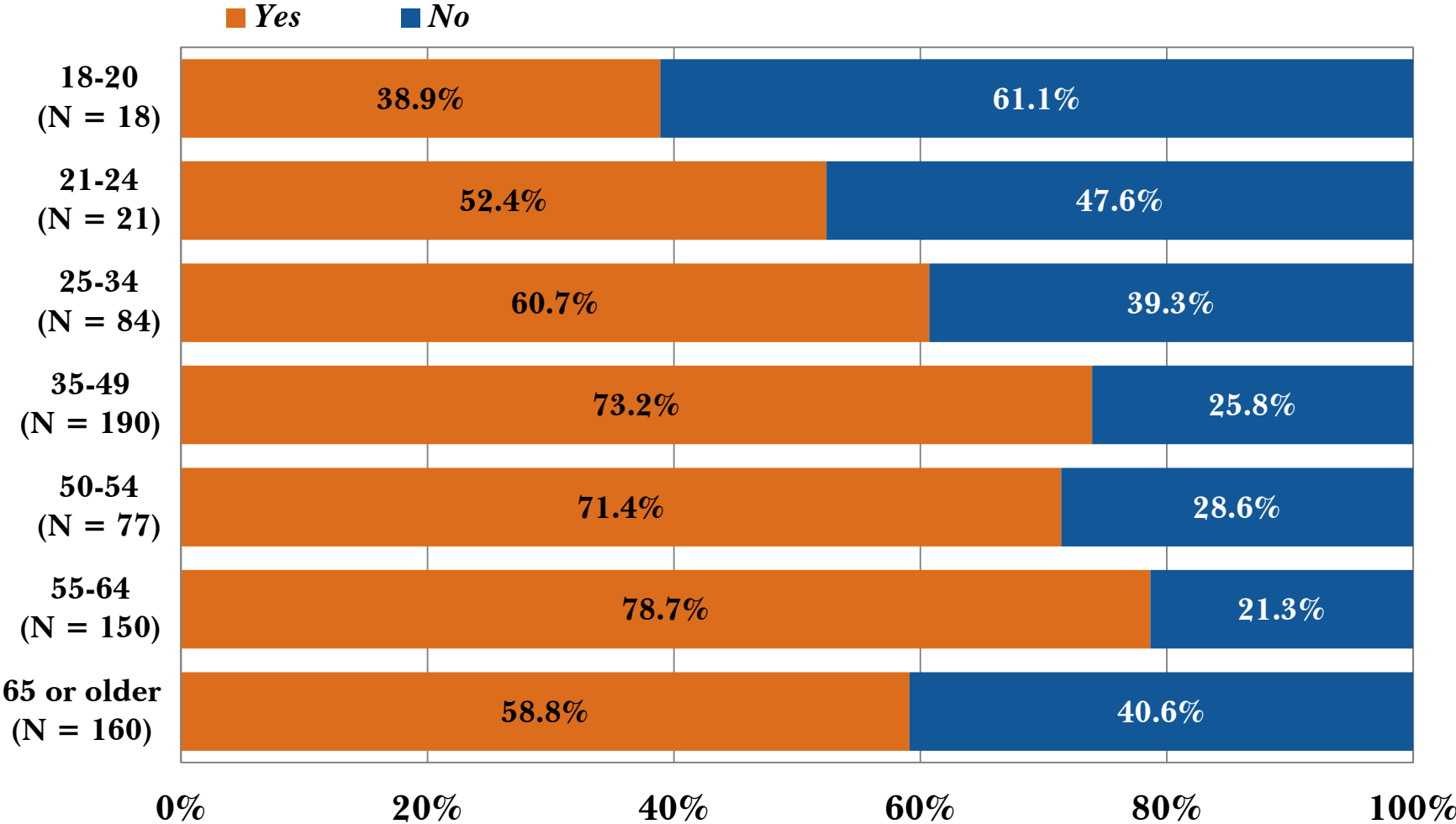


**Never Watched the
Flood Channel TV Program**
(N = 232)



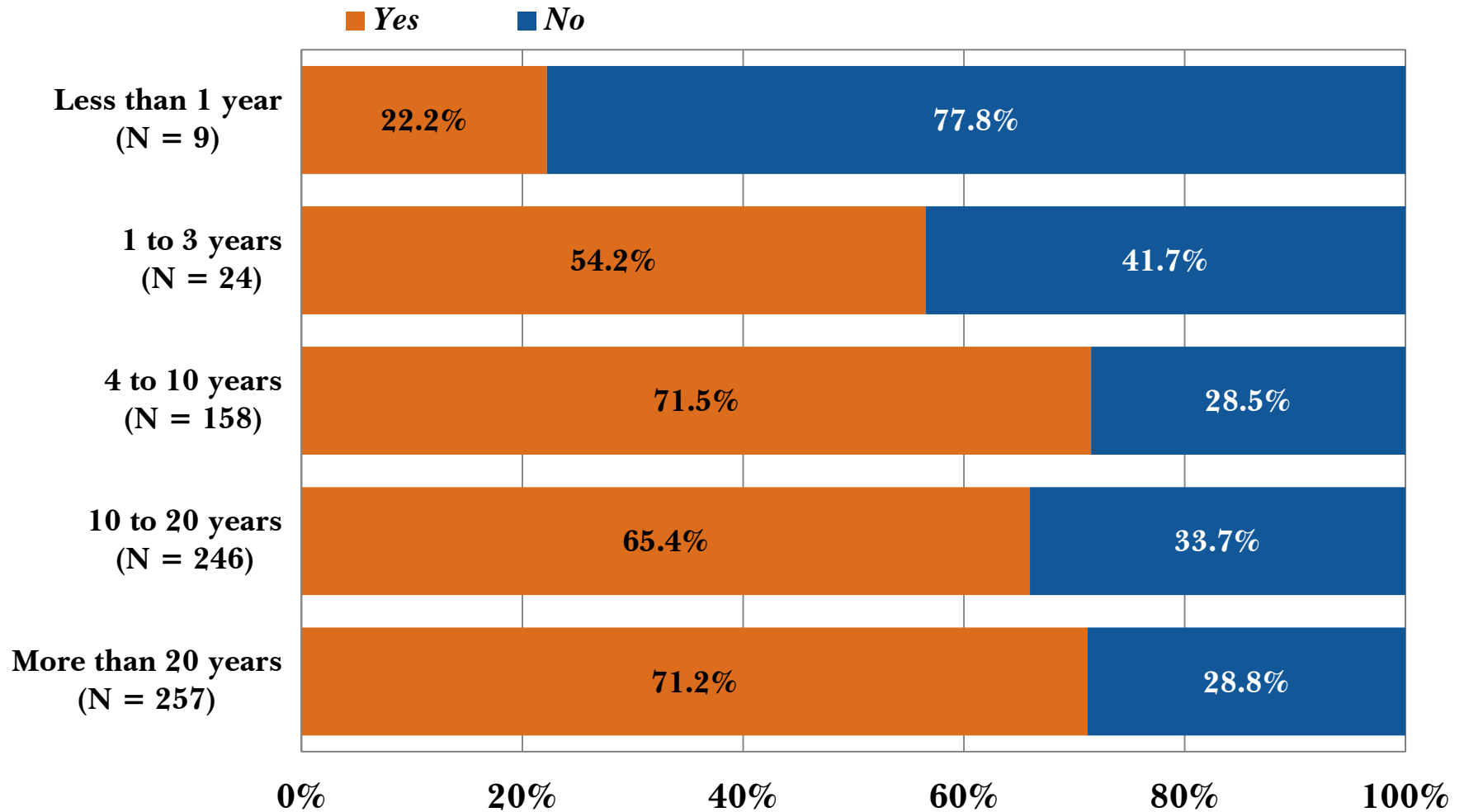
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [by age category]



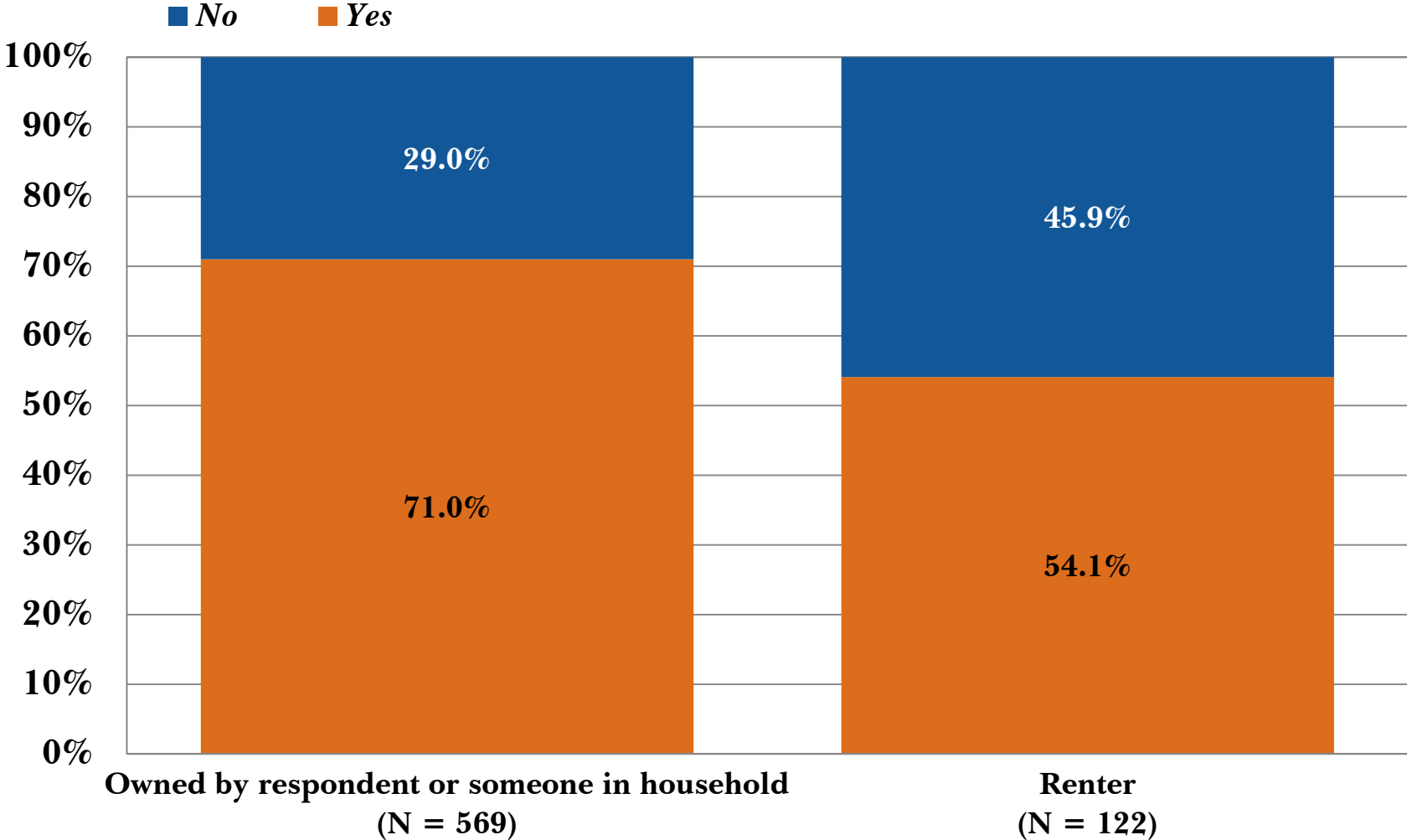
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [by length of residence]



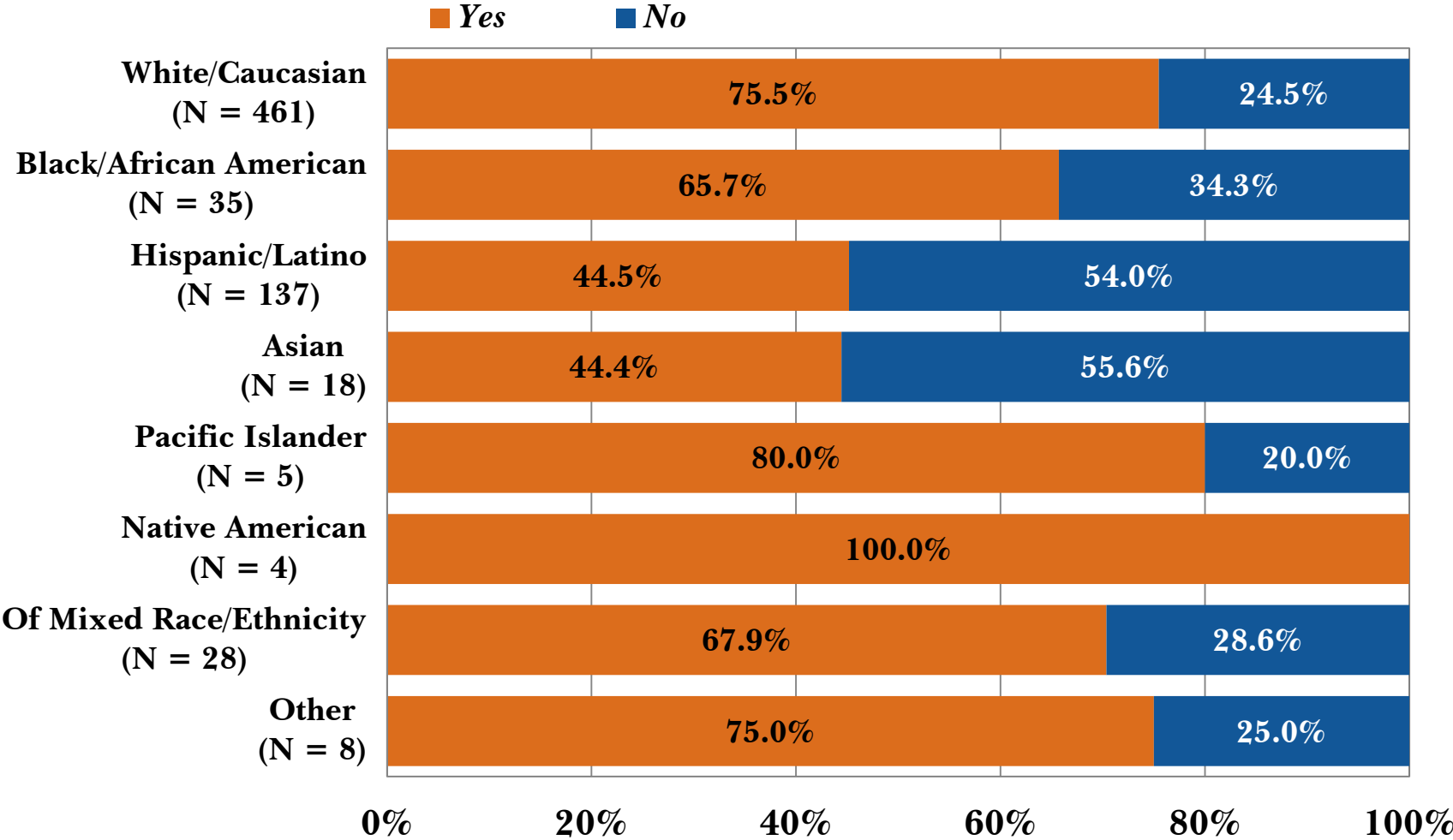
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [owner/renter-occupied]



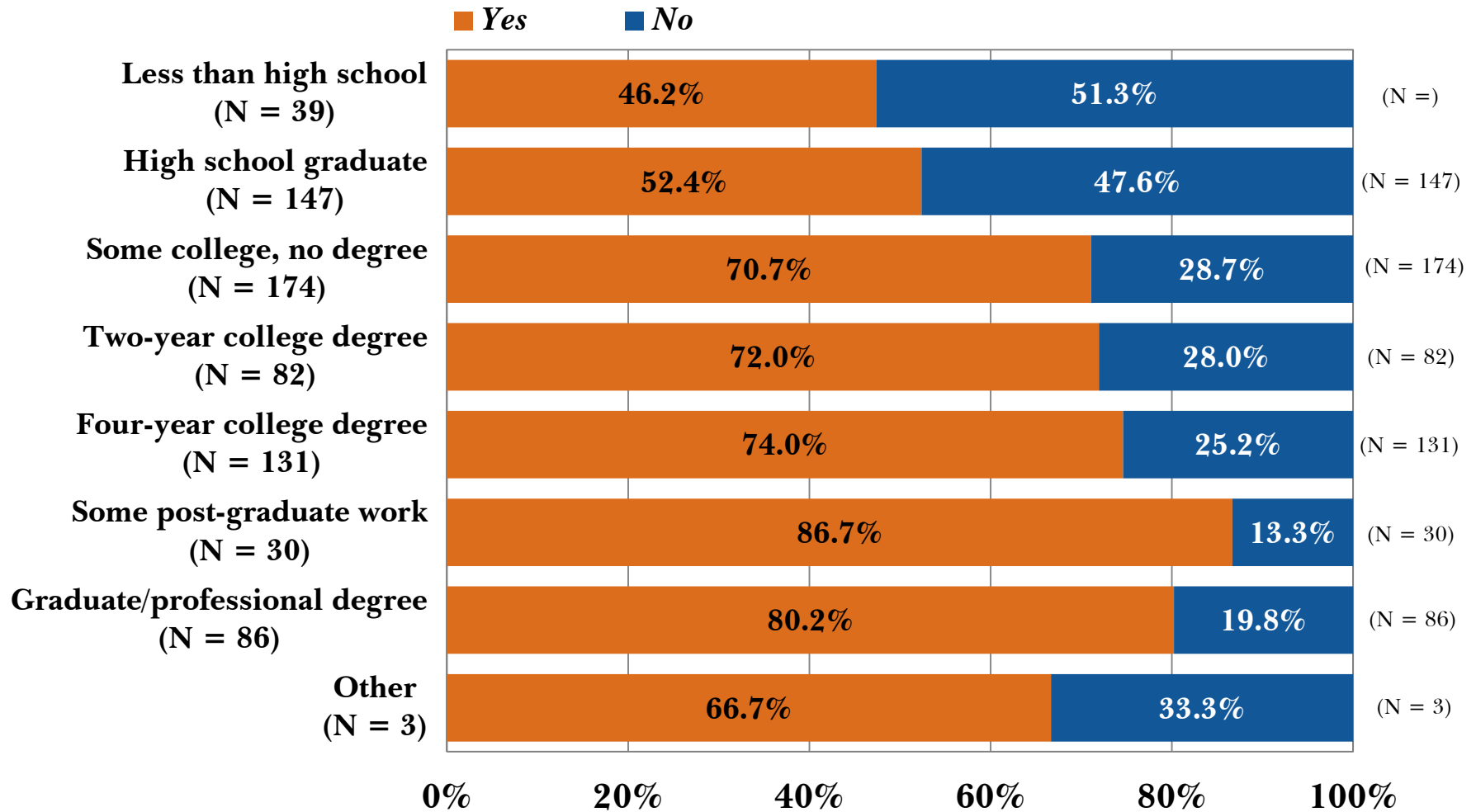
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [by race/ethnicity]



Question 1 Cross Tabulations

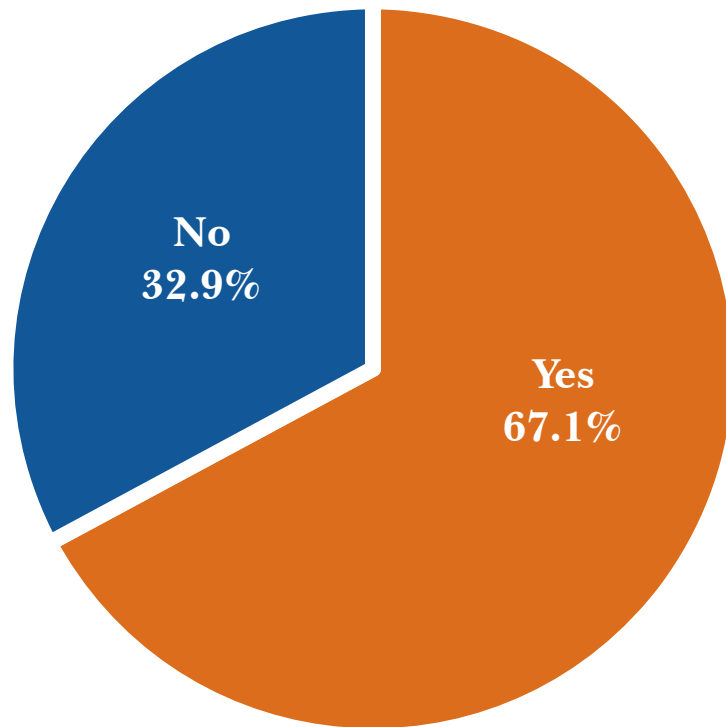
Are you aware of any weather related dangers that can occur in the southern Nevada area? [by educational attainment]



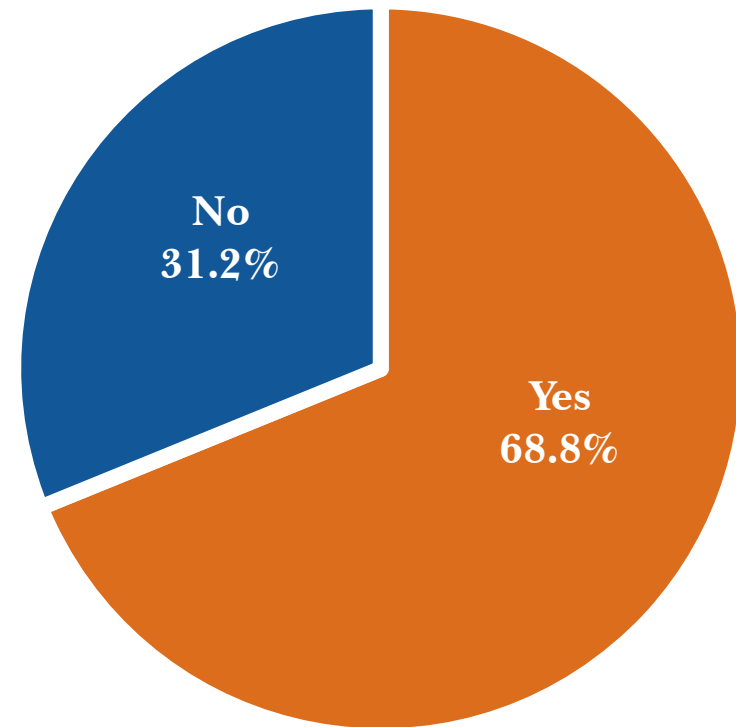
Question 1 Cross Tabulations

Are you aware of any weather related dangers that can occur in the southern Nevada area? [by gender]

Male
(N = 283)

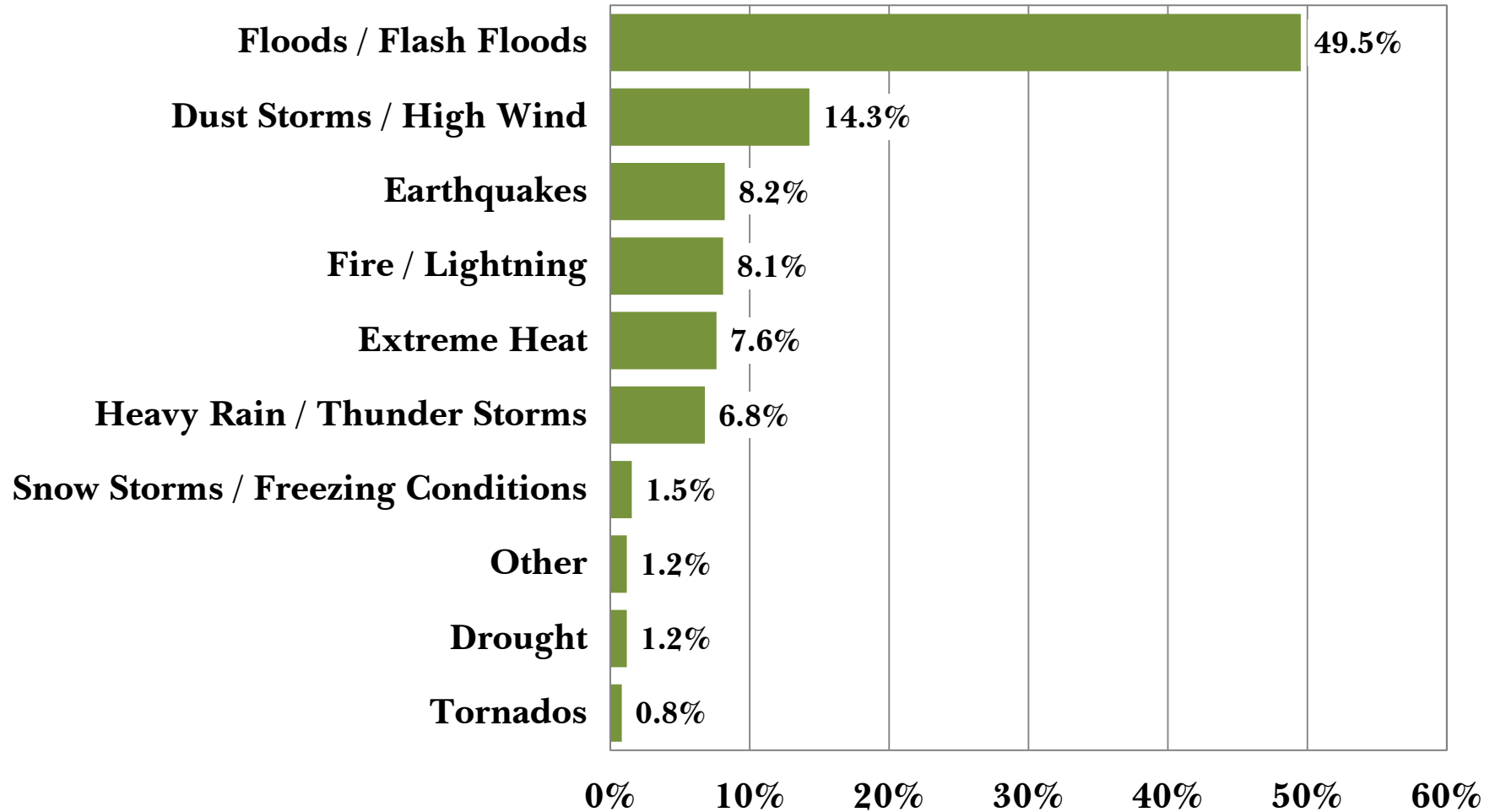


Female
(N = 414)



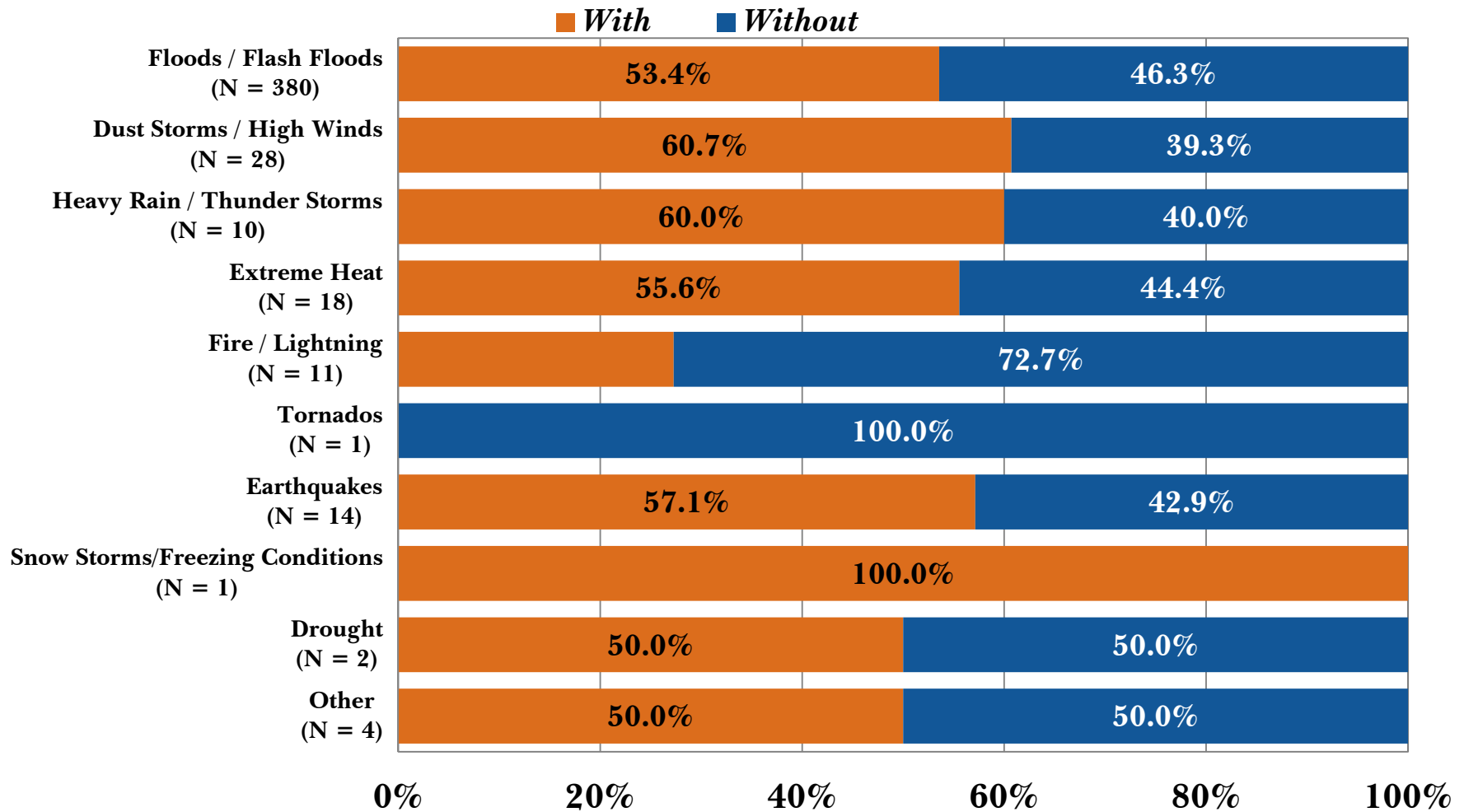
Question 2

What types of weather related dangers are you aware of that can occur in the area? (N = 475; multiple responses allowed)



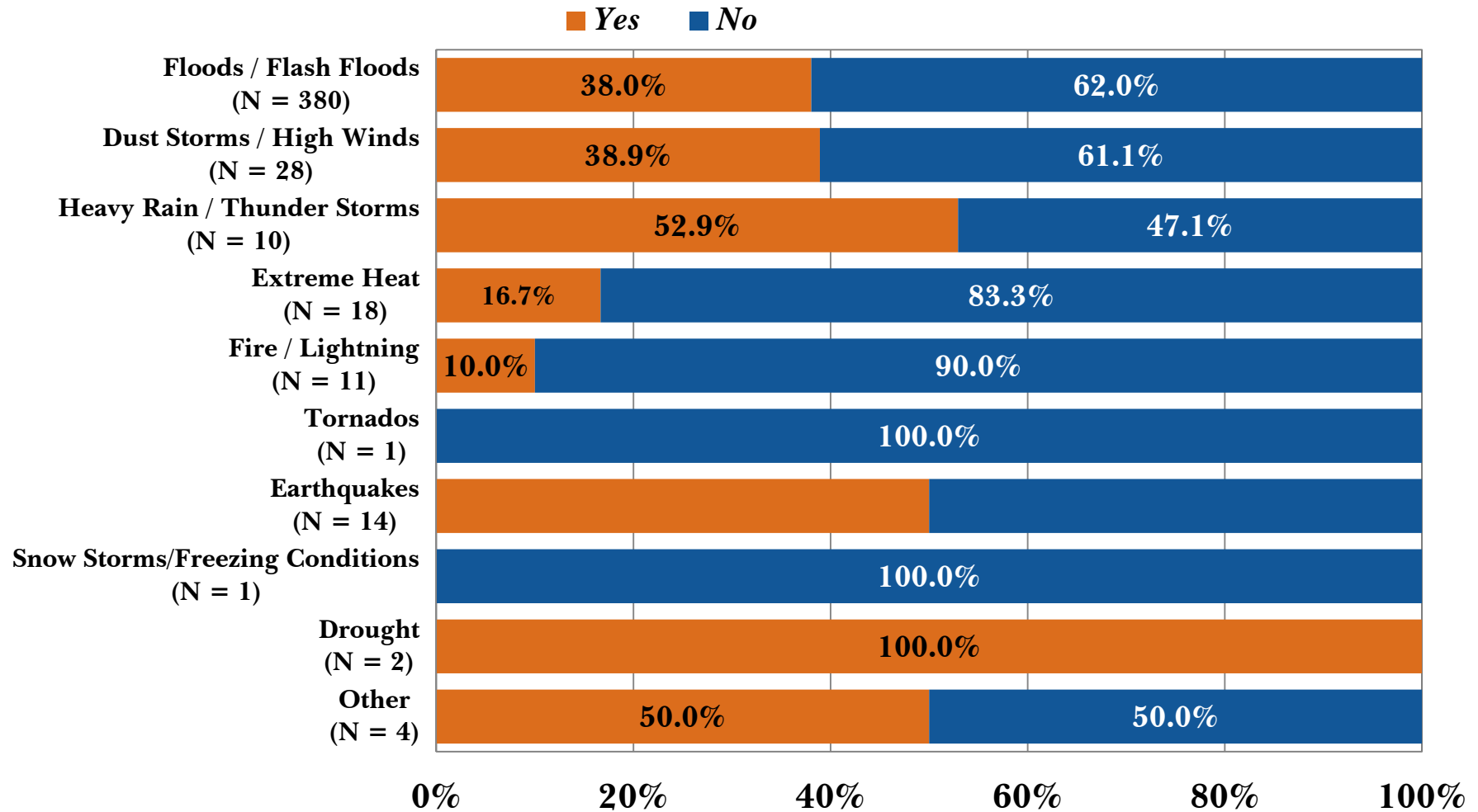
Question 2 Cross Tabulations

Those aware of any weather related dangers that can occur in the southern Nevada area [with or without Cox Digital Cable TV]



Question 2 Cross Tabulations

What types of weather related dangers are you aware of that can occur in the area? [and have you ever watched the 'The Flood Channel TV Program'?]



Question 2 Cross Tabulations

What types of weather related dangers are you aware of that can occur in the area? [by length of residence]

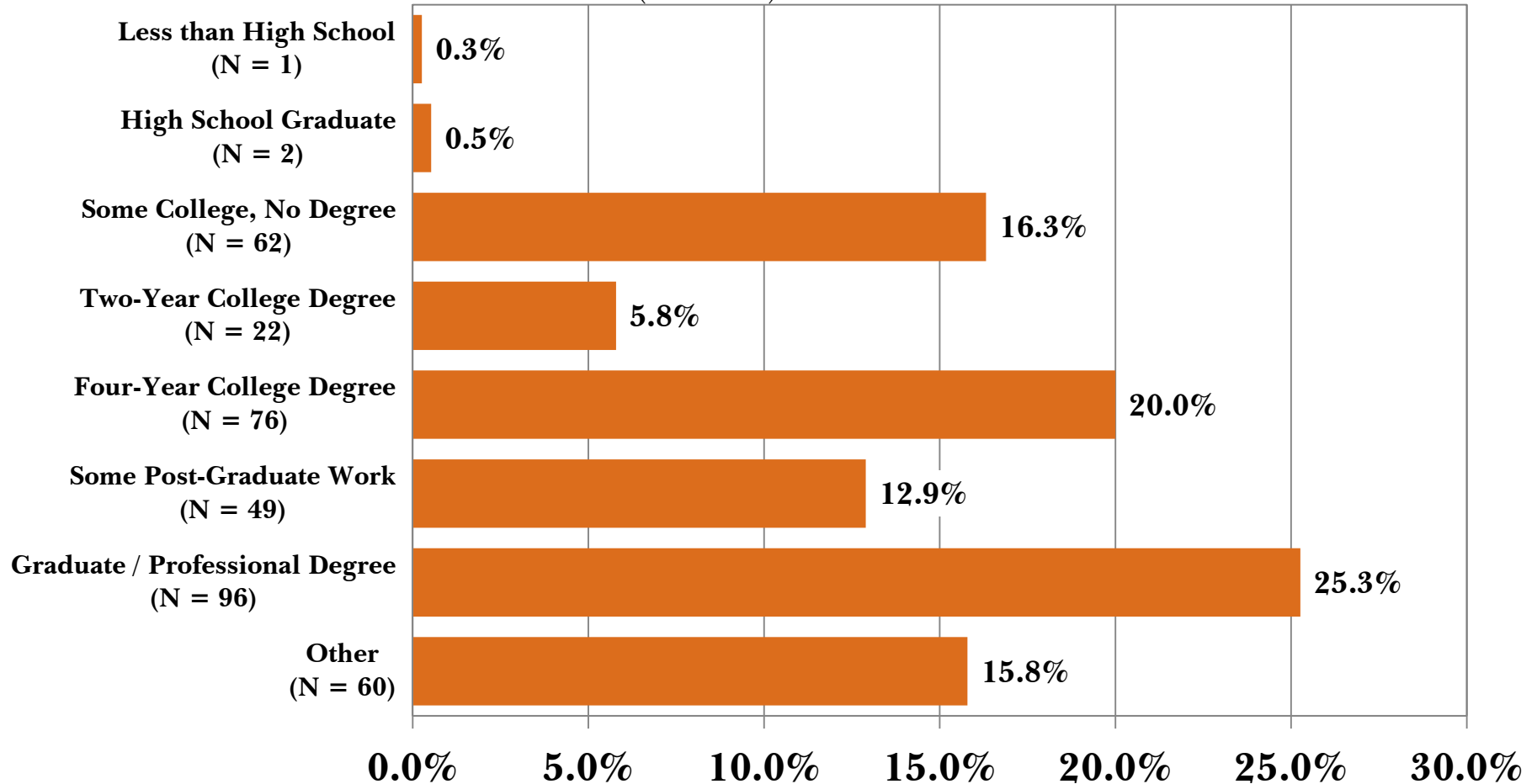
Dangers	Less than 1 Year	1 to 3 Years	4 to 10 years	10 to 20 years	More than 20 Years	N/A	Total	N =
Floods / Flash Floods	0.5%	3.4%	22.9%	33.7%	39.2%	0.3%	100.0%	380
Dust Storms / High Winds	0.0%	0.0%	17.9%	28.6%	50.0%	3.6%	100.0%	28
Heavy Rain / Thunder Storms	0.0%	0.0%	20.0%	30.0%	50.0%	0.0%	100.0%	10
Extreme Heat	0.0%	0.0%	27.8%	38.9%	27.8%	5.6%	100.0%	18
Fire / Lightning	0.0%	0.0%	36.4%	45.5%	18.2%	0.0%	100.0%	11
Tornados	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	1
Earthquakes	0.0%	0.0%	50.0%	21.4%	28.6%	0.0%	100.0%	14
Snow Storms/Freezing Conditions	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	1
Drought	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	100.0%	2
Other	0.0%	0.0%	25.0%	50.0%	25.0%	0.0%	100.0%	4

Question 2 Cross Tabulations

What types of weather related dangers are you aware of that can occur in the area? [Flood responses by educational attainment]

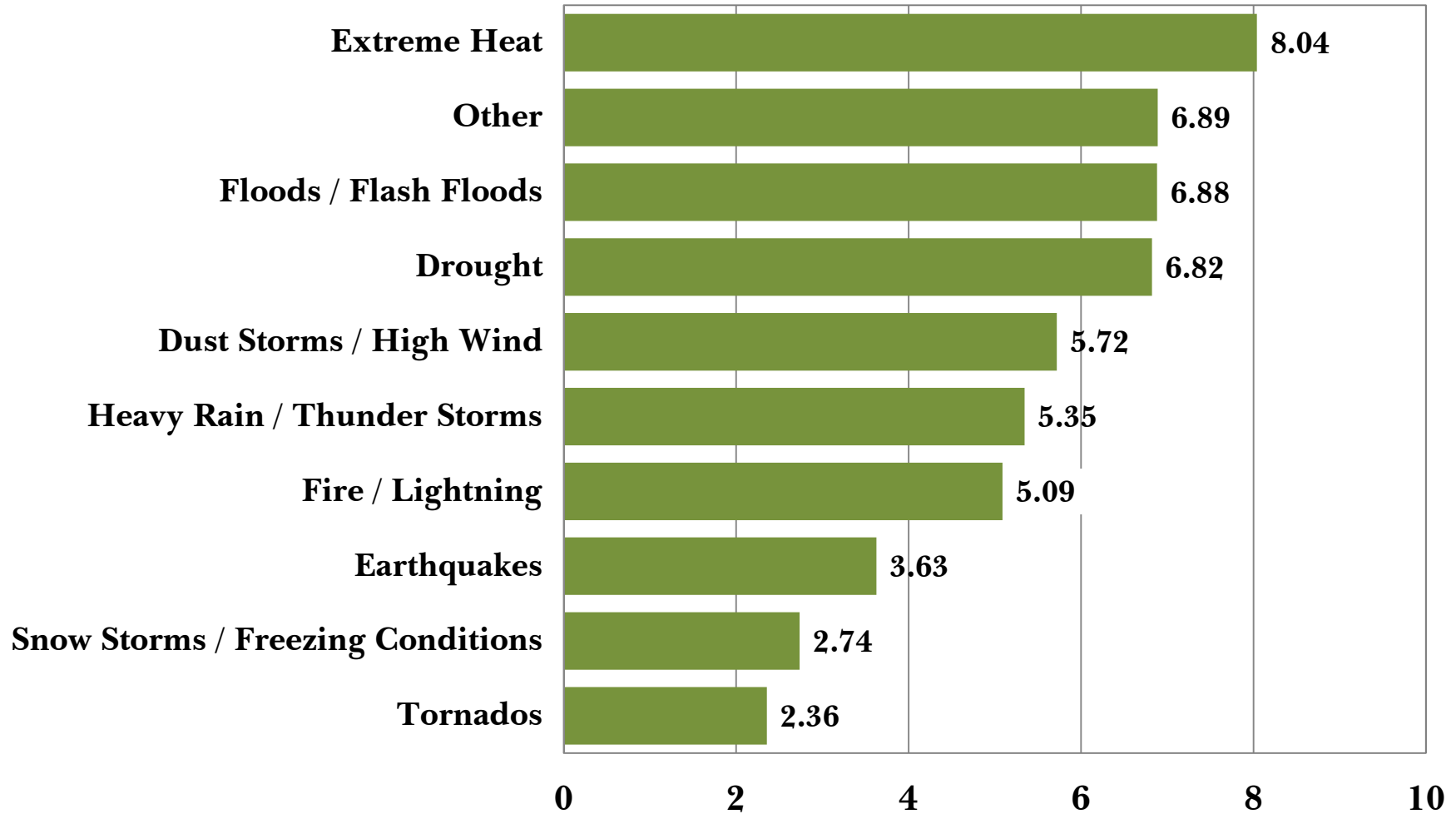
Floods / Flash Floods

(N = 368)



Question 3

*Threat level to local community, where 1 is a minimal threat and 10 is a serious threat. (For each category, N = 700; drought category, N = 432)**



* Drought was identified in "other" responses and is presented separately herein.

Question 3

Rankings from 1 to 10 - threat level to local community

Minimal Threat ← → *Serious Threat*

Response	1	2	3	4	5	6	7	8	9	10	N/A	AVG*
Extreme Heat	2.0%	1.3%	2.9%	4.0%	6.7%	5.9%	7.9%	14.1%	15.0%	40.3%	0.0%	8.04
Other	0.0%	0.0%	8.3%	8.3%	0.0%	0.0%	33.3%	8.3%	8.3%	8.3%	25.0%	6.89
Floods / Flash Floods	7.1%	3.4%	4.4%	3.6%	13.9%	5.1%	10.0%	18.7%	7.3%	25.4%	1.0%	6.88
Drought	6.9%	3.2%	6.7%	5.1%	8.6%	7.2%	10.6%	16.0%	9.7%	23.8%	2.1%	6.82
Dust Storms / High Wind	6.9%	6.6%	7.9%	7.3%	19.3%	11.0%	11.7%	16.7%	4.9%	7.6%	0.3%	5.72
Heavy Rain / Thunder Storms	8.0%	8.6%	10.6%	9.9%	18.6%	10.4%	9.3%	11.0%	5.3%	8.0%	0.4%	5.35
Fire / Lightning	9.6%	9.4%	11.1%	11.1%	16.9%	10.7%	10.4%	9.4%	3.1%	7.3%	0.9%	5.09
Earthquakes	28.3%	16.4%	11.3%	8.9%	13.9%	3.9%	4.6%	4.9%	2.0%	4.6%	1.4%	3.63
Snow Storms / Freezing Cond.	47.7%	15.4%	8.4%	6.3%	7.4%	3.0%	3.0%	3.3%	1.7%	2.3%	1.4%	2.74
Tornados	57.1%	13.6%	8.3%	5.1%	4.1%	1.4%	1.4%	1.7%	1.1%	3.7%	2.3%	2.36

*N/A responses excluded from averages. For each category N = 700; drought category N = 432

Note: Drought was identified in "other" responses and is presented separately herein.

Question 4

First word that comes to your mind with “flash flooding”?

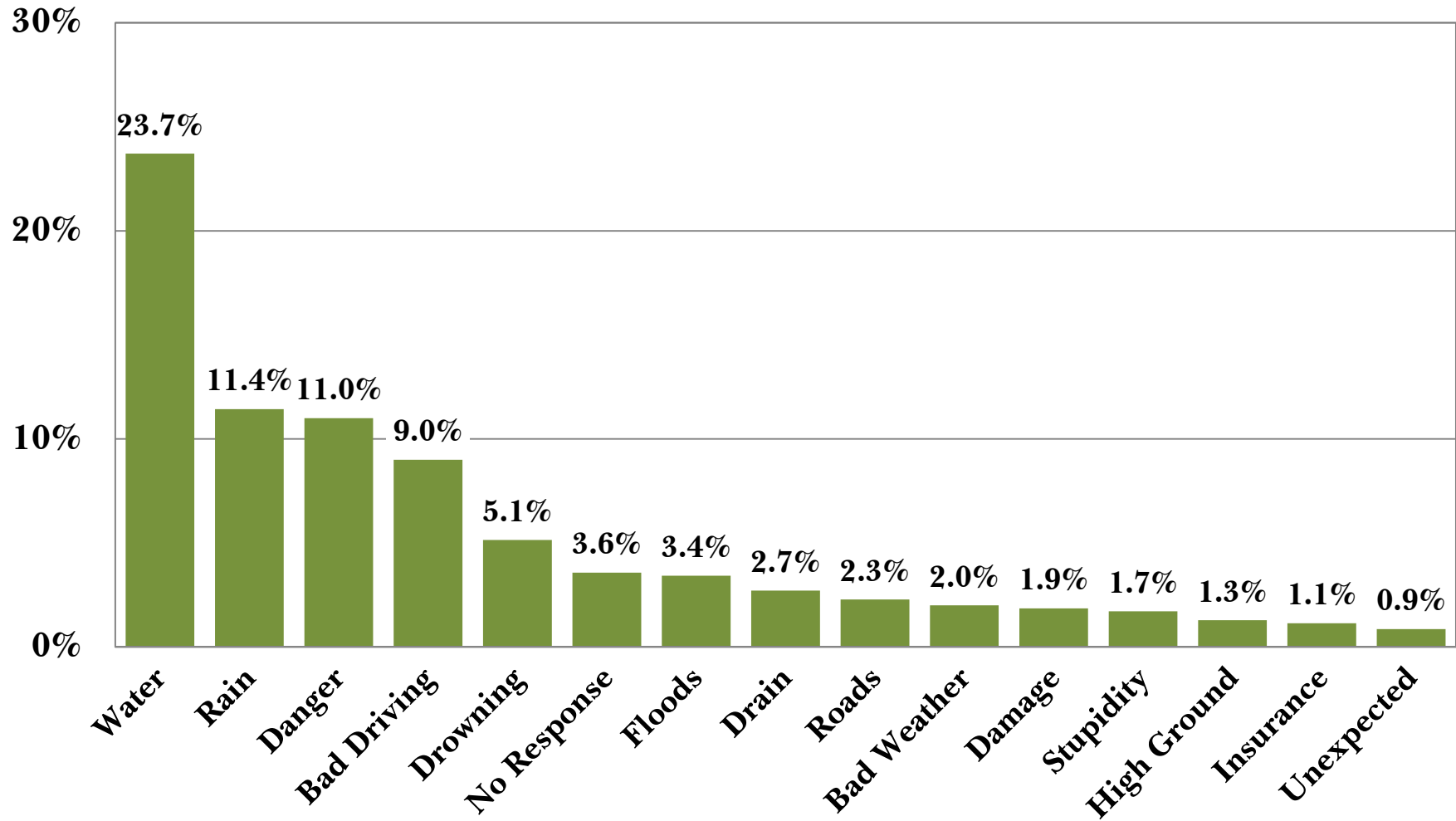
(N = 700; open responses)



Question 4

First word that comes to your mind with “flash flooding”?

(N = 700; open responses)



Question 4

First word that comes to your mind with “flash flooding”?

(N = 700; open responses)

Notable Quotes

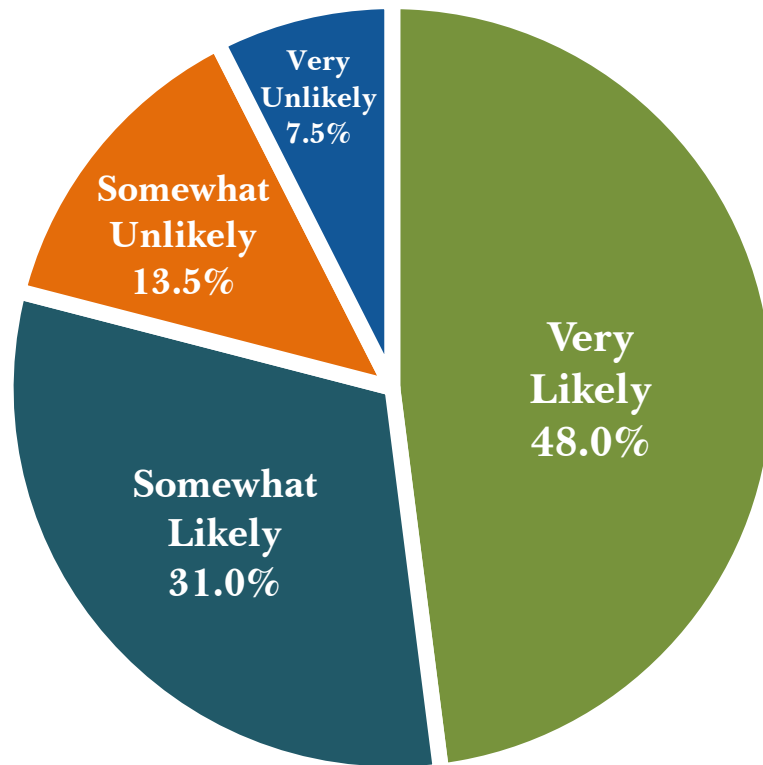
- *Flamingo wash*
- *Stranded vehicles / stuck cars*
- *Inner city*
- *Stupid drivers*
- *Charleston overpass*
- *Under the Charleston bridge*
- *Charleston Boulevard*
- *Arroyo*
- *Advertisements*
- *Cars hydroplaning*
- *Imperial Palace*
- *Have them every couple of years*
- *Turn around*
- *Water over the sidewalk levels*
- *The drainage system functioning bad*

Question 5

How likely is it that flash flooding will occur in Clark County during the next 12 months?

Survey Respondents

(N = 696)

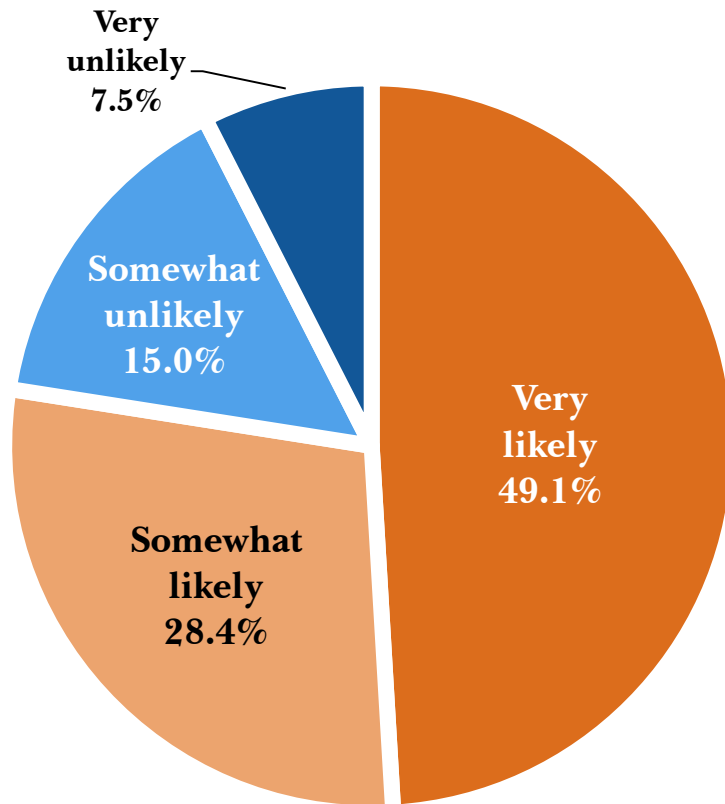


79.0% of respondents feel flash flooding is likely to occur in the next 12 months

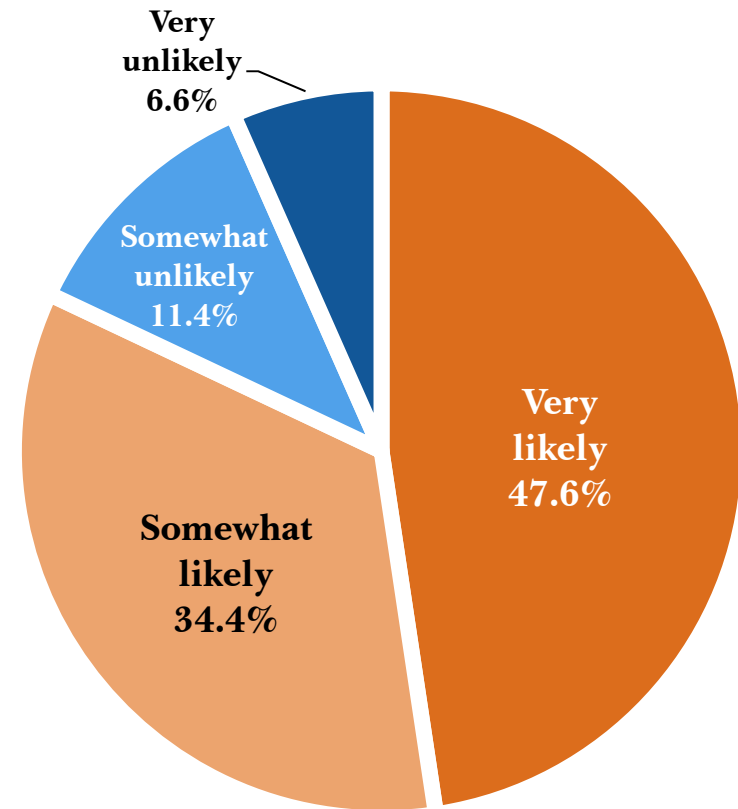
Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [with or without Cox Digital Cable TV]

With Cox Digital Cable TV
(N = 373)



Without Cox Digital Cable TV
(N = 317)

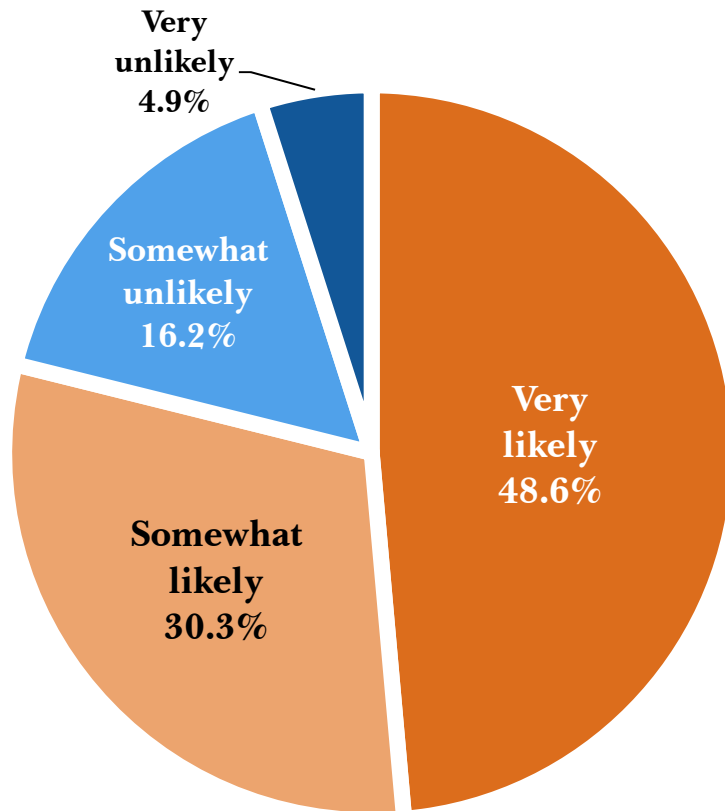


Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months?

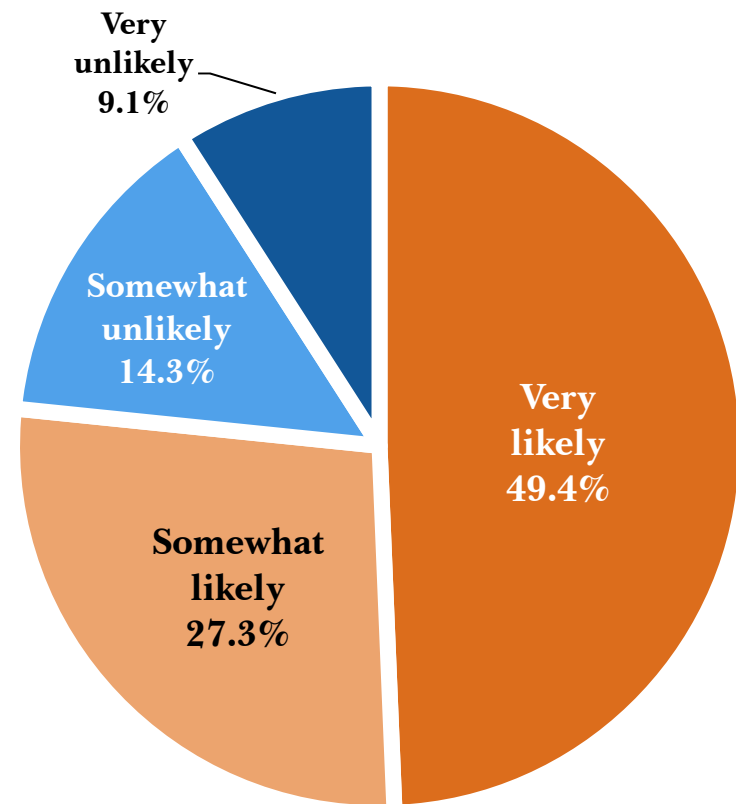
Watched the Flood Channel TV Program

(N = 142)



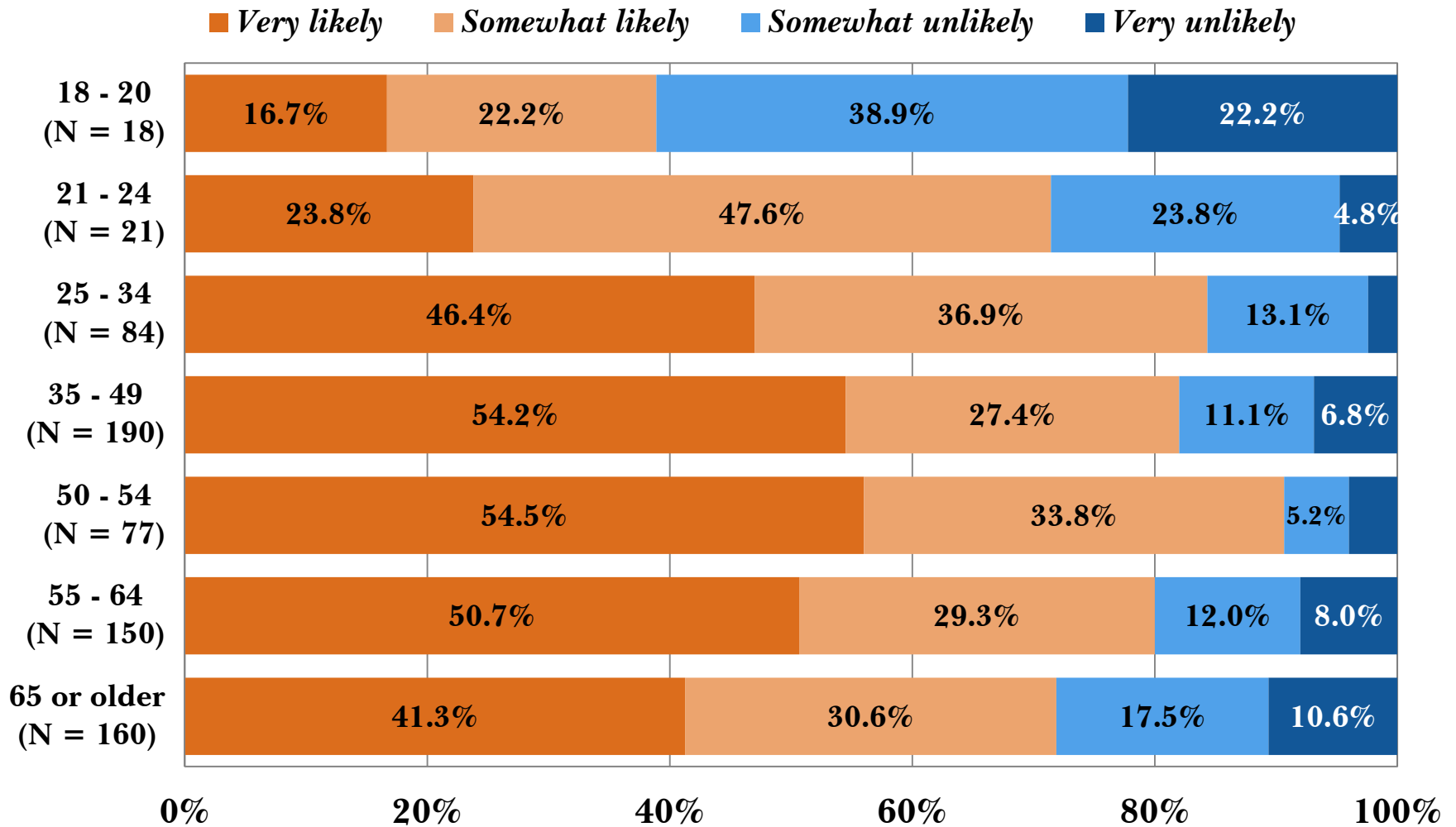
Never Watched the Flood Channel TV Program

(N = 231)



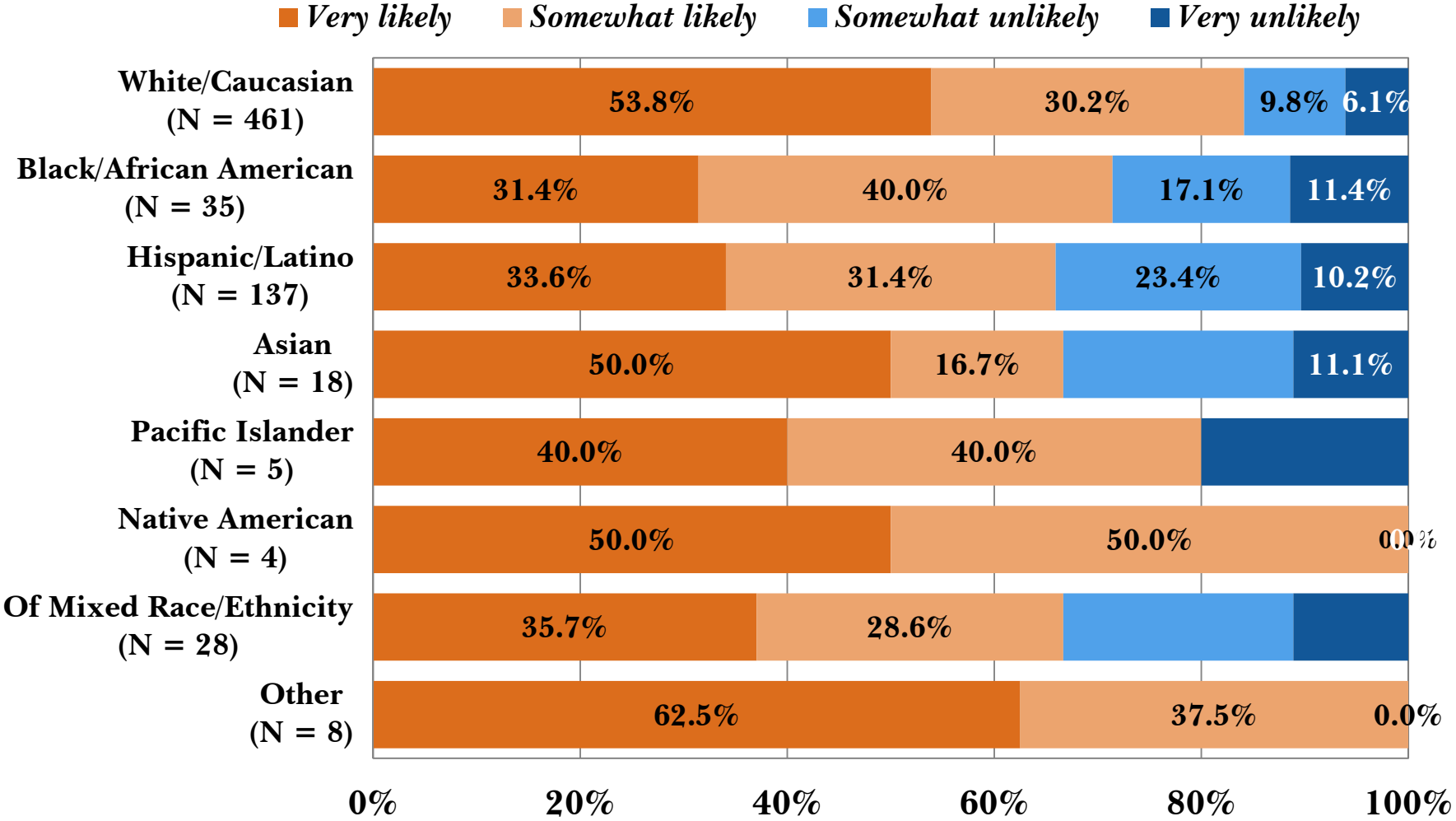
Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [by age category]



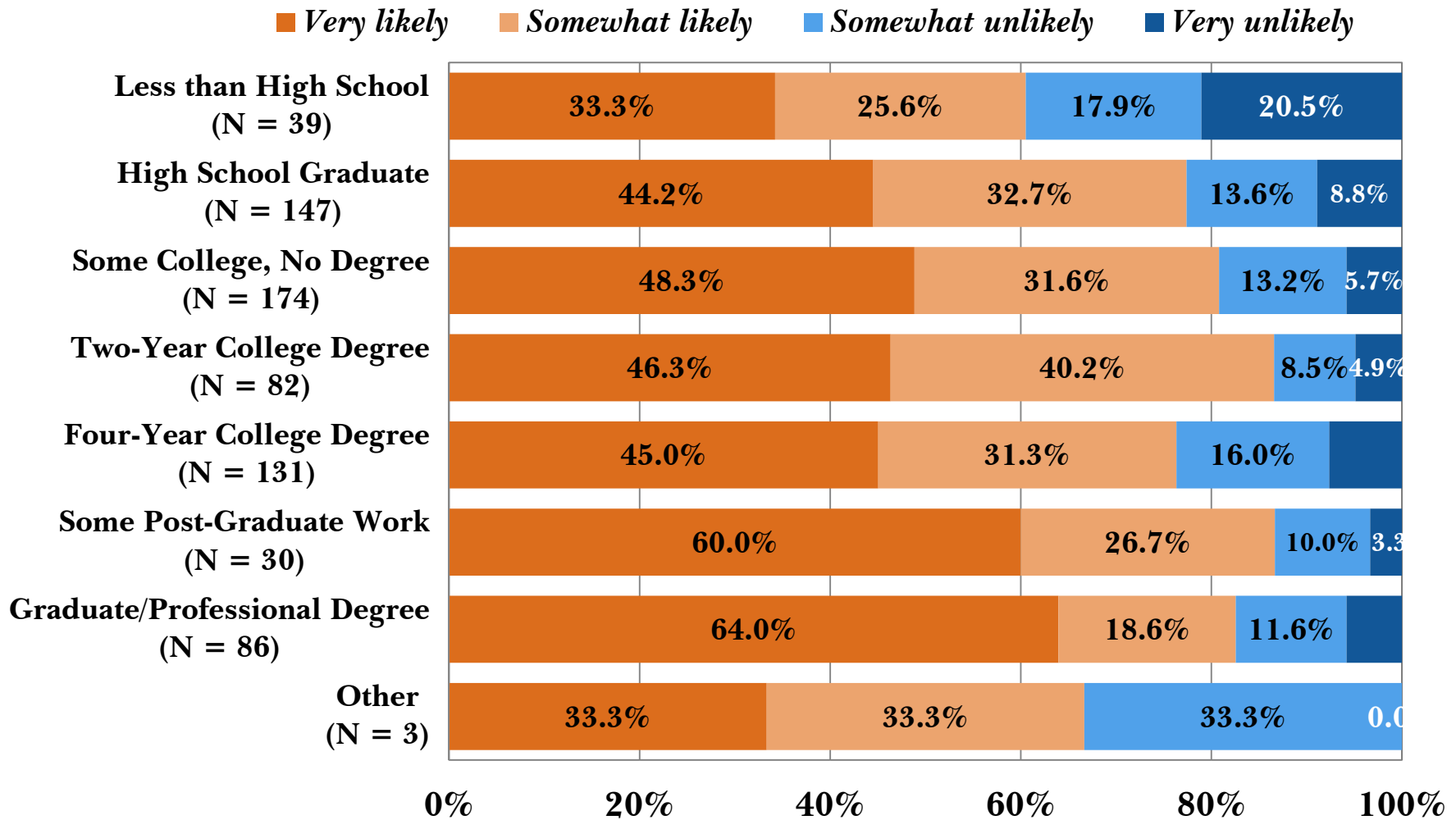
Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [by race/ethnicity]



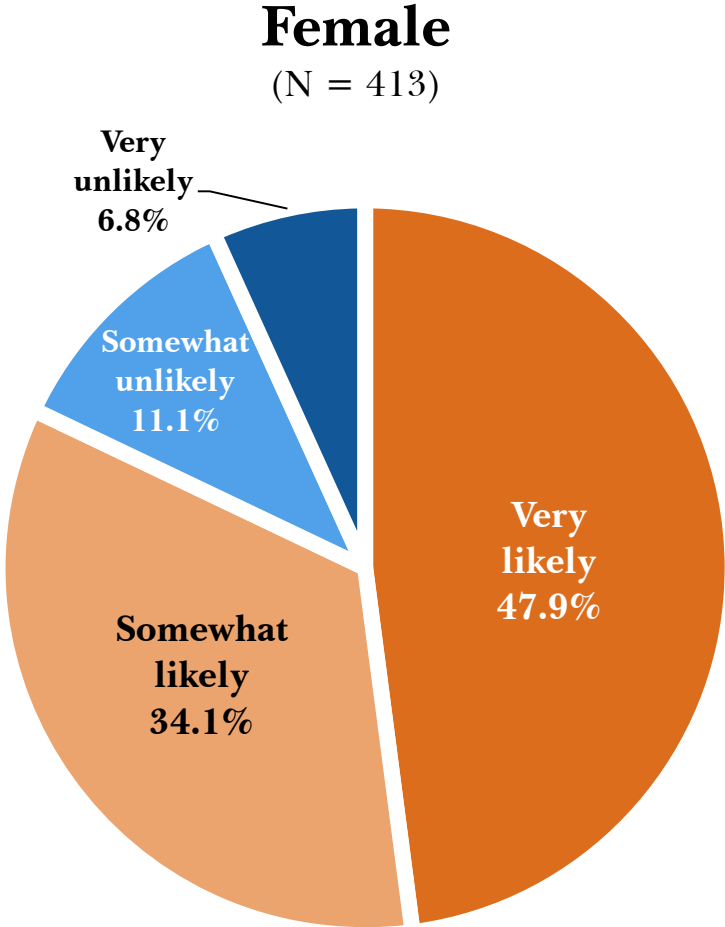
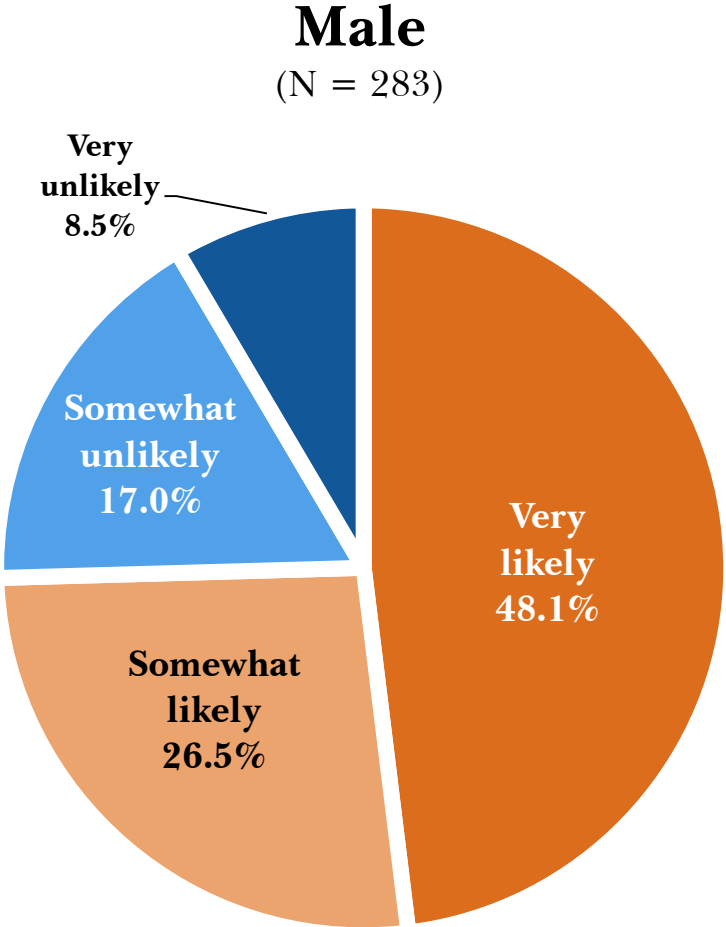
Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [by educational attainment]



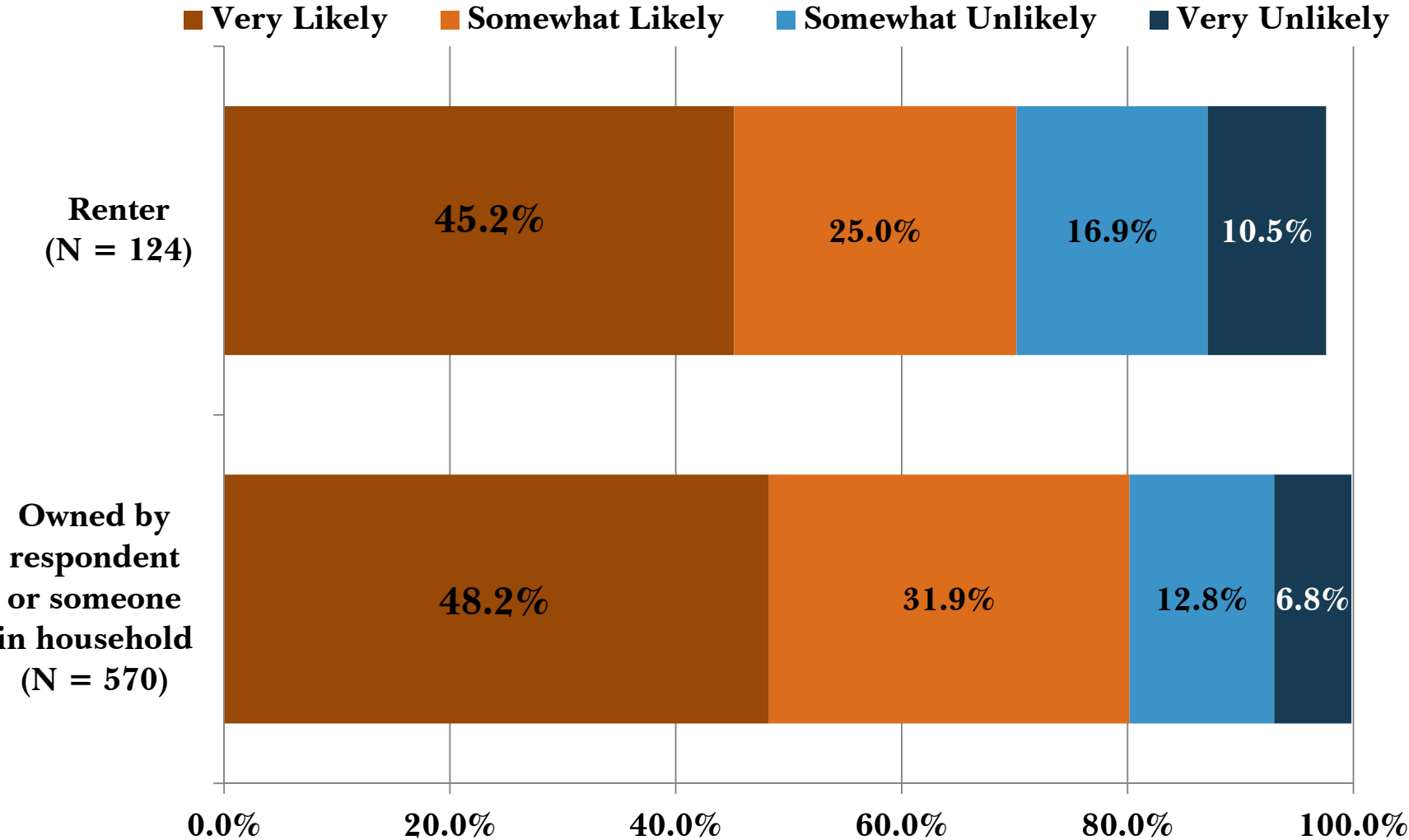
Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [by gender observation]



Question 5 Cross Tabulations

How likely is it that flash flooding will occur in Clark County during the next 12 months? [by homeownership]



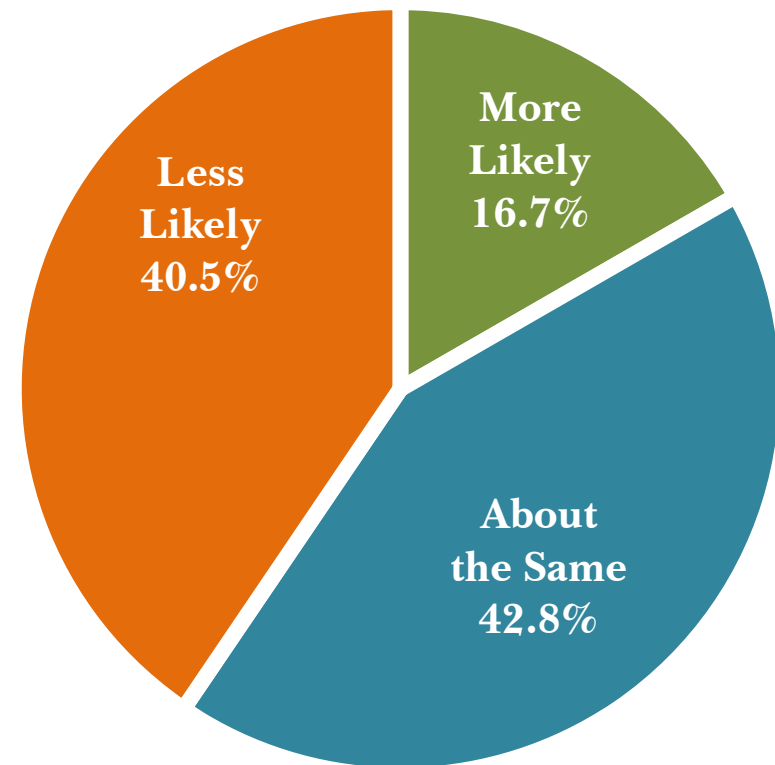
Question 6

Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago?

42.8% of respondents anticipates flash flooding to occur at the same rate today as 10 years ago.

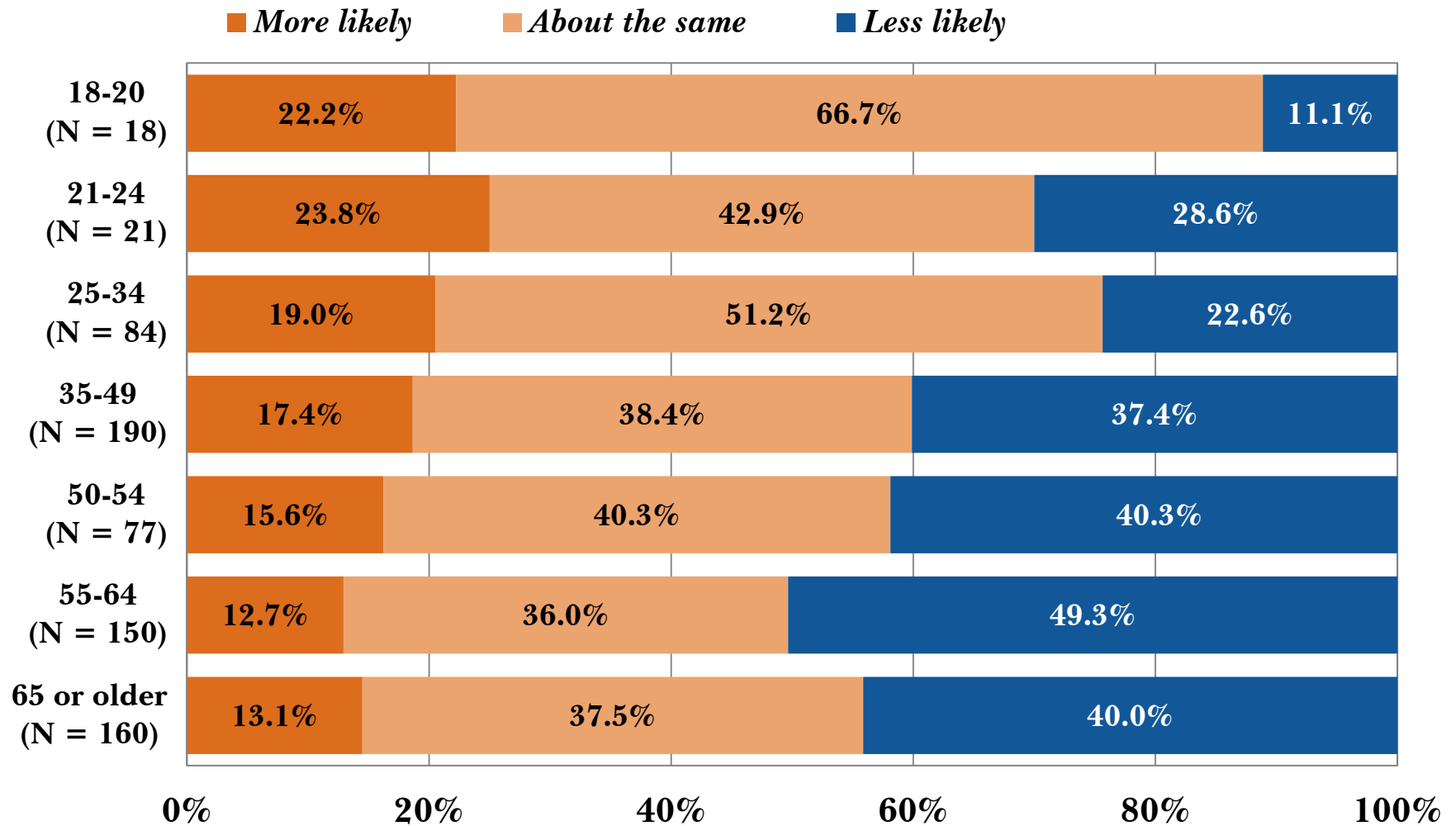
Survey Respondents

N = 659



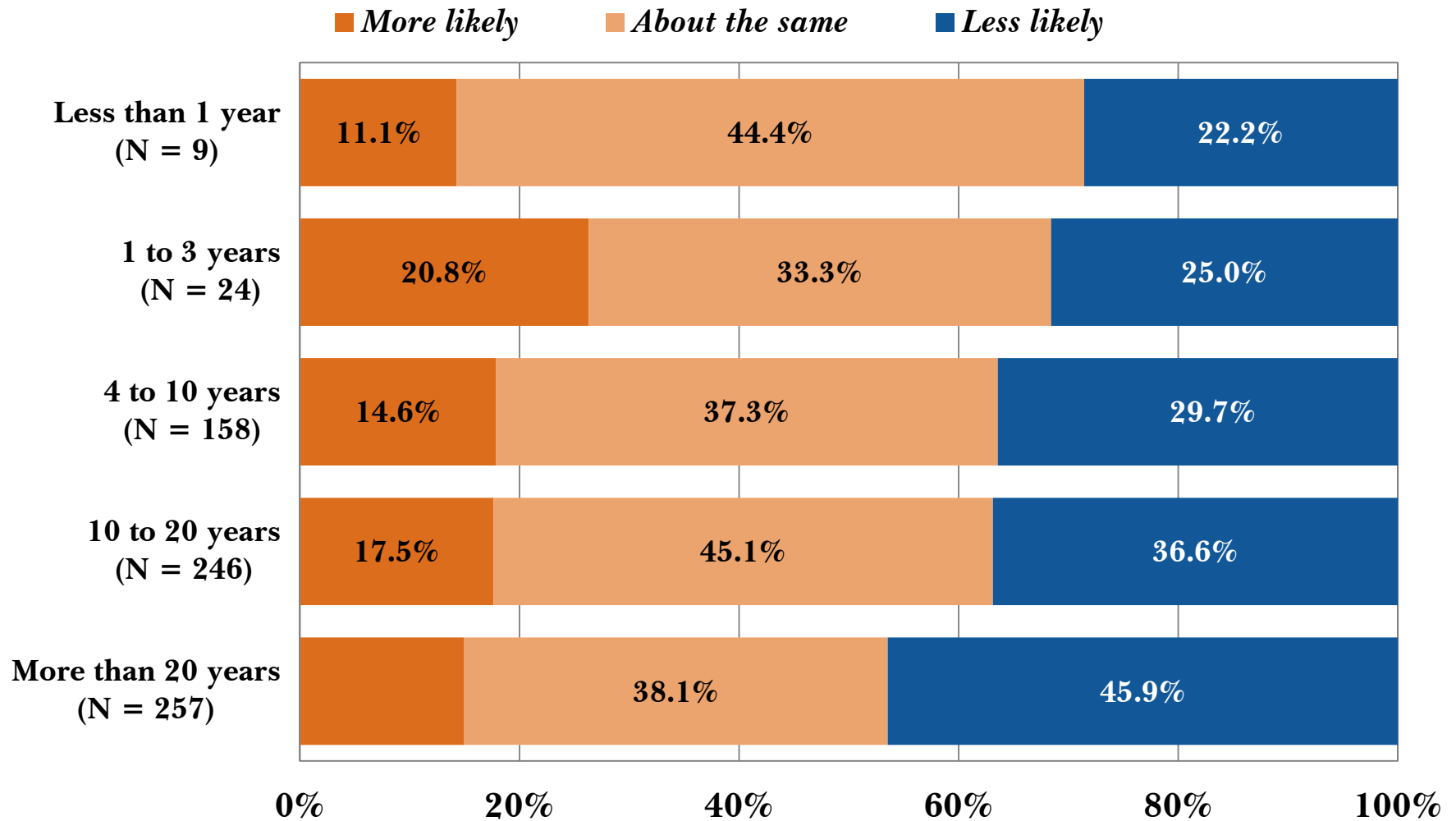
Question 6 Cross Tabulations

Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago? [by age category]



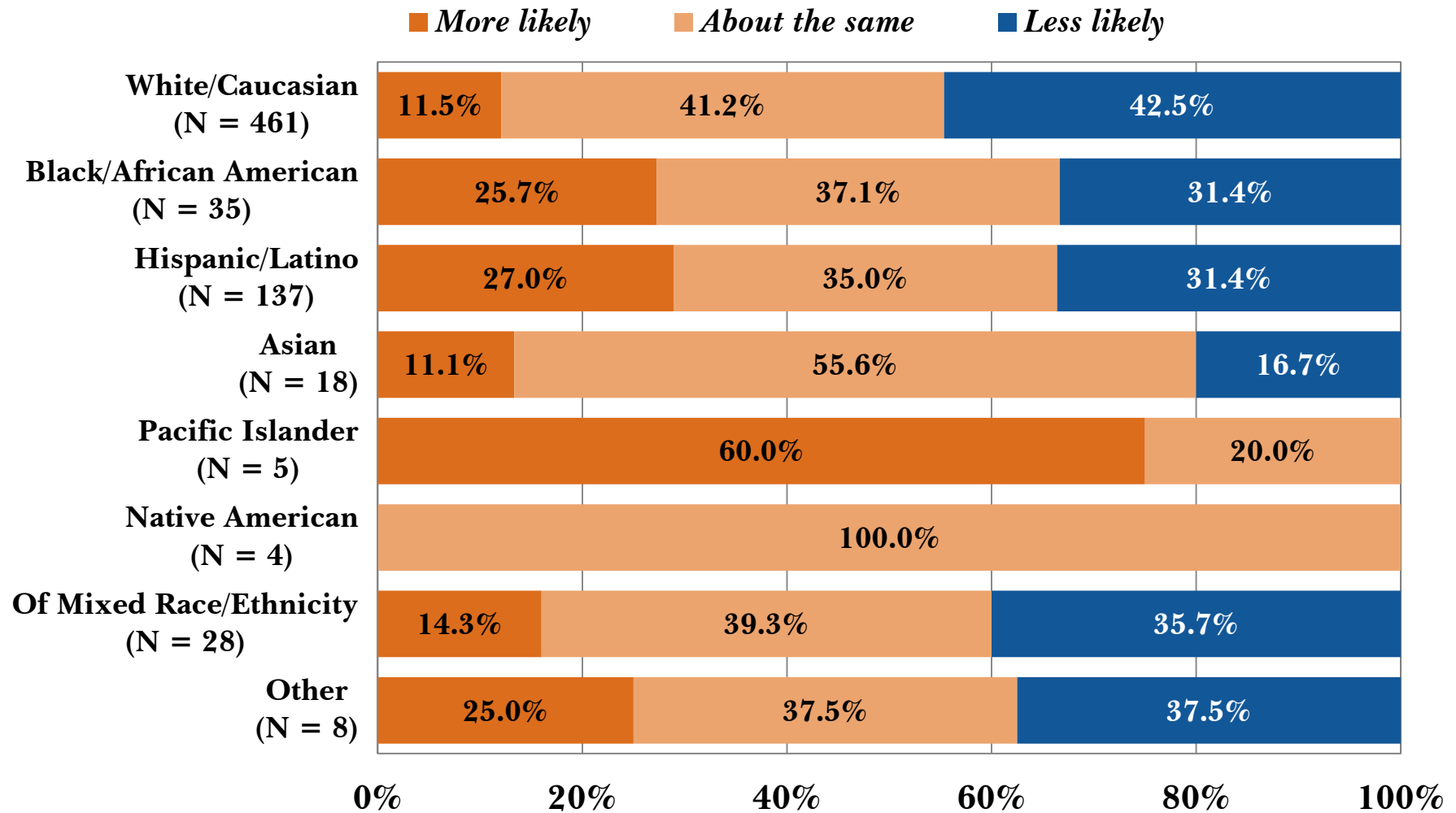
Question 6 Cross Tabulations

Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago? [by length of residence]



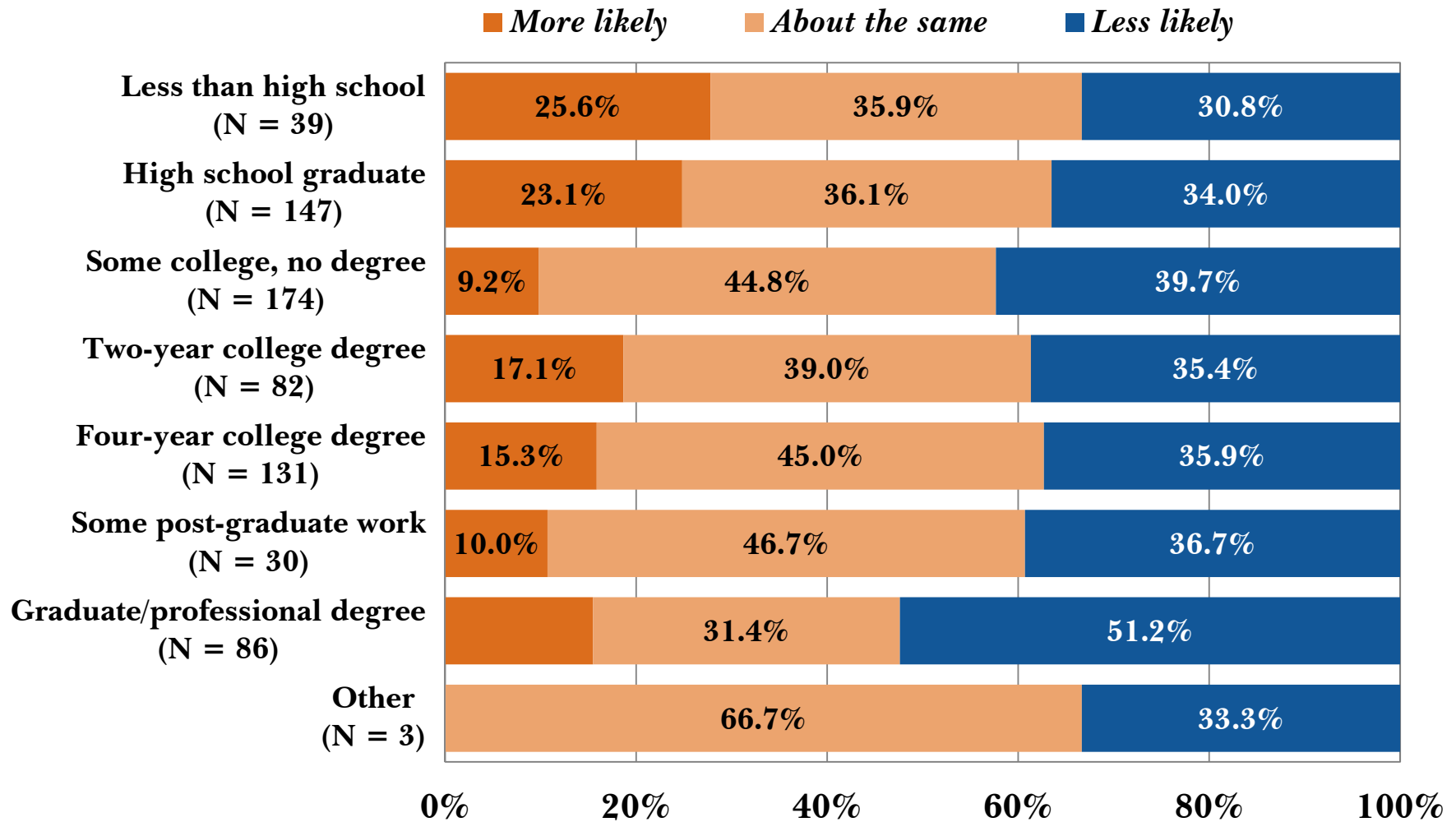
Question 6 Cross Tabulations

Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago? [by race/ethnicity]



Question 6 Cross Tabulations

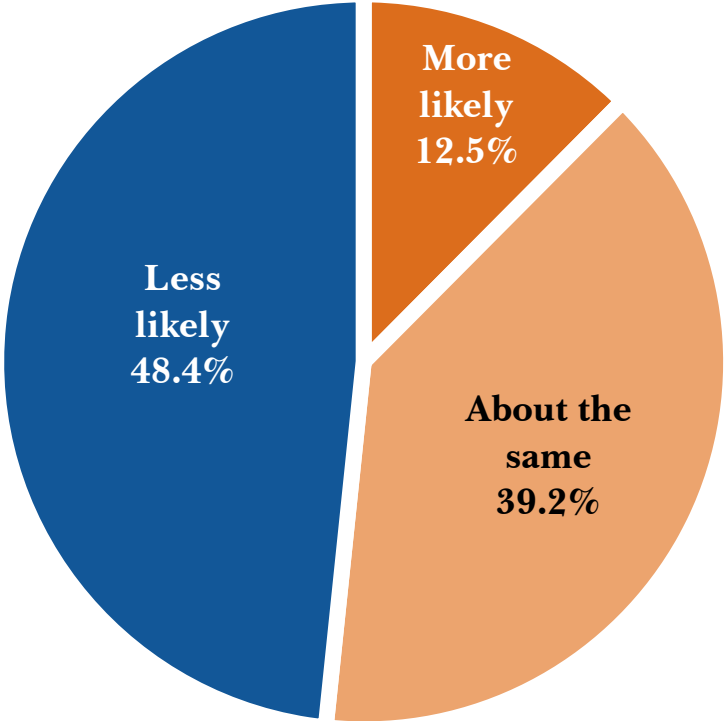
Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago? [by educational attainment]



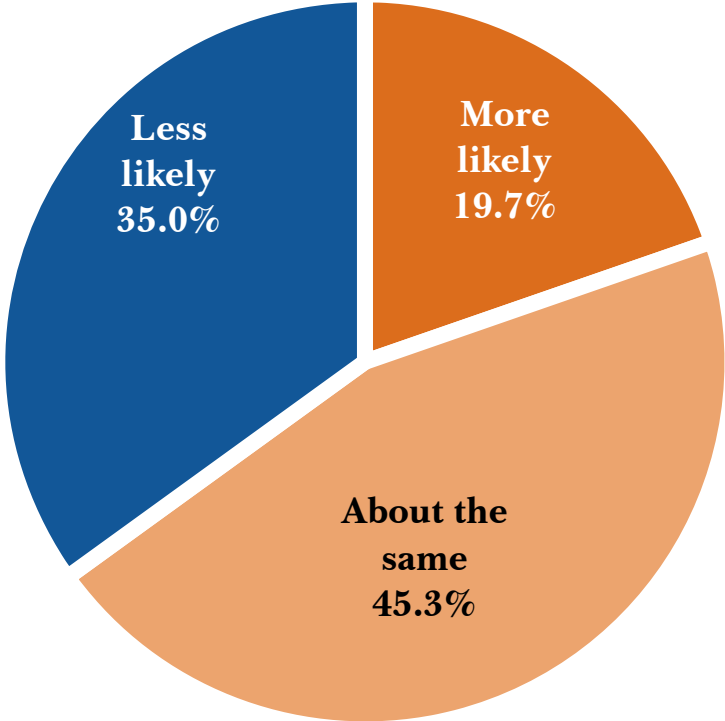
Question 6 Cross Tabulations

Is flash flooding in Clark County more likely, less likely or about the same today as it was 10 years ago? [by gender observation]

Male
(N = 273)

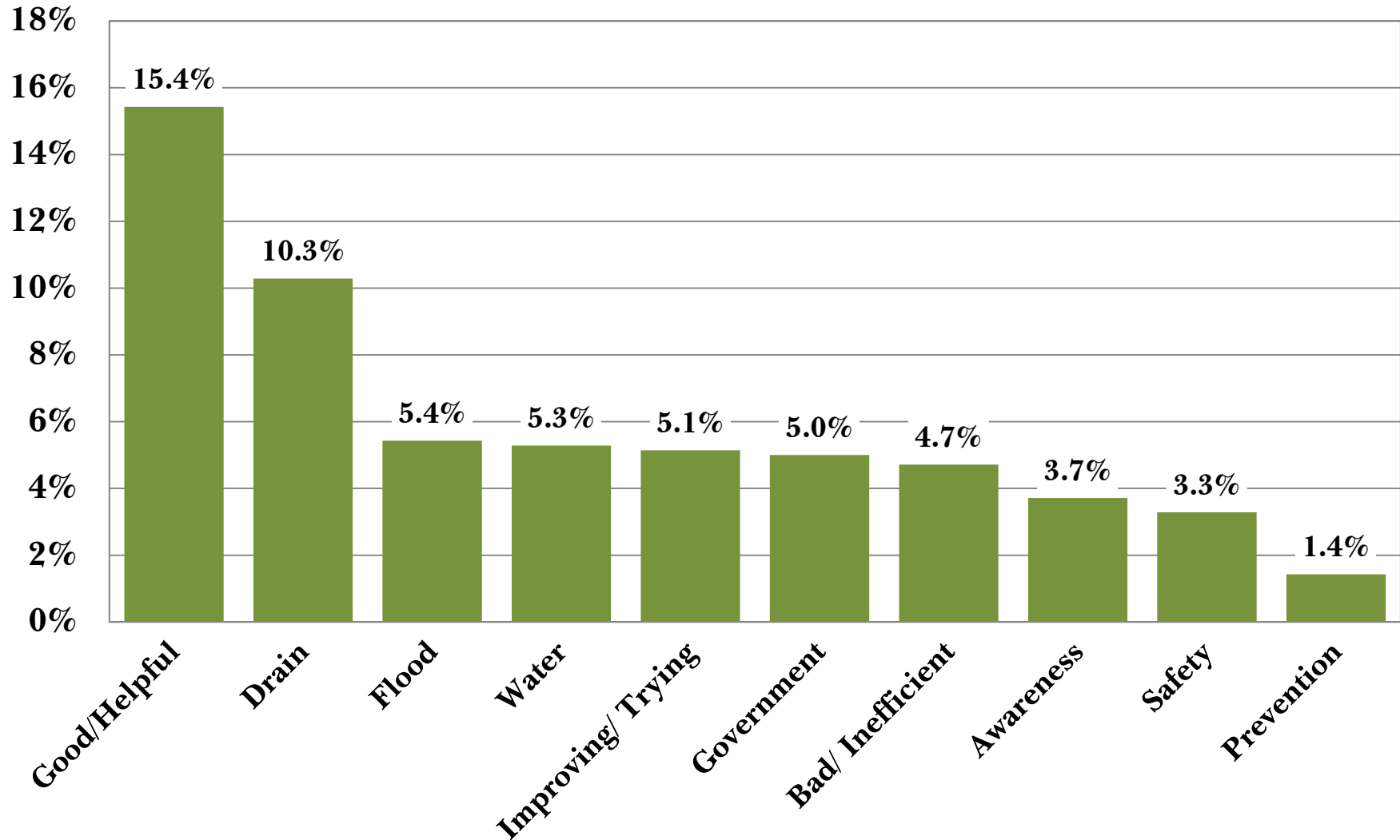


Female
(N = 386)



Question 7

First word that comes to your mind with “Clark County Regional Flood Control District”? (N = 700; open responses)



Question 7

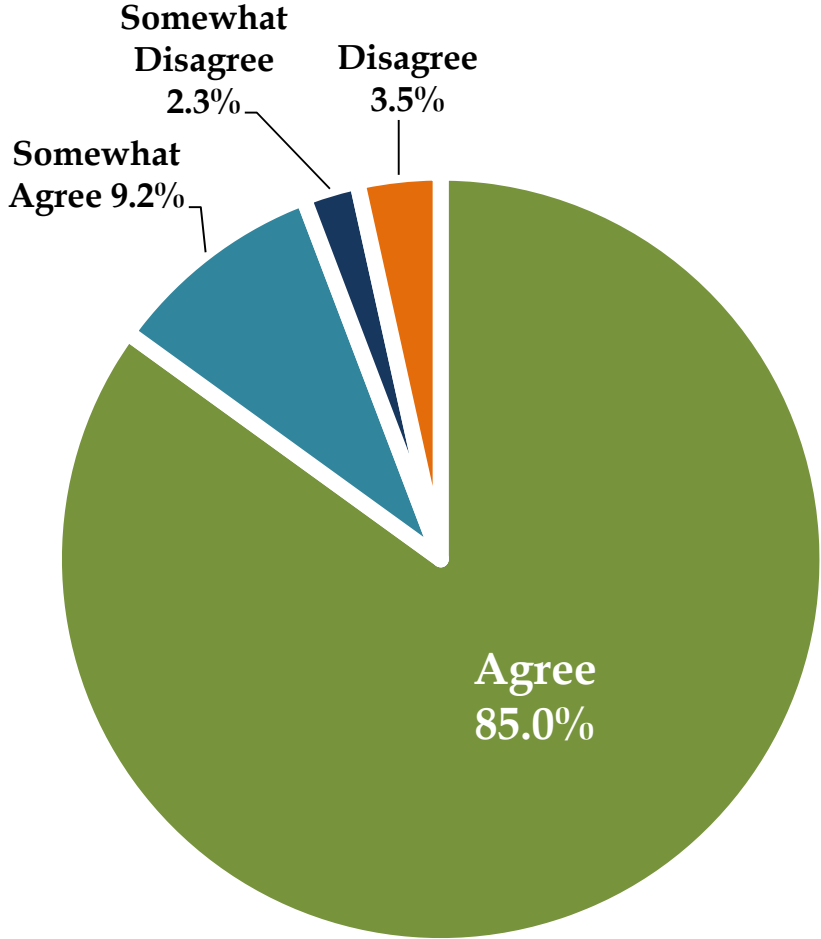
First word that comes to your mind with “Clark County Regional Flood Control District”? (N = 700; open responses)

Notable Quotes

- *Done some good work*
- *Work in progress*
- *Give us warning*
- *License plates*
- *Good job*
- *They have got it down now*
- *Billboards*
- *Big improvement*
- *I hear about them in the news*
- *Flamingo Road*
- *Waste of money*
- *Business that handles flooding*
- *A place you can call for help*
- *Commissioner Brown*
- *They educate*
- *The radio commercials*
- *The people that are giving us traffic headaches*

Question 8.1

Statement: "I know about the dangers of flash flooding"



Survey Respondents

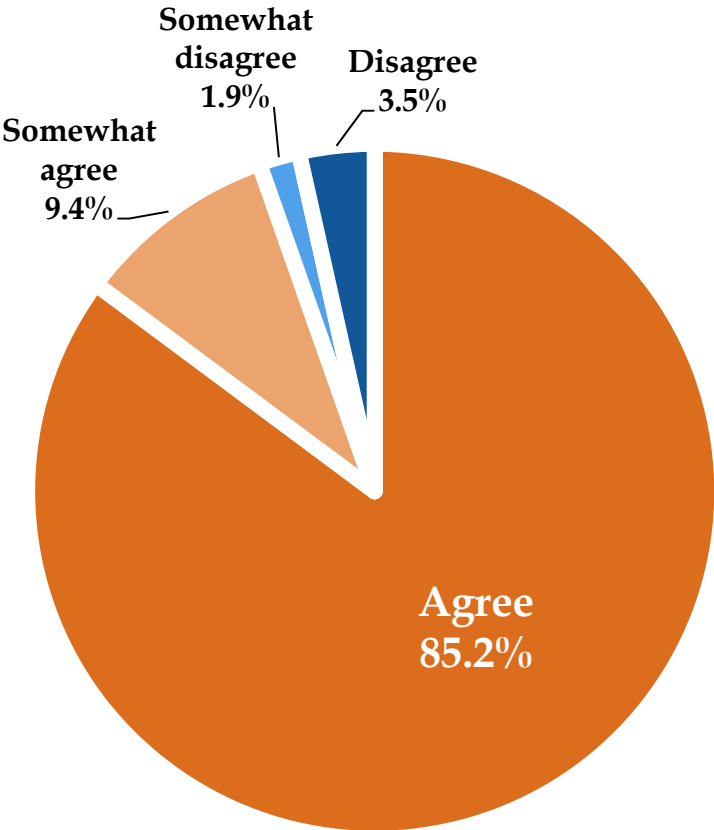
N = 700

Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*
[with or without Cox Digital Cable TV]

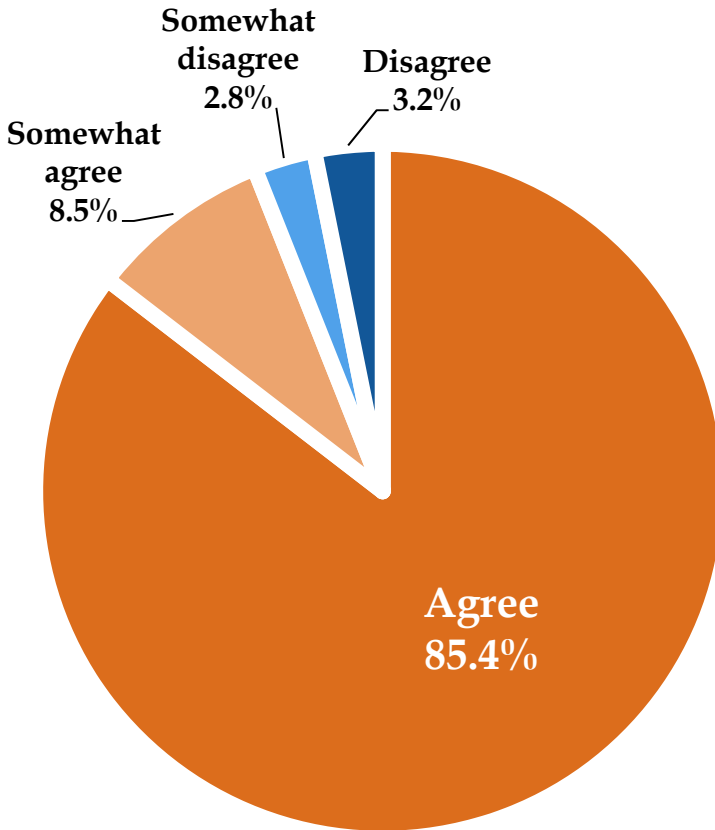
With Cox Digital Cable TV

(N = 371)



Without Cox Digital Cable TV

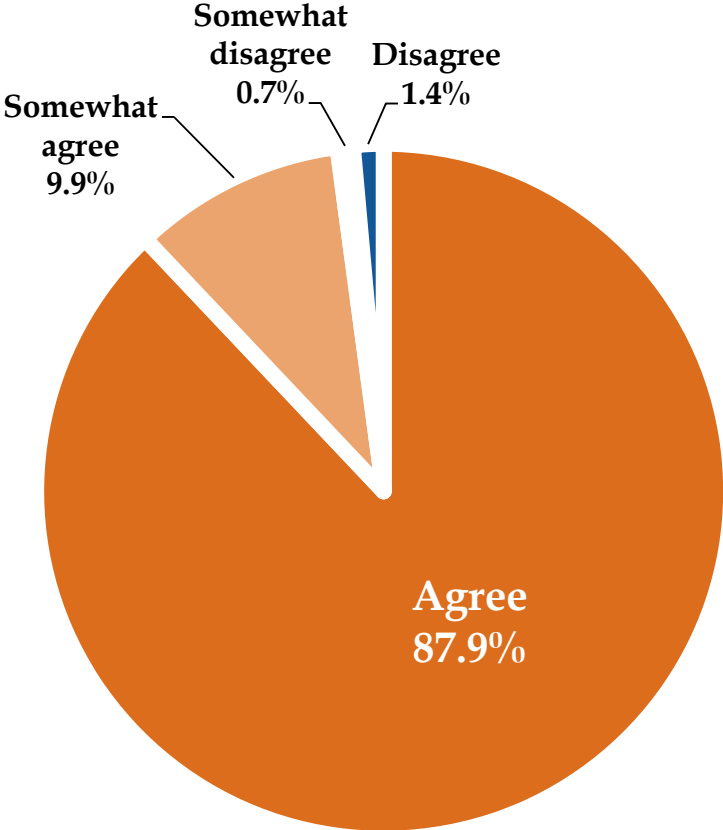
(N = 316)



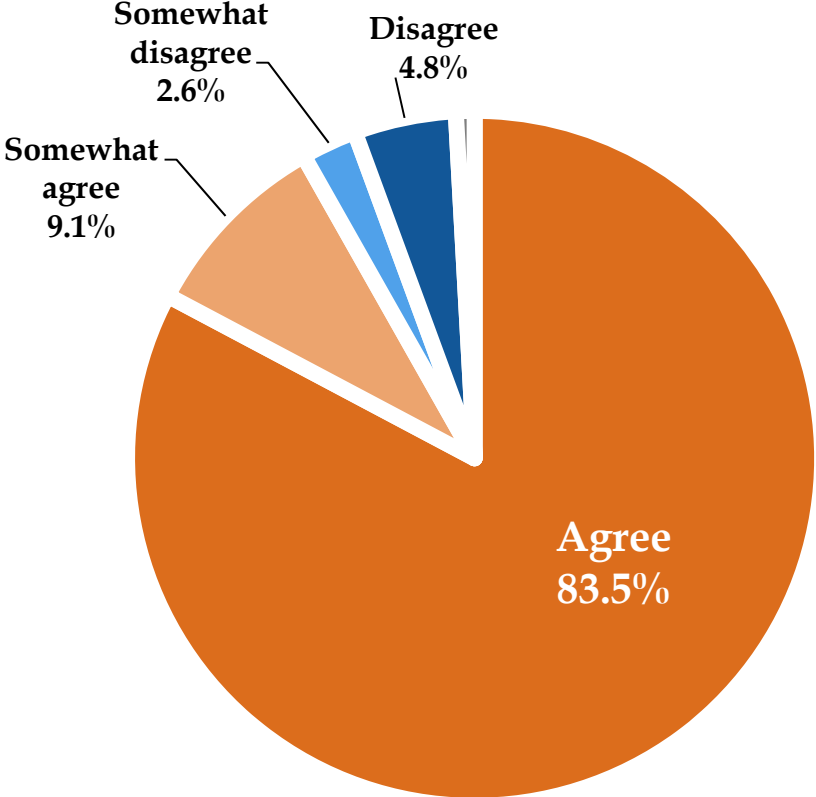
Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*

Watched the Flood Channel TV Program (N = 141)

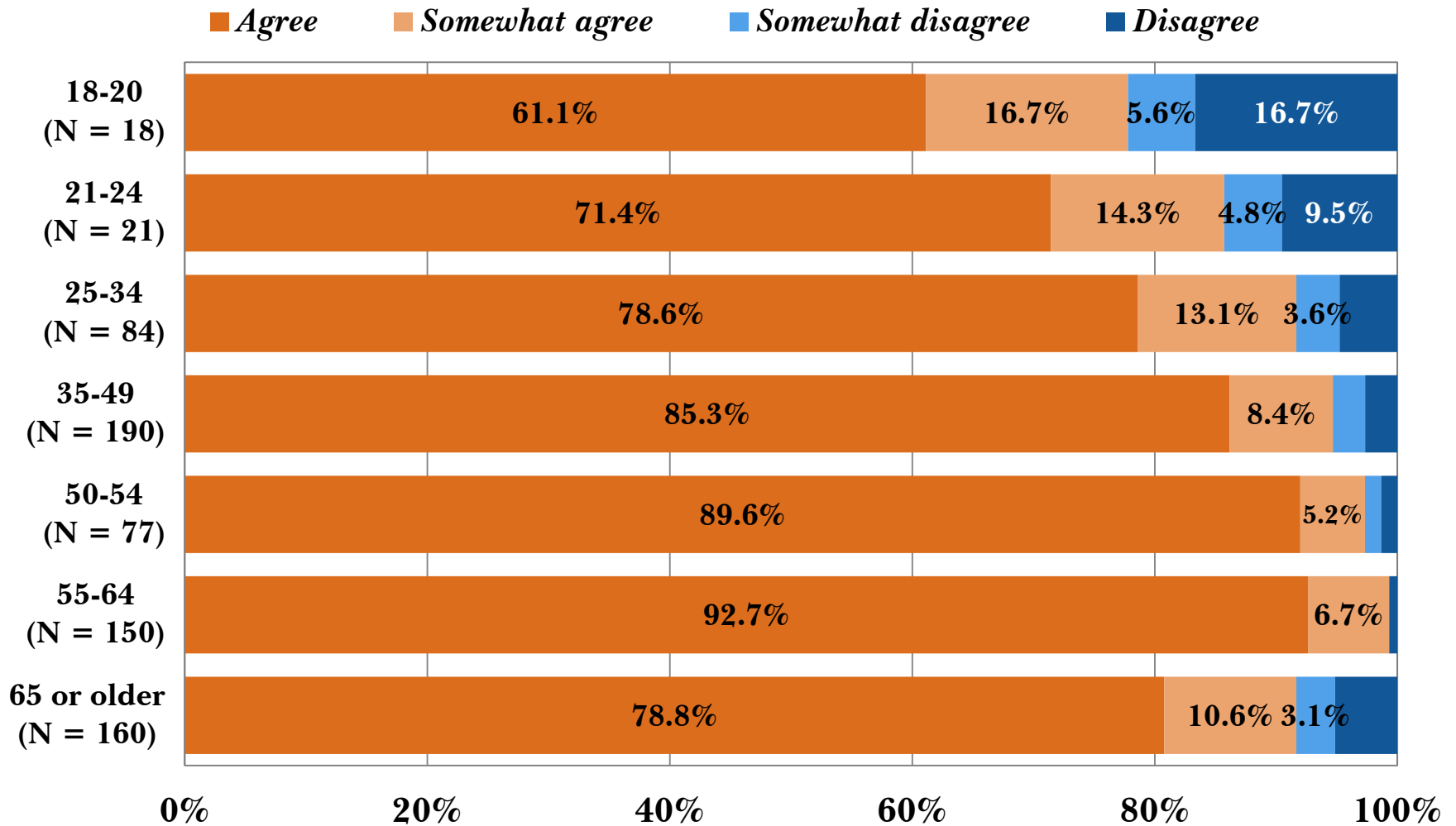


Never Watched the Flood Channel TV Program (N = 230)



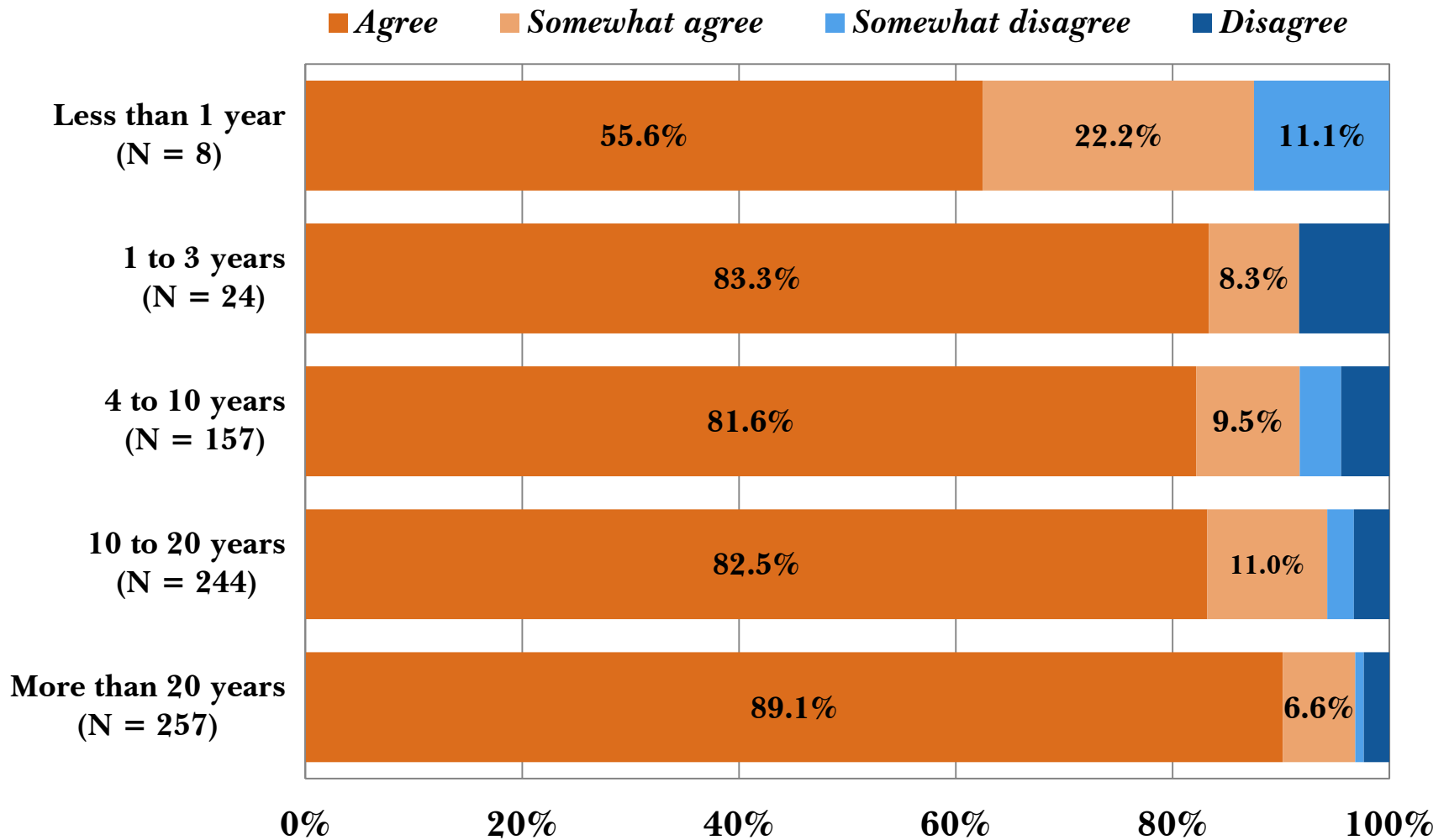
Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*
[by age category]



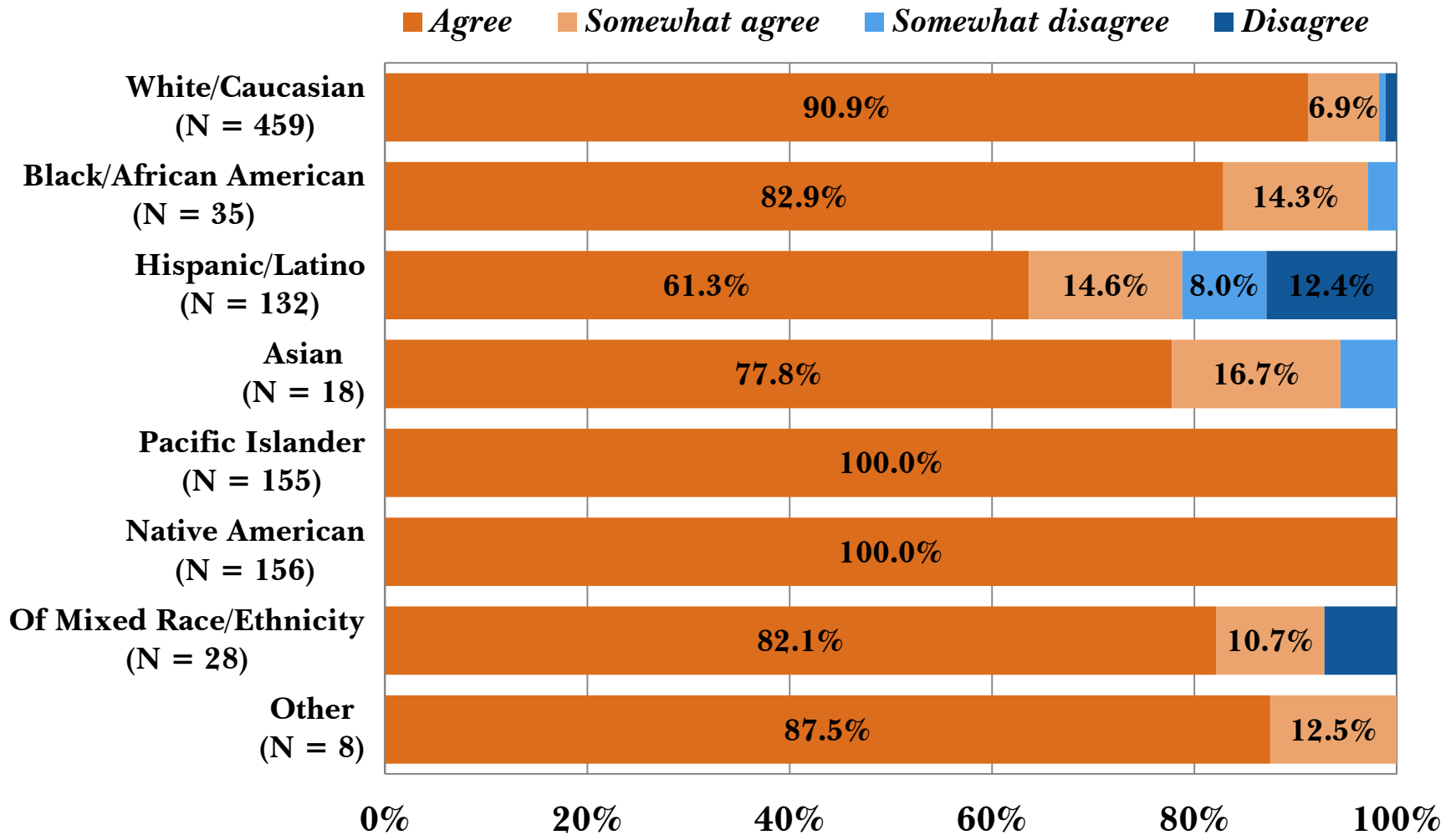
Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*
[by length of residence]



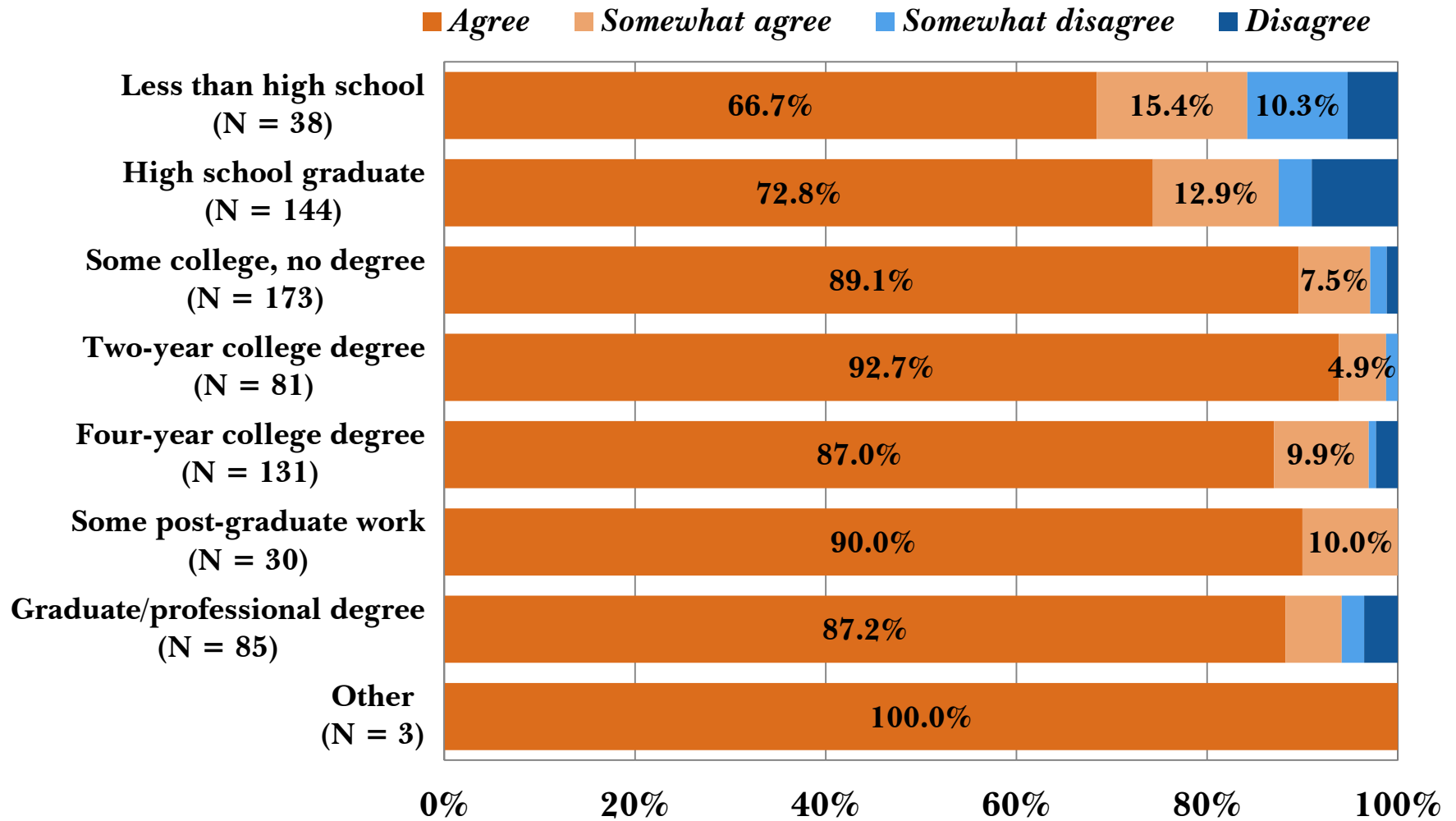
Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*
 [by race/ethnicity]



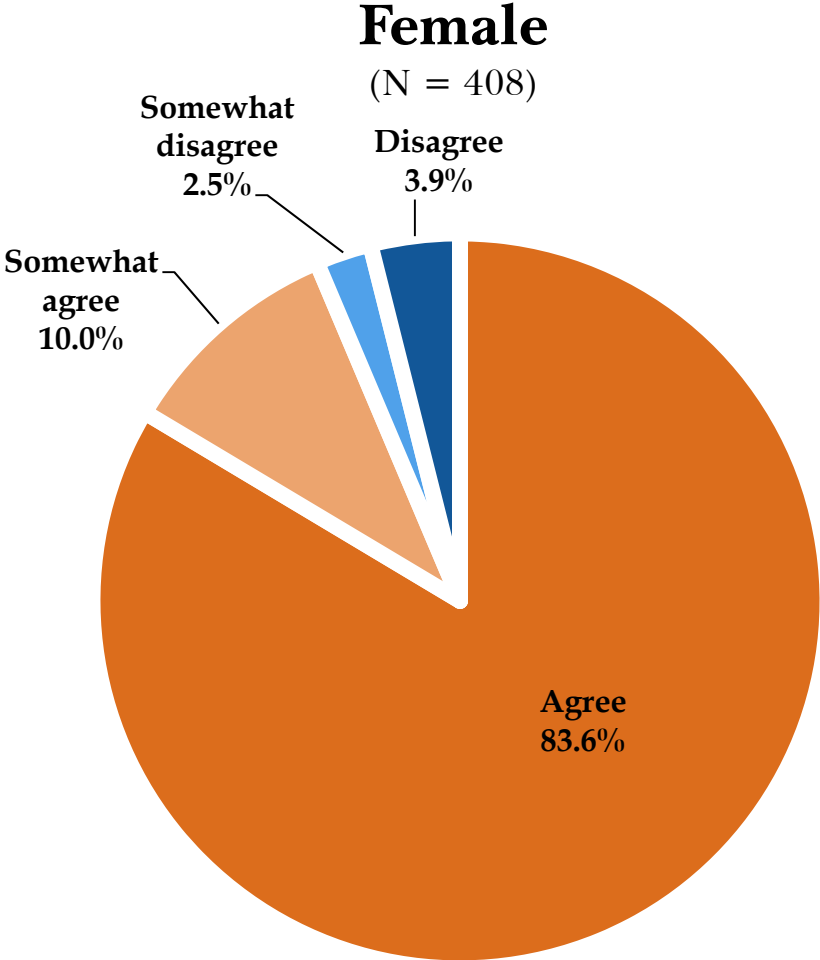
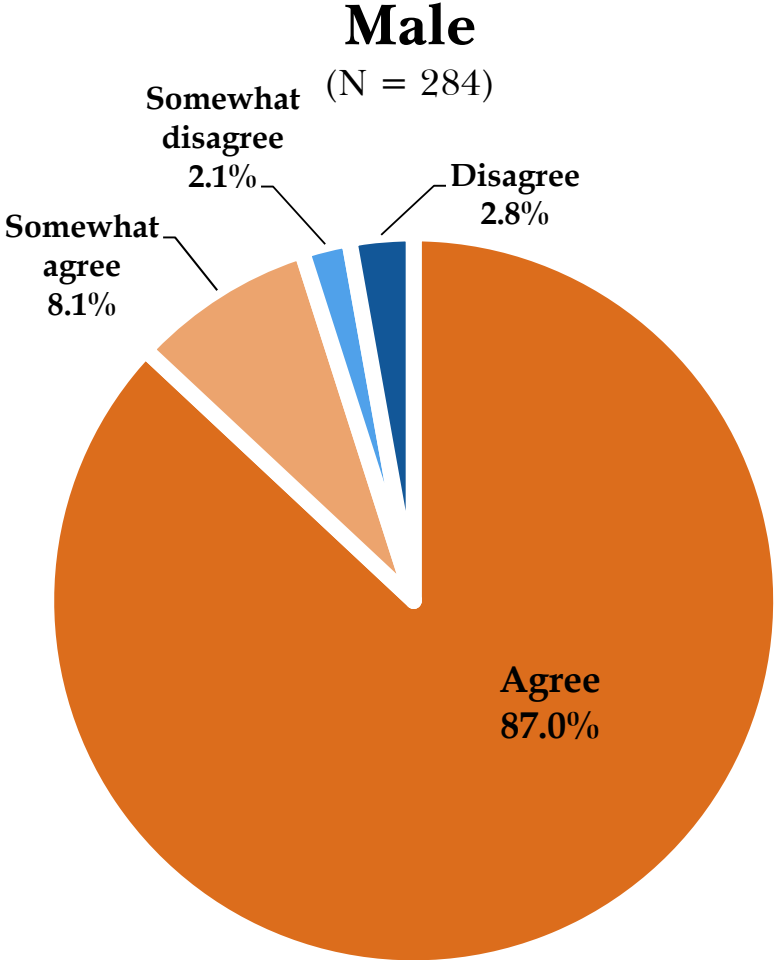
Question 8.1 Cross Tabulations

Statement: *I know about the dangers of flash flooding*
 [by educational attainment]



Question 8.1 Cross Tabulations

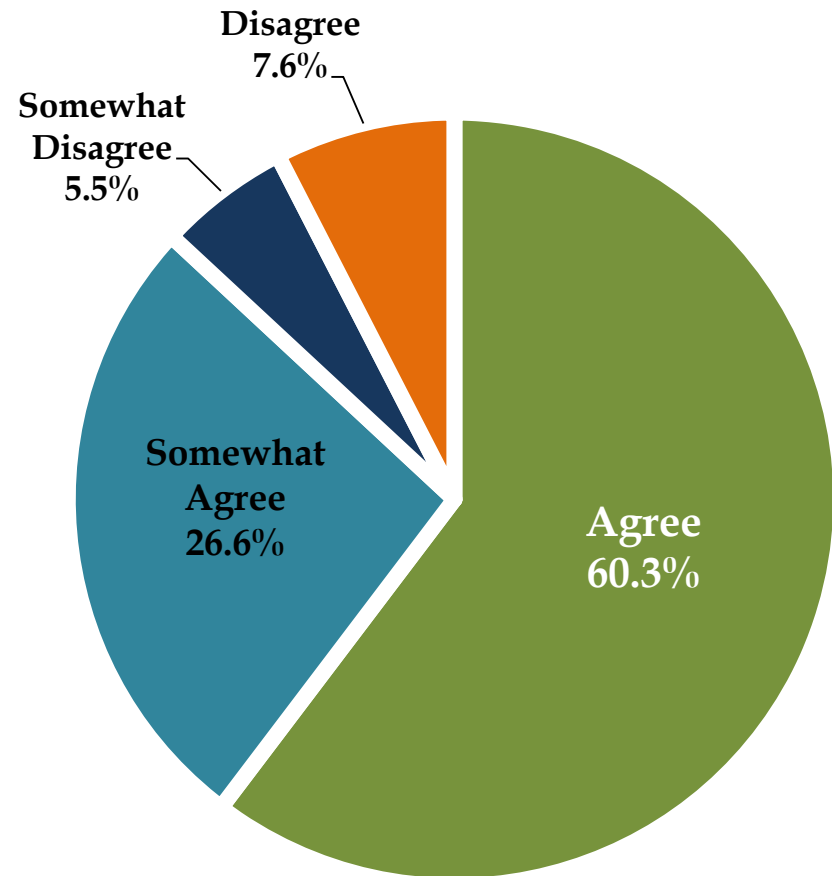
Statement: *I know about the dangers of flash flooding*
[by gender observation]



Question 8.2

Statement: "I believe that the people in my community, my friends and my neighbors know about the dangers of flash flooding"

Survey Respondents
N = 688

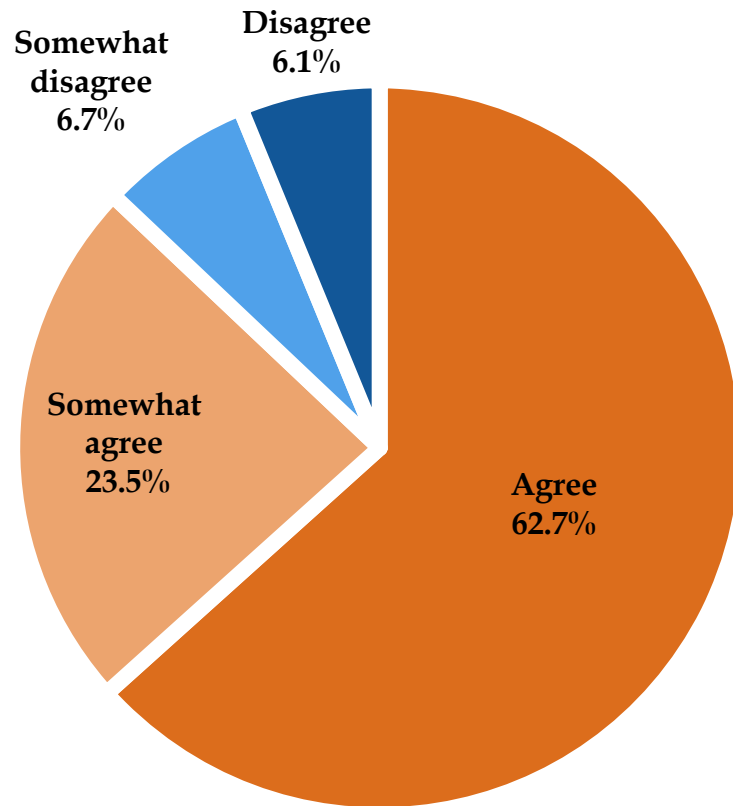


Question 8.2 Cross Tabulations

Statement: I believe the people in my community know about the dangers of flash flooding [with or without Cox Digital Cable]

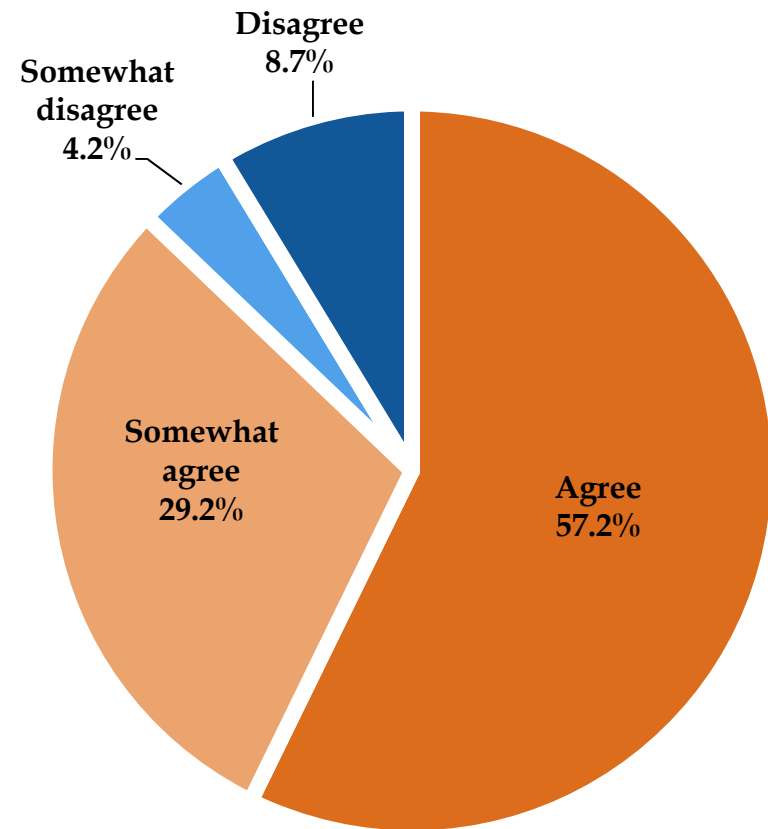
With Cox Digital Cable TV

(N = 371)



Without Cox Digital Cable TV

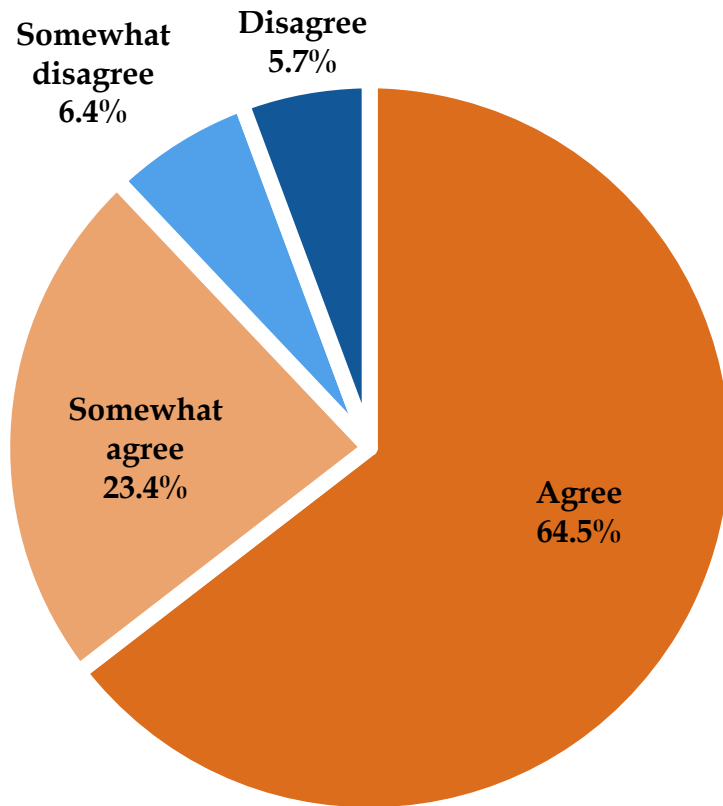
(N = 311)



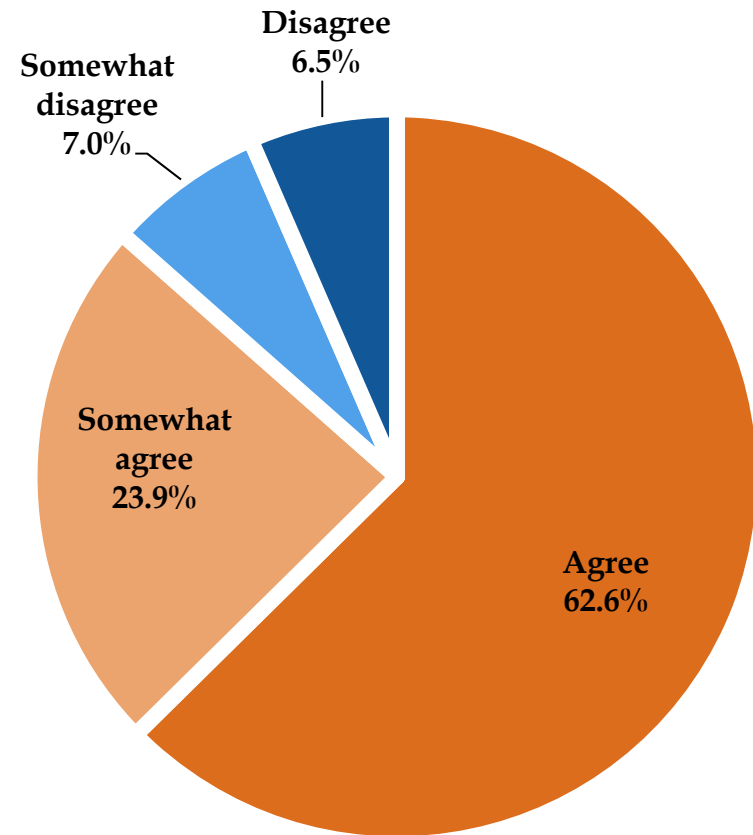
Question 8.2 Cross Tabulations

Statement: I believe the people in my community know about the dangers of flash flooding

**Watched the
Flood Channel TV Program**
(N = 141)



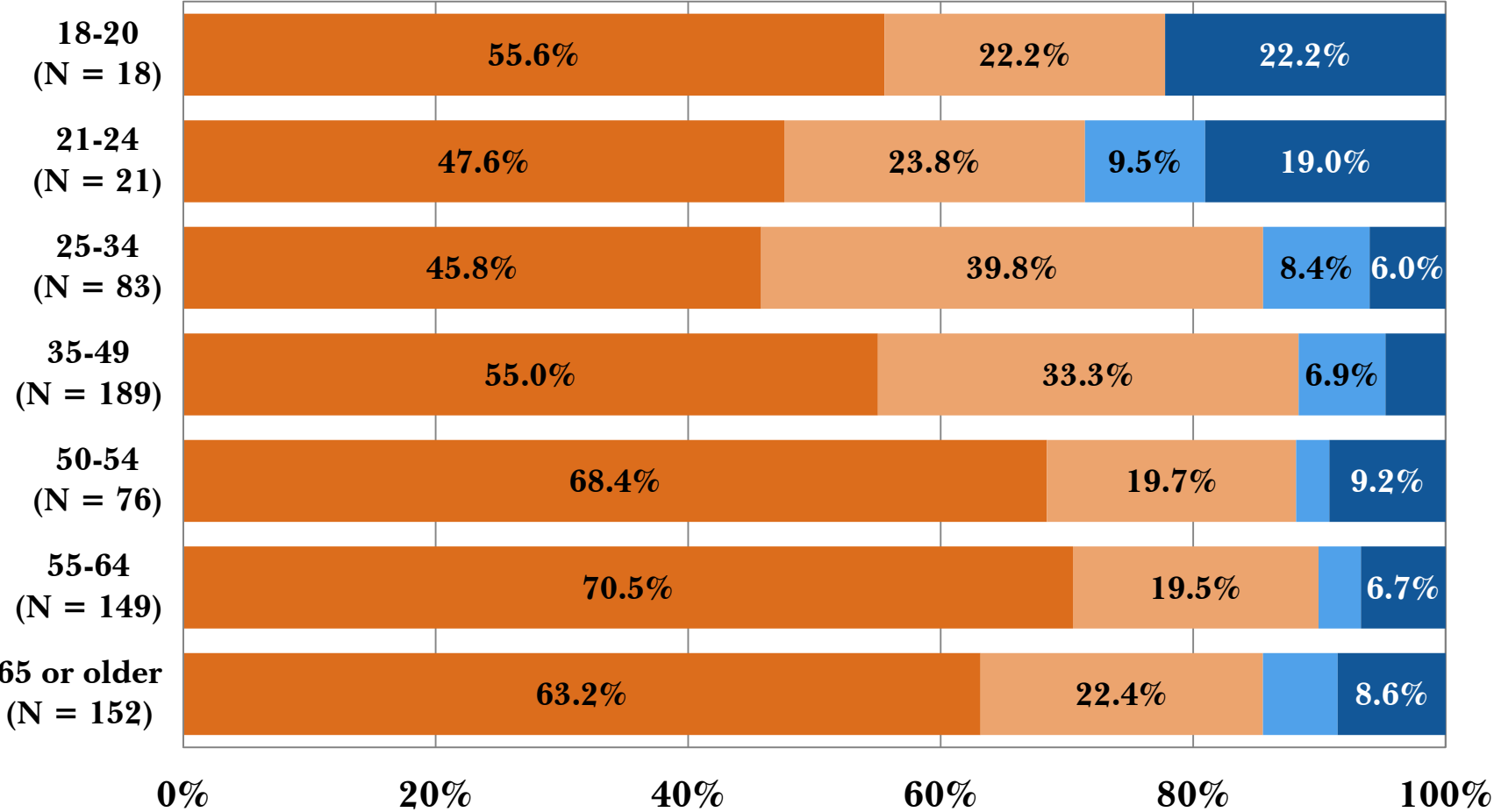
**Never watched the
Flood Channel TV Program**
(N = 230)



Question 8.2 Cross Tabulations

Statement: *I believe the people in my community know about the dangers of flash flooding [by age category]*

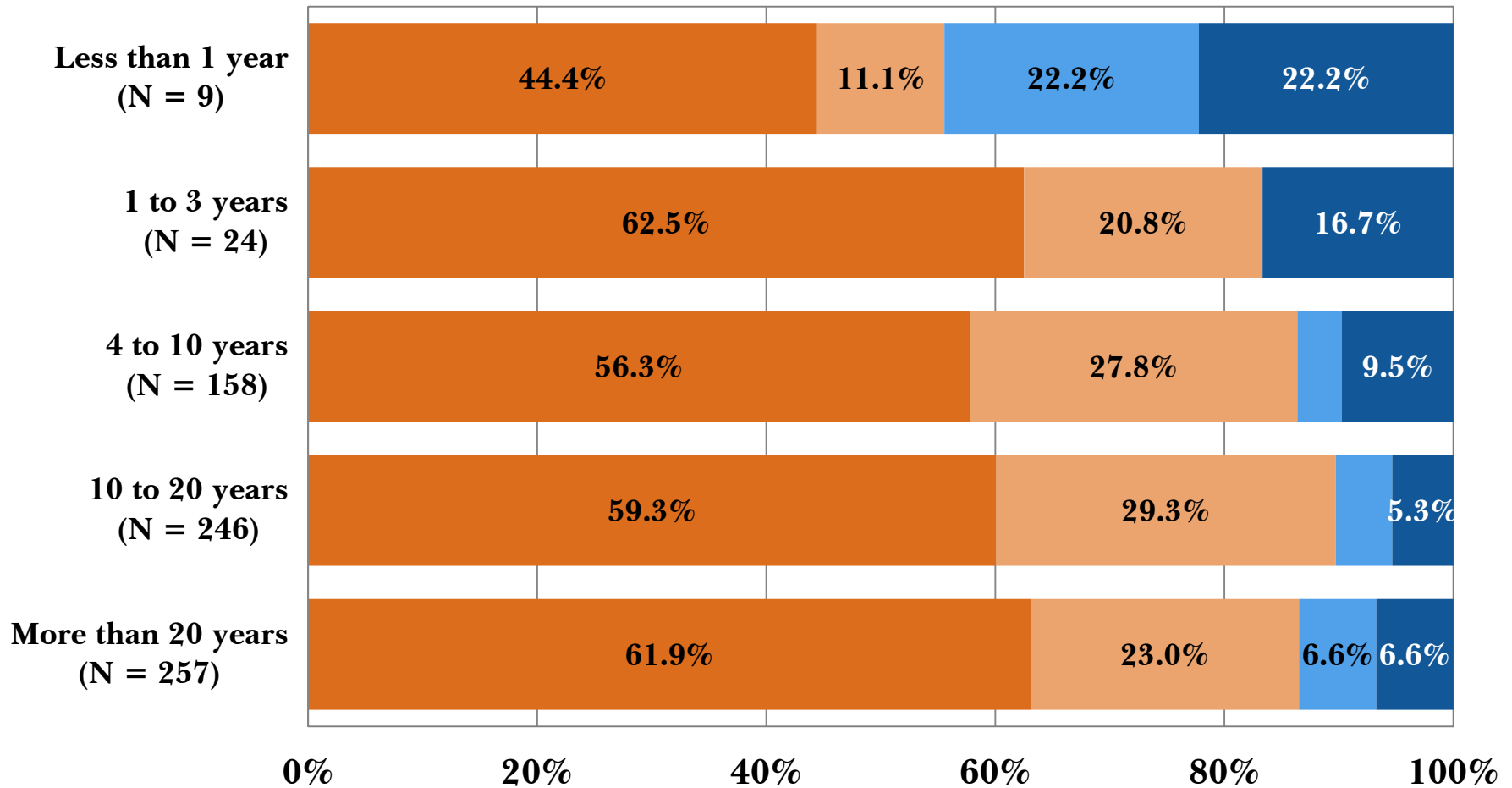
■ Agree
 ■ Somewhat agree
 ■ Somewhat disagree
 ■ Disagree



Question 8.2 Cross Tabulations

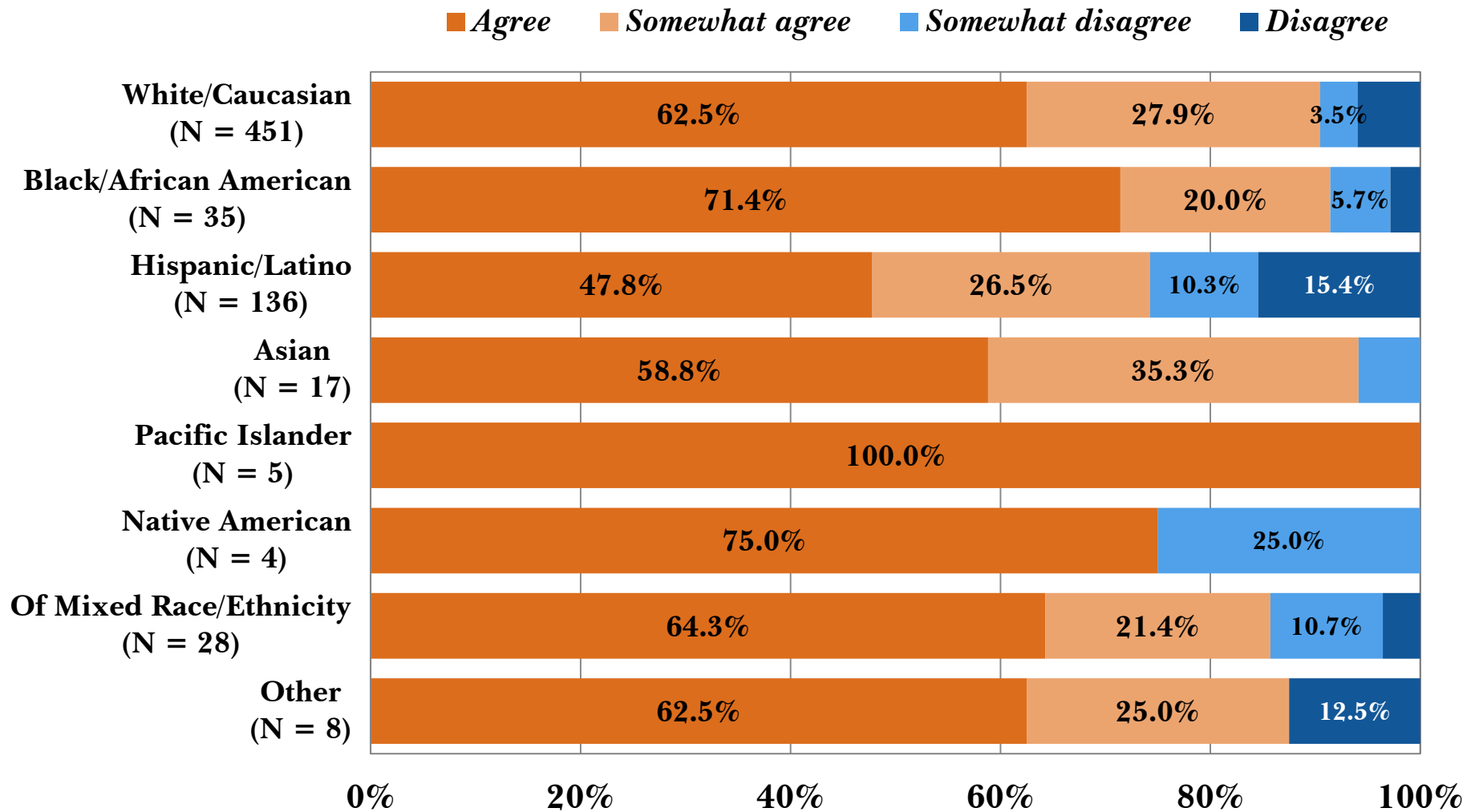
Statement: I believe the people in my community know about the dangers of flash flooding [by length of residence]

■ Agree ■ Somewhat agree ■ Somewhat disagree ■ Disagree



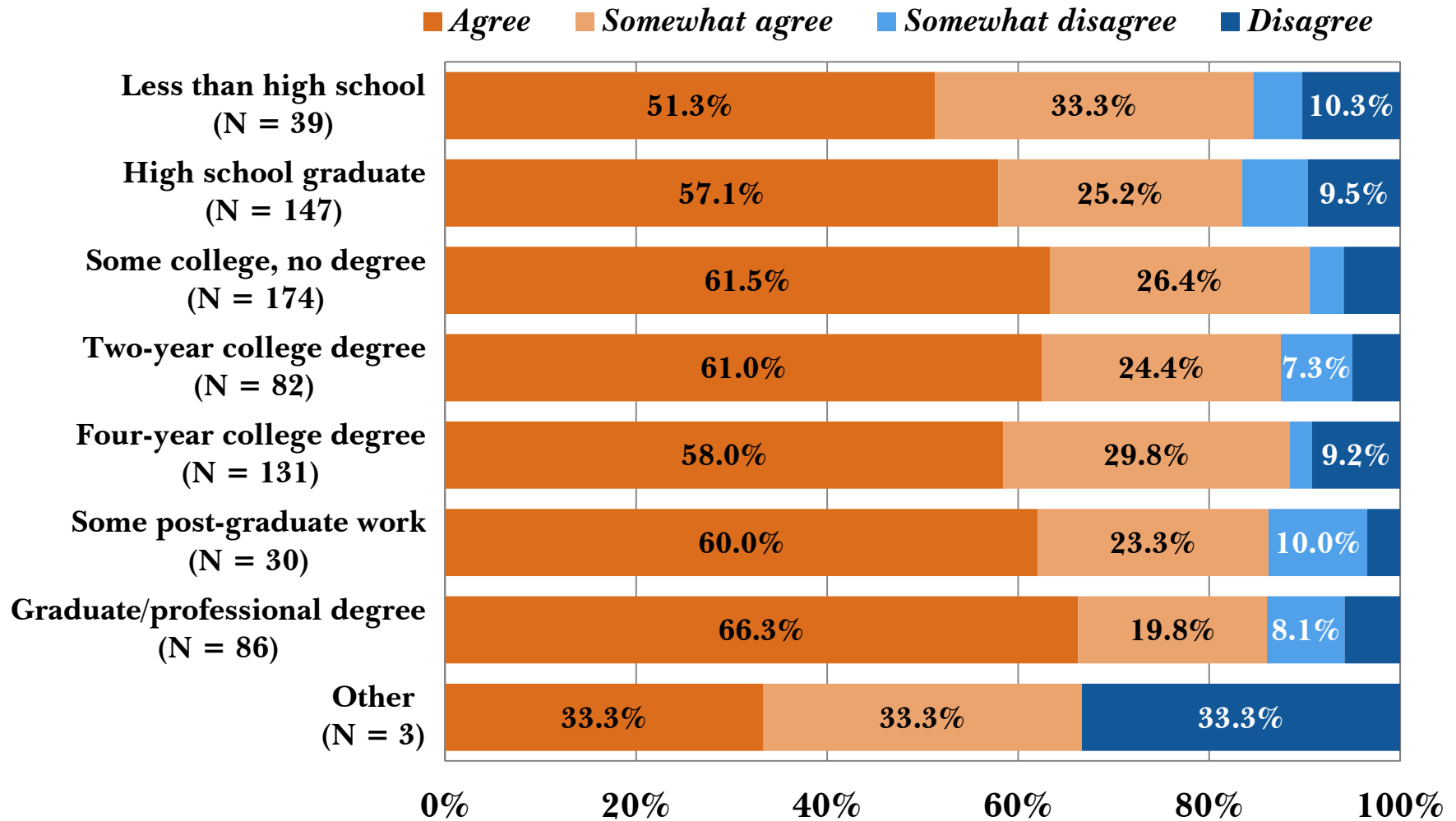
Question 8.2 Cross Tabulations

Statement: I believe the people in my community know about the dangers of flash flooding [by race/ethnicity]



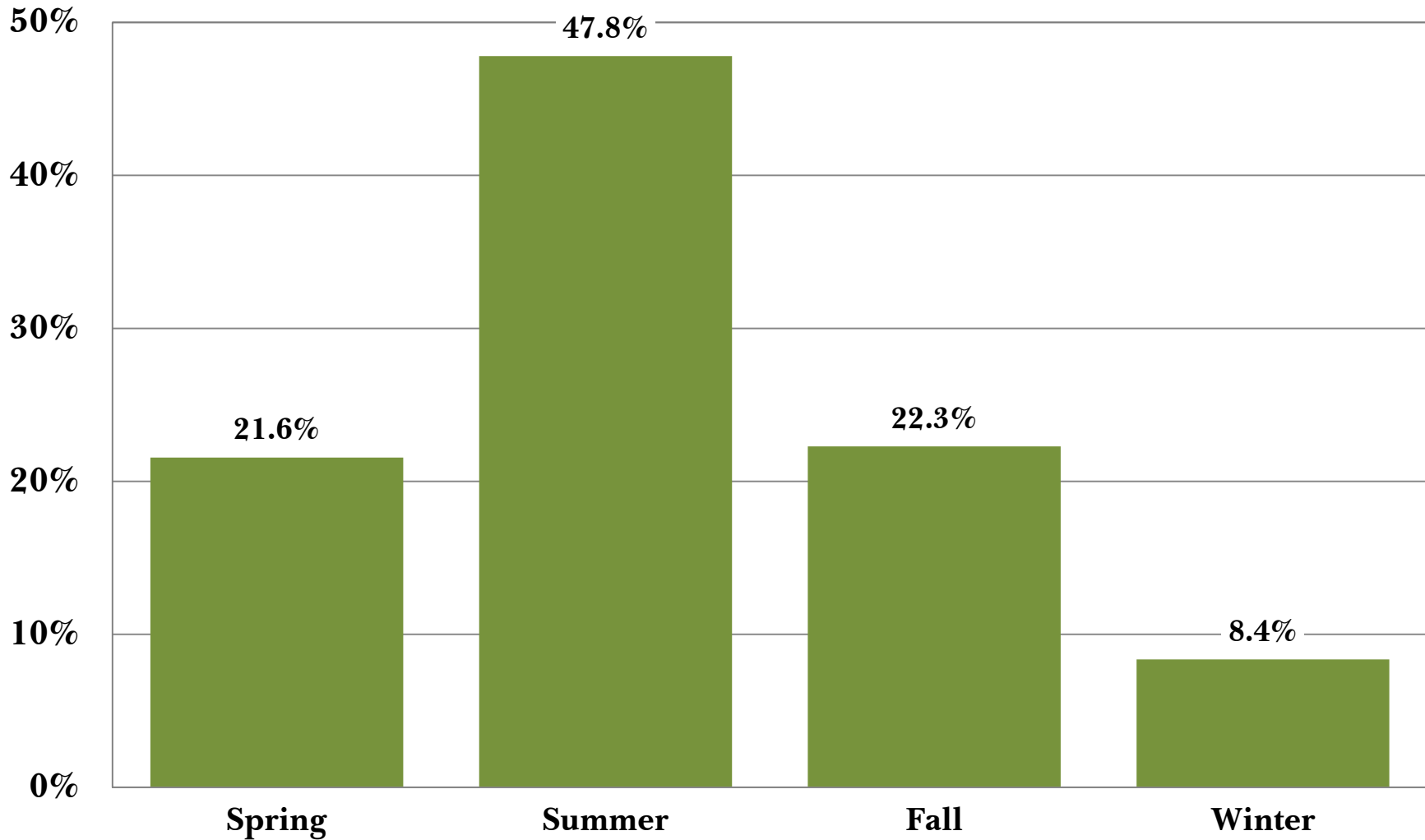
Question 8.2 Cross Tabulations

Statement: I believe the people in my community know about the dangers of flash flooding [by educational attainment]



Question 9

What season is flash flooding most likely to occur? (N = 682)

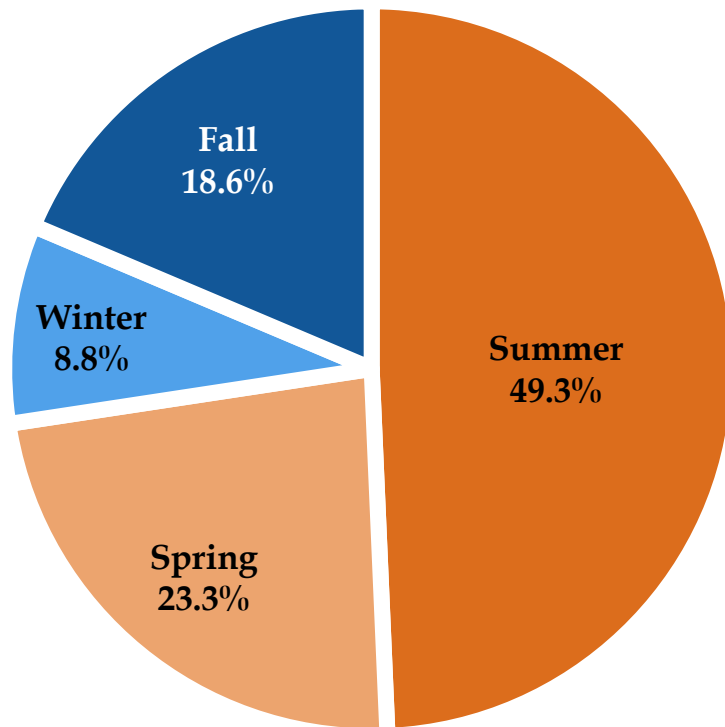


Question 9 Cross Tabulations

*Statement: In what season is flash flooding most likely to occur?
[with or without Cox Digital Cable]*

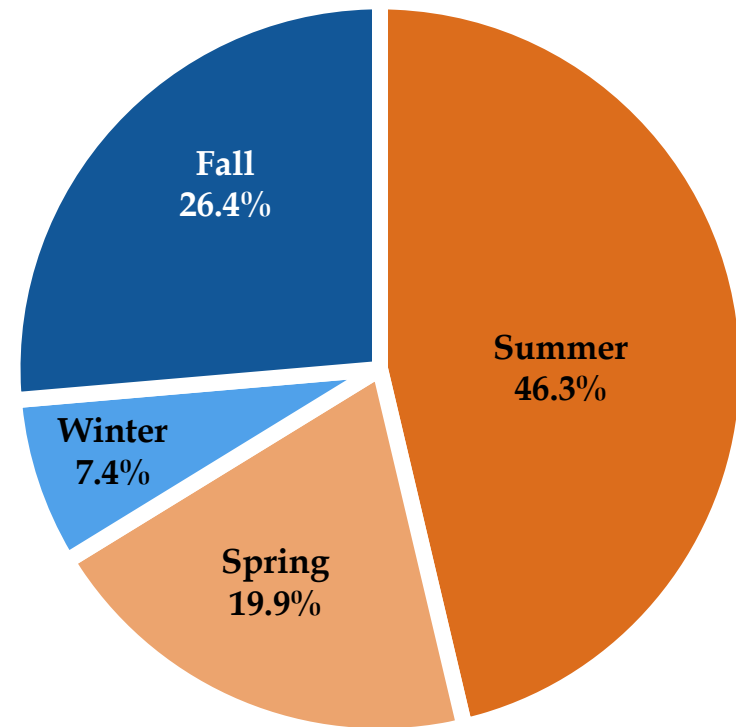
With Cox Digital Cable TV

(N = 365)



Without Cox Digital Cable TV

(N = 311)

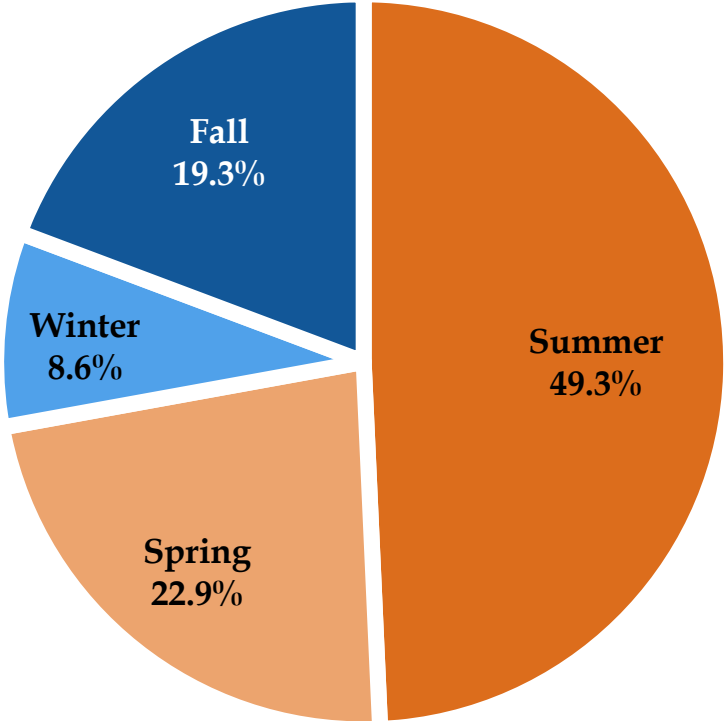


Question 9 Cross Tabulations

Statement: *In what season is flash flooding most likely to occur?*

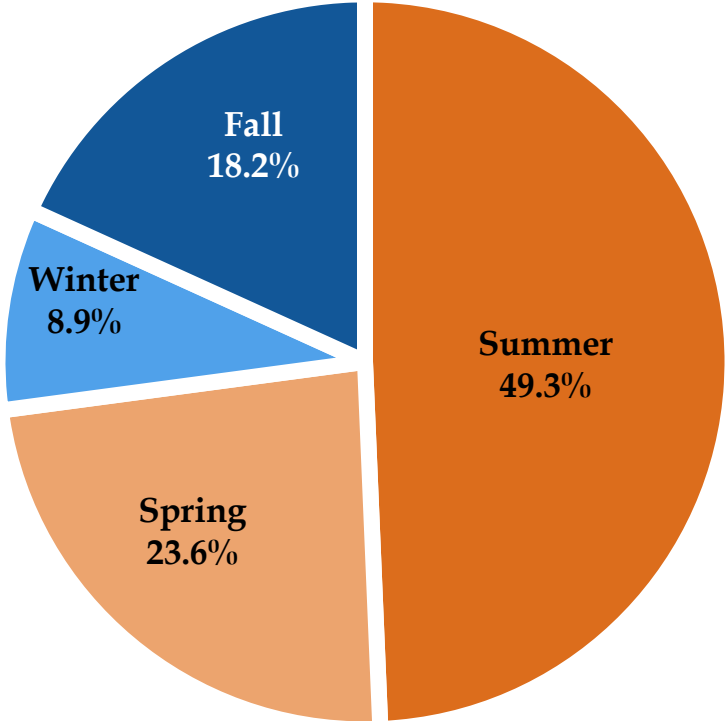
Watched the Flood Channel TV Program

(N = 140)



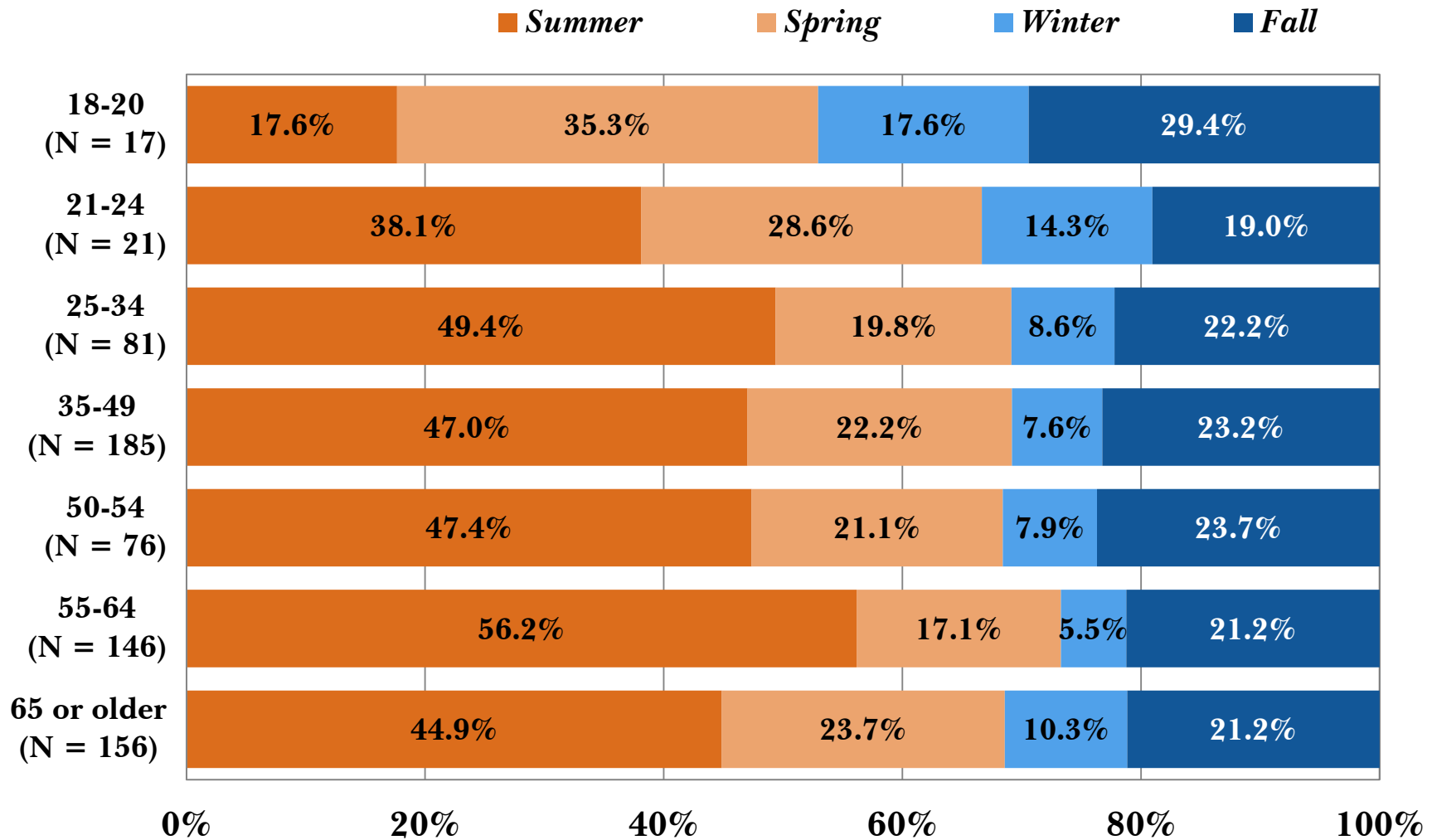
Never watched the Flood Channel TV Program

(N = 225)



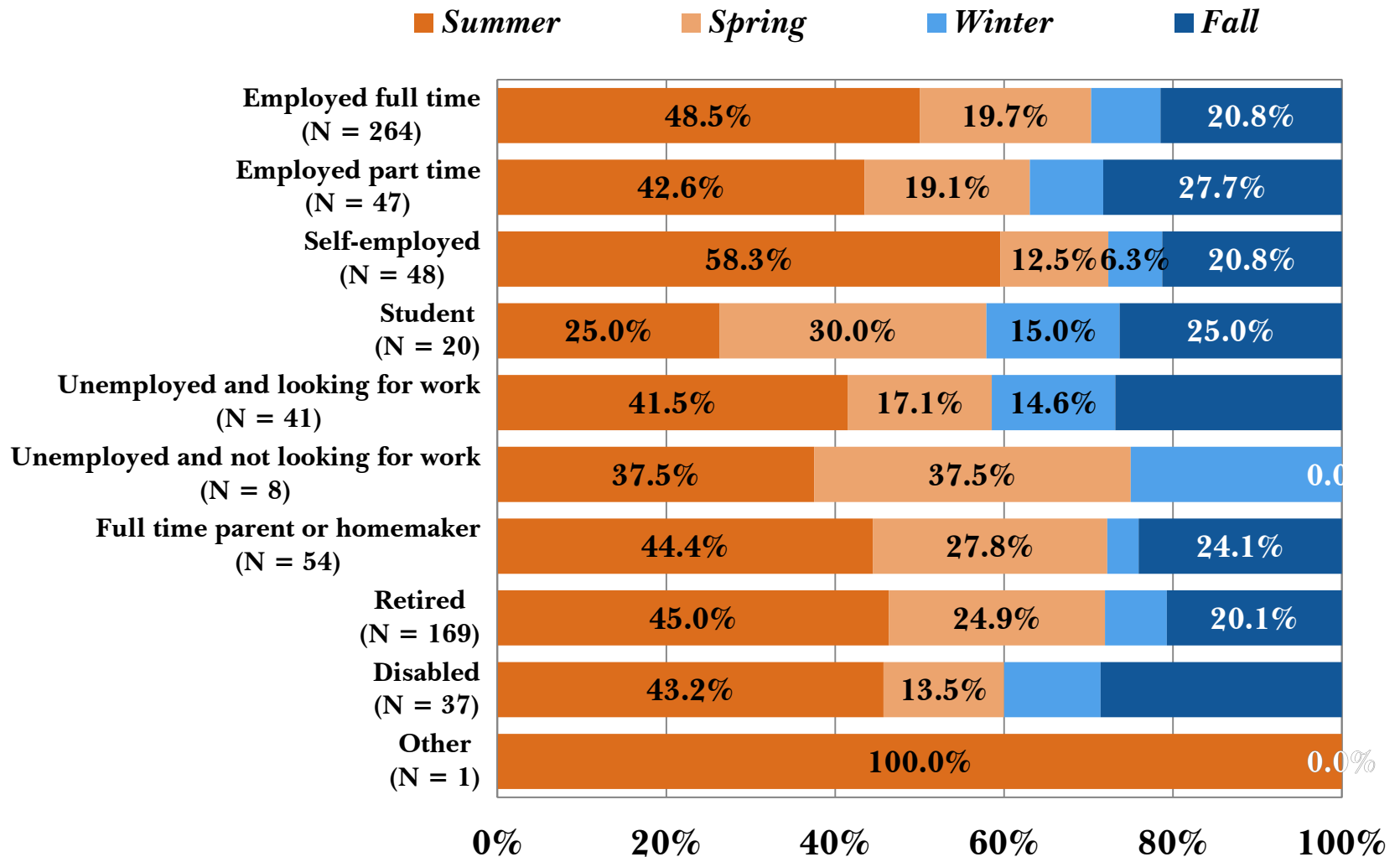
Question 9 Cross Tabulations

Statement: *In what season is flash flooding most likely to occur?*
 [by age category]



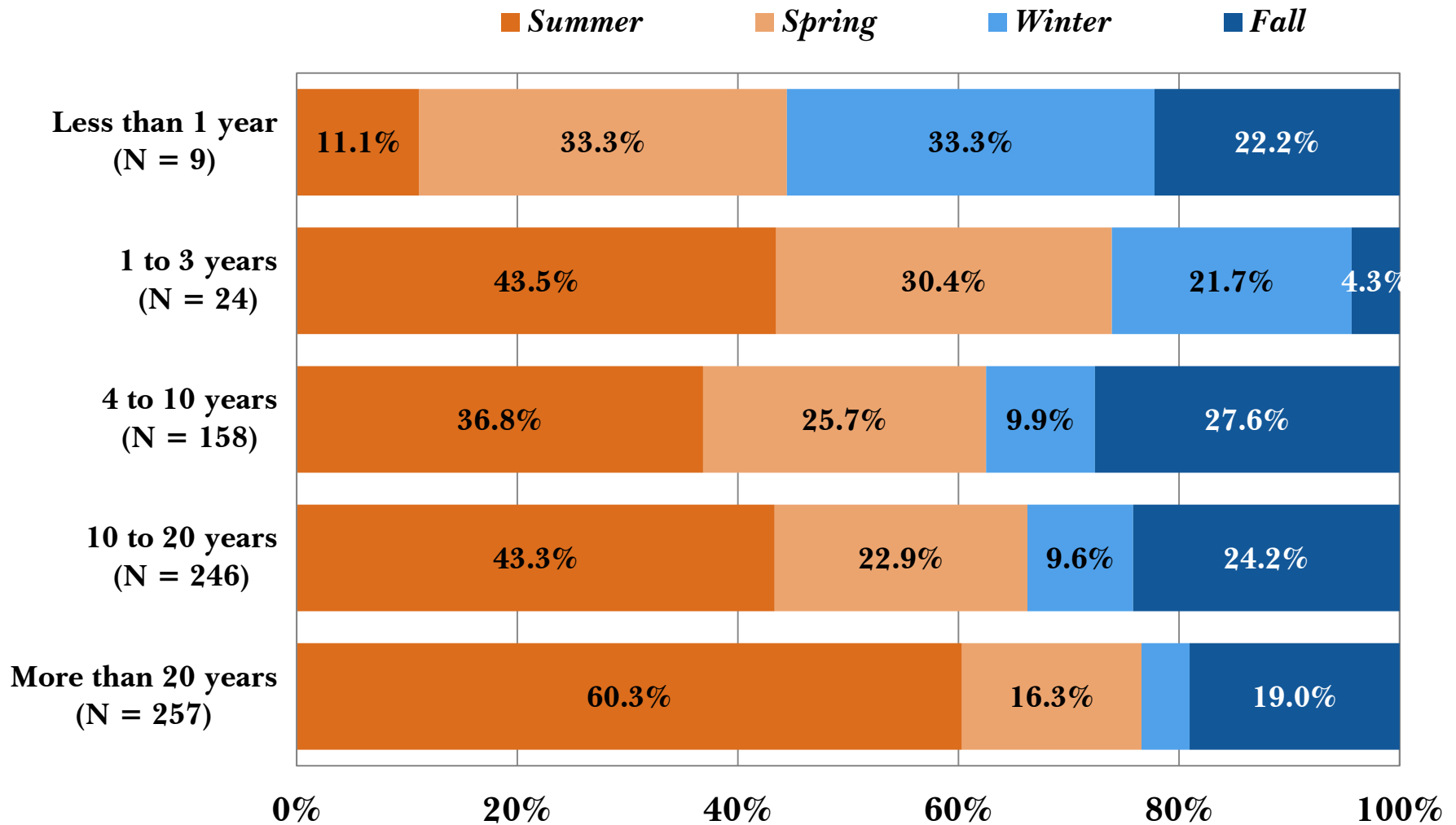
Question 9 Cross Tabulations

Statement: *In what season is flash flooding most likely to occur?*
 [by employment status]



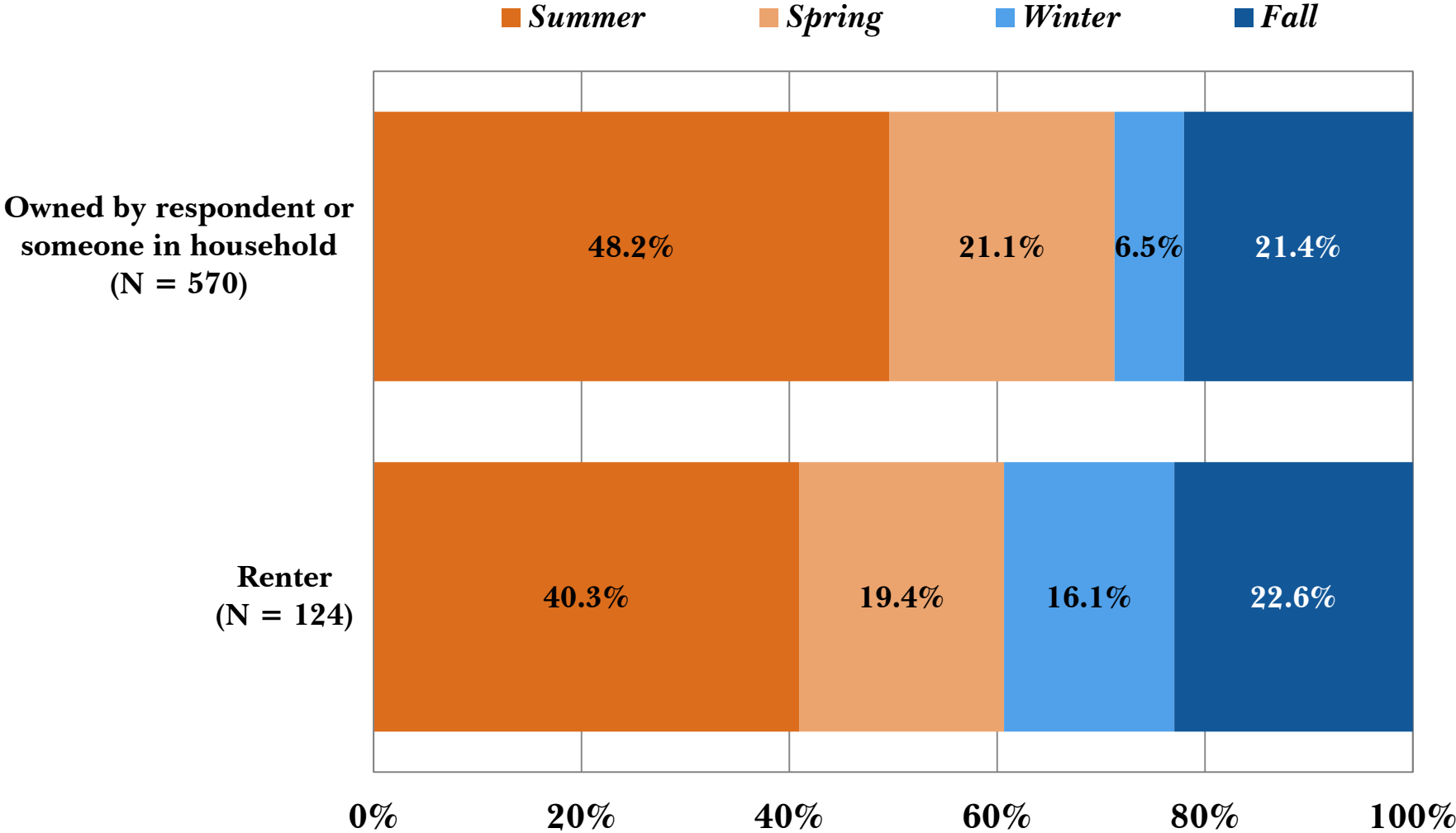
Question 9 Cross Tabulations

*Statement: In what season is flash flooding most likely to occur?
[by length of residence]*



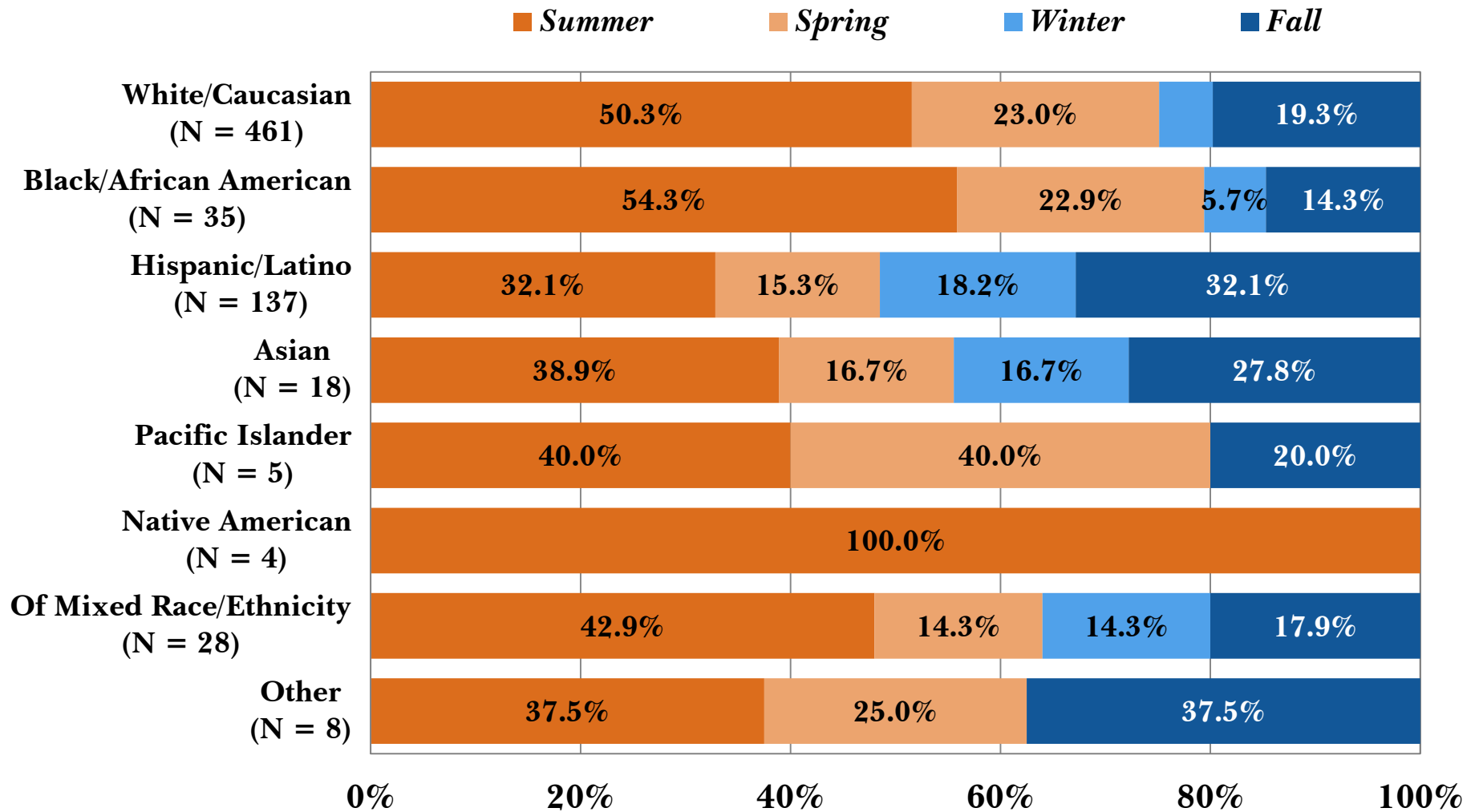
Question 9 Cross Tabulations

Statement: *In what season is flash flooding most likely to occur?*
[by own or rent home]



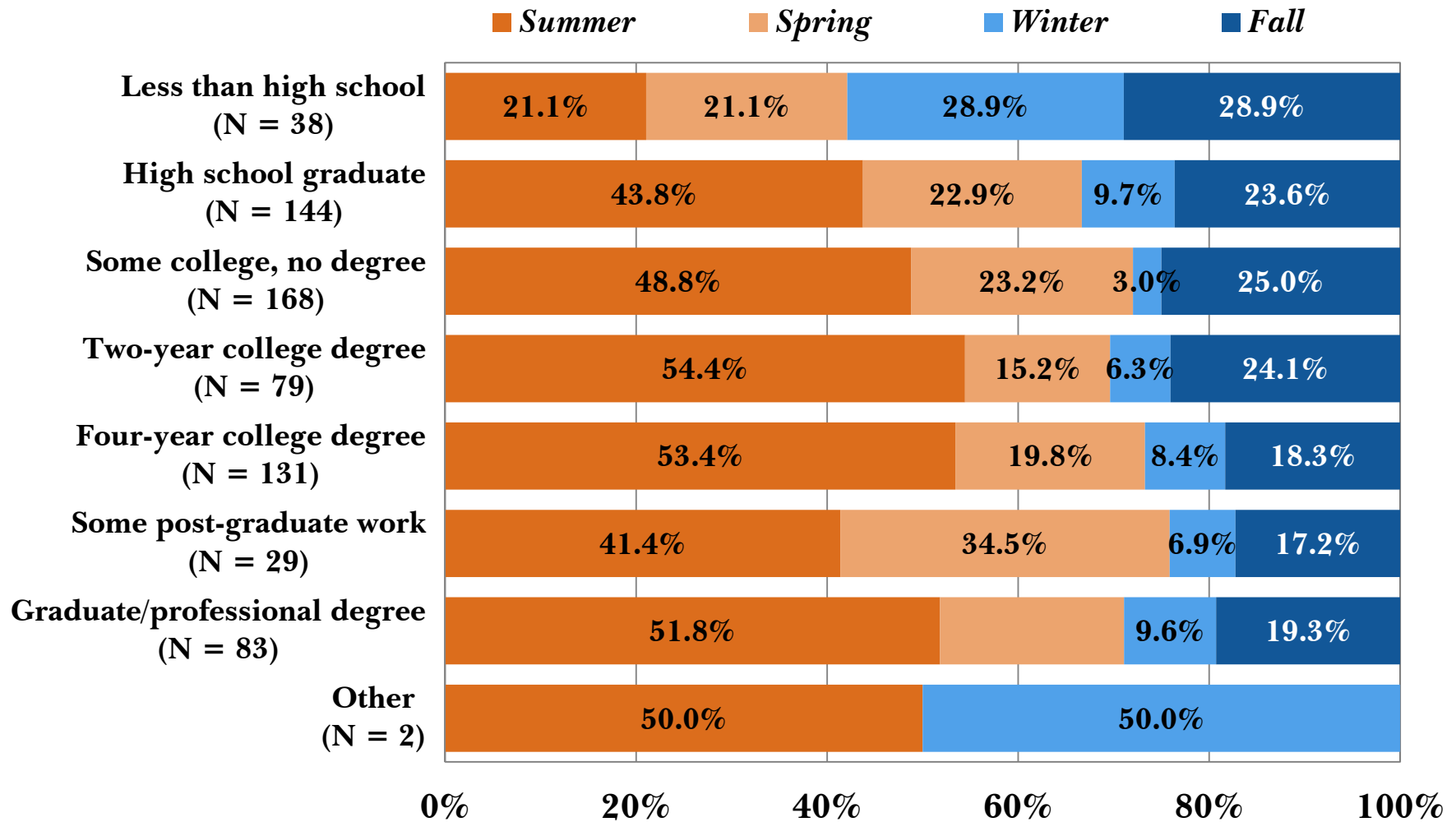
Question 9 Cross Tabulations

Statement: In what season is flash flooding most likely to occur?
[by race/ethnicity]



Question 9 Cross Tabulations

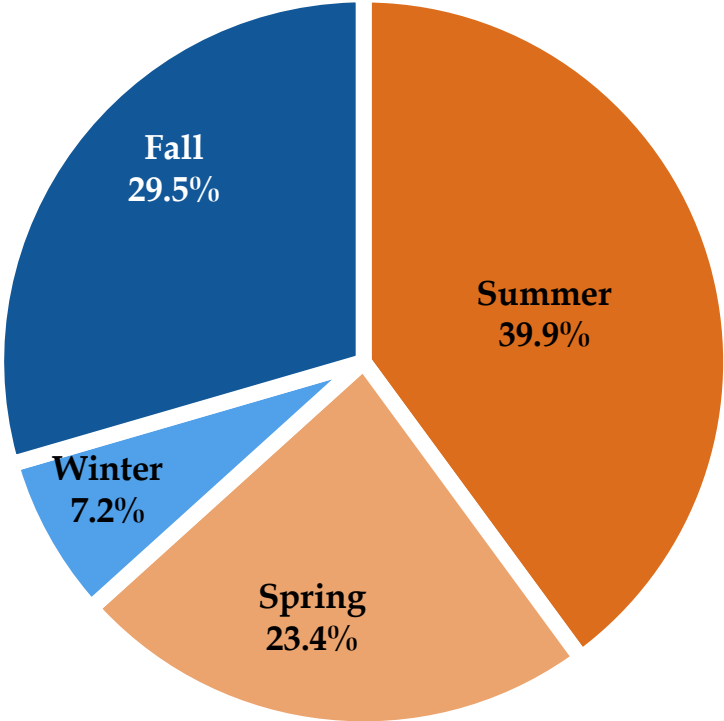
Statement: In what season is flash flooding most likely to occur?
[by educational attainment]



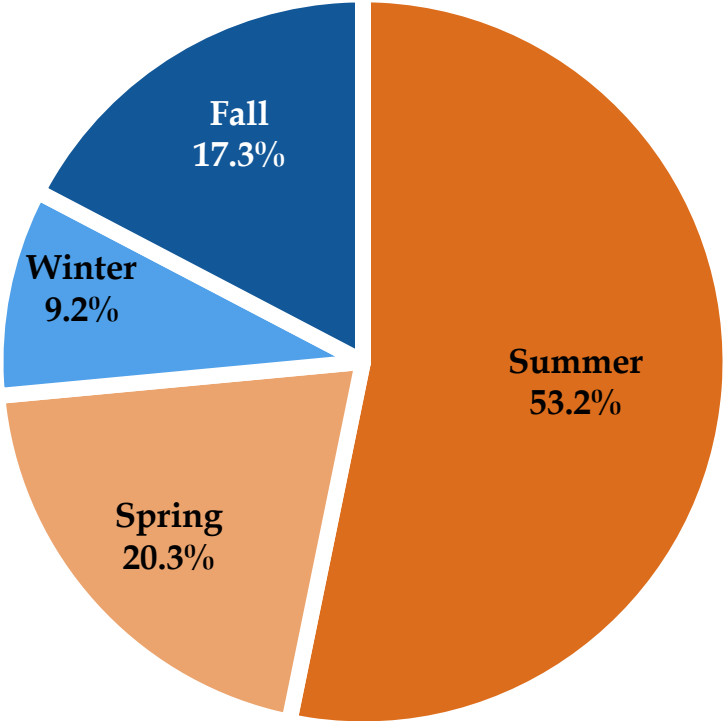
Question 9 Cross Tabulations

Statement: *In what season is flash flooding most likely to occur?*
[by gender observation]

Male
(N = 278)

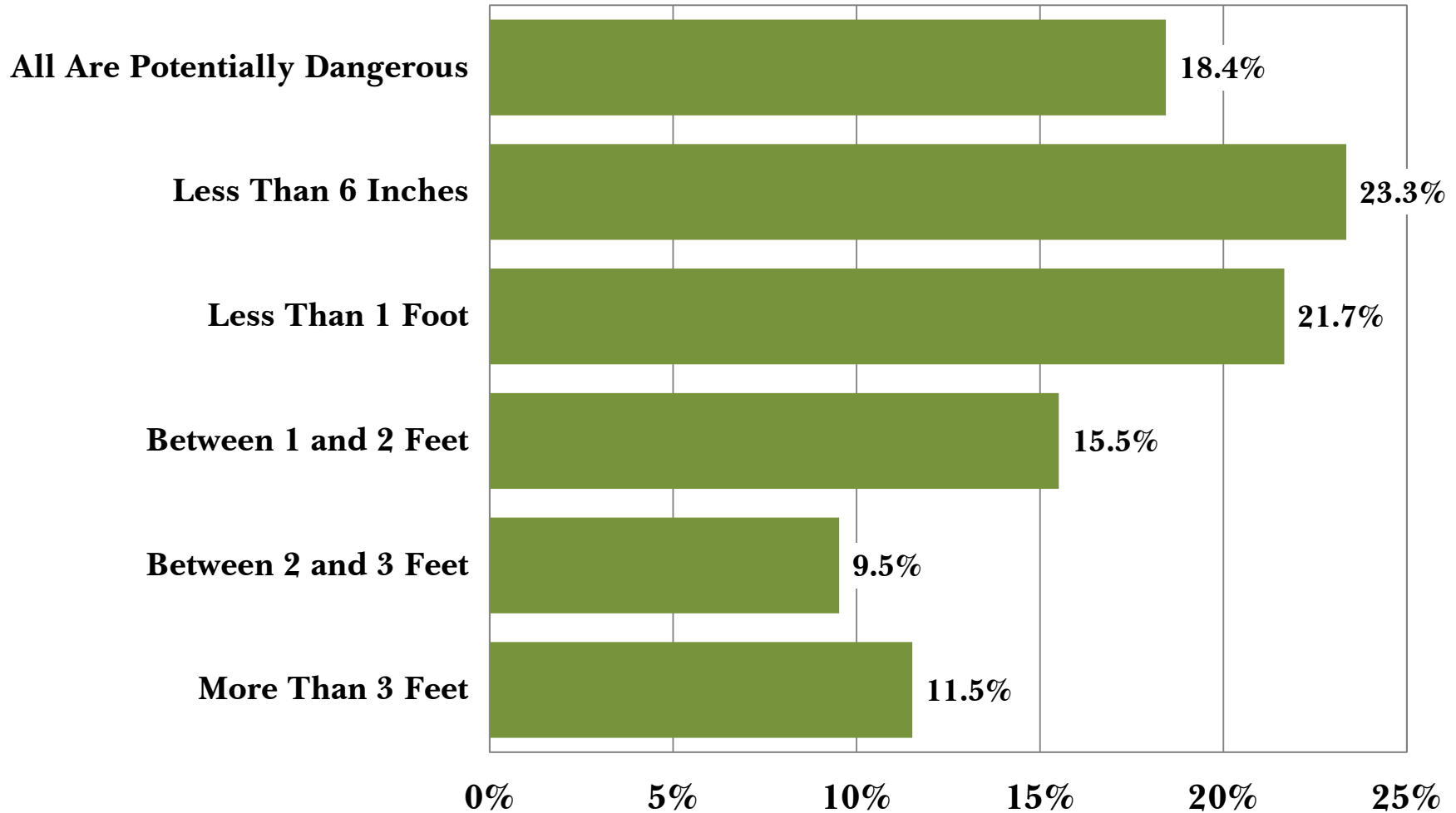


Female
(N = 404)



Question 10

About how deep do flood waters need to be to become dangerous? (N = 651)

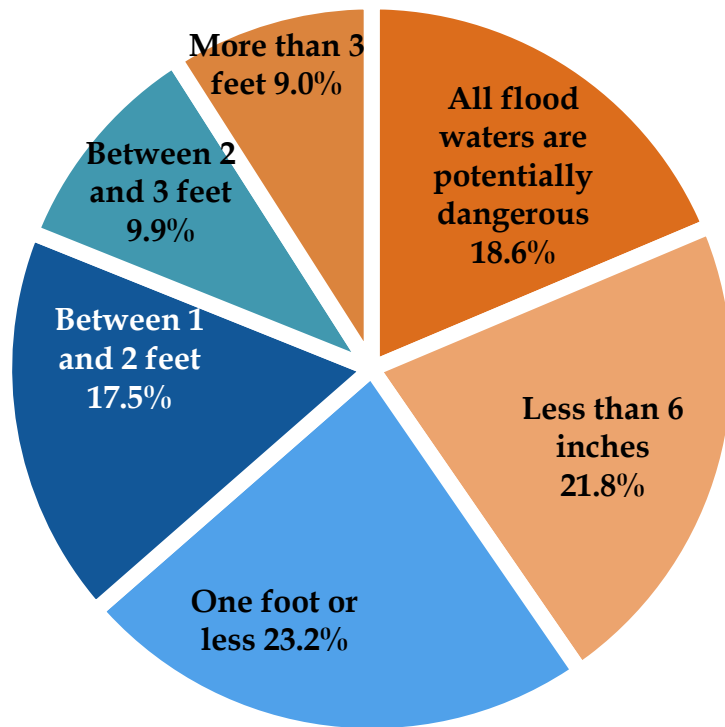


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous? [with or without Cox Digital Cable]

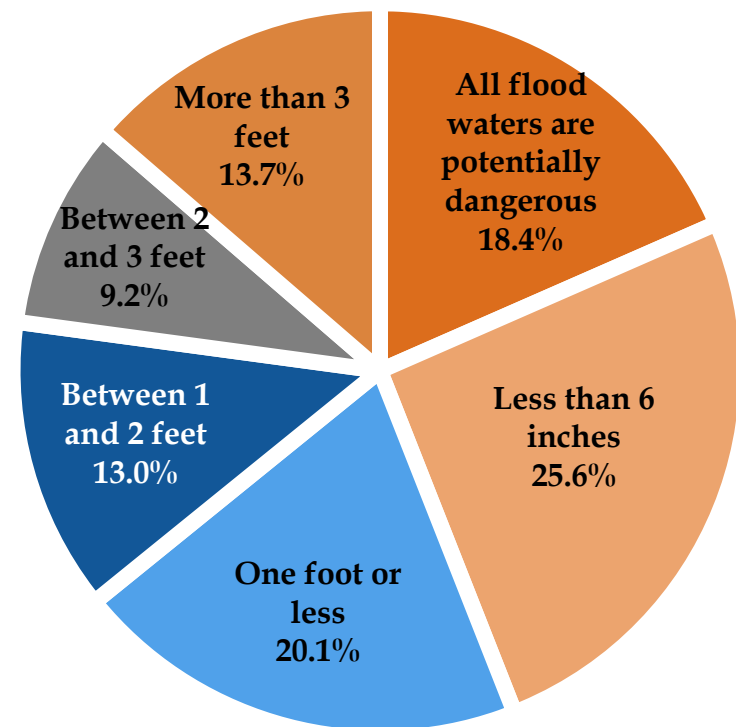
With Cox Digital Cable TV

(N = 354)



Without Cox Digital Cable TV

(N = 293)

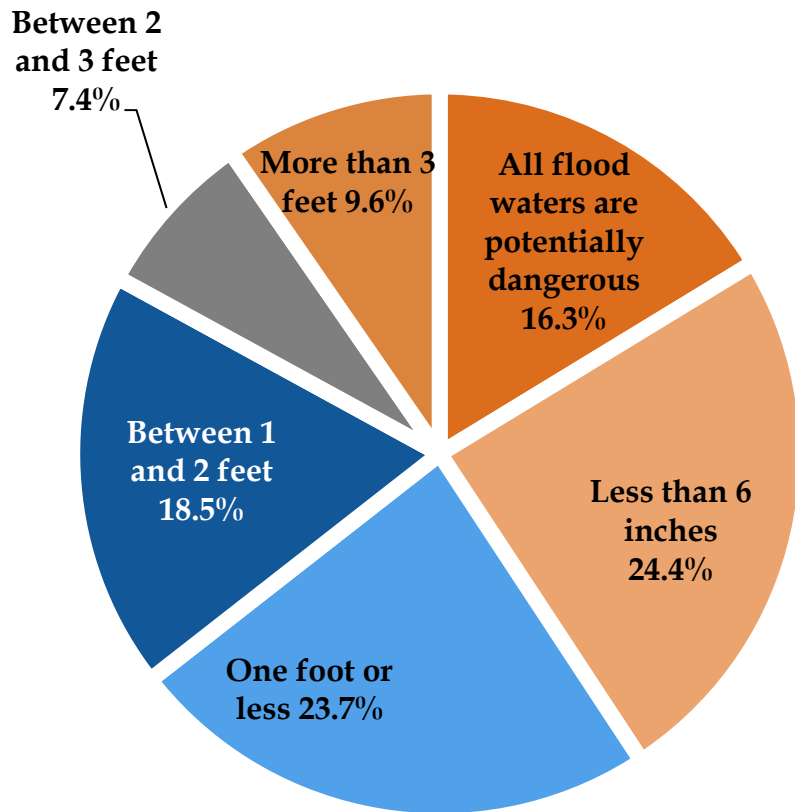


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous?

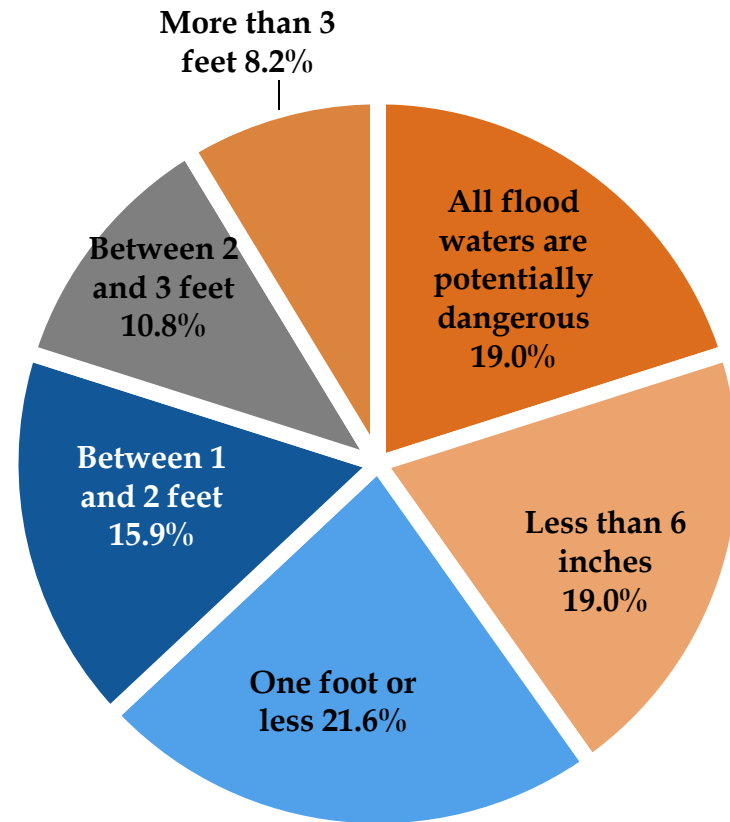
Watched the Flood Channel TV Program

(N = 135)



Never watched the Flood Channel TV Program

(N = 219)

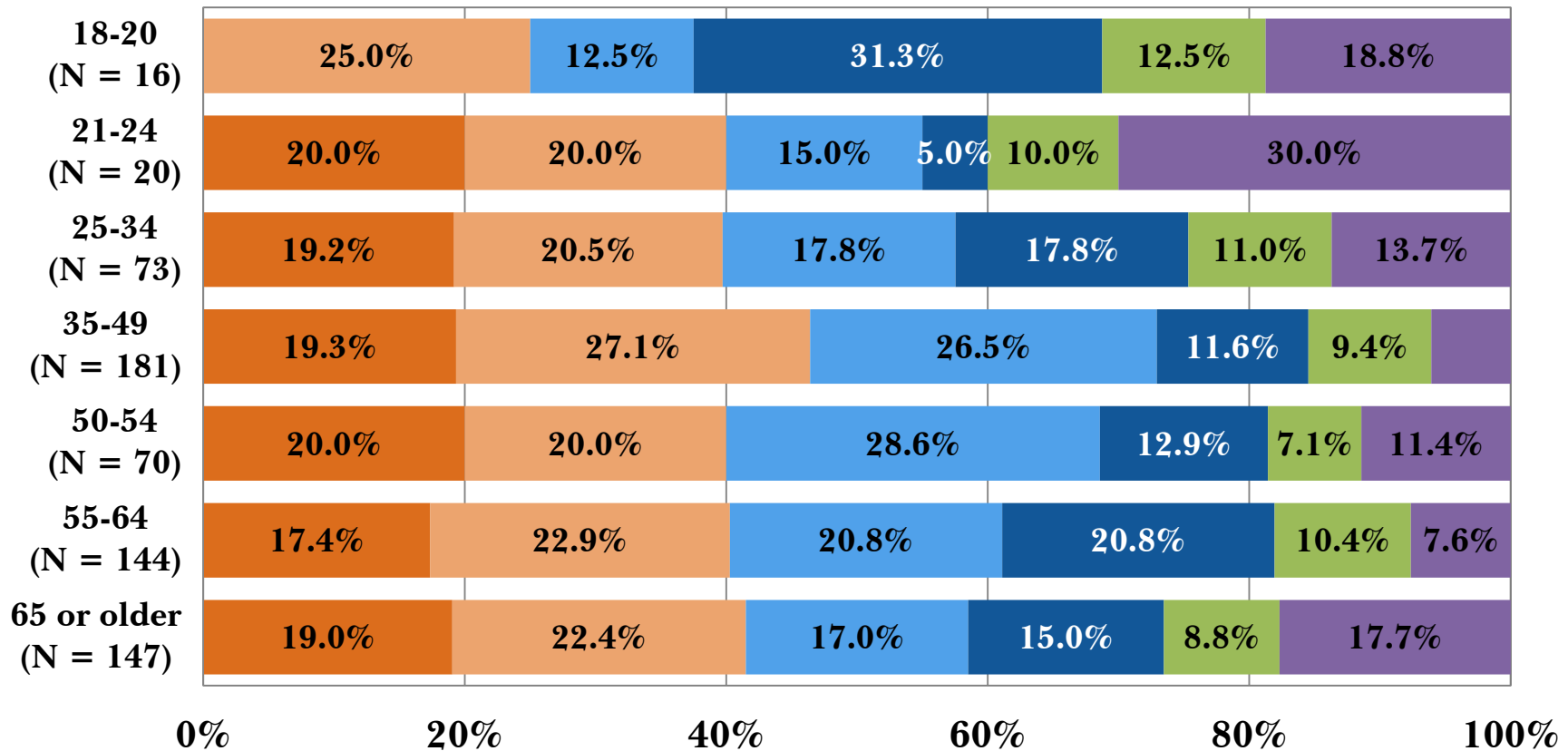


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous?

[by age category]

- All flood waters are potentially dangerous
- Less than 6 inches
- One foot or less
- Between 1 and 2 feet
- Between 2 and 3 feet
- More than 3 feet

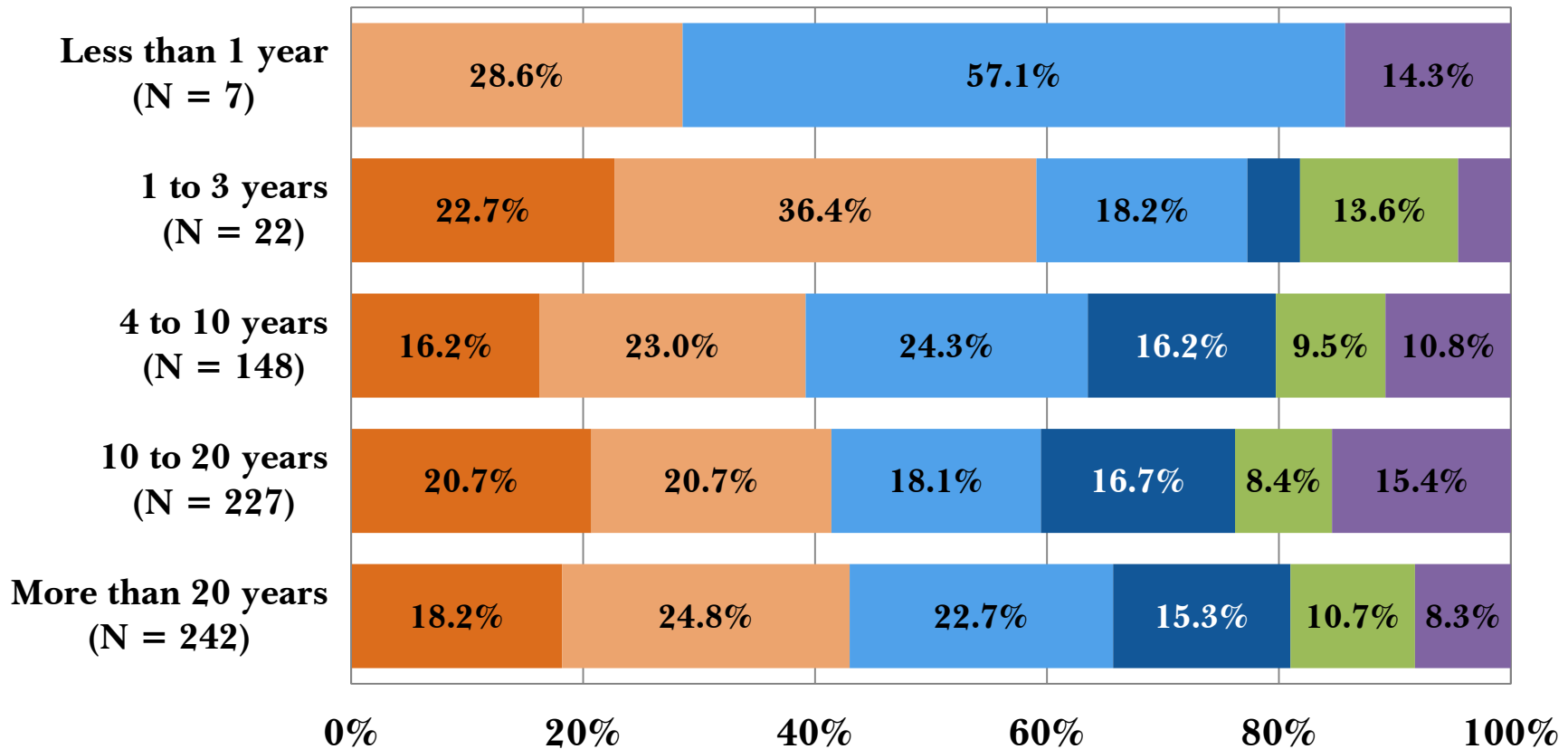


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous?

[by length of residence]

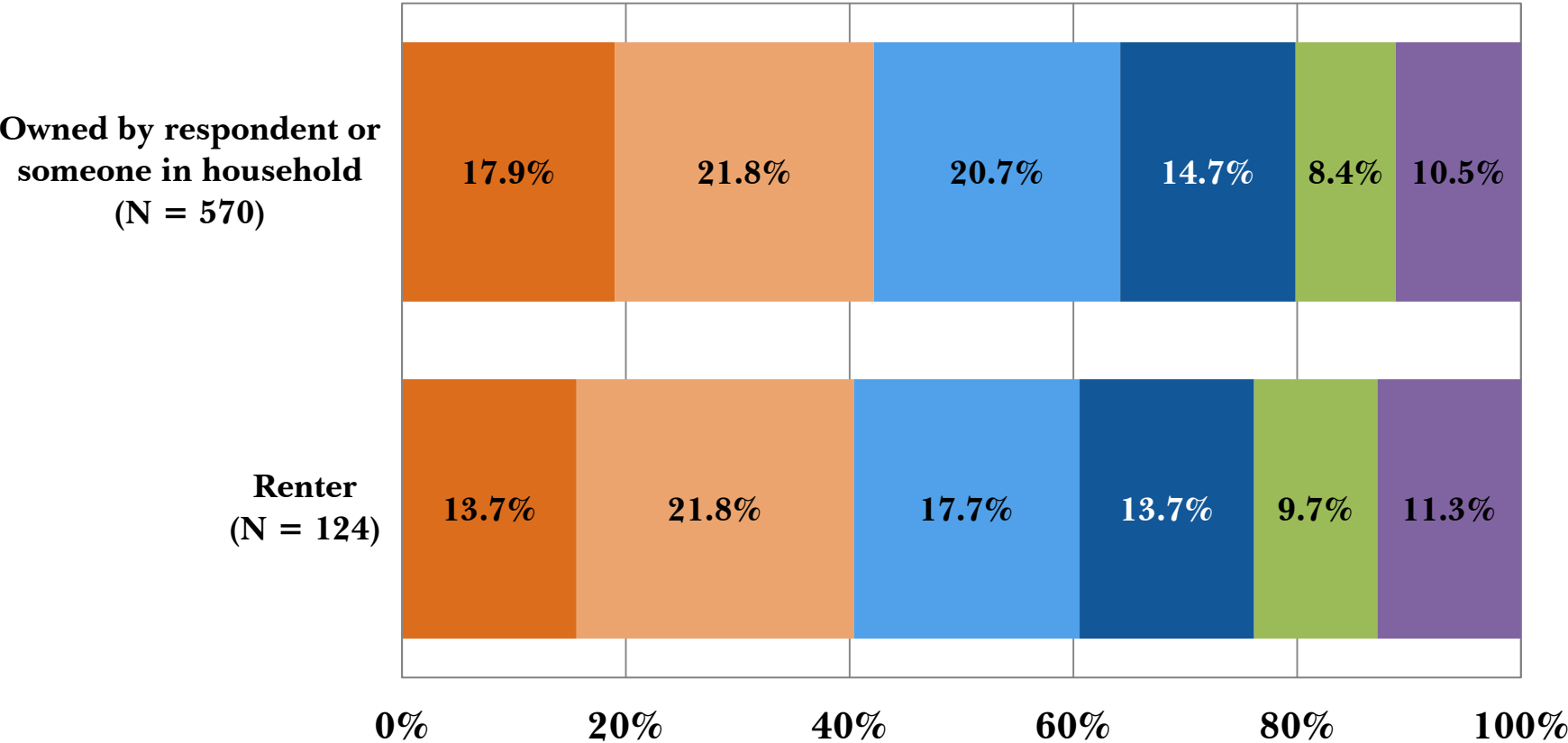
- All flood waters are potentially dangerous
- Less than 6 inches
- One foot or less
- Between 1 and 2 feet
- Between 2 and 3 feet
- More than 3 feet



Question 10 Cross Tabulations

Statement: About how deep do flood waters have to be to become dangerous? [by own or rent home]

- All flood waters are potentially dangerous
- Less than 6 inches
- One foot or less
- Between 1 and 2 feet
- Between 2 and 3 feet
- More than 3 feet

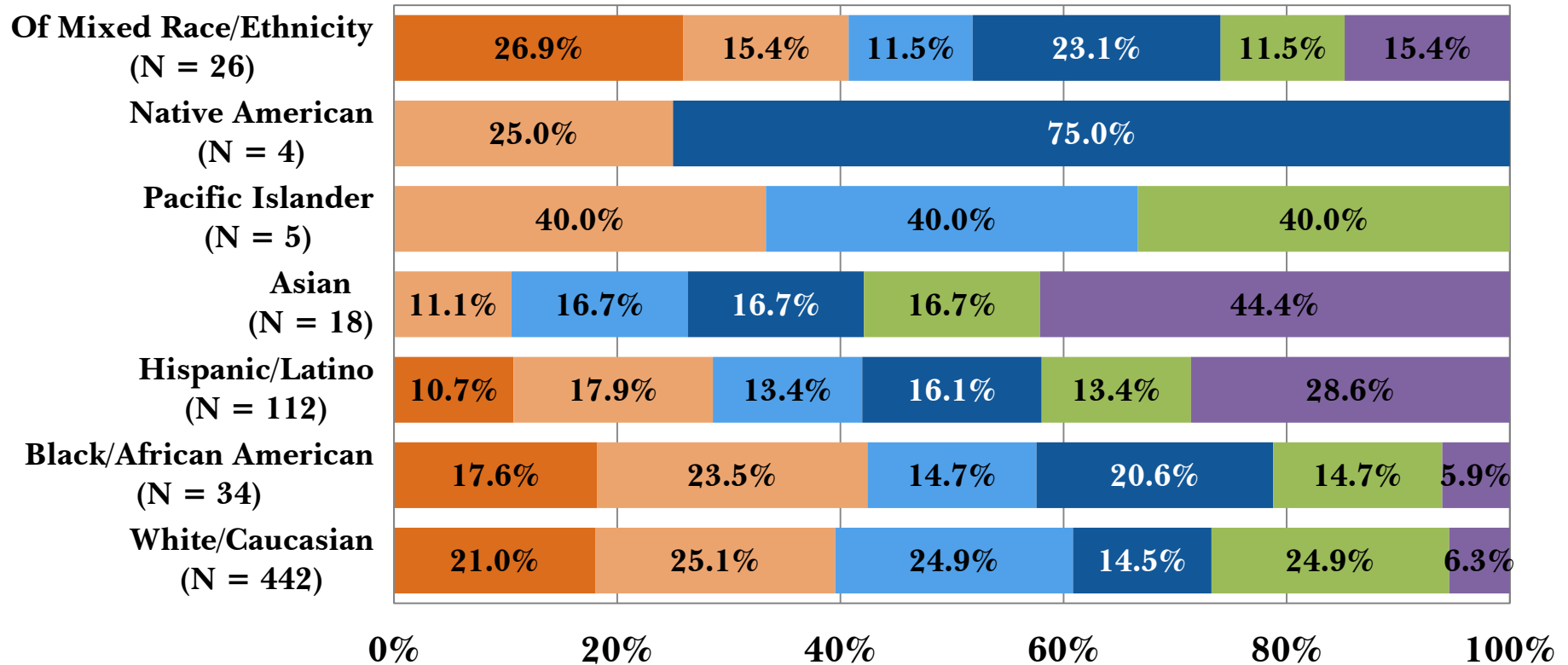


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous?

[by race/ethnicity]

- All flood waters are potentially dangerous
- Less than 6 inches
- One foot or less
- Between 1 and 2 feet
- Between 2 and 3 feet
- More than 3 feet

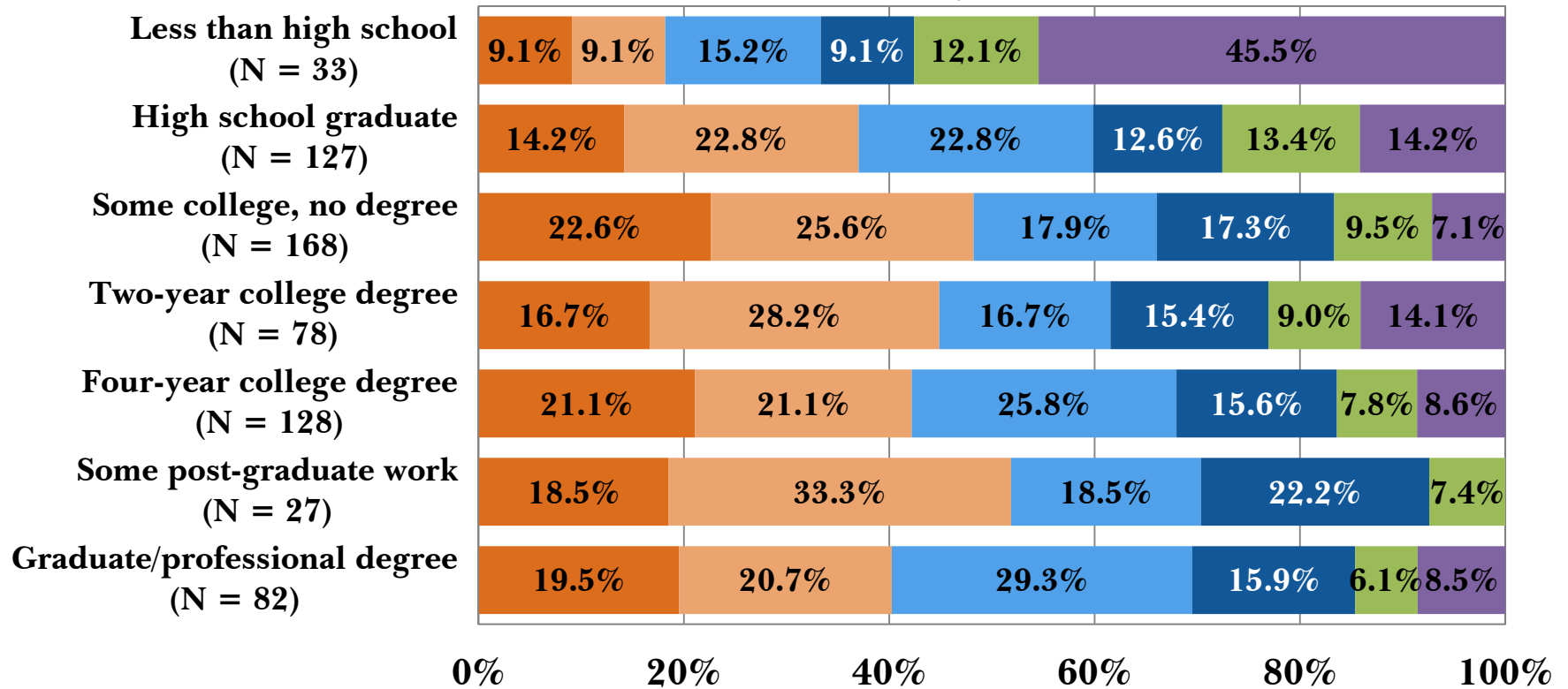


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous?

[by educational attainment]

- All flood waters are potentially dangerous
- Less than 6 inches
- One foot or less
- Between 1 and 2 feet
- Between 2 and 3 feet
- More than 3 feet

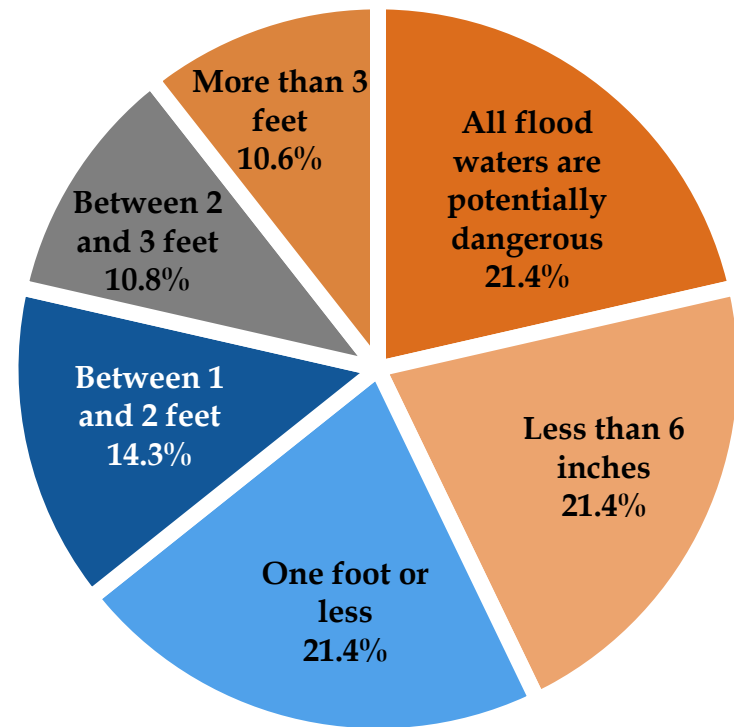
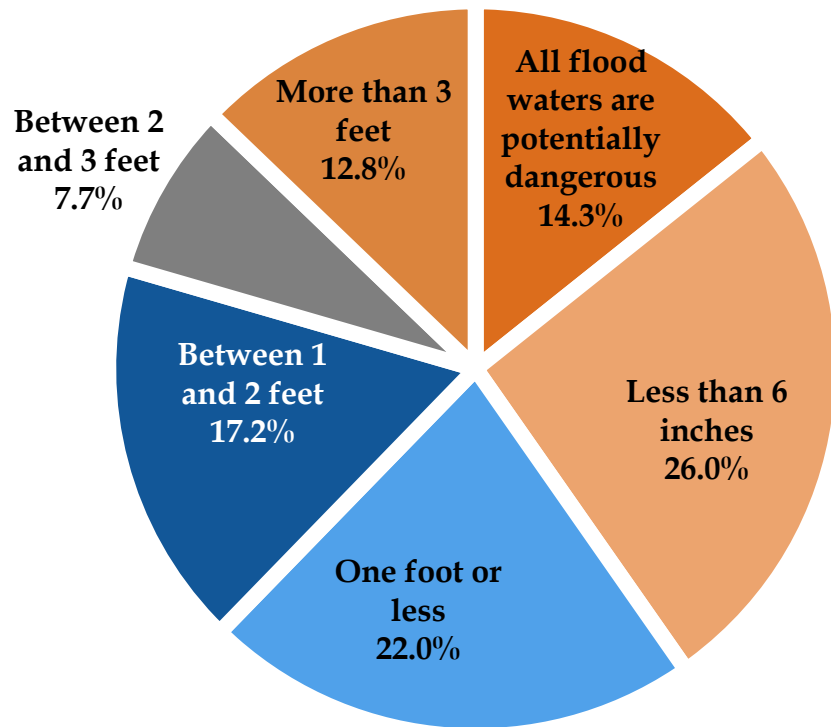


Question 10 Cross Tabulations

Statement: About how deep do flood waters need to be to become dangerous? [by gender observation]

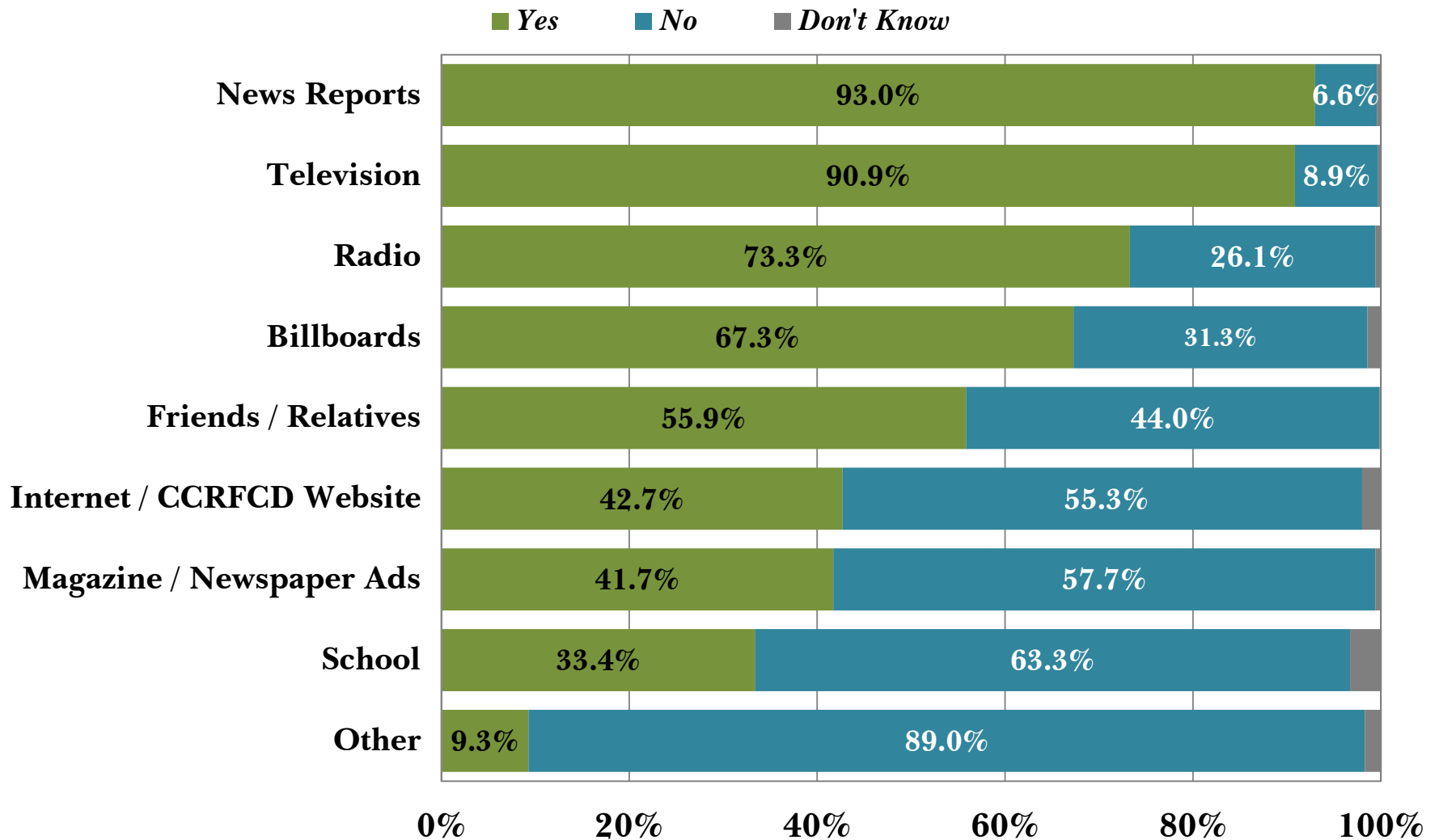
Male
(N = 273)

Female
(N = 378)



Question 11

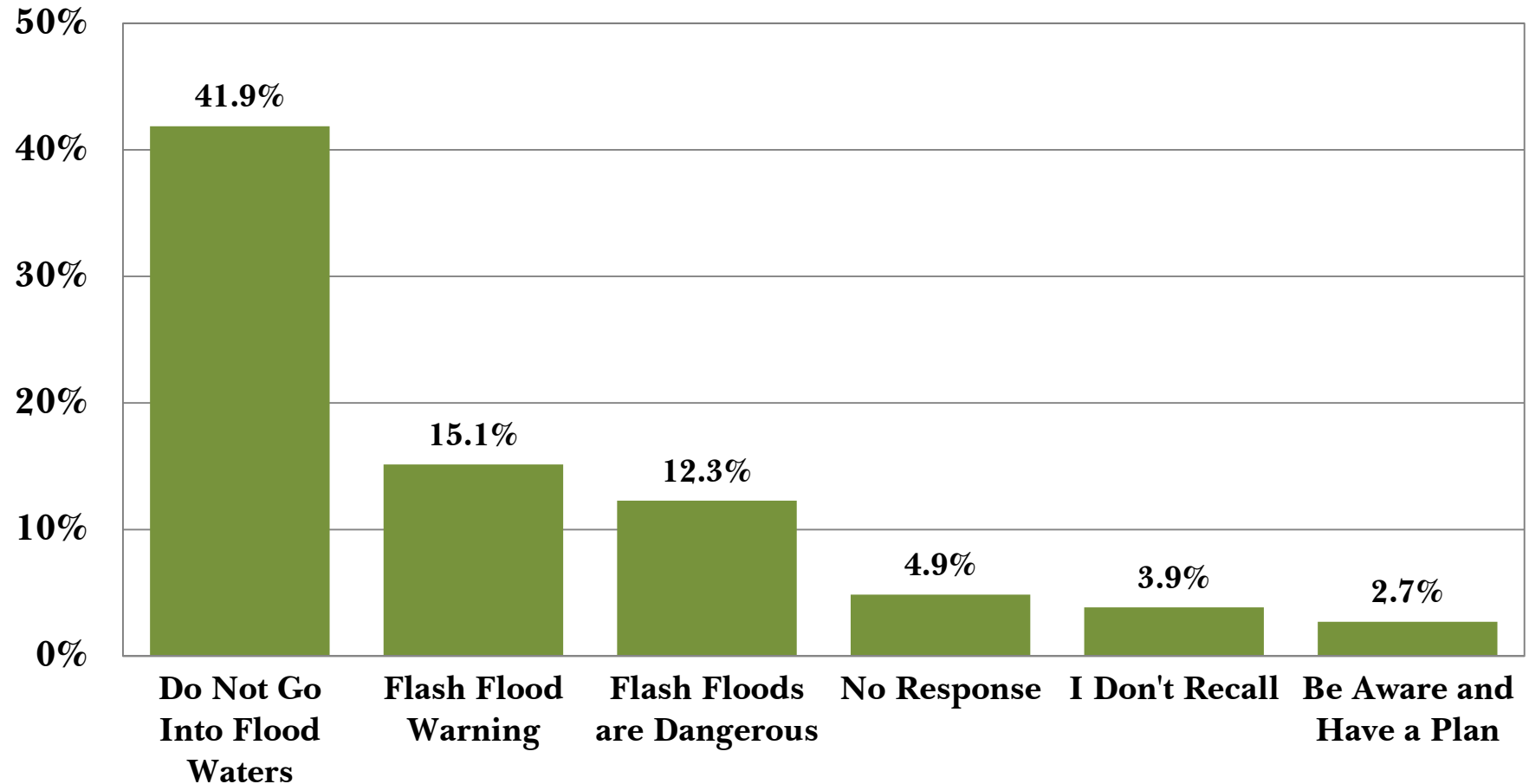
Learning about the dangers of flash flooding from each source (N = 700)



Question 12

Recalled message(s) by source reporting on the dangers of flash flooding

(N = 700; open responses)



Question 12

Recalled message(s) by source reporting on the dangers of flash flooding

(N = 700; open responses)

Notable Quotes

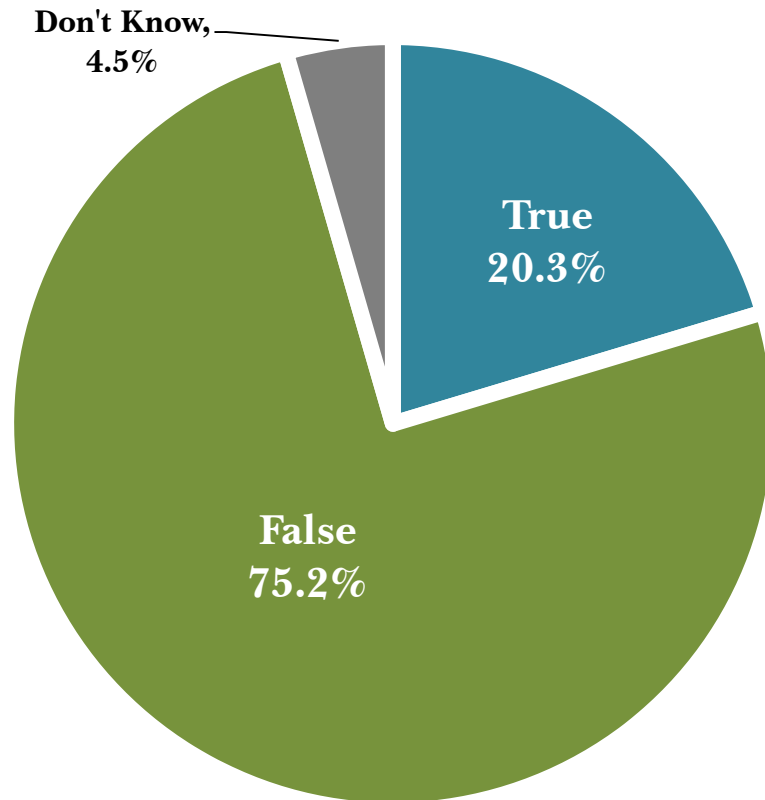
- *Tell you not to drive through water*
- *Facebook friends post*
- *Billboards are entertaining*
- *Weather channel gives warning*
- *Catchy slogans*
- *Campaign with a catchy song*
- *They interrupt programming on TV*
- *Big improvement*
- *It takes very little water to sweep you away*
- *Saw pictures on TV*
- *People standing on top of cars*
- *The license plates*
- *Stupid drivers go through*
- *It's about turning around*
- *Seen it on community channel*
- *Univision gives a quick message*
- *Cute messages showing how you never know how deep flood waters are*

Question 13.1 *True or False?*

Homeowners insurance generally covers homeowners from flood damage resulting from a storm.

Survey Respondents

(N = 693)

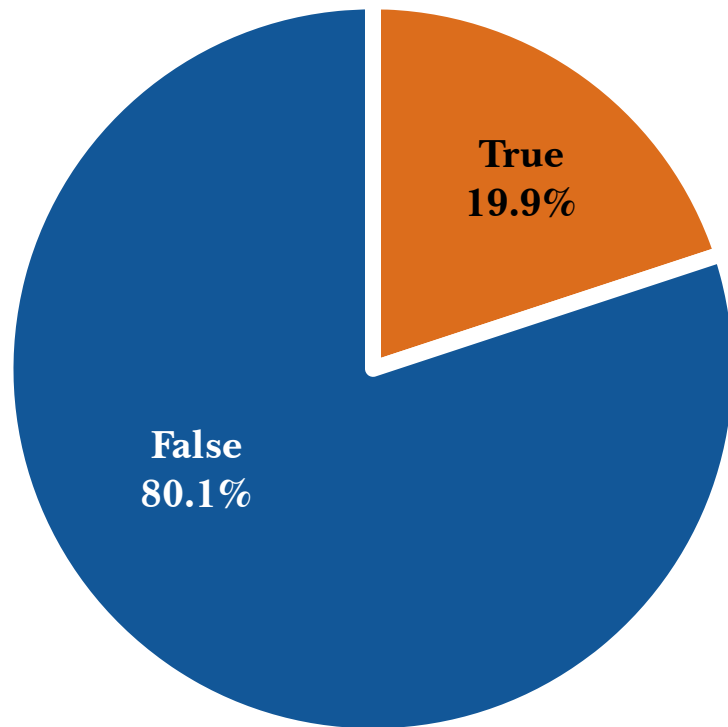


20.3% of respondents believe flood damage is generally covered in their homeowners insurance.

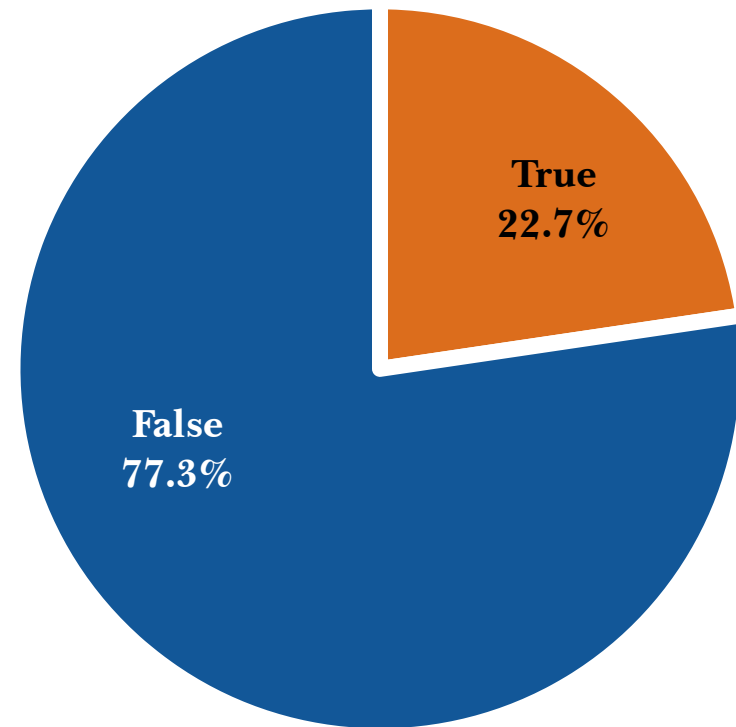
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm? [with or without Cox Digital Cable TV]

With Cox Digital Cable TV
(N = 356)



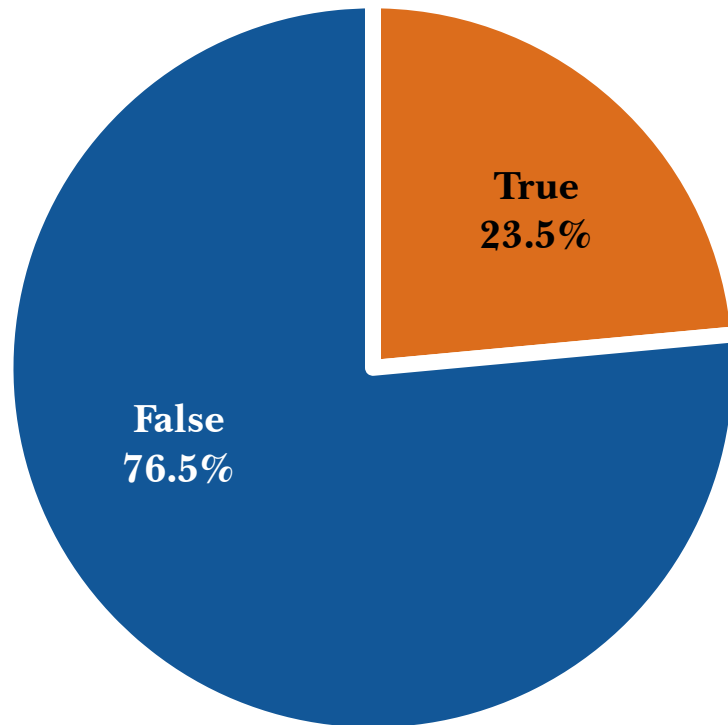
Without Cox Digital Cable TV
(N = 300)



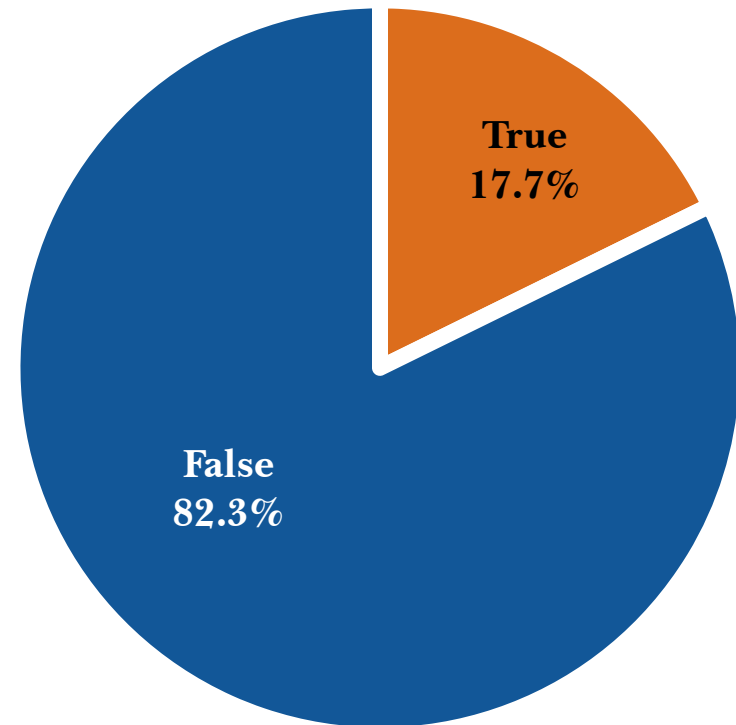
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm? [with or without Cox Digital Cable TV]

**Watched the
Flood Channel TV Program**
(N = 136)

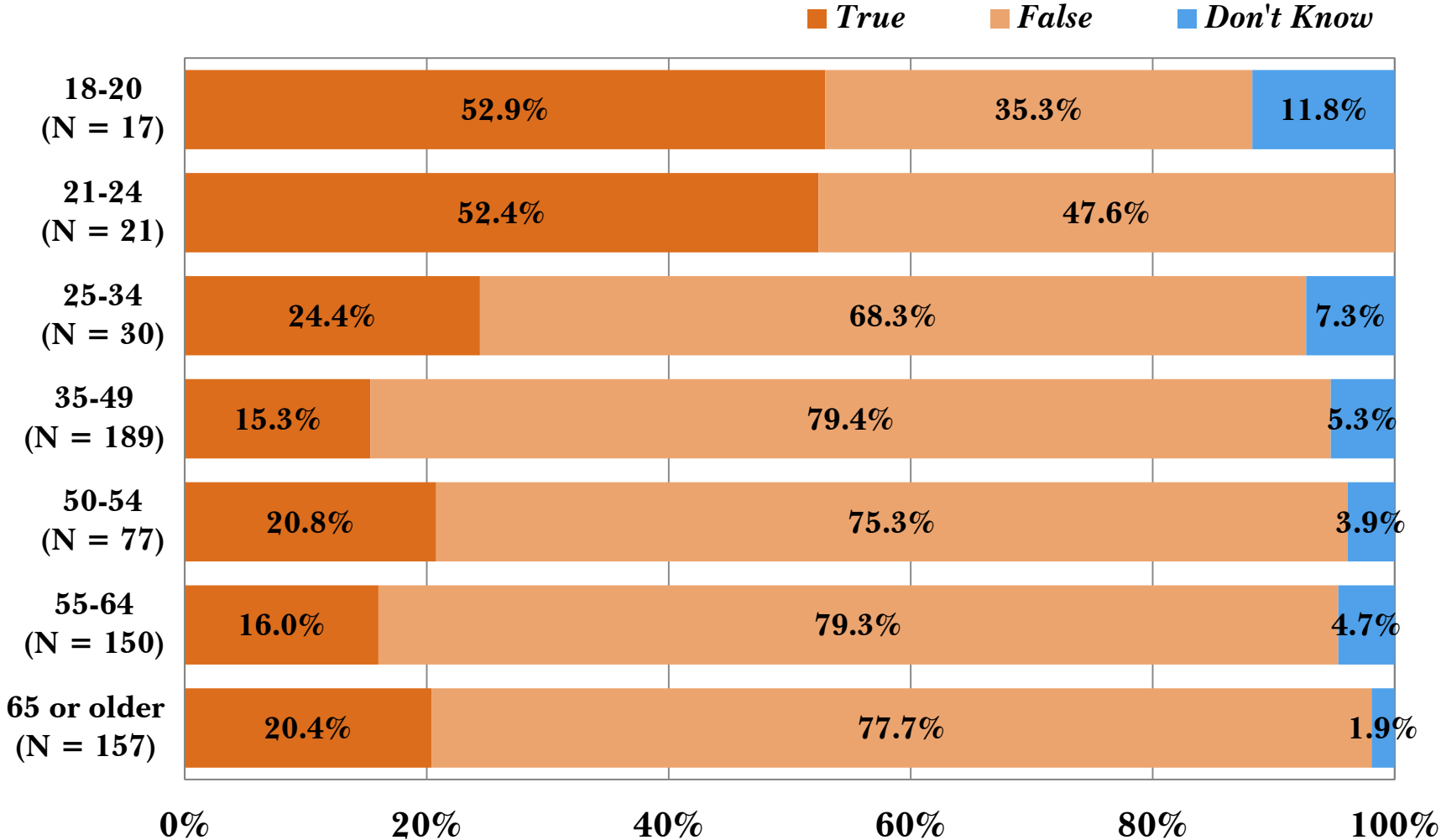


**Never watched the
Flood Channel TV Program**
(N = 220)



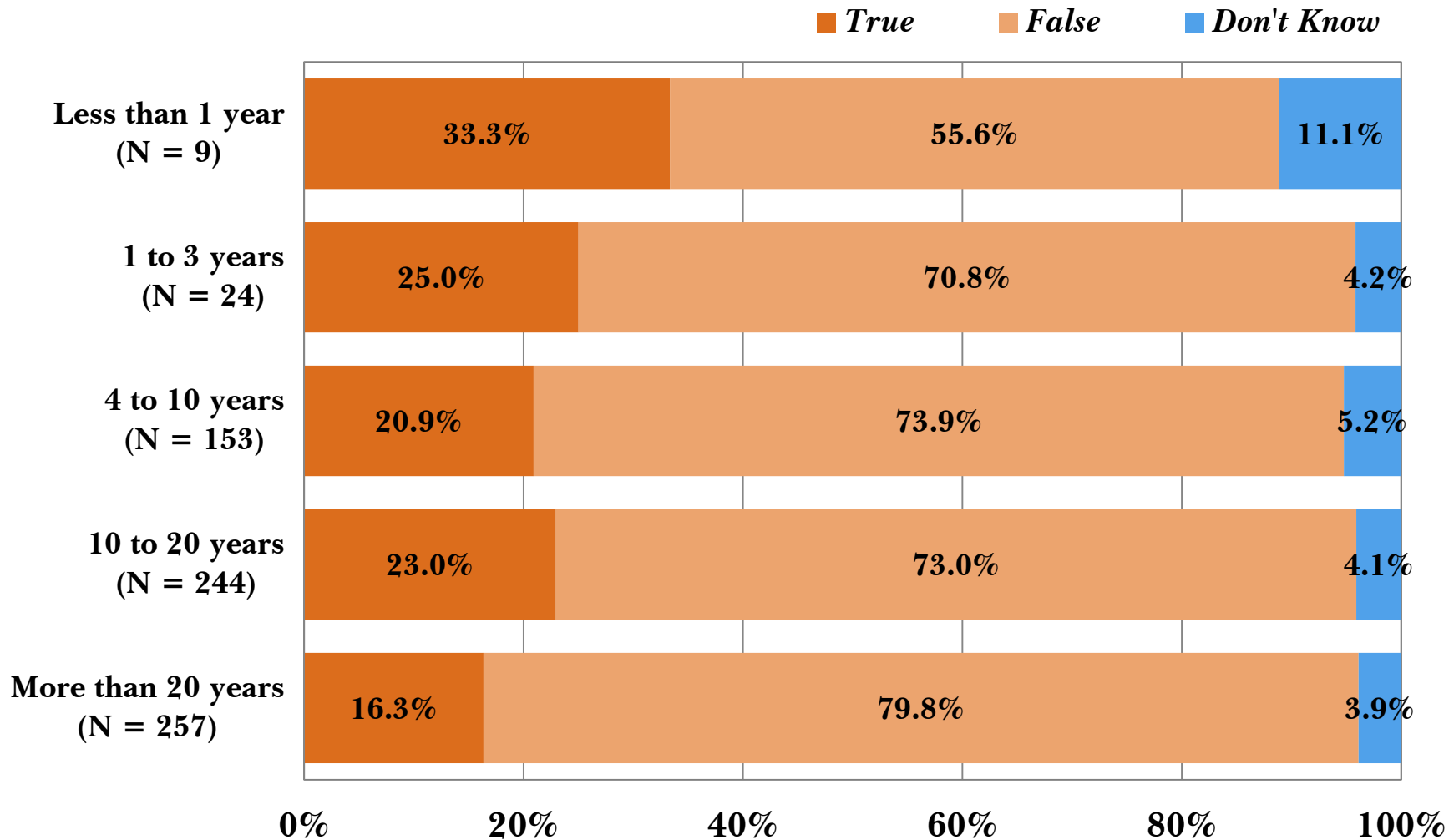
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm [by age category]



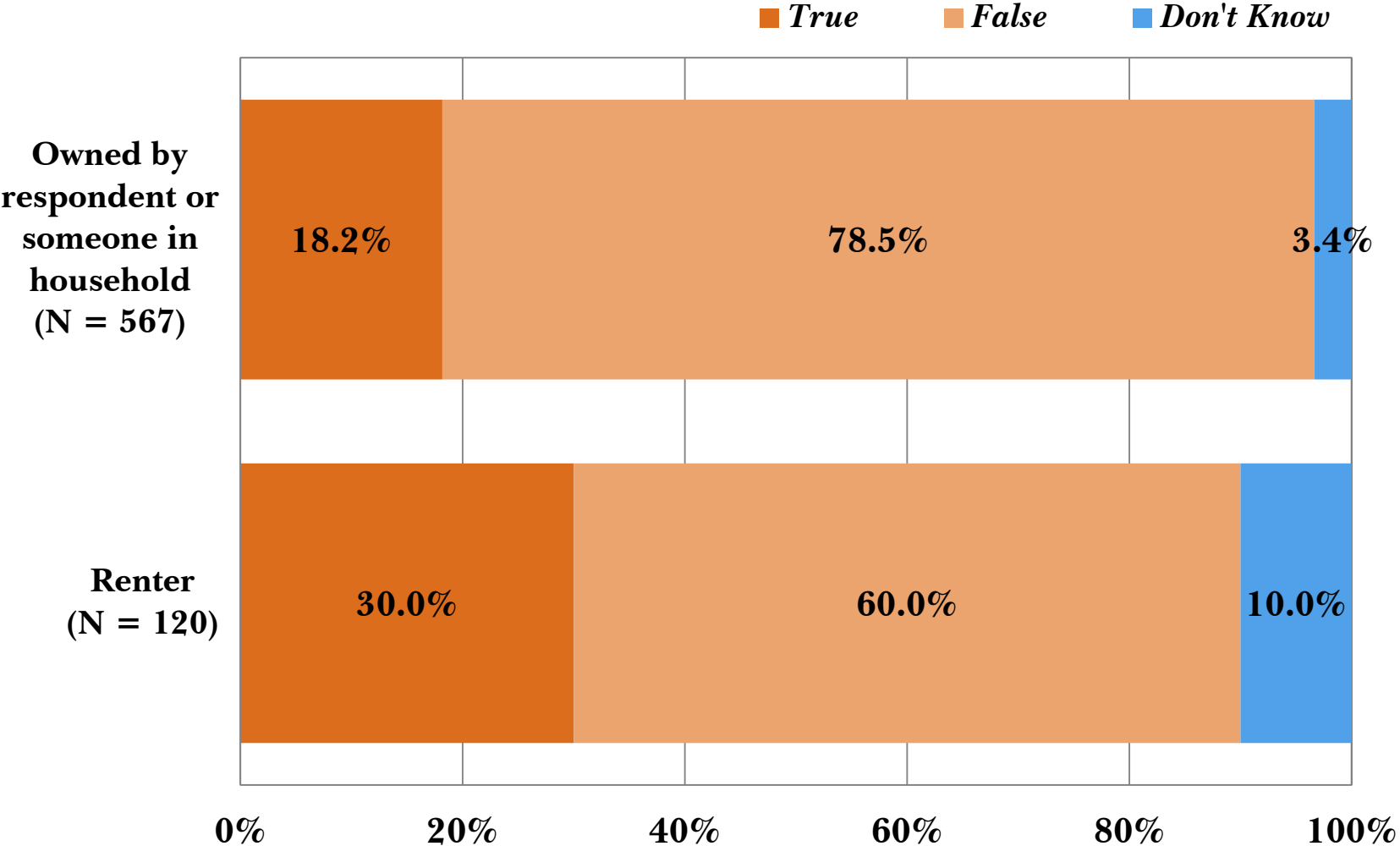
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm [by length of residence]



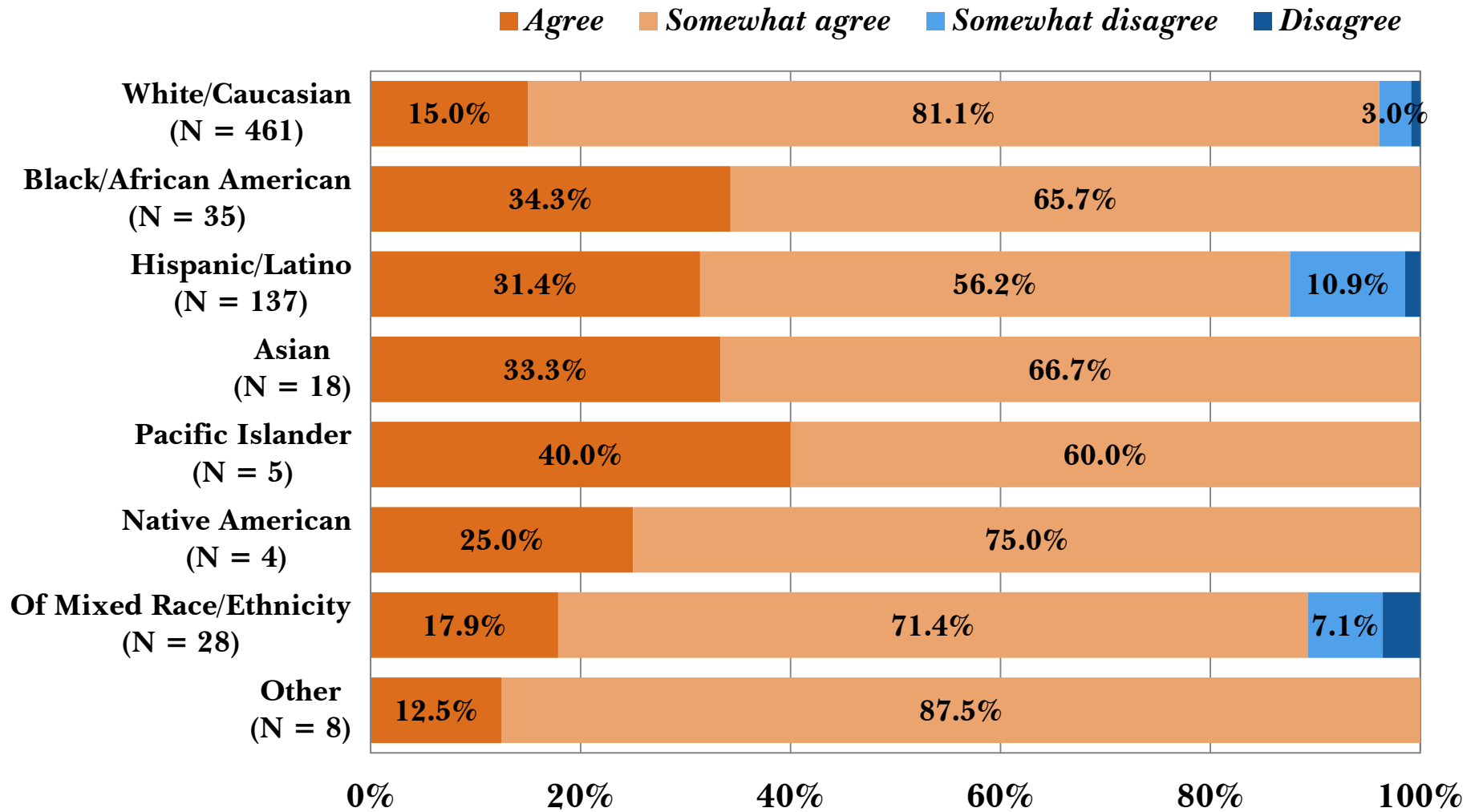
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm [by type of residency]



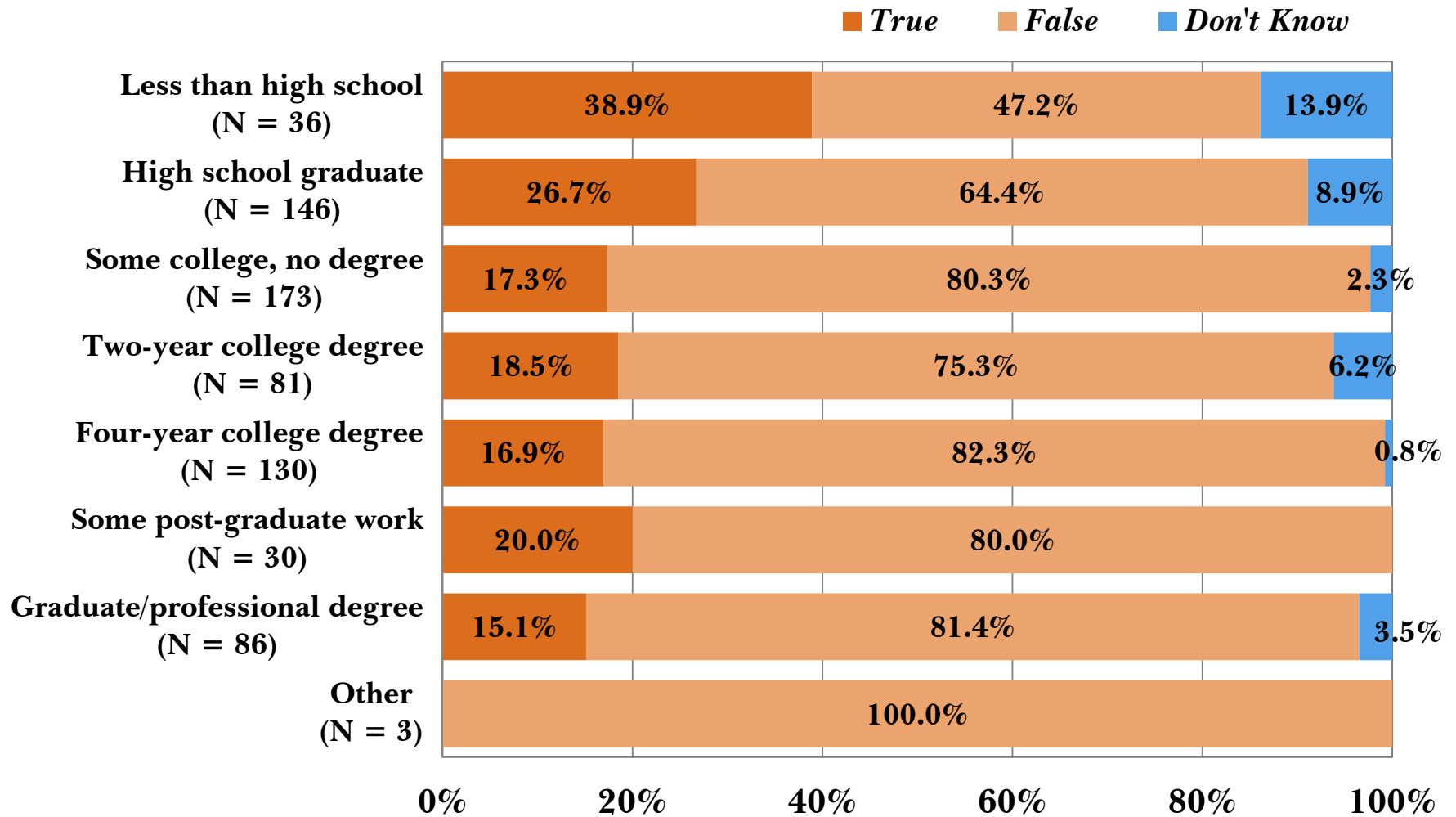
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm [by race/ethnicity]



Question 13.1 Cross Tabulations

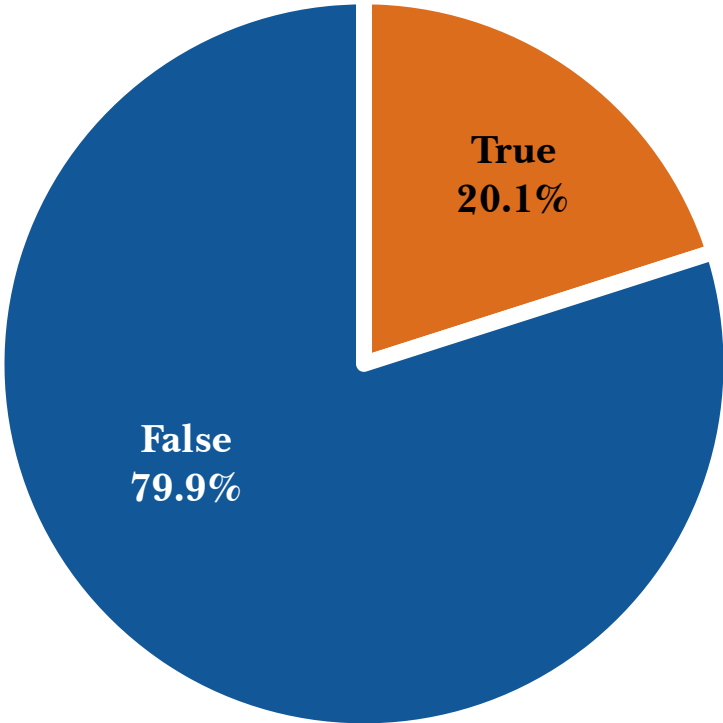
Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm [by educational attainment]



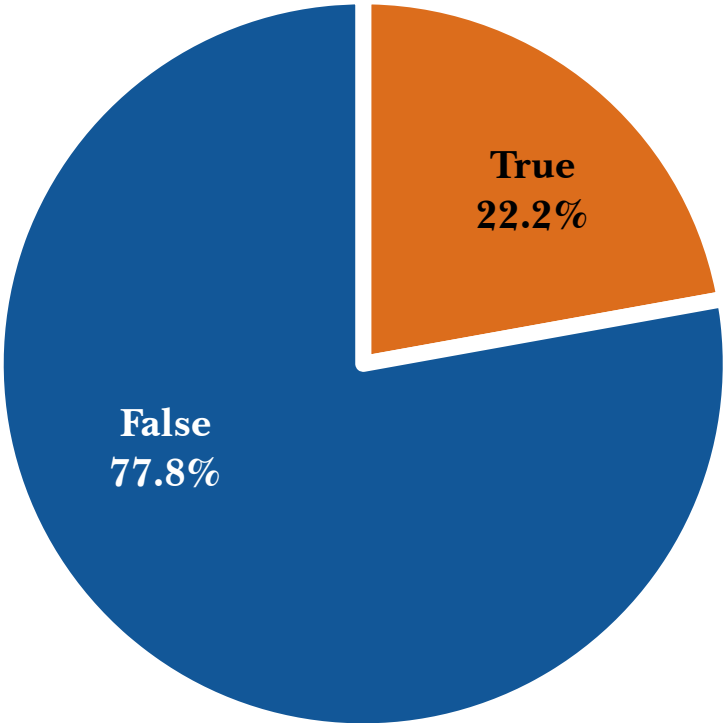
Question 13.1 Cross Tabulations

Statement: Homeowners insurance generally covers homeowners from flood damage resulting from a storm? [by gender observation]

Male
(N = 274)



Female
(N = 388)



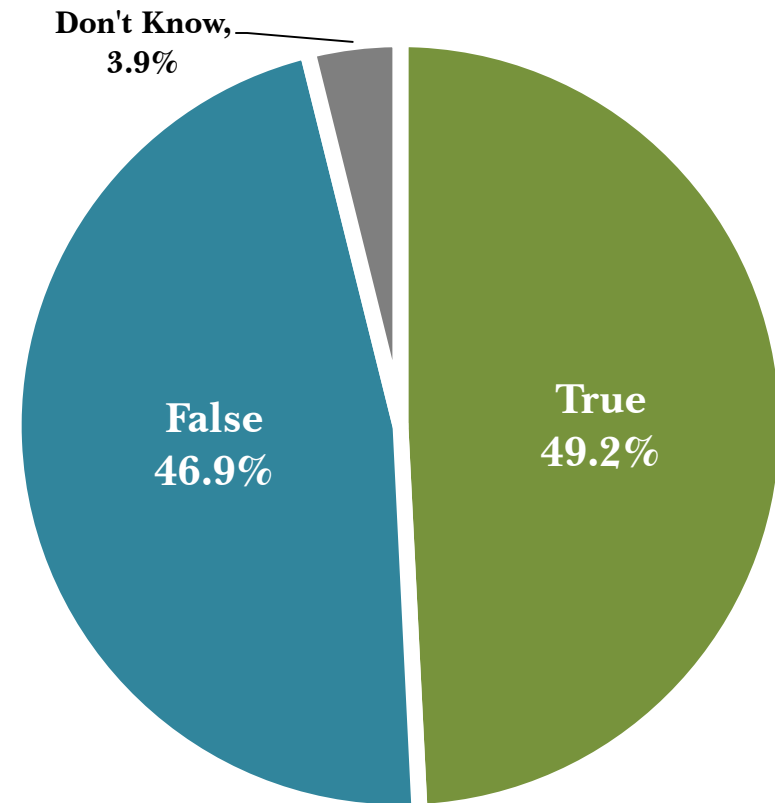
Question 13.2 *True or False?*

Only people living in a high-risk flood zone are required to have flood insurance coverage.

48.8% of respondents agreed that only people living in a high-risk flood zone are required to have flood insurance coverage.

Survey Respondents

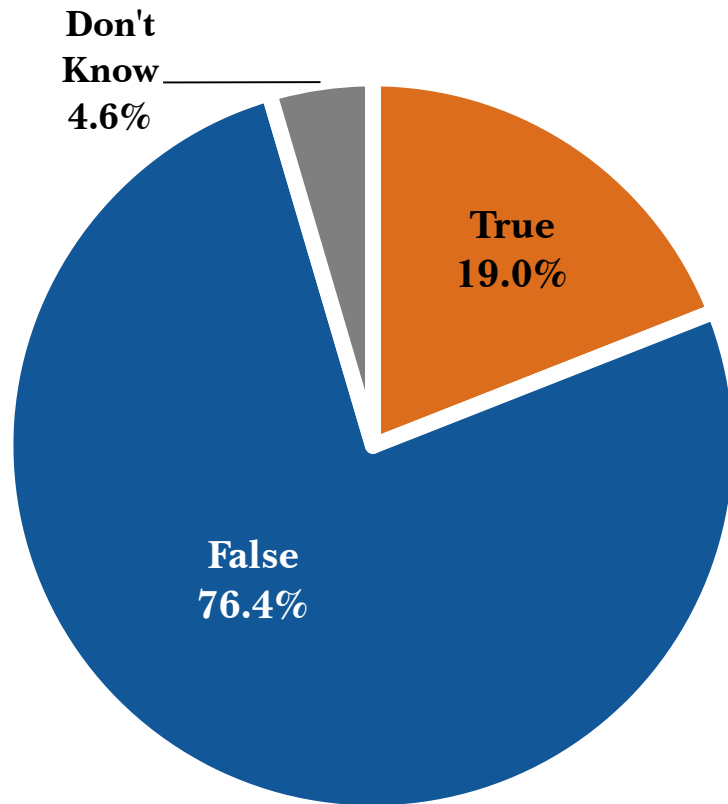
(N = 697)



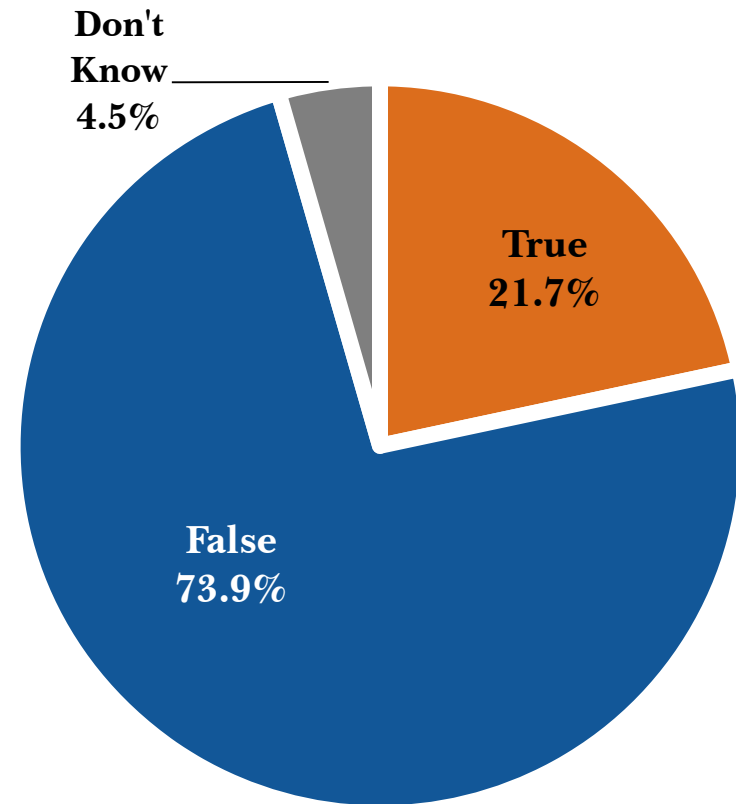
Question 13.2 Cross Tabulations

Statement: Only people living in a high-risk flood zone are required to have flood insurance coverage [with or without Cox Digital Cable TV]

With Cox Digital Cable TV
(N = 373)



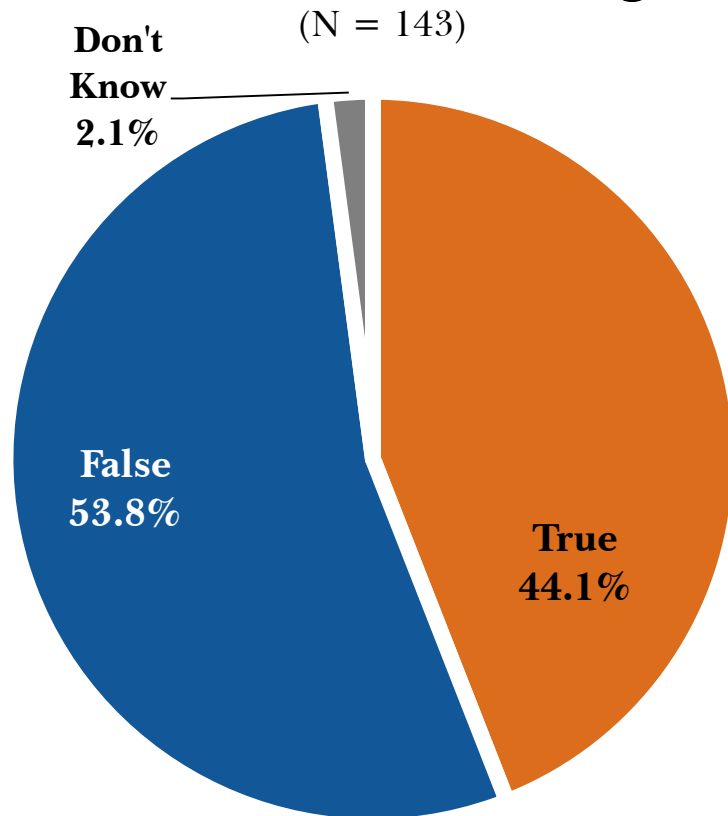
Without Cox Digital Cable TV
(N = 314)



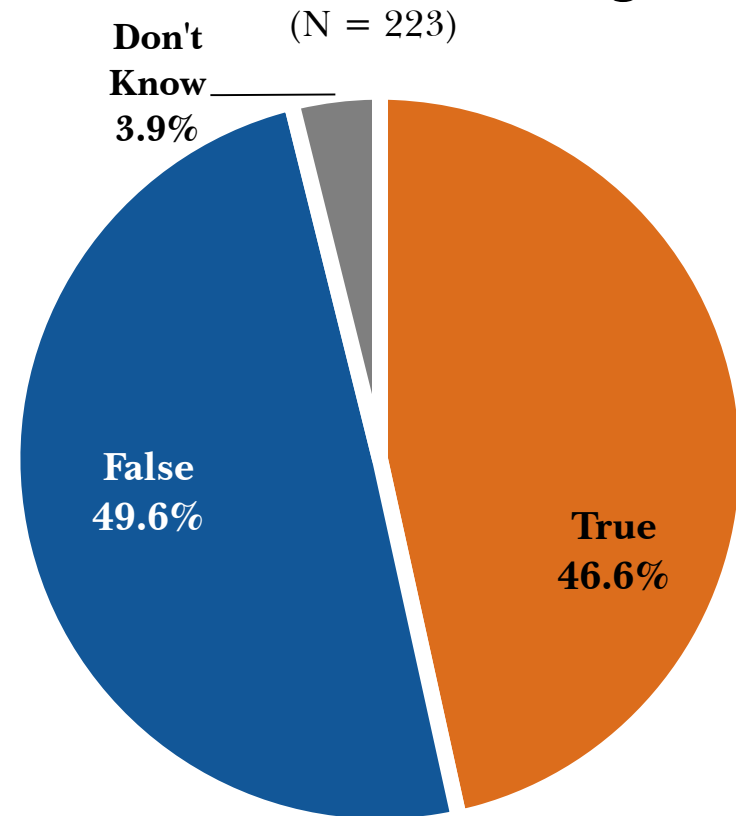
Question 13.2 Cross Tabulations

Statement: Only people living in a high-risk flood zone are required to have flood insurance coverage [with or without Cox Digital Cable TV]

Watched the Flood Channel TV Program

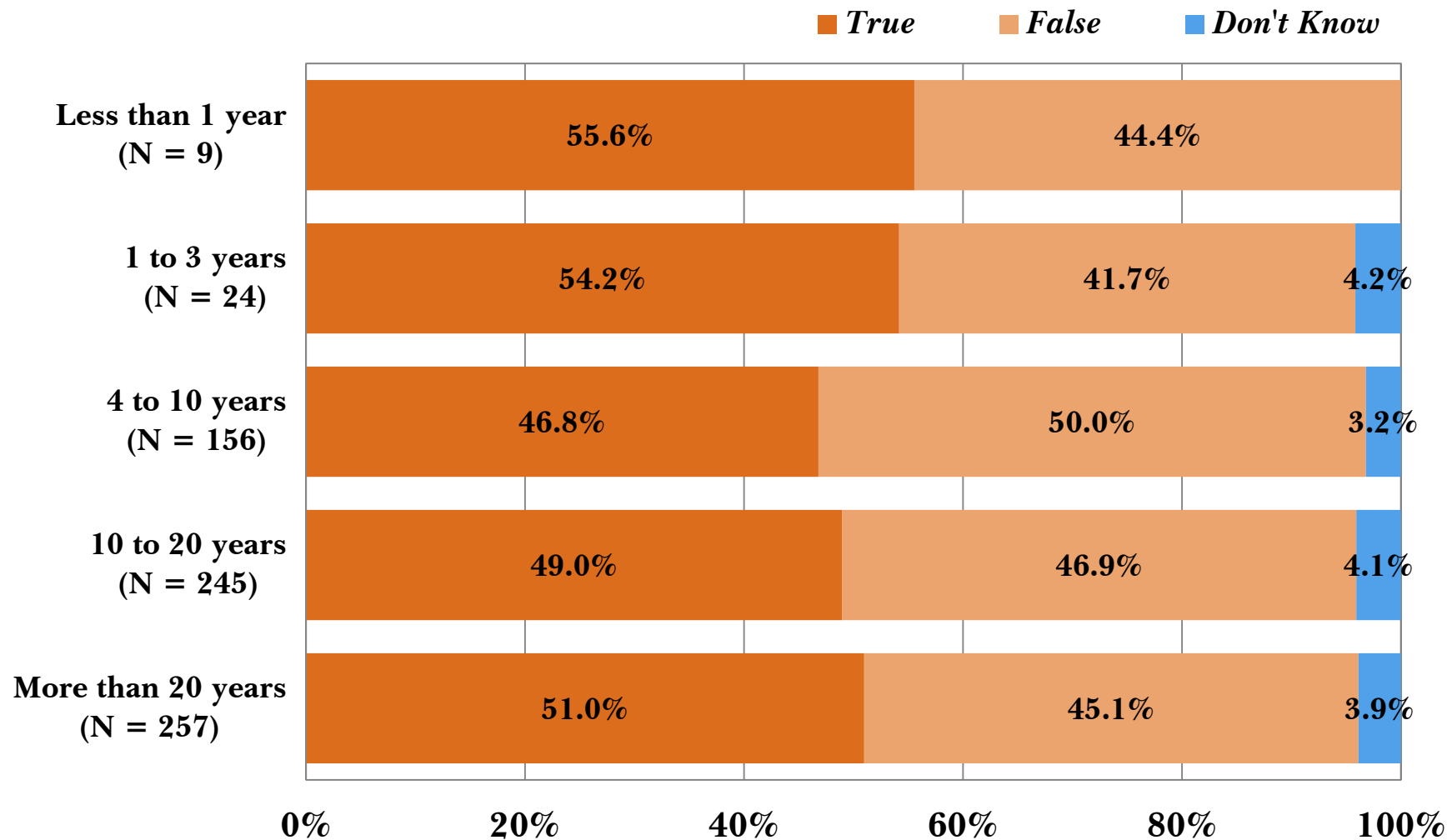


Never watched the Flood Channel TV Program



Question 13.2 Cross Tabulations

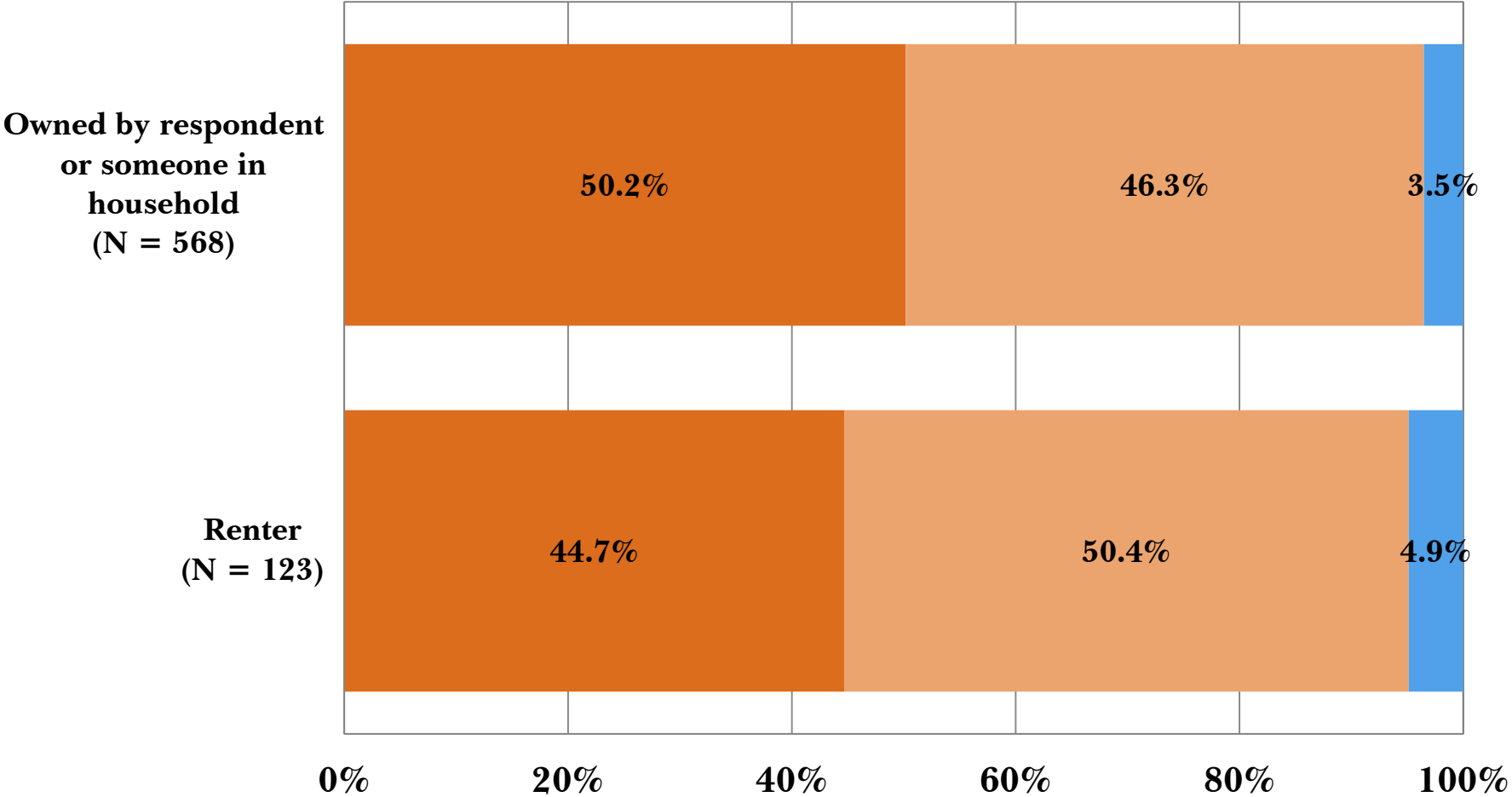
Statement: Only people living in a high-risk flood zone are required to have flood insurance coverage [by length of residence]



Question 13.2 Cross Tabulations

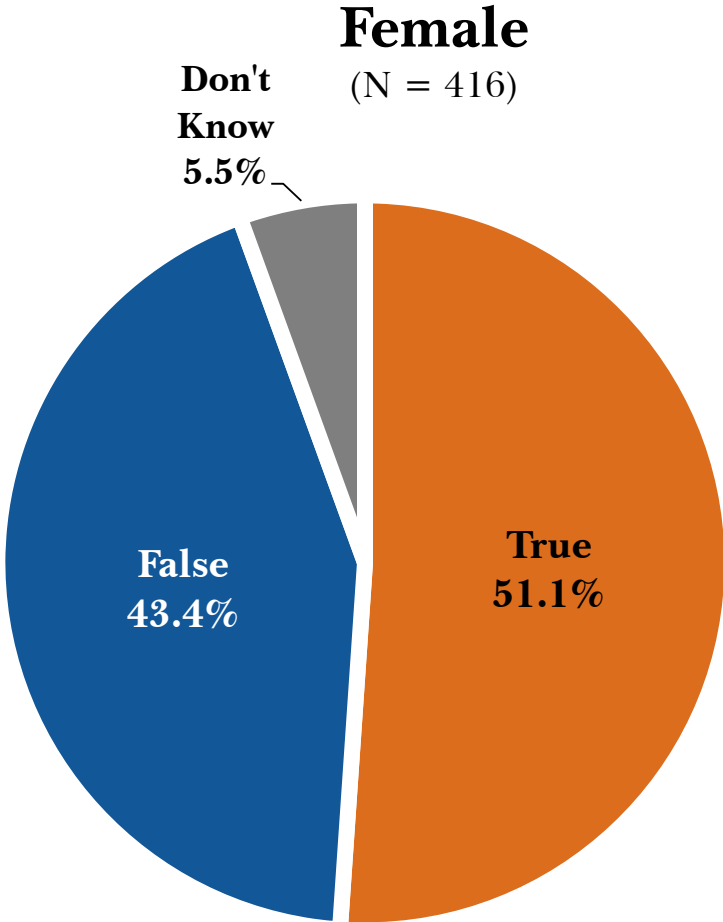
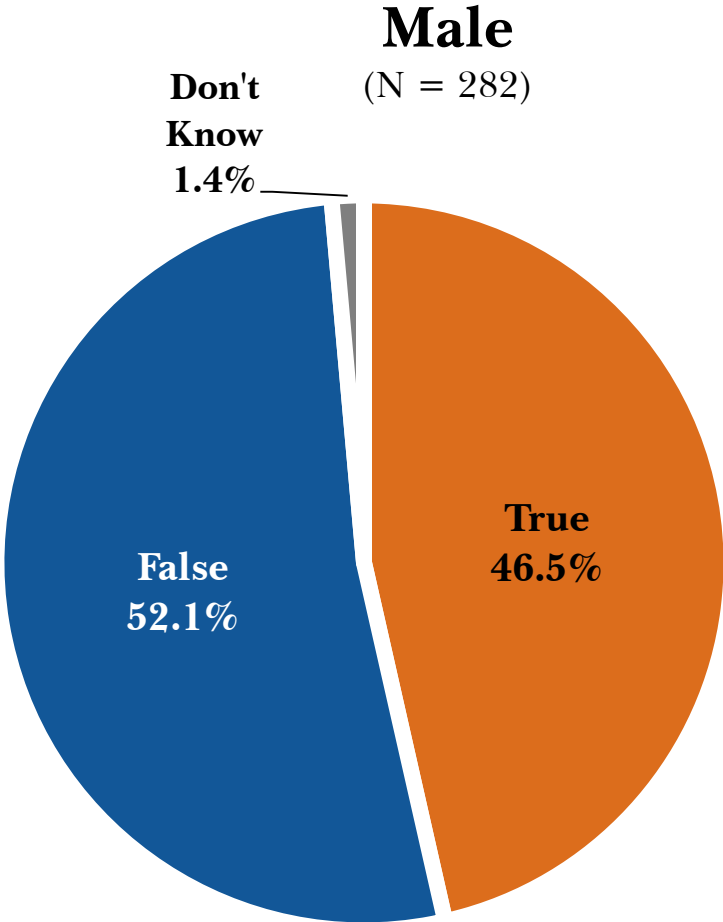
Statement: *Only people living in a high-risk flood zone are required to have flood insurance coverage [by type of residency]*

True False Don't Know



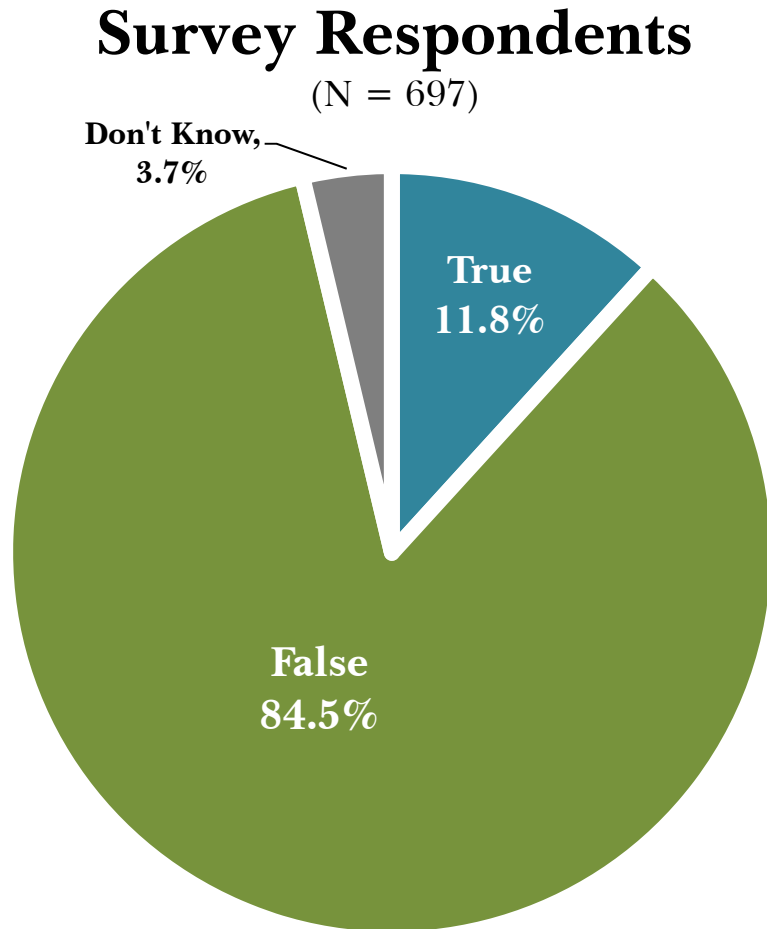
Question 13.2 Cross Tabulations

Statement: Only people living in a high-risk flood zone are required to have flood insurance coverage [by gender observation]



Question 13.3 *True or False?*

Flood insurance is only available to those who live in a high-risk flood zone.



84.5% of respondents perceive flood insurance to be available to residents outside of the high-risk flood zone.

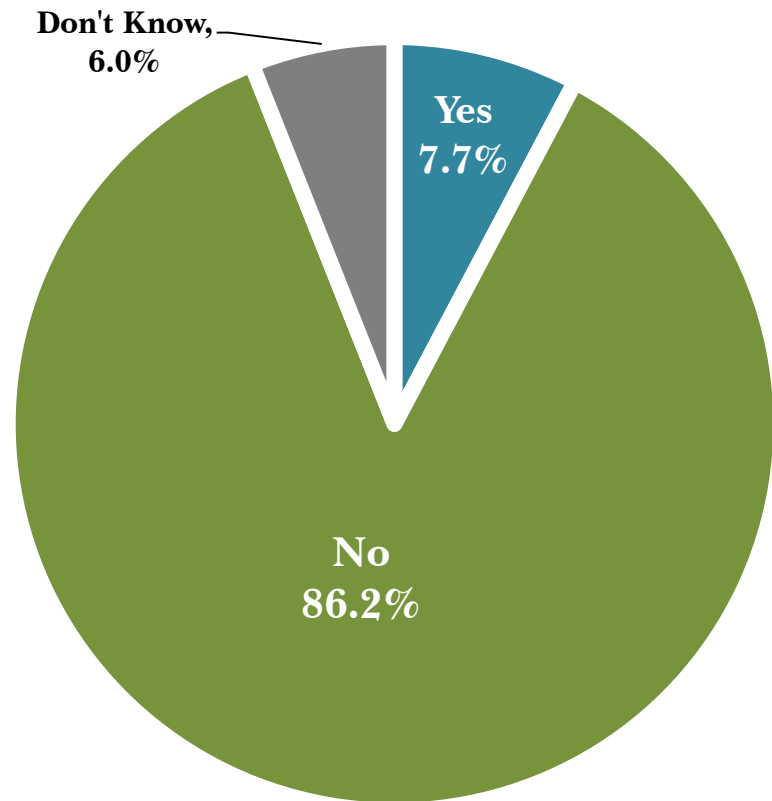
Question 14

Do you live in a high-risk flood zone?

Nearly 9 out of 10 respondents stated they did not reside in a high-risk flood zone.

Survey Respondents

(N = 698)



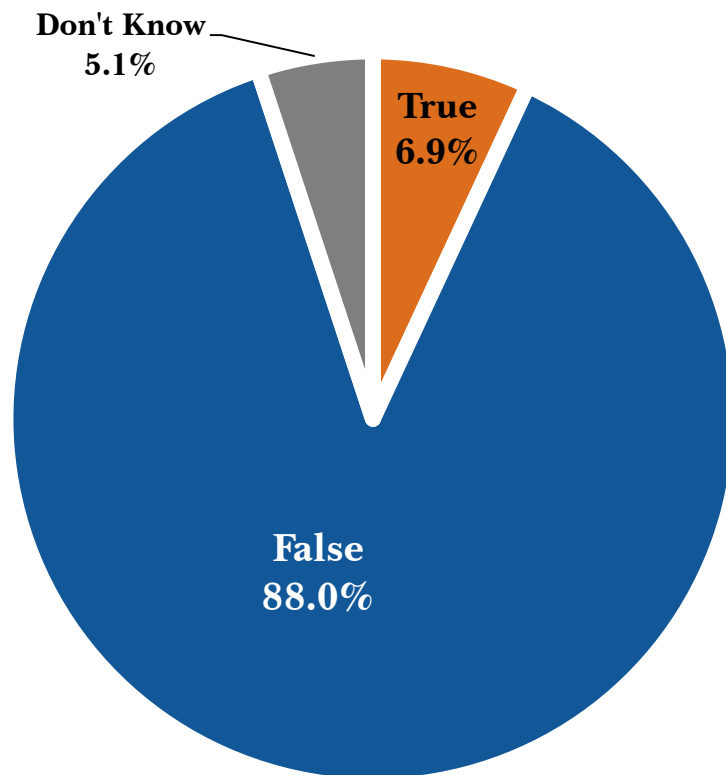
Question 14 Cross Tabulations

Do you live in a high-risk flood zone?

[with or without Cox Digital Cable TV]

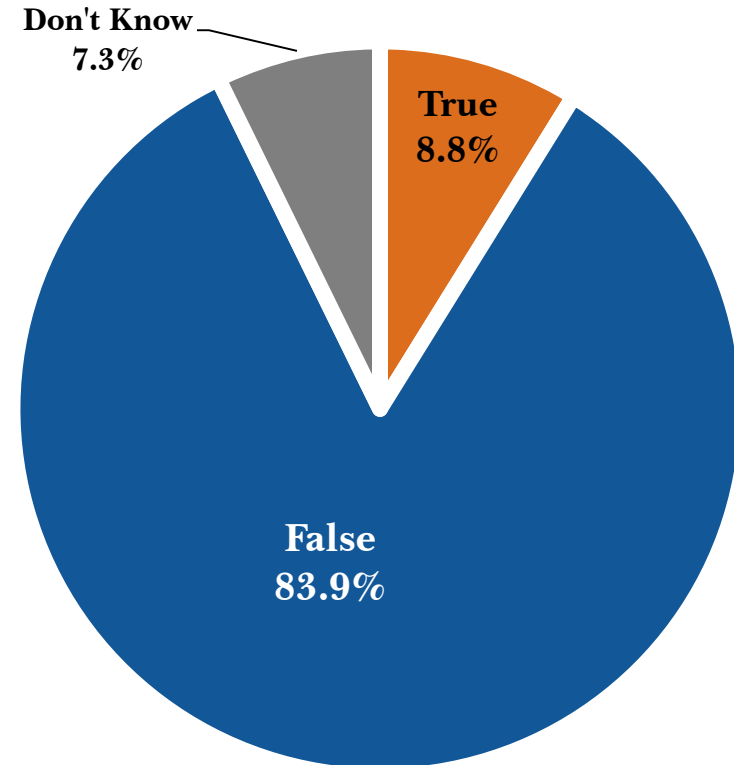
With Cox Digital Cable TV

(N = 375)



Without Cox Digital Cable TV

(N = 317)



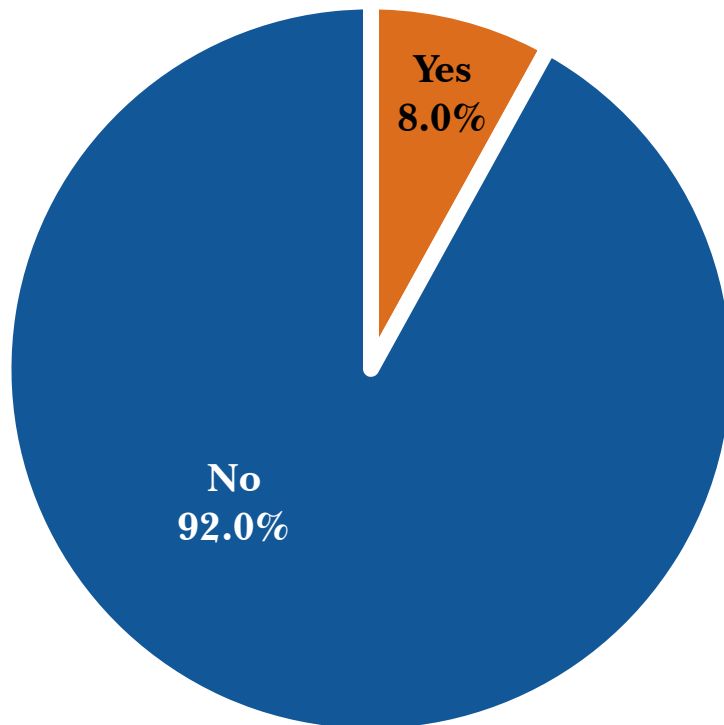
Question 14 Cross Tabulations

Do you live in a high-risk flood zone?

[with or without Cox Digital Cable TV]

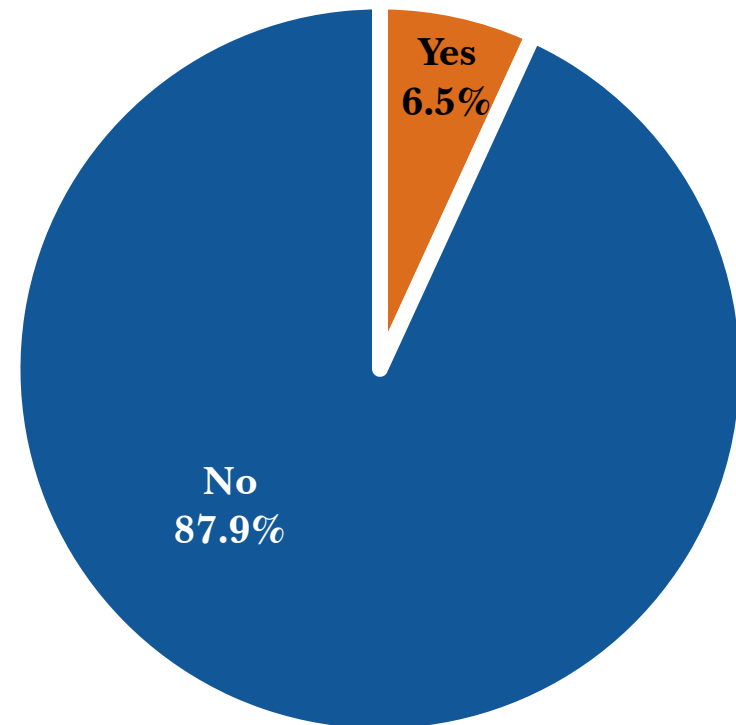
Watched the Flood Channel TV Program

(N = 137)



Never watched the Flood Channel TV Program

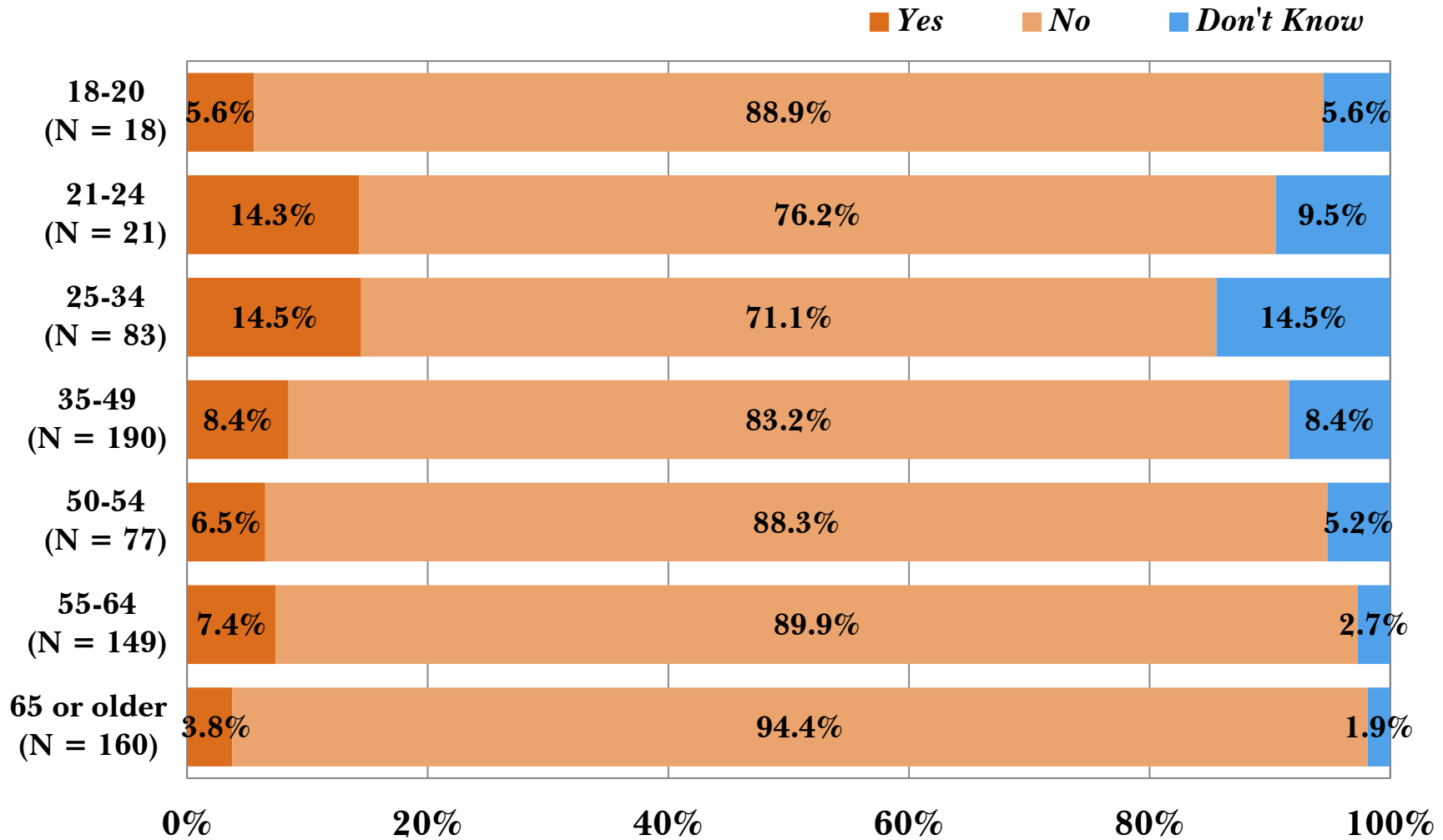
(N = 219)



Question 14 Cross Tabulations

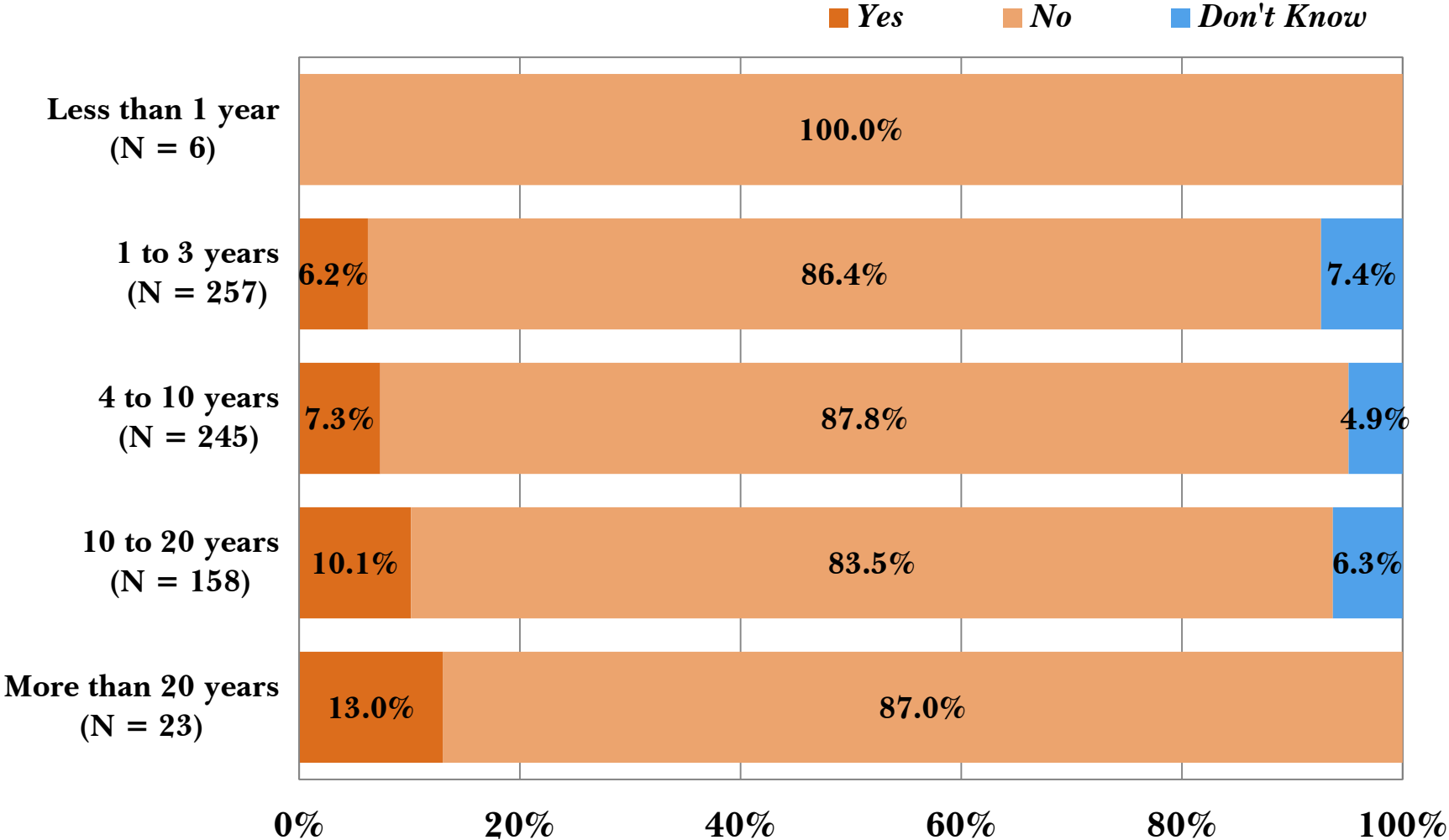
Do you live in a high-risk flood zone?

[by age category]



Question 14 Cross Tabulations

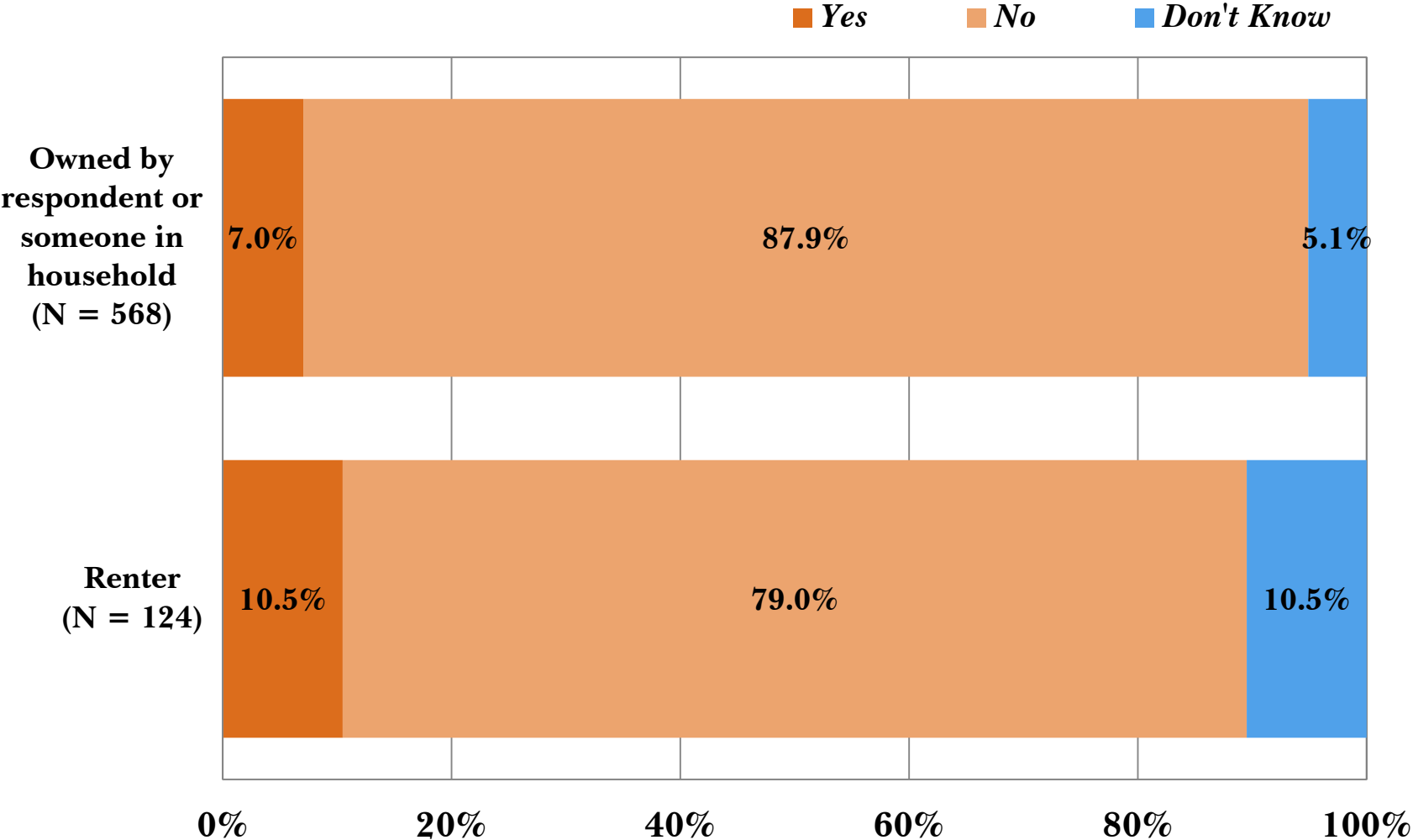
Do you live in a high-risk flood zone?
 [by length of residence]



Question 14 Cross Tabulations

Do you live in a high-risk flood zone?

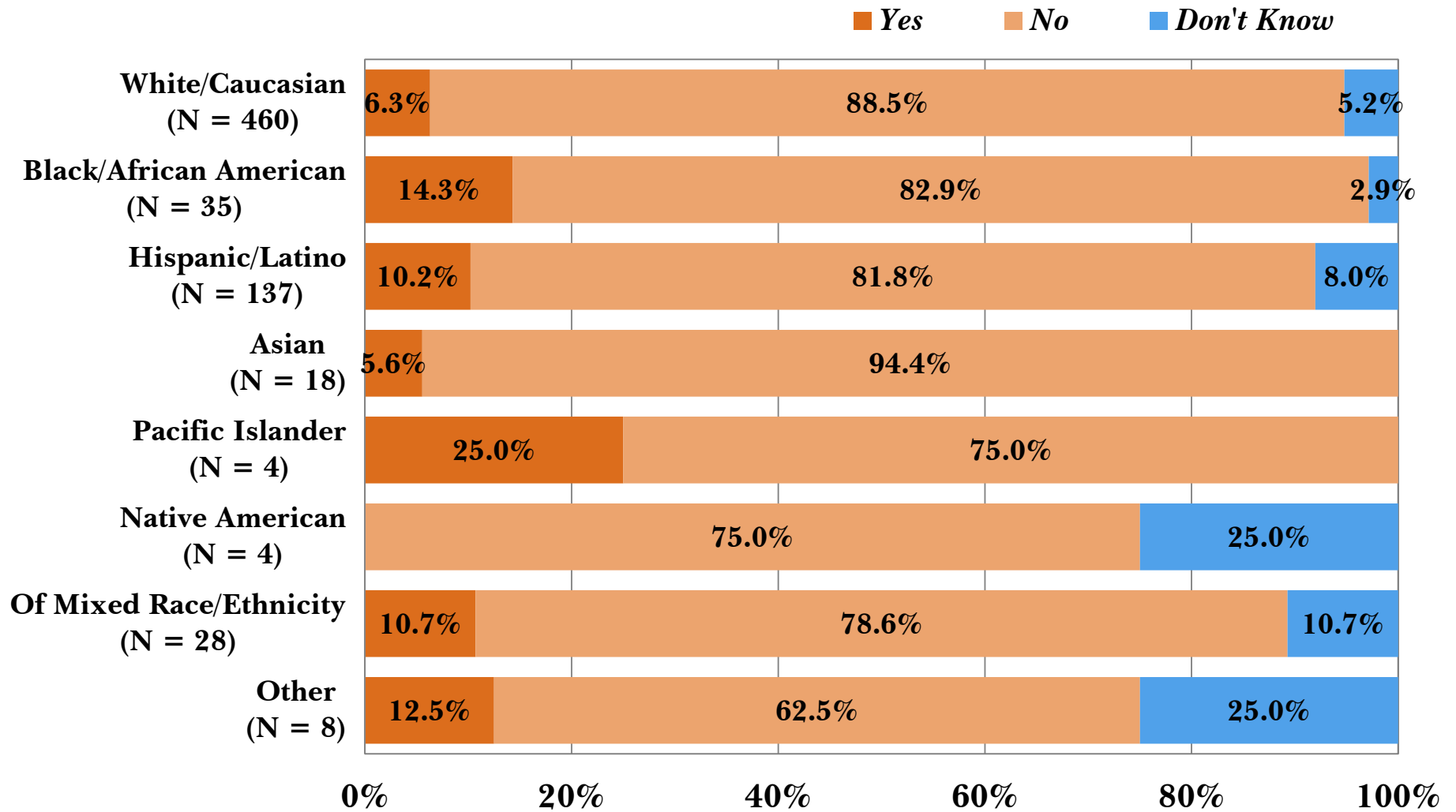
[by type of residency]



Question 14 Cross Tabulations

Do you live in a high-risk flood zone?

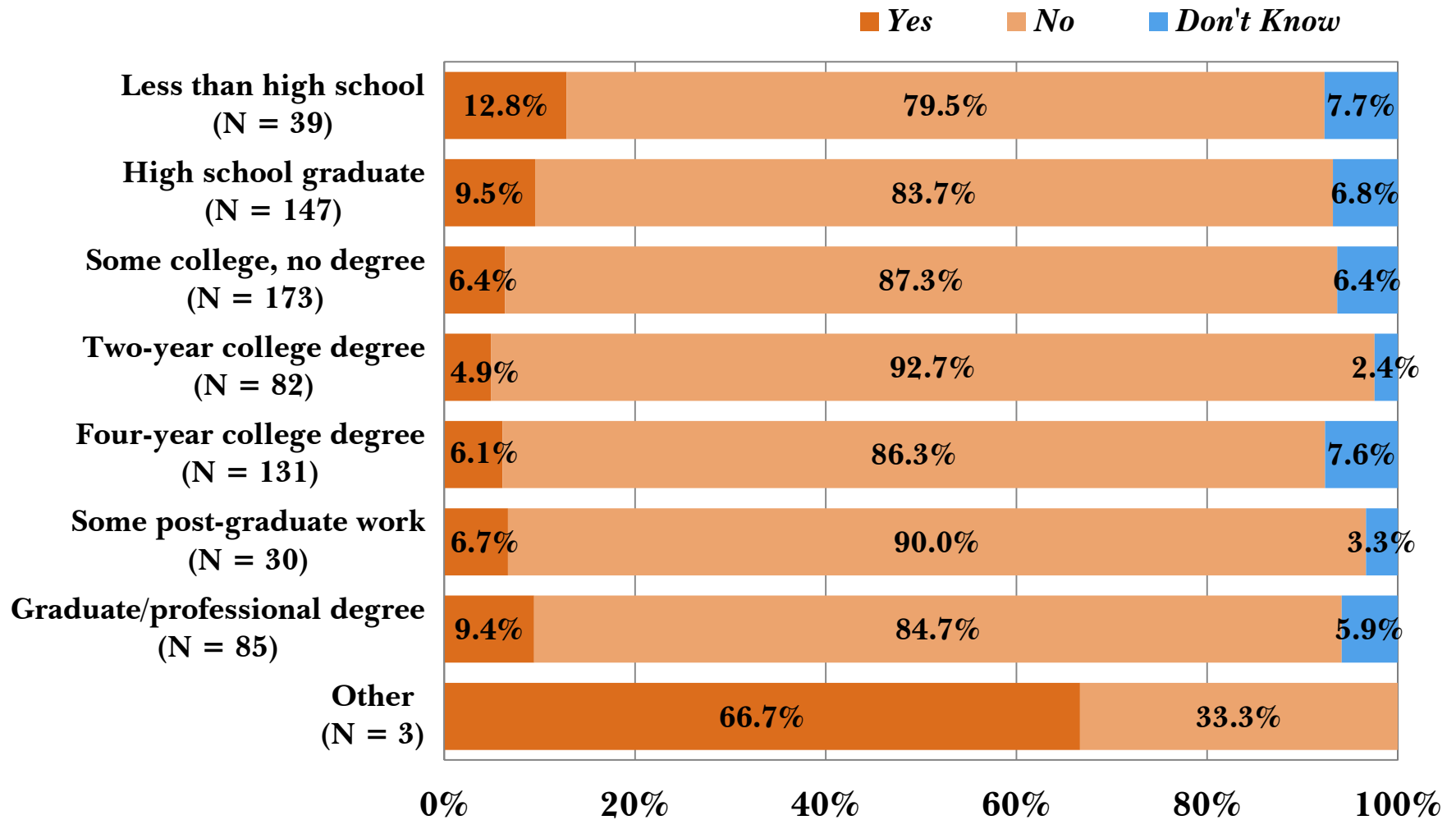
[by race/ethnicity]



Question 14 Cross Tabulations

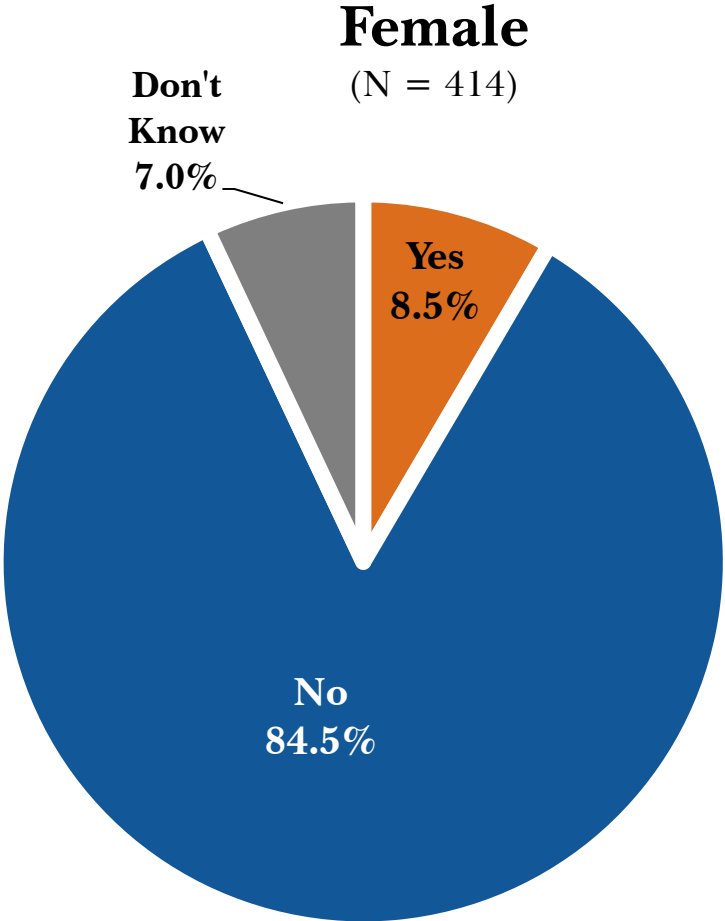
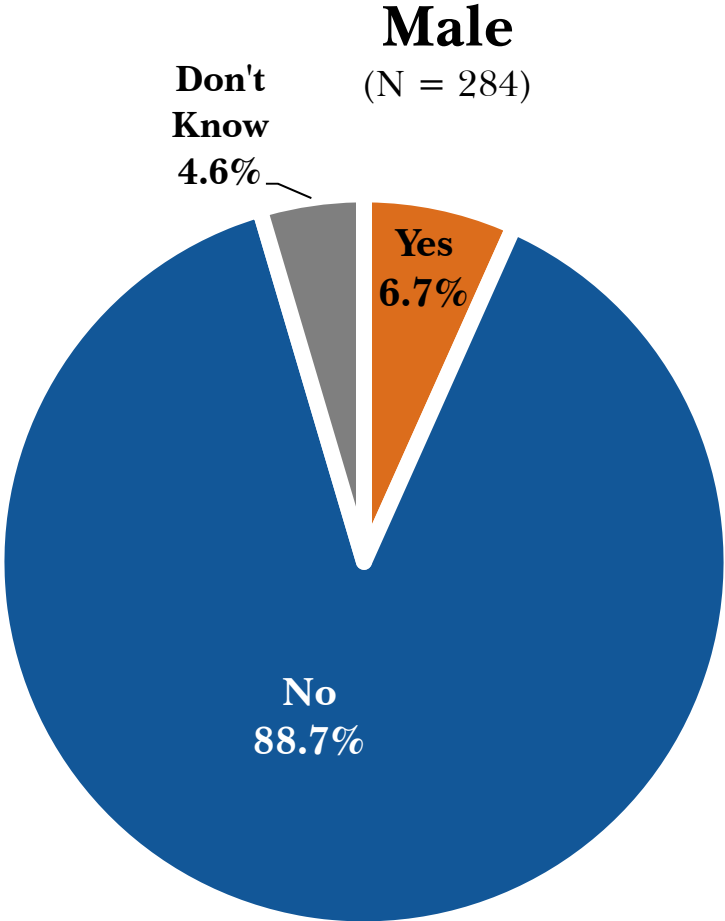
Do you live in a high-risk flood zone?

[by educational attainment]



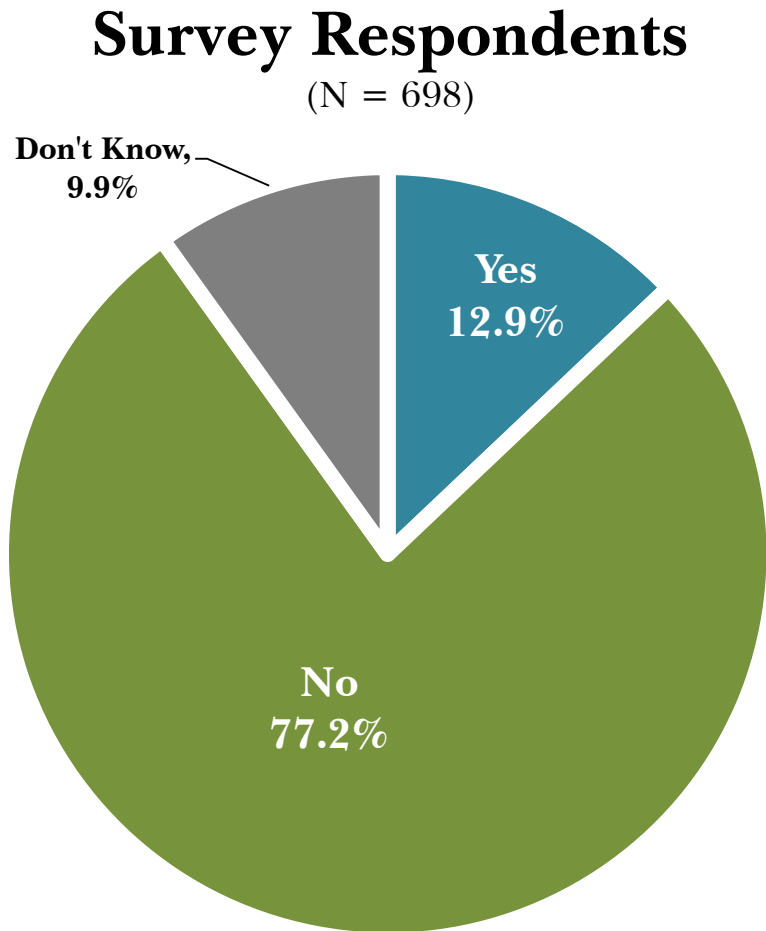
Question 14 Cross Tabulations

*Do you live in a high-risk flood zone?
[by gender observation]*



Question 15

Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

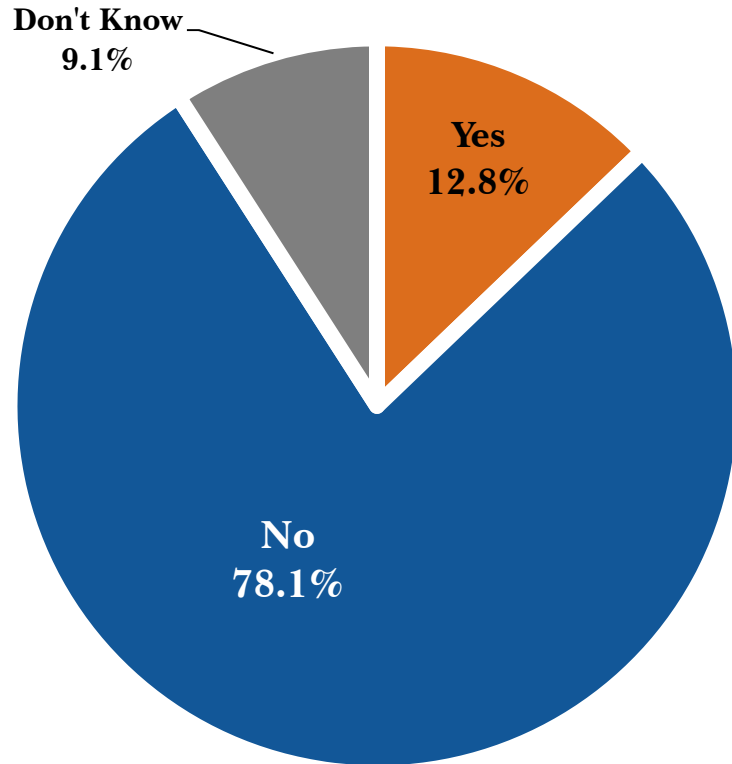


77.2% of respondents do not carry flood insurance beyond the standard homeowner's or renter's policy.

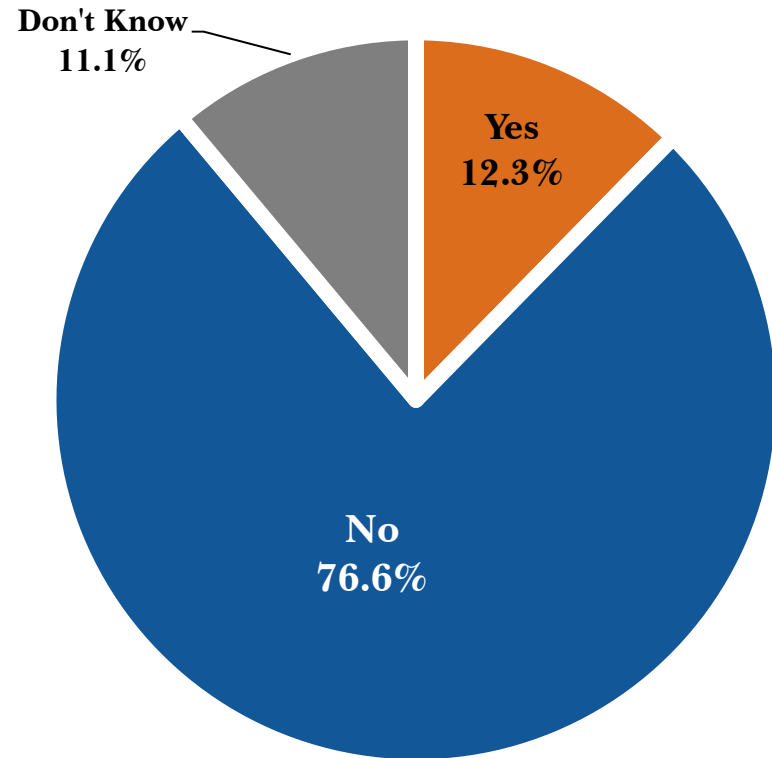
Question 15 Cross Tabulations

*Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?
[with or without Cox Digital Cable TV]*

With Cox Digital Cable TV
(N = 374)



Without Cox Digital Cable TV
(N = 316)



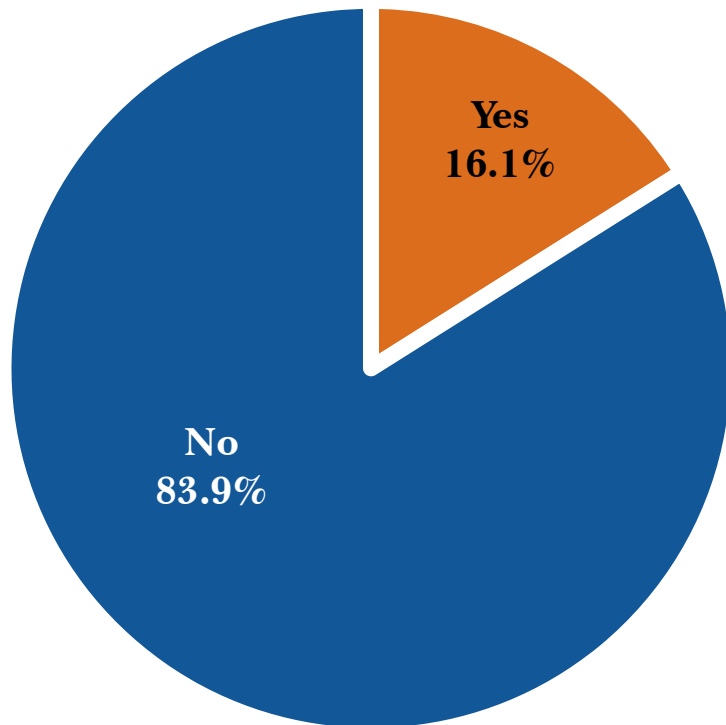
Question 15 Cross Tabulations

Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

[with or without Cox Digital Cable TV]

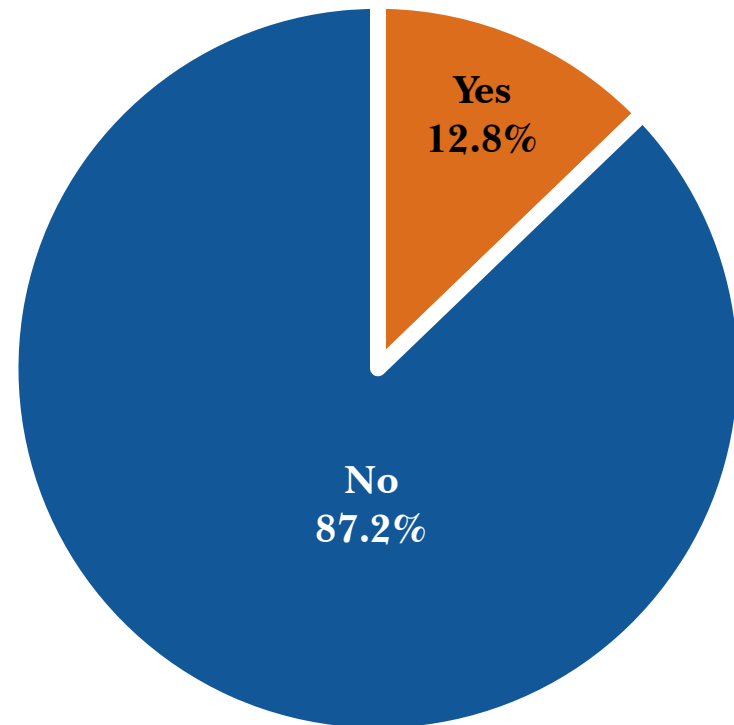
Watched the Flood Channel TV Program

(N = 137)



Never watched the Flood Channel TV Program

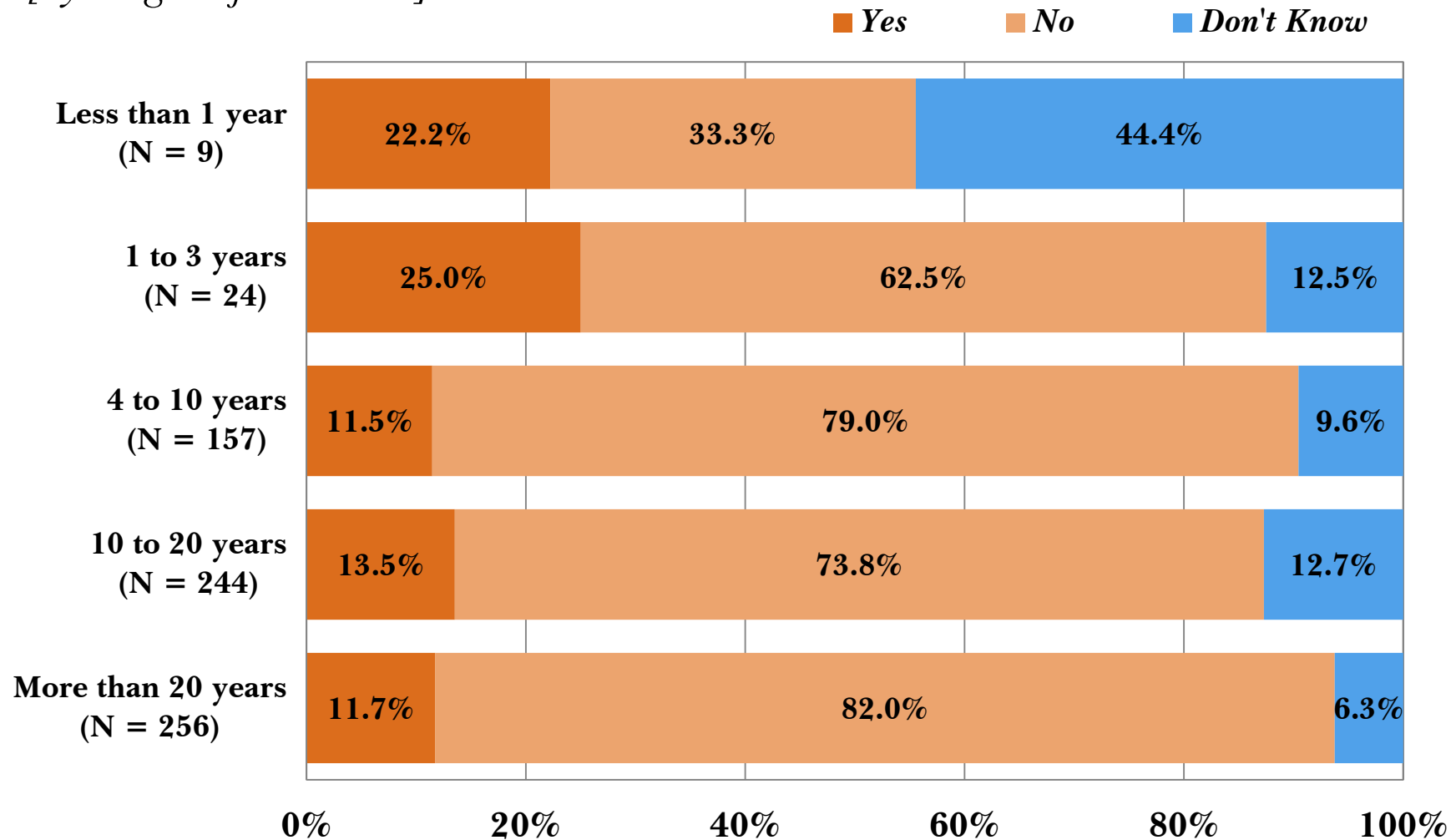
(N = 203)



Question 15 Cross Tabulations

Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

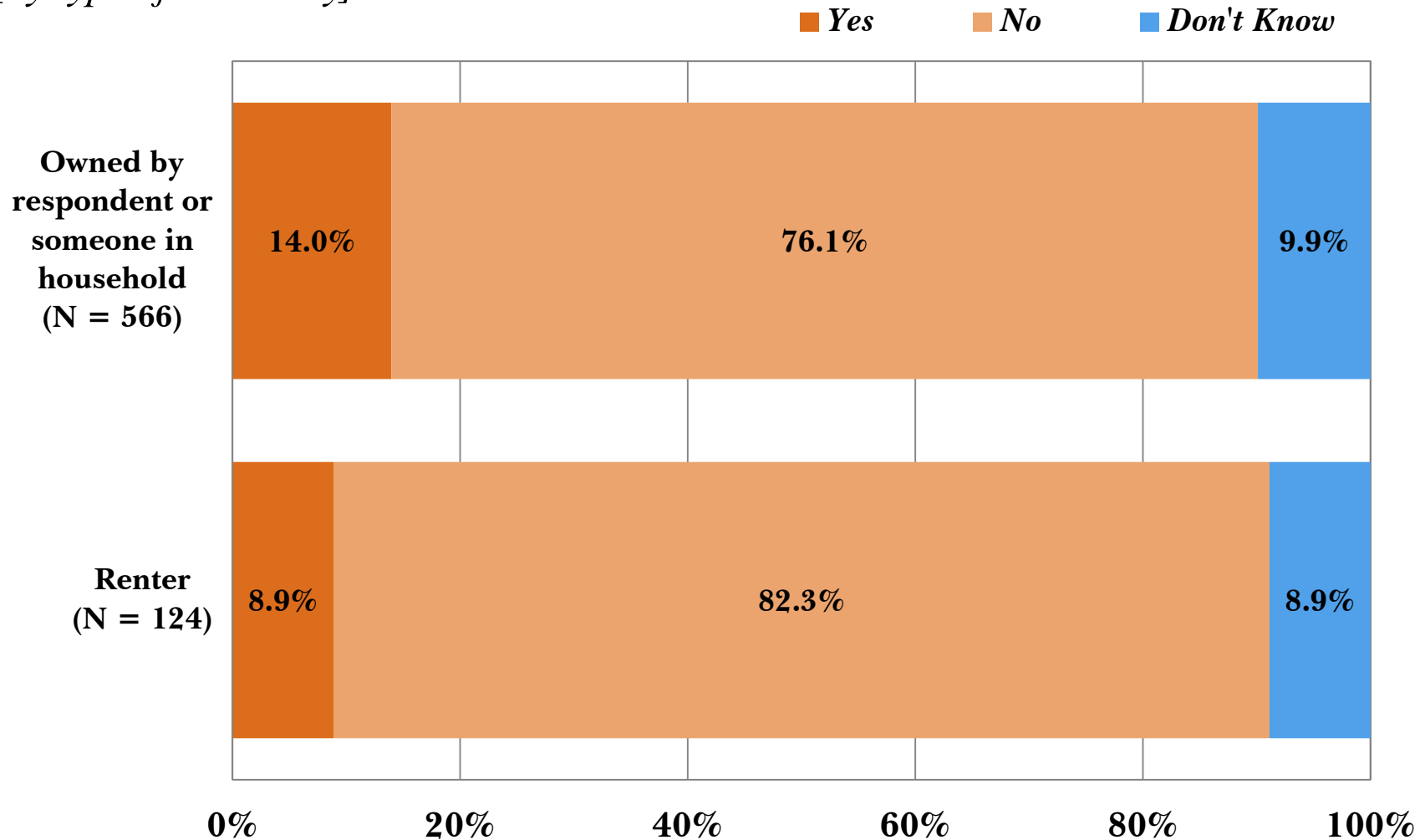
[by length of residence]



Question 15 Cross Tabulations

Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

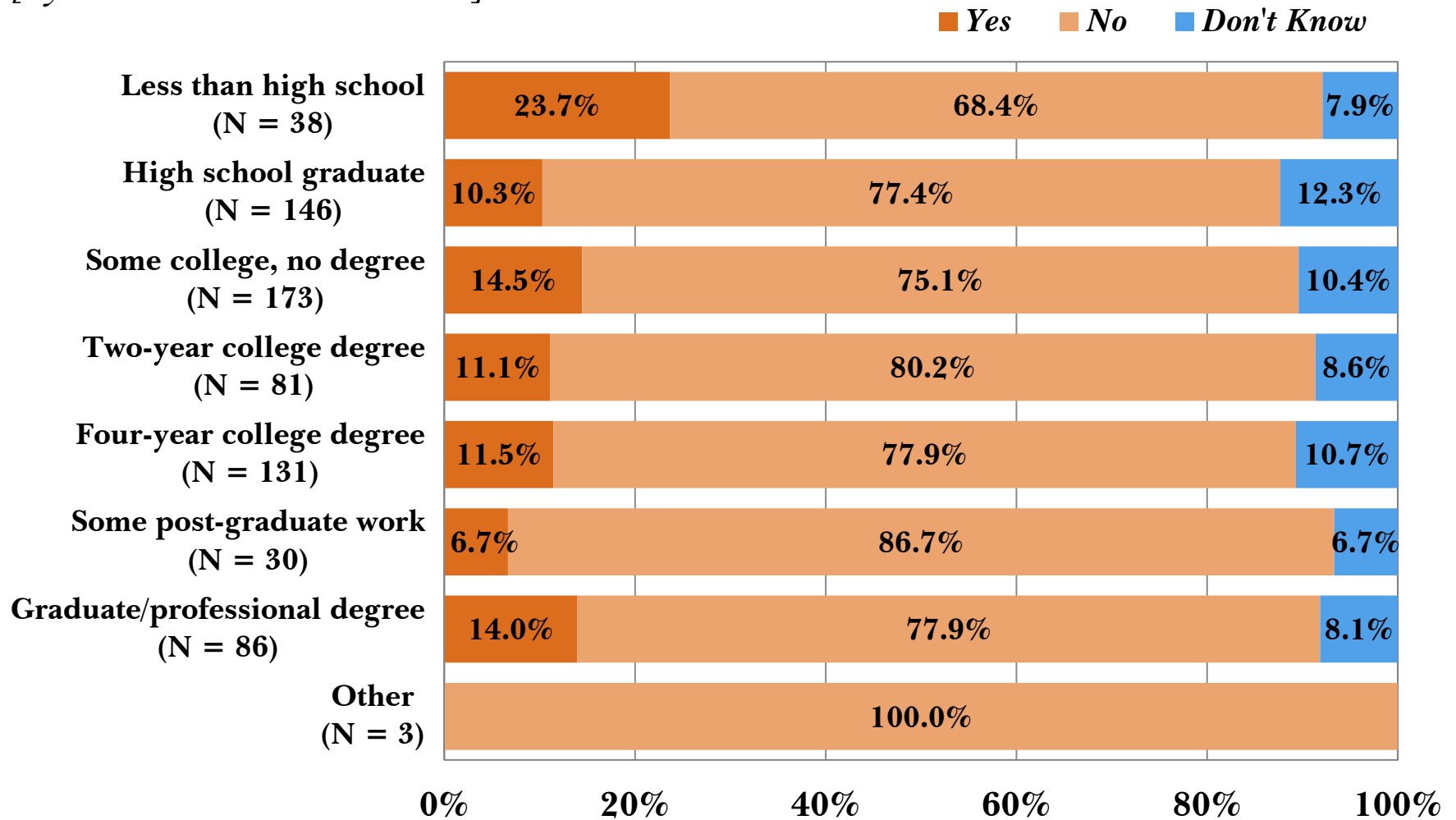
[by type of residency]



Question 15 Cross Tabulations

Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

[by educational attainment]

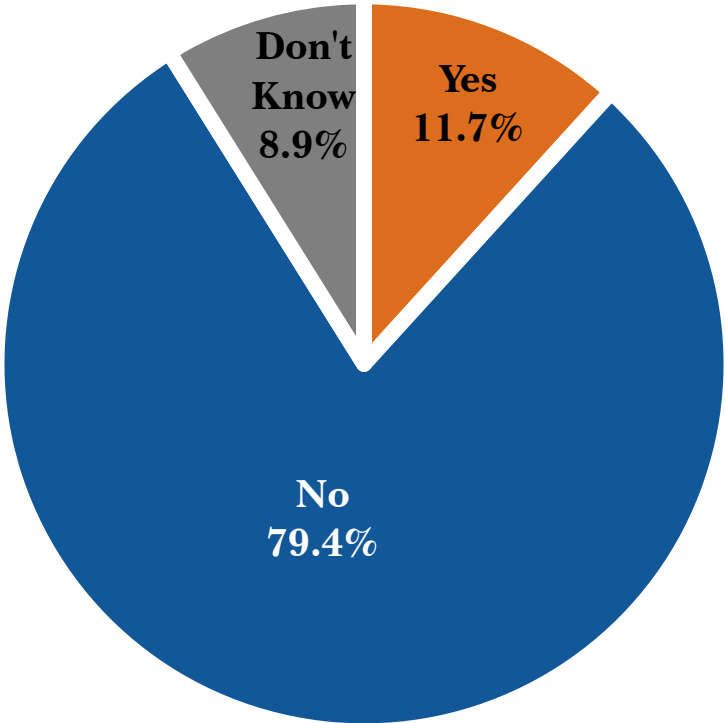


Question 15 Cross Tabulations

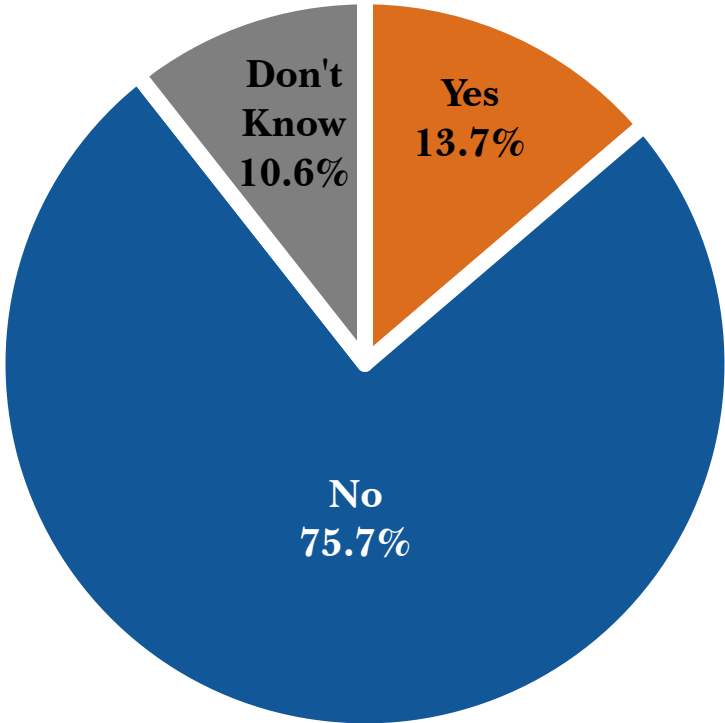
Do you currently carry flood insurance beyond what is or is not provided in your standard homeowner's or renter's policy?

[by gender observation]

Male
(N = 281)



Female
(N = 415)



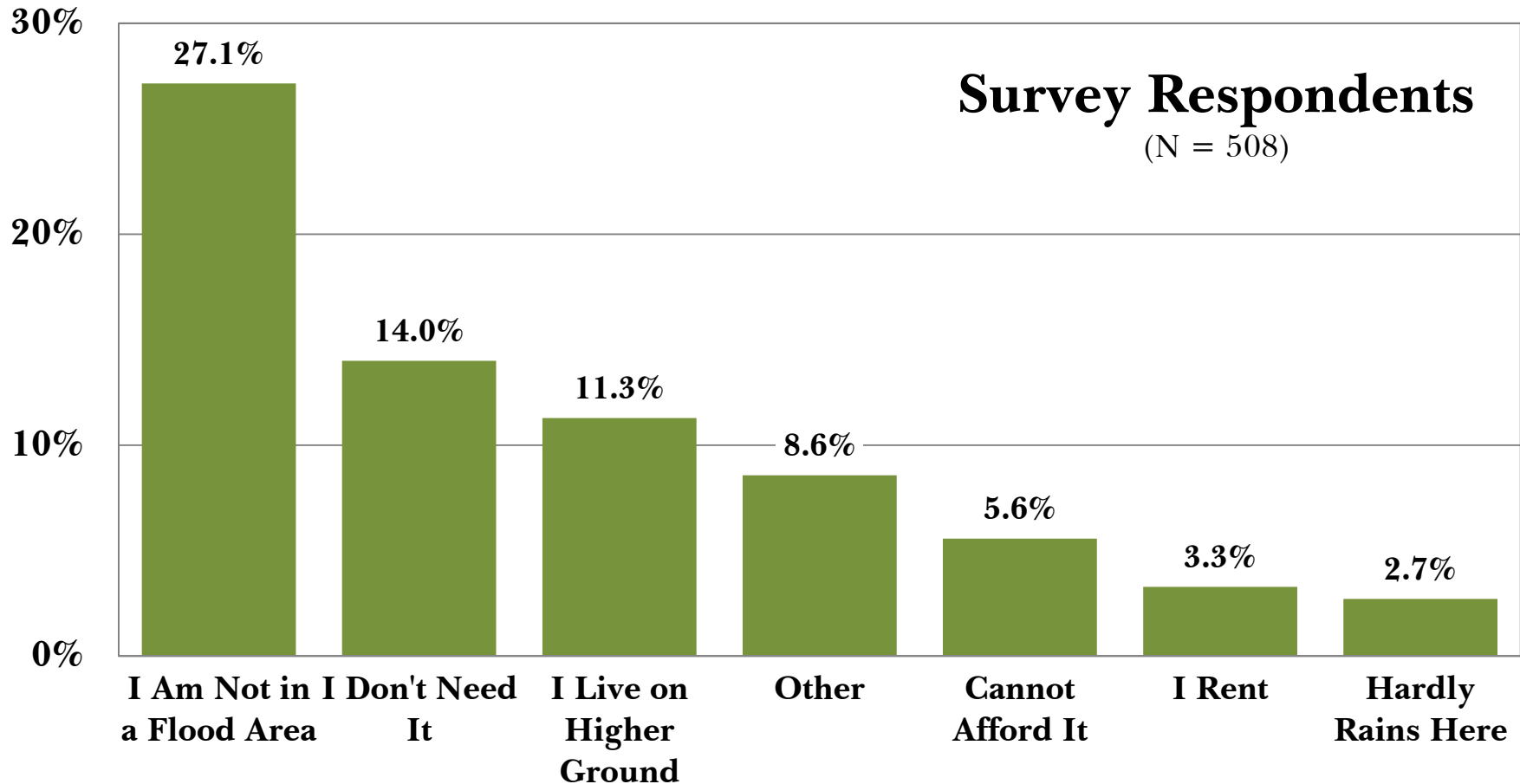
Question 16

Why don't you have flood insurance?



Question 16

Why don't you have flood insurance?



Question 16

Why don't you have flood insurance?

Notable Quotes

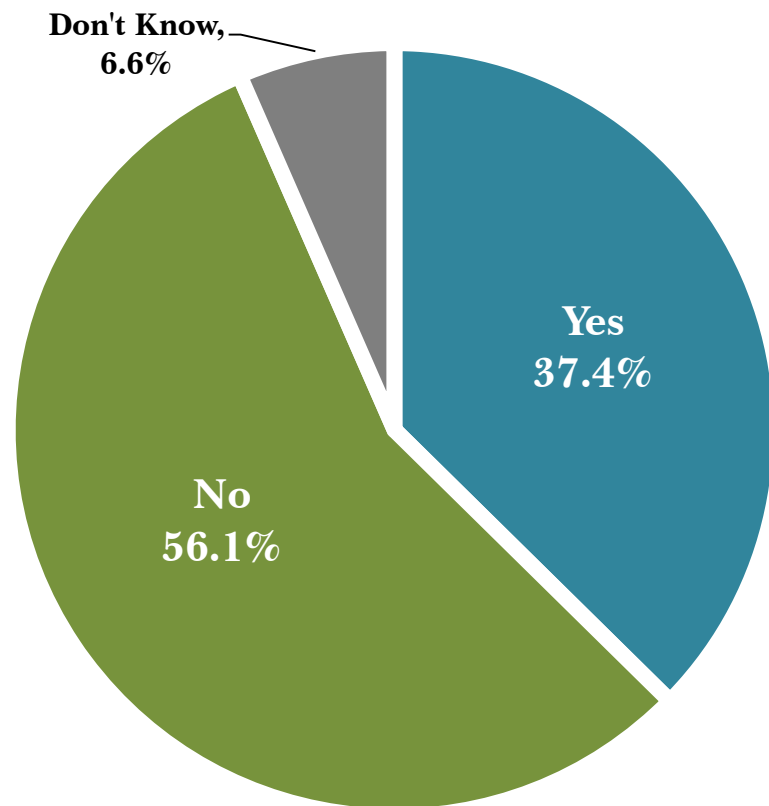
- *It doesn't rain in Nevada*
- *I have basic renter's policy*
- *There is not enough risk*
- *It's covered through my condo HOA*
- *I am not in a flood zone*
- *I live on a hill*
- *I can't afford it*
- *I'll take my chances*
- *I live in a desert*
- *Waste of money*
- *It doesn't rain enough*
- *It's in my insurance*
- *My mortgage pays for insurance*
- *I live on 2nd floor*
- *It wasn't necessary*
- *Economical reasons*
- *I am on a fixed income*

Question 17

Would you consider buying flood insurance to cover the structure of your property / contents inside if it would cost you less than one dollar per day?

Survey Respondents

(N = 610)



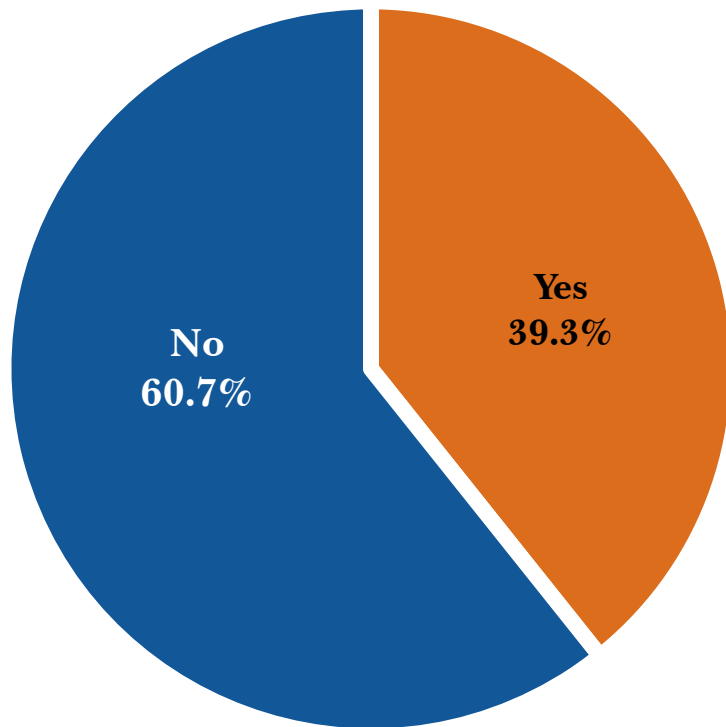
Only 37.4% of respondents would consider buying flood insurance at a cost of less than \$1 / day.

Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [with or without Cox Digital Cable TV]

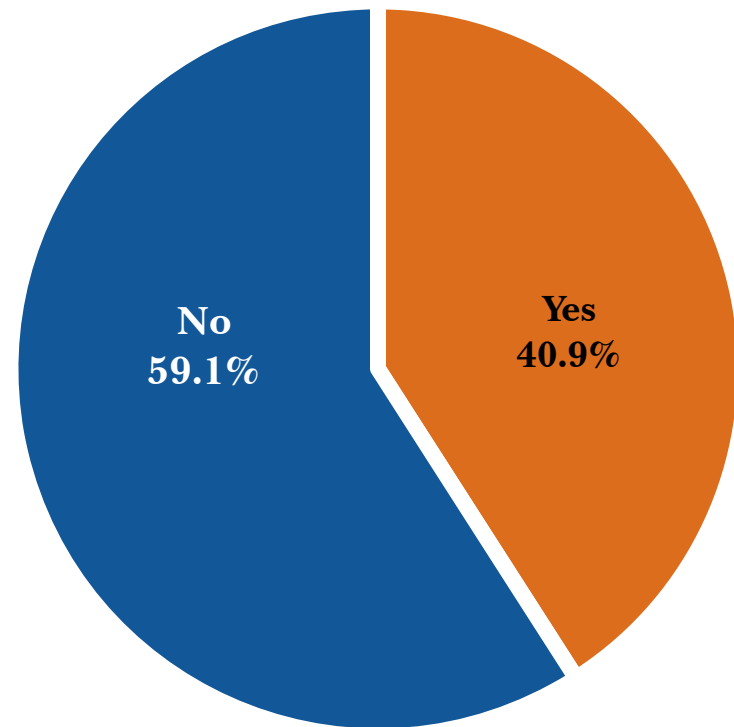
With Cox Digital Cable TV

(N = 308)



Without Cox Digital Cable TV

(N = 259)

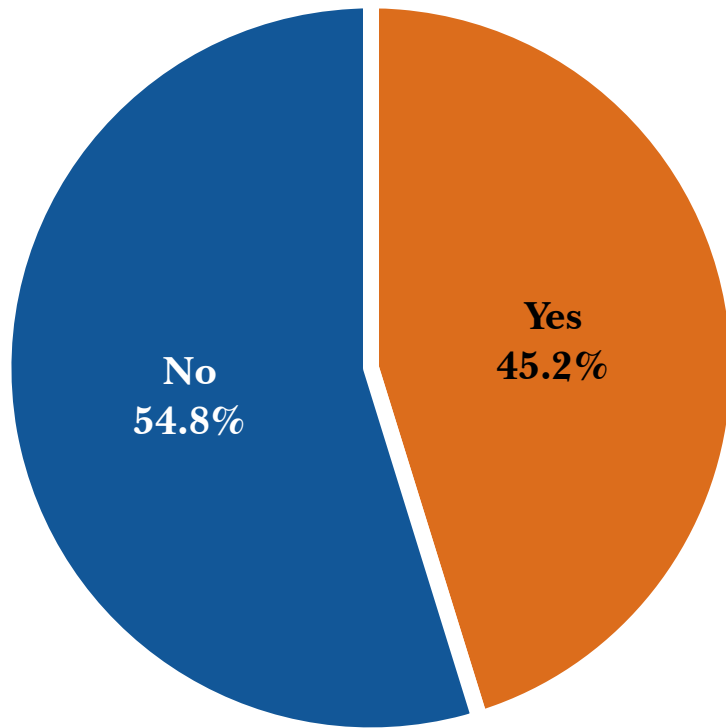


Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [with or without Cox Digital Cable TV]

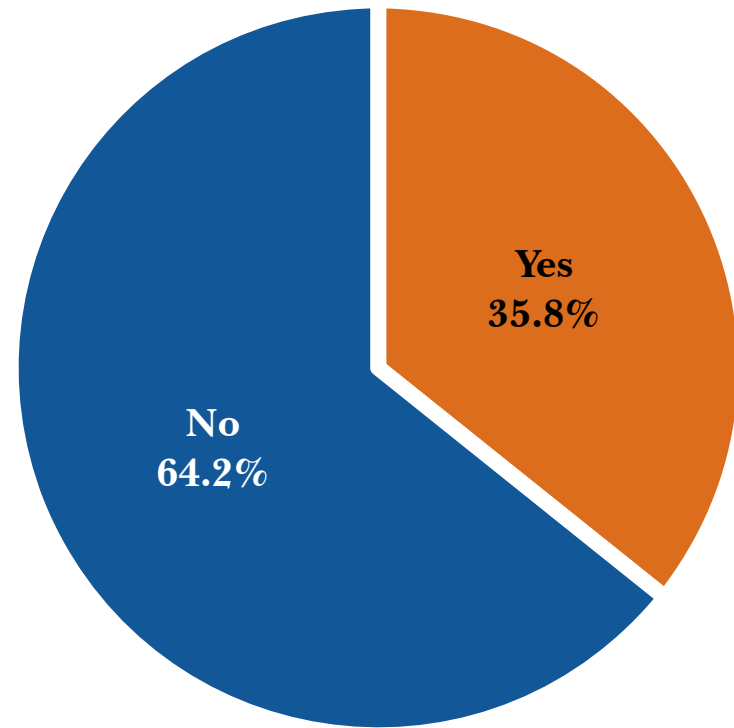
Watched the Flood Channel TV Program

(N = 115)



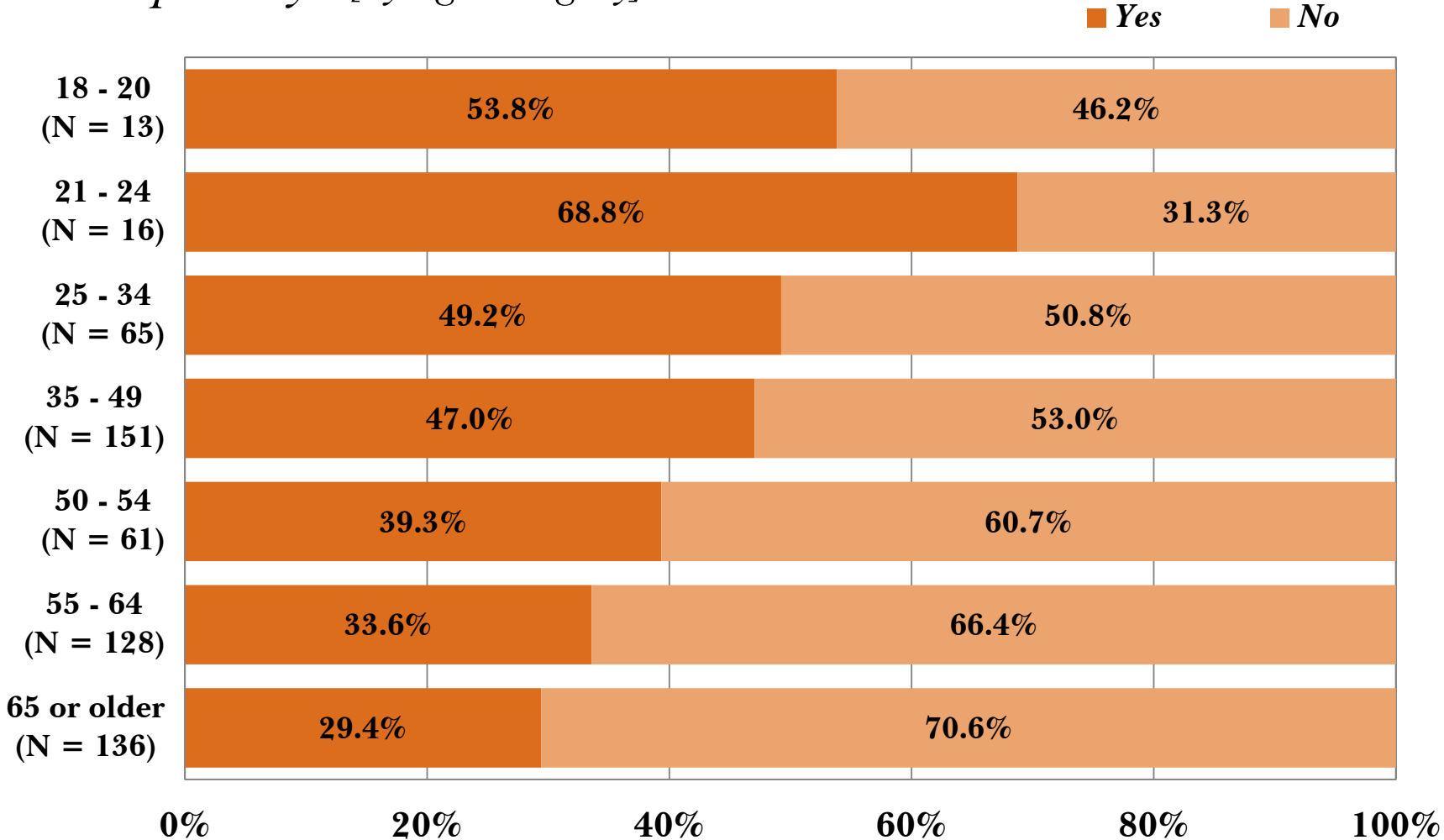
Never watched the Flood Channel TV Program

(N = 193)



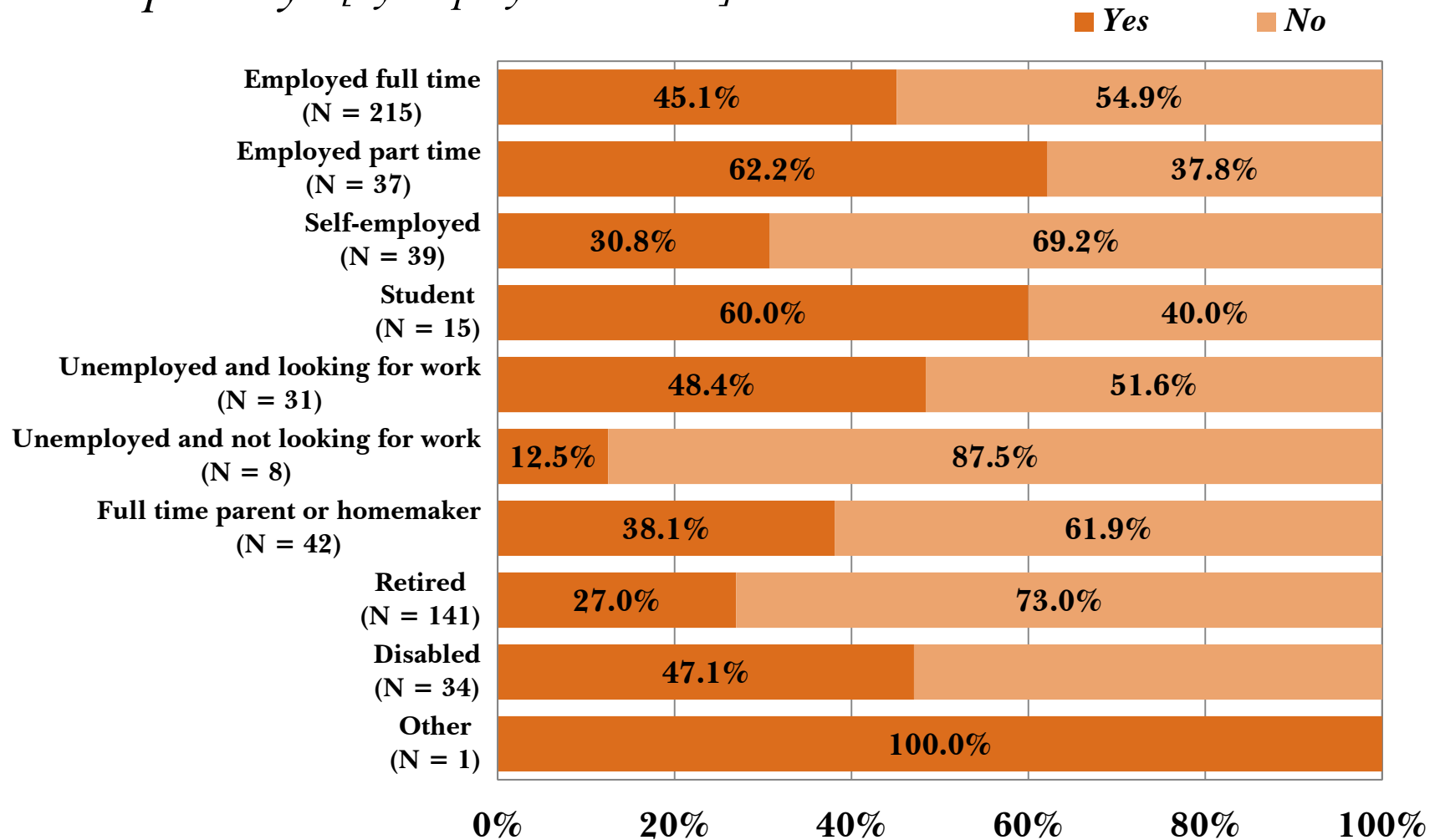
Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [by age category]



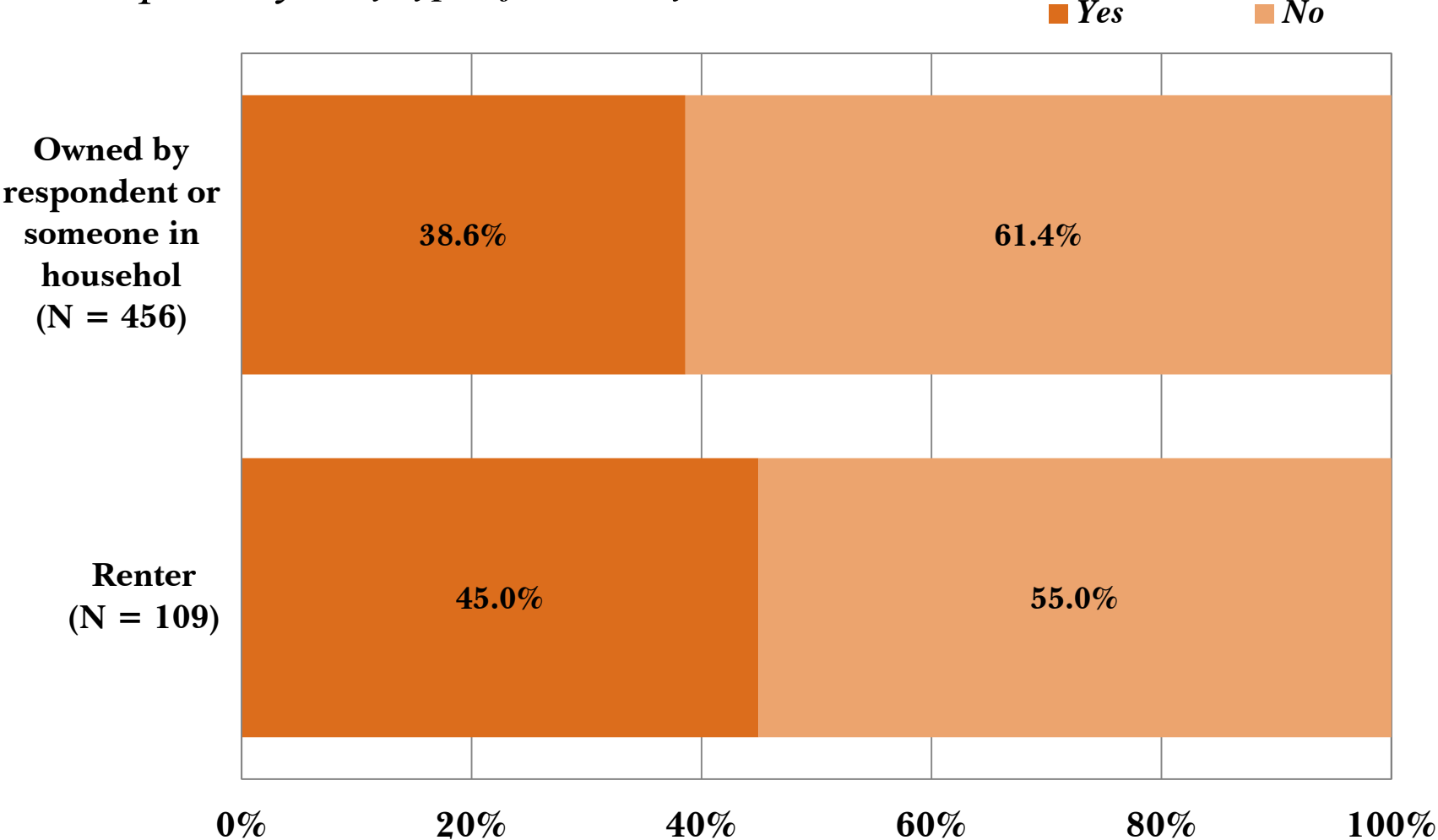
Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [by employment status]



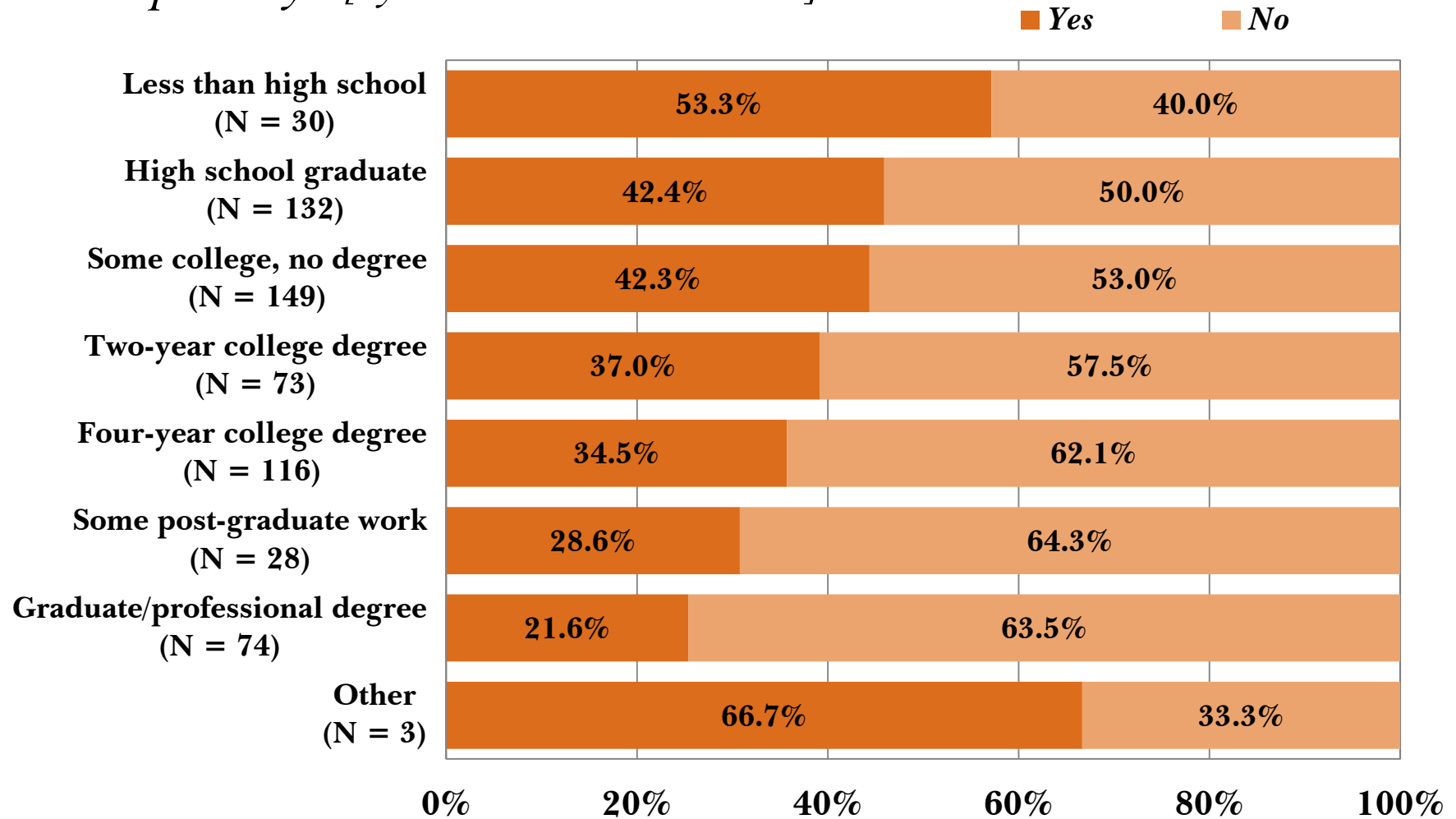
Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [by type of residency]



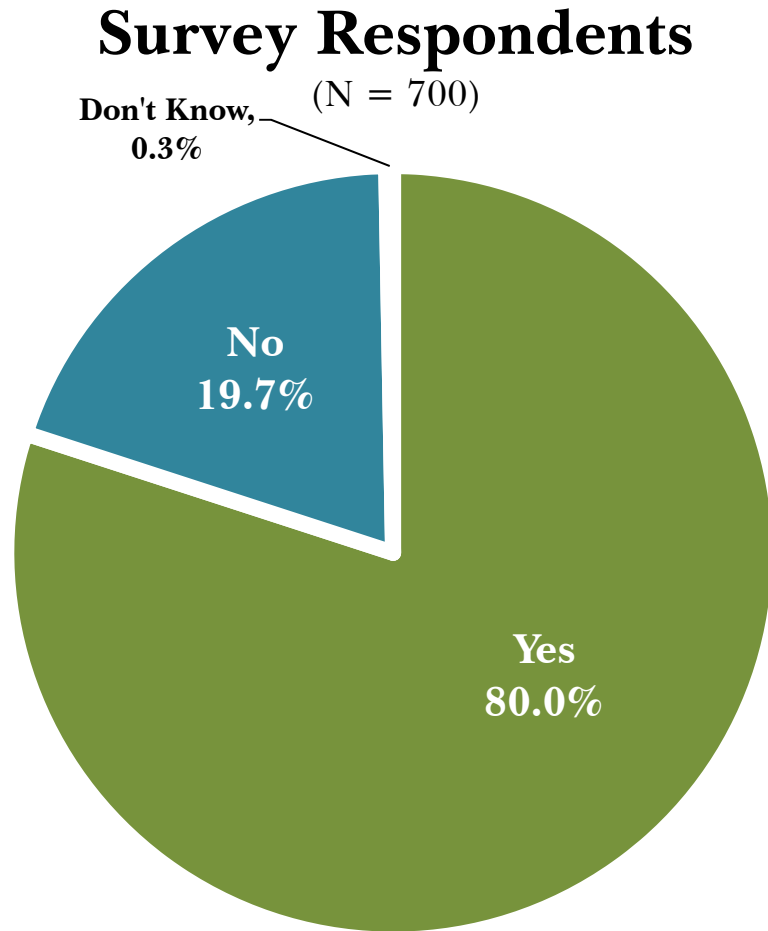
Question 17 Cross Tabulations

Would you consider buying flood insurance to cover the structure of your property and the contents inside if it would cost you less than one dollar per day? [by educational attainment]



Question 18

Have you ever encountered a flooded street while in a vehicle?



*8 out of 10 respondents
has encountered a flooded
street while in a vehicle.*

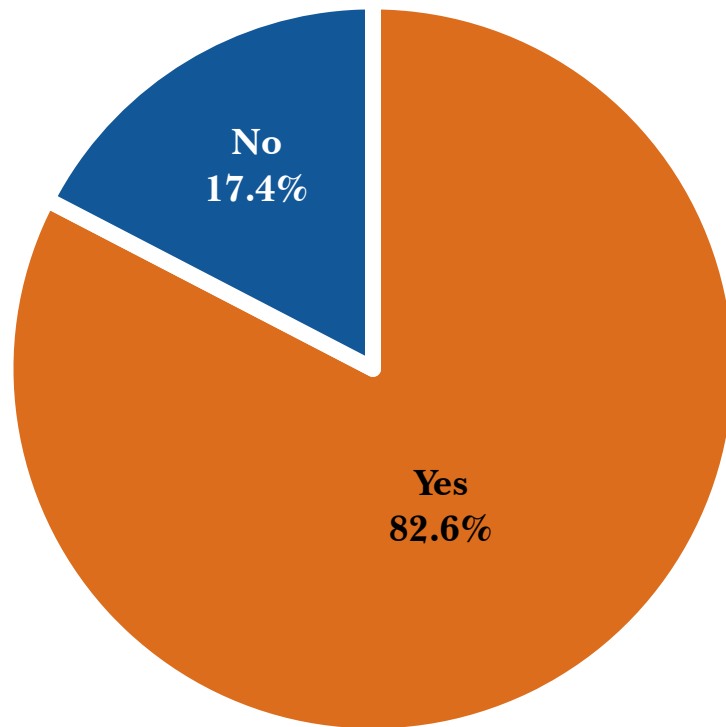
Question 18 Cross Tabulations

Have you ever encountered a flooded street while in a vehicle?

[with or without Cox Digital Cable TV]

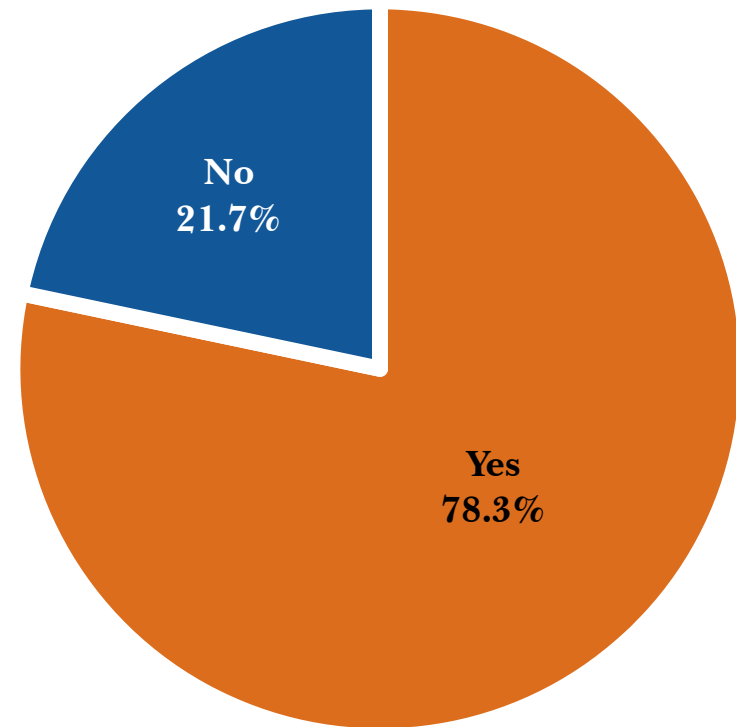
With Cox Digital Cable TV

(N = 374)



Without Cox Digital Cable TV

(N = 318)



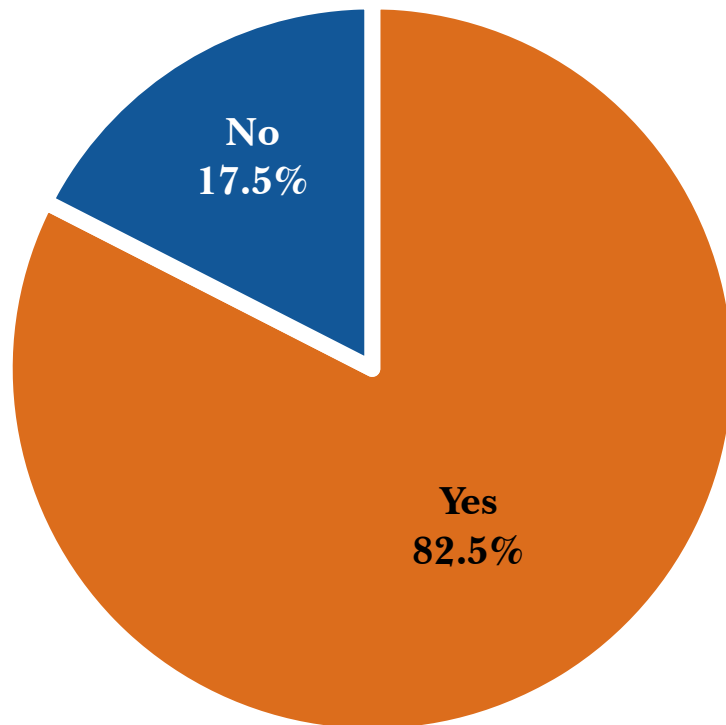
Question 18 Cross Tabulations

Have you ever encountered a flooded street while in a vehicle?

[watched or never watched the Flood Channel TV Program]

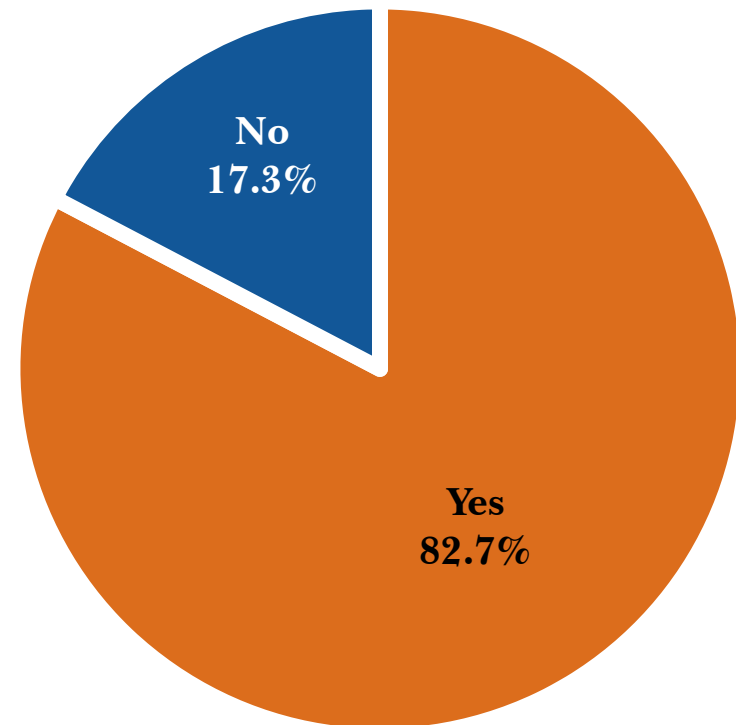
Watched the Flood Channel TV Program

(N = 143)



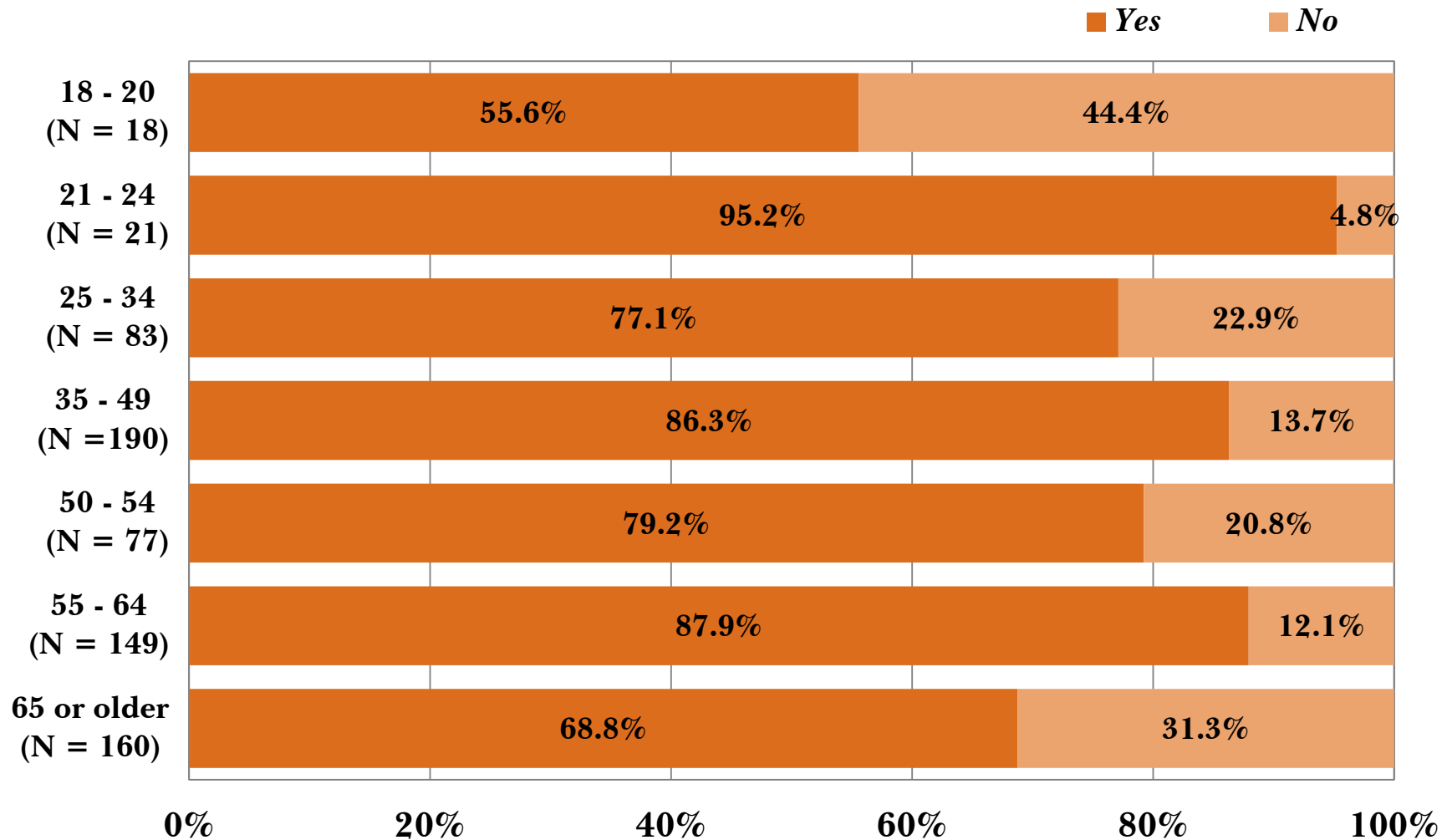
Never watched the Flood Channel TV Program

(N = 231)



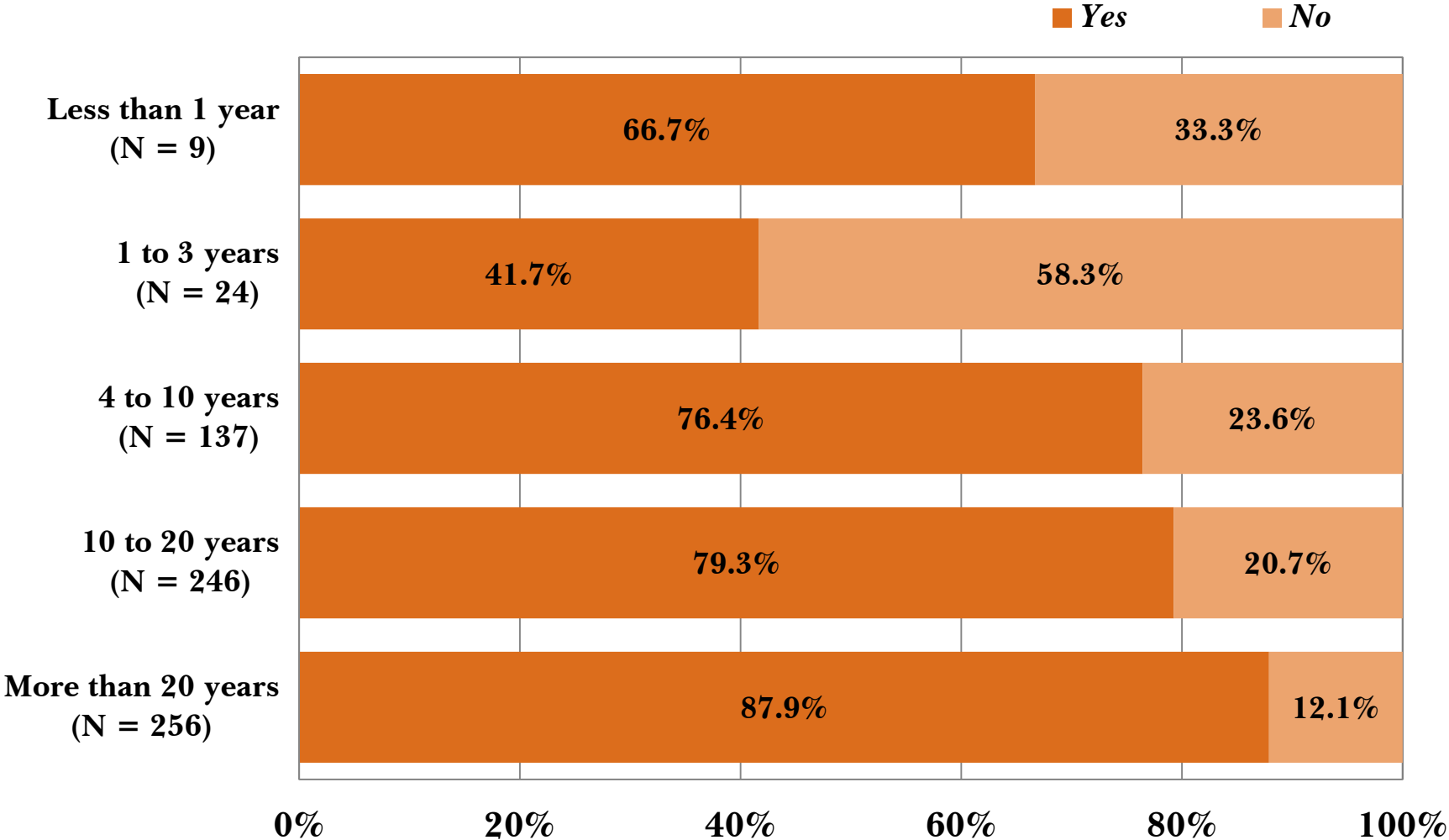
Question 18 Cross Tabulations

*Have you ever encountered a flooded street while in a vehicle?
[by age category]*



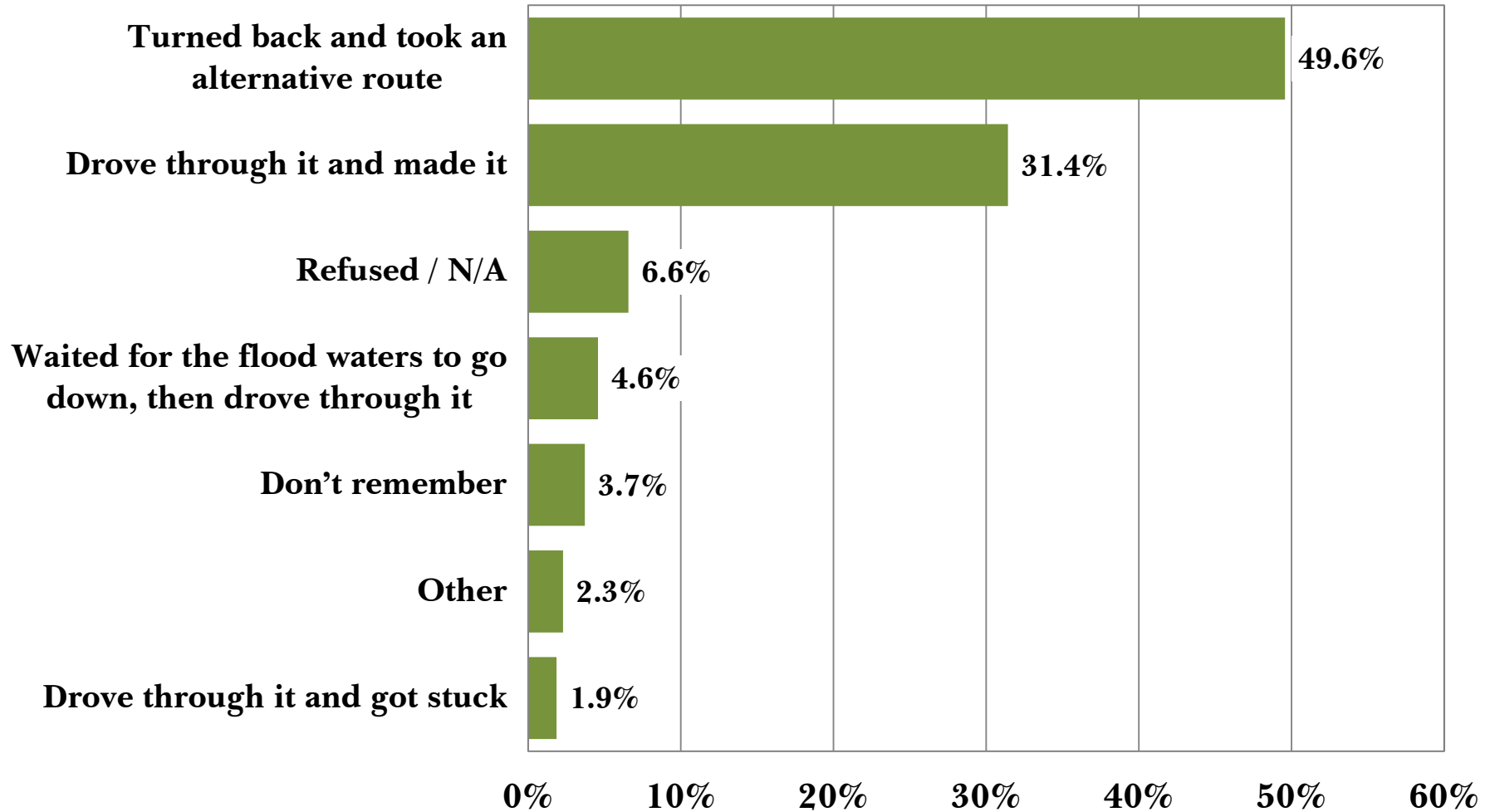
Question 18 Cross Tabulations

*Have you ever encountered a flooded street while in a vehicle?
[by length of residency]*



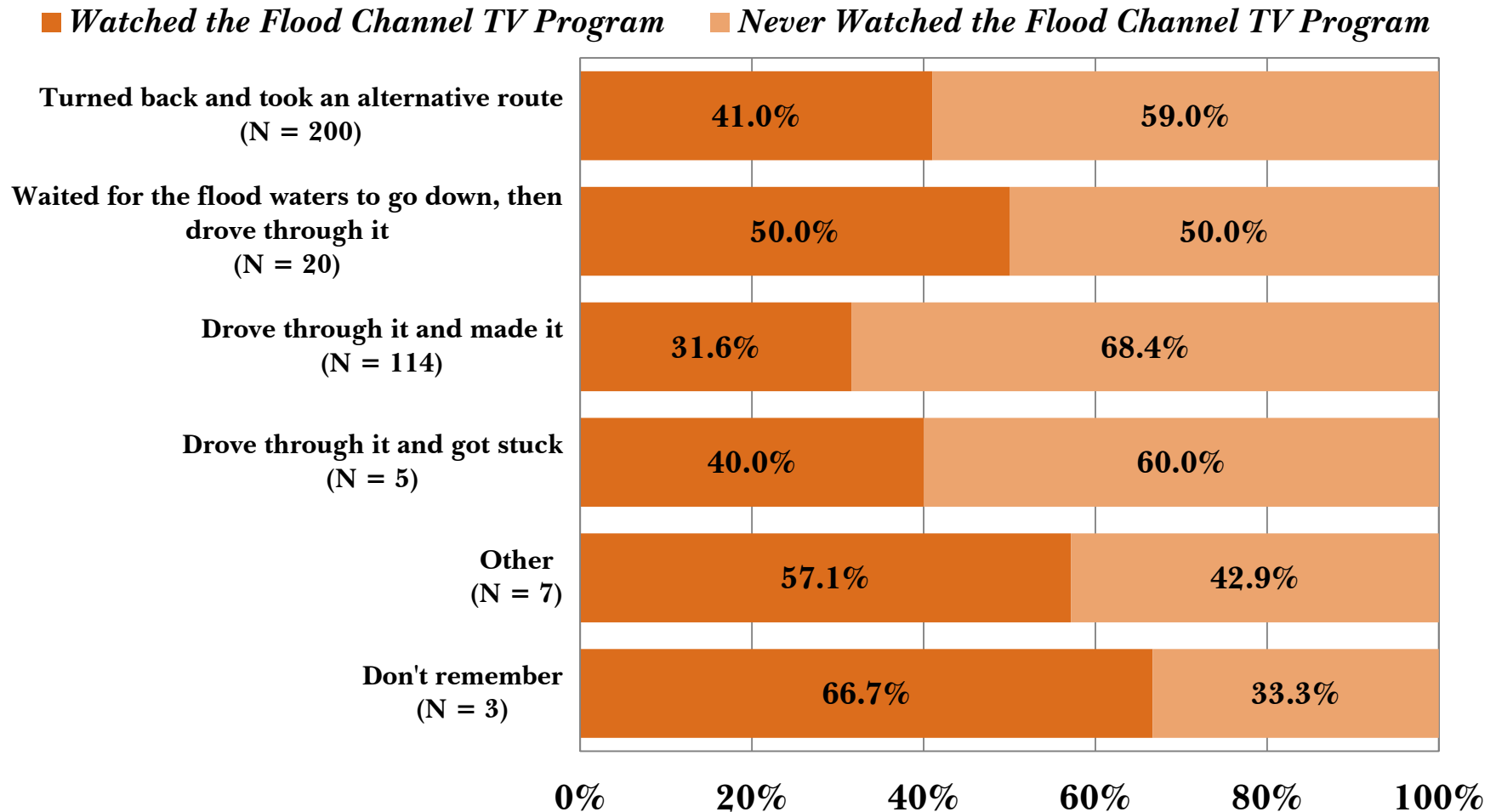
Question 19

Which of the following statements best described what you or the driver did (when you came into a flooded street)? (N = 700)



Question 19 Cross Tabulations

Thinking back to the last time you came to a flooded street, which of the following statements best described what you or the driver did?
[watched or never watched the Flood Channel TV Program]

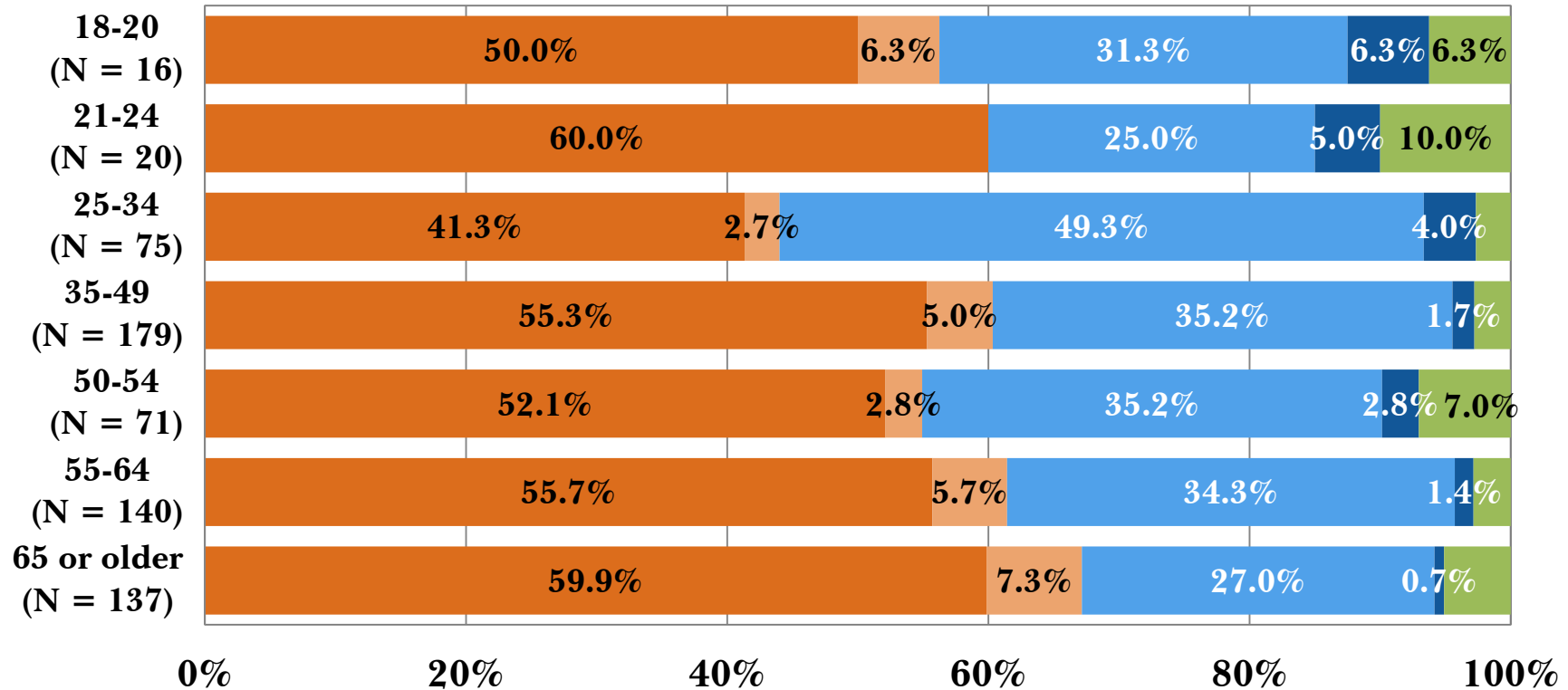


Question 19 Cross Tabulations

Thinking back to the last time you came to a flooded street, which of the following statements best described what you or the driver did?

[by age category]

- Turned back and took an alternative route
- Waited for the flood waters to go down, then drove through it
- Drove through it and made it
- Drove through it and got stuck
- Other

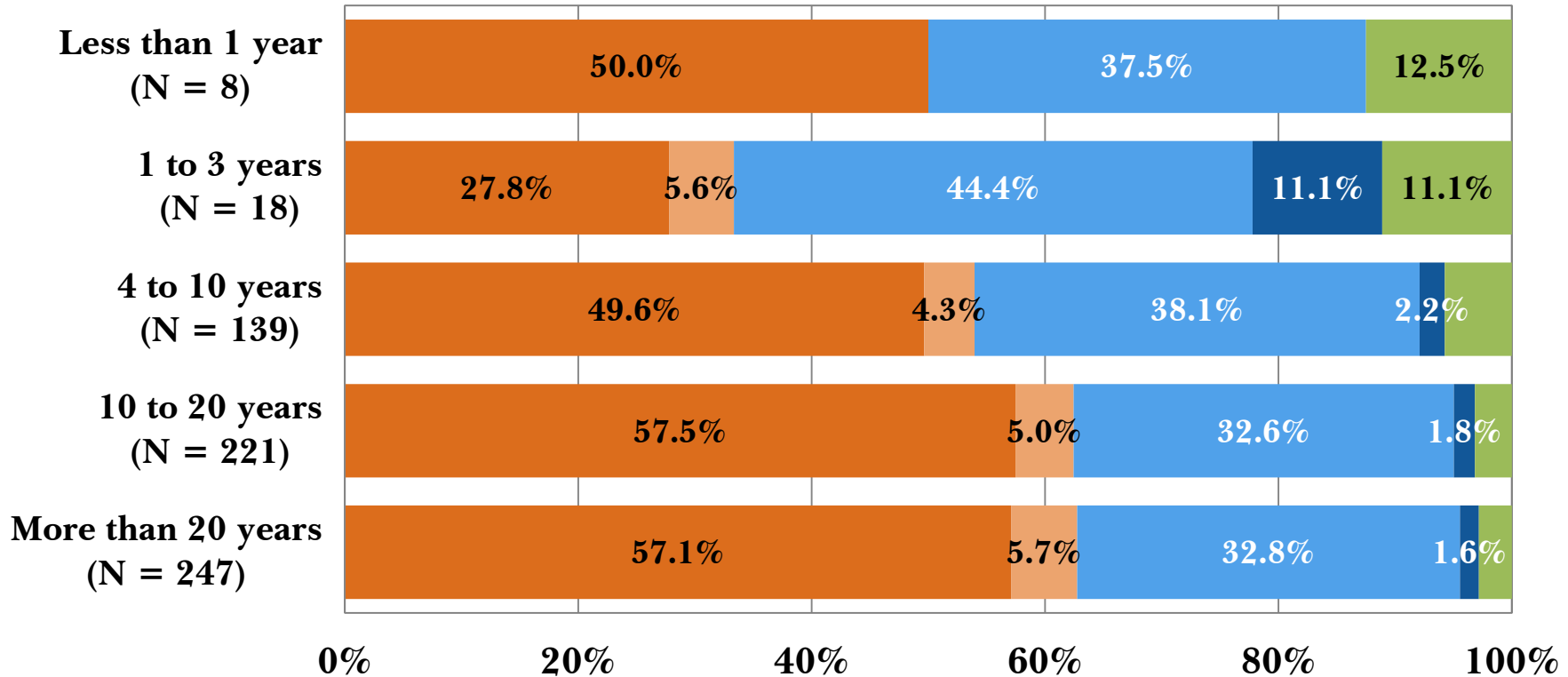


Question 19 Cross Tabulations

Thinking back to the last time you came to a flooded street, which of the following statements best described what you or the driver did?

[by length of residency]

- Turned back and took an alternative route
- Waited for the flood waters to go down, then drove through it
- Drove through it and made it
- Drove through it and got stuck
- Other

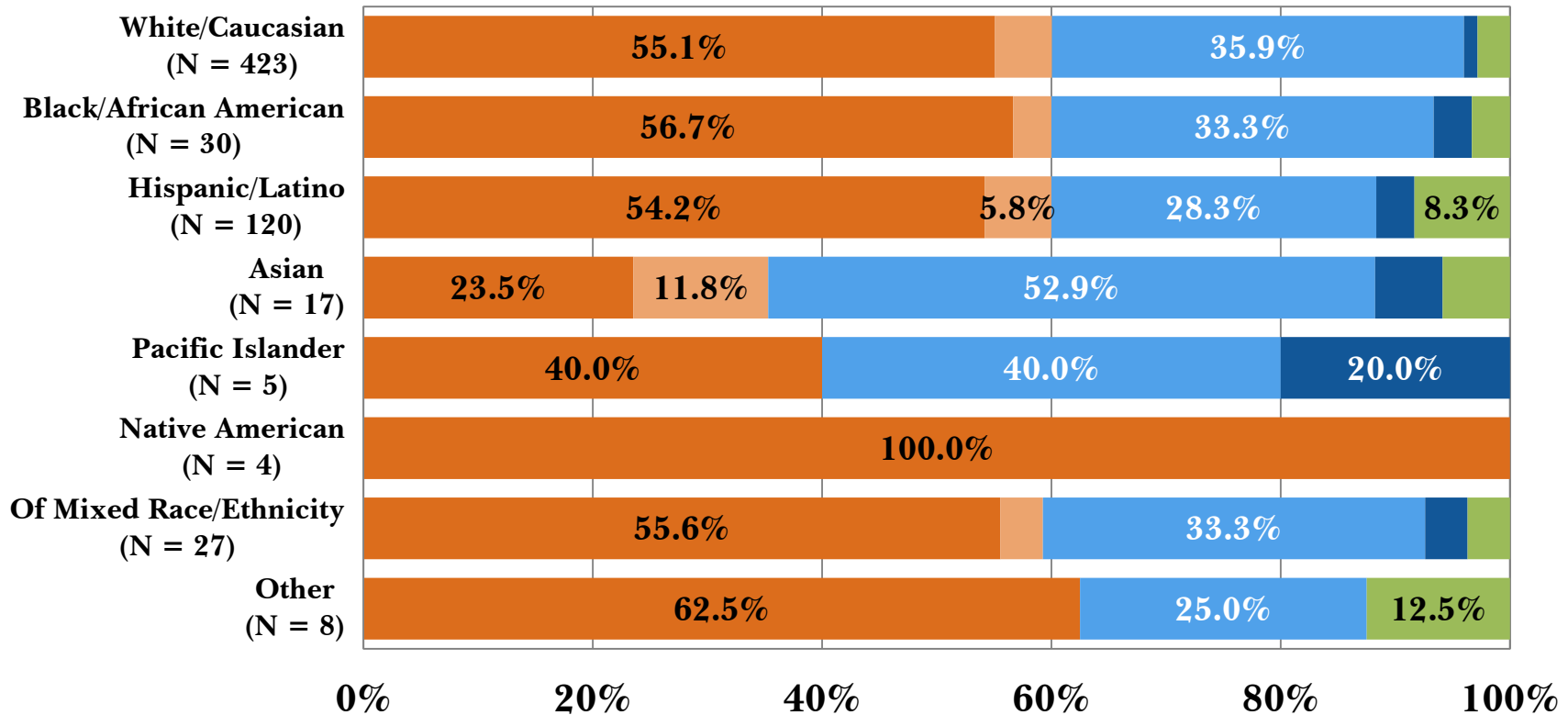


Question 19 Cross Tabulations

Thinking back to the last time you came to a flooded street, which of the following statements best described what you or the driver did?

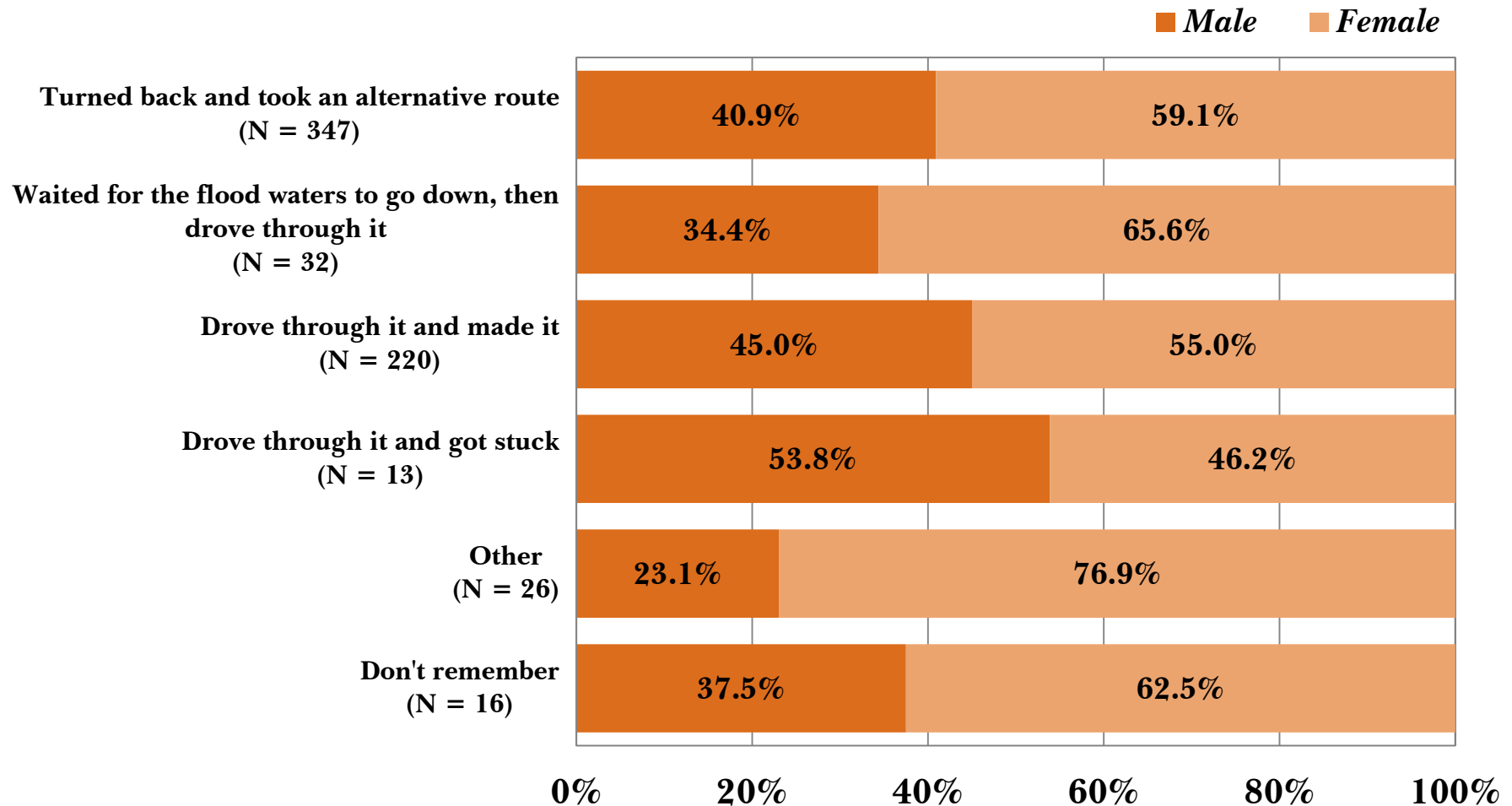
[by race/ethnicity]

- Turned back and took an alternative route
- Waited for the flood waters to go down, then drove through it
- Drove through it and made it
- Drove through it and got stuck
- Other



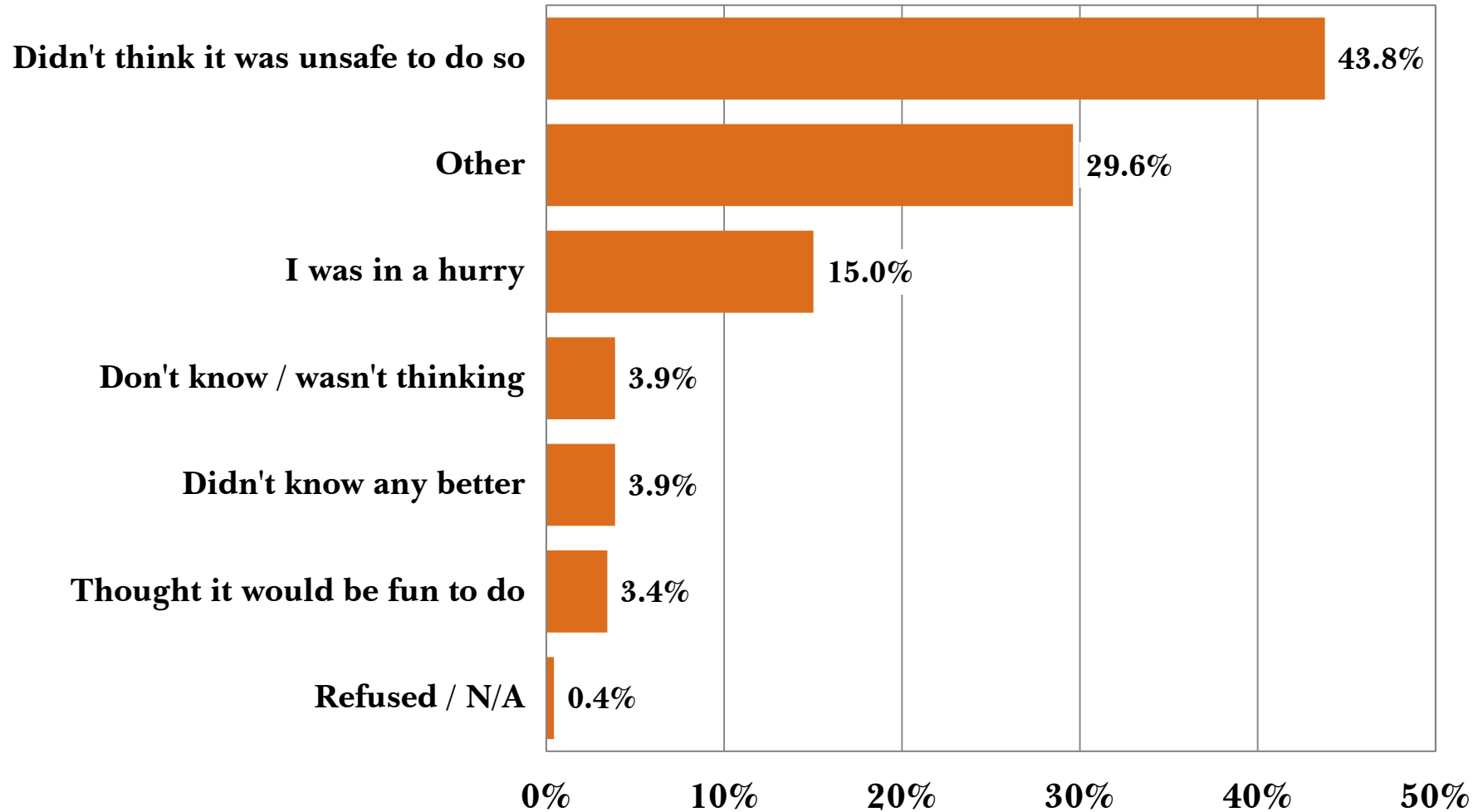
Question 19 Cross Tabulations

*Thinking back to the last time you came to a flooded street, which of the following statements best described what you or the driver did?
[by gender observation]*



Question 20

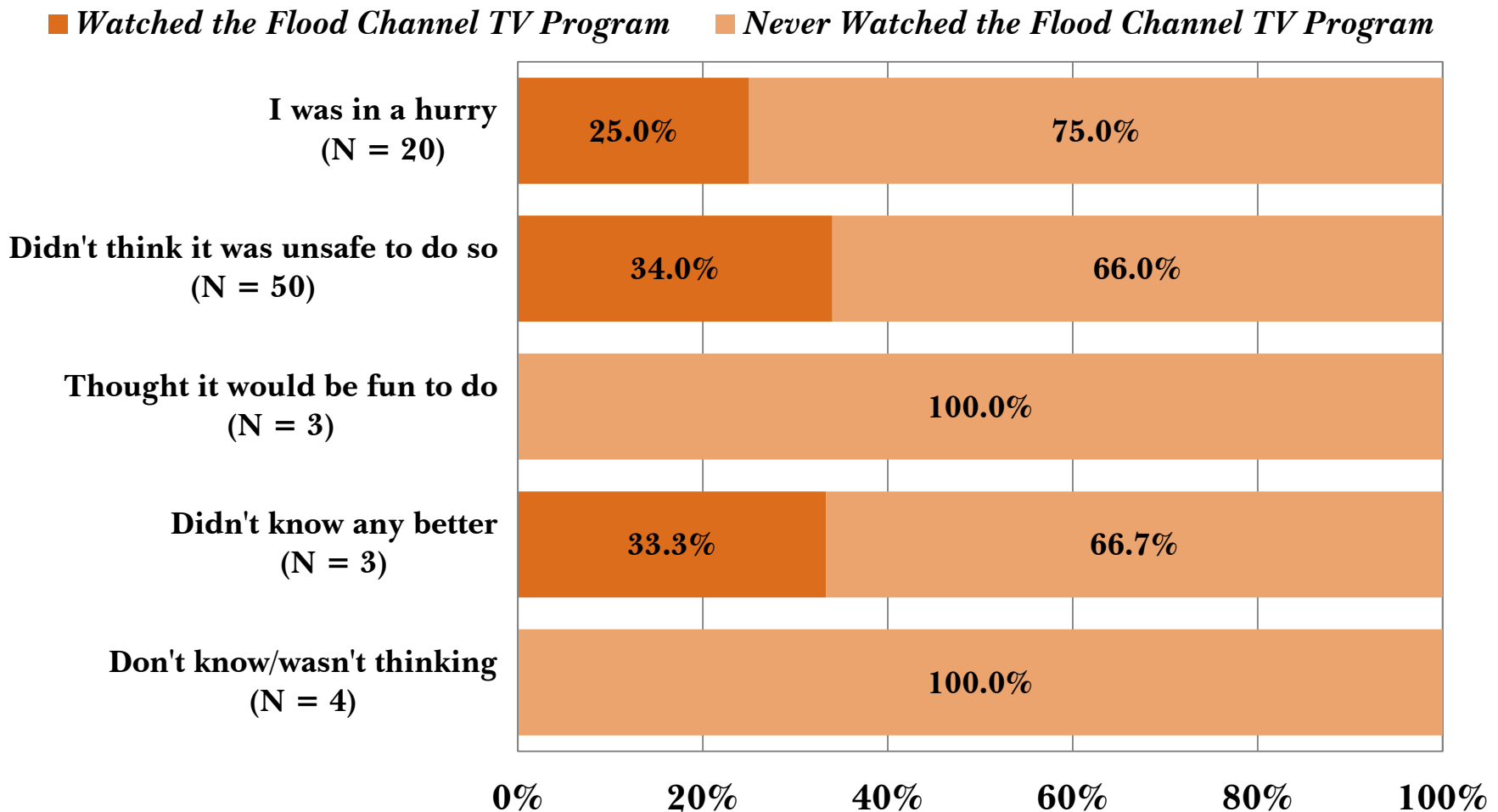
Why did you drive through the flooded street? (N = 233)



Question 20 Cross Tabulations

Why did you drive through the flooded street?

[watched or never watched the Flood Channel TV Program]

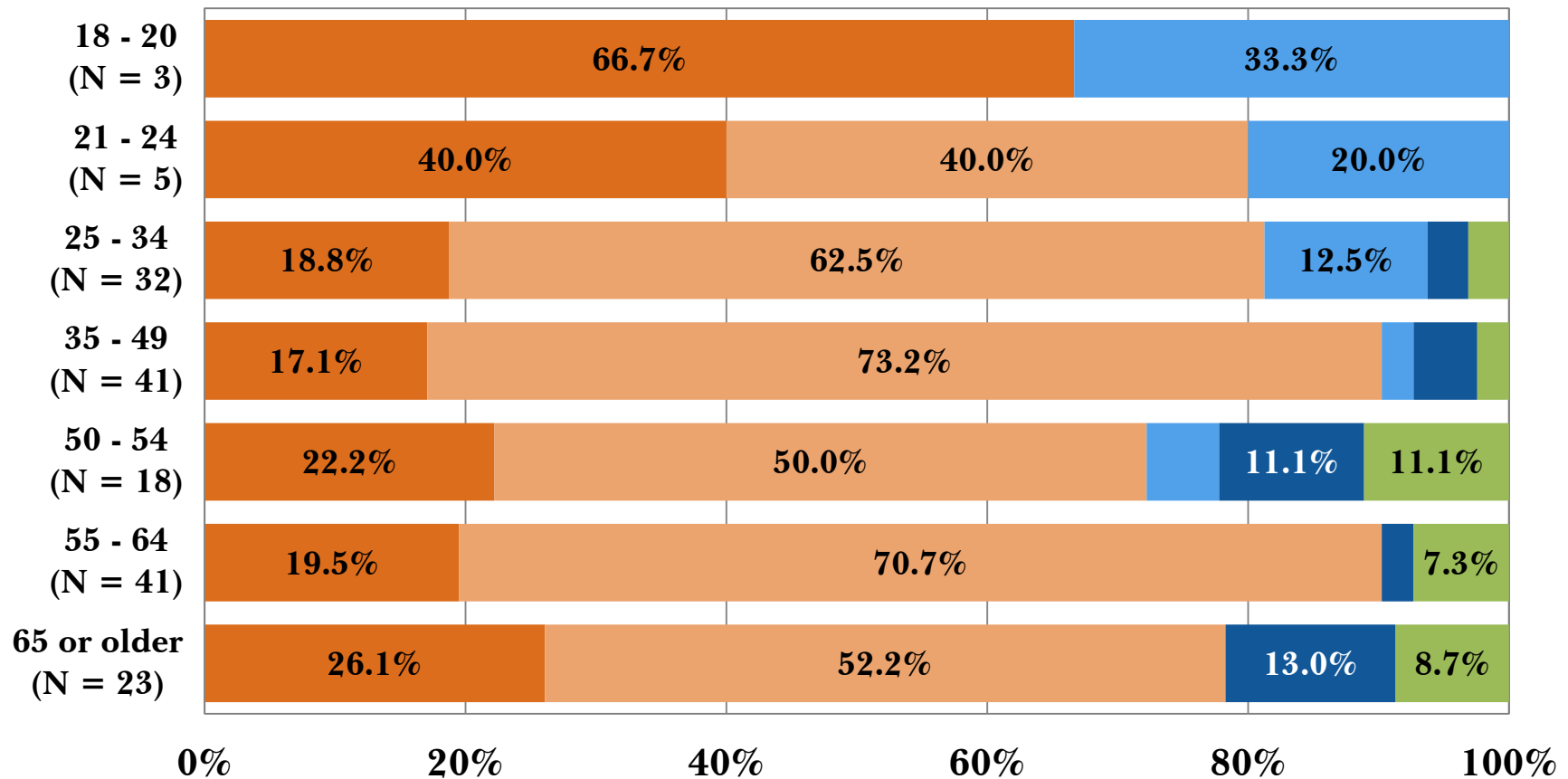


Question 20 Cross Tabulations

Why did you drive through the flooded street?

[by age category]

- I was in a hurry
- Didn't think it was unsafe to do so
- Thought it would be fun to do
- Didn't know any better
- Don't know/wasn't thinking

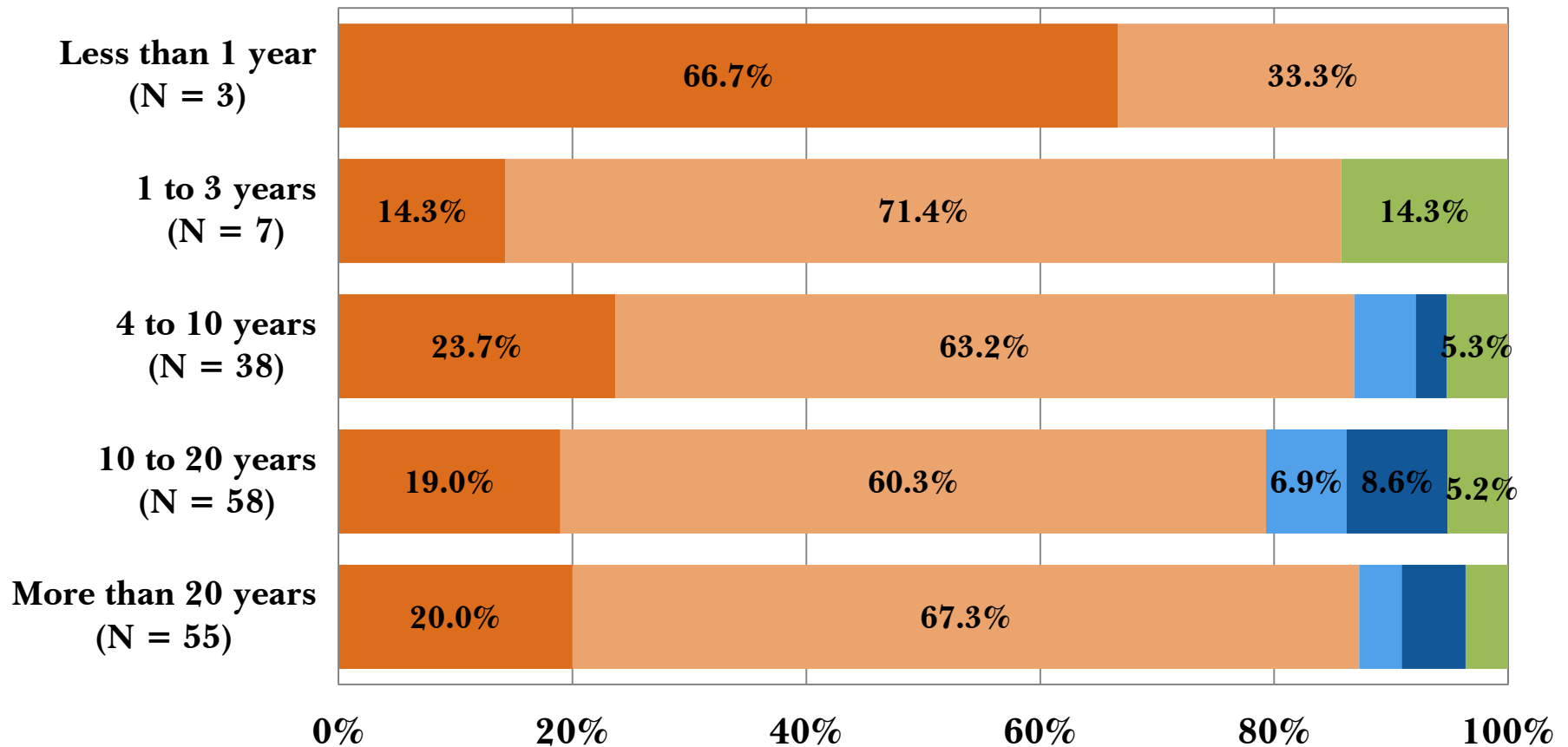


Question 20 Cross Tabulations

Why did you drive through the flooded street?

[by length of residency]

- I was in a hurry
- Didn't think it was unsafe to do so
- Thought it would be fun to do
- Didn't know any better
- Don't know/wasn't thinking

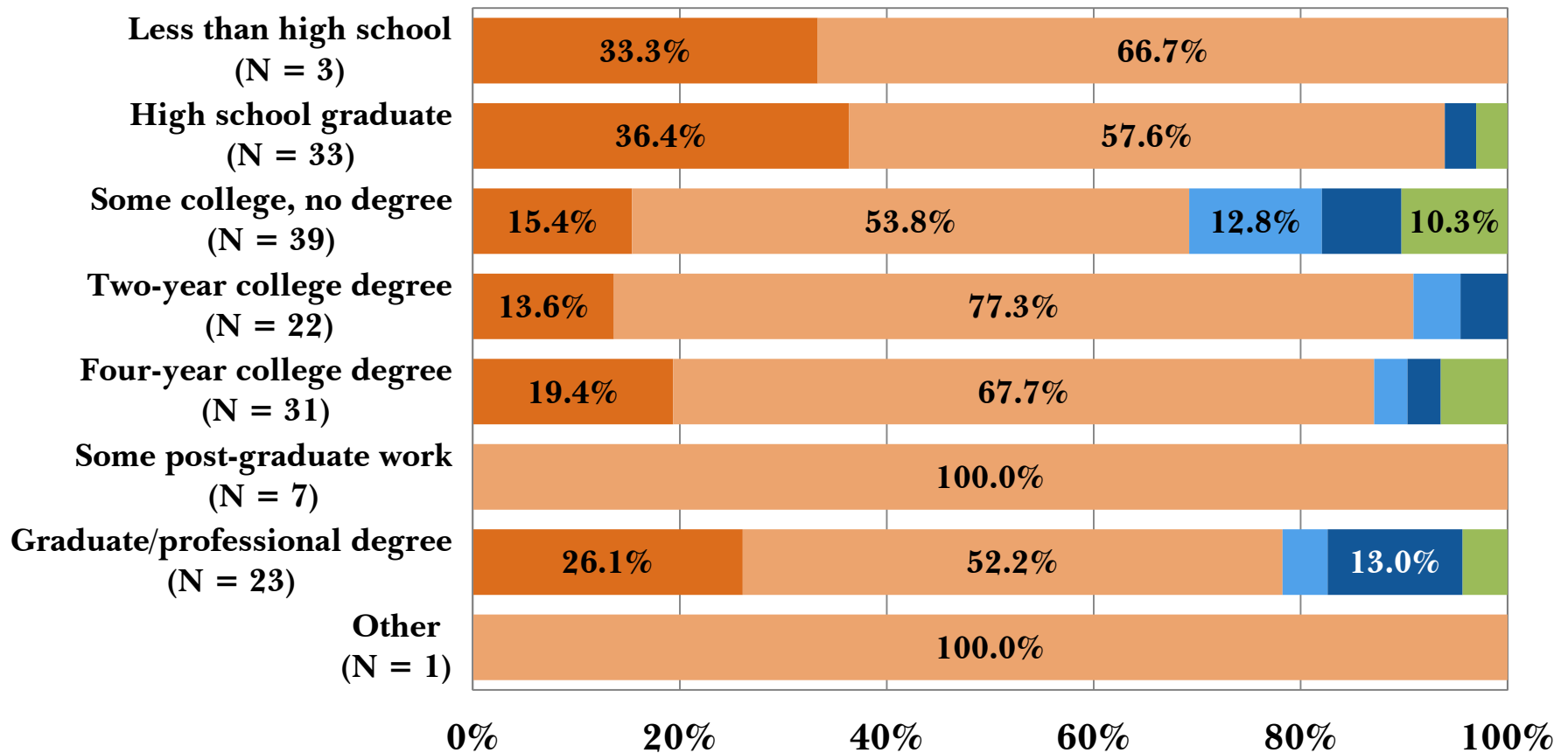


Question 20 Cross Tabulations

Why did you drive through the flooded street?

[by length of residency]

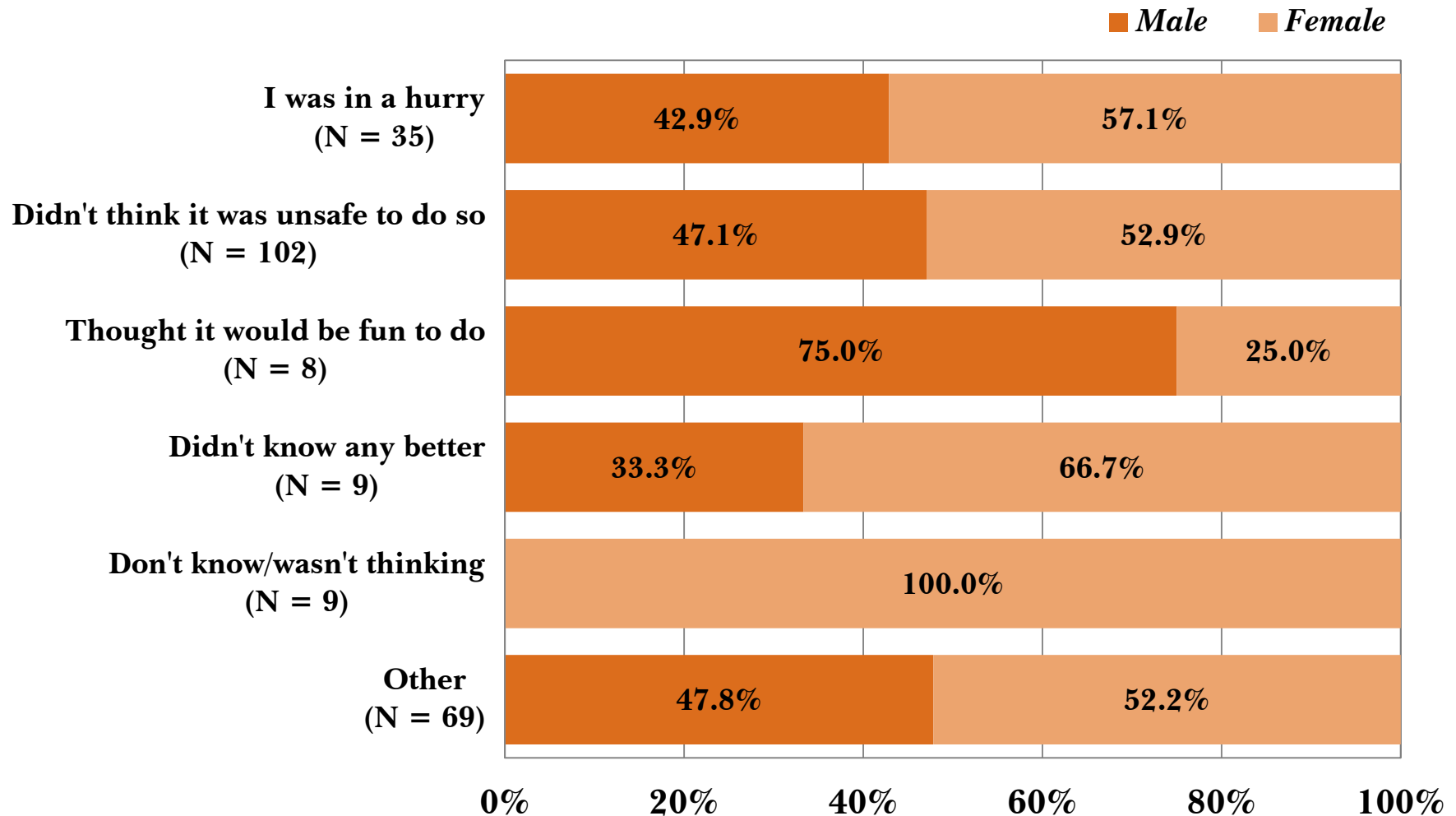
- I was in a hurry
- Didn't think it was unsafe to do so
- Thought it would be fun to do
- Didn't know any better
- Don't know/wasn't thinking



Question 20 Cross Tabulations

Why did you drive through the flooded street?

[by gender observation]



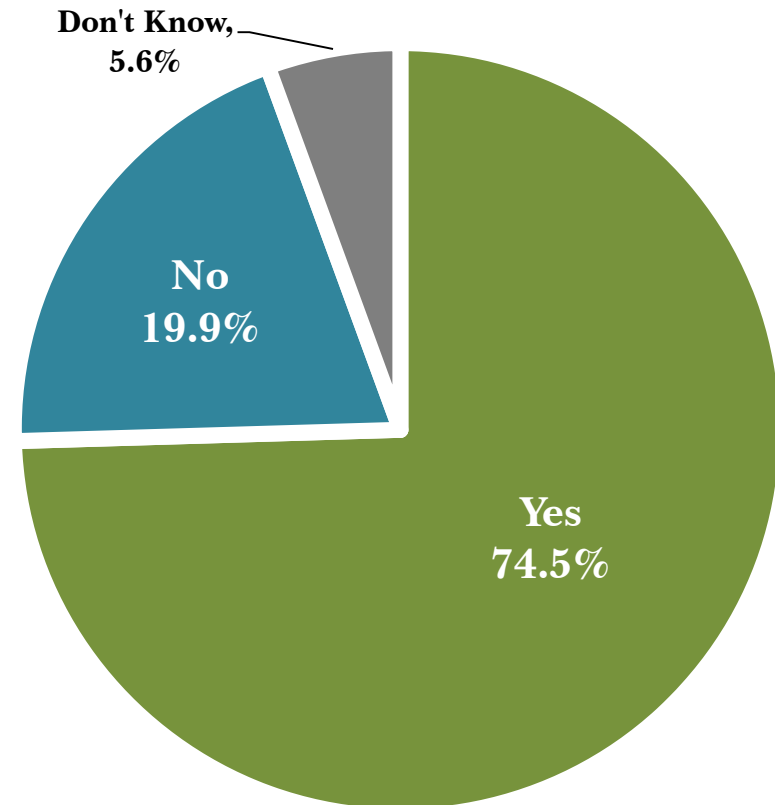
Question 21.1 *True or False?*

Streets are a part of the flood control system.

Approximately 3 out of 4 respondents would consider the streets part of the flood control system.

Survey Respondents

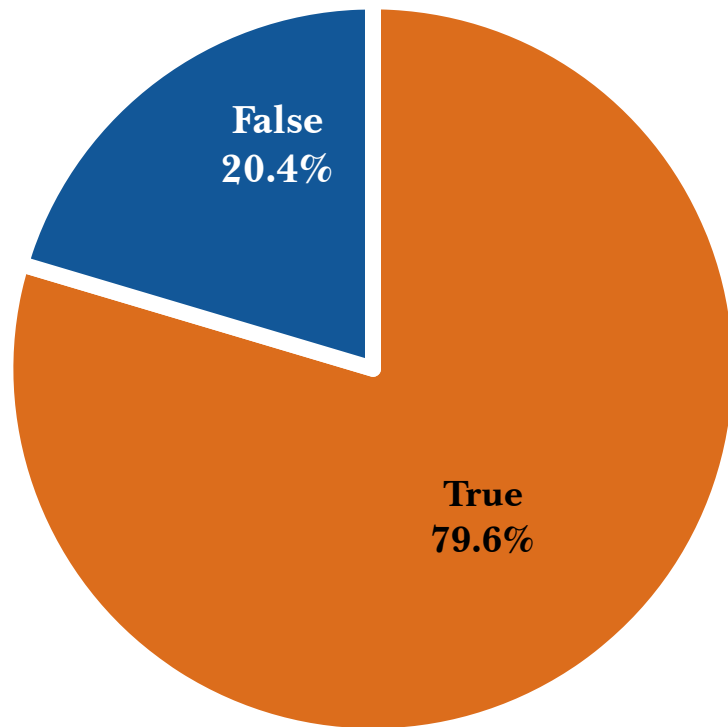
(N = 699)



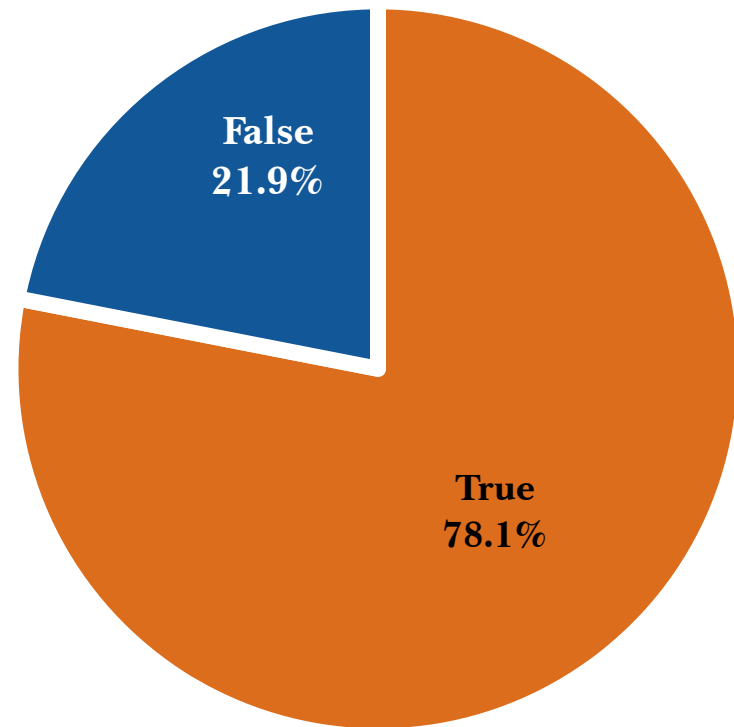
Question 21.1 Cross Tabulations

*Statement: Streets are a part of the flood control system
[with or without Cox Digital Cable TV]*

With Cox Digital Cable TV
(N = 353)



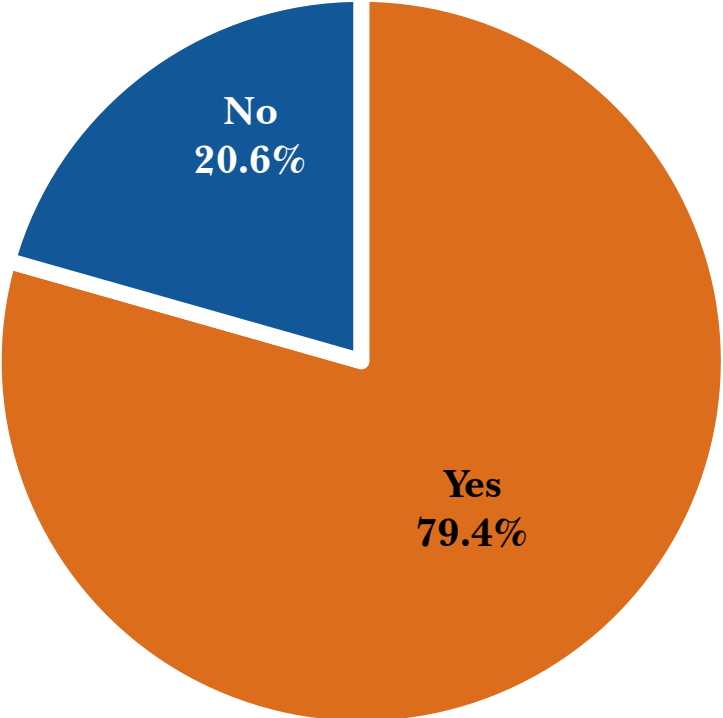
Without Cox Digital Cable TV
(N = 301)



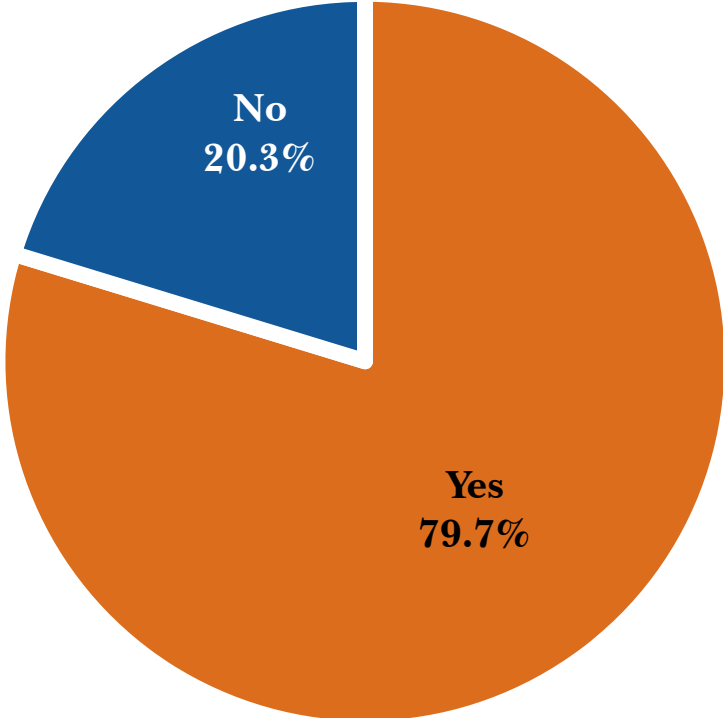
Question 21.1 Cross Tabulations

Statement: Streets are a part of the flood control system
[watched or never watched the Flood Channel TV Program]

**Watched the
Flood Channel TV Program**
(N = 136)



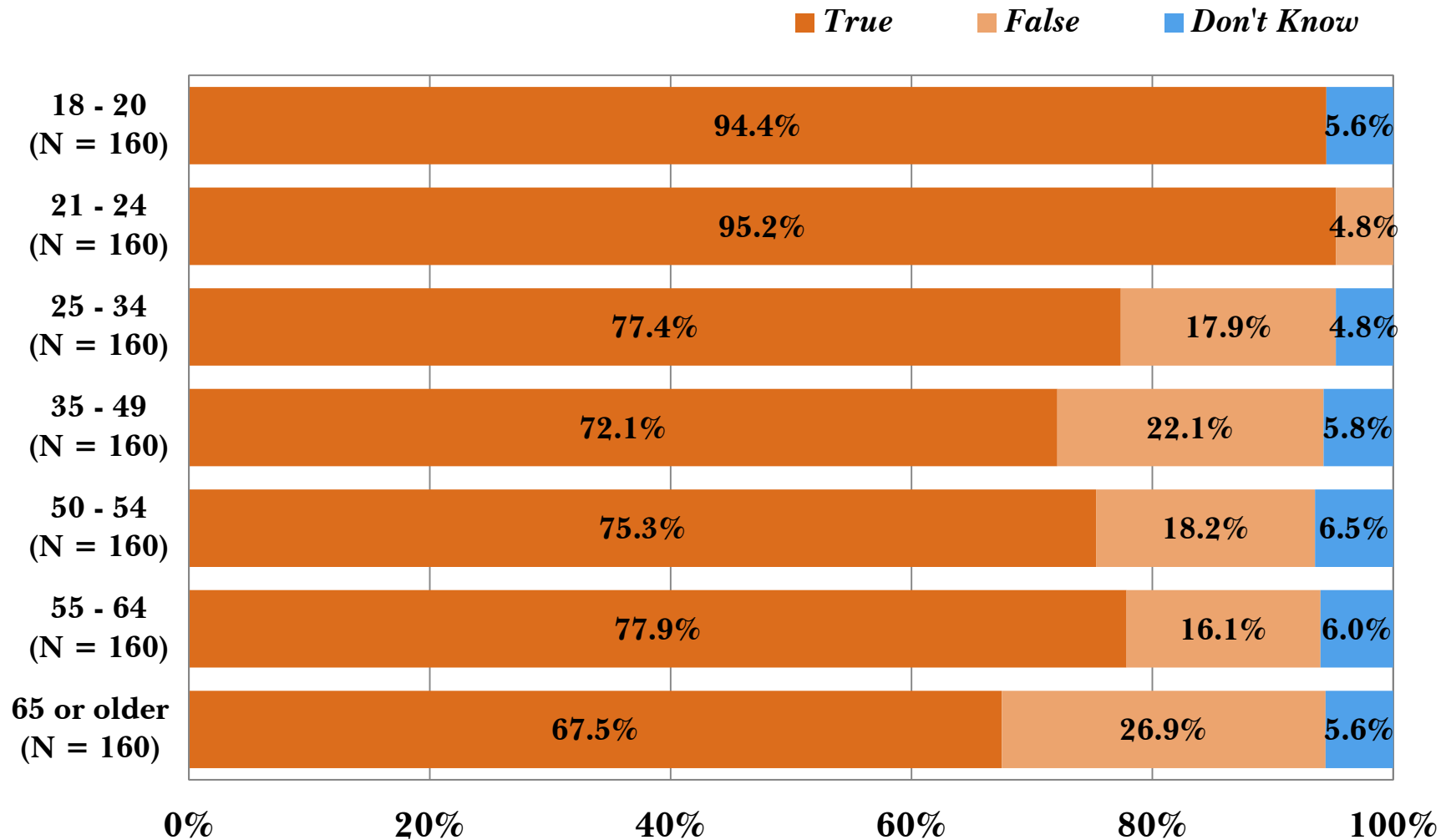
**Never watched the
Flood Channel TV Program**
(N = 217)



Question 21.1 Cross Tabulations

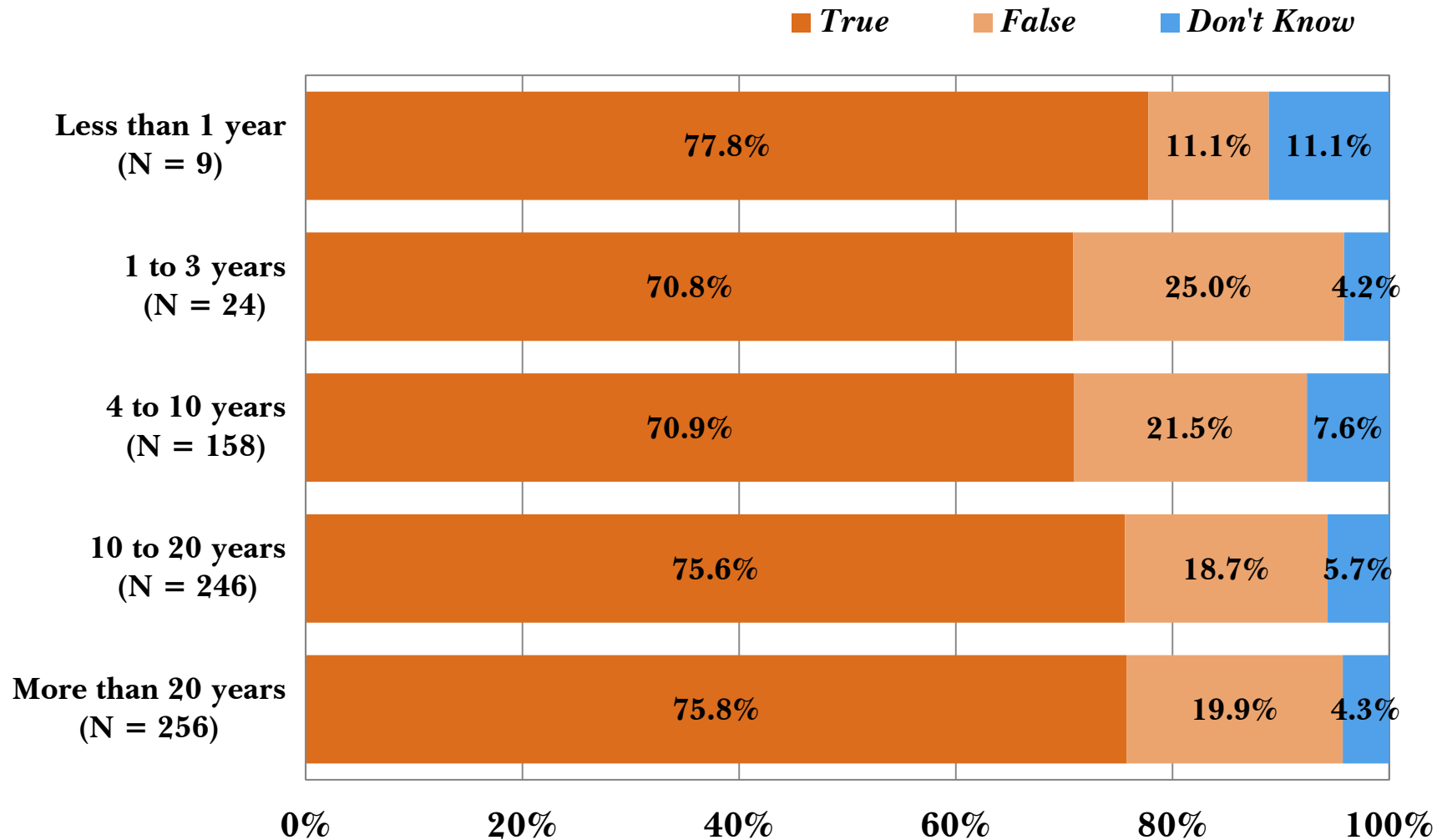
Statement: Streets are a part of the flood control system

[by age category]



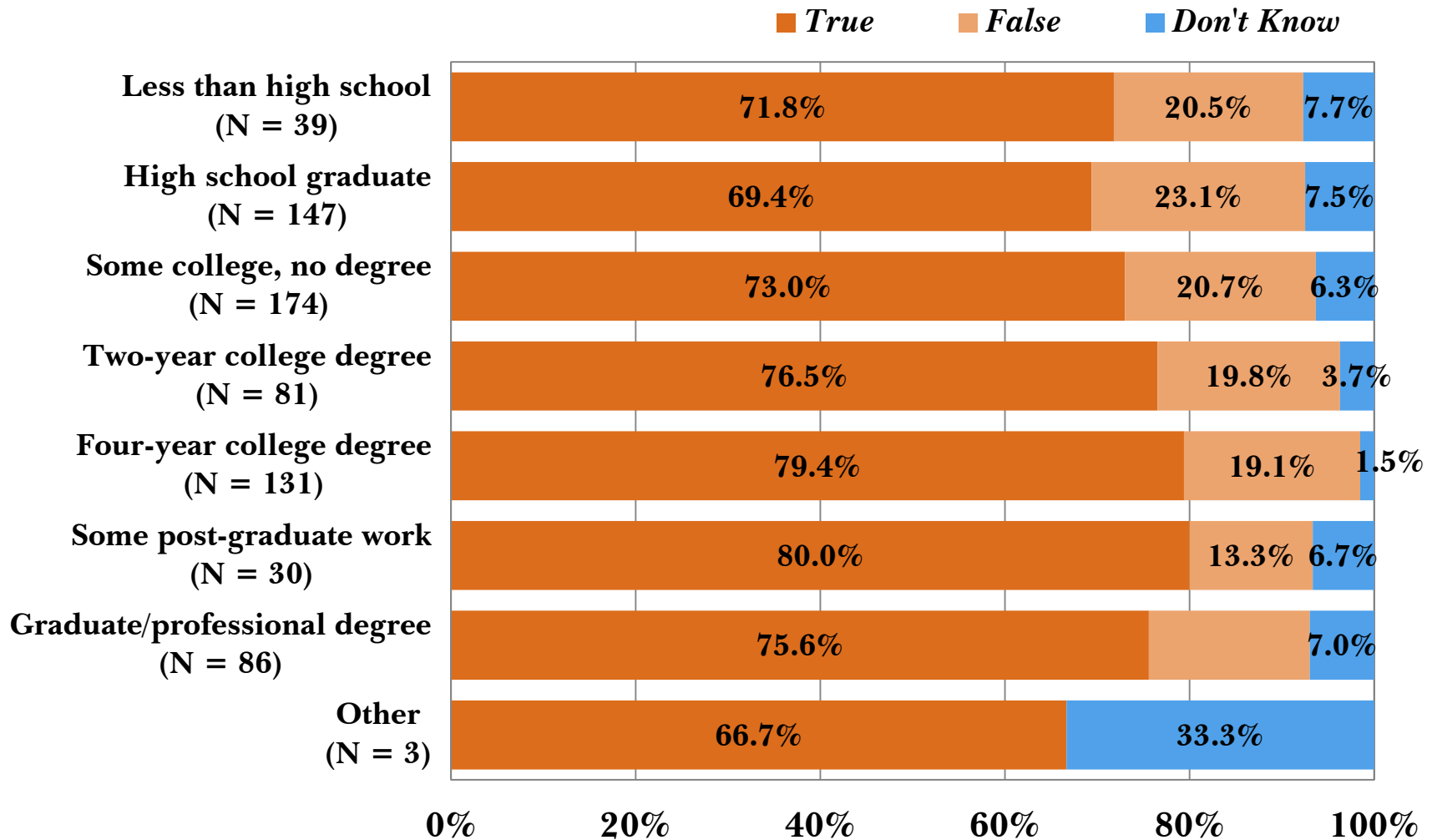
Question 21.1 Cross Tabulations

Statement: Streets are a part of the flood control system
[by length of residency]



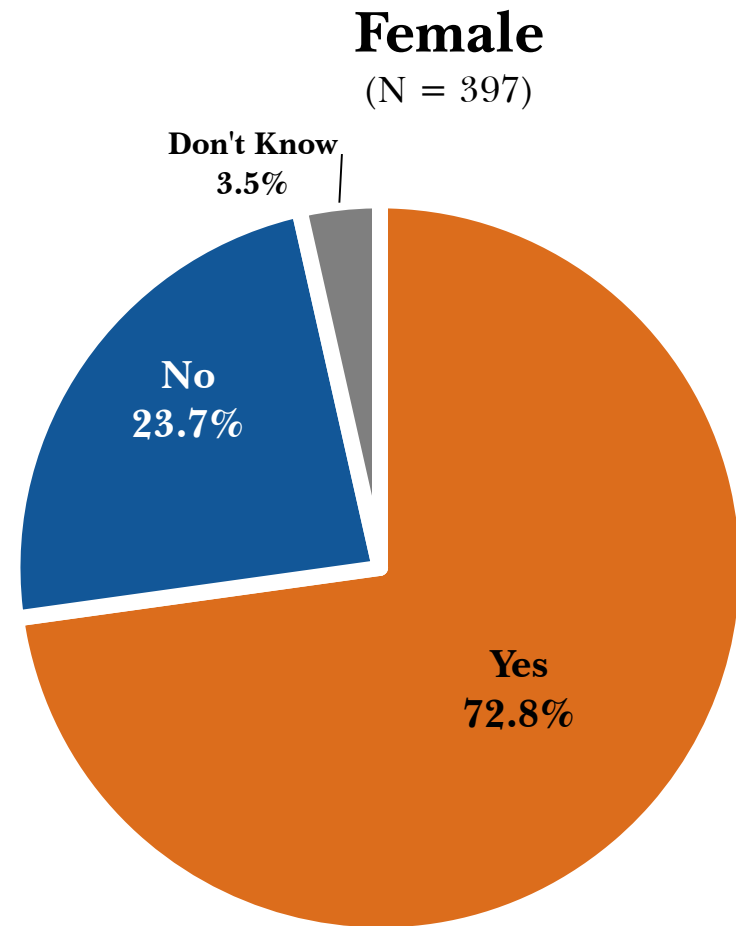
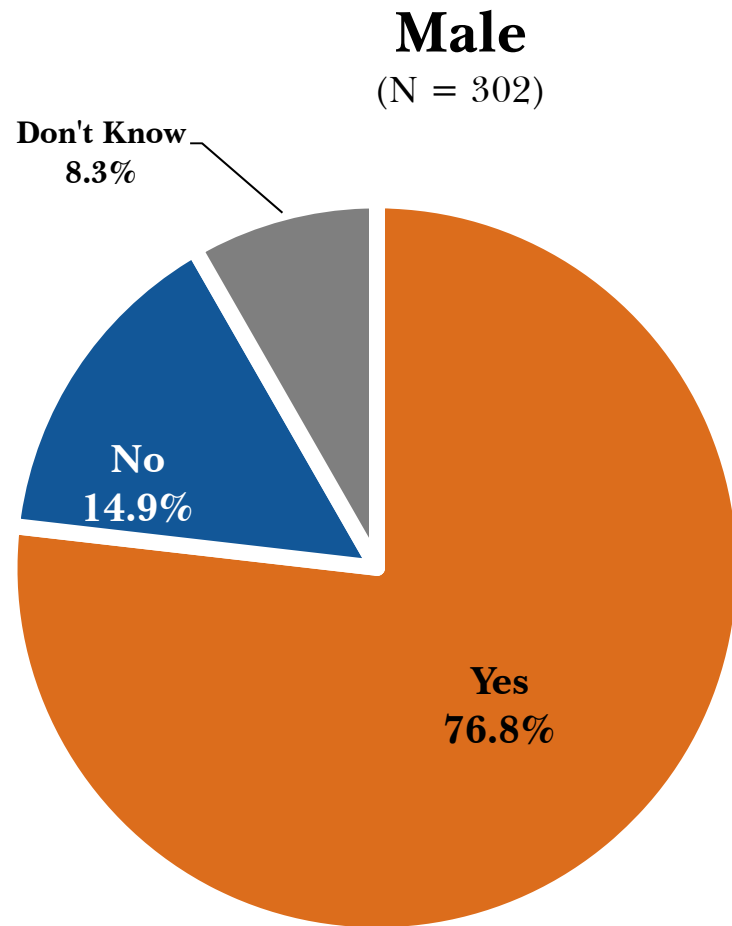
Question 21.1 Cross Tabulations

Statement: Streets are a part of the flood control system
 [by educational attainment]



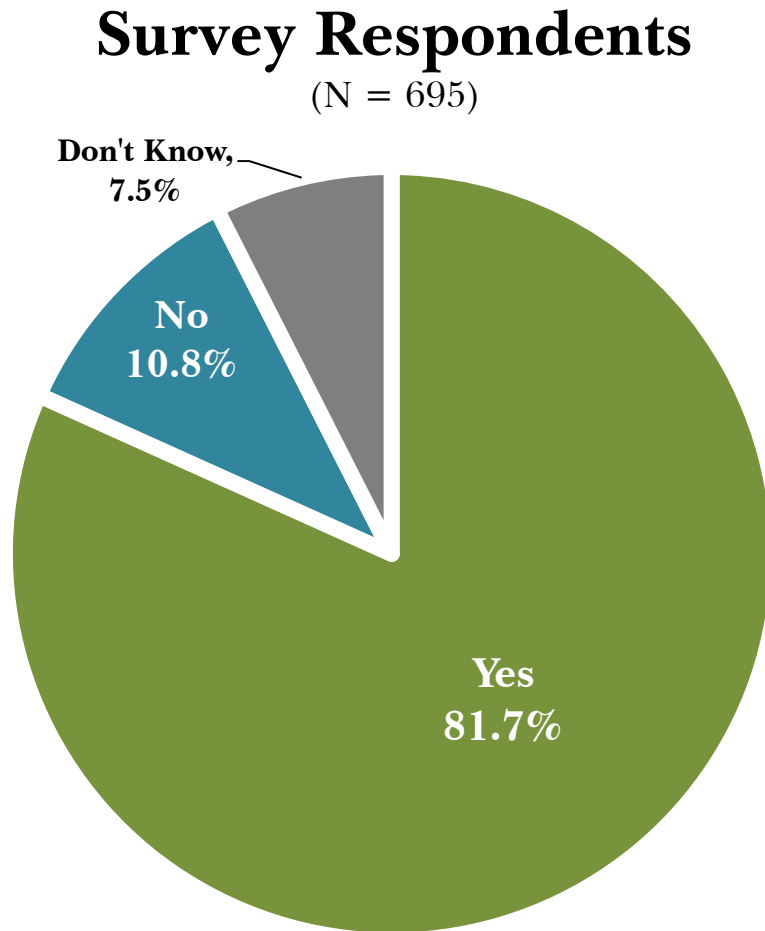
Question 21.1 Cross Tabulations

*Statement: Streets are a part of the flood control system
[by gender observation]*



Question 21.2 *True or False?*

Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

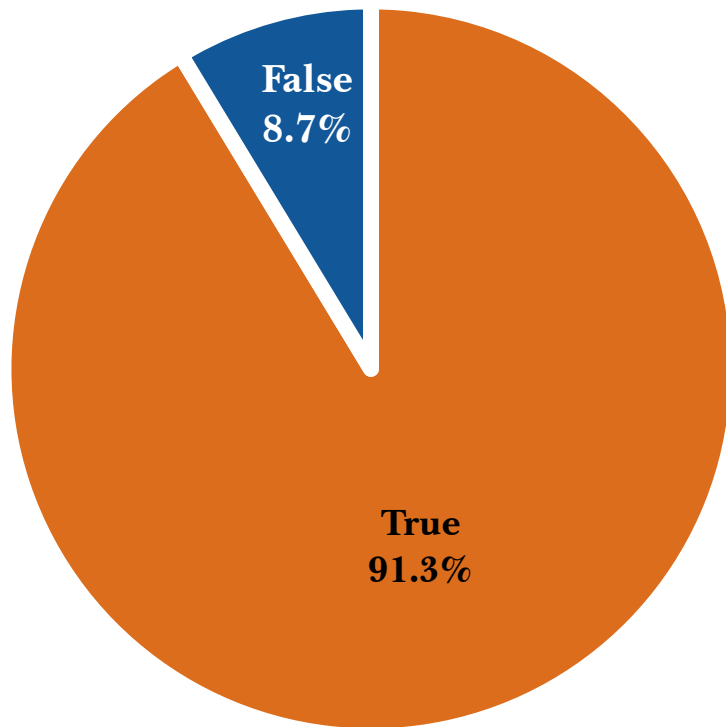


81.7% of respondents believe urban runoffs travel through the flood control system and ultimately drain into Lake Mead.

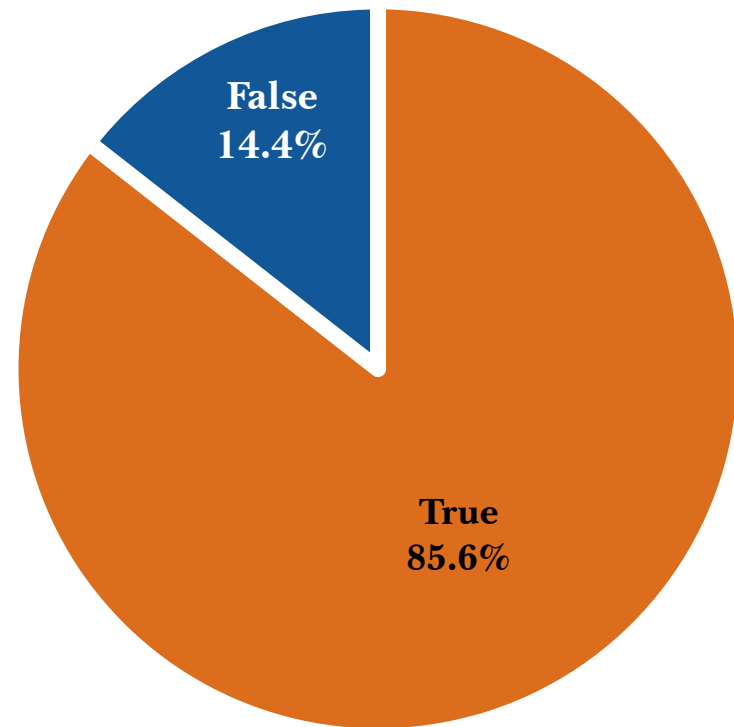
Question 21.2 Cross Tabulations

*Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.
[with or without Cox Digital Cable TV]*

With Cox Digital Cable TV
(N = 346)



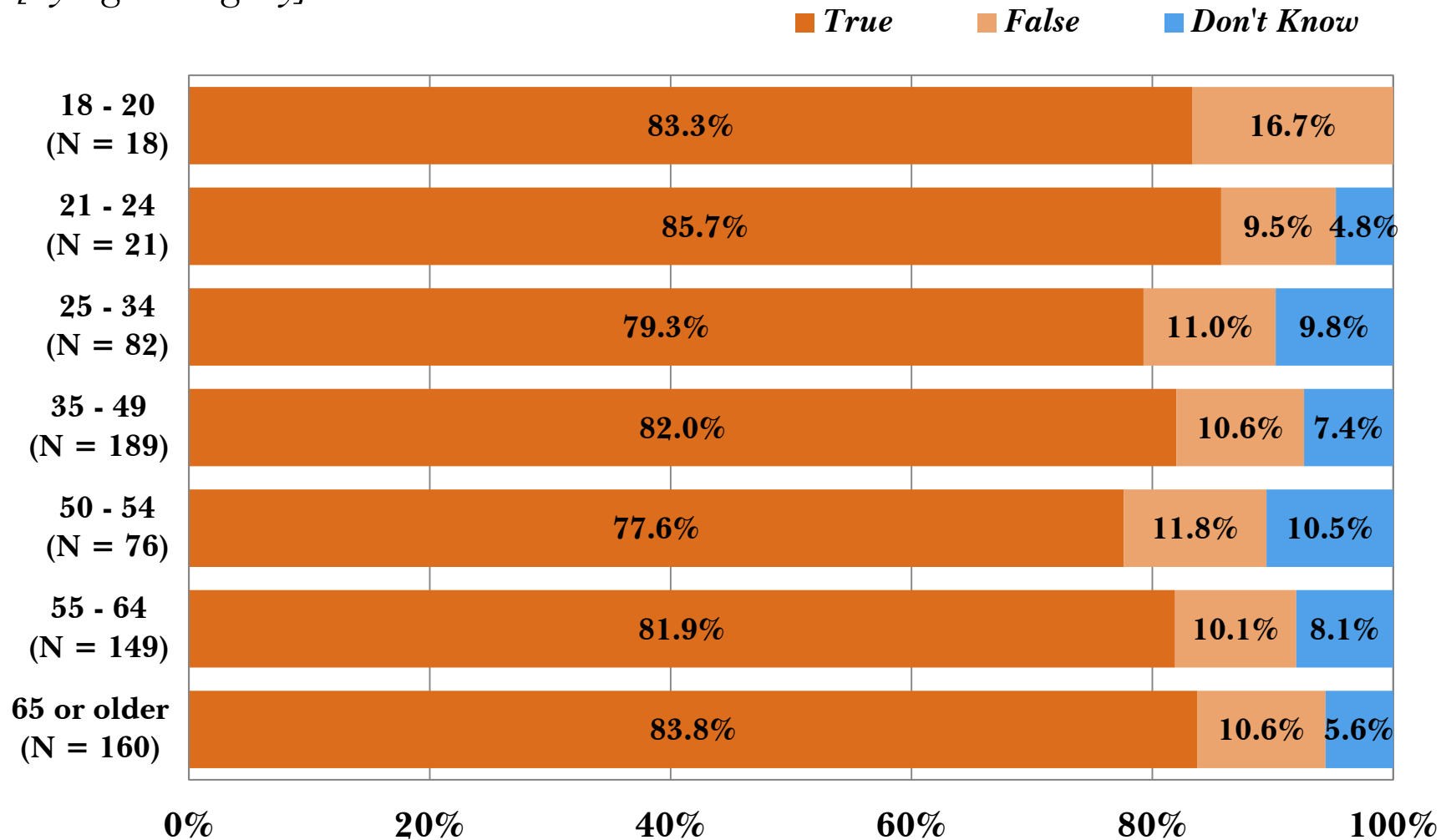
Without Cox Digital Cable TV
(N = 291)



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

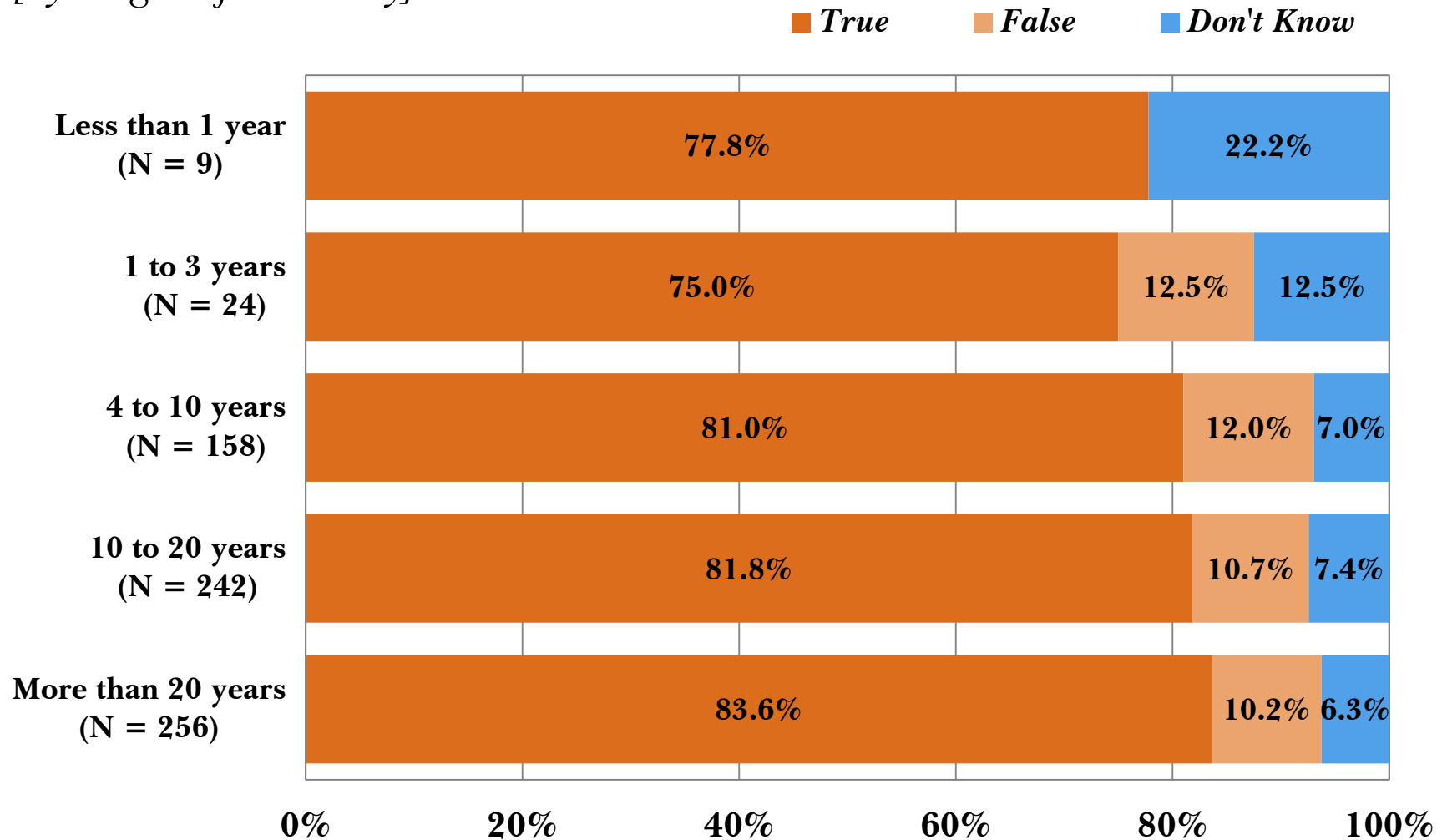
[by age category]



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

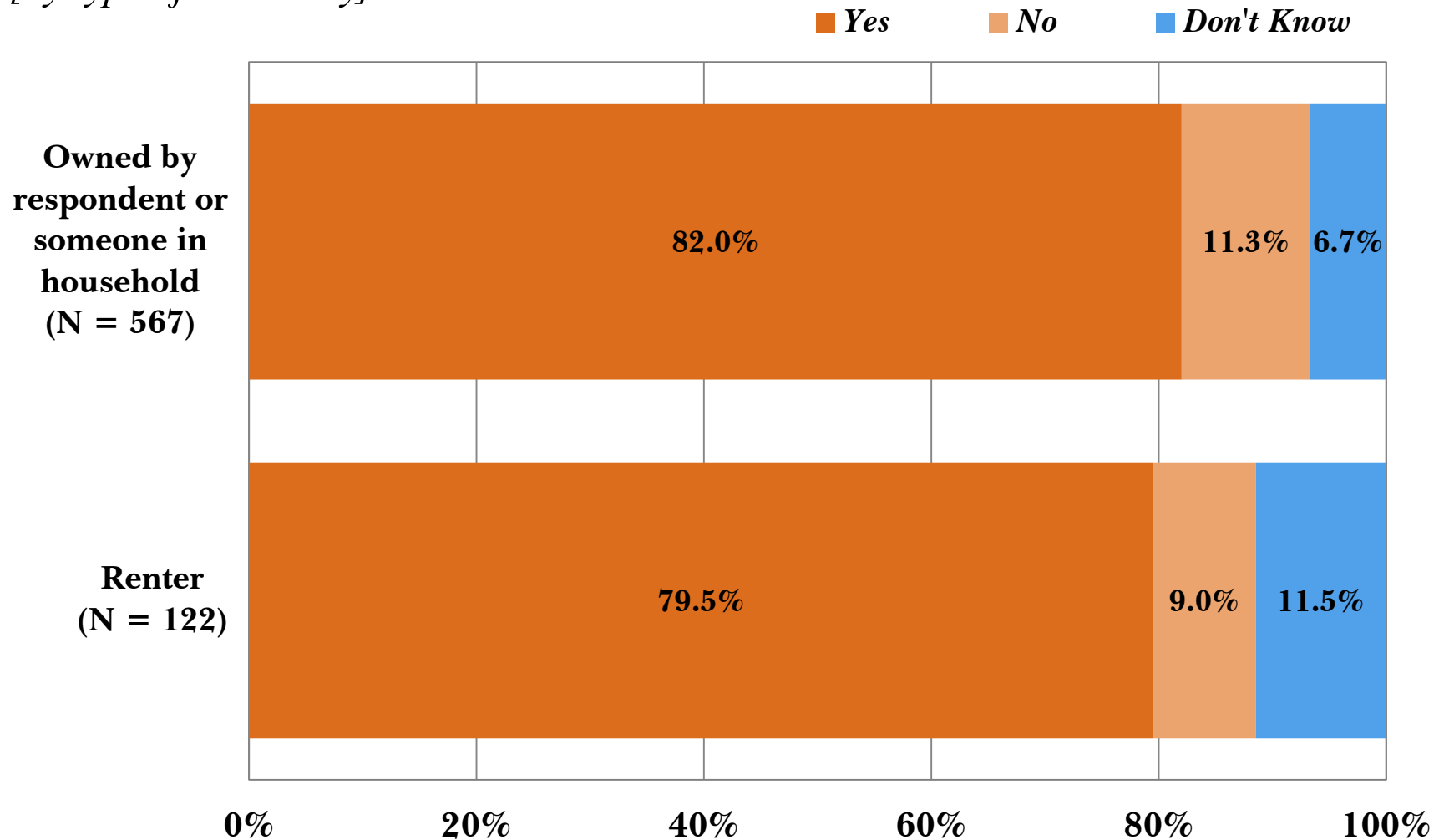
[by length of residency]



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

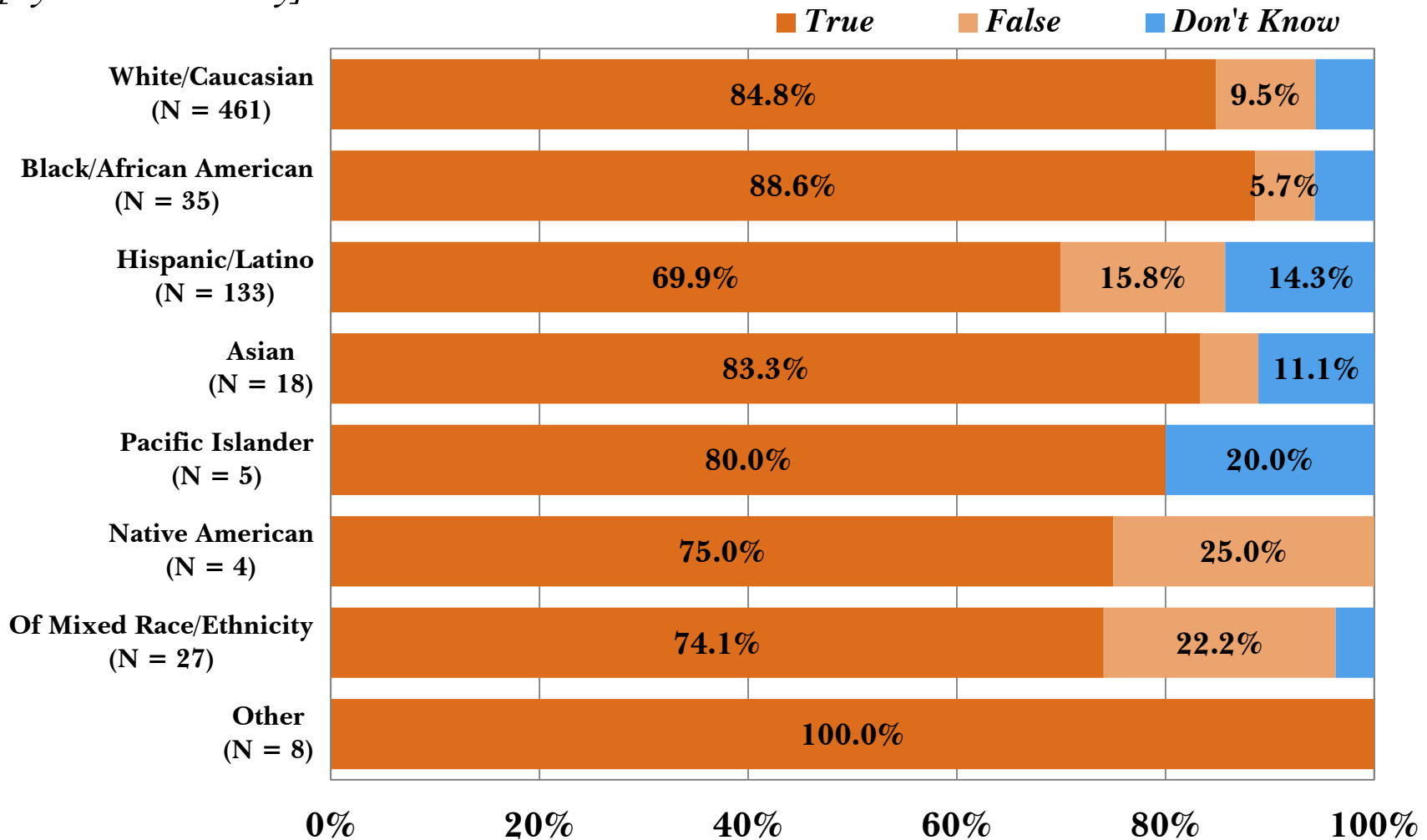
[by type of residency]



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

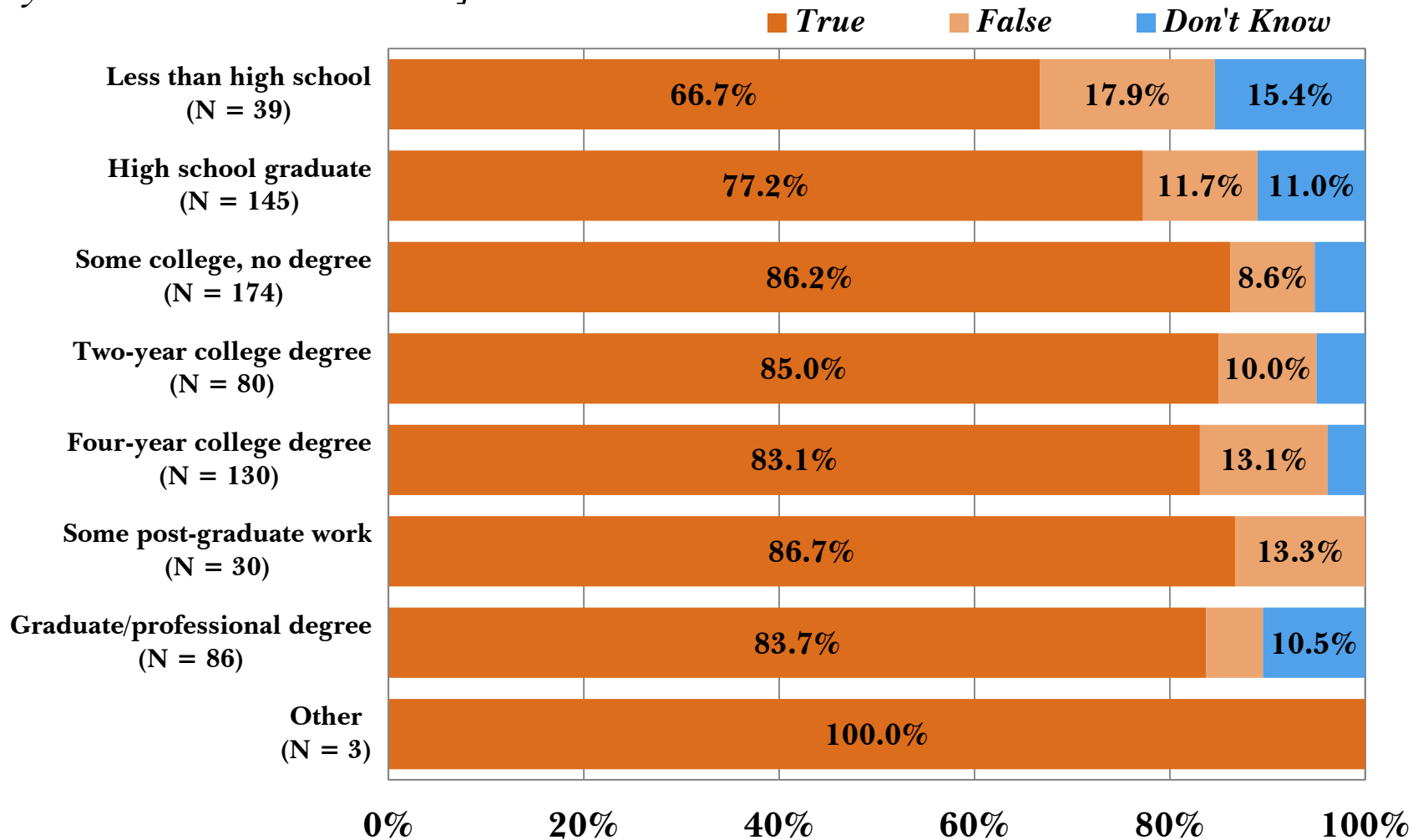
[by race/ethnicity]



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

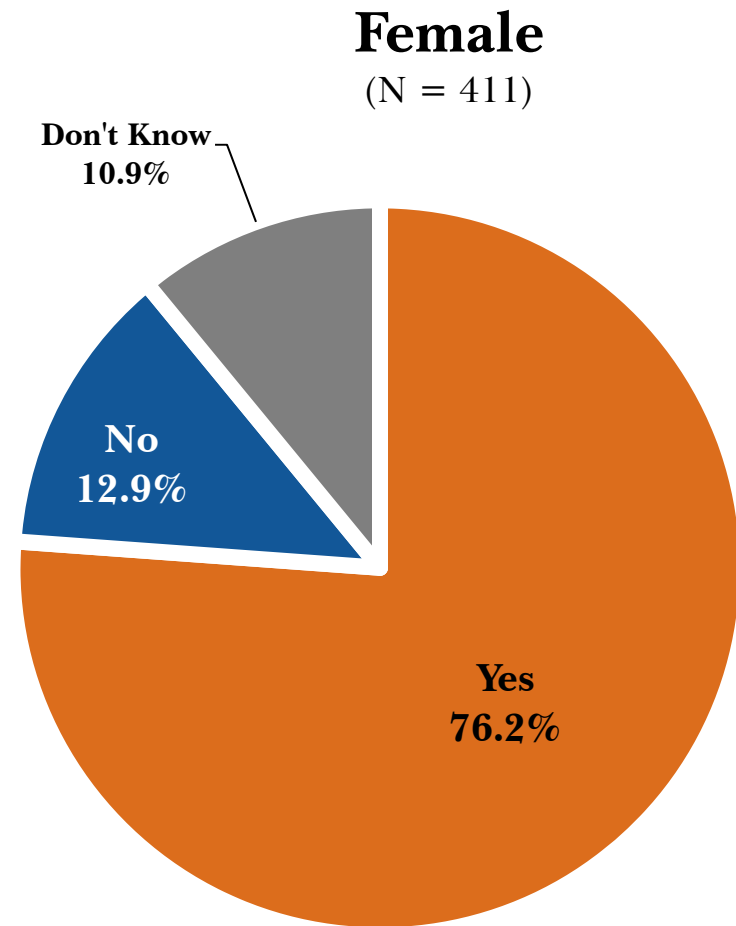
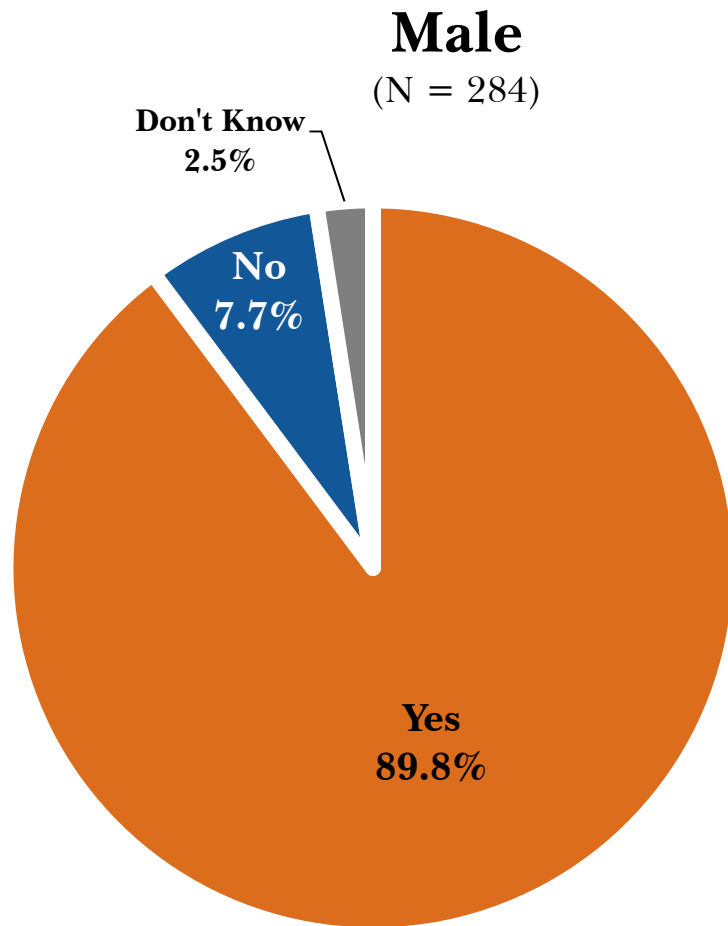
[by educational attainment]



Question 21.2 Cross Tabulations

Statement: Urban runoff travels through the flood control system and ultimately drains into Lake Mead.

[by gender observation]

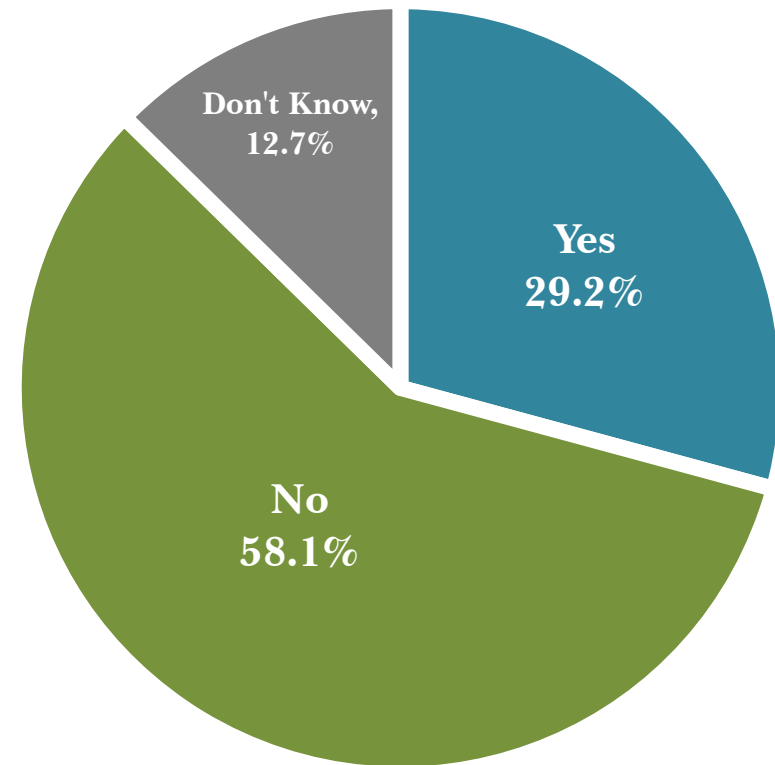


Question 21.3 *True or False?*

The storm water that travels through flood control channels and storm drains is treated/cleaned before it reaches Lake Mead.

58.1% of respondents disagree with the statement that storm water is treated/cleaned before it reaches Lake Mead.

Survey Respondents
(N = 695)



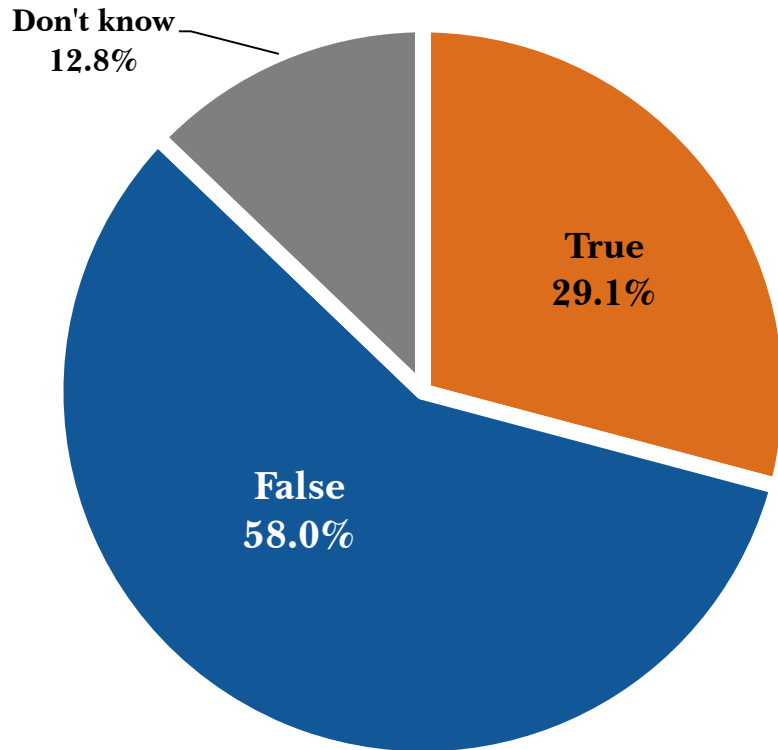
Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

[with or without Cox Digital Cable TV]

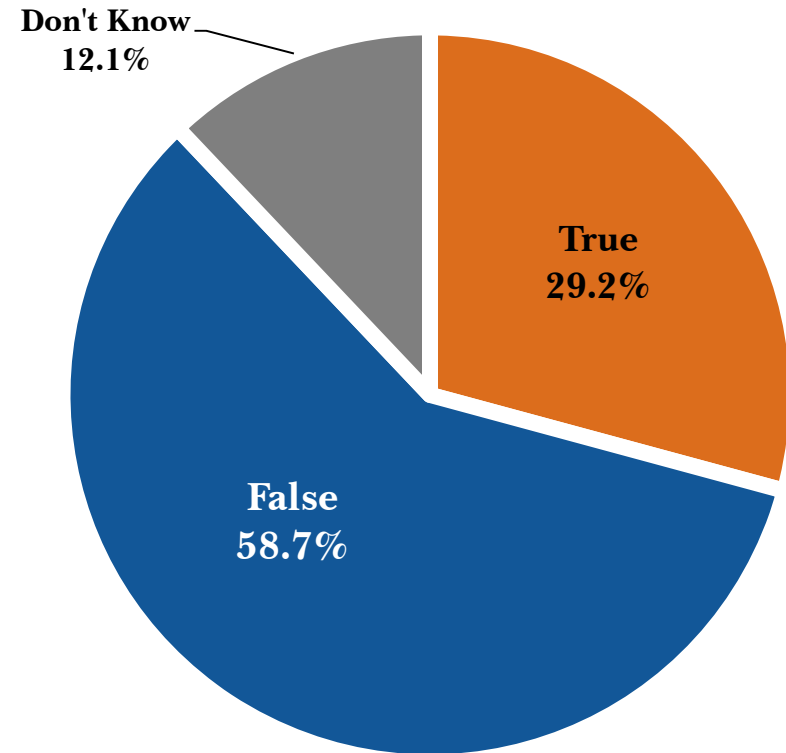
With Cox Digital Cable TV

(N = 374)



Without Cox Digital Cable TV

(N = 315)



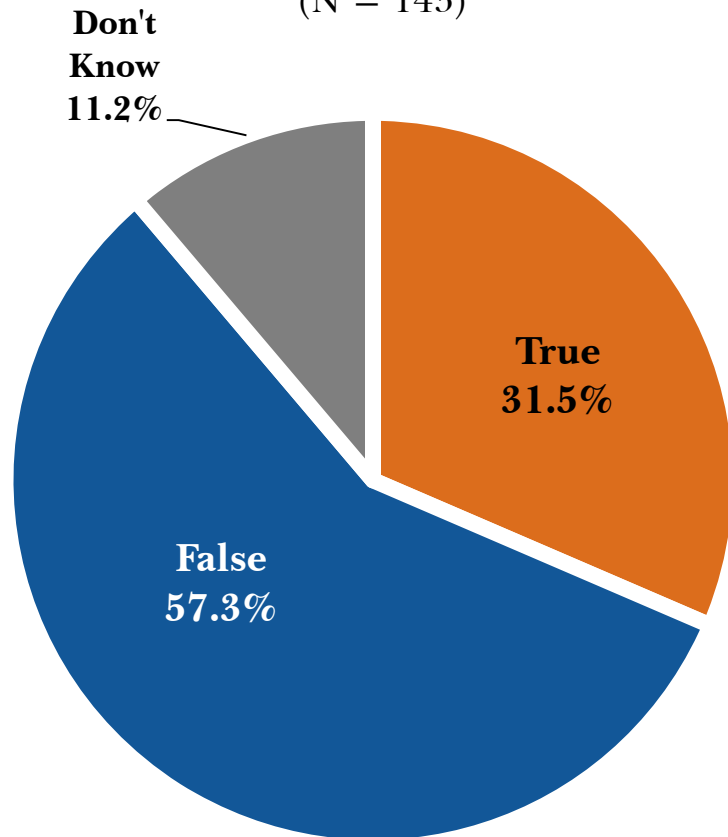
Question 21.3 Cross Tabulations

The flood water that travels through the flood control channels and storm drains is cleaned/treated.

[with or without Cox Digital Cable TV]

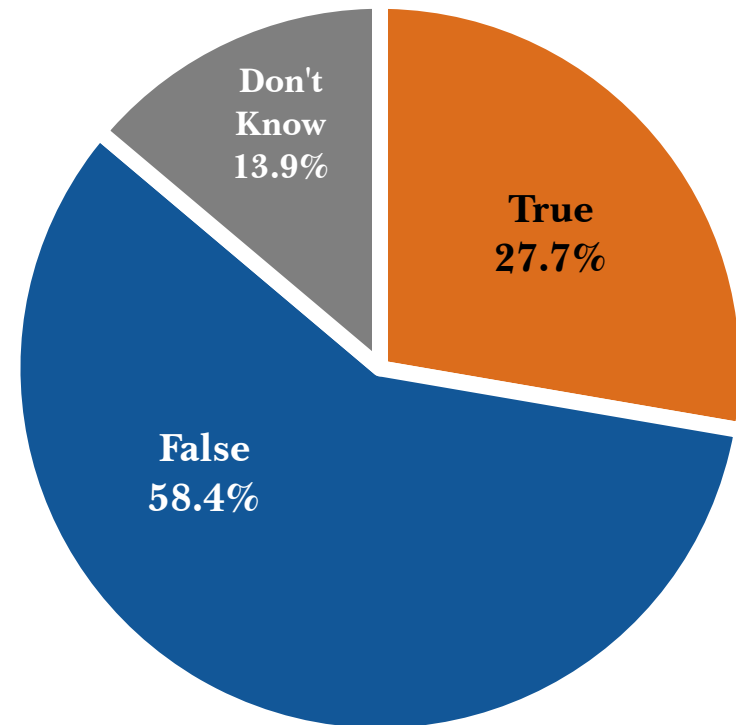
Watched the Flood Channel TV Program

(N = 143)



Never watched the Flood Channel TV Program

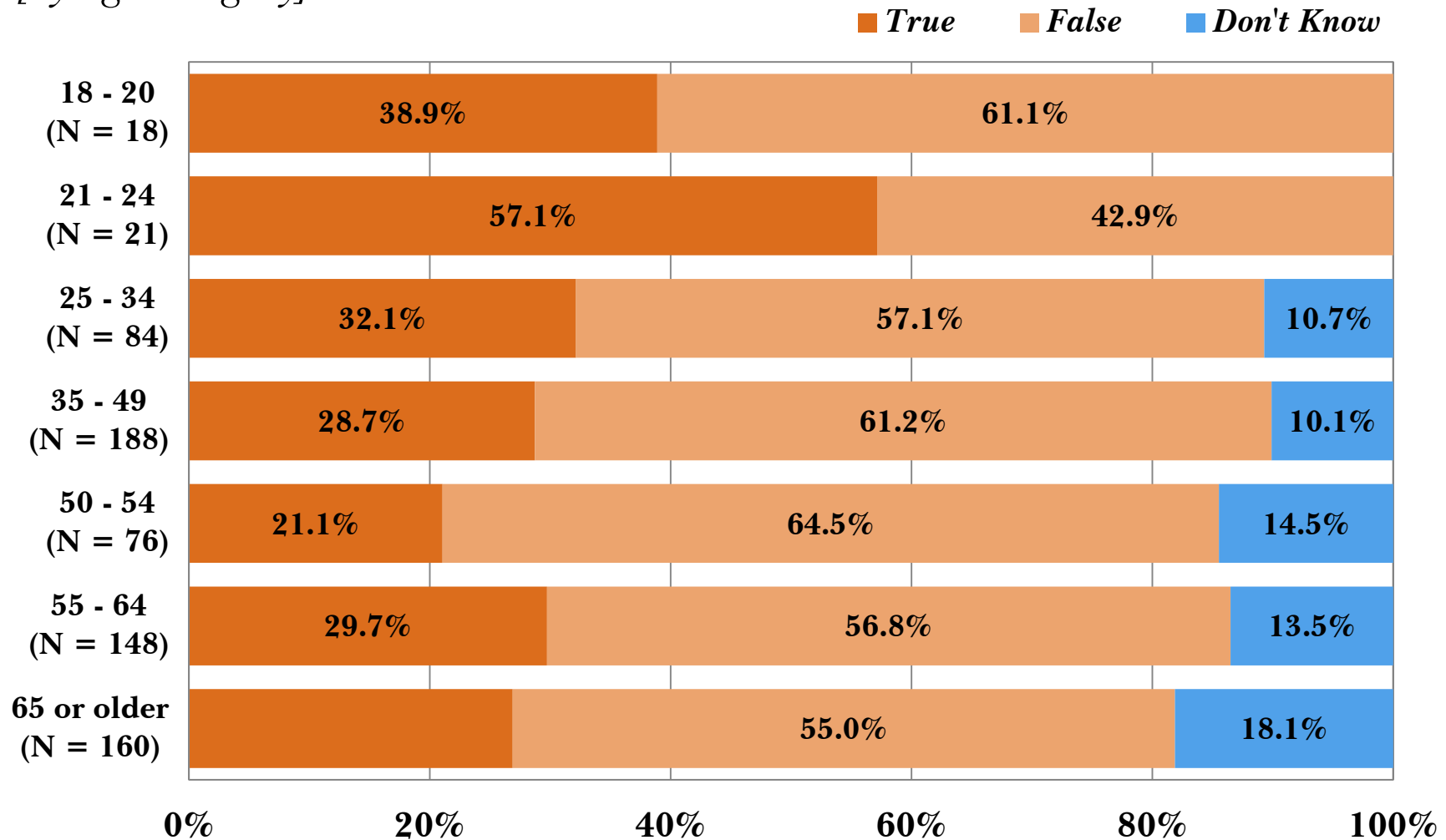
(N = 231)



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

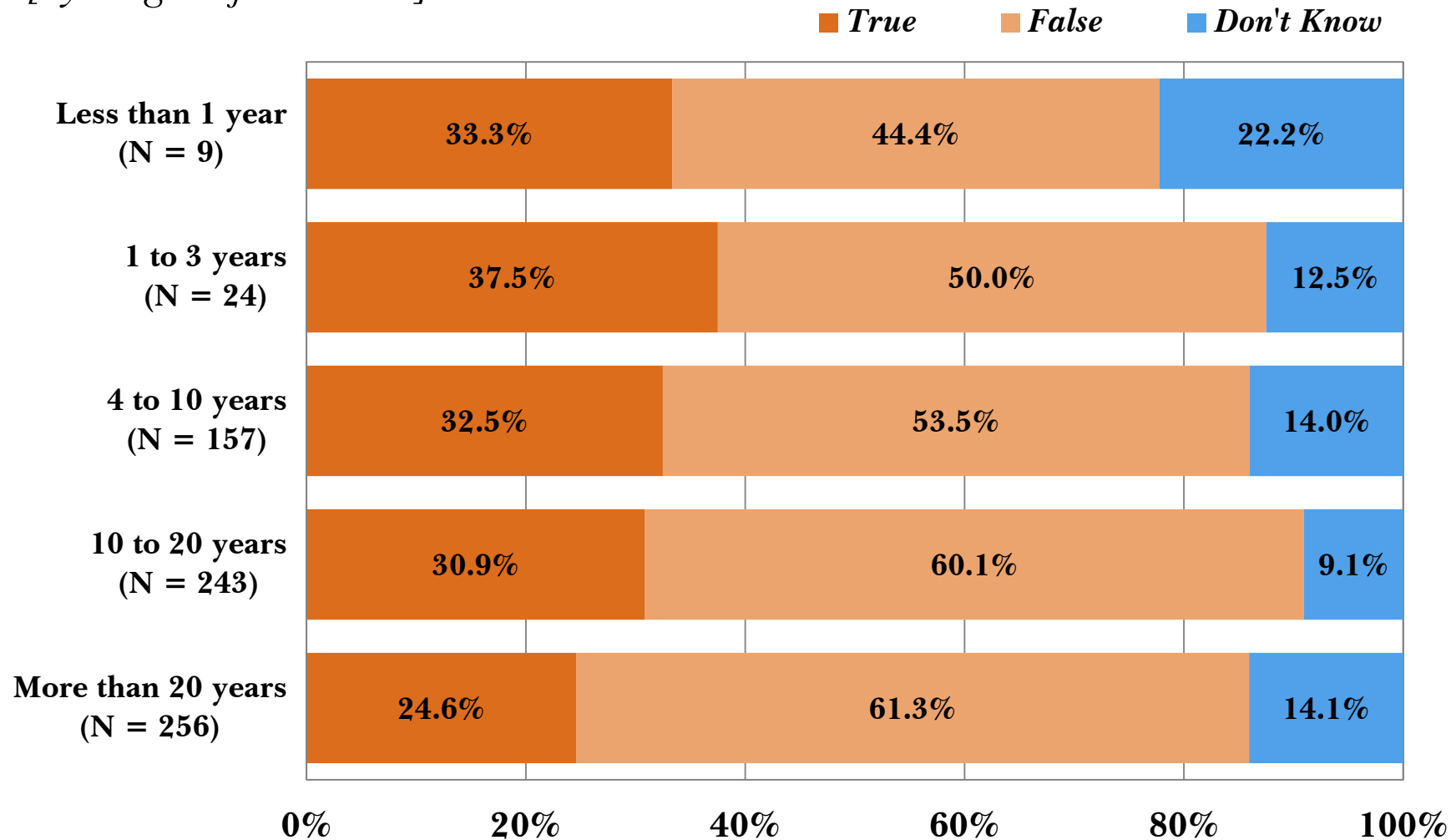
[by age category]



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

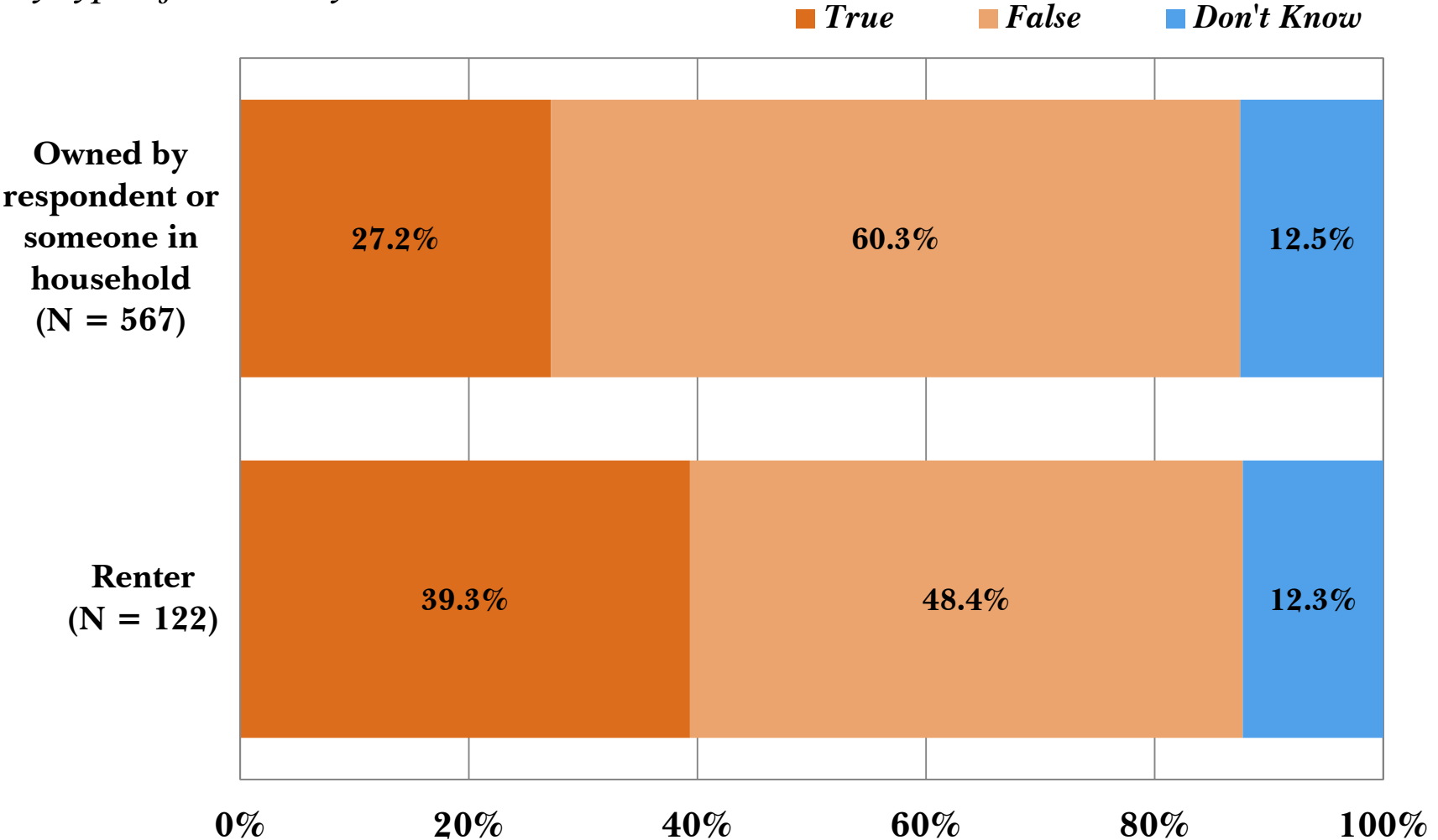
[by length of residence]



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

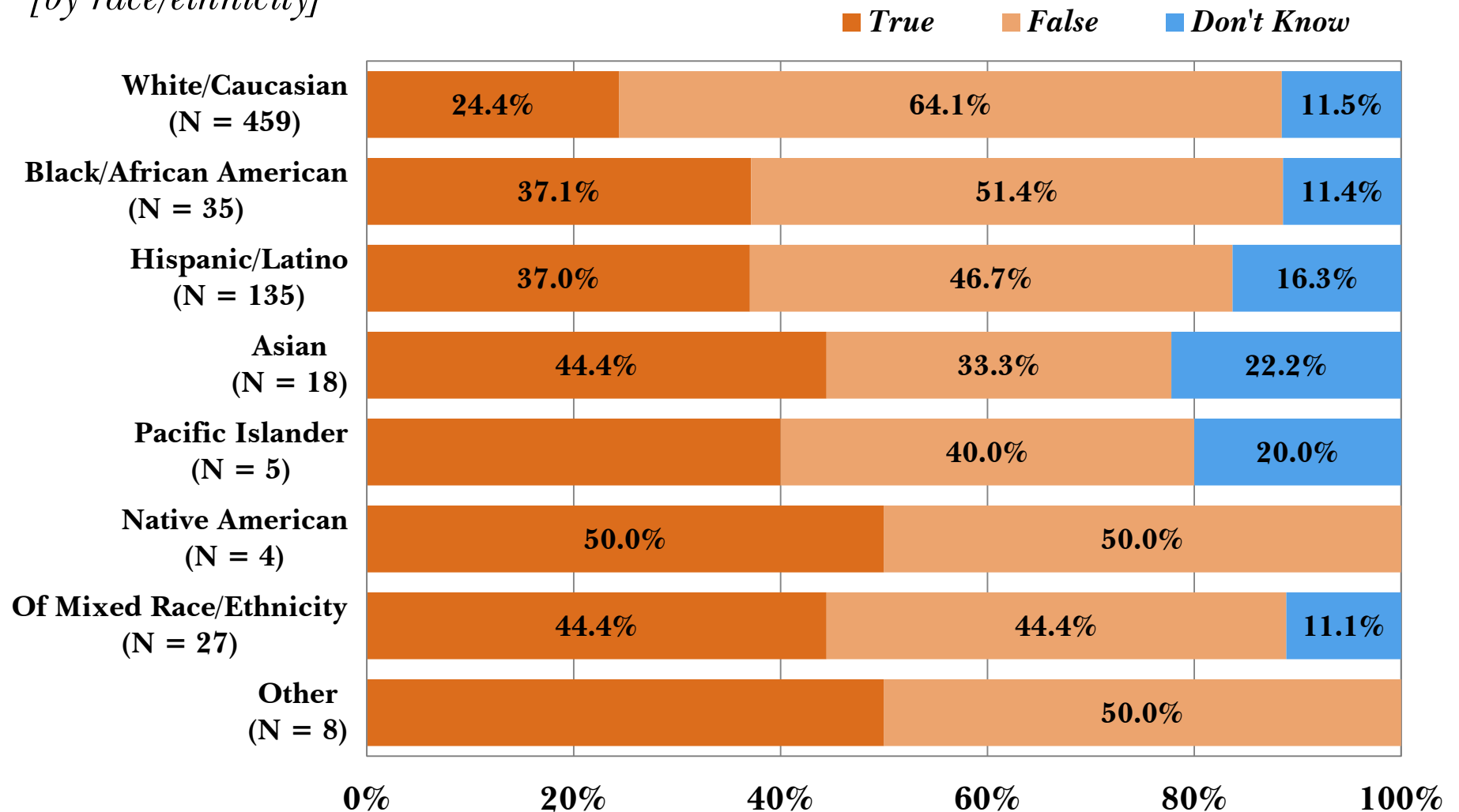
[by type of residency]



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

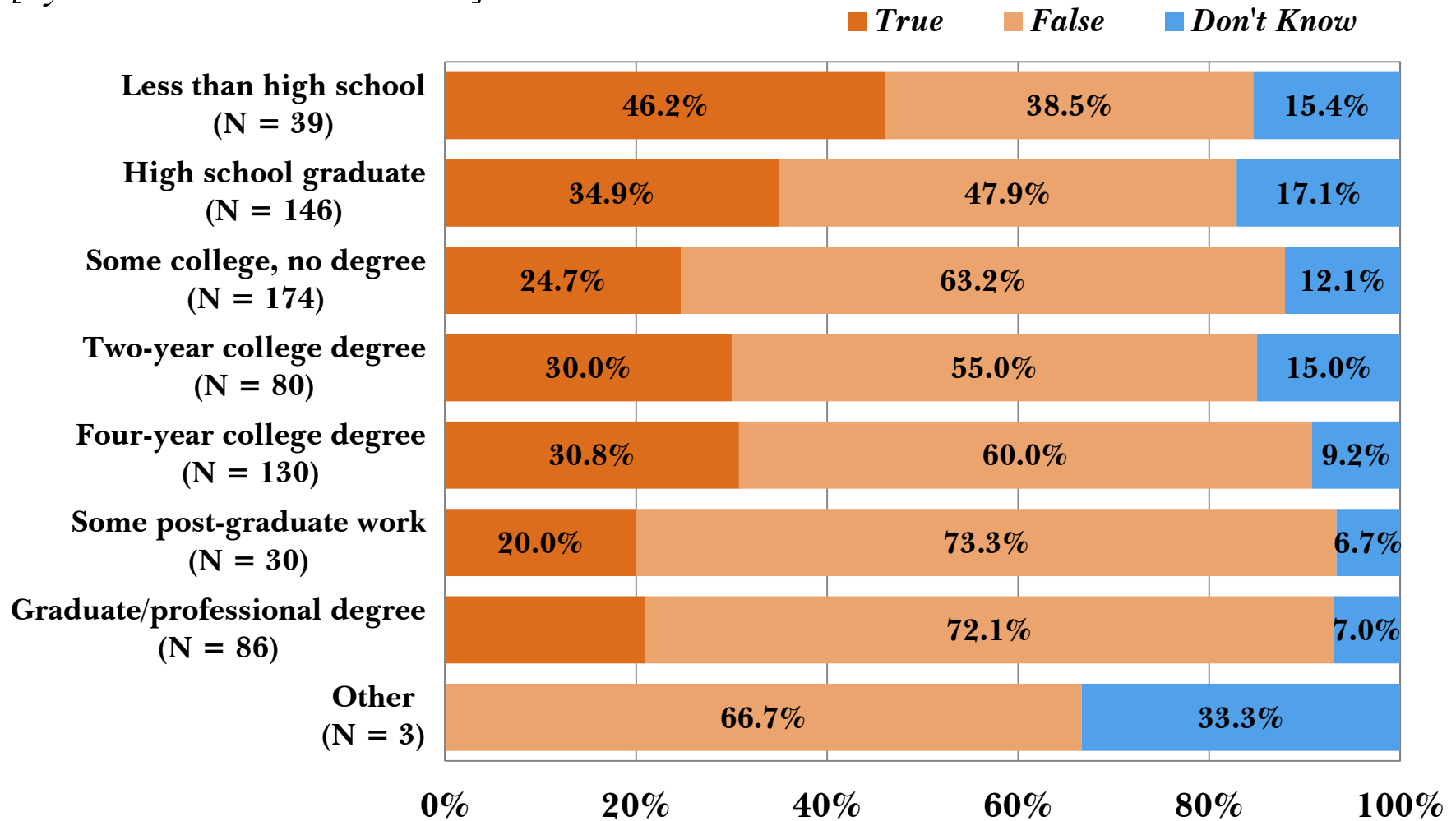
[by race/ethnicity]



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

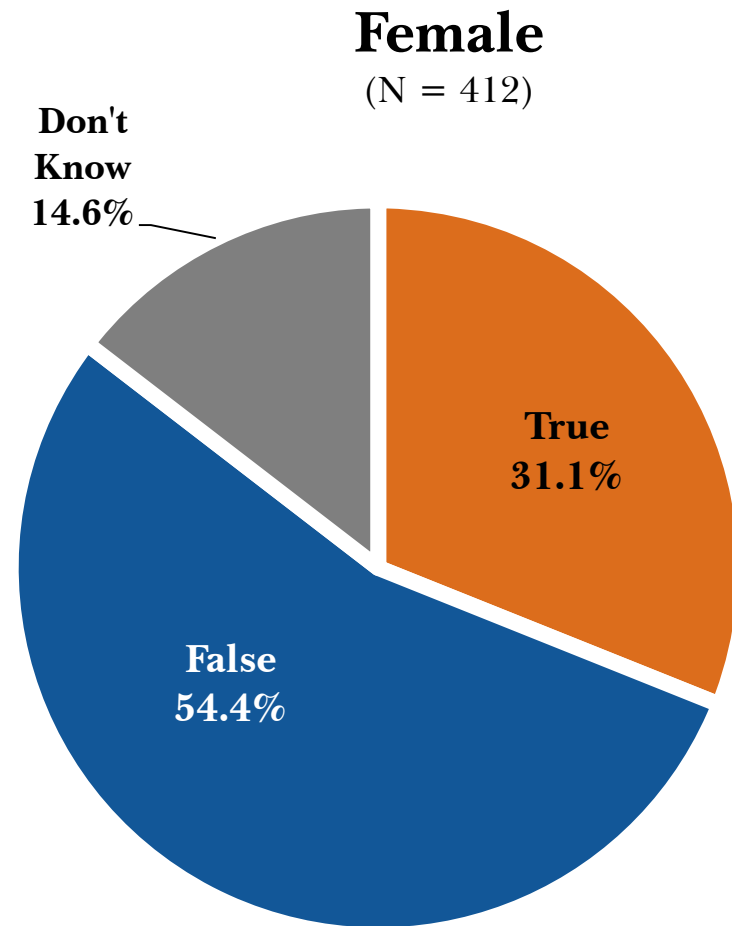
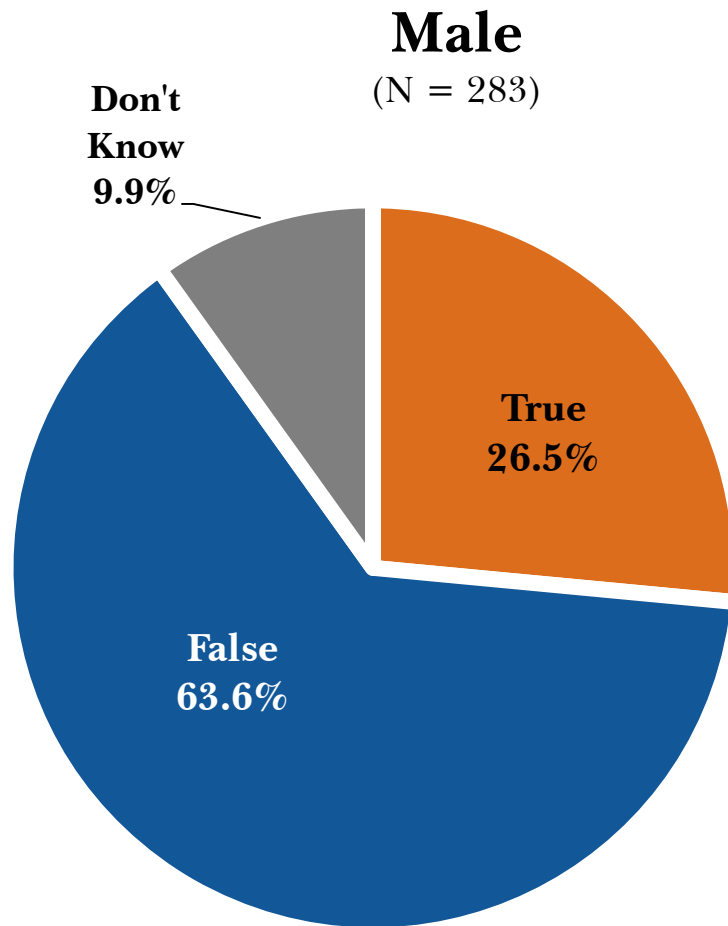
[by educational attainment]



Question 21.3 Cross Tabulations

The flood waters that travel through the flood control channels and storm drains is cleaned/treated.

[by gender observation]



Question 22

Rankings from 1 to 10 – impacts on protecting Lake Mead

No Negative Impact ← → *Very Serious Negative Impact*

Response	1	2	3	4	5	6	7	8	9	10	N/A	AVG*
Littering	7.3%	4.1%	2.3%	2.1%	8.1%	5.3%	8.1%	11.3%	6.0%	43.4%	1.9%	7.53
Proper disposal of chemicals	27.3%	5.9%	2.1%	2.4%	4.3%	2.4%	4.0%	8.7%	4.1%	36.0%	2.7%	6.02
Proper disposal of oil	29.9%	4.9%	3.1%	1.1%	3.7%	2.6%	4.3%	9.6%	4.4%	34.0%	2.4%	5.88
Proper disposal of garbage	27.4%	6.7%	5.1%	2.7%	7.4%	3.1%	5.1%	9.6%	4.1%	26.6%	2.0%	5.50
Reporting of clogged storm drains	23.4%	7.0%	5.1%	4.0%	15.0%	5.1%	4.7%	10.4%	4.1%	18.0%	3.0%	5.24
Reducing use of water	31.7%	7.4%	4.4%	2.3%	10.9%	3.3%	4.1%	7.7%	4.4%	22.4%	1.3%	5.04
Use of commercial car washes	18.9%	8.1%	9.7%	5.6%	17.3%	4.9%	6.3%	9.1%	2.6%	14.3%	3.3%	5.02
Limiting use of grass in homes / businesses	23.1%	7.7%	7.0%	4.3%	15.7%	5.0%	6.6%	9.0%	3.7%	14.9%	3.0%	5.00
Convert to desert landscaping	30.1%	7.9%	5.6%	3.4%	9.4%	2.9%	4.3%	10.1%	4.6%	19.7%	2.0%	5.00

*N/A responses excluded from averages. For each category, N = 700

Question 22 (Continued)

Rankings from 1 to 10 – impacts on protecting Lake Mead

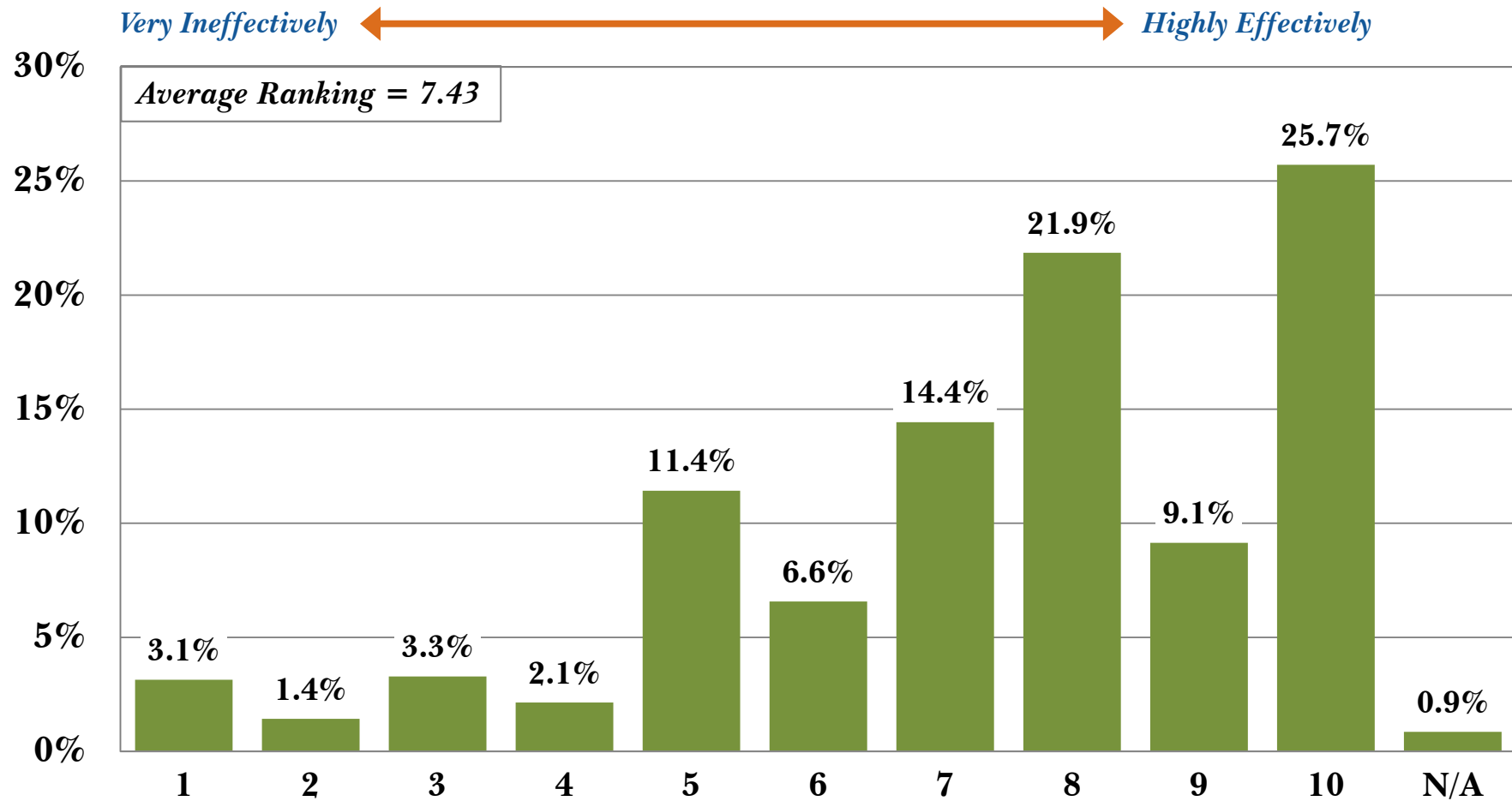
No Negative Impact ←————→ Very Serious Negative Impact

Response	1	2	3	4	5	6	7	8	9	10	N/A	AVG*
Proper disposal / clean up of pet waste	27.4%	7.7%	7.3%	3.3%	10.1%	4.7%	5.1%	8.7%	3.9%	18.6%	3.1%	4.99
Recycling	29.1%	9.9%	6.9%	4.0%	9.4%	3.4%	5.0%	8.1%	3.1%	19.1%	1.9%	4.82
Using organic fertilizers	24.9%	8.4%	7.7%	3.7%	14.6%	4.7%	5.9%	9.9%	3.4%	13.3%	3.6%	4.82
Using reusable bags	31.3%	9.9%	7.0%	3.6%	11.9%	3.1%	4.9%	6.4%	3.0%	16.4%	2.6%	4.53
Using green products	31.1%	9.9%	7.1%	5.0%	11.4%	2.6%	5.1%	7.1%	4.3%	13.1%	3.1%	4.42
Getting smog checks	31.3%	9.1%	7.3%	3.9%	13.3%	3.0%	5.1%	6.4%	2.4%	13.9%	4.3%	4.38
Composting	24.1%	11.0%	8.1%	5.3%	16.1%	4.0%	5.4%	5.6%	2.4%	10.4%	7.4%	4.38
Use of solar cells	35.9%	7.0%	5.9%	3.7%	13.4%	3.3%	3.4%	3.7%	2.4%	9.7%	11.6%	3.87

*N/A responses excluded from averages. For each category, N = 700

Question 23

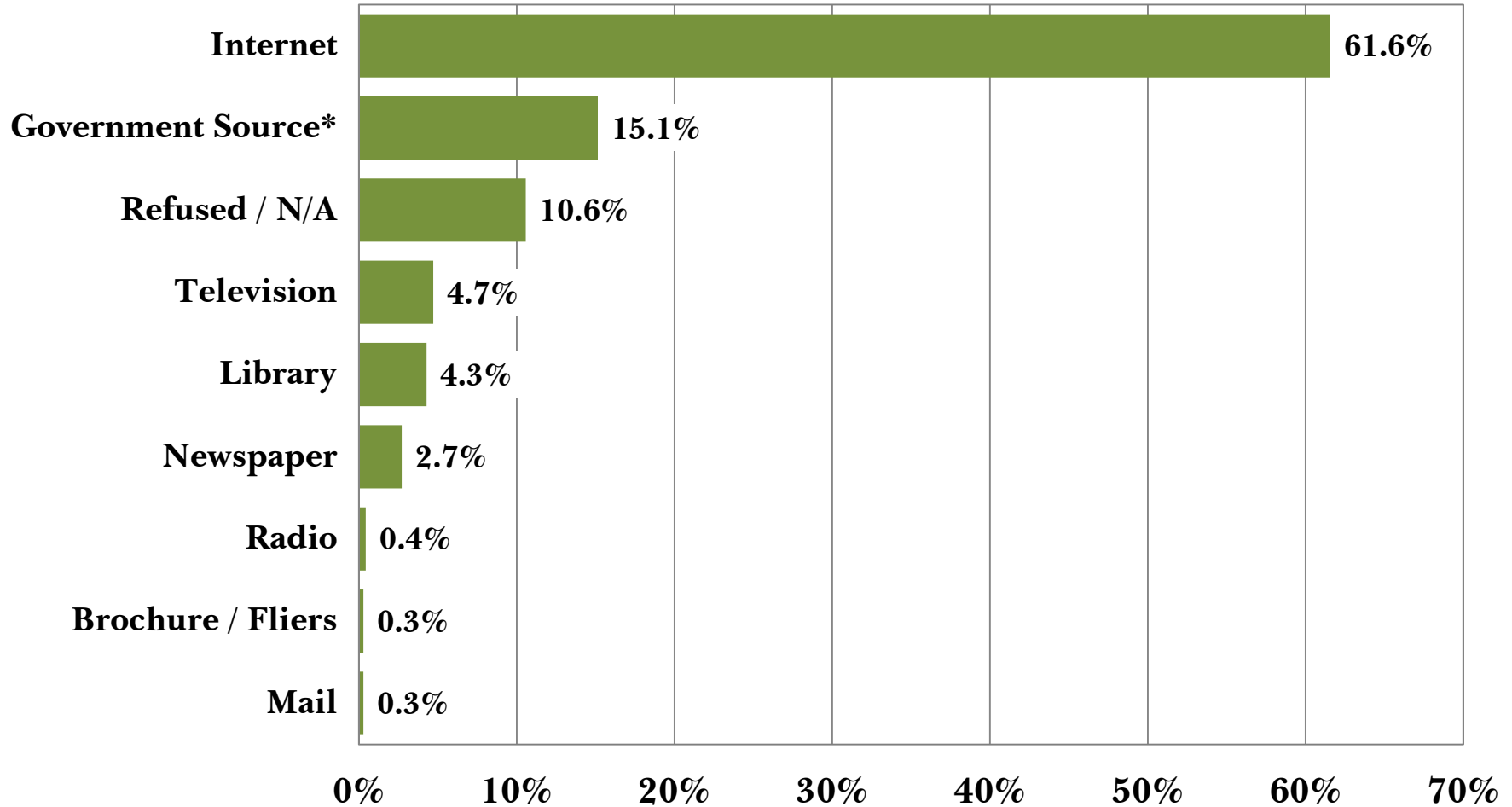
Rankings from 1 to 10 – How well do you think the dangers of flooding are being communicated to the community?



*N/A response excluded from average; N = 700

Question 24

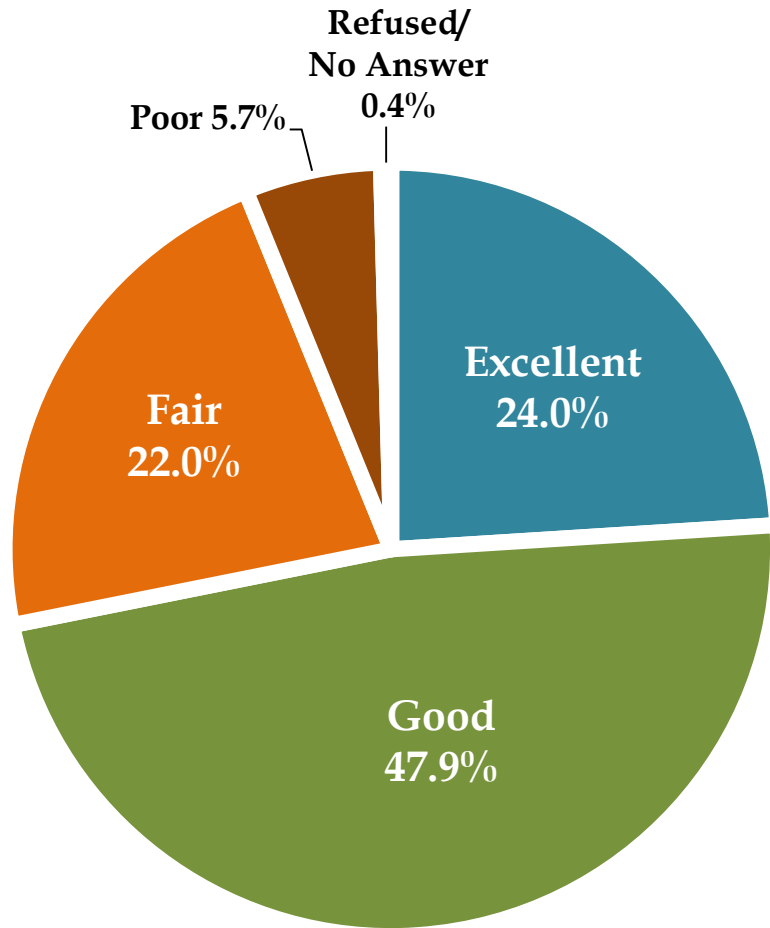
If you wanted to get information about how to keep the environment clean, where might you go? (N = 700)



**Government includes local governments*

Question 25

Overall, how would you rate the way flood control is being handled in southern Nevada?



Survey Respondents

N = 700

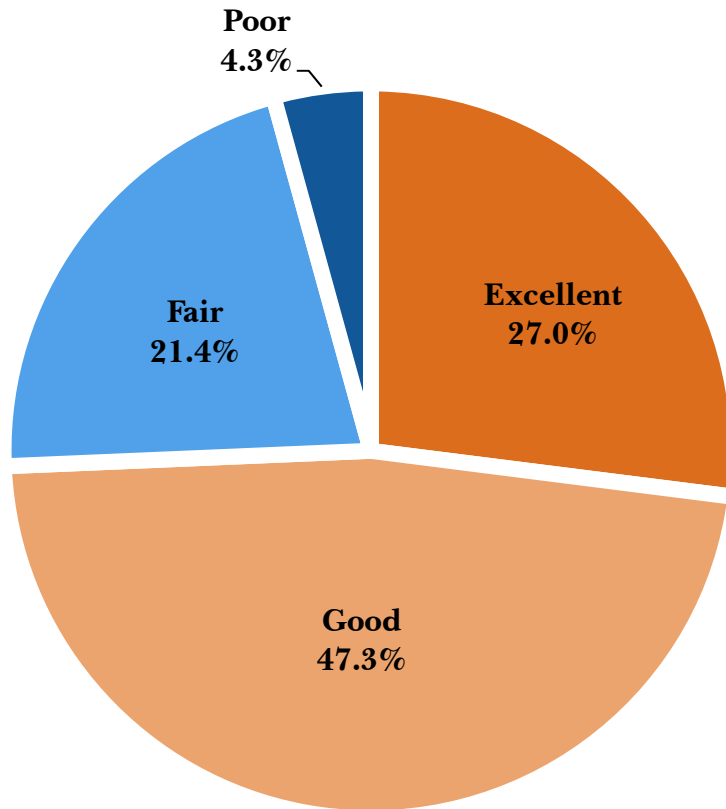
Question 25 Cross Tabulations

Overall, how would you rate the way flood control is being handled in Southern Nevada?

[with or without Cox Digital Cable TV]

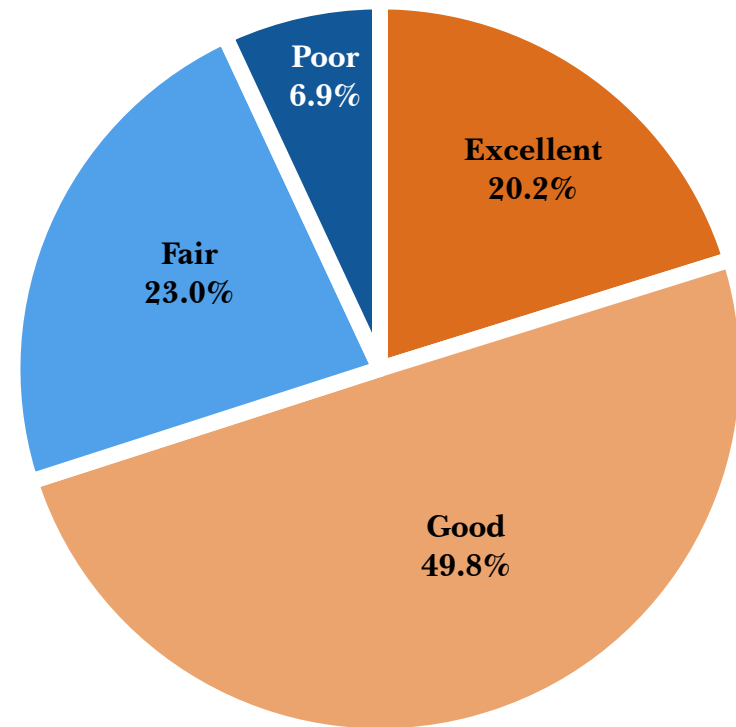
With Cox Digital Cable TV

(N = 374)



Without Cox Digital Cable TV

(N = 317)



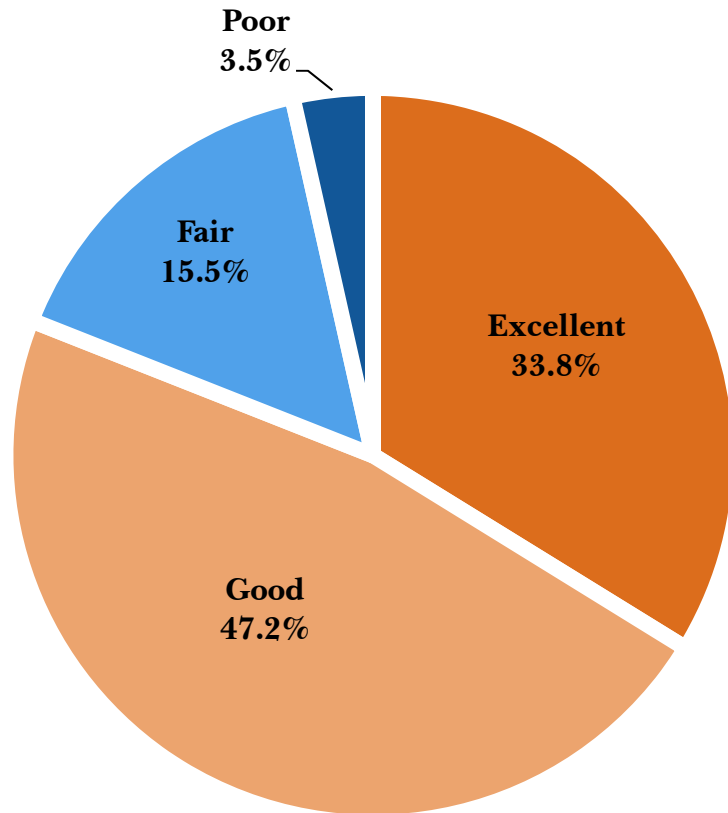
Question 25 Cross Tabulations

Overall, how would you rate the way flood control is being handled in Southern Nevada?

[with or without Cox Digital Cable TV]

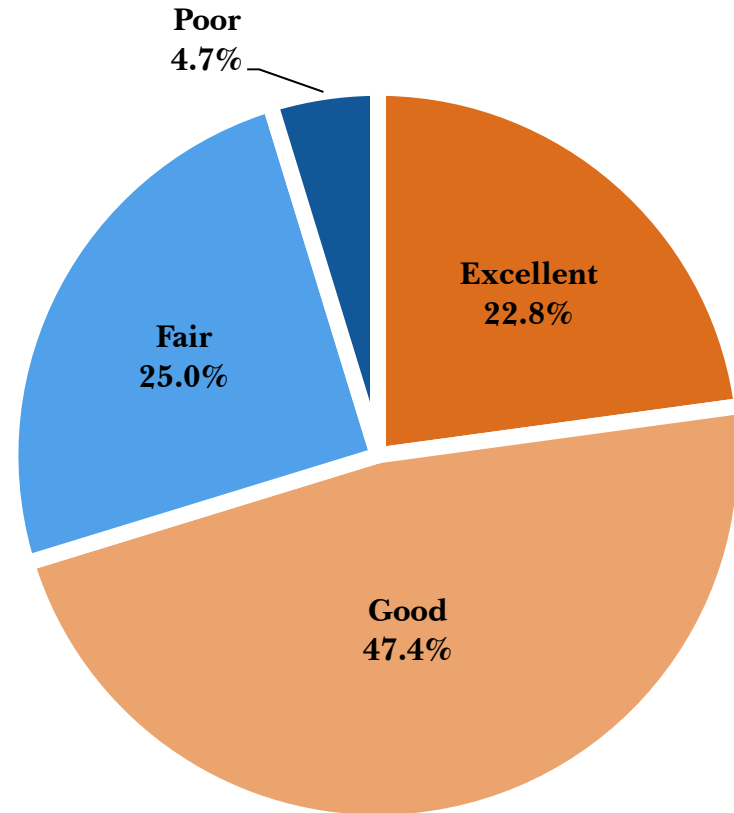
Watched the Flood Channel TV Program

(N = 142)



Never watched the Flood Channel TV Program

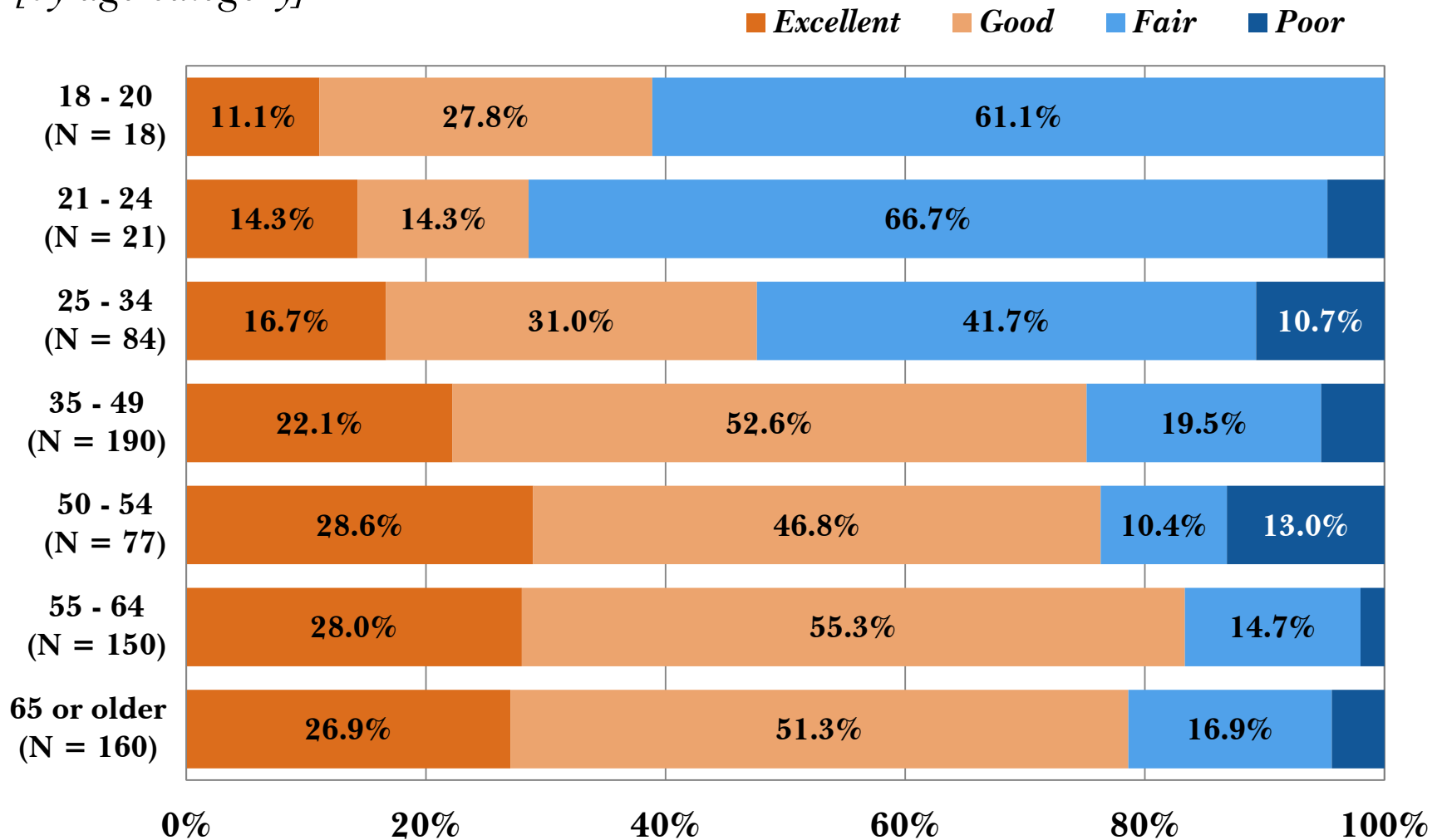
(N = 232)



Question 25 Cross Tabulations

Overall, how would you rate the way flood control is being handled in Southern Nevada?

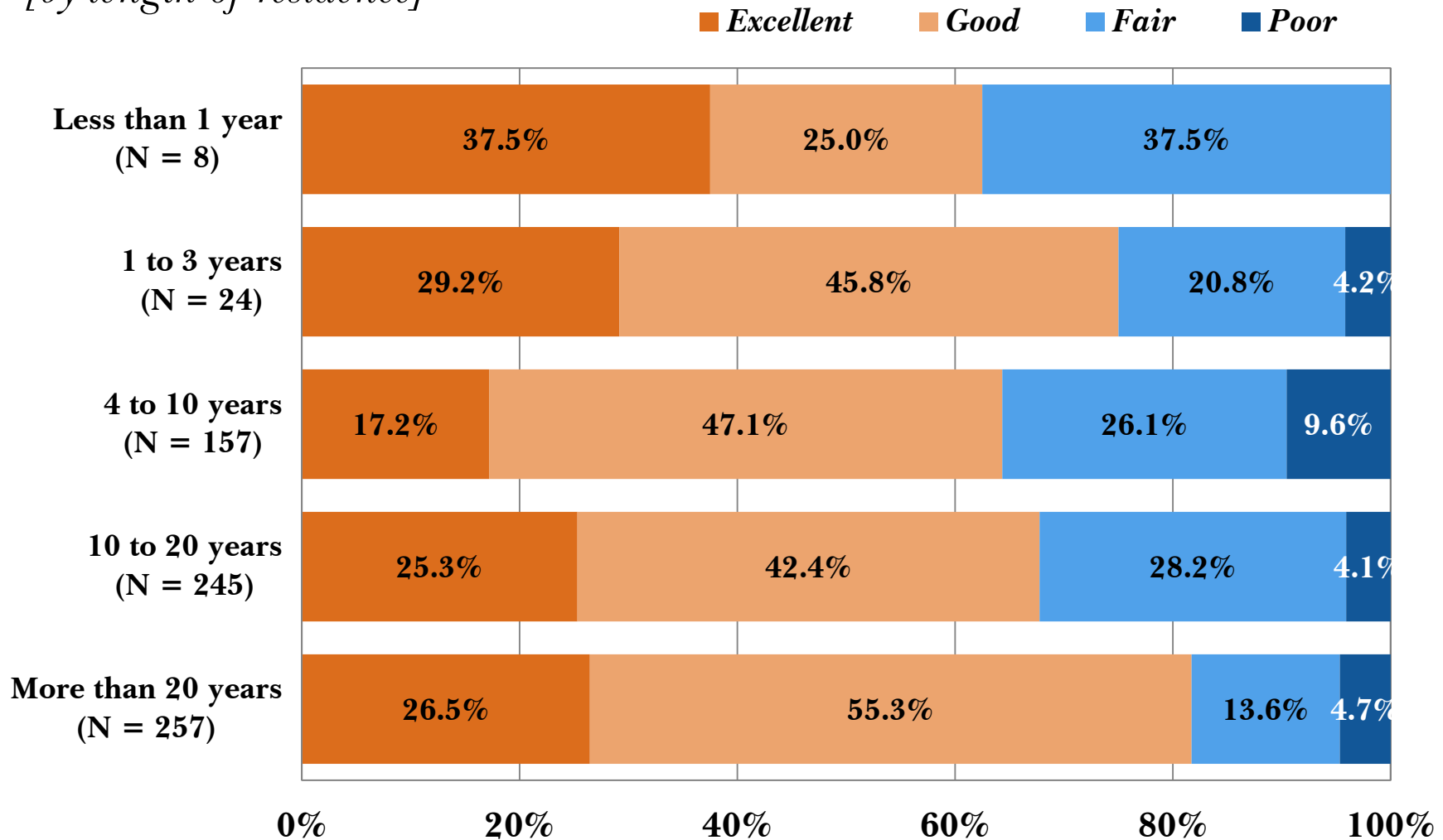
[by age category]



Question 25 Cross Tabulations

Overall, how would you rate the way flood control is being handled in Southern Nevada?

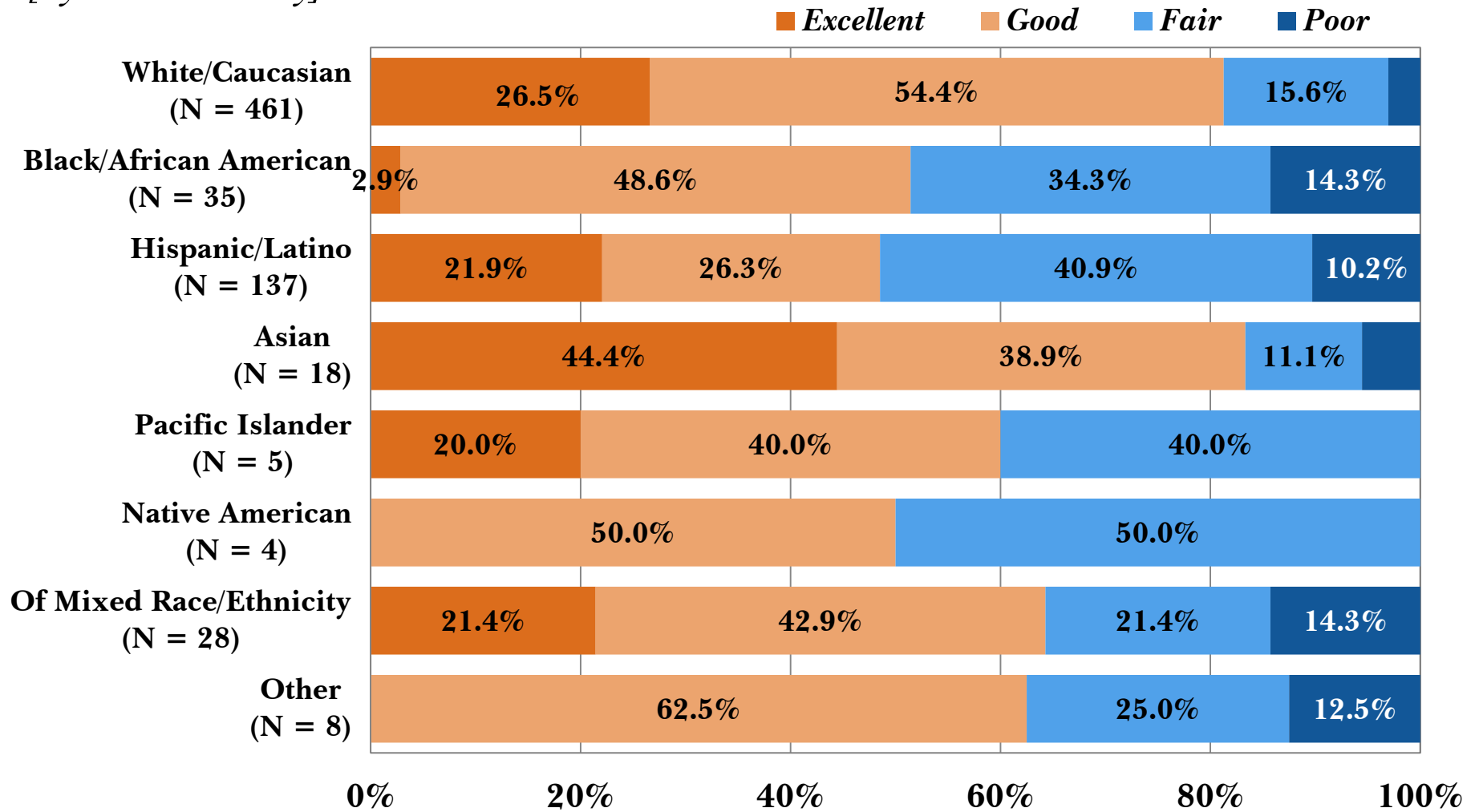
[by length of residence]



Question 25 Cross Tabulations

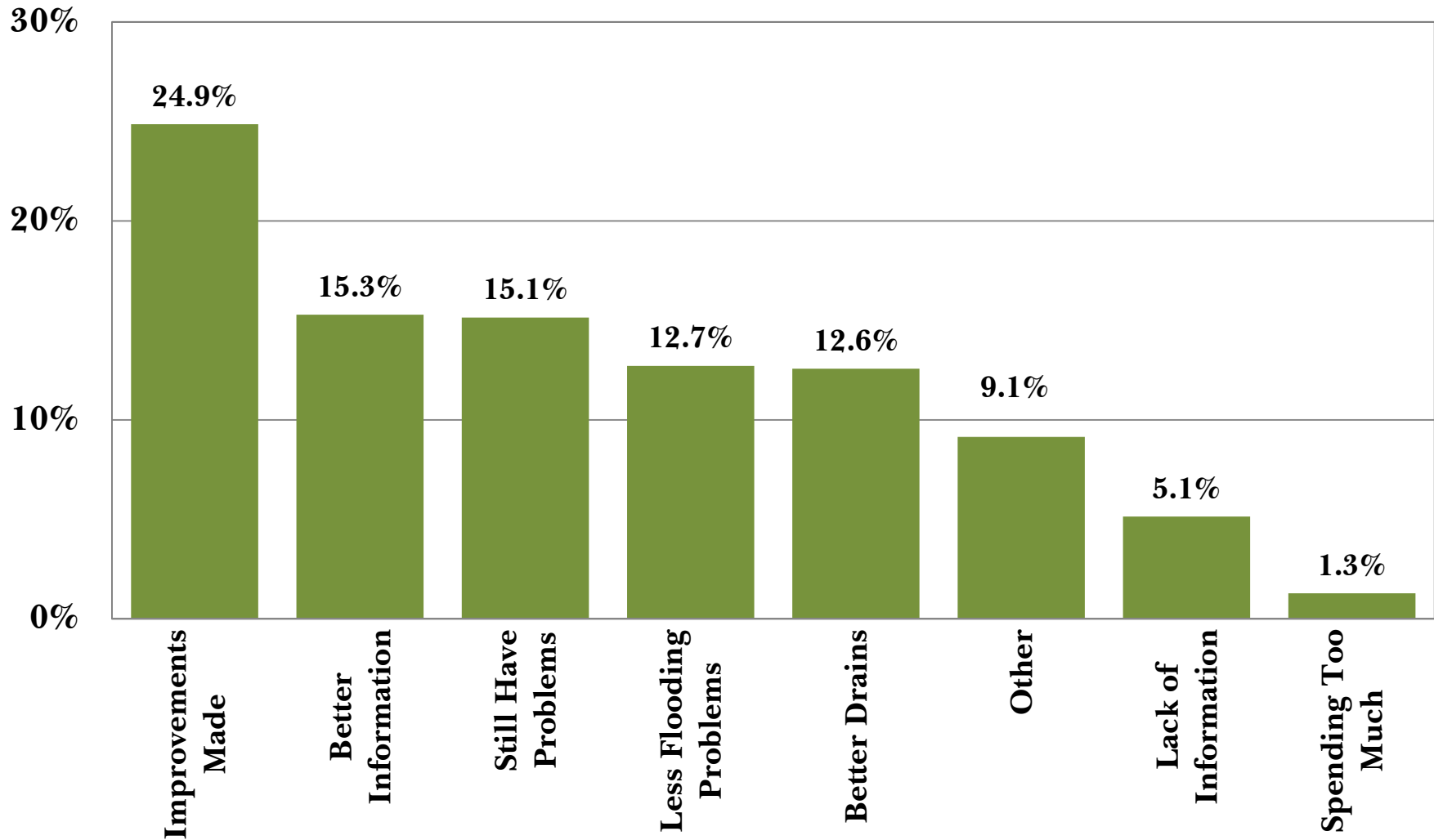
Overall, how would you rate the way flood control is being handled in Southern Nevada?

[by race/ethnicity]



Question 26

Okay, thank you. Why do you think flood control is being handled in a [insert response from Q25] manner? (N = 700)



Question 26

Okay, thank you. Why do you think flood control is being handled in a [insert response from Q25] manner?

Notable Quotes

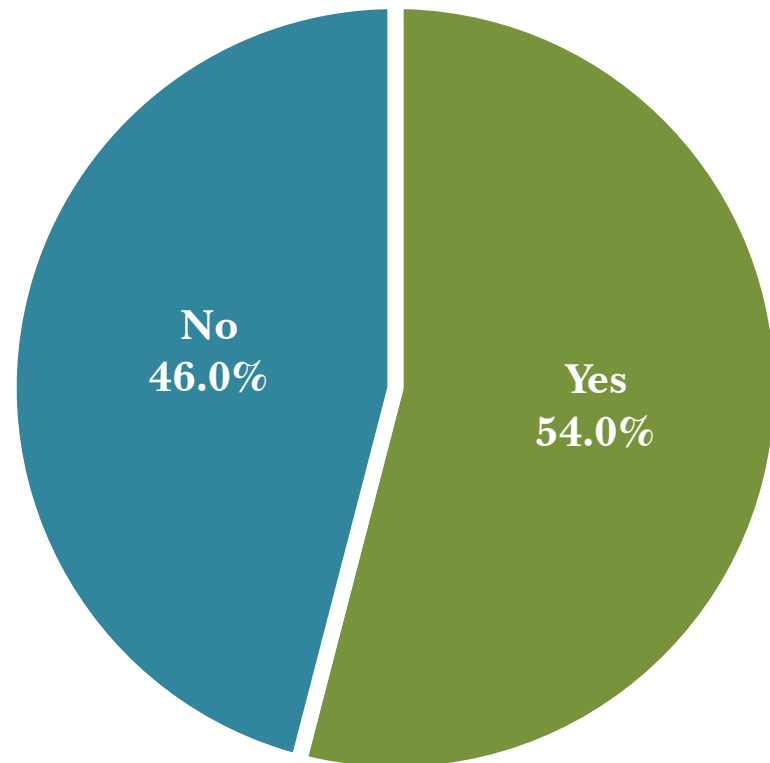
- *Always working to make it better*
- *They keep building flood channels*
- *The public is well informed*
- *They realized it in the 1990s*
- *Communication is 100 times better*
- *Because there has been less flooding*
- *It flooded bad a long time ago*
- *Underpass does not fill anymore*
- *Baseball parks are retention centers*
- *Each year it gets better*
- *We have the right people*
- *People use to die*
- *People are doing their job*
- *Long range planning*
- *Rain storms a couple years ago did a lot of damage*

Question 27

Do you have Cox Digital Cable television, this DOES NOT include DISH or satellite television?

54.0% of respondents have Cox Digital Cable television at their residences.

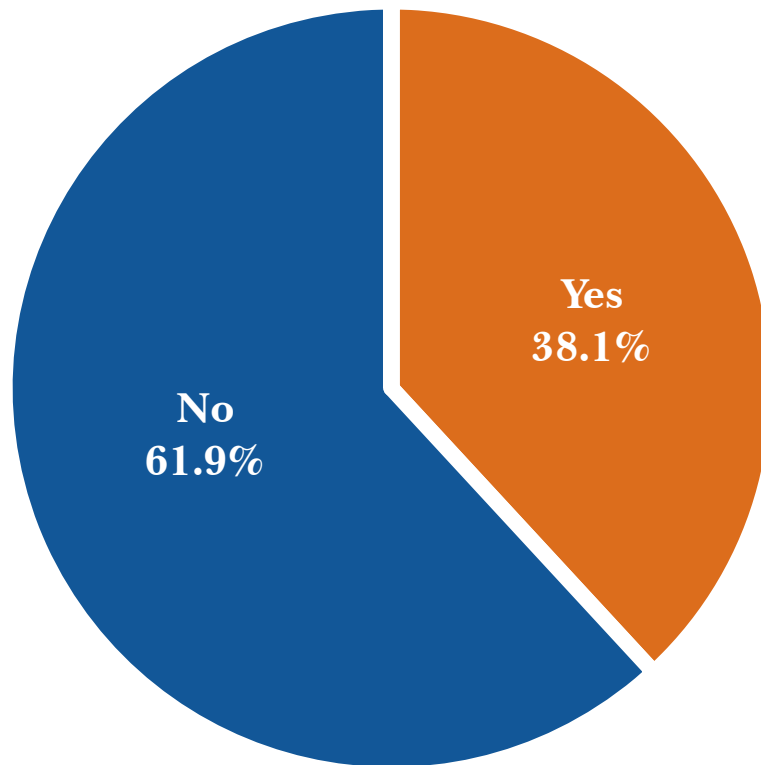
Survey Respondents
(N = 694)



Question 28

Have you ever watched “THE FLOOD CHANNEL TELEVISION PROGRAM” on Cox Digital Cable channels 2 or 4?

Survey Respondents
(N = 375)



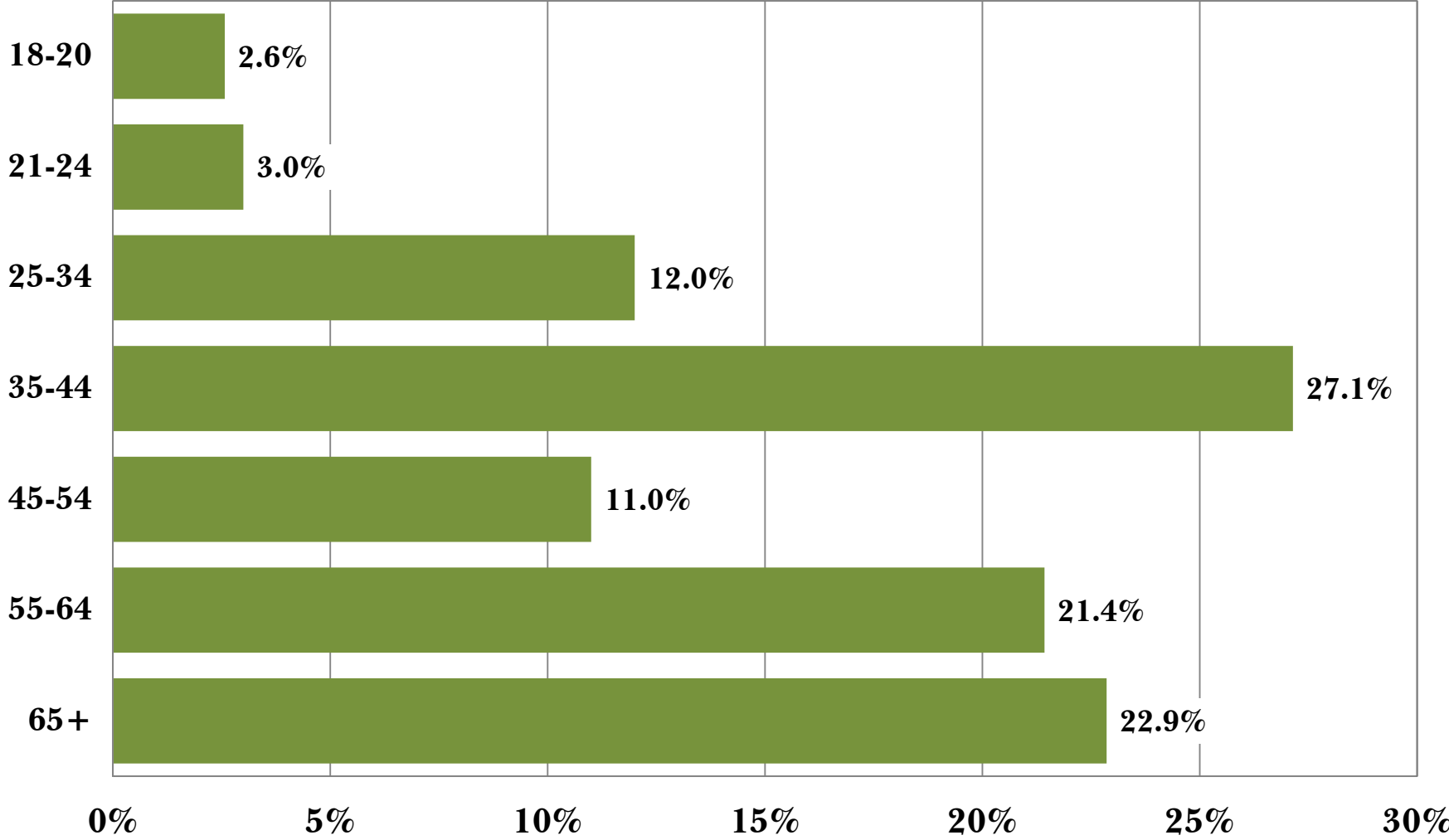
61.9% of respondents that have Cox Digital Cable channels have never watched “The Flood Channel Television Program.”

Demographics

Survey Respondents

Question 29

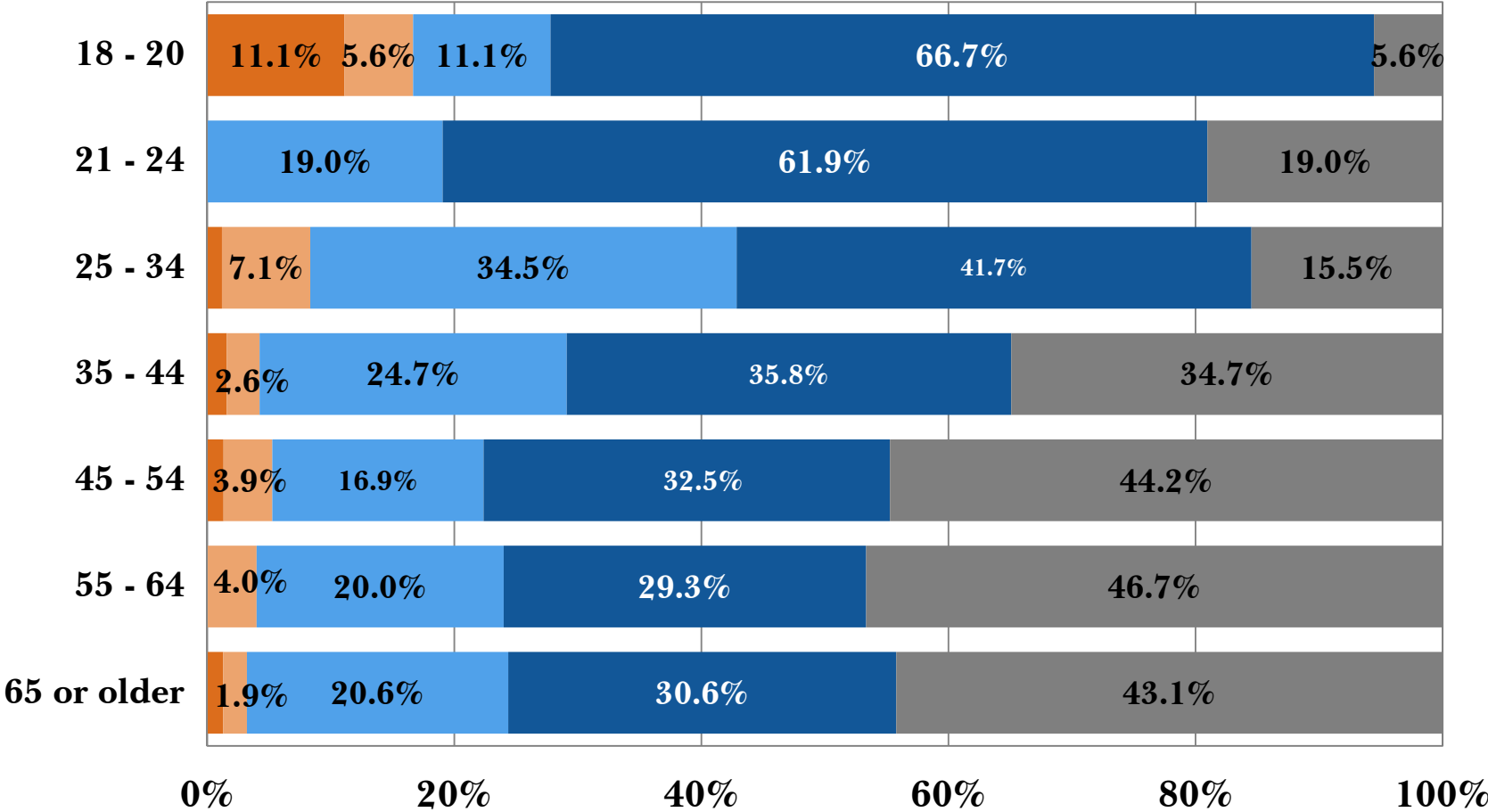
Age Category? (N = 700)



Question 29 Cross Tabulations

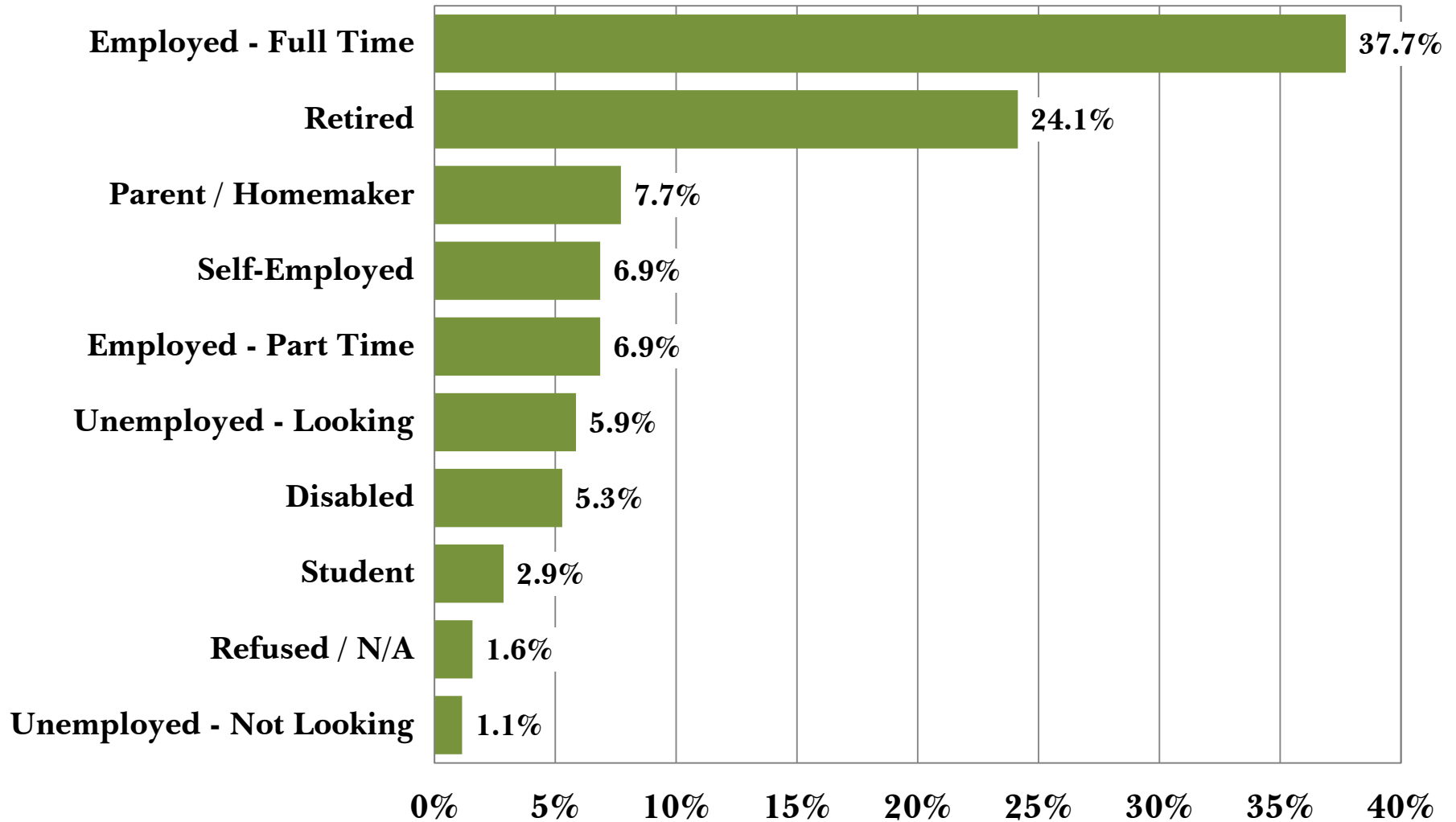
What is your age? [by length of residence]

■ Less than 1 year
 ■ 1 - 3 years
 ■ 4 - 10 years
 ■ 11 - 20 years
 ■ More than 20 years



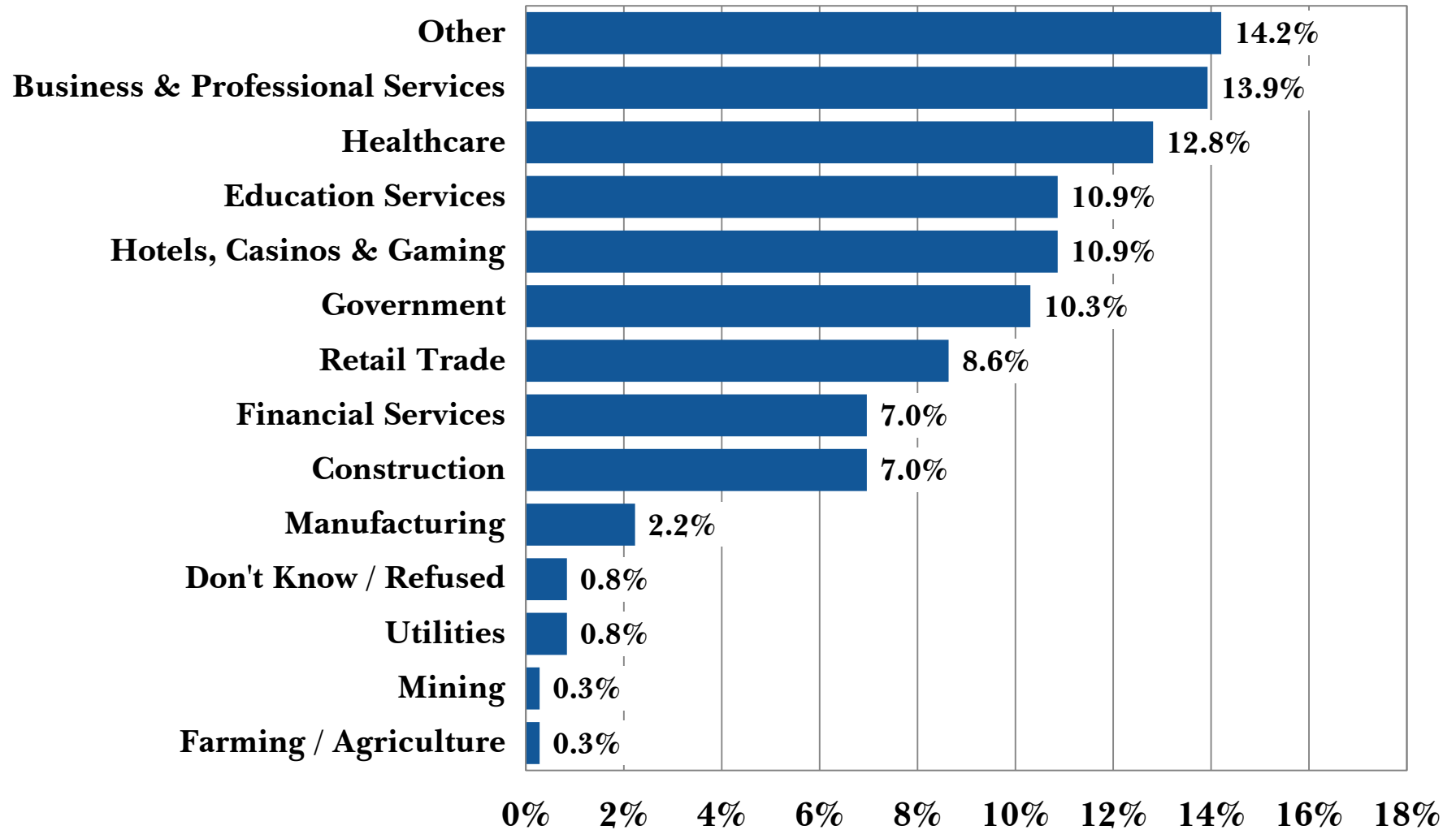
Question 30

Employment Status? (N = 700)



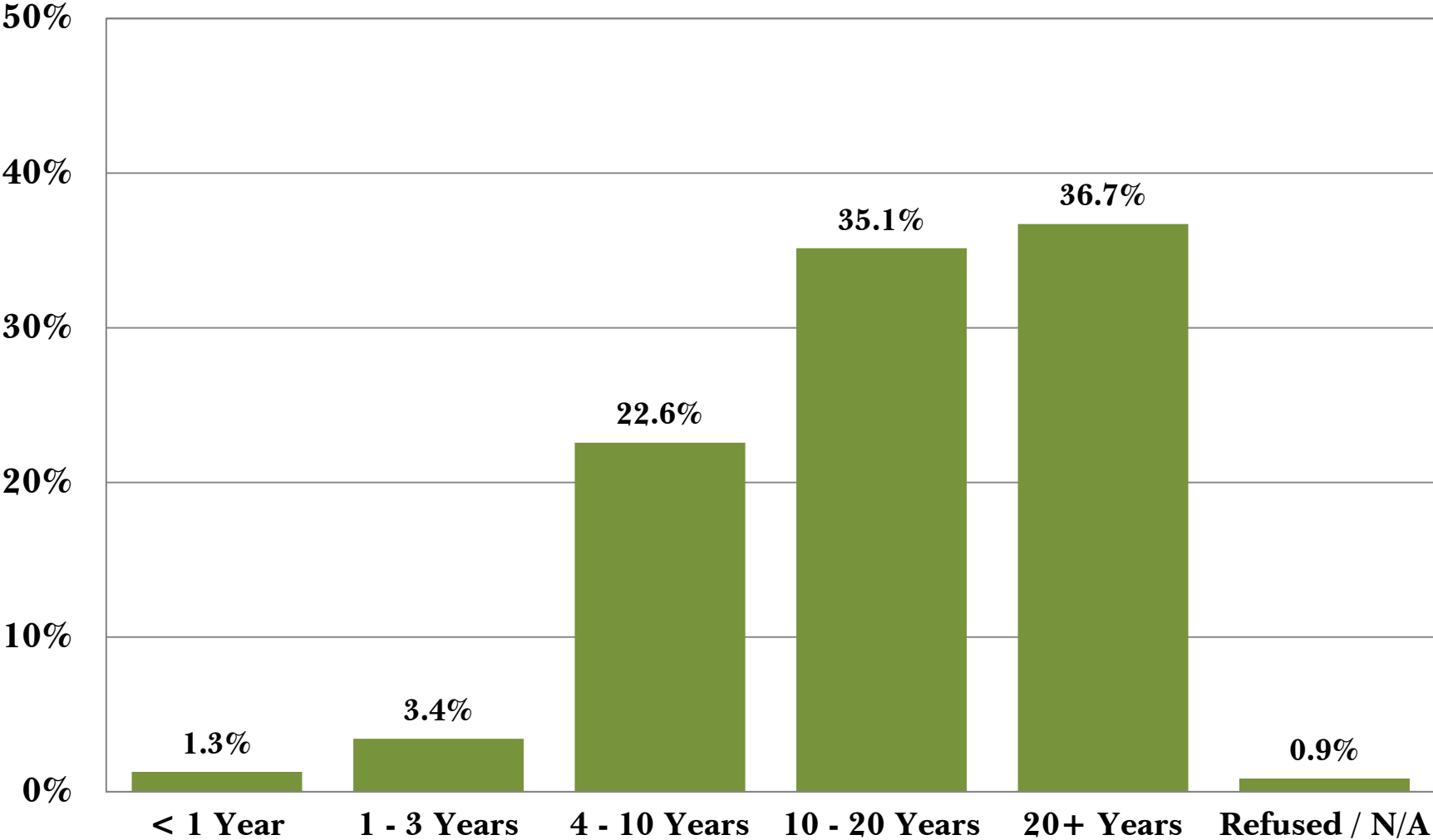
Question 31

Industry, if employed? (N = 359)



Question 32

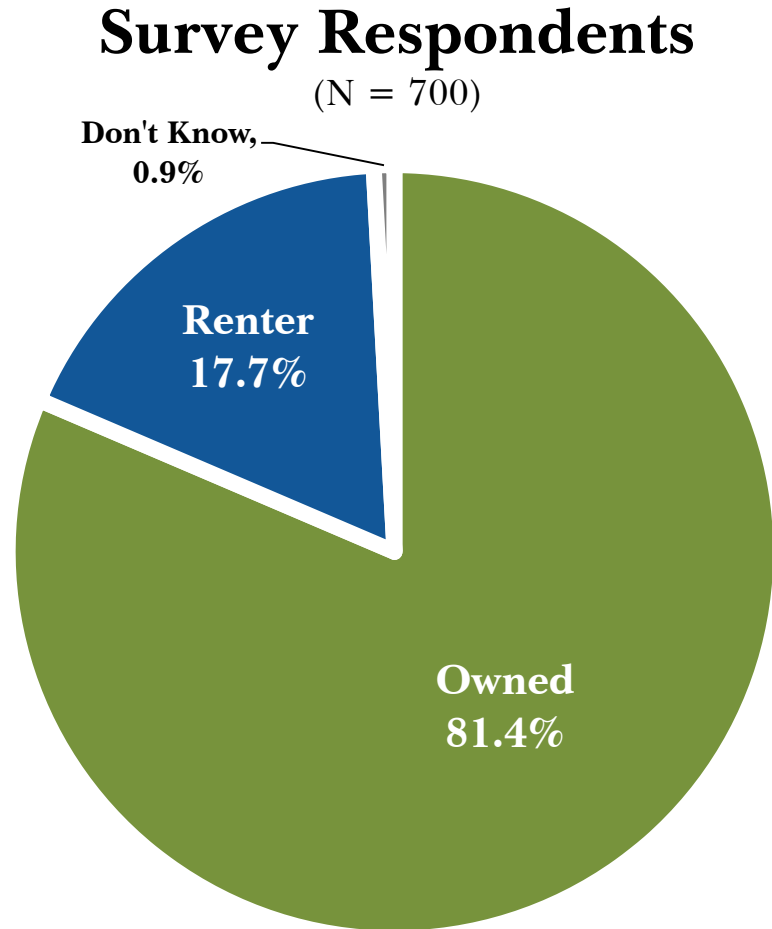
How long have you lived in southern Nevada? (N = 700)



Question 33

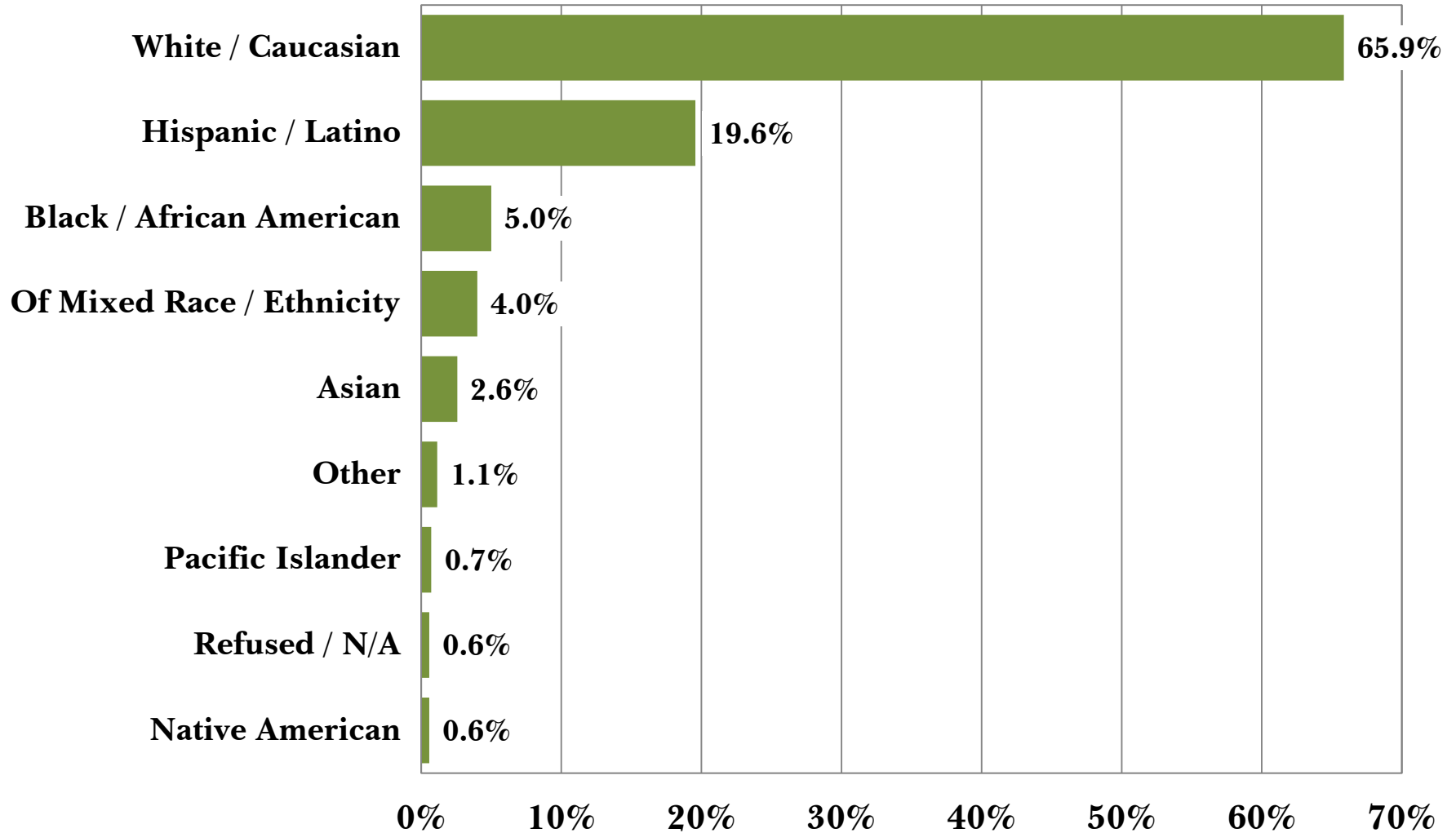
Is your current place of residence owned by you or someone in your household, or rented?

81.4% of respondents indicated that their current place of residence is owned by themselves or someone in their household.



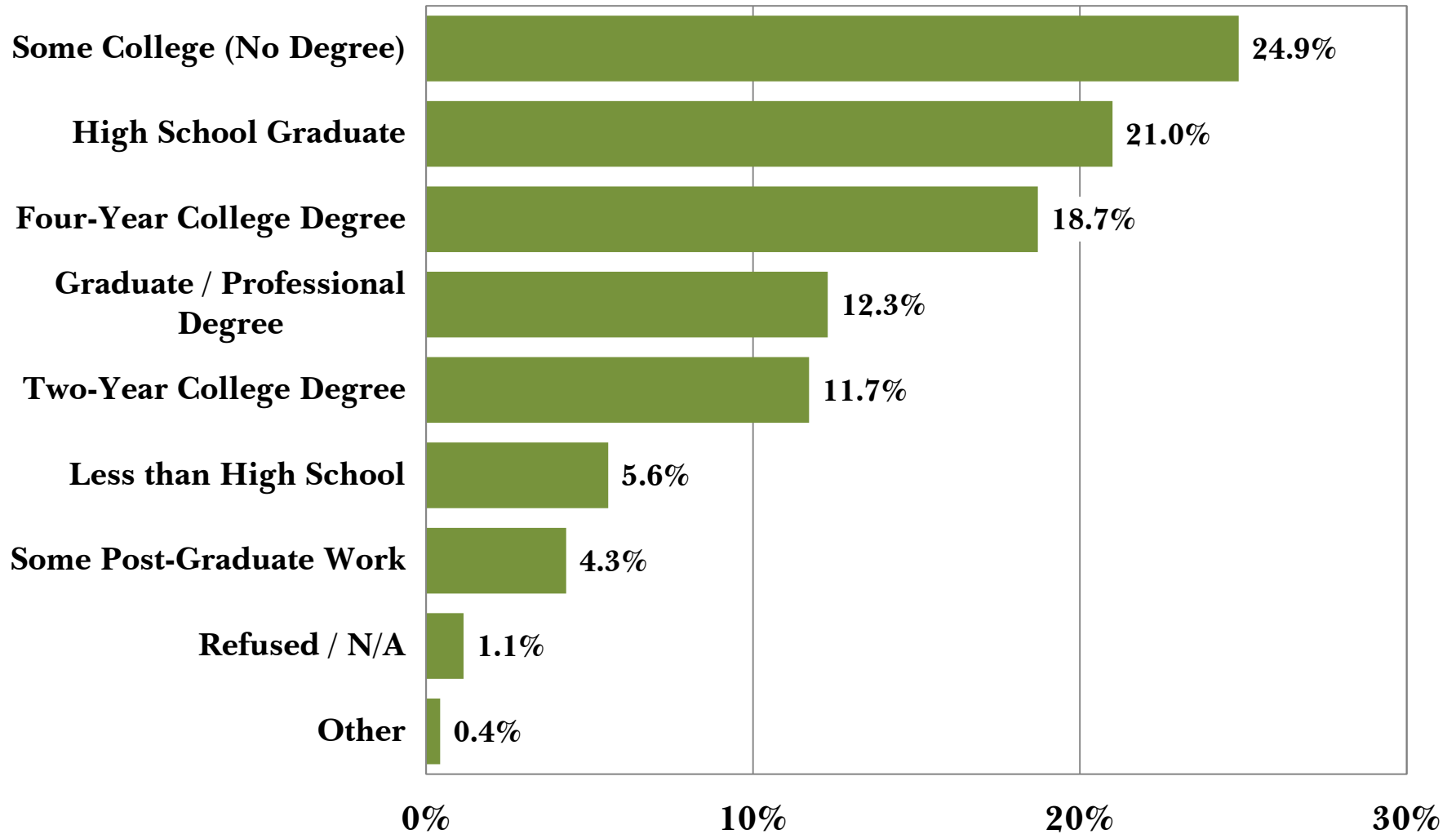
Question 34

Race / Ethnic Classification? (N = 700)



Question 35

Education Attainment (Highest Level)? (N = 700)

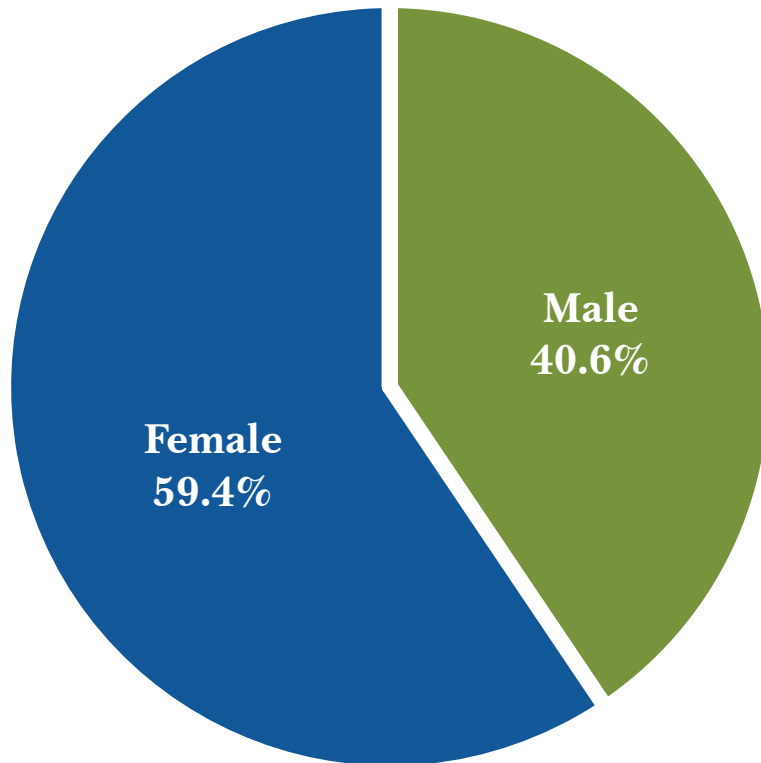


Question 36

Gender observation and zip codes.

Survey Respondents

(N = 700)



Survey Respondents

(N = 700)

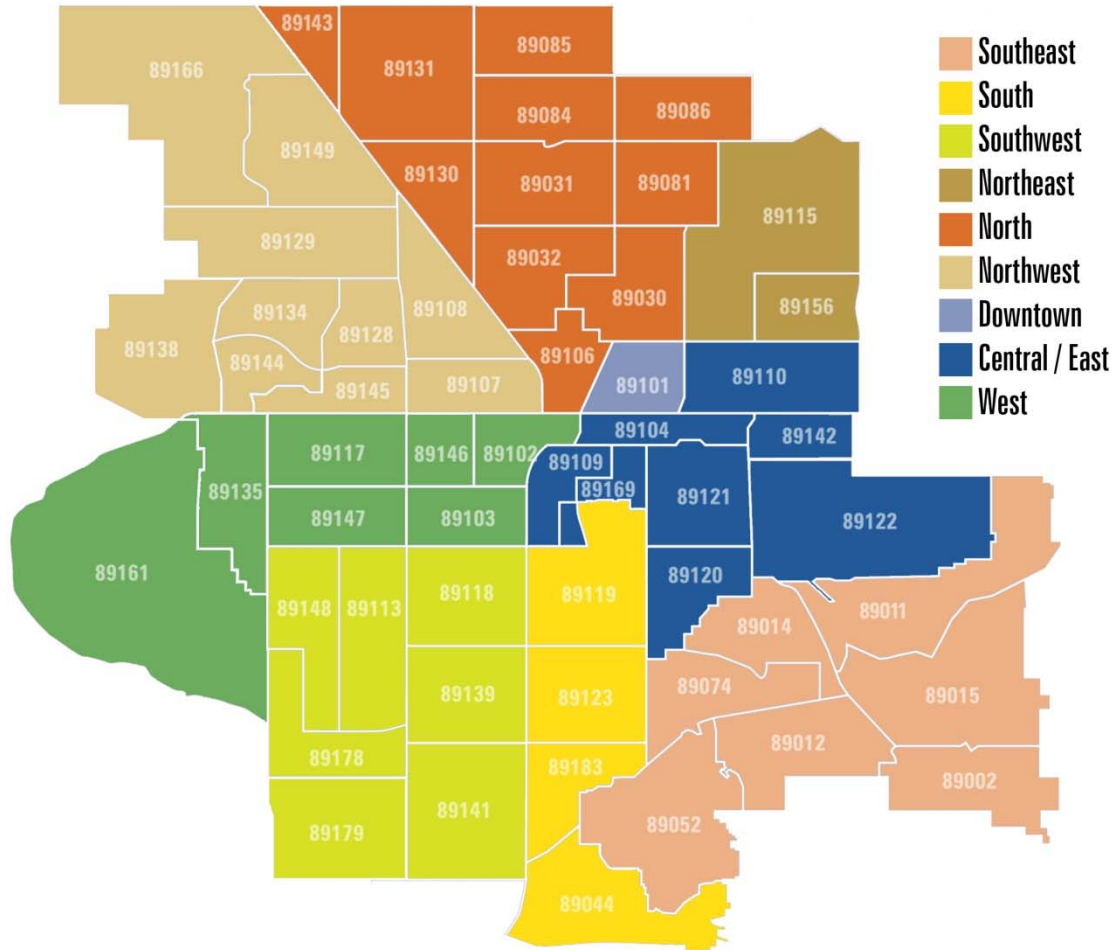
Zip Code	Percent of Total
89031	4.1%
89015	4.0%
89002	3.7%
89110	3.4%
89108	3.3%
89123	3.0%
89052	2.9%
89131	2.7%
89148	2.7%
89107	2.4%
89130	2.4%
89142	2.4%
89032	2.3%
89074	2.3%
89121	2.3%
89128	2.3%
89115	2.1%
Other	51.6%

Question 36

Residence of Respondent

Survey Respondents

(N = 700)



Submarket	Percent of Total
Southeast	18.0%
South	8.0%
Southwest	7.4%
Northeast	4.4%
North	19.4%
Northwest	15.3%
Downtown	1.7%
Central / East	14.4%
West	9.4%
Outlying areas	1.9%

CLARK COUNTY
REGIONAL FLOOD
CONTROL DISTRICT



Flood Awareness Survey

2011

APPLIED
ANALYSIS





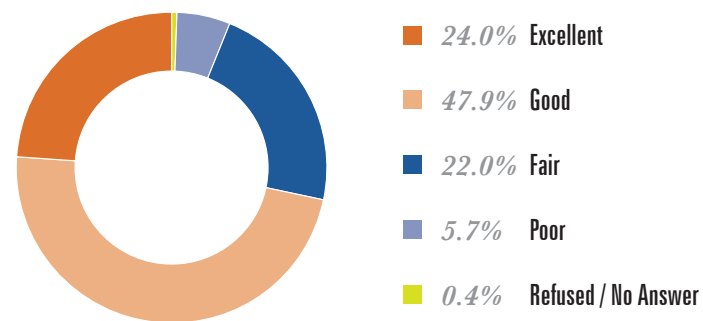
2011 Flood Awareness Survey Summary Sheet

Knowledge of Stormwater, Urban Runoff and the Flood Control System

The community's knowledge of the flood control system continues to improve with nearly 3 out of 4 respondents understanding that streets are part of the flood control system. This is an improvement over 2008 (57.0 percent) and 2009 (62.0 percent). Those who believe that urban runoff travels through the flood control system and drains into Lake Mead increased substantially to 81.1 percent, nearly a 35-percentage-point increase from 2009. Respondents who understand that storm water and urban runoff is untreated before it reached Lake Mead posted a modest increase to 57.7 percent, up from 54.0 percent in 2009.

“ I have seen the way it has changed over the past 20 years. Flood control is working. ”

Clark County Regional Flood Control District's Approval Rating



The Clark County Regional Flood Control District's Approval rating compares favorably with the national efforts to inform citizens of flood-related risks. A 2011 FEMA report indicates that only 68 percent of citizens nationally are satisfied with their local official's efforts to inform them about flood risk.



Behavior Changes to Help Protect the Environment and Lake Mead

When asked about specific lifestyle activities, respondents were asked to rate on a scale of 1 to 10, whether the activity had no negative impact (1) or a serious negative impact (10) on Lake Mead. Average responses are ranked in the table below.



ACTIVITY	AVERAGE
Littering	7.53
Proper disposal of chemicals	6.02
Proper disposal of oil	5.88
Proper disposal of garbage	5.50
Reporting of clogged storm drains	5.24
Reducing use of water	5.04
Use of commercial car washes	5.02
Limiting grass in homes / businesses	5.00
Convert to desert landscaping	5.00

ACTIVITY	AVERAGE
Proper disposal / clean up of pet waste	4.99
Recycling	4.82
Using organic fertilizers	4.82
Using reusable bags	4.53
Using green products	4.42
Getting smog checks	4.38
Composting	4.38
Use of solar cells	3.87



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2011 Flood Awareness Survey Summary Sheet

Survey Purpose

An important component of the Clark County Regional Flood Control District's Public Information Program is evaluation from the public it serves to educate and protect. Since 1999, the District has conducted a public survey every October to measure Clark County residents' awareness on the dangers of flooding in the community.

The 2011 Flood Awareness Survey was administered at random to 700 residents by local advisory firm Applied Analysis. The margin of error is ± 3.7 percent at the 95 percent confidence interval. In order to acquire an accurate sample of the population, quotas for age, gender, homeowners, and ethnicity were set. It is important to note that 7.7 percent of the surveys were conducted in Spanish.

Characteristics of the Sample

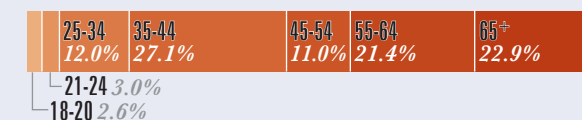
To better understand residents' knowledge surrounding flooding in Clark County, several demographic variables were acquired for additional analysis, including:

- > Age
- > Gender
- > Educational attainment
- > Ethnicity
- > Length of time in Clark County
- > Home ownership
- > ZIP code of residence

According to the Nevada State Demographer, the population of Clark County is approximately 1.97 million.



Age



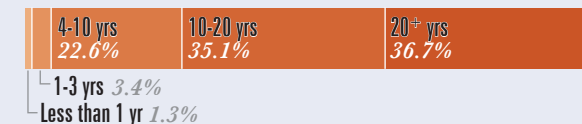
Gender



Home Ownership



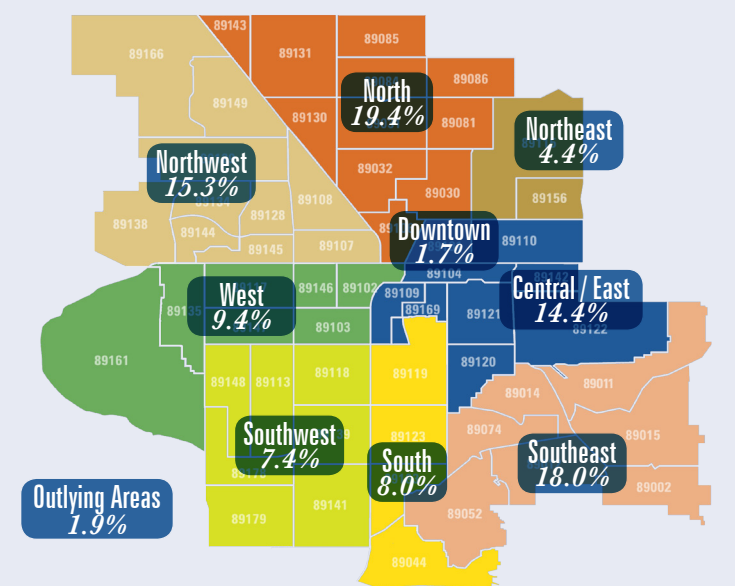
Length of Time Living in Clark County



Educational Attainment



Area of Clark County Respondents Live In





“ Mainly it has been the commercials on television and the billboards that I remember the most. ”

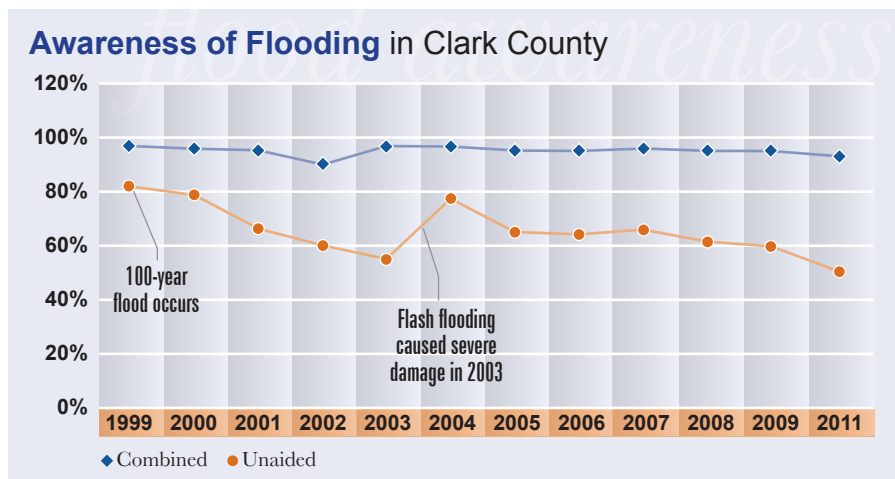
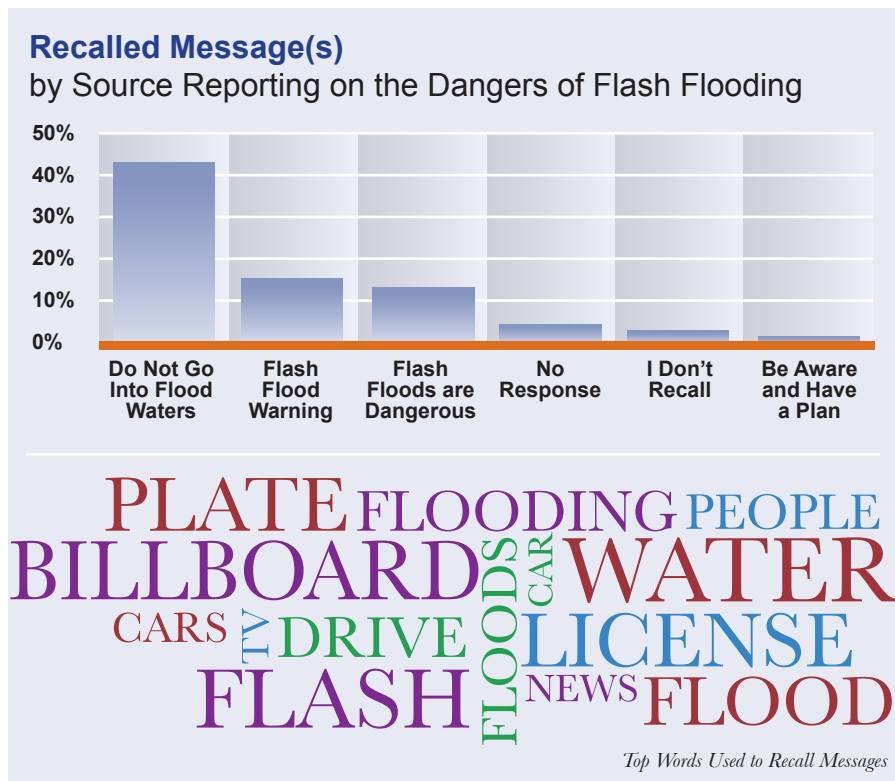


Program Recall of Respondents Who Have Watched *The Flood Channel*

Subscribers to Cox Digital Cable have declined in recent years, with only 53.6 percent of those sampled having Cox Digital Cable. Of these, 38.1 percent have watched *The Flood Channel*. This group is largely composed of residents who have lived in Clark County for more than 10 years (85.3 percent) with 60.1 percent over the age of 45. In addition to being older and more familiar with the community, 71.3 percent of viewers identify themselves as white or Caucasian; 80.3 percent are homeowners; and 62.9 percent are female. Additionally, 50.3 percent have obtained at least a two-year college degree.

Awareness of Flooding in Clark County

Unaided awareness of flooding is measured by responding with “floods or flooding” unprompted to the question “what types of weather-related dangers are you aware of that can occur in Clark County?” Combined awareness is the total percentage of respondents who are aware of flooding as a weather-related danger after being prompted by the question “are you aware of flooding as a weather-related natural danger?” The chart to the right shows the results from data collected from 1999 to present regarding flood awareness among Clark County residents.



“ They always have it [*flash floods*] on the news when the season comes around. ”

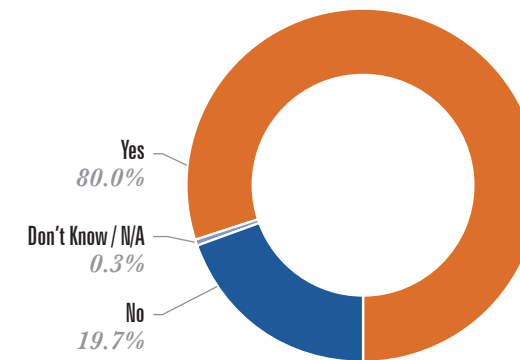
Sources of Education and Information

FLOOD RELATED ISSUE	2007	2008	2009	2011
1. Television	90%	90%	88%	91%
2. Newspaper	60%	58%	58%	42%
3. Friends/Relatives	54%	56%	58%	56%
4. Radio	60%	57%	56%	73%
5. Billboards	51%	53%	56%	67%
6. CCRFCD Website	29%	20%	21%	43%

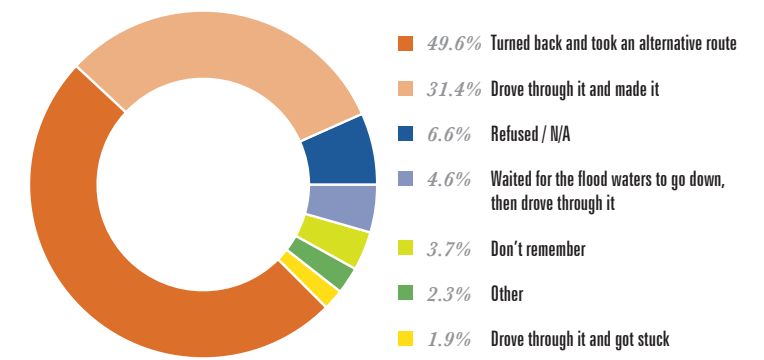
Sources of Flash Flooding Education and Information

Survey respondents were asked to respond with a “Yes” if they recall learning about flash flooding from various sources and “No” if they did not. In 2011, television continued to be the top medium for acquiring information about flash flooding. Additionally, 93.0 percent of respondents said they learned about flash flooding from news reports. Nationally, 59.0 percent of citizens surveyed by FEMA in 2011 said they expected the local media to update them about their community’s risk of flooding.

8 out of 10 respondents have encountered a flooded street while in a vehicle.



Which of the following statements best describes what you or the driver did?



Behavior When Encountering A Flooded Street

Of those encountering a flooded street, 54.2 percent made a decision to turn around or wait for flood waters to recede to a safe level. In 2008 and 2009, 70.0 percent and 67.0 percent made similar choices, respectively. Similar to past years, the top reason (43.8 percent) for driving through the flooded street was because they “didn’t think it was unsafe to do so.” Another 15.0 percent chose to drive through a flooded street because they “were in a hurry.”

