

REGIONAL FLOOD
CONTROL DISTRICT



2022

FLOOD AWARENESS SURVEY

APPLIED
ANALYSIS



PROJECT OVERVIEW

Research Parameters

Objective and Approach To better understand Southern Nevada resident perceptions on topics related to weather, particularly flooding, a random sample of Clark County residents were surveyed

Survey Parameters

Timeframe October 2022

Method Telephonic and web-based survey

Respondent Requirements 18 and over; non-media; quotas set for age, Hispanic/non-Hispanic descent, gender and homeowners/renters

Number of Respondents 700 (203 telephonic and 497 web-based)

Confidence Interval 95%

Margin of Error $\pm 3.7\%$

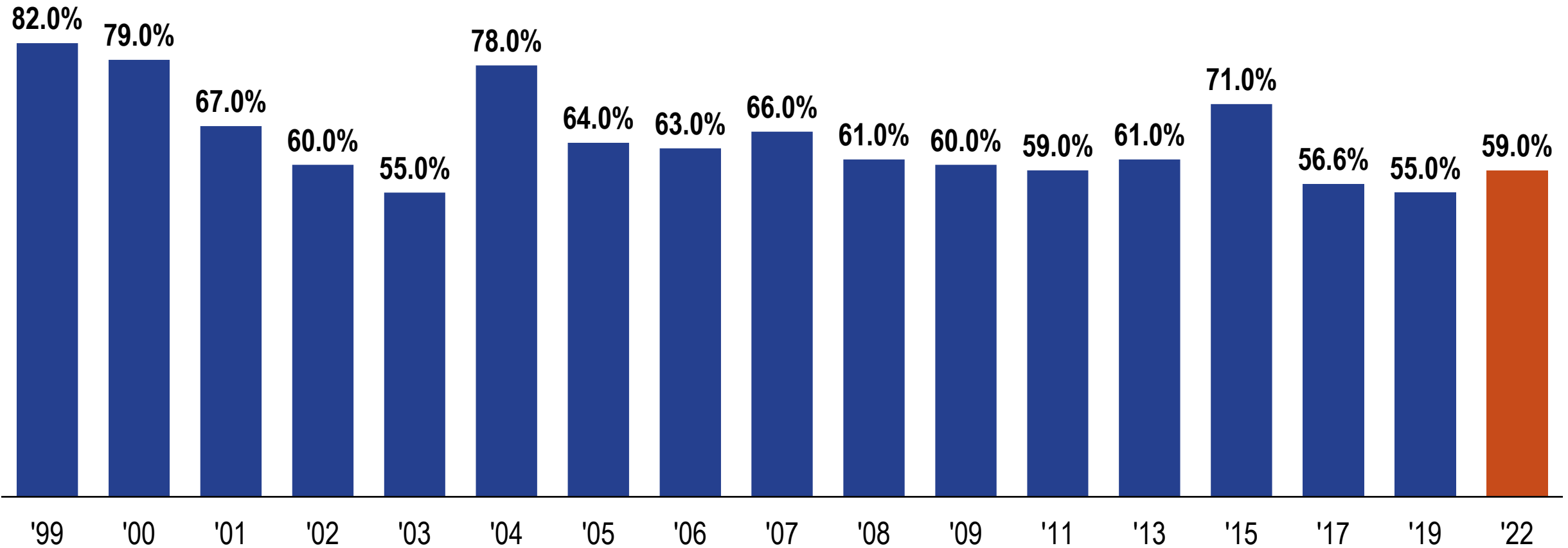
Limitations Although several steps were taken before, during and after the survey process to limit research bias and to ensure the meaningfulness of the results generated, any primary research project of this nature will have some limitations. These limitations should be considered in the evaluation of the findings provided herein.

EXECUTIVE SUMMARY

Survey Summary Narrative

- **General Flood Awareness:** Historical trends in flood awareness exhibited a slight uptick after a decrease from 2017 to 2019; now, flood awareness sits at 59.0 percent of the population. Despite this, historical trends for awareness of overall weather-related dangers are down to 69.3 percent from 74.1 percent in 2019. Of the respondents who were aware of the potential dangers of inclement weather, 85.6 percent cited “floods/flash floods” in their responses. This is a notable increase from 74.2 percent in 2019 who were aware of floods/flash floods. Furthermore, when asked to rate “floods/flash floods” as a serious threat to their local communities, 60.0 percent of respondents believe floods are a threat. Additionally, over three-fourths (77.9 percent) of respondents believe that a flash flood has occurred in Clark County within the past 12 months with four-fifths (80.9 percent) of respondents believing a flash flood is likely to occur in the next 12 months.
- **Inclement Weather Awareness:** Nearly four in five respondents (79.4 percent) stated that extreme heat was a serious threat to the local community (rank of 4 or 5 out of 5), making it the highest rated threat in 2022. Droughts ranked as the second-most serious threat to the local area. Flash floods dropped in rank from the second most concerning to third most concerning. Recent promotional activity and local initiatives regarding drought conditions and water conservation measures likely resulted in the shift in rankings.
- **Sources of Information:** Respondents reported getting information from a variety of sources in 2022. Every news medium that was inquired about experienced an increase from 2019 to 2022. The most significant increase was in respondents who learned of the dangers of flash flooding from their friends/relatives. In total, 58.6 percent of respondents indicated they heard of the dangers of flash flooding from friends/relatives – a 23.6 percent increase from 2019. Overall, it appears access to information about the dangers of flash flooding has increased.
- **Impact on Lake Mead:** When asked to rate the impact of certain activities on Lake Mead from 1 to 5 (least to greatest), reasons cited all increased. Most notably, “reducing use of water” and “converting to desert landscape” witnessed the largest increases in impact. The top three mean scores for having a very serious negative impact were littering (4.10), use of commercial car washes (3.20) and reporting of clogged storm drains (3.10).
- **Overall Outlook:** Nearly three-fifths (58.9 percent) of respondents believe that flood control in Southern Nevada is being handled in either an “excellent” way or a “good” way. Overall, awareness of hazardous weather and hazardous environmental activities has improved.

Historical Trend in Flood Awareness (Unprompted Responses)

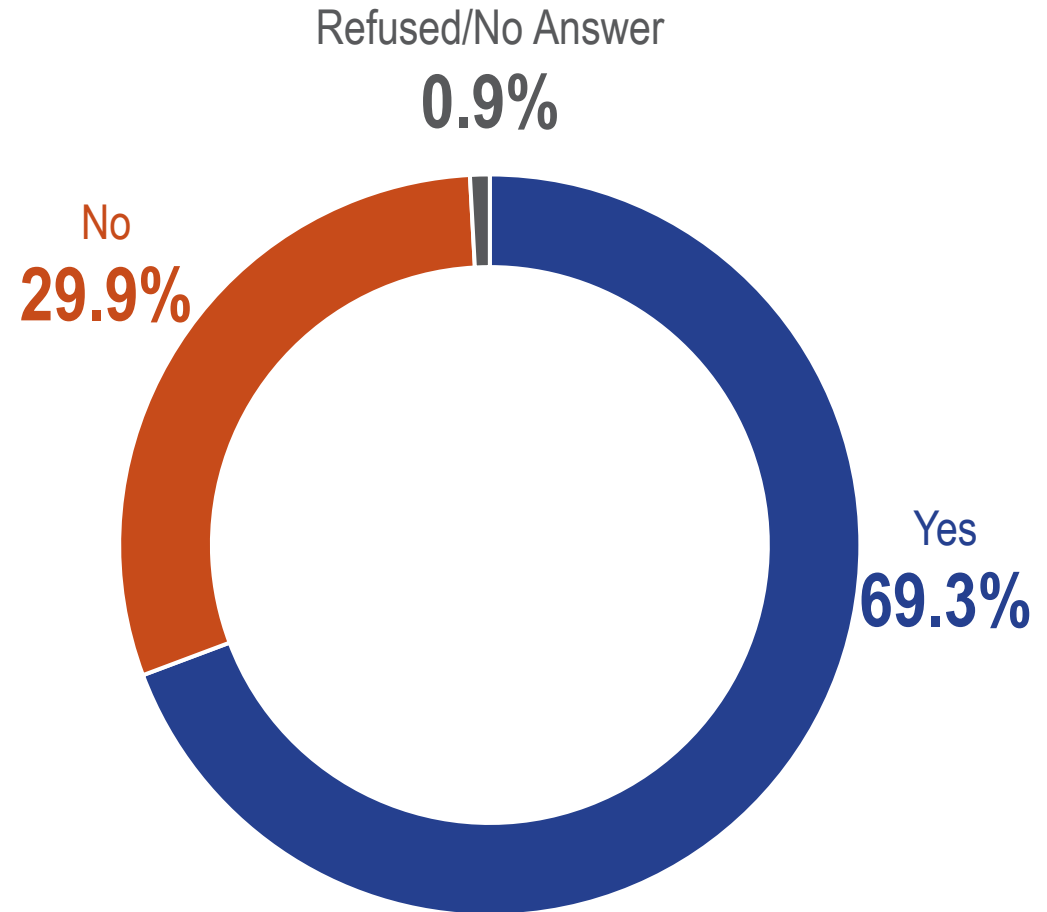


Note: Unprompted response reflects the share of respondents that are aware of weather-related dangers and that flash floods can occur in the area.

SURVEY RESULTS

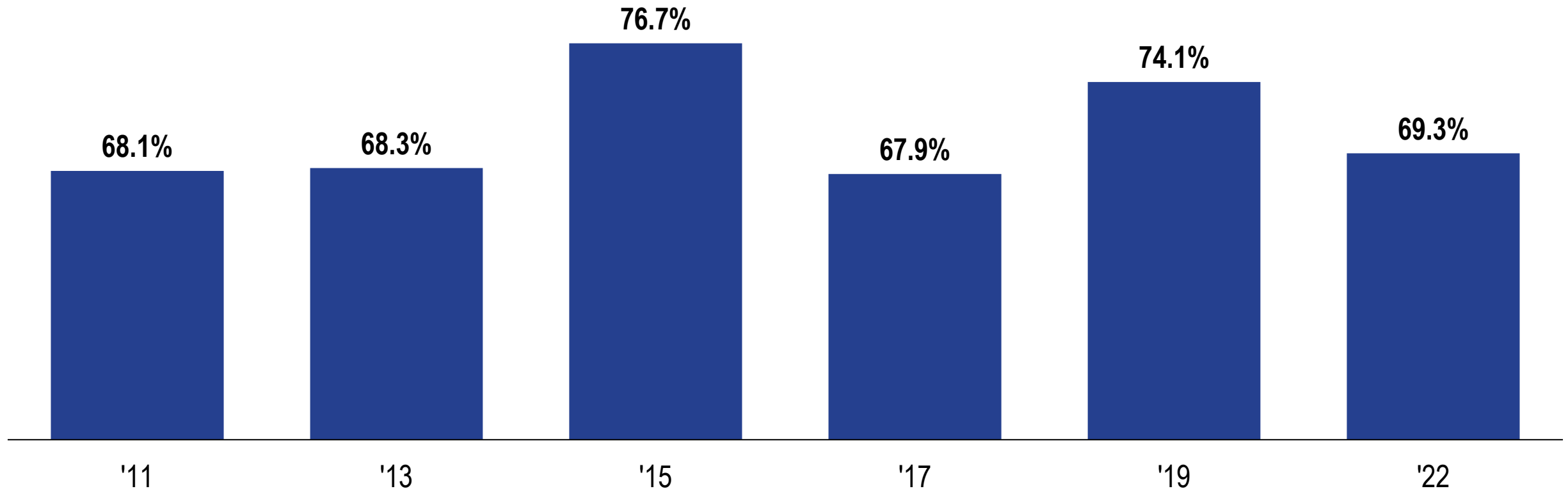
Are you aware of any weather-related dangers that can occur in the Southern Nevada area?

Over two-thirds of respondents are aware of weather-related dangers in the Southern Nevada area.

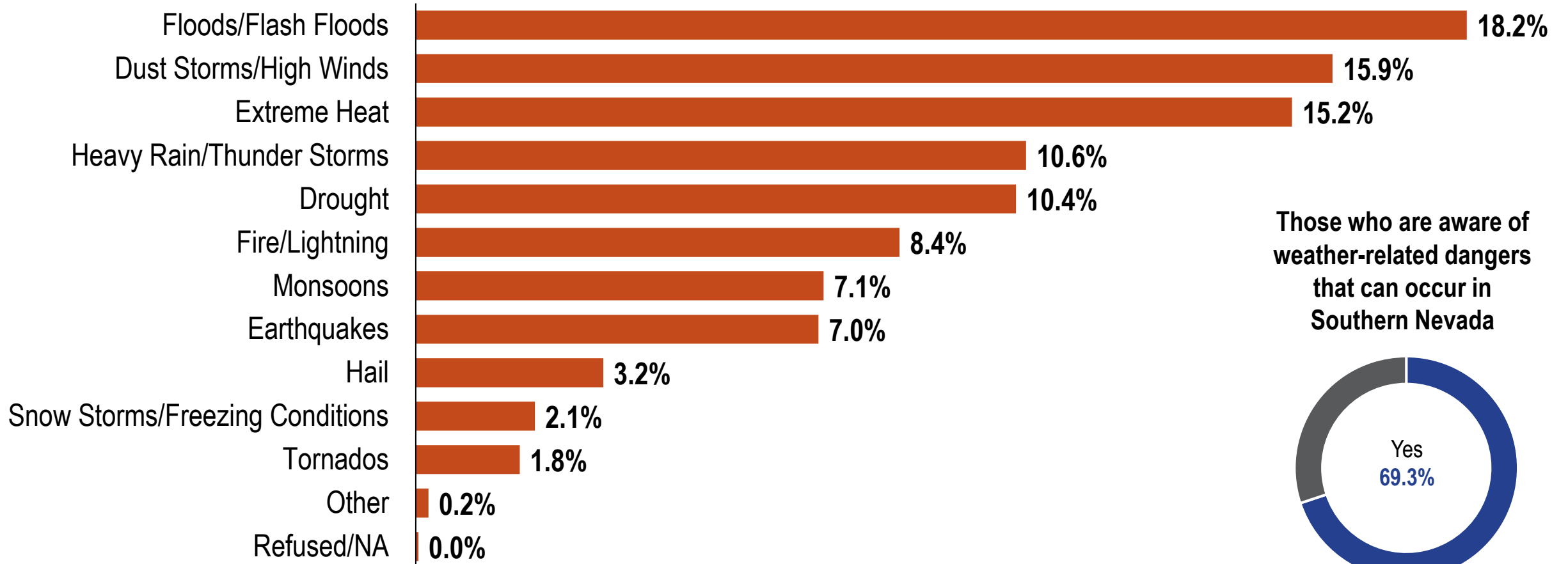


N = 700

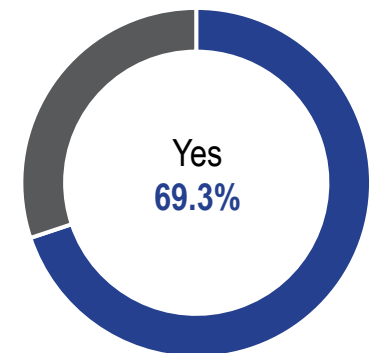
Are you aware of any weather-related dangers that can occur in the Southern Nevada area? Historical Trend (Yes)



What types of weather-related dangers are you aware of that can occur in the area? Share of Responses

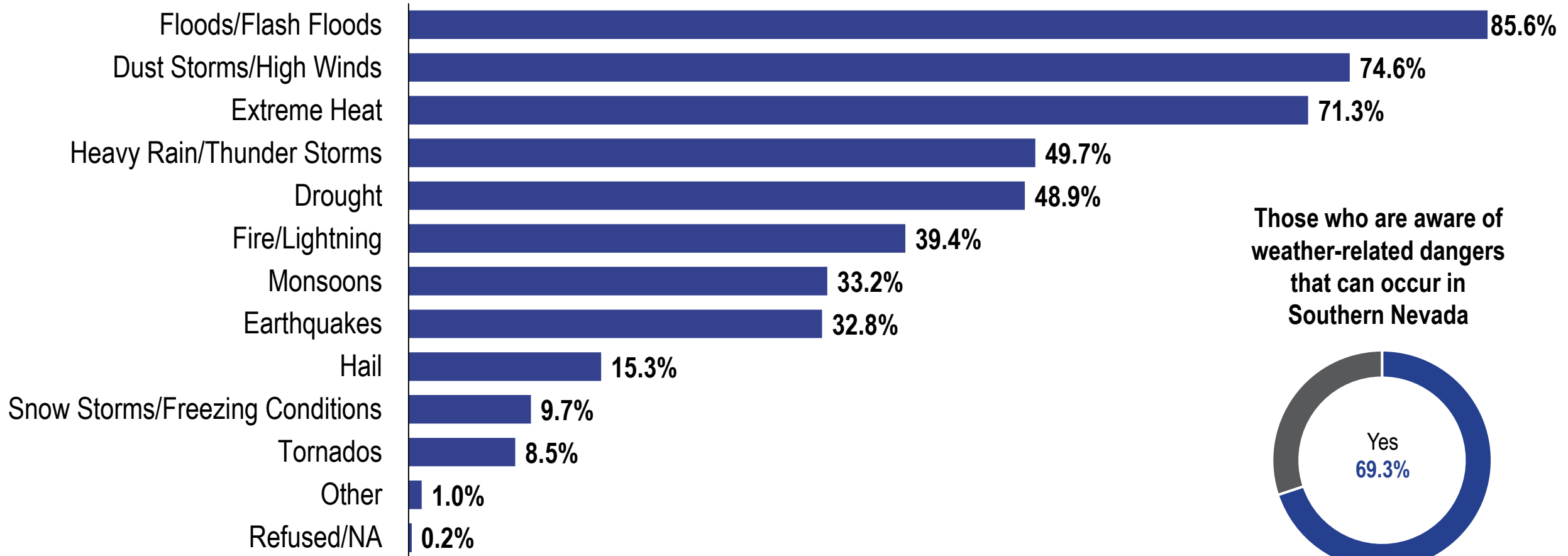


Those who are aware of weather-related dangers that can occur in Southern Nevada

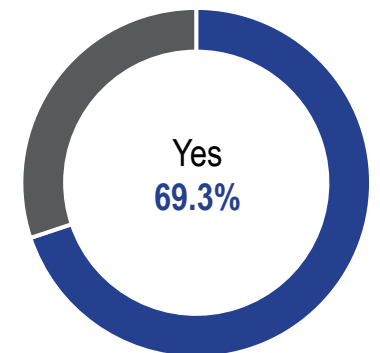


N = 2,280

What types of weather-related dangers are you aware of that can occur in the area? Share of Respondents



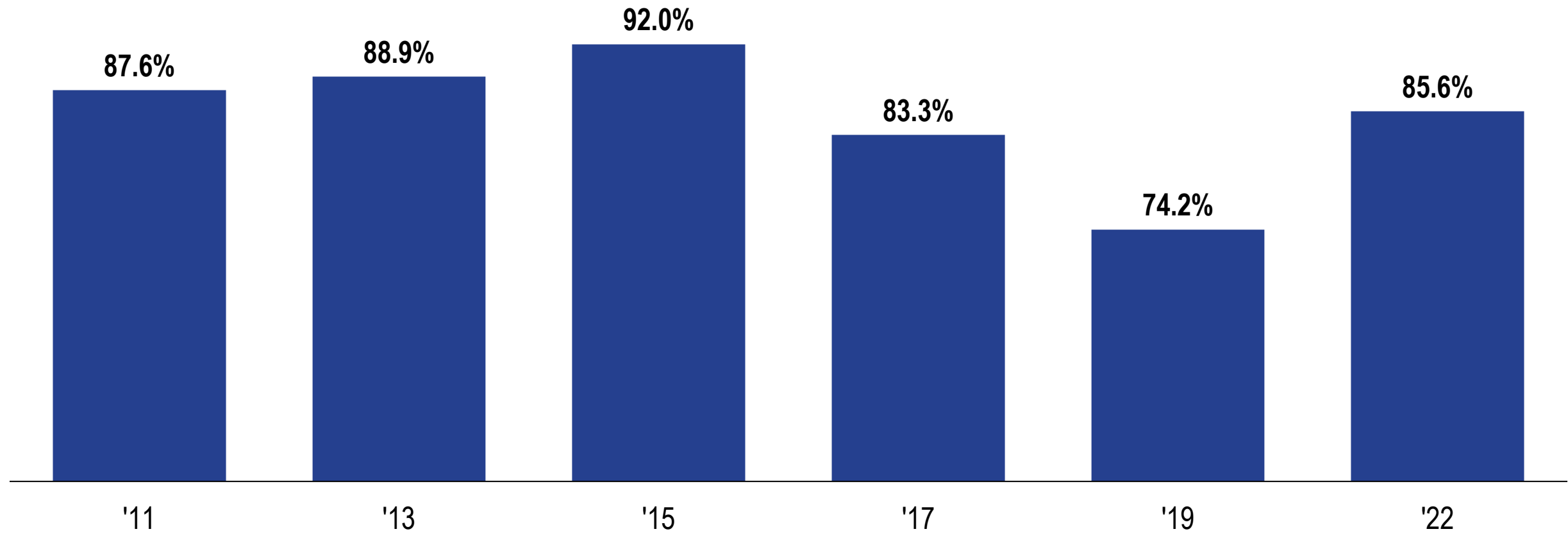
Those who are aware of weather-related dangers that can occur in Southern Nevada



Note: This is a multiple response question. Results may exceed 100 percent.

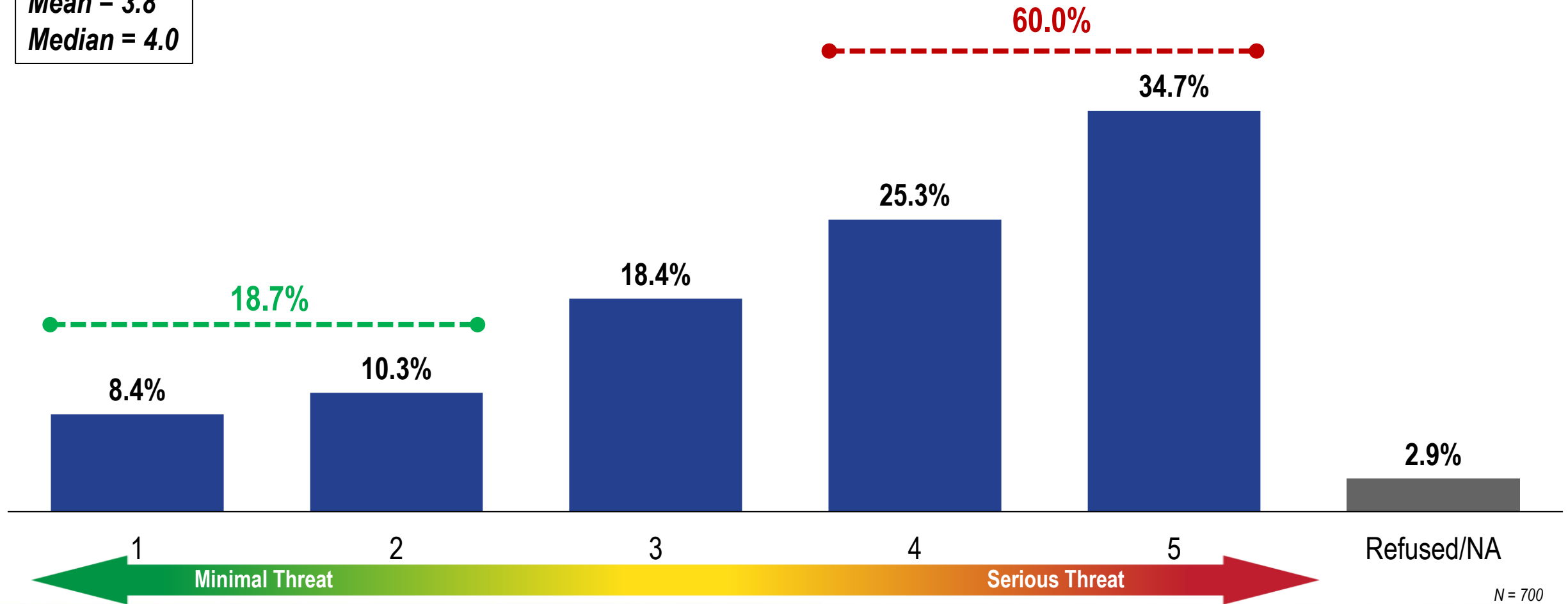
N = 485

What types of weather-related dangers are you aware of that can occur in the area? Historical Trend (Floods/Flash Floods)



A: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Floods/Flash Floods

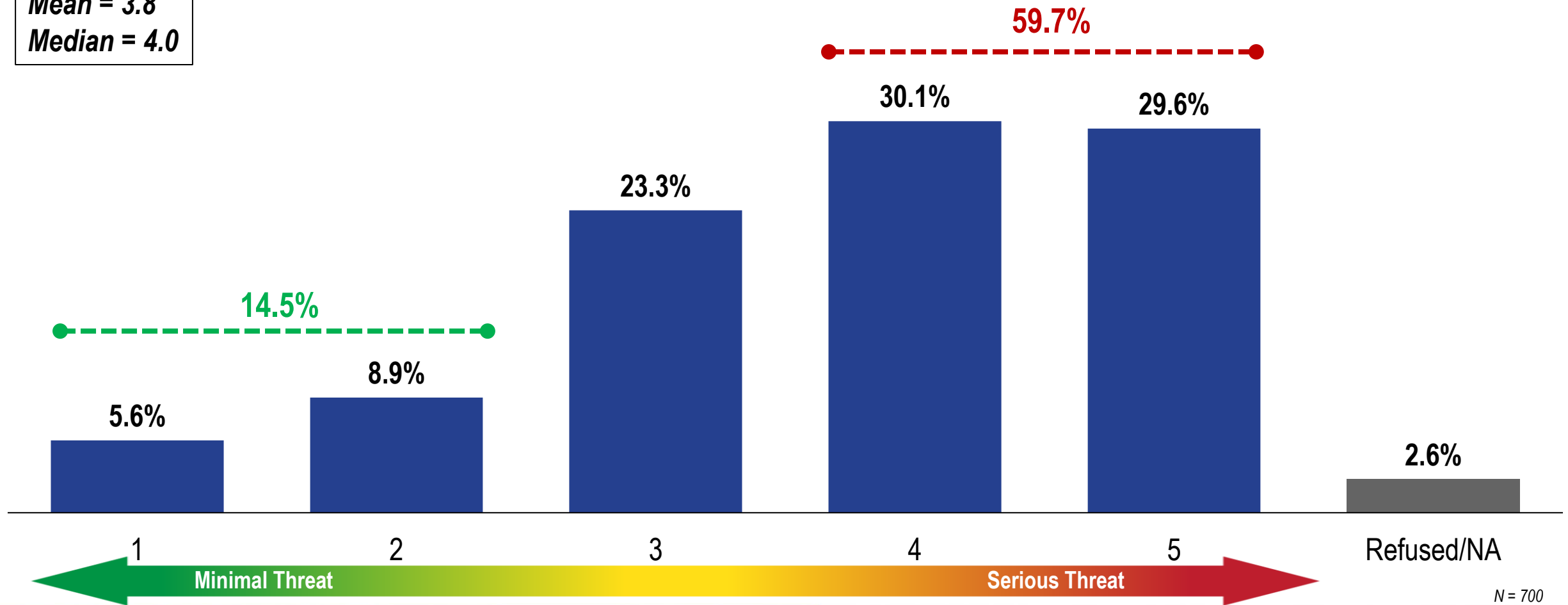
Mean = 3.8
Median = 4.0



N = 700

B: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Dust Storms/High Winds

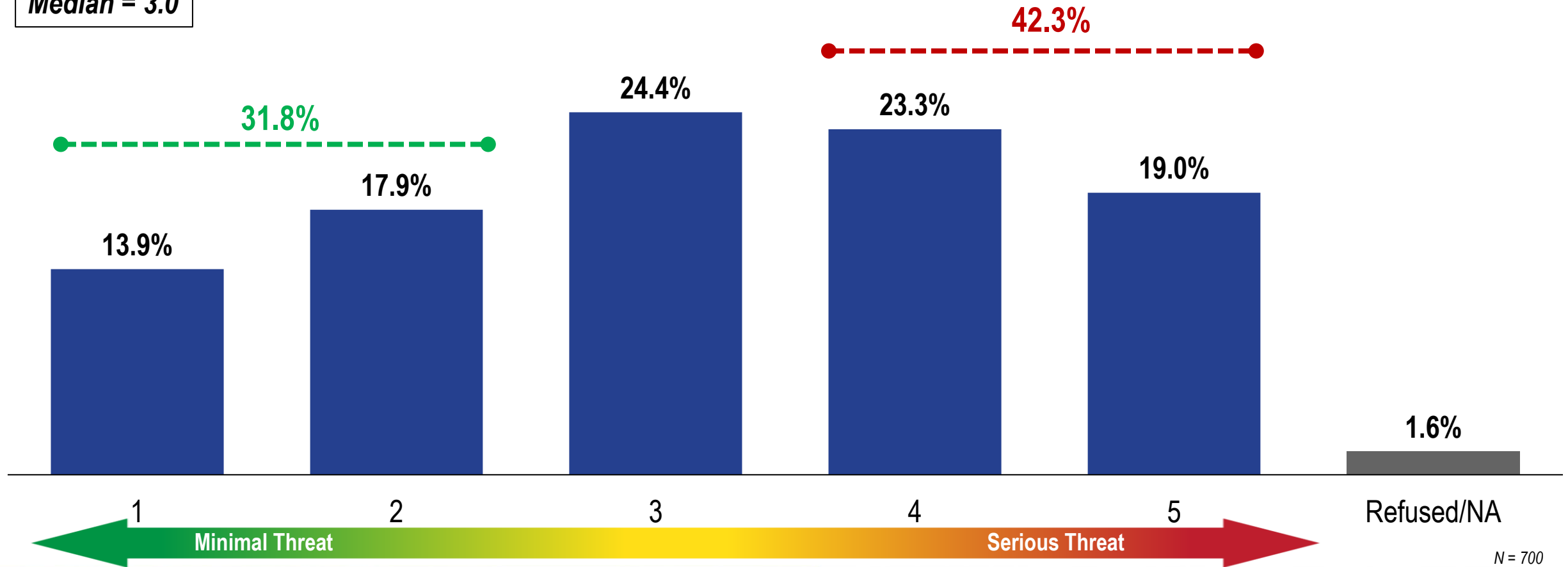
Mean = 3.8
Median = 4.0



N = 700

C: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Heavy Rain/Thunder Storms

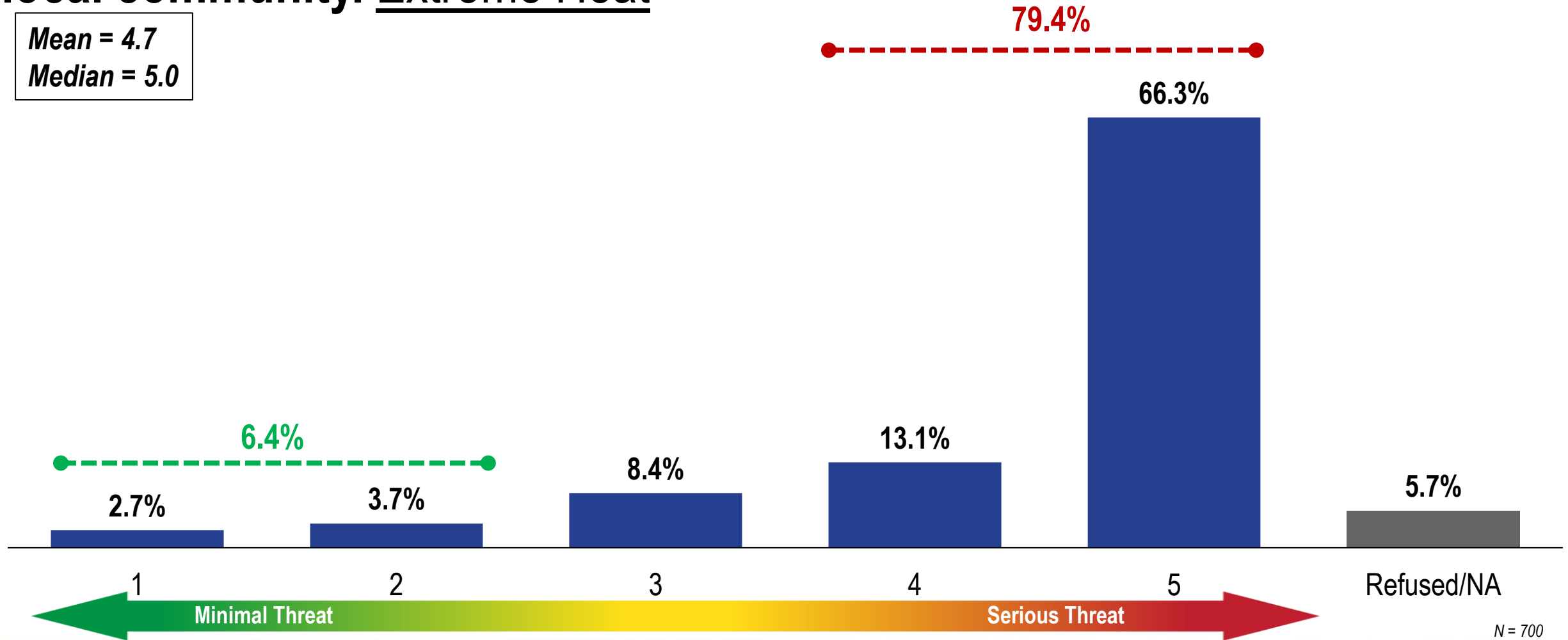
Mean = 3.3
Median = 3.0



N = 700

D: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Extreme Heat

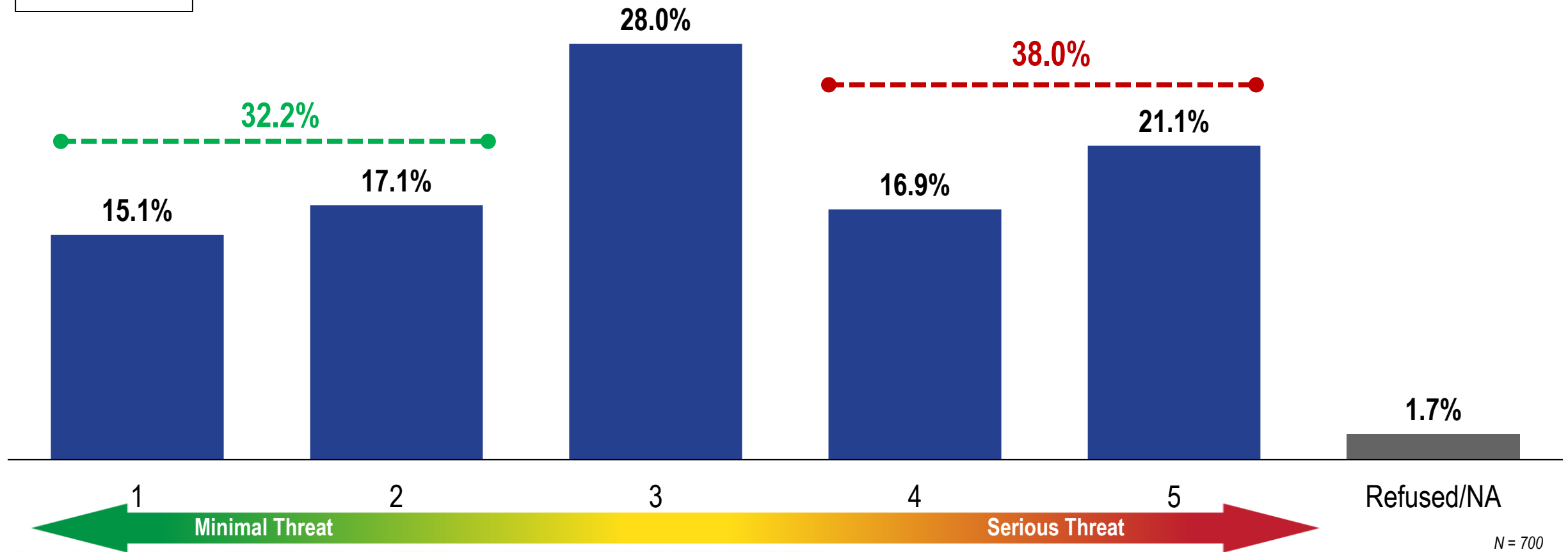
Mean = 4.7
Median = 5.0



N = 700

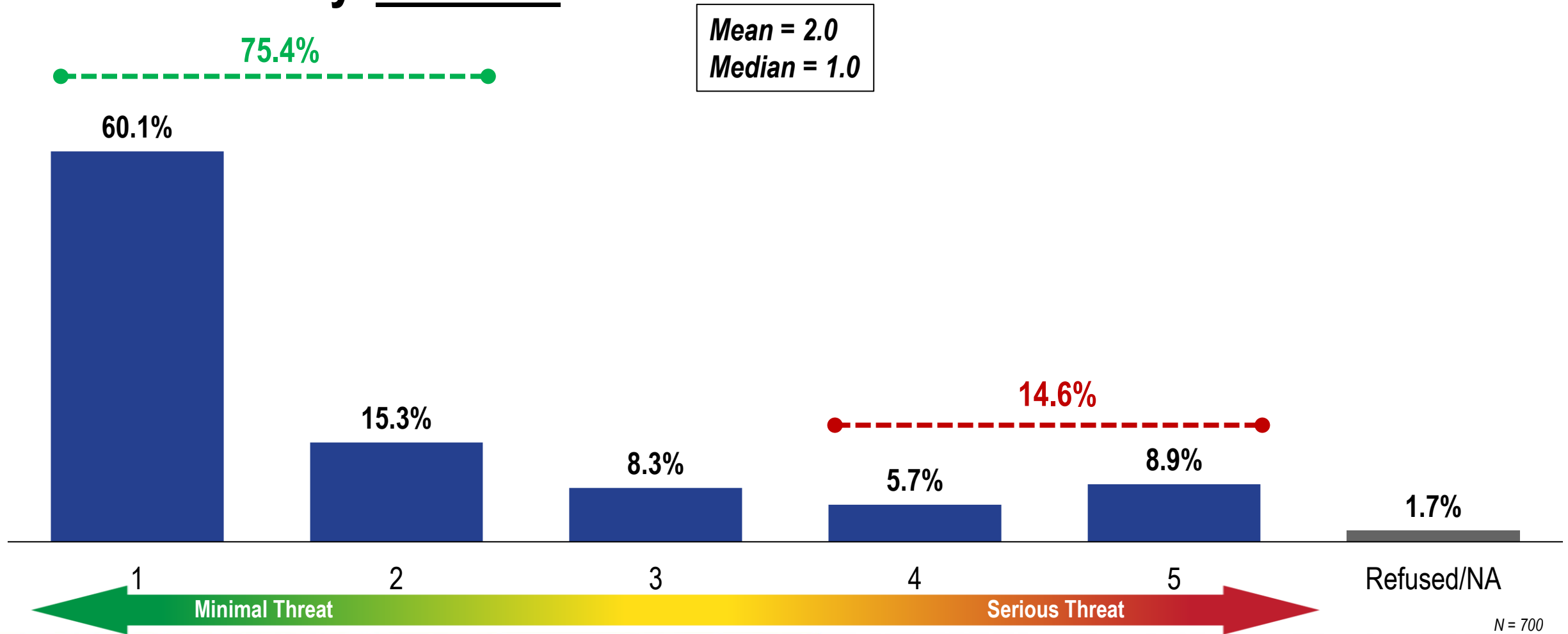
E: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Fire/Lightning

Mean = 3.2
Median = 3.0



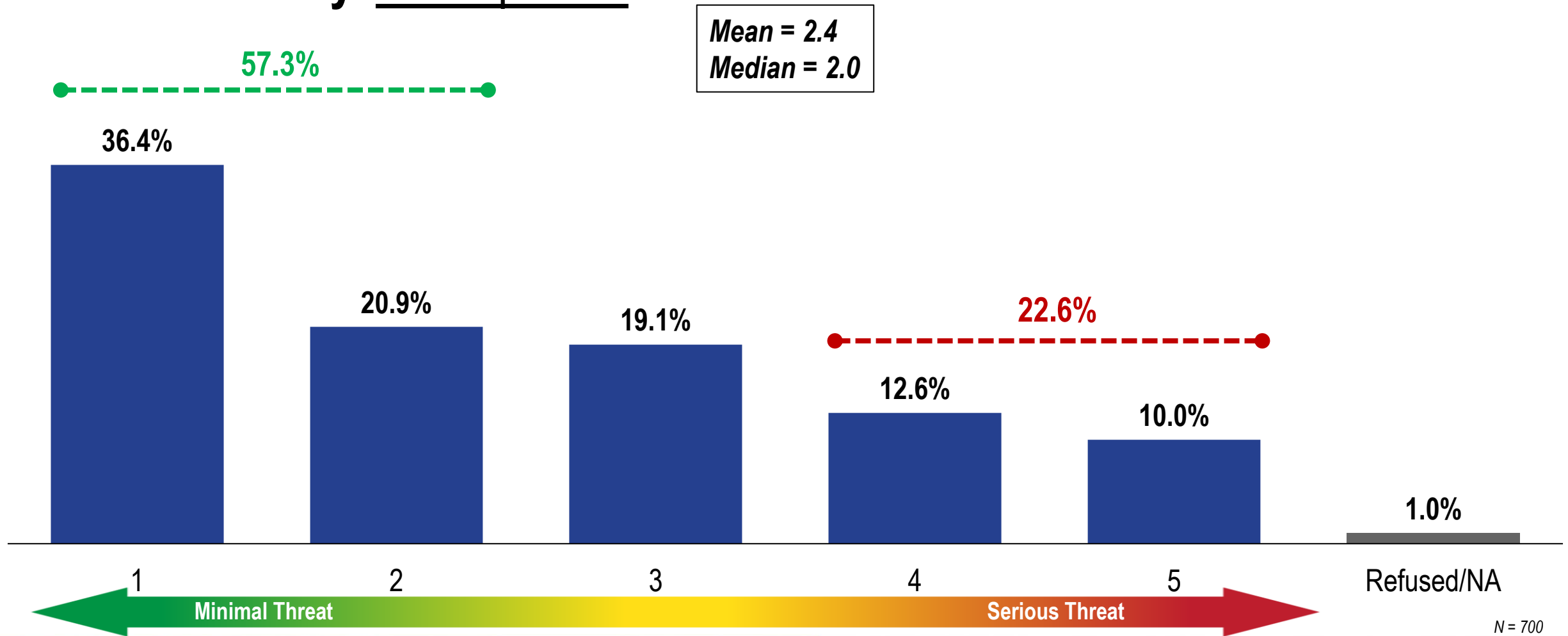
N = 700

F: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Tornados



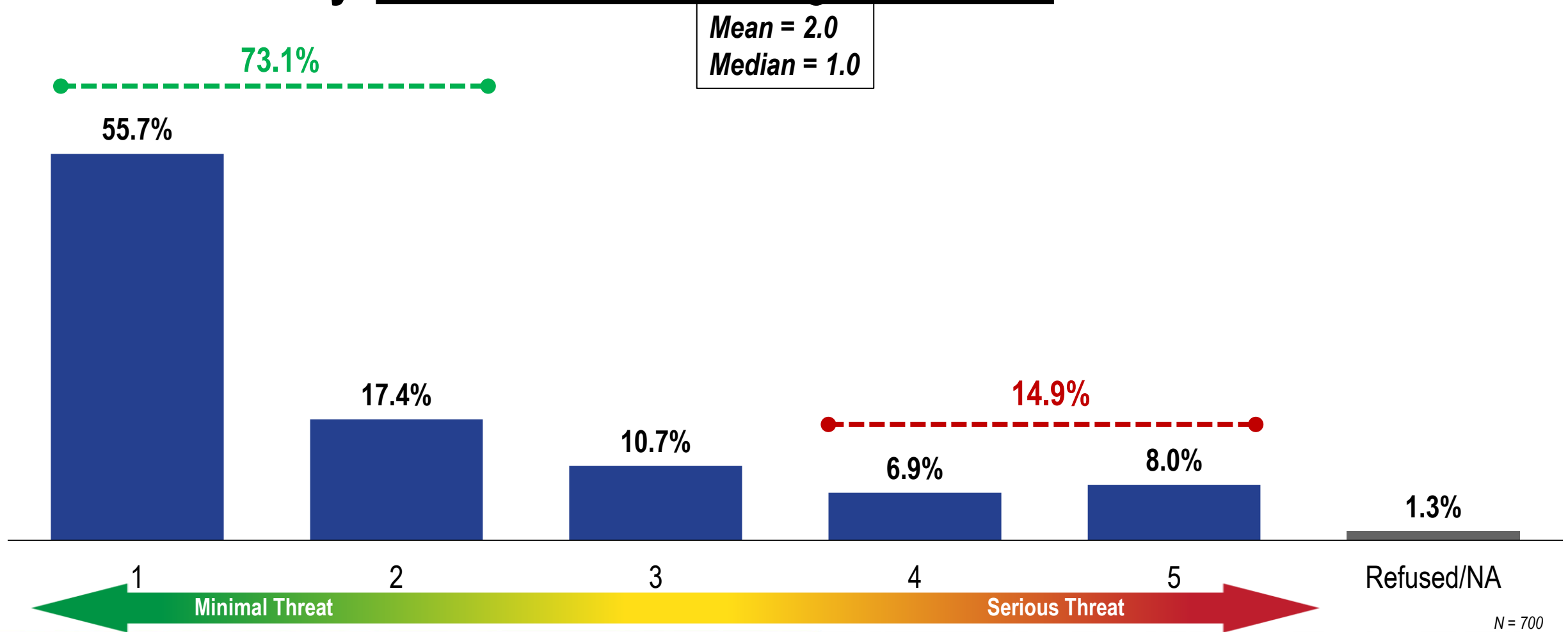
N = 700

G: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Earthquakes



N = 700

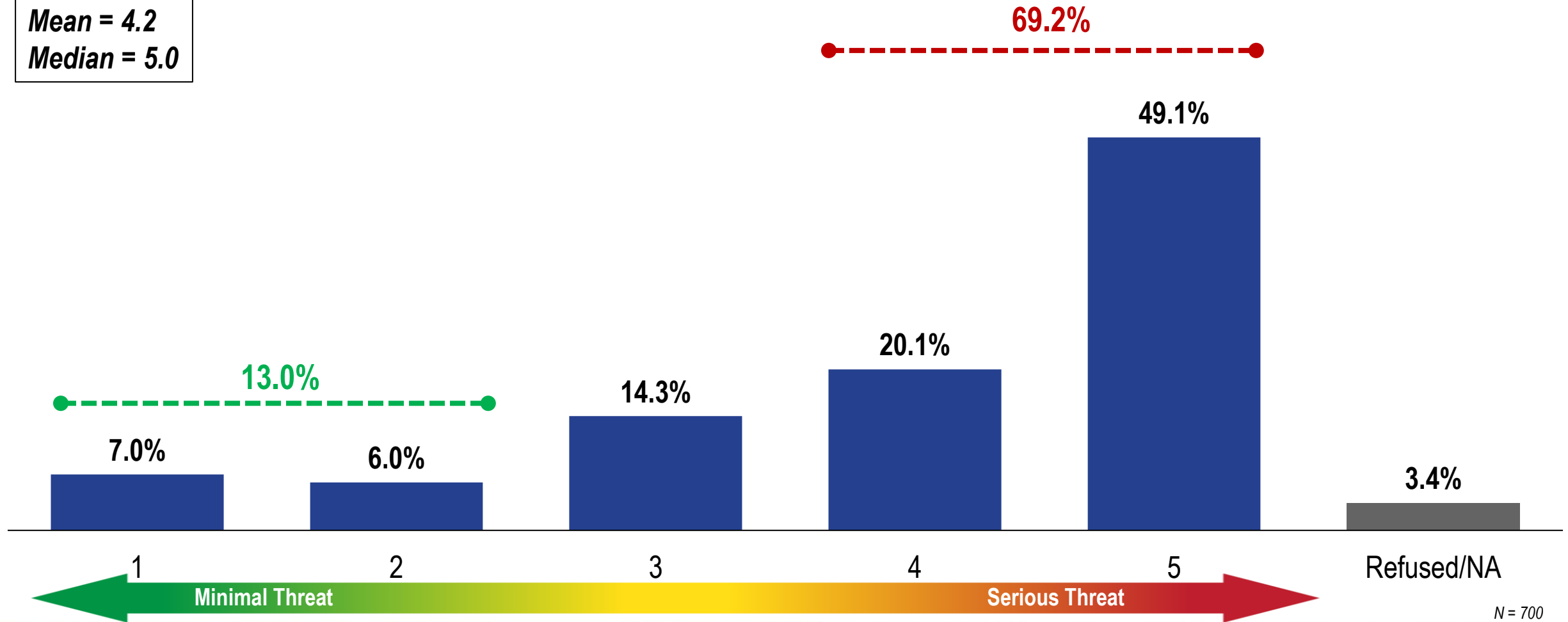
H: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Snow Storms/Freezing Conditions



N = 700

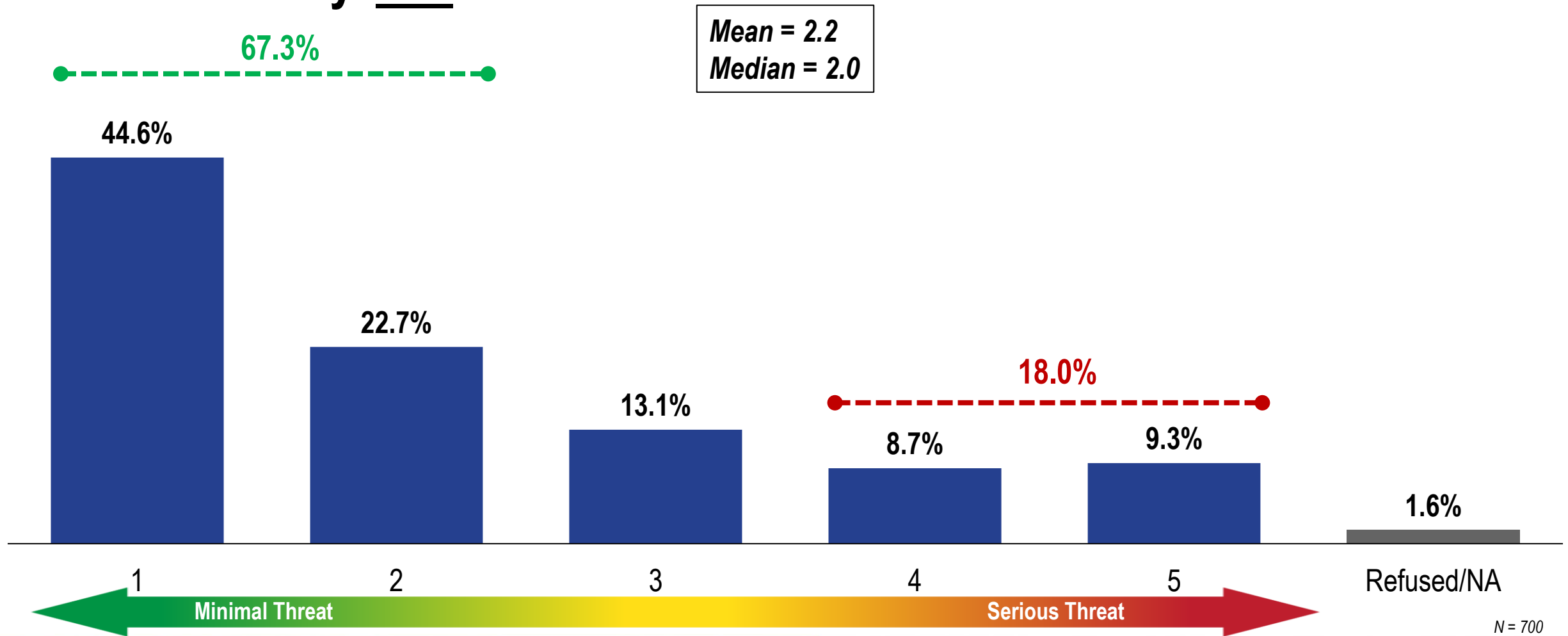
I: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Drought

Mean = 4.2
Median = 5.0



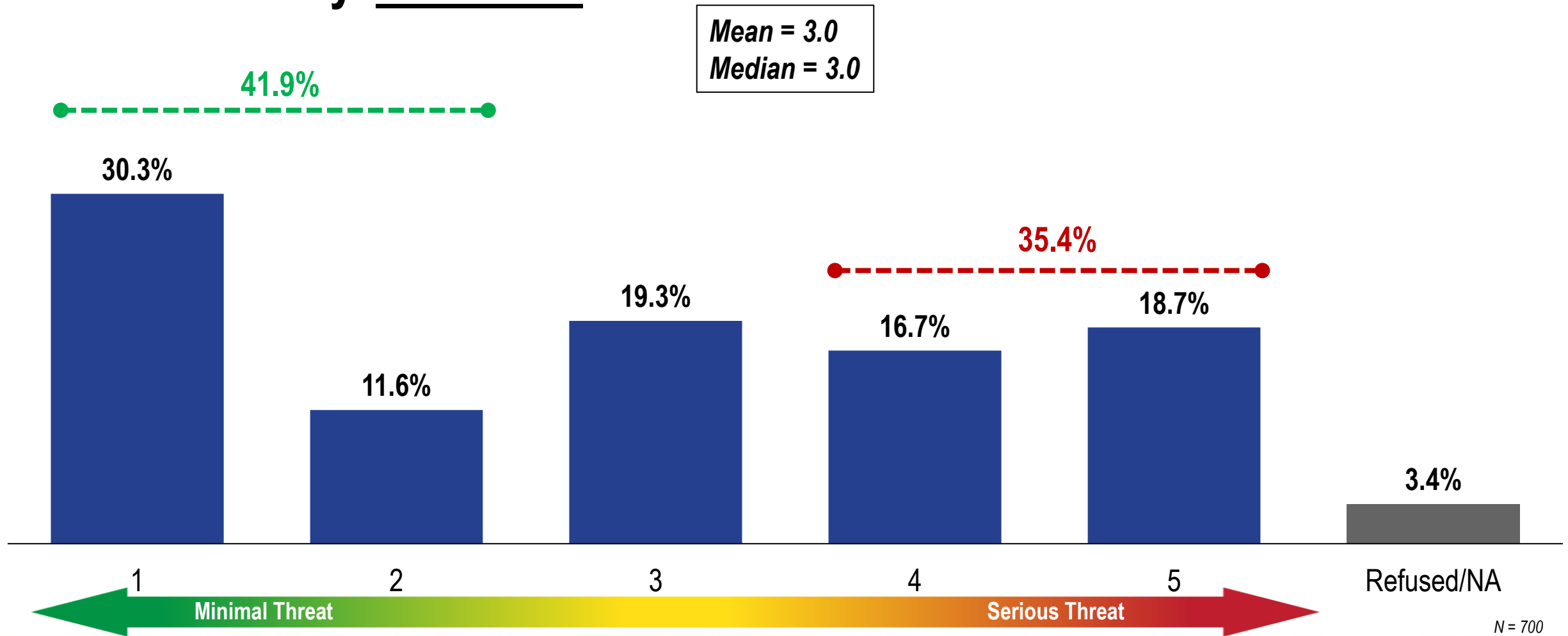
N = 700

J: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Hail



N = 700

K: Please rate each one of these using a scale of 1 to 5, where 1 is a minimal threat to the local community and 5 is a serious threat to the local community. Monsoons



N = 700

Series: Comparing Mean Score Historical Trend

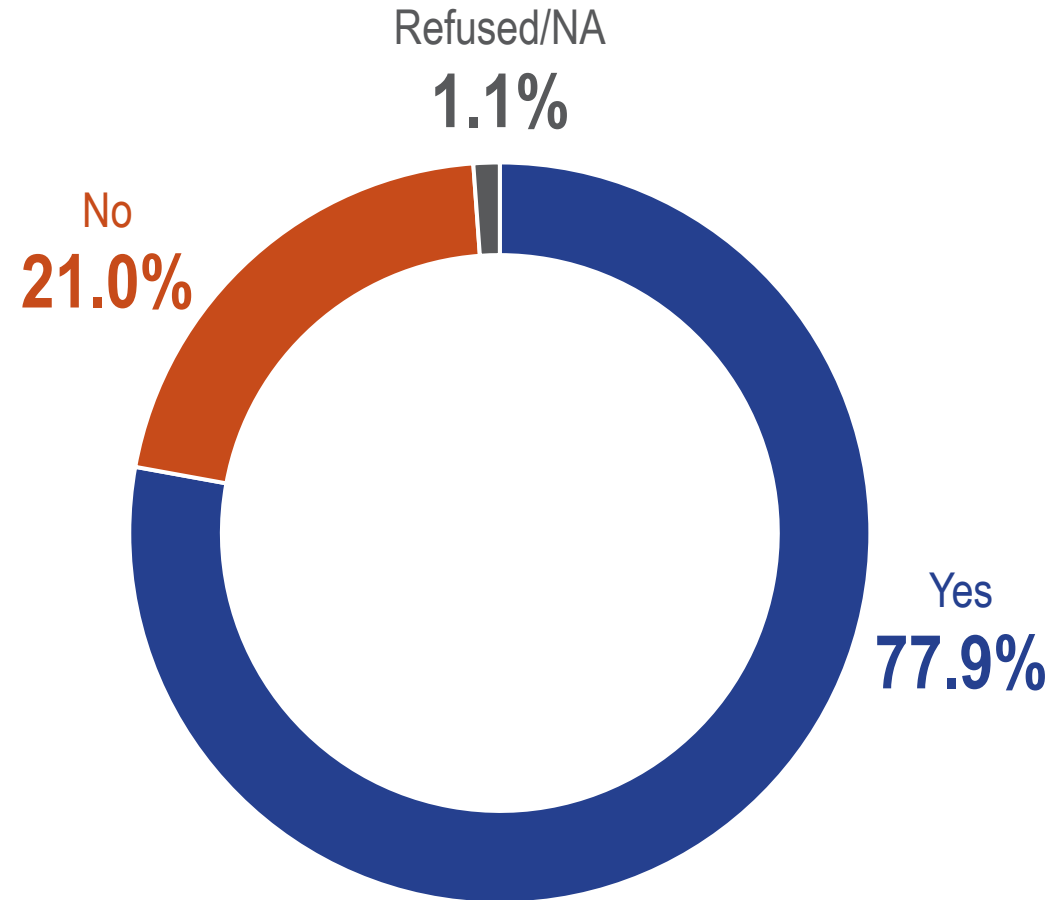
(5=Serious Threat, 1=Minimal Threat)

Weather-Related Danger	2019 Mean Score	2022 Mean Score
Extreme Heat	4.62	4.73
Drought	3.77	4.19
Floods/Flash Floods	3.87	3.85
Dust Storms/High Winds	3.65	3.85
Heavy Rain/Thunder Storms	3.31	3.25
Fire/Lightning	3.12	3.22
Monsoons	N.A.	3.03
Earthquakes	2.67	2.45
Hail	N.A.	2.25
Snow Storms/Freezing Conditions	1.66	2.02
Tornados	1.55	1.98

Note: Scores exclude respondents who did not answer the question.

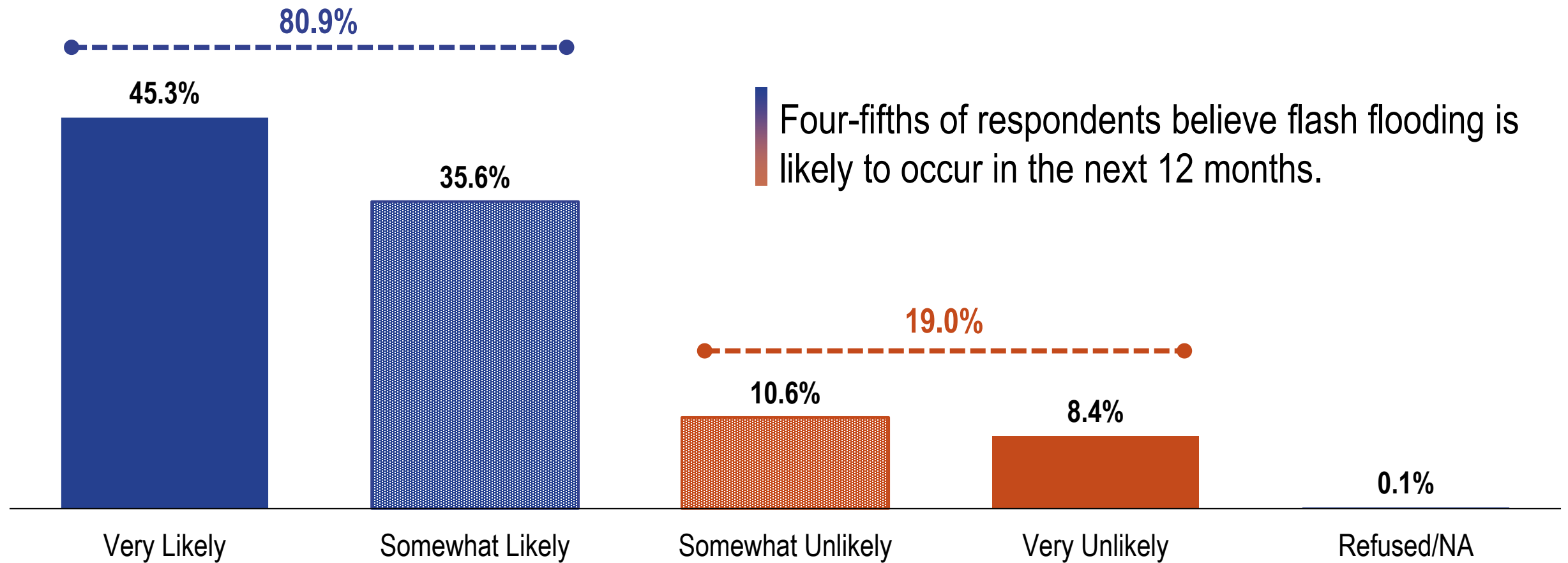
To the best of your knowledge, has a flash flood occurred in Clark County within the last 12 months?

Over three-fourths of respondents believe that a flash flood has occurred in Clark County within the past 12 months.



N = 700

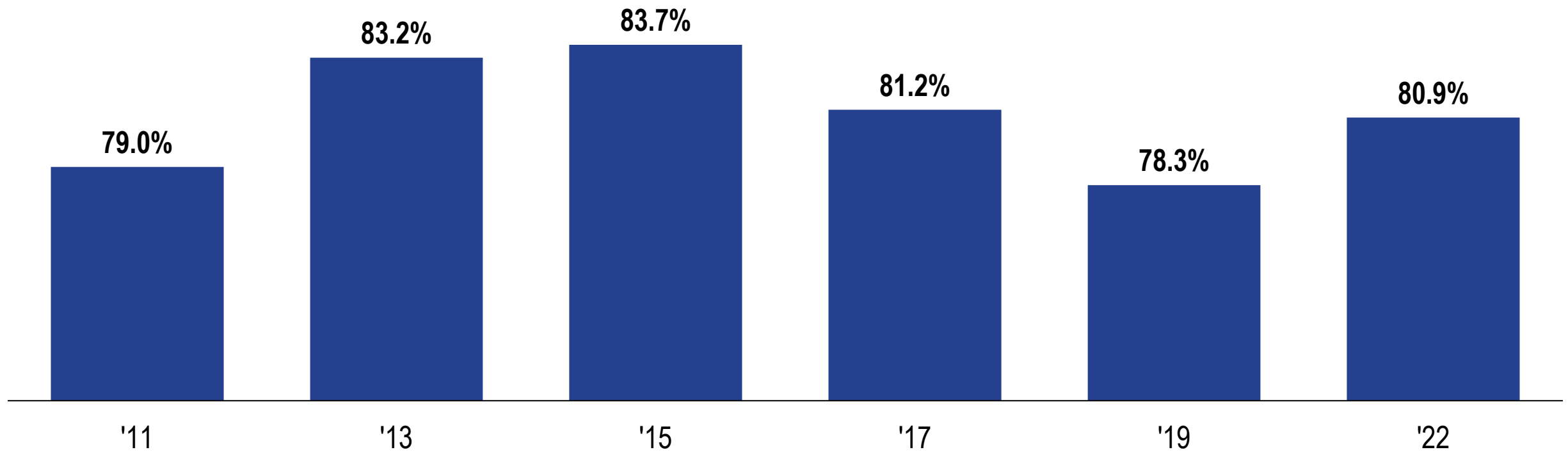
In your opinion, how likely is it that flash flooding will occur in Clark County during the next 12 months?



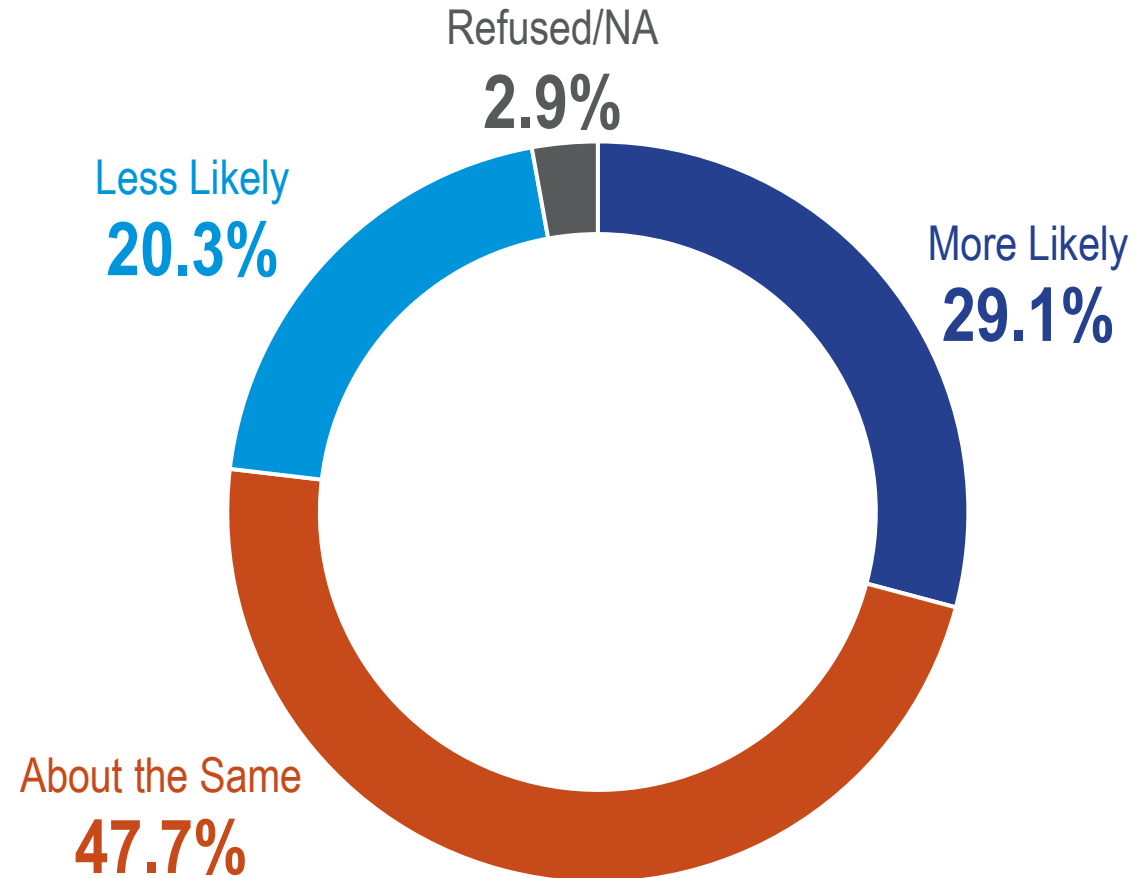
N = 700

In your opinion, how likely is it that flash flooding will occur in Clark County during the next 12 months?

Historical Trend (Likely)



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

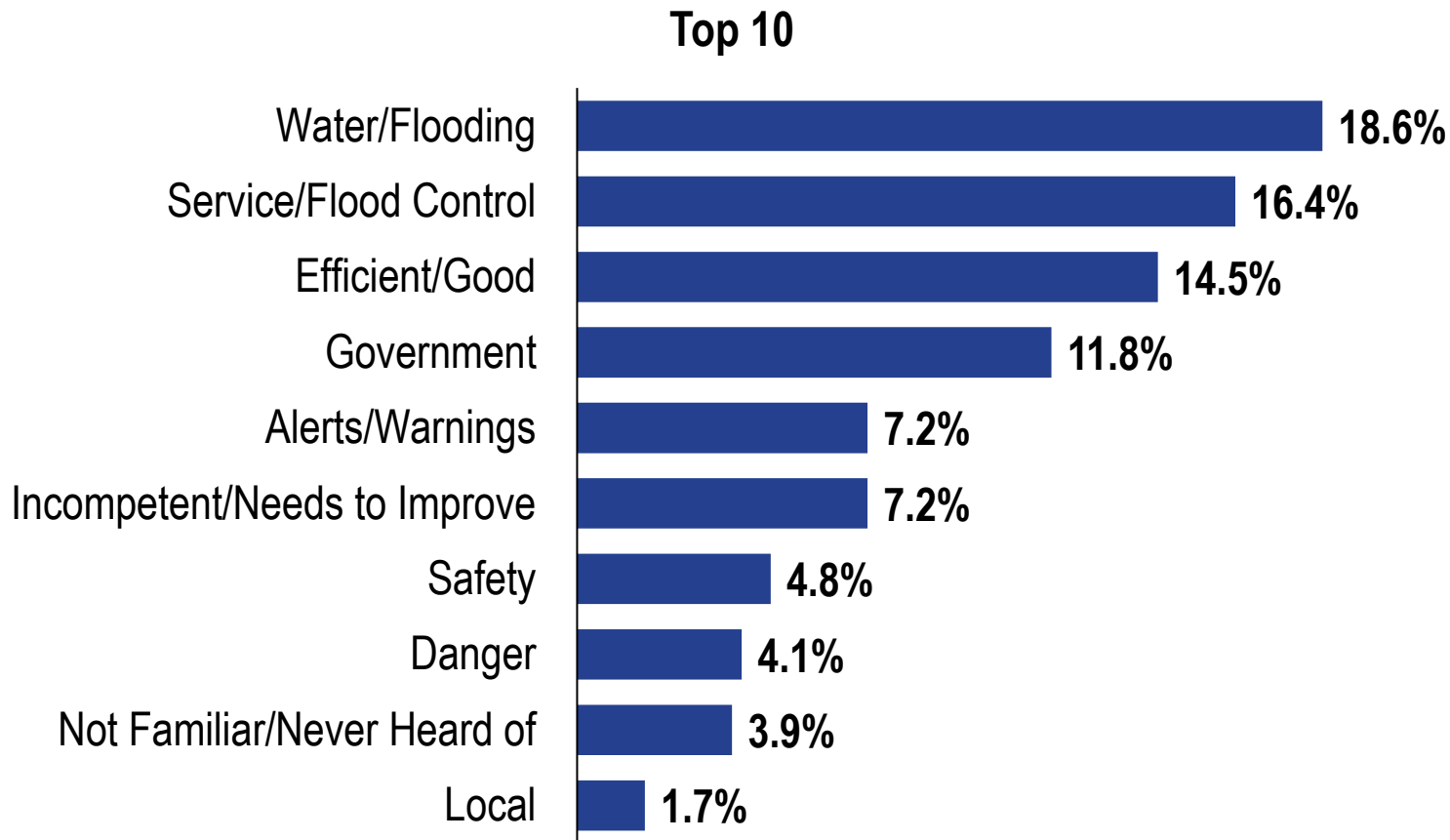


Nearly half of respondents believe the likelihood of flash flooding is about the same as 10 years ago.

N = 700

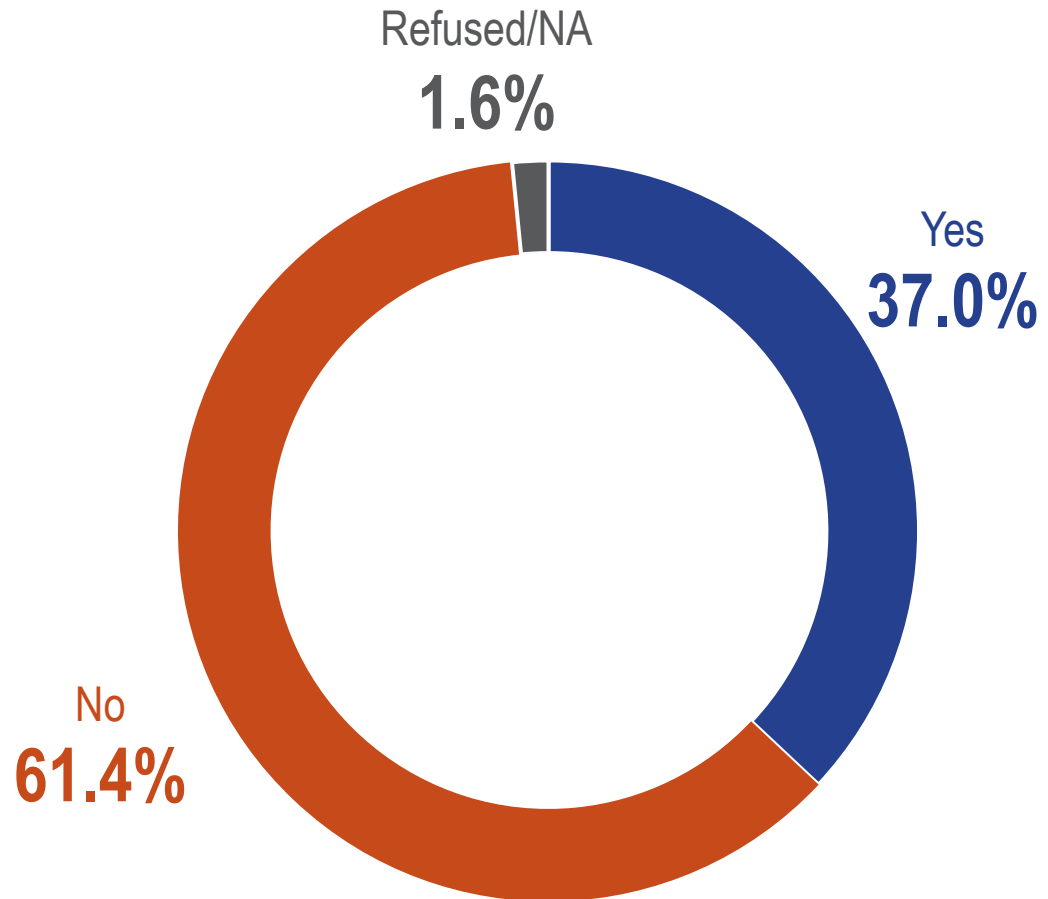
Please tell me the first word that comes to your mind when I say: “Clark County Regional Flood Control District”.

Share of Respondents



N = 414

Do you recall seeing or hearing a campaign from the Clark County Regional Flood Control District within the last 12 months?

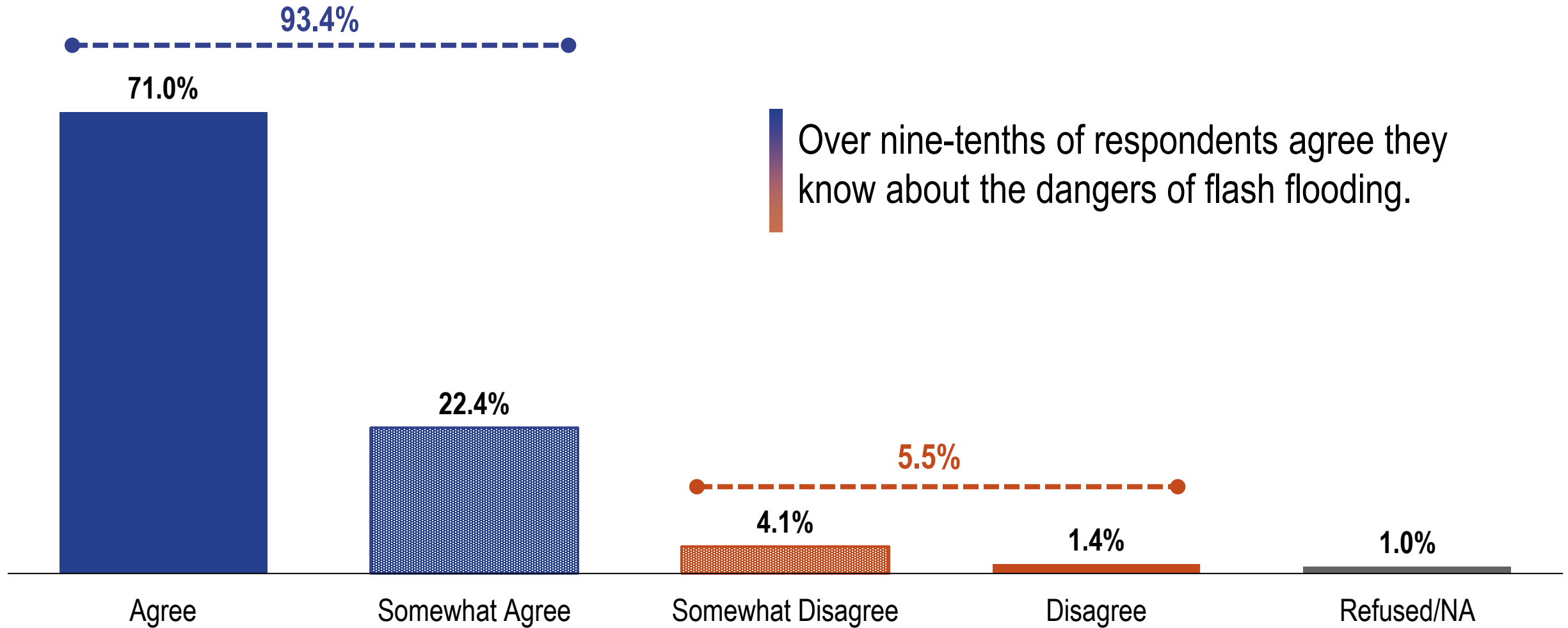


More than one-third of respondents recall seeing or hearing a campaign within the past year.

N = 700

A: Agree or Disagree?

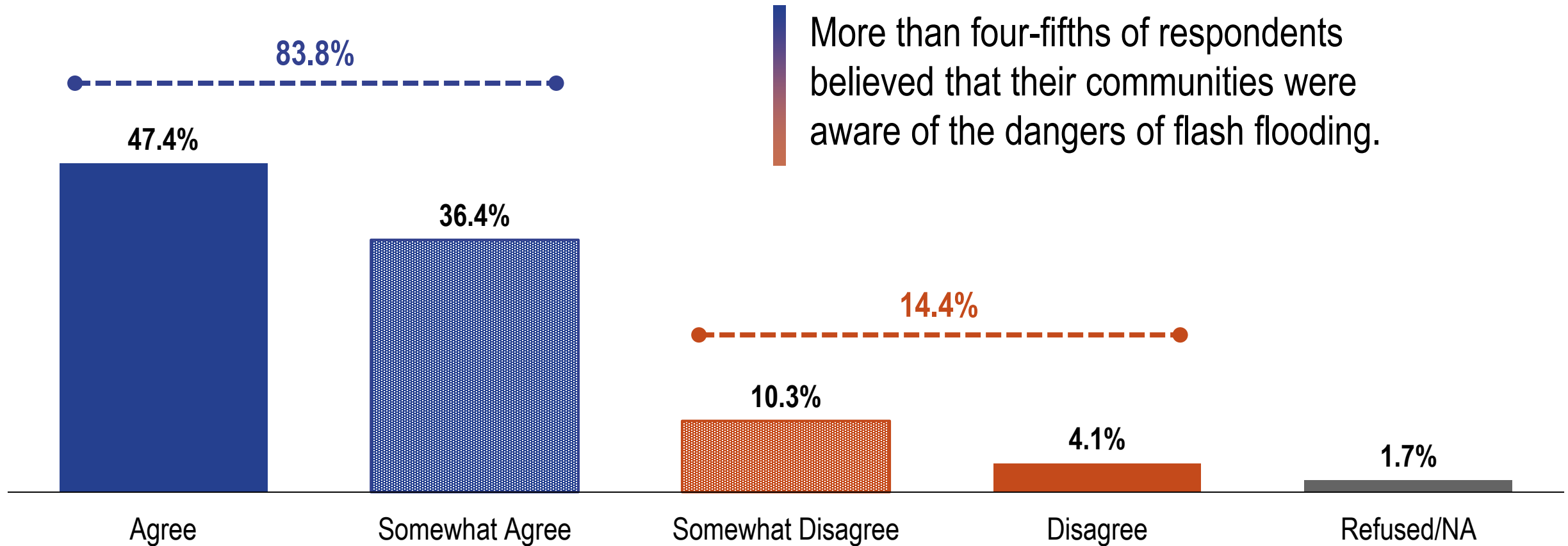
“I know about the dangers of flash flooding.”



N = 700

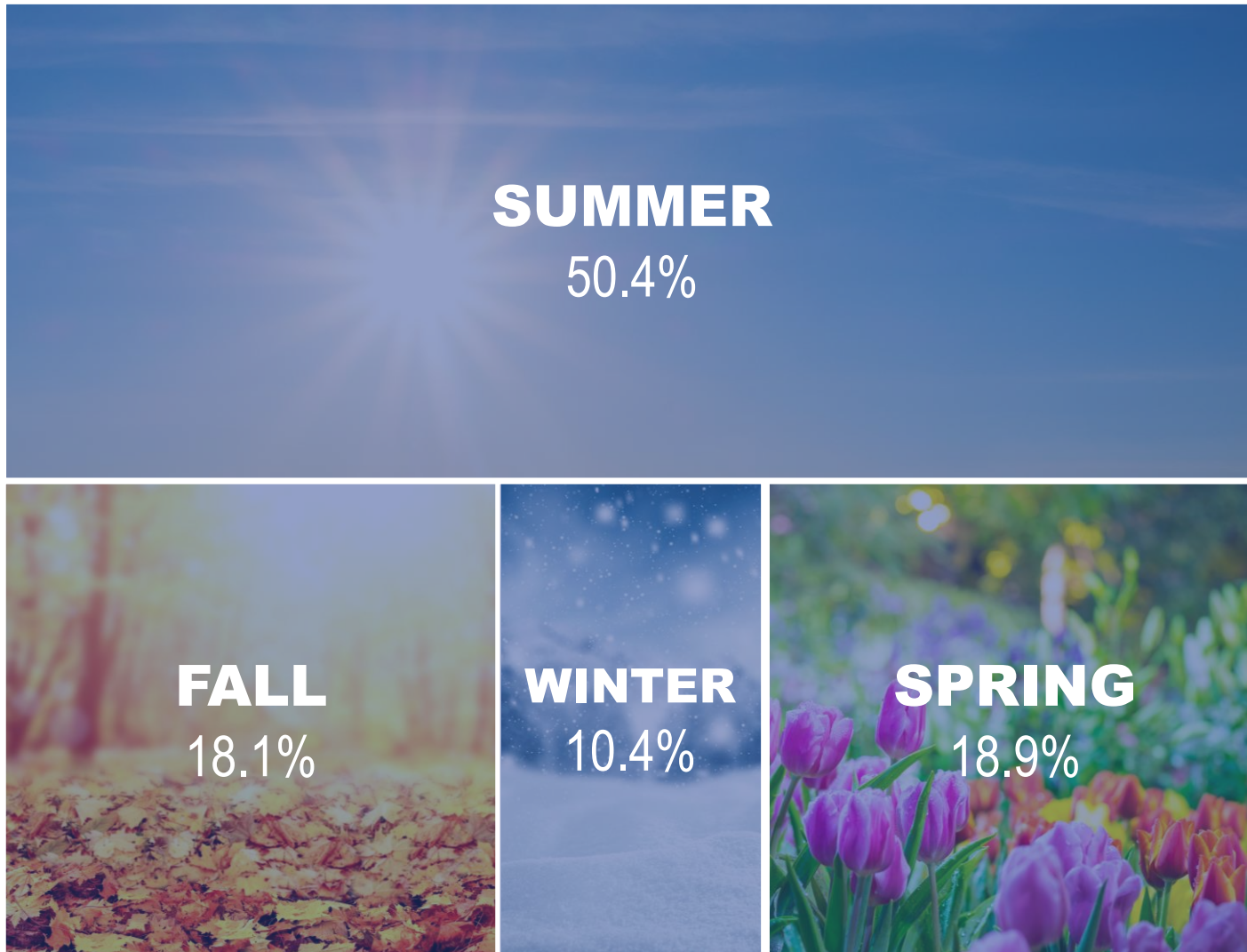
B: Agree or Disagree?

“I believe that the people in my community, my friends and my neighbors know about the dangers of flash flooding.”



N = 700

In what season is flash flooding most likely to occur?

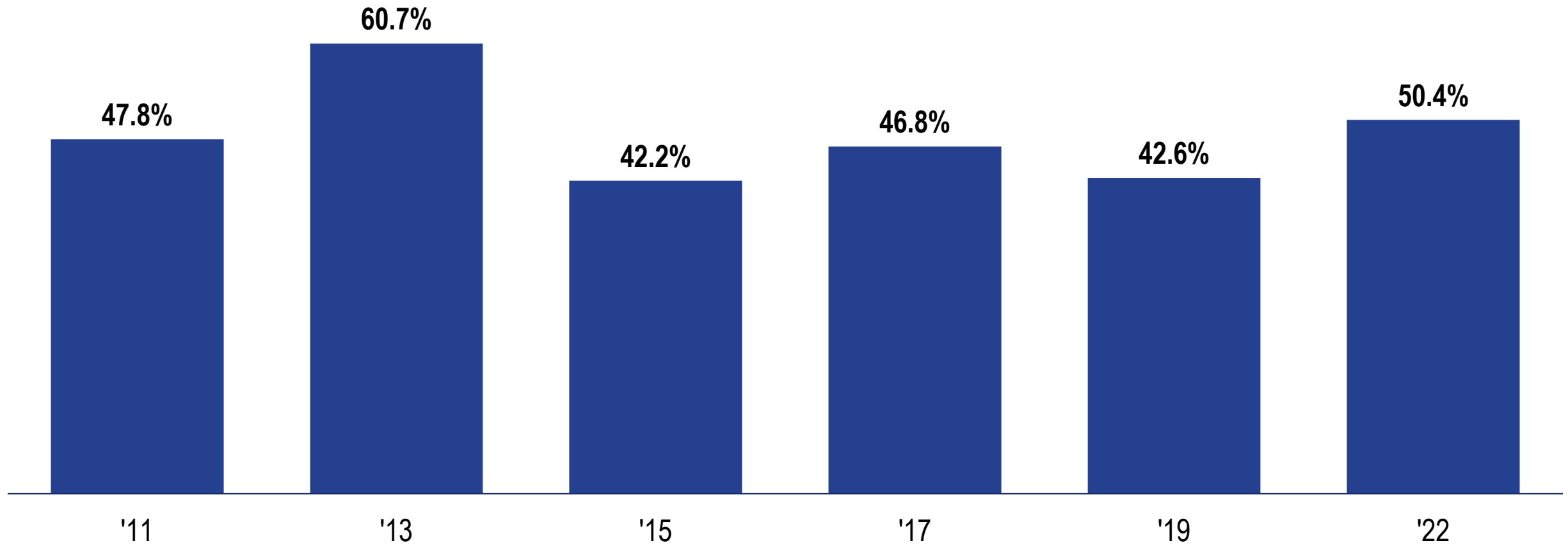


Half of respondents believe that Summer is the most likely season for flash flooding to occur.

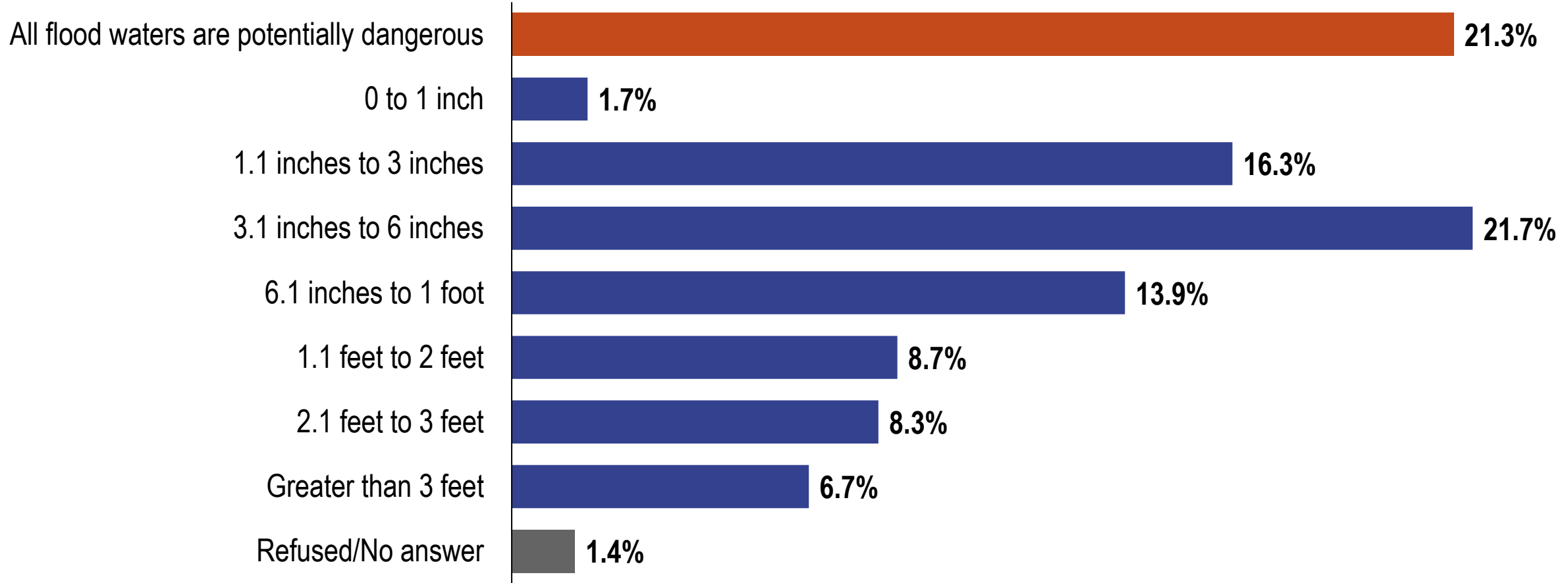
N = 700

In what season is flash flooding most likely to occur?

Historical Trend (Summer)

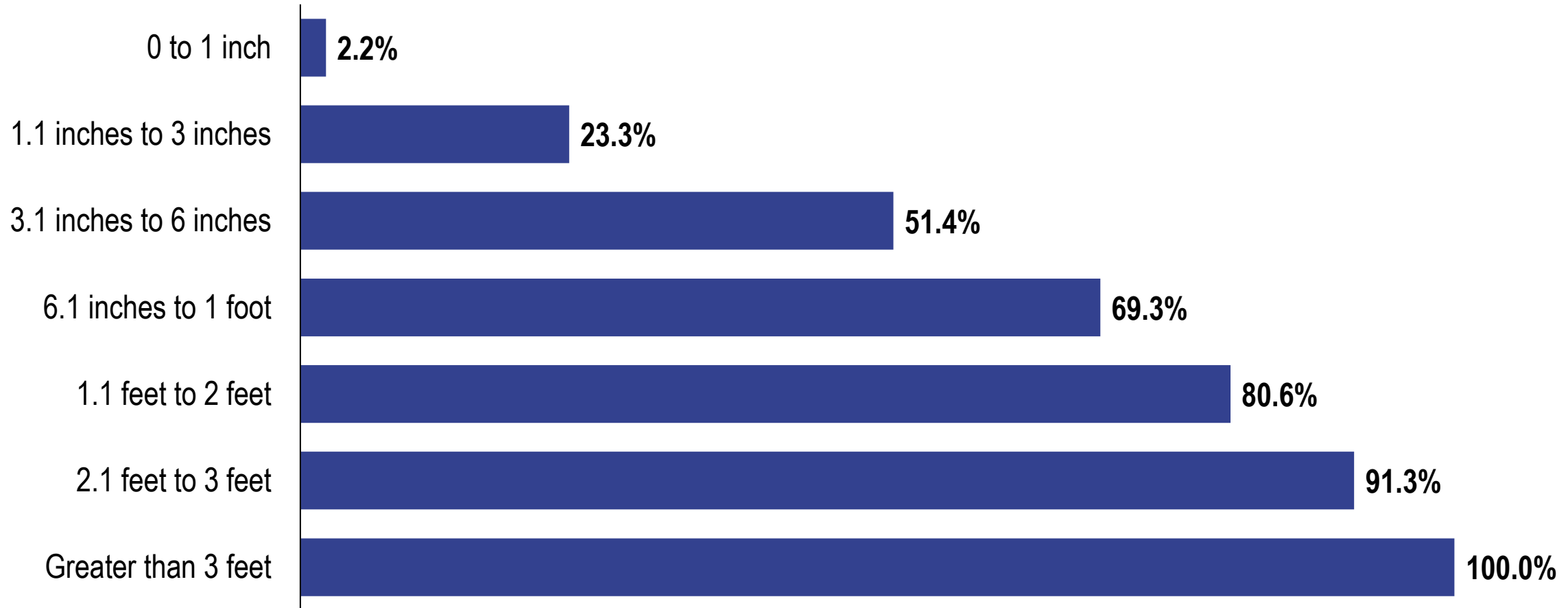


About how deep do flood waters need to be to become dangerous?



N = 700

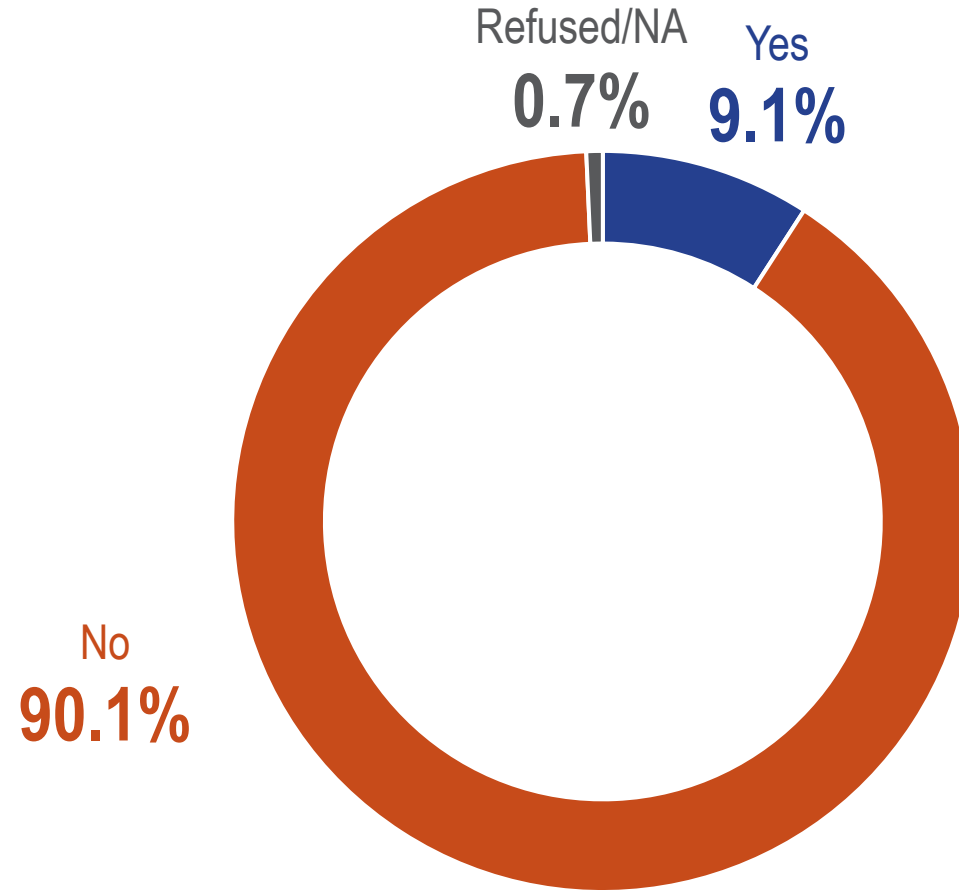
About how deep do flood waters need to be to become dangerous? Cumulative Percentages



N = 700

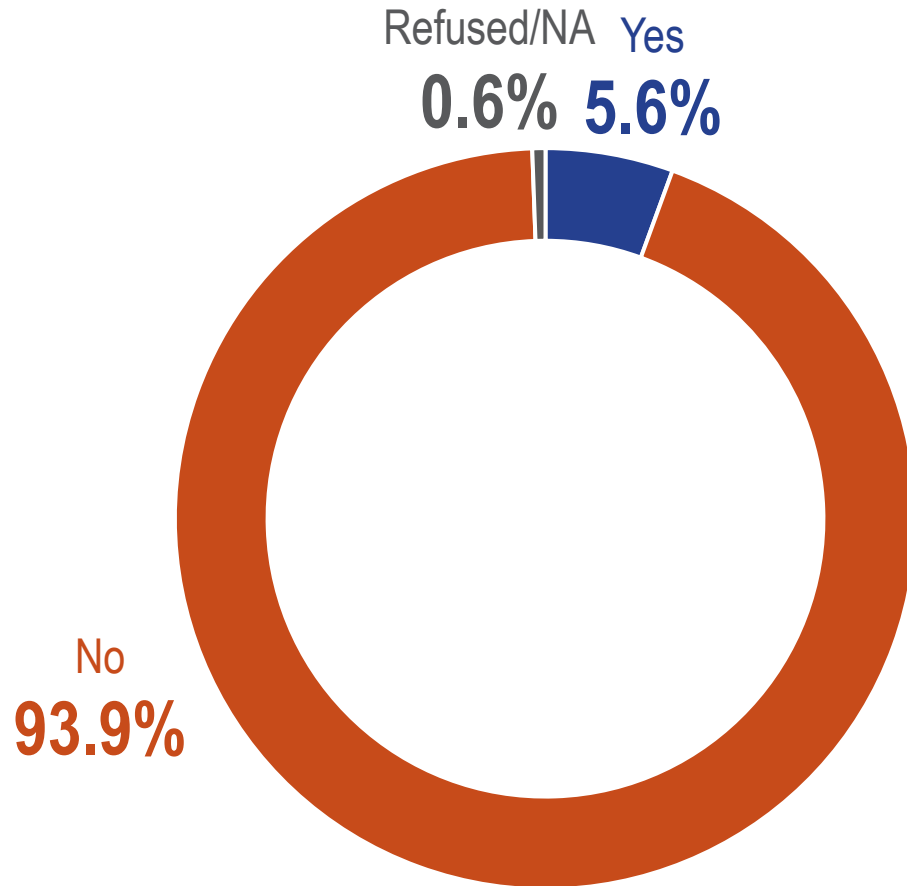
Is it safe for children to play in flood channels when it is not raining?

Nine in ten respondents do not believe it is safe for children to play in flood channels when it is not raining.



N = 700

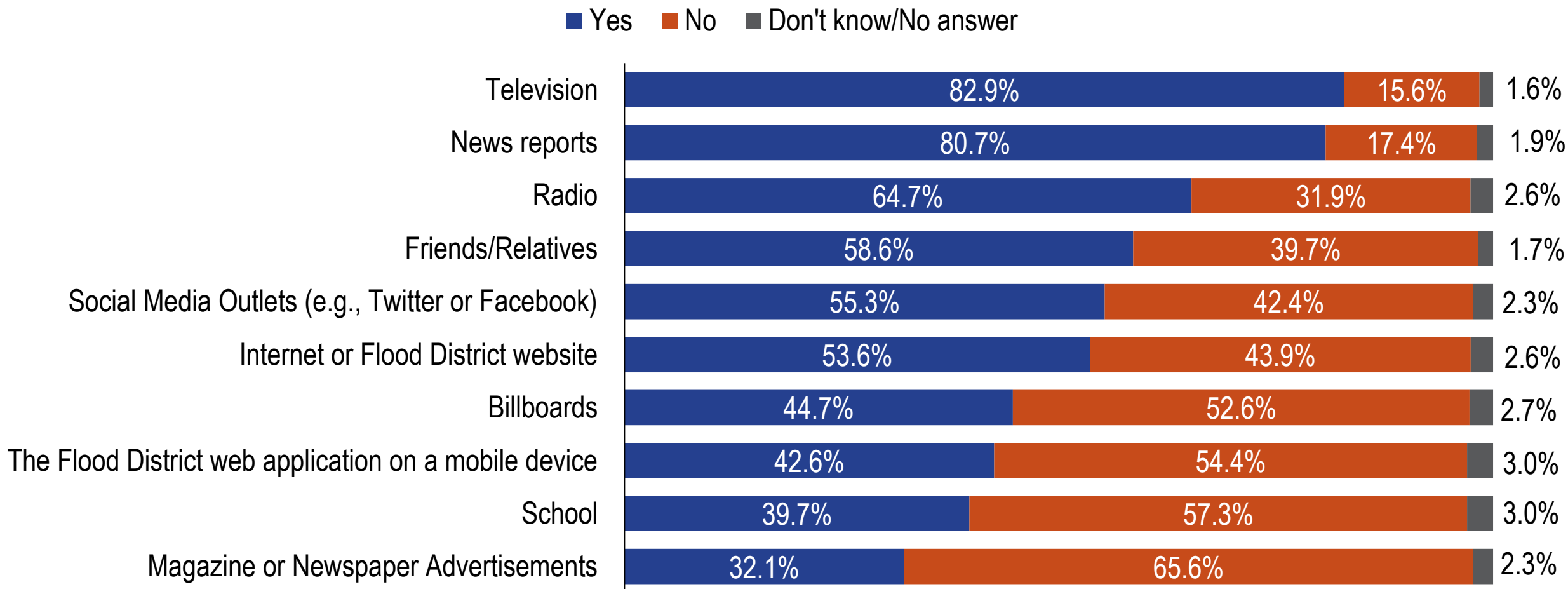
Is it safe for children to play in flood channels when it is raining only lightly?



Similarly, the majority of respondents do not believe it is safe for children to play in flood channels when it is only lightly raining.

N = 700

Do you recall learning about the dangers of flash flooding from the following sources?



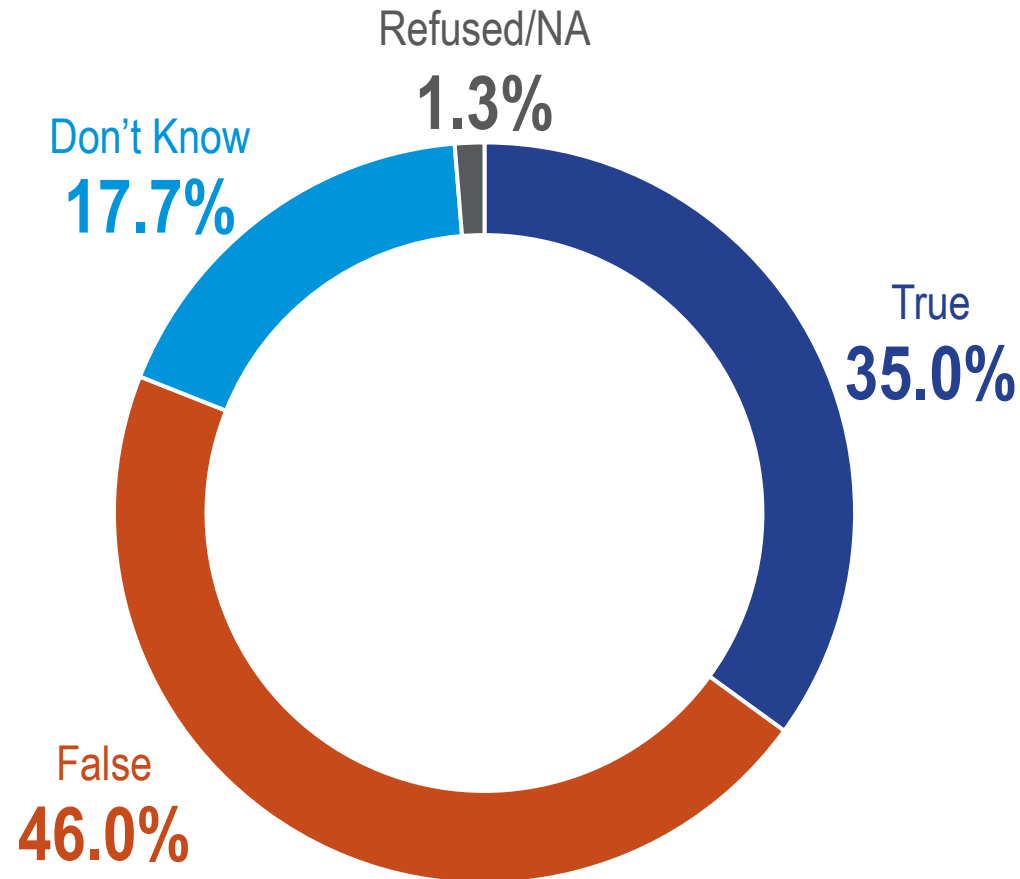
N = 700

Do you recall learning about the dangers of flash flooding from the following sources? Yes Responses

Source	2019	2022
Television	81.0%	82.9%
News Reports	67.4%	80.7%
Radio	54.7%	64.7%
Friends/Relatives	35.0%	58.6%
Social Media Outlets (e.g., Twitter or Facebook)	41.4%	55.3%
Internet or Flood District Website	40.7%	53.8%
Billboards	36.7%	44.7%
The Flood District Web Application on a Mobile Device	26.0%	42.6%
School	28.3%	39.7%
Magazine or Newspaper Advertisements	18.9%	32.1%

Note: Scores exclude respondents who did not answer the question.

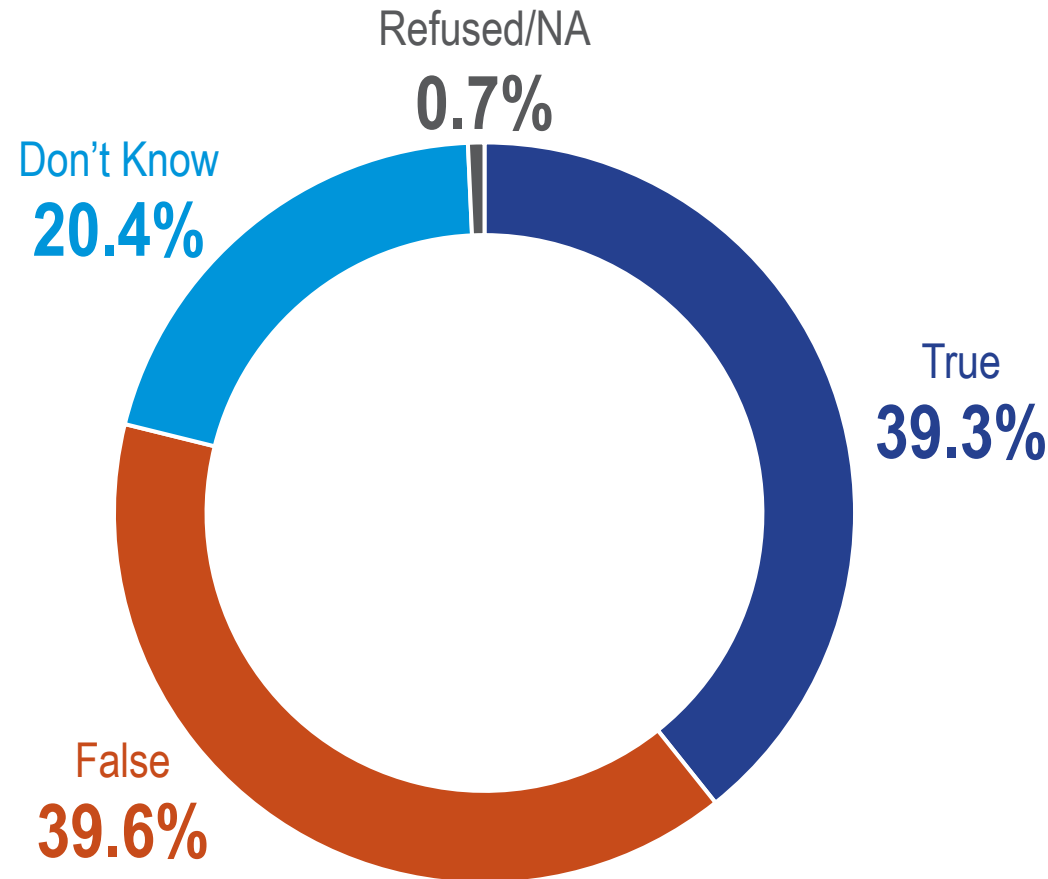
A: True or False? Homeowners insurance generally covers homeowners from flood damage resulting from a storm.



Nearly half of respondents do not believe homeowners insurance covers storm-related flood damage.

N = 700

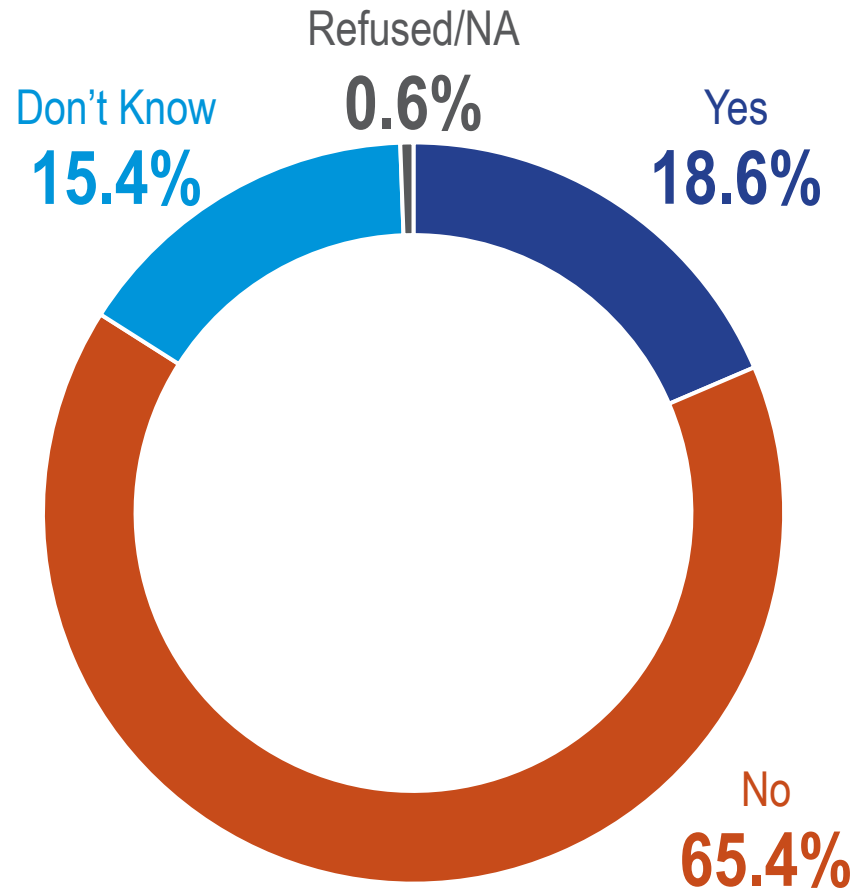
B: True or False? Only people living in a high-risk flood zone are required to have flood insurance coverage.



Respondents are generally split on if only people living in high-risk flood zones are required to have flood insurance.

N = 700

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

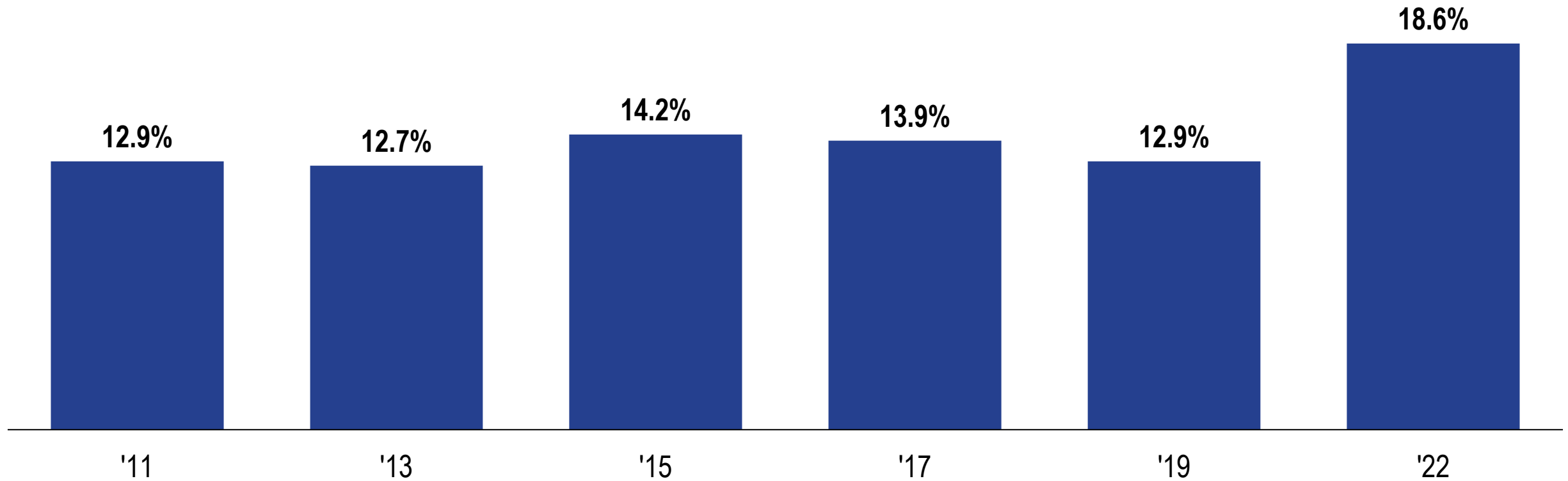


About two-thirds of respondents do not carry flood insurance beyond what is provided in their standard homeowner's or renter's policy.

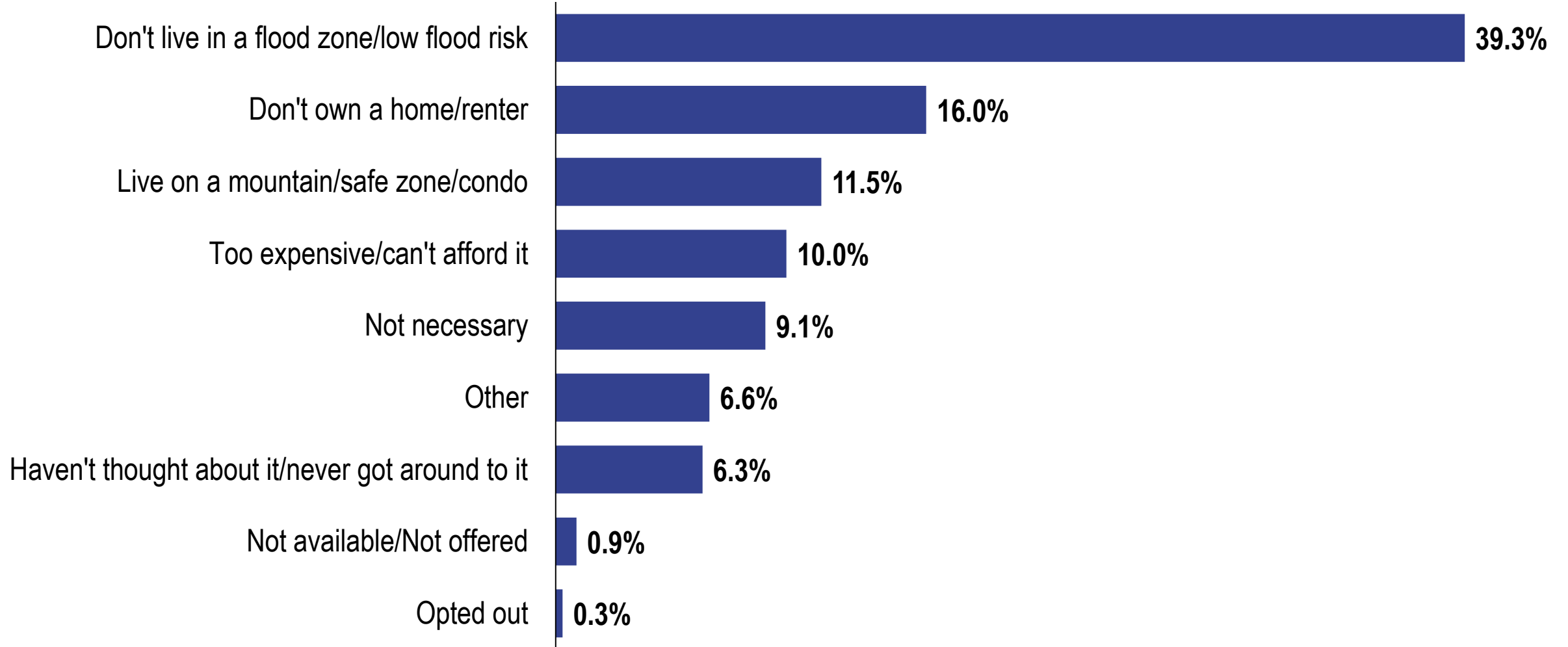
N = 700

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

Historical Trend (Yes)



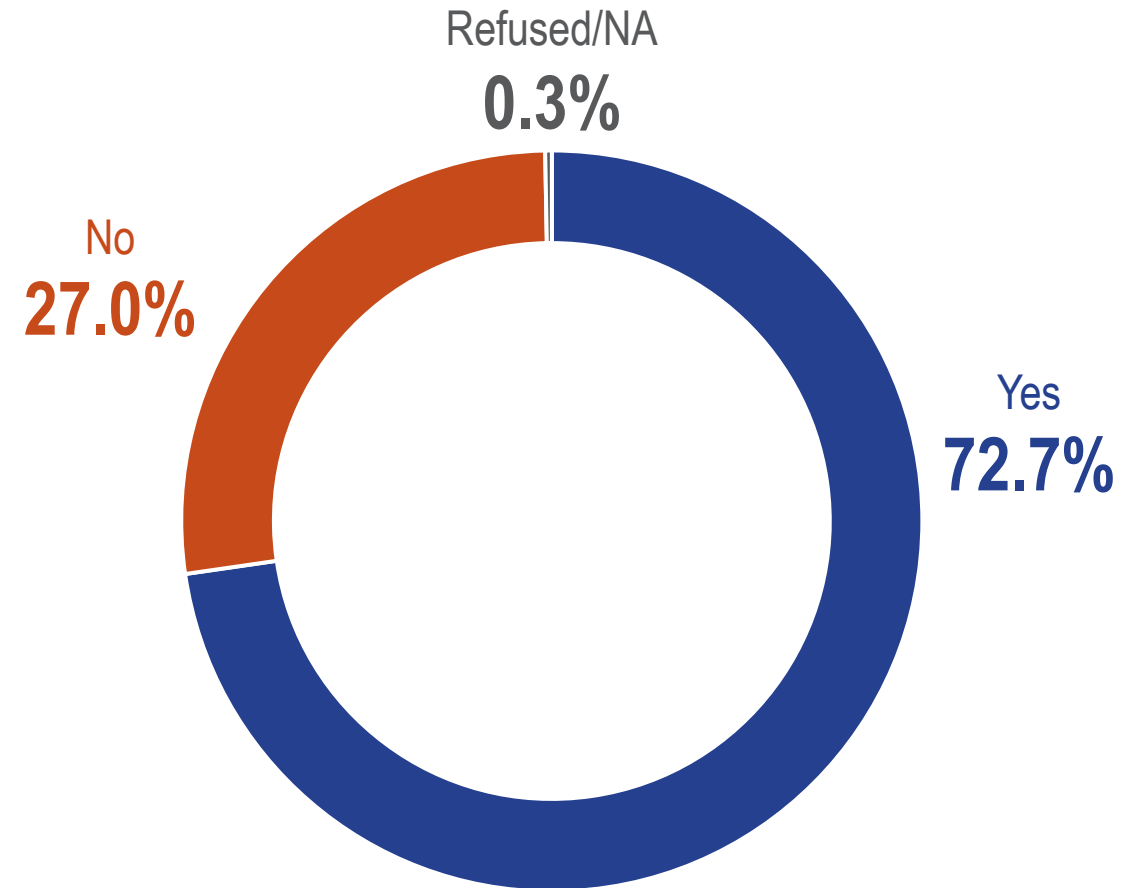
And why don't you have flood insurance?



N = 331

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

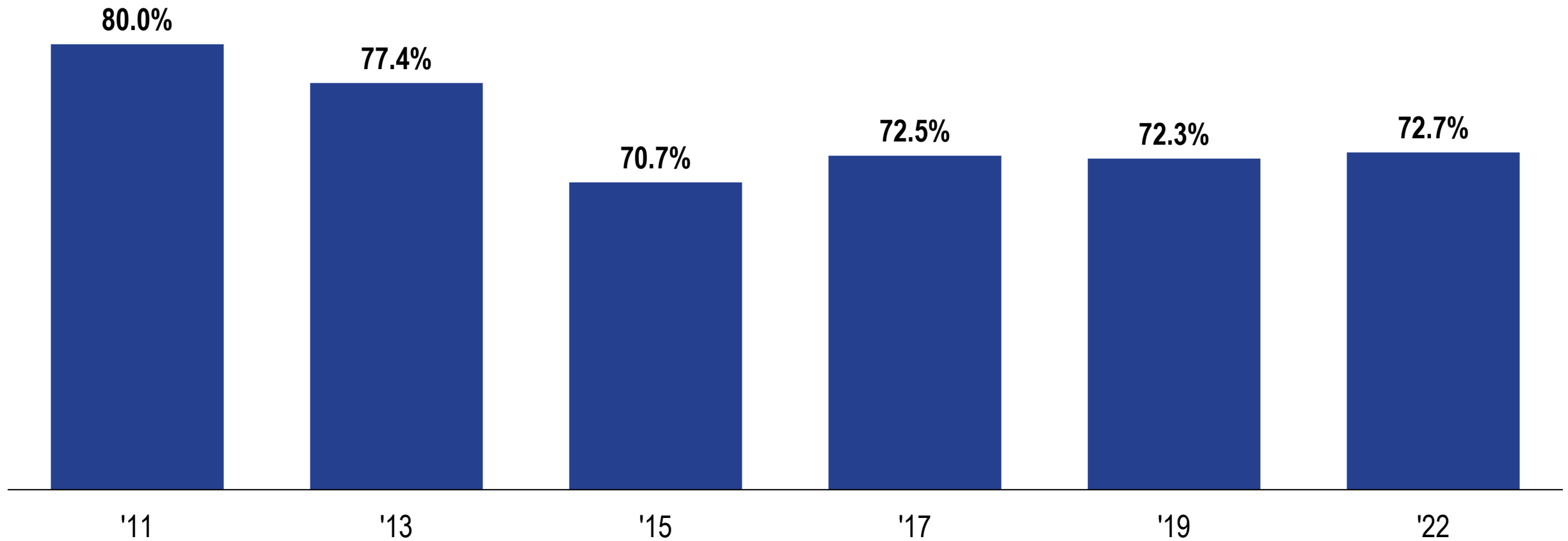
Nearly three in four respondents have encountered a flooded street while in a vehicle.



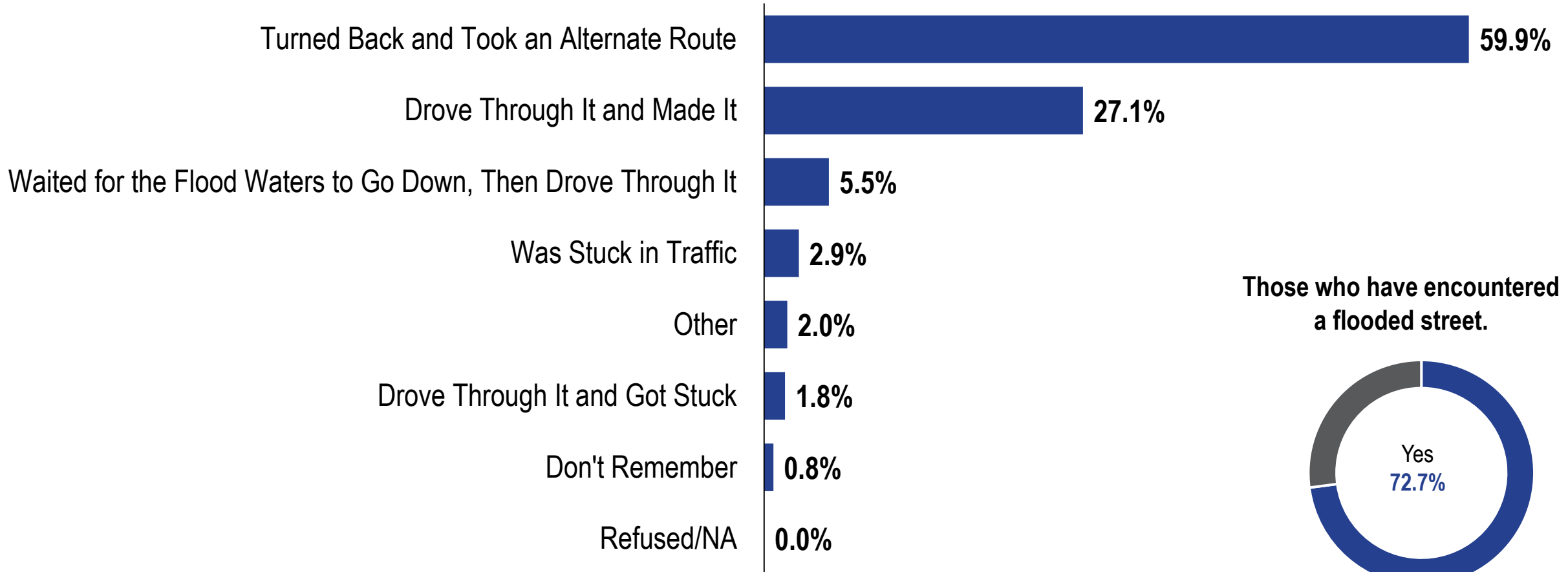
N = 700

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

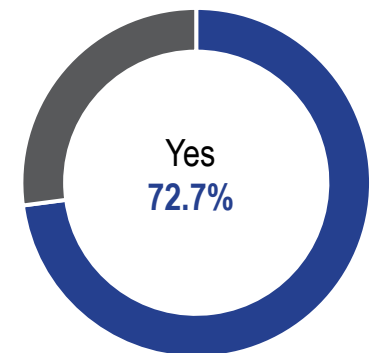
Historical Trend (Yes)



Thinking back to the last time you came to a flooded street, what best describes what you or the driver did?

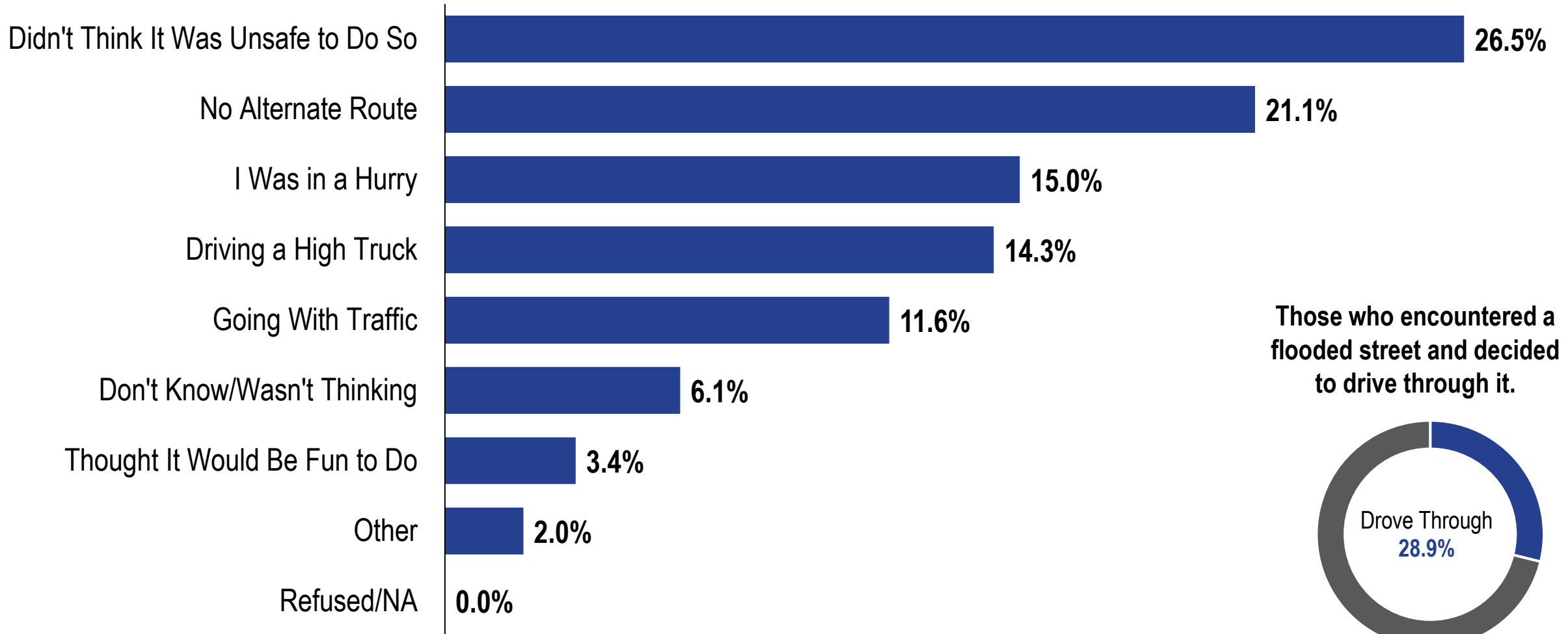


Those who have encountered a flooded street.

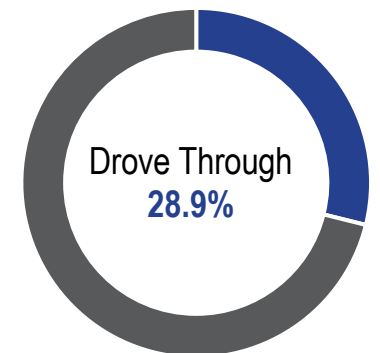


N = 509

Why did you drive through the flooded street?



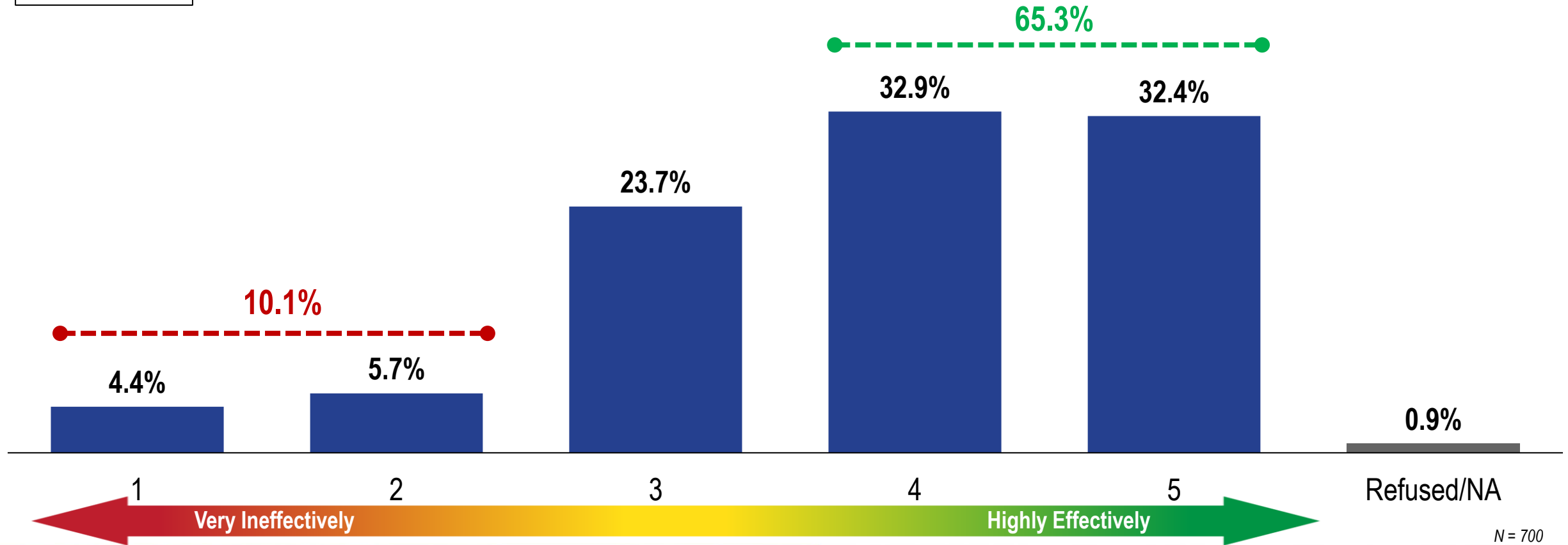
Those who encountered a flooded street and decided to drive through it.



N = 147

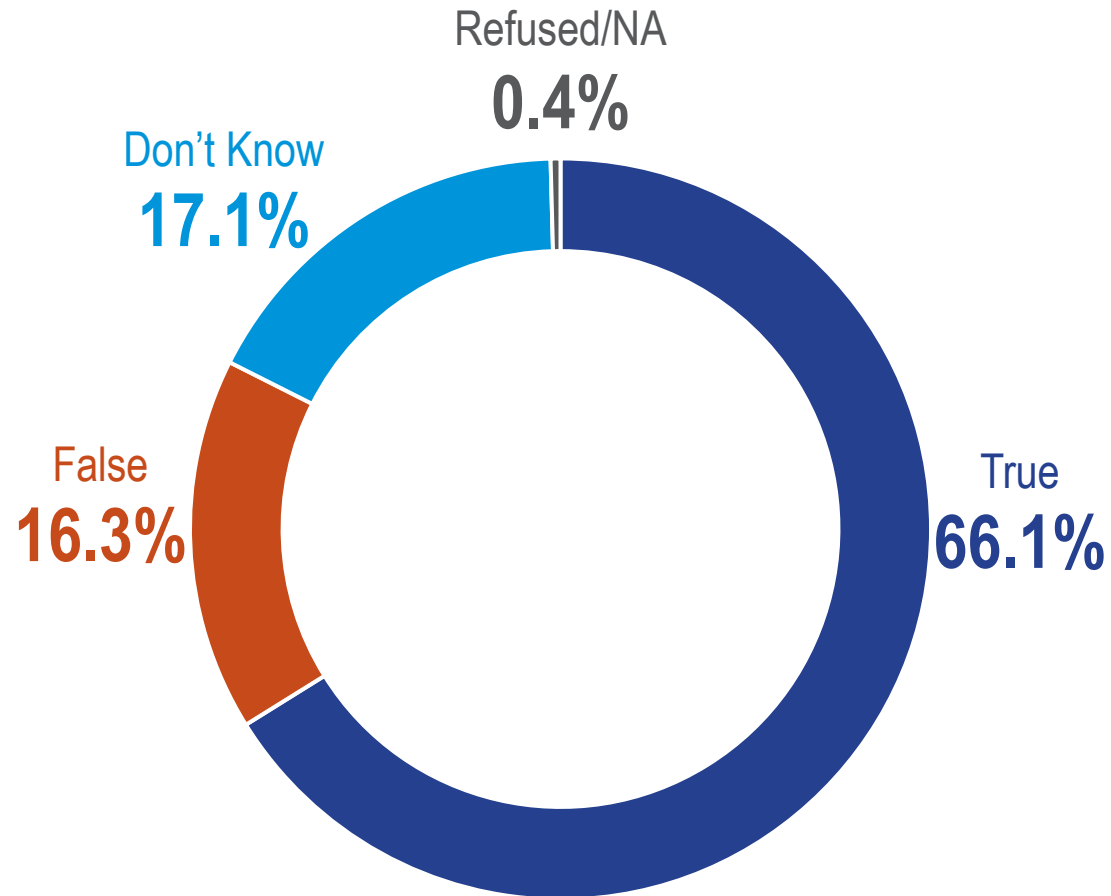
How well do you think the dangers of flooding are being communicated to the community?

Mean = 3.9
Median = 4.0



N = 700

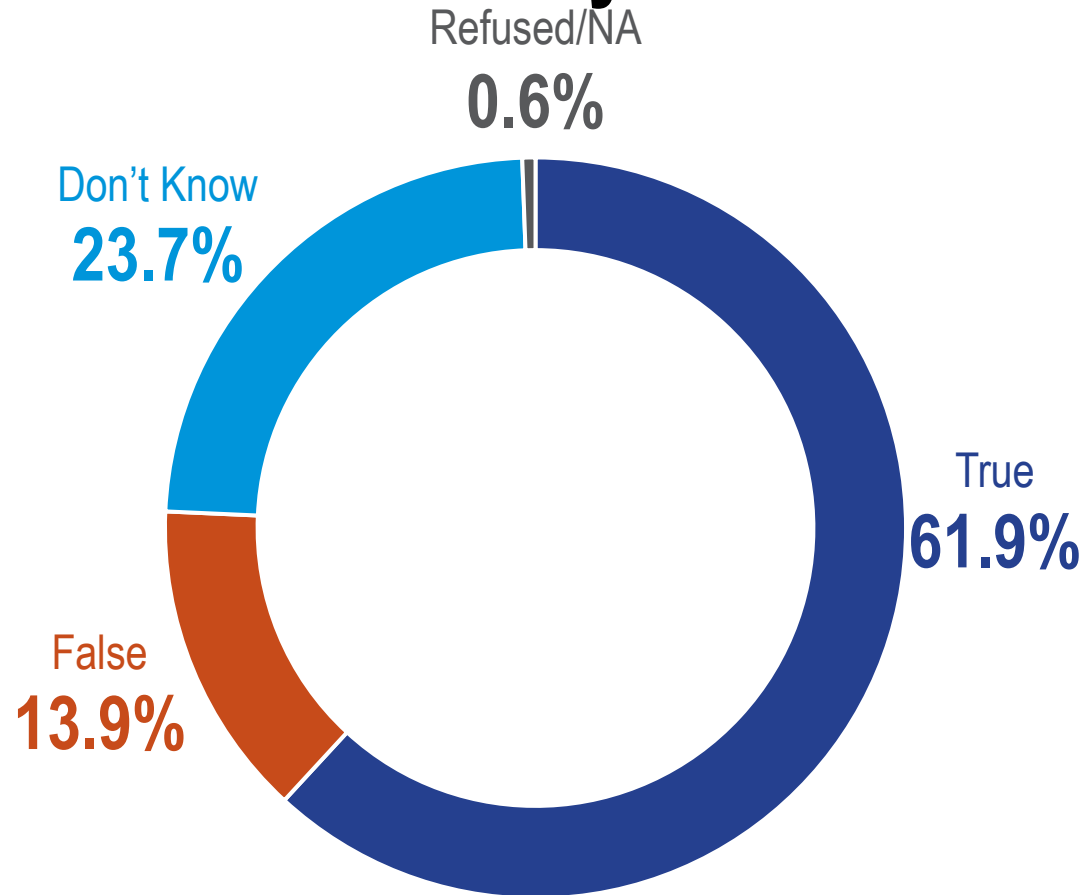
A: True or False? Streets are a part of the flood control system.



Two-thirds of respondents believe that streets are a part of the flood control system.

N = 700

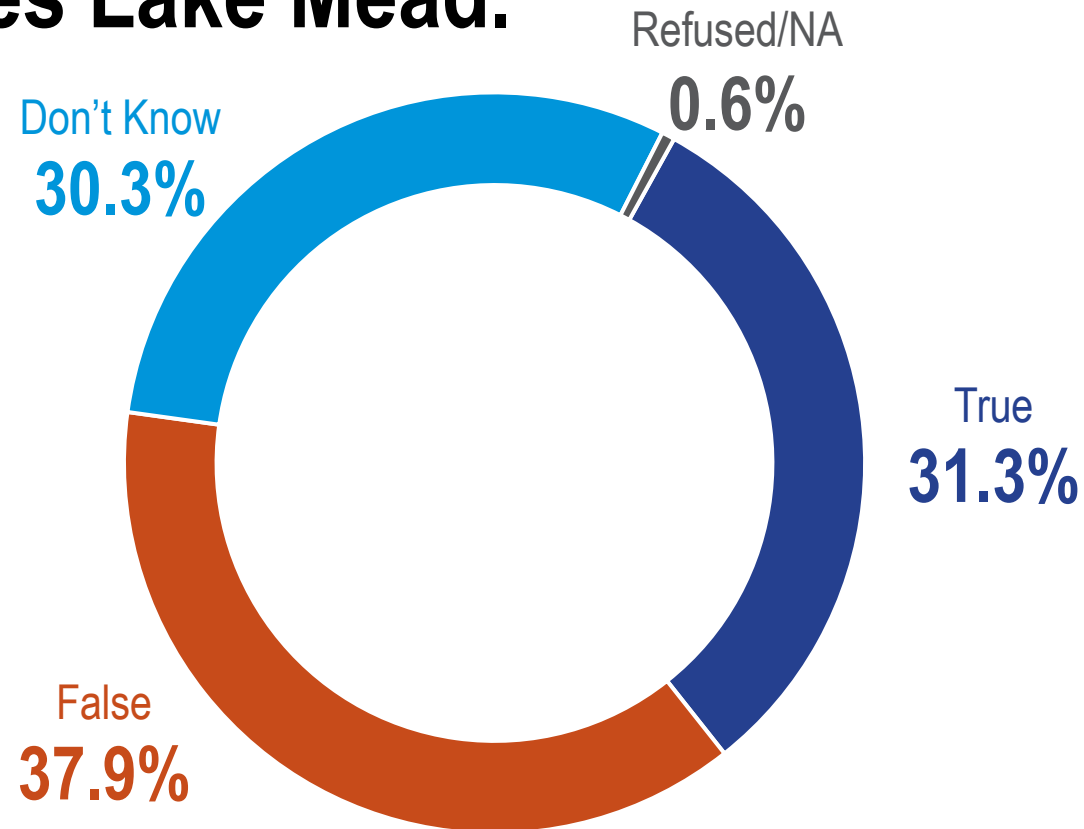
B: True or False? Urban runoff travels through the flood control system and ultimately drains into Lake Mead.



Nearly two-thirds of respondents believe urban runoff travels through the flood control system and ultimately drains into Lake Mead.

N = 700

C: True or False? The storm water that travels through flood control channels and storm drains is treated or cleaned before it reaches Lake Mead.

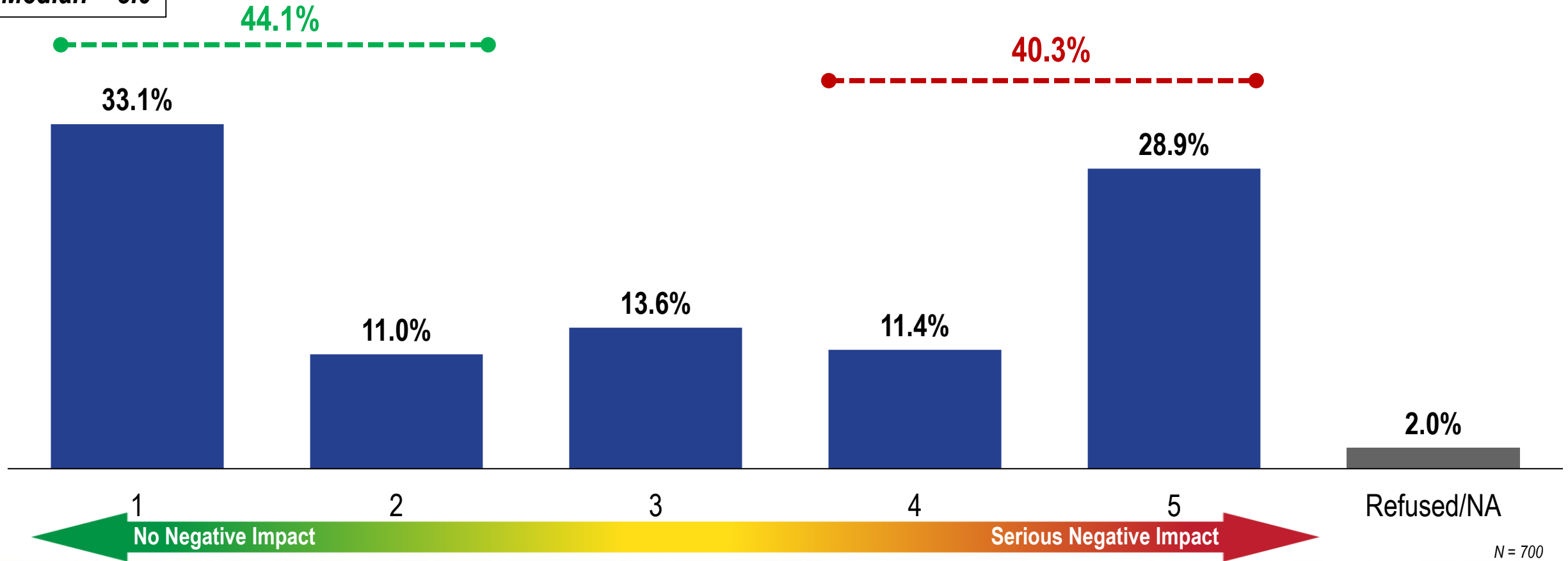


Nearly one-third of respondents believe storm water is cleaned or treated before it finally ends up in Lake Mead.

N = 700

A. Please tell me what impact each activity has on Lake Mead. Proper Disposal of Chemicals

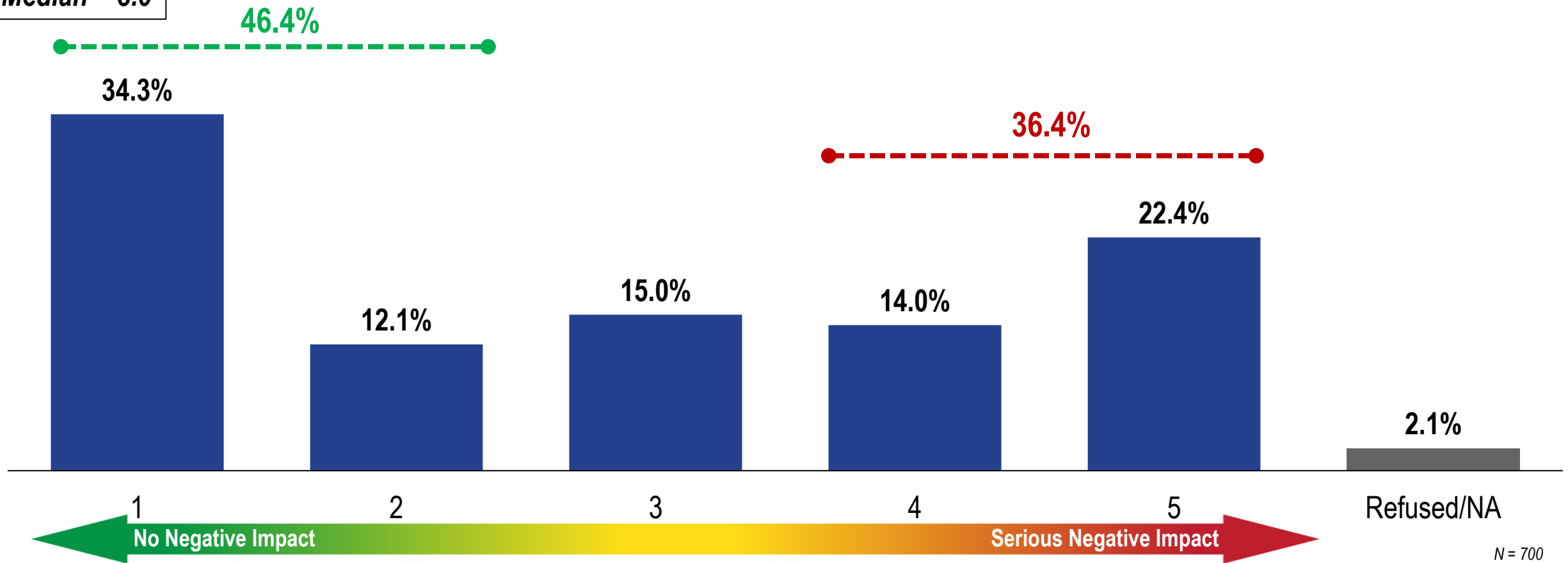
Mean = 3.0
Median = 3.0



N = 700

B. Please tell me what impact each activity has on Lake Mead. Proper Disposal of Garbage

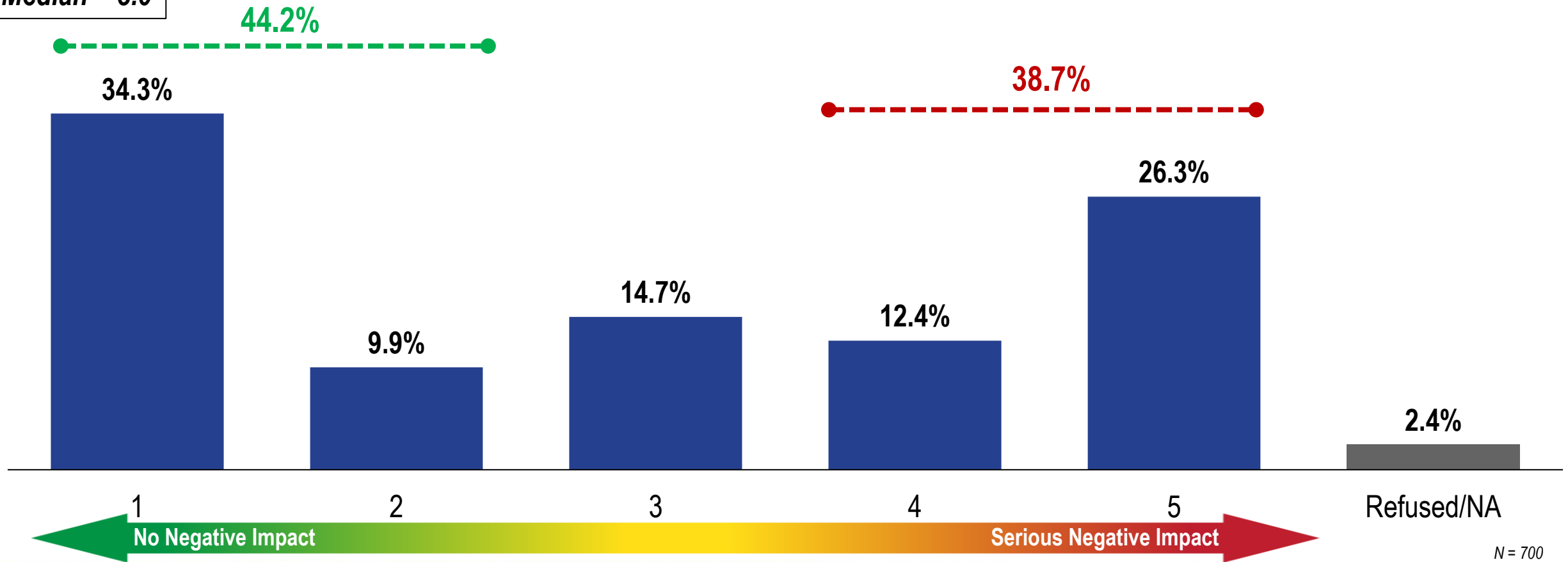
Mean = 2.9
Median = 3.0



N = 700

C. Please tell me what impact each activity has on Lake Mead. Proper Disposal of Oil

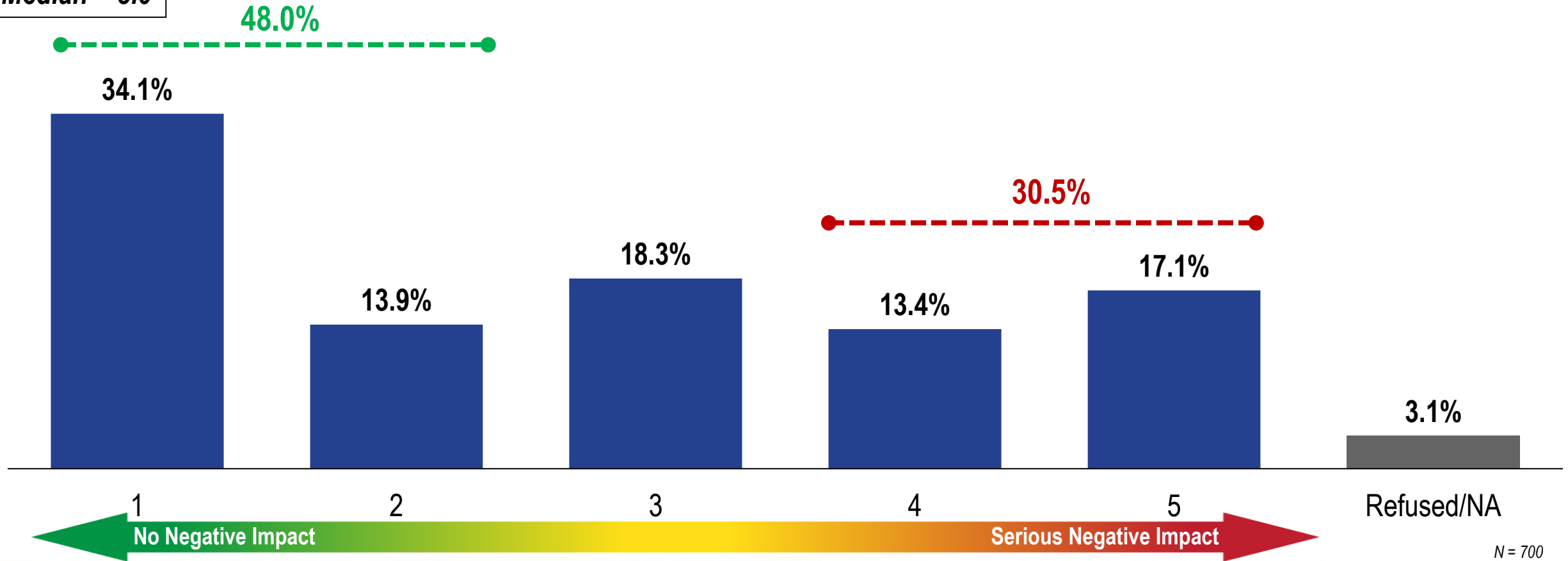
Mean = 3.0
Median = 3.0



N = 700

D. Please tell me what impact each activity has on Lake Mead. Proper Disposal/Clean-Up of Pet Waste

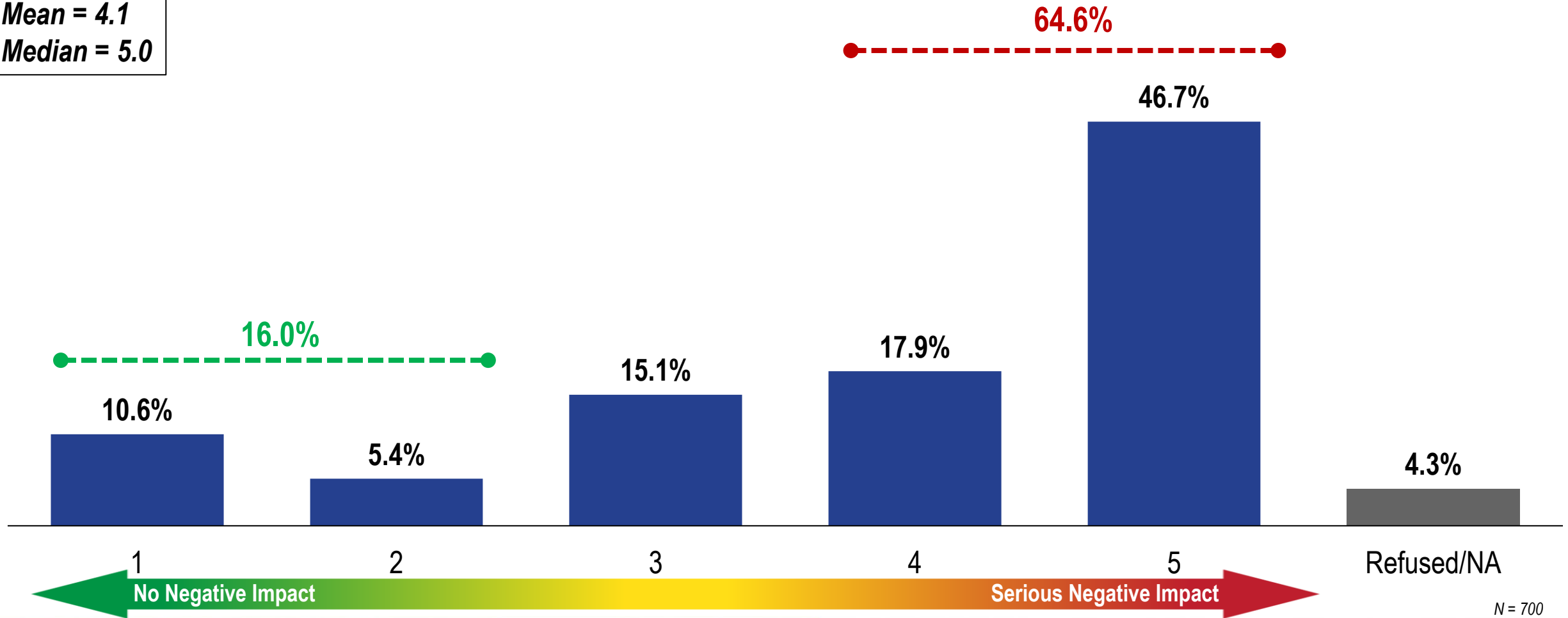
Mean = 2.8
Median = 3.0



N = 700

E. Please tell me what impact each activity has on Lake Mead. Littering

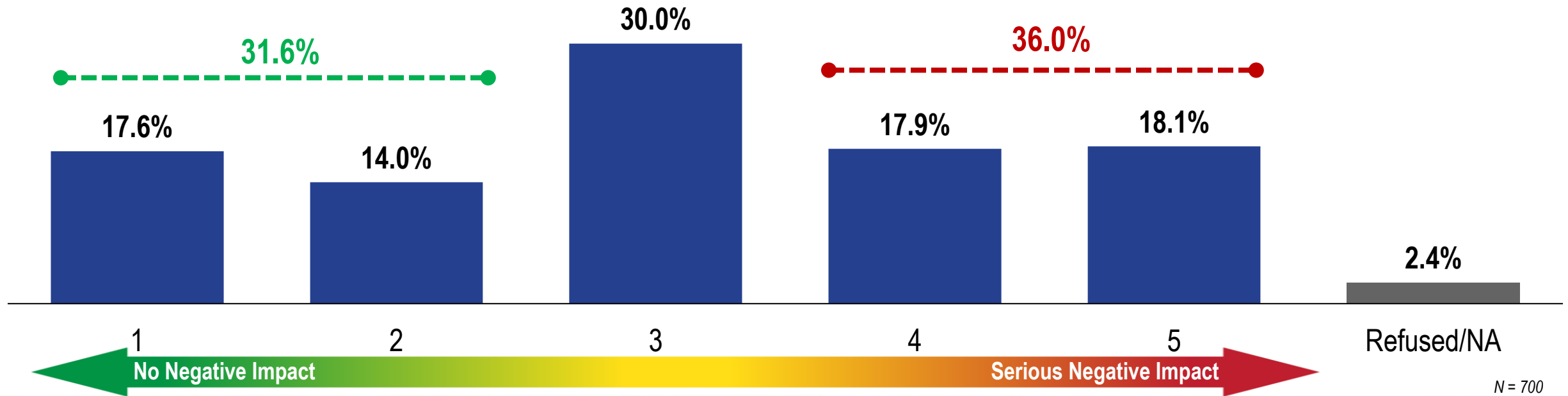
Mean = 4.1
Median = 5.0



N = 700

F. Please tell me what impact each activity has on Lake Mead. Use of Commercial Car Washes

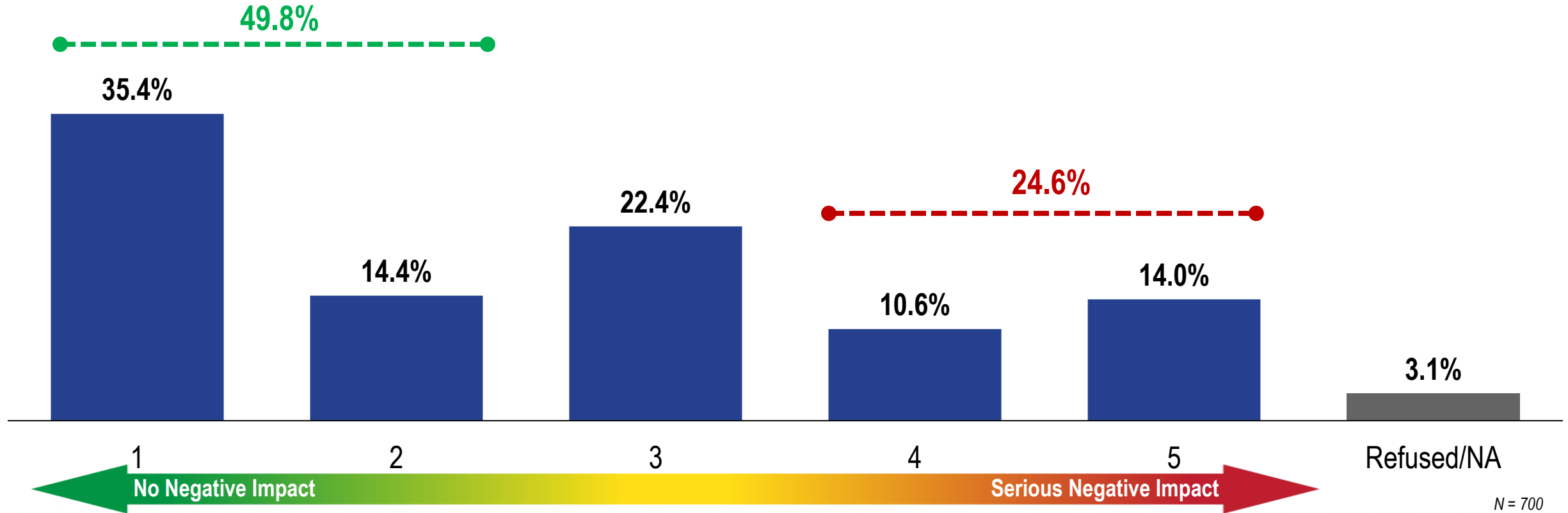
Mean = 3.2
Median = 3.0



N = 700

G. Please tell me what impact each activity has on Lake Mead. Getting Smog Checks

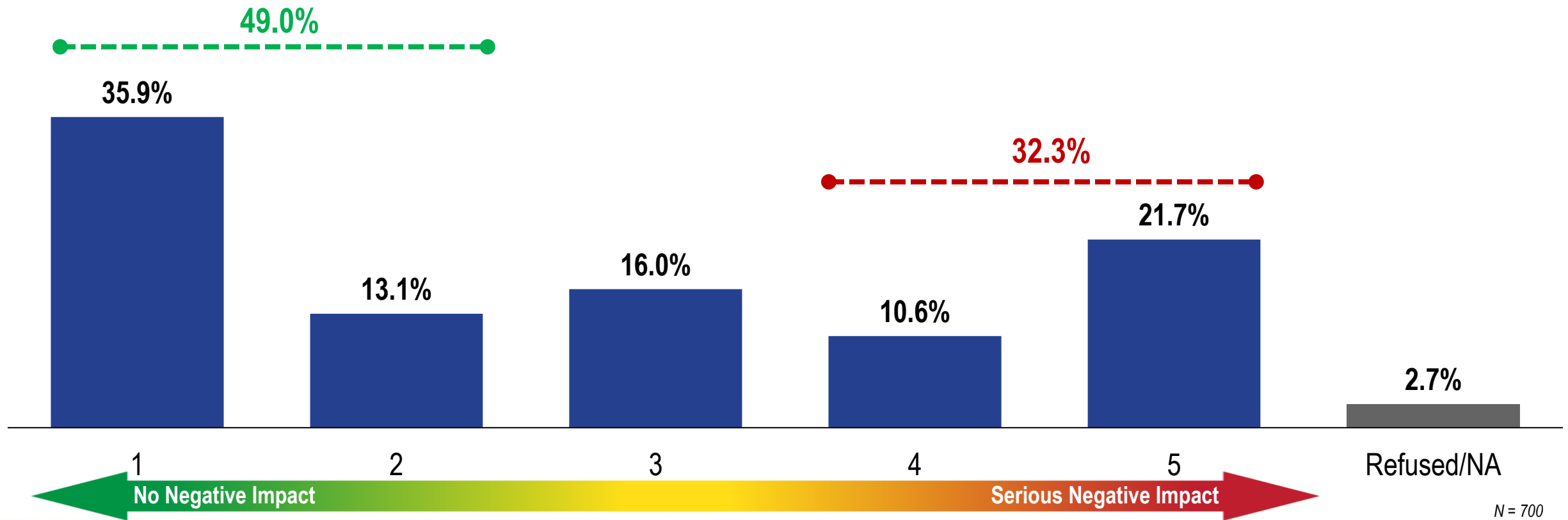
Mean = 2.7
Median = 3.0



N = 700

H. Please tell me what impact each activity has on Lake Mead. Reducing Use of Water

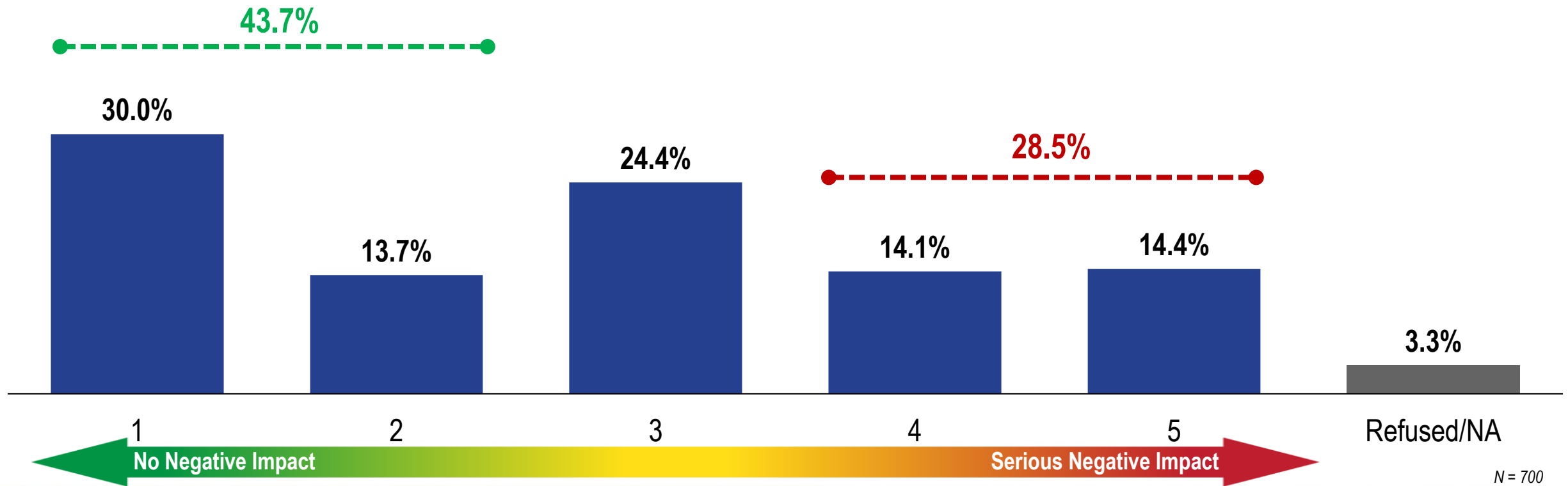
Mean = 2.9
Median = 3.0



N = 700

I. Please tell me what impact each activity has on Lake Mead. Using Organic Fertilizers

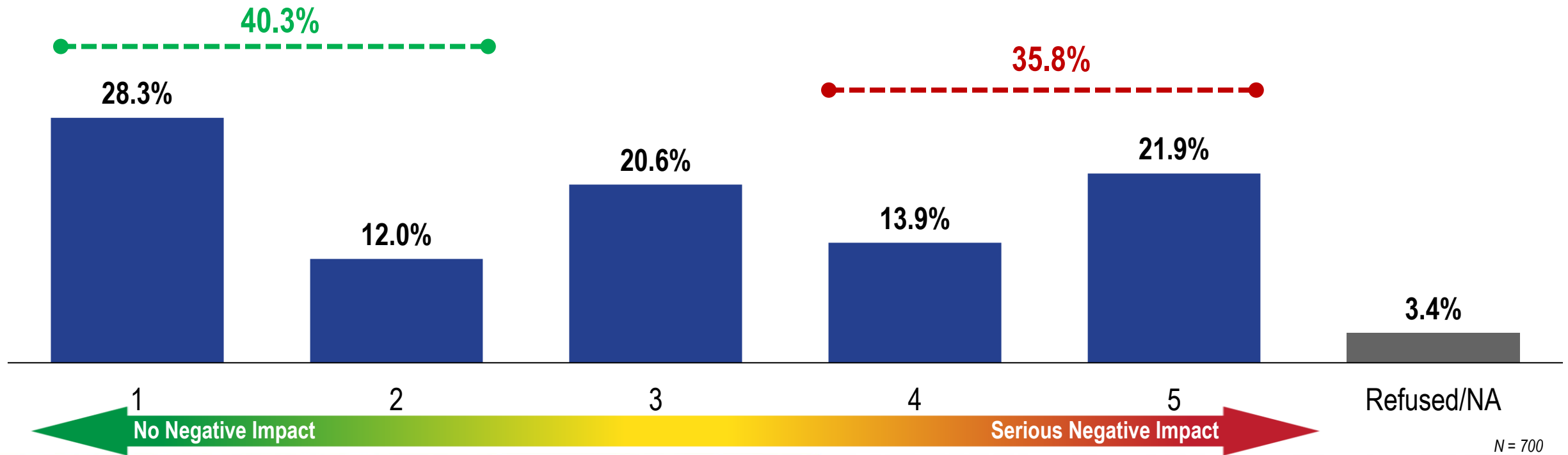
Mean = 2.9
Median = 3.0



N = 700

J. Please tell me what impact each activity has on Lake Mead. Reporting of Clogged Storm Drains

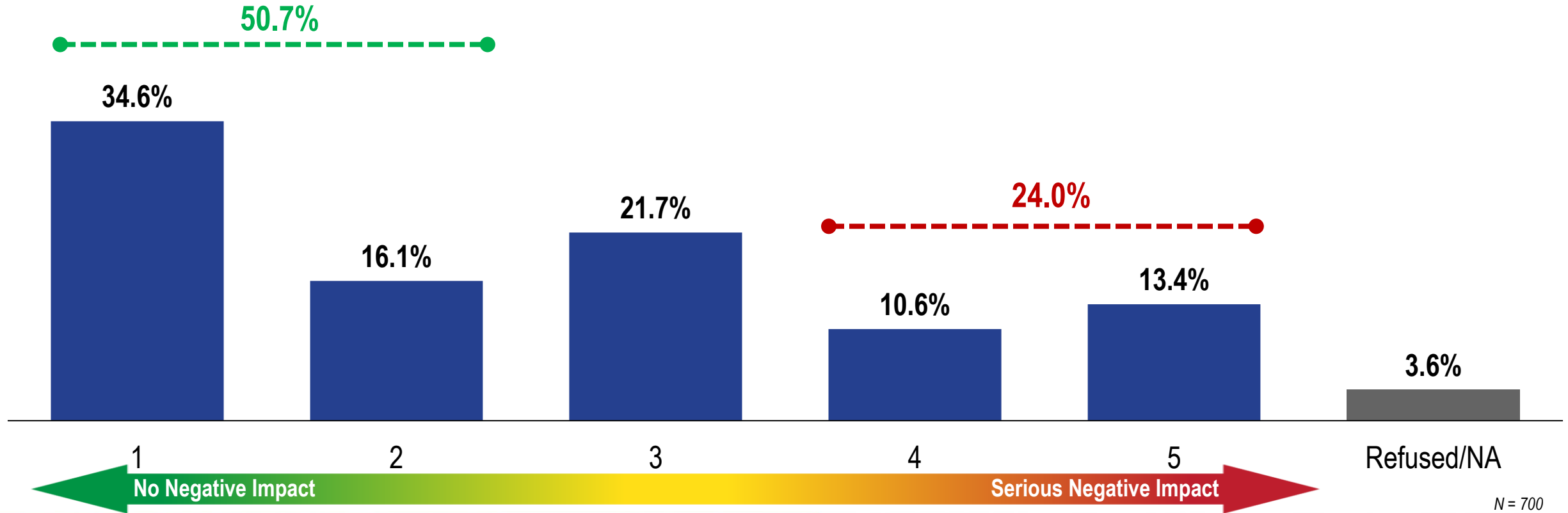
Mean = 3.1
Median = 3.0



N = 700

K. Please tell me what impact each activity has on Lake Mead. Using Green Products

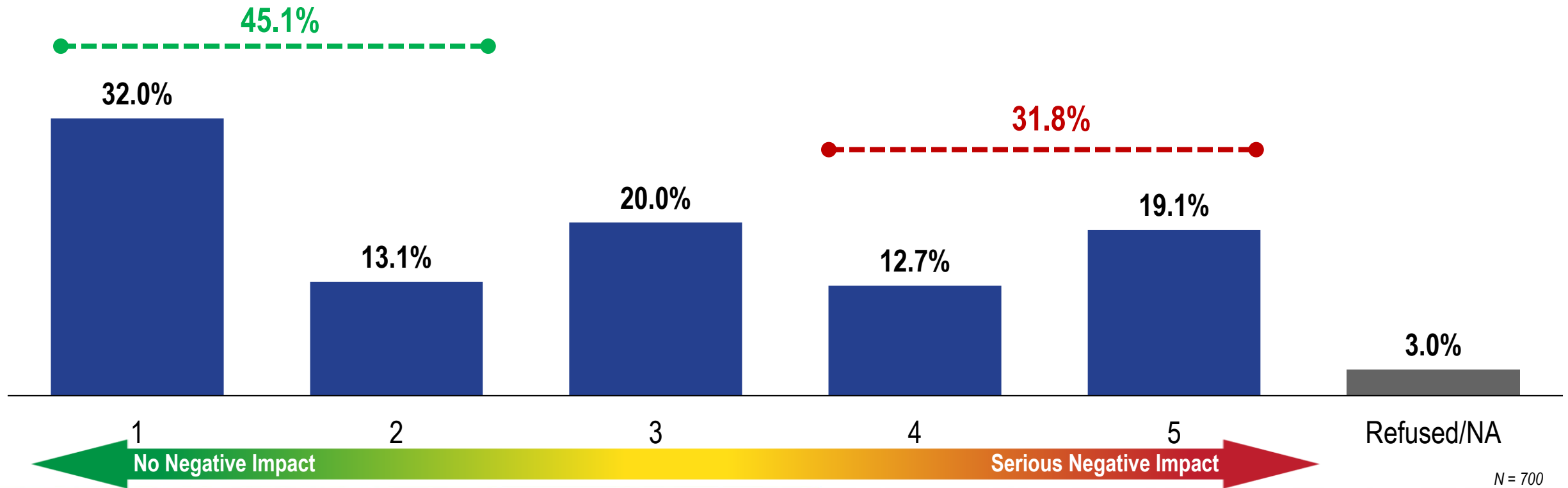
Mean = 2.7
Median = 2.0



N = 700

L. Please tell me what impact each activity has on Lake Mead. Limiting the Use of Grass in Homes and Businesses

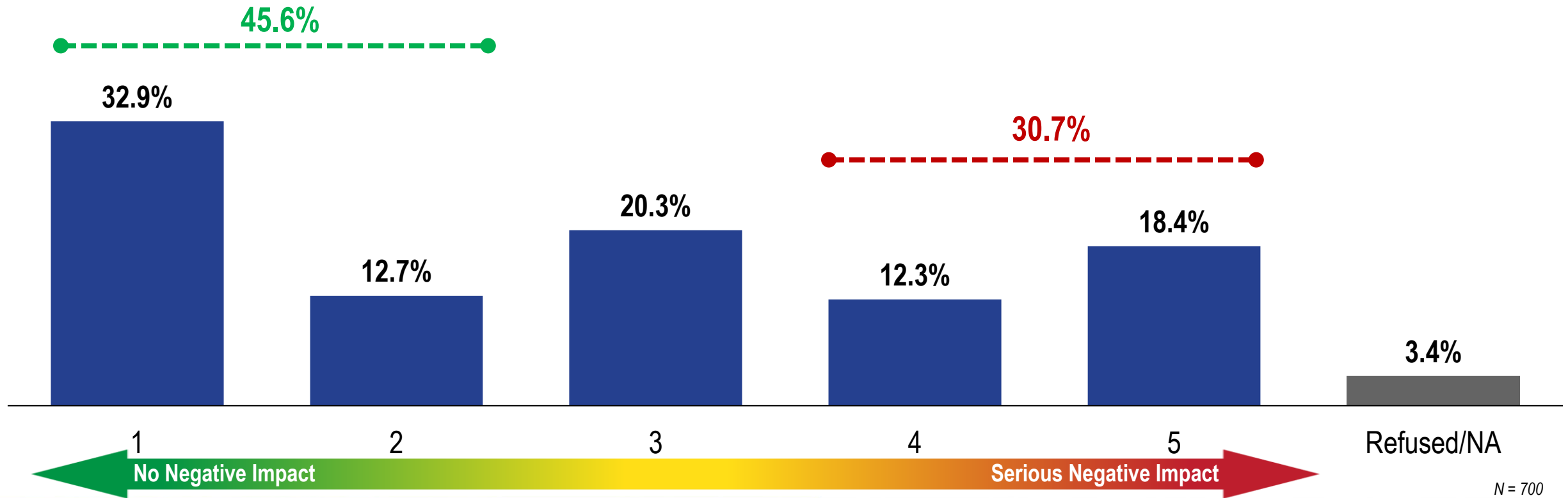
Mean = 2.9
Median = 3.0



N = 700

M. Please tell me what impact each activity has on Lake Mead. Converting to Desert Landscaping

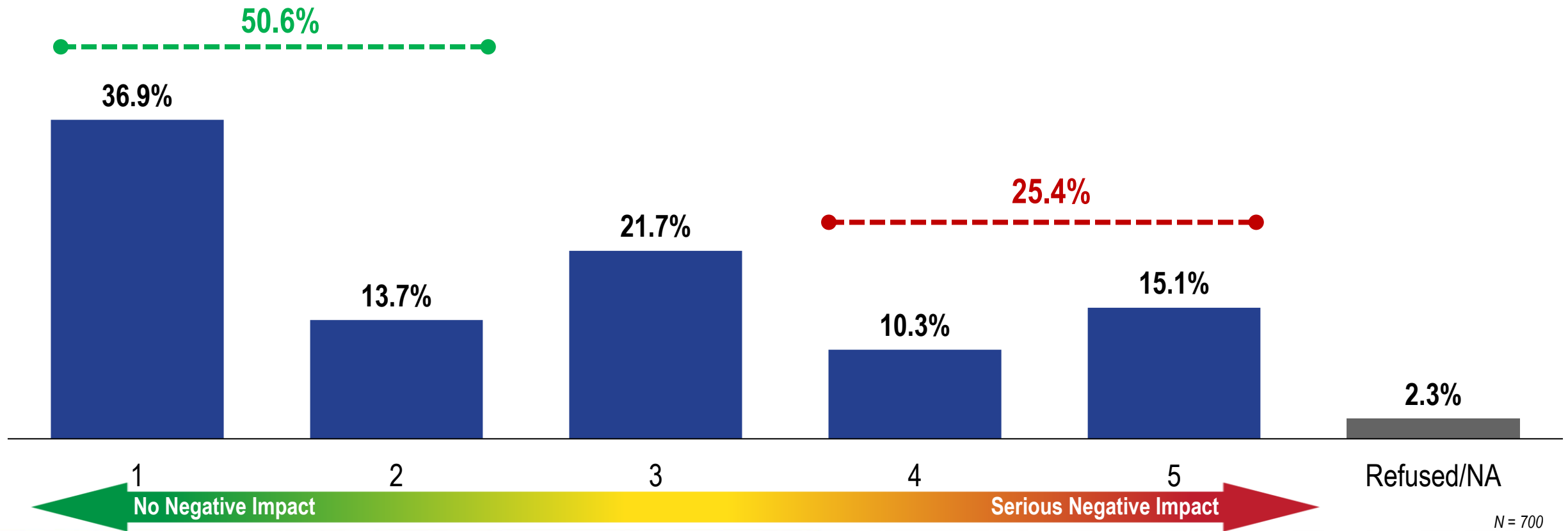
Mean = 2.9
Median = 3.0



N = 700

N. Please tell me what impact each activity has on Lake Mead. Using Reusable Bags

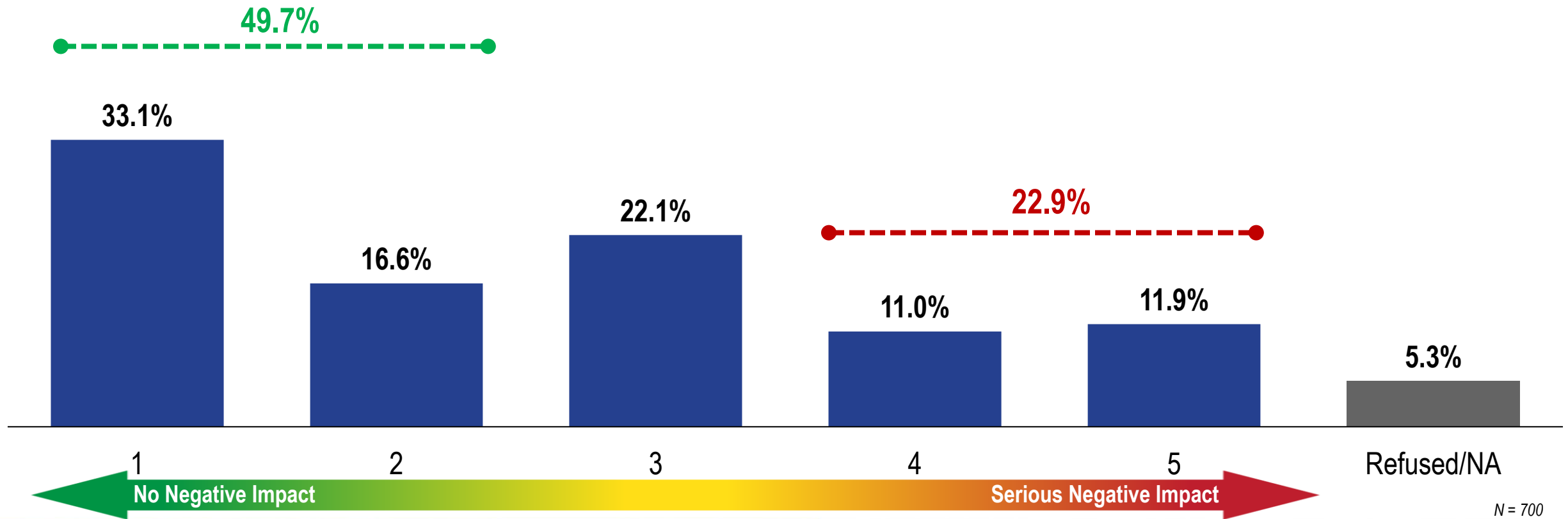
Mean = 2.7
Median = 2.0



N = 700

O. Please tell me what impact each activity has on Lake Mead. Composting

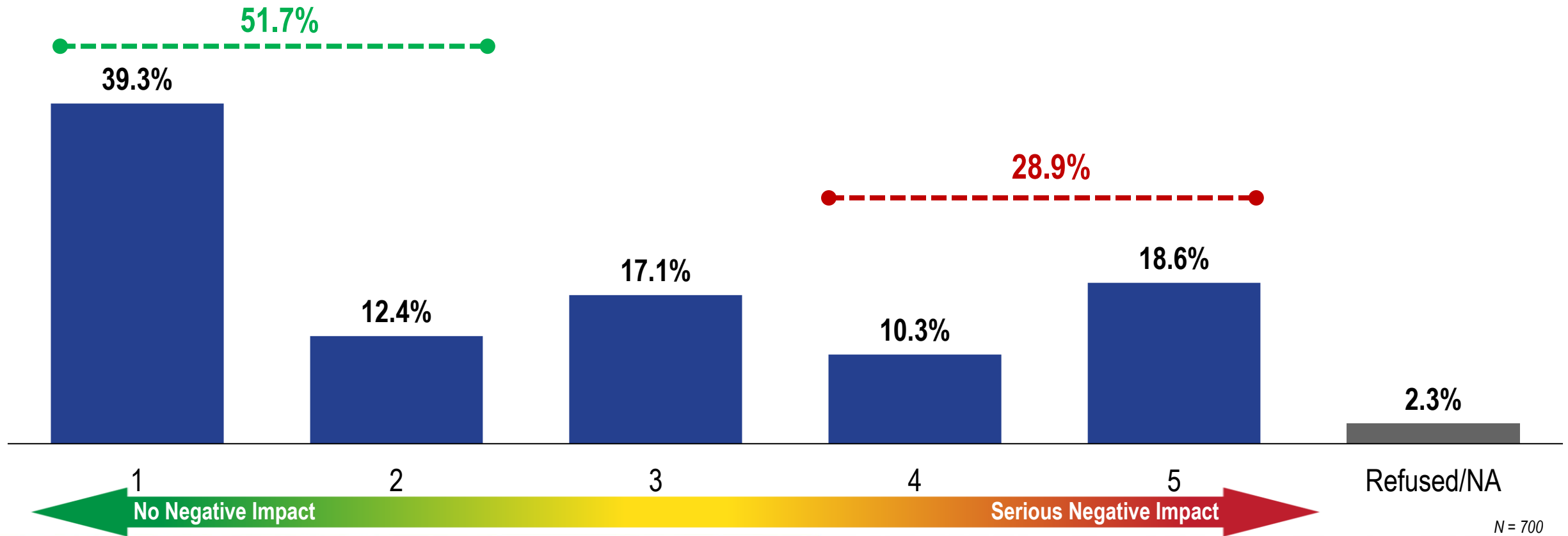
Mean = 2.8
Median = 3.0



N = 700

P. Please tell me what impact each activity has on Lake Mead. Recycling

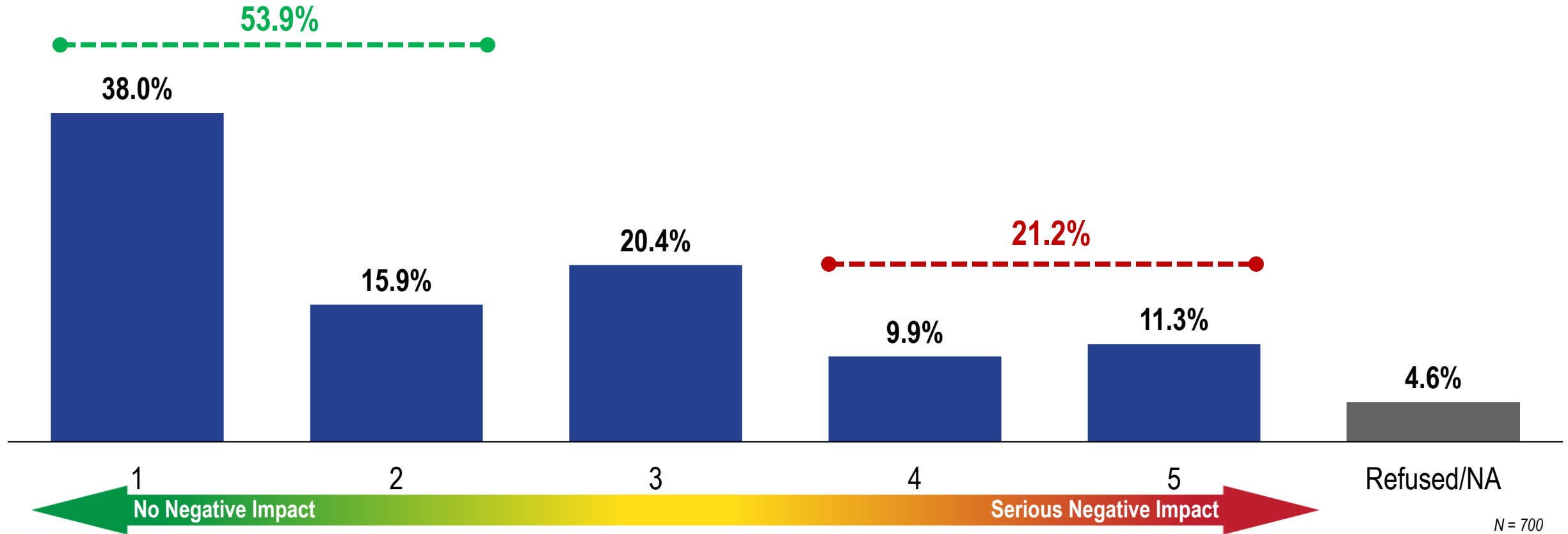
Mean = 2.7
Median = 2.0



N = 700

Q. Please tell me what impact each activity has on Lake Mead. Use of Solar Cells

Mean = 2.7
Median = 2.0



N = 700

Series: Comparing Mean Scores Historical Trend

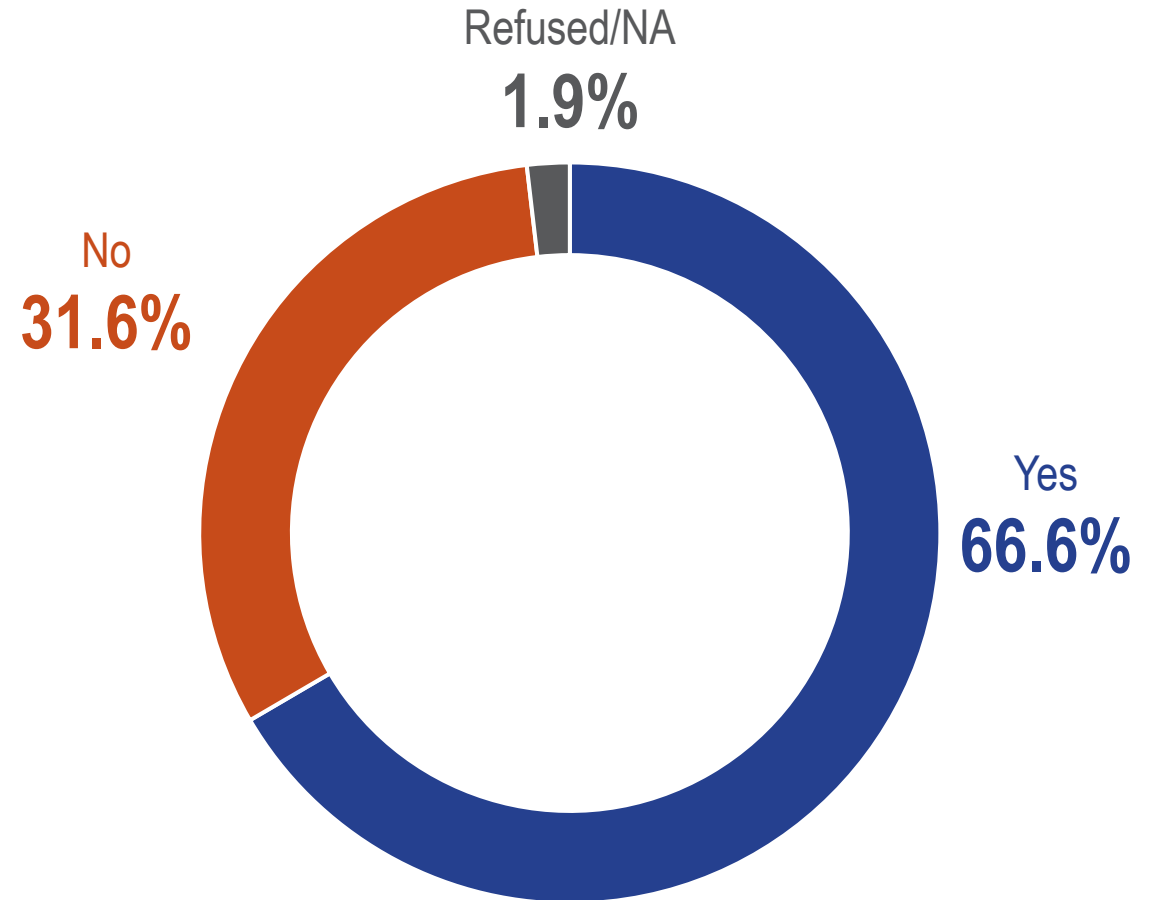
(5=Very Serious Negative Impact; 1=No Negative Impact)

Rank	Activity	2019	2022
1	Littering	4.11	4.10
2	Use of Commercial Car Washes	2.97	3.20
3	Reporting of Clogged Storm Drains	2.76	3.10
4	Proper Disposal of Chemicals	2.66	3.04
5	Proper Disposal of Oil	2.69	3.01
6	Limiting the Use of Grass	2.50	2.92
7	Converting to Desert Landscaping	2.49	2.92
8	Proper Disposal of Garbage	2.51	2.91
9	Using Organic Fertilizers	2.63	2.89

Rank	Activity	2019	2022
10	Reducing Use of Water	2.41	2.85
11	Proper Disposal of Pet Waste	2.58	2.84
12	Composting	2.53	2.84
13	Using Green Products	2.32	2.74
14	Getting Smog Checks	2.43	2.72
15	Recycling	2.30	2.70
16	Use of Solar Cells	2.39	2.68
17	Using Reusable Bags	2.36	2.67

Note: Scores exclude respondents who did not answer the question.

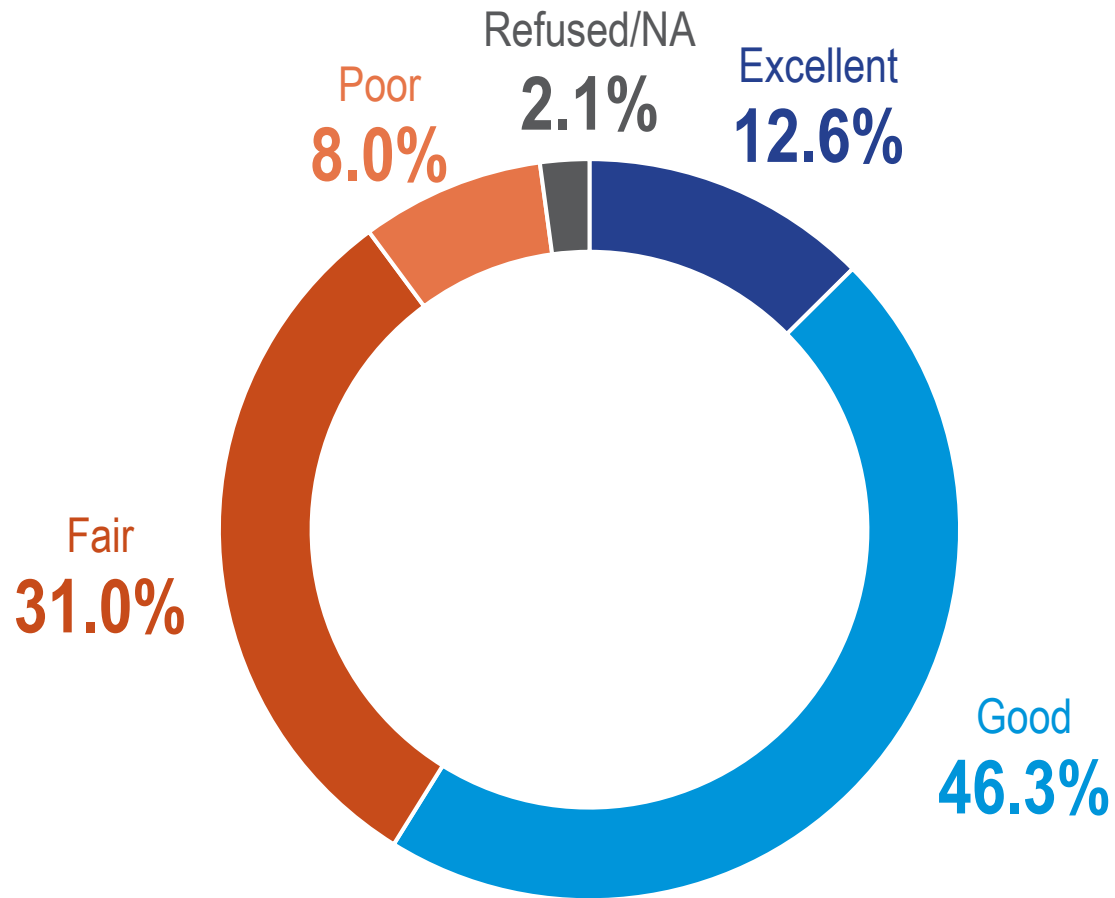
In general, do you think flood control is an issue for Southern Nevada?



Two-thirds of respondents believe that flood control is an issue for Southern Nevada.

N = 700

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

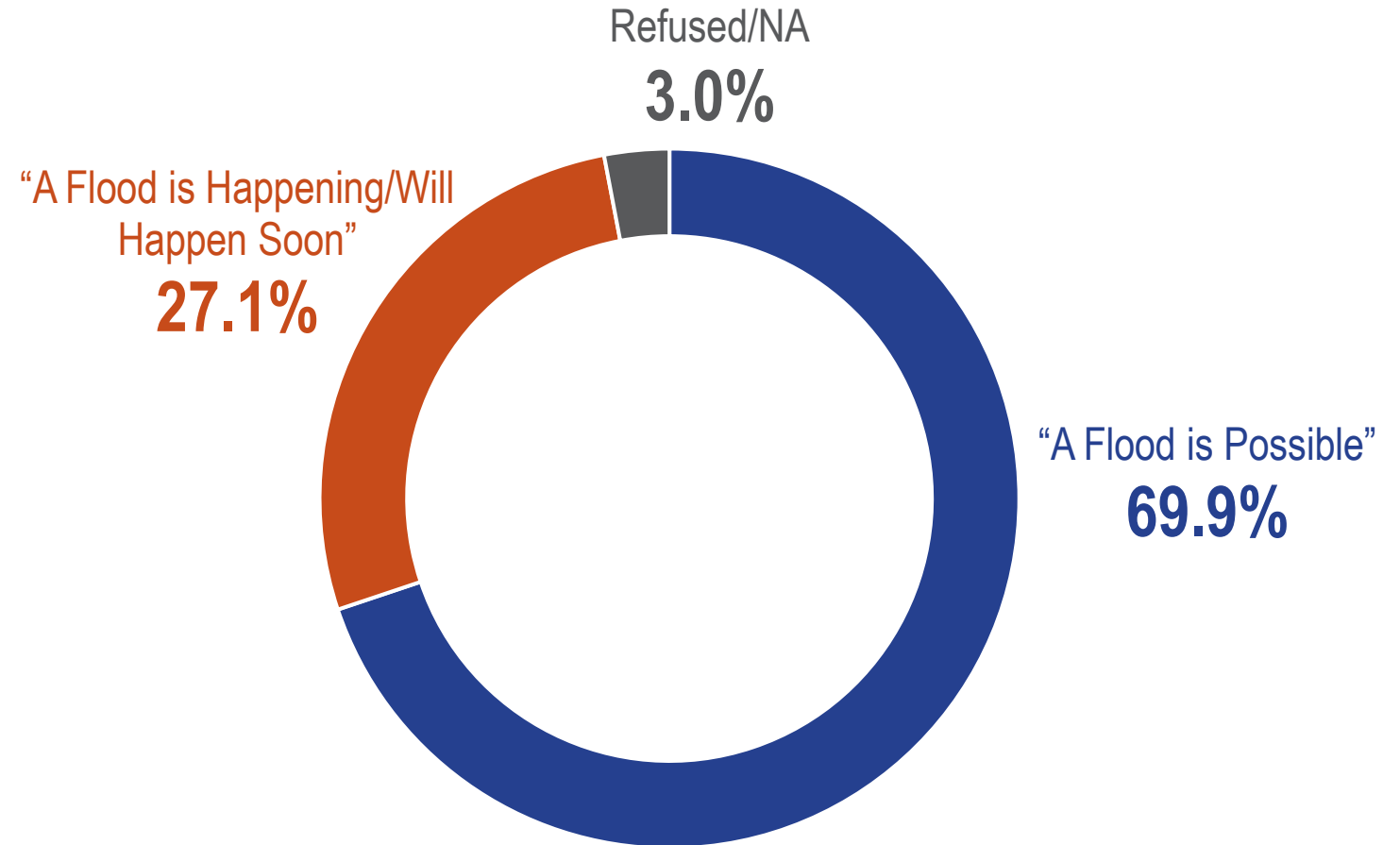


Nearly three-fifths of respondents believe that flood control in Southern Nevada is being handled “Good” or better.

N = 700

What do you think the term “Flood Watch” means?

Over a two-thirds of respondents believe that the term “Flood Watch” means “A Flood is Possible”.

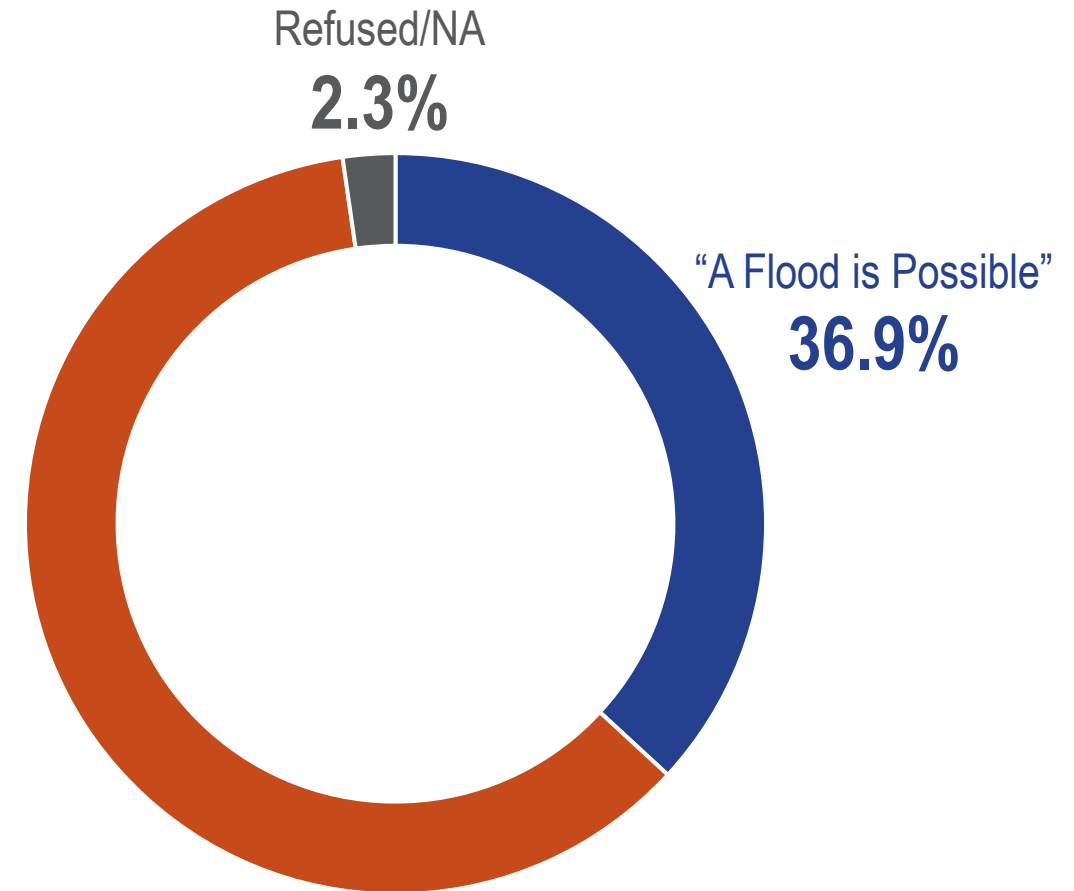


N = 700

What do you think the term “Flood Warning” means?

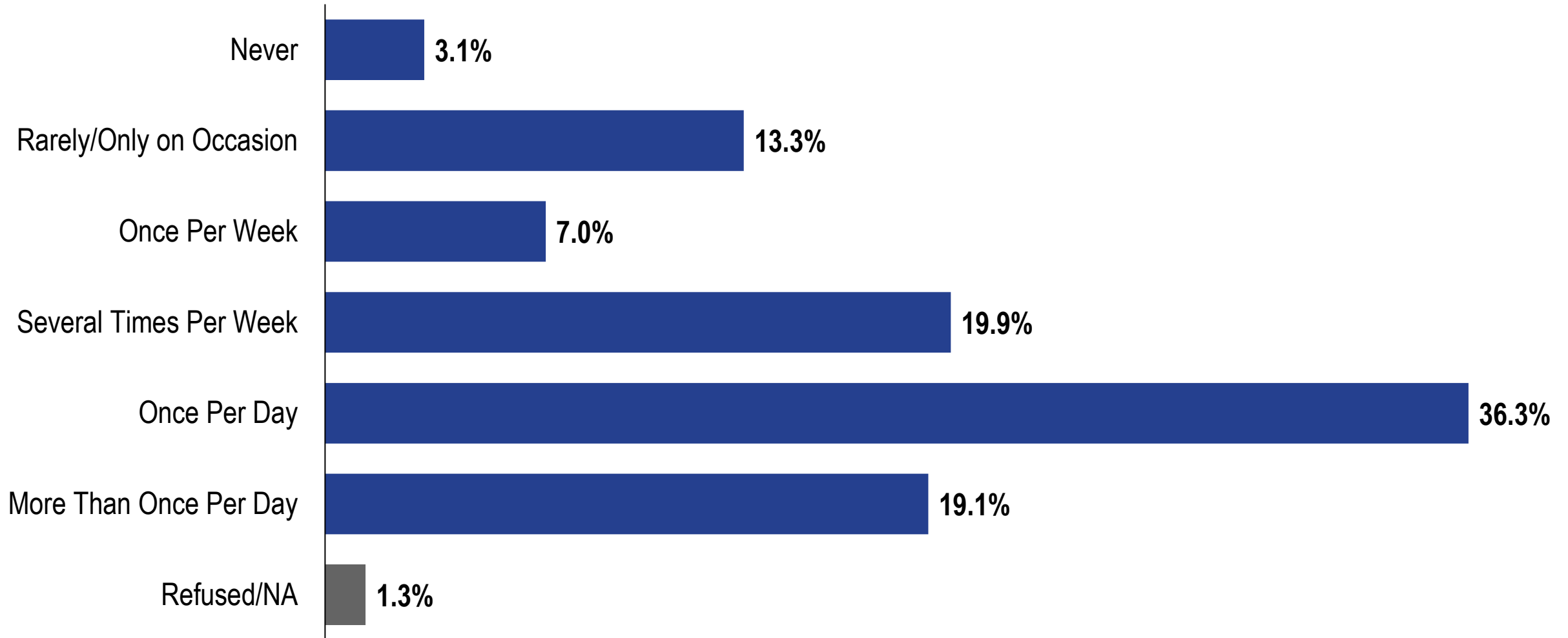
Contrary to the previous question, three-fifths of respondents believe that the term “Flood Warning” means “A Flood is Happening/Will Happen Soon”.

“A Flood is
Happening/Will
Happen Soon”
60.9%



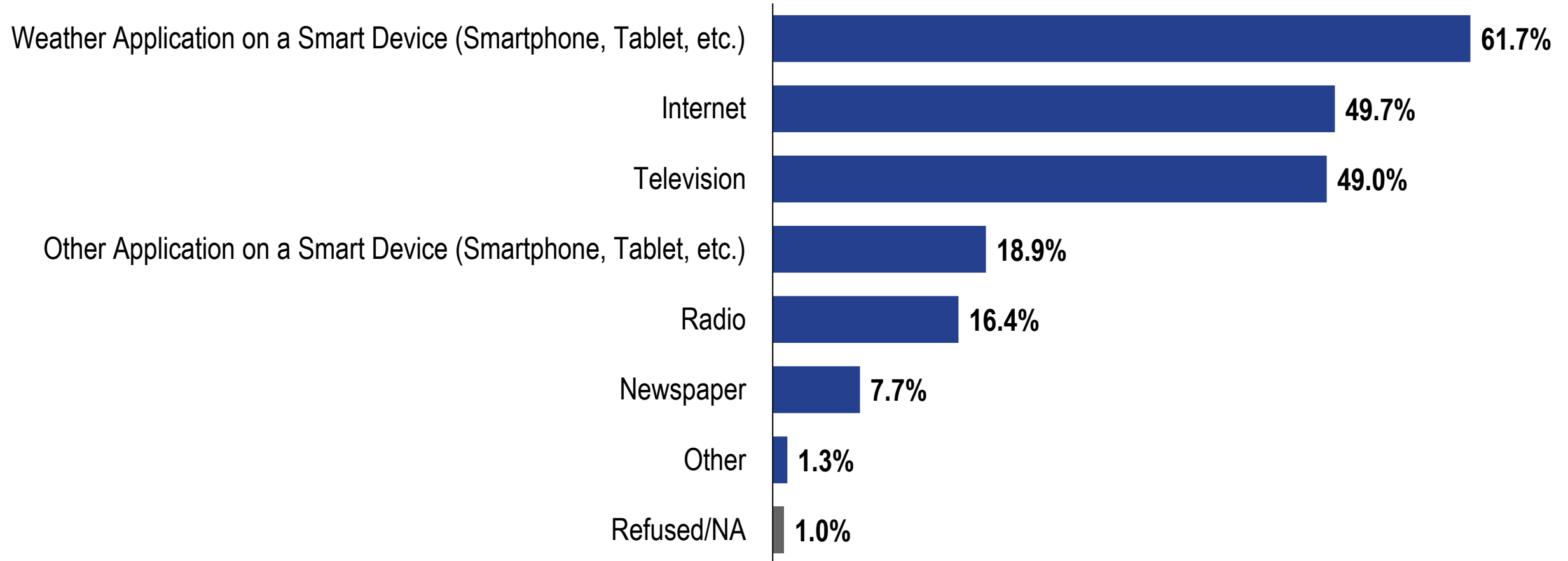
N = 700

How often would you say you check your local weather forecast?



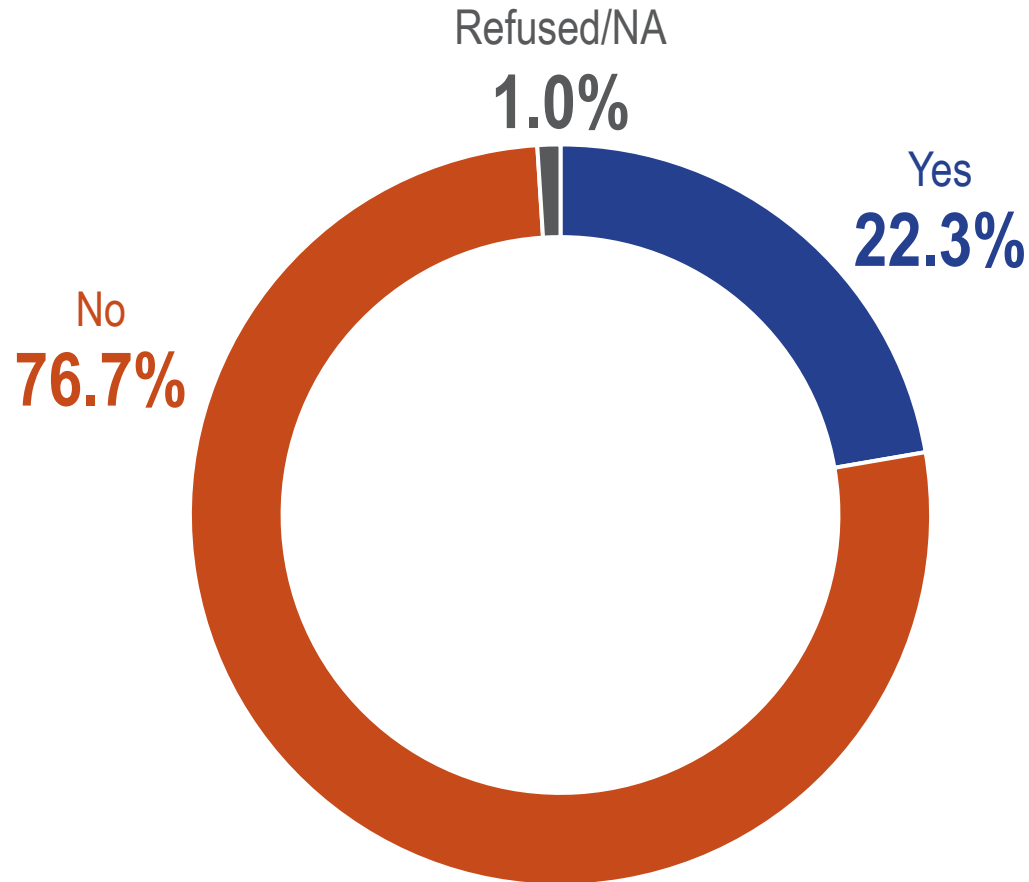
N = 700

If you wanted to check your local weather forecast, which of the following resources would you use?



N = 700

Have you ever watched “The Flood Channel Television Program” on Cox Digital Cable channels 2 or 4?

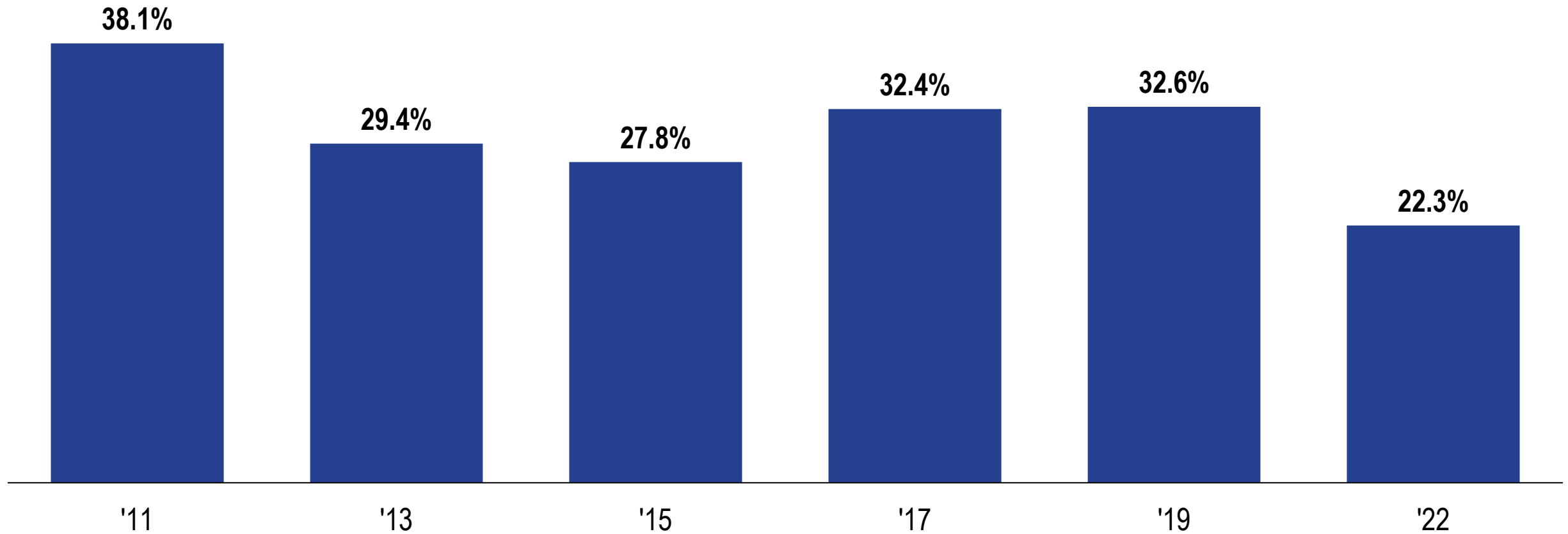


Nearly one-fourth of respondents have watched “The Flood Channel Television Program” on Cox Digital Cable channels 2 or 4.

N = 700

Have you ever watched “The Flood Channel Television Program” on Cox Digital Cable channels 2 or 4?

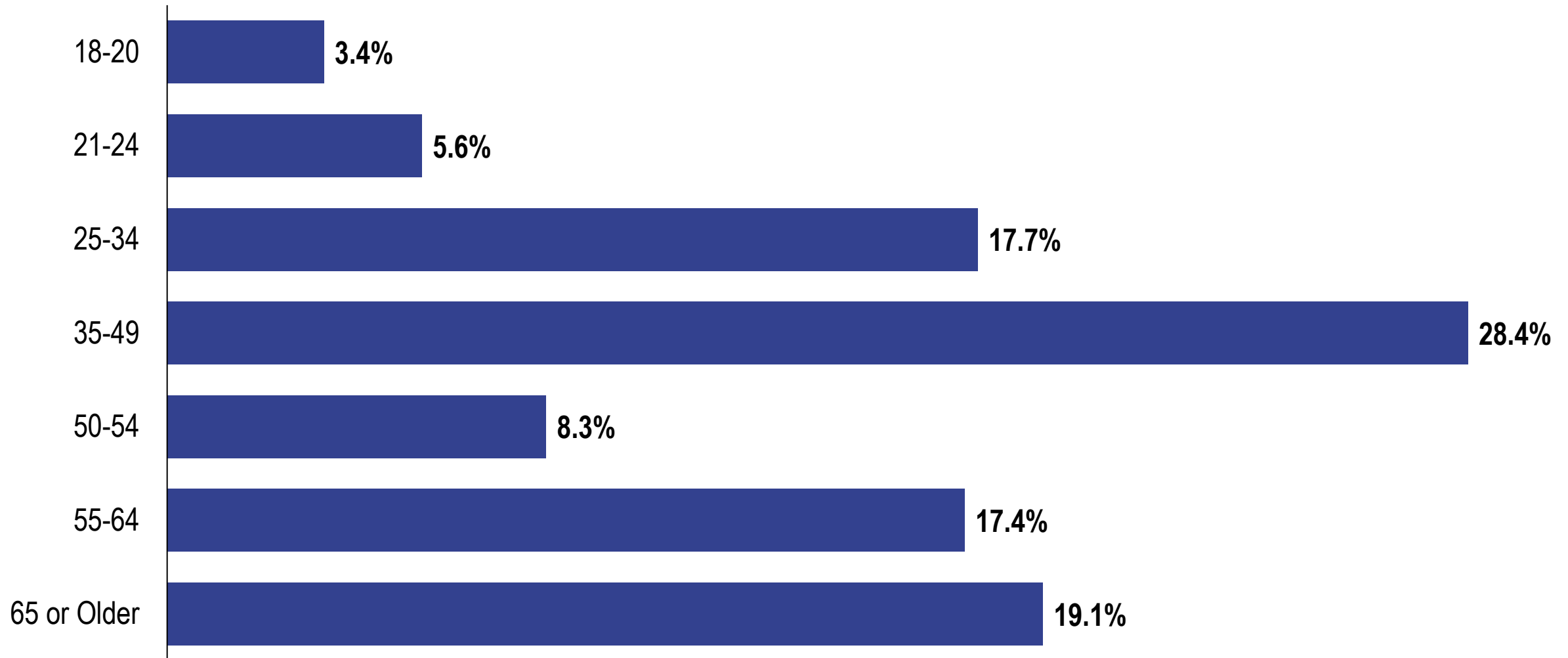
Historical Trend (Yes)



N = 700

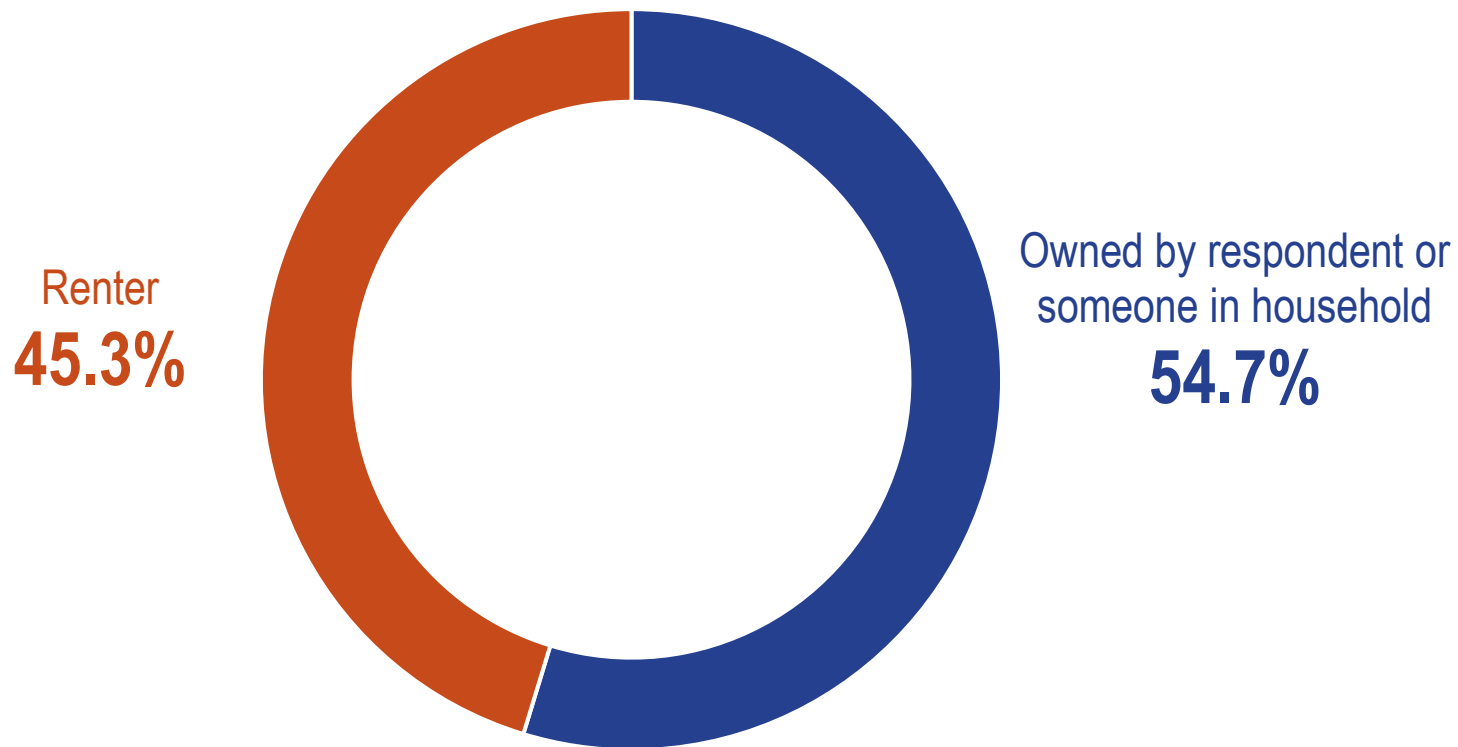
DEMOGRAPHIC PROFILE

Please indicate your age category.



N = 700

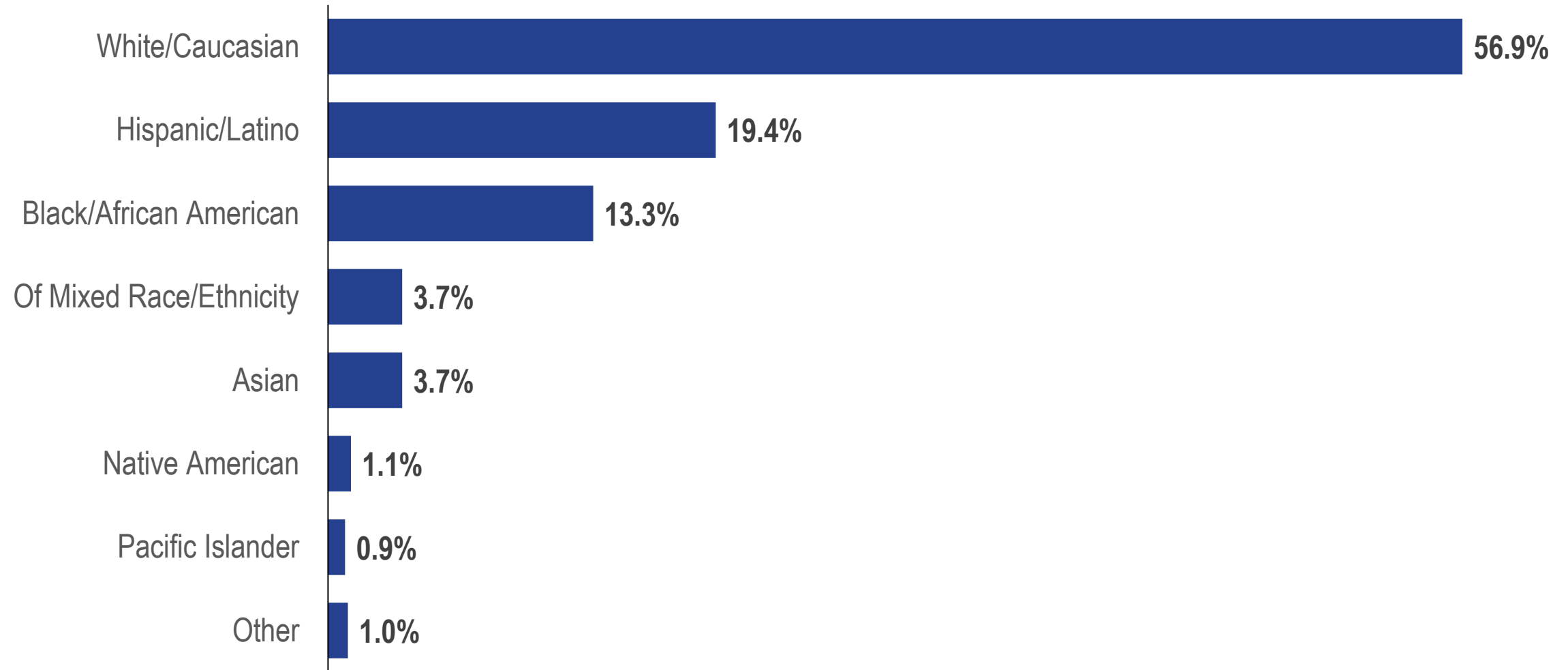
Is your current place of residence owned by you or someone in your household, or rented?



Over half of respondents either own their home or their home is owned by someone else in their household.

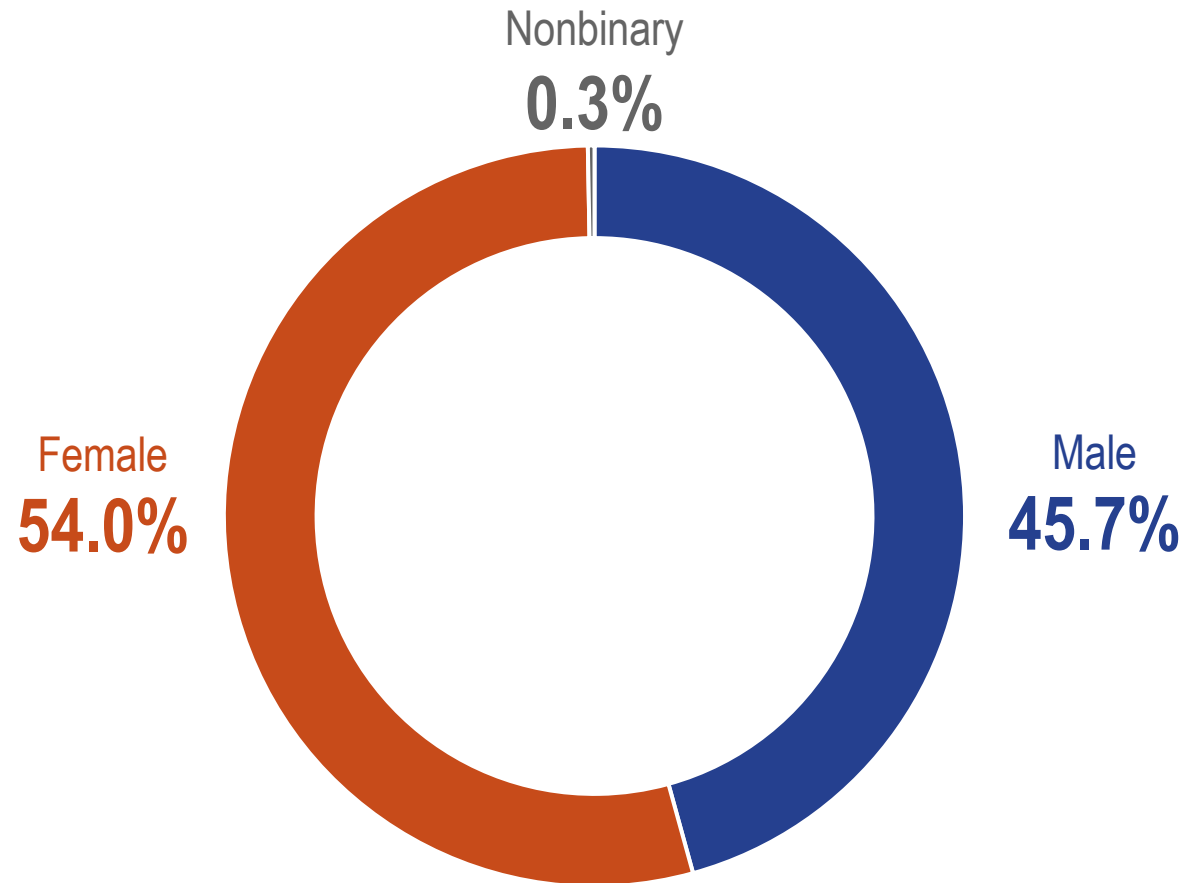
N = 700

How would you generally classify your race or ethnicity?



N = 700

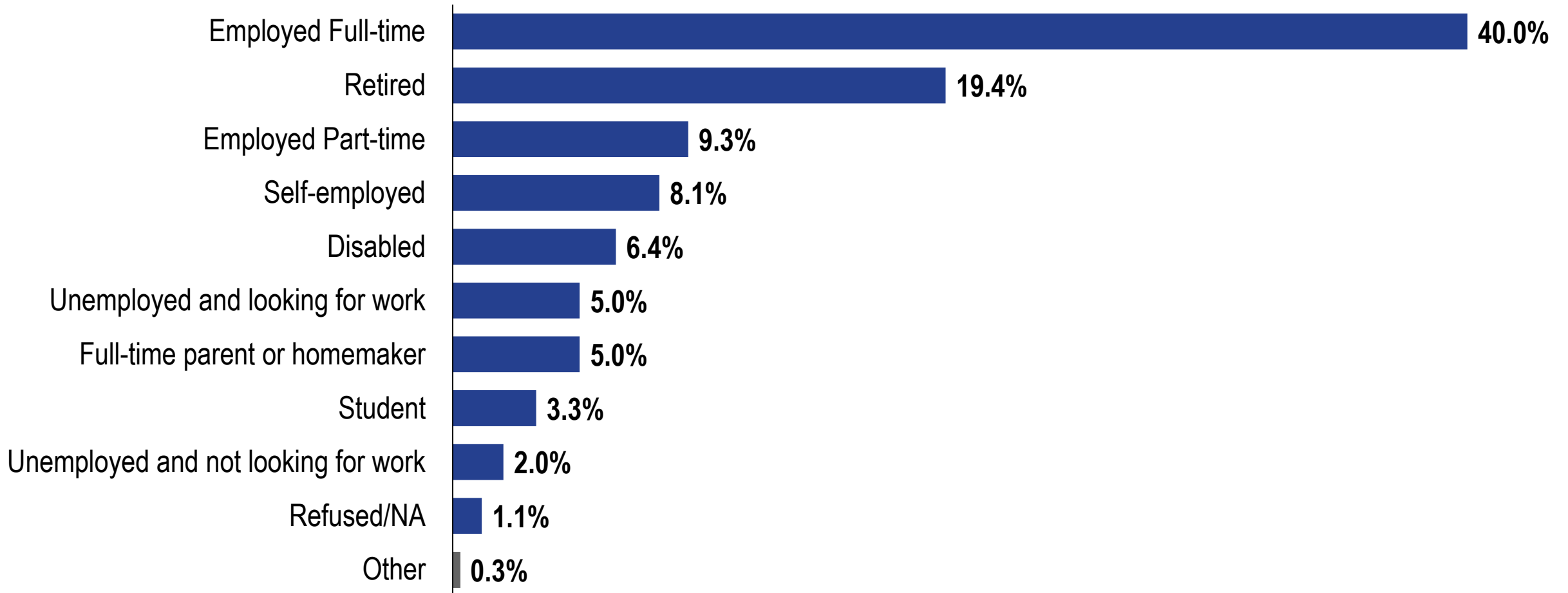
With which gender do you identify?



Over half of respondents were female.

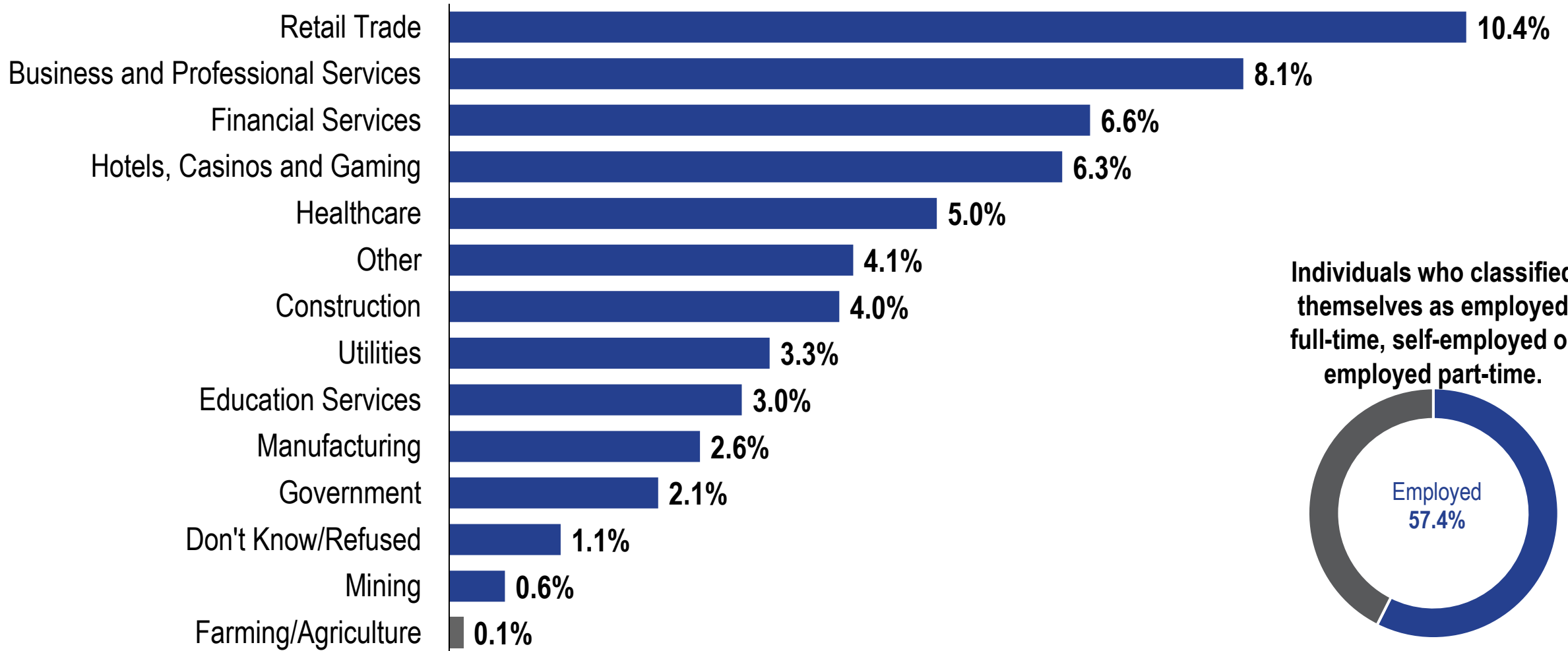
N = 700

Which of the following best describes your current employment status?

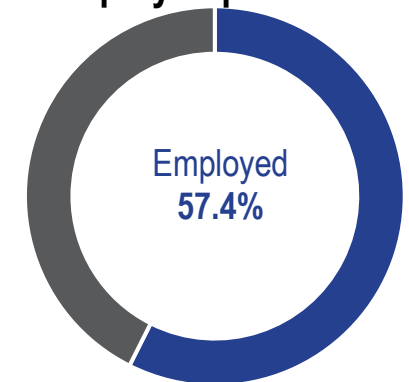


N = 700

What industry are you employed in?

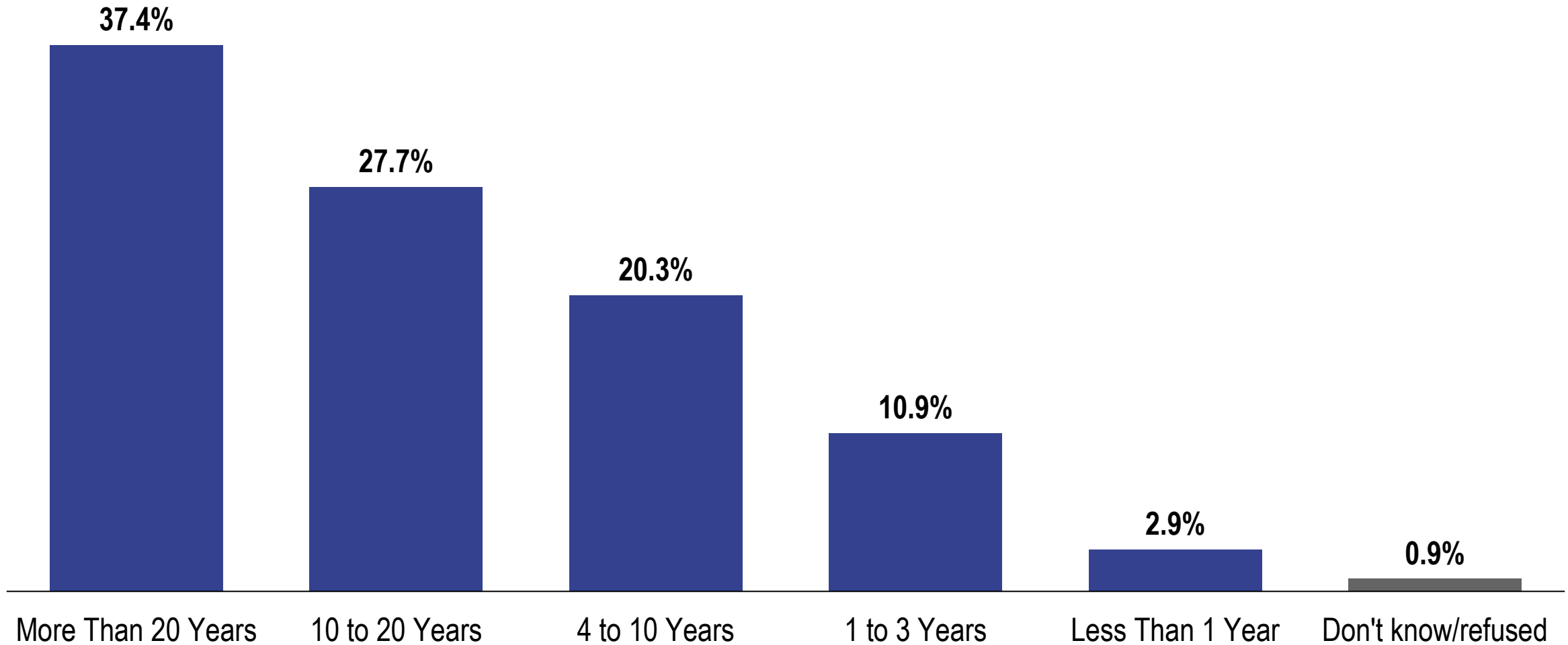


Individuals who classified themselves as employed full-time, self-employed or employed part-time.



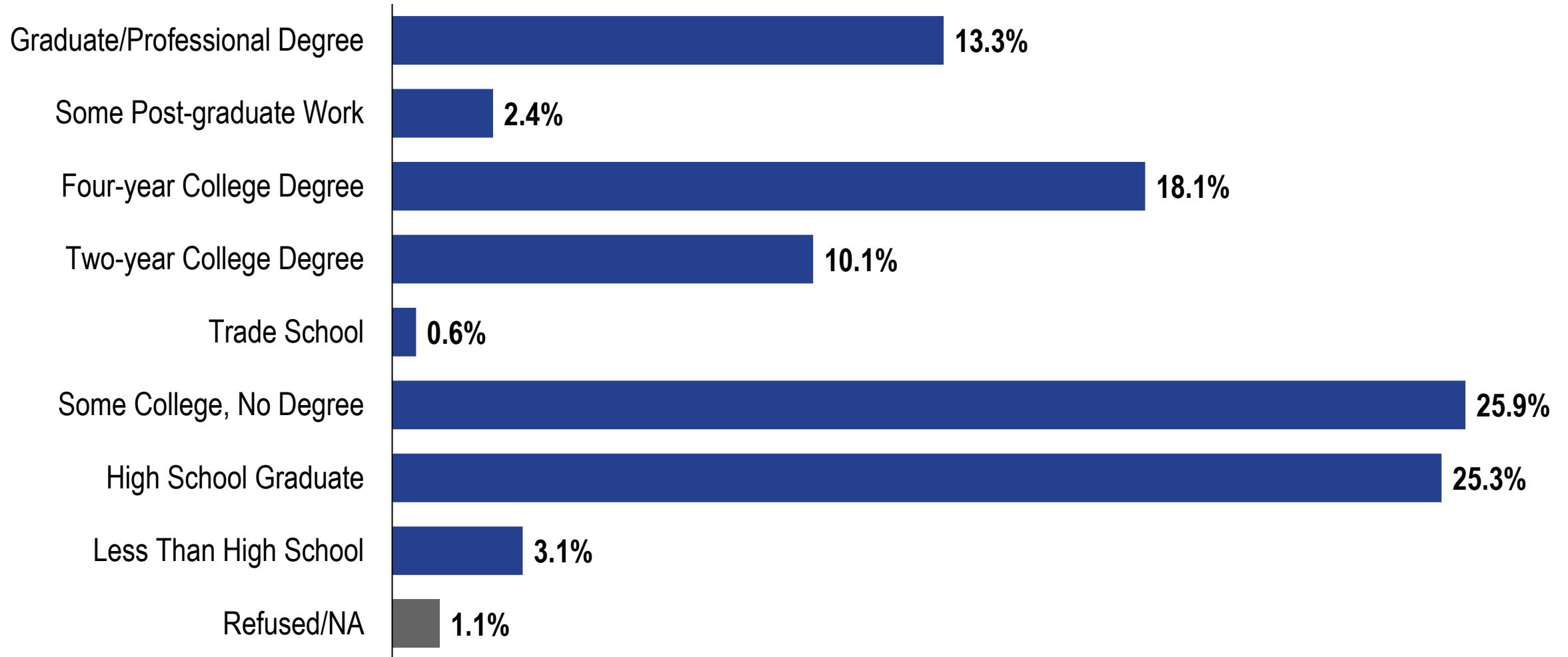
N = 402

How long have you lived in Southern Nevada?

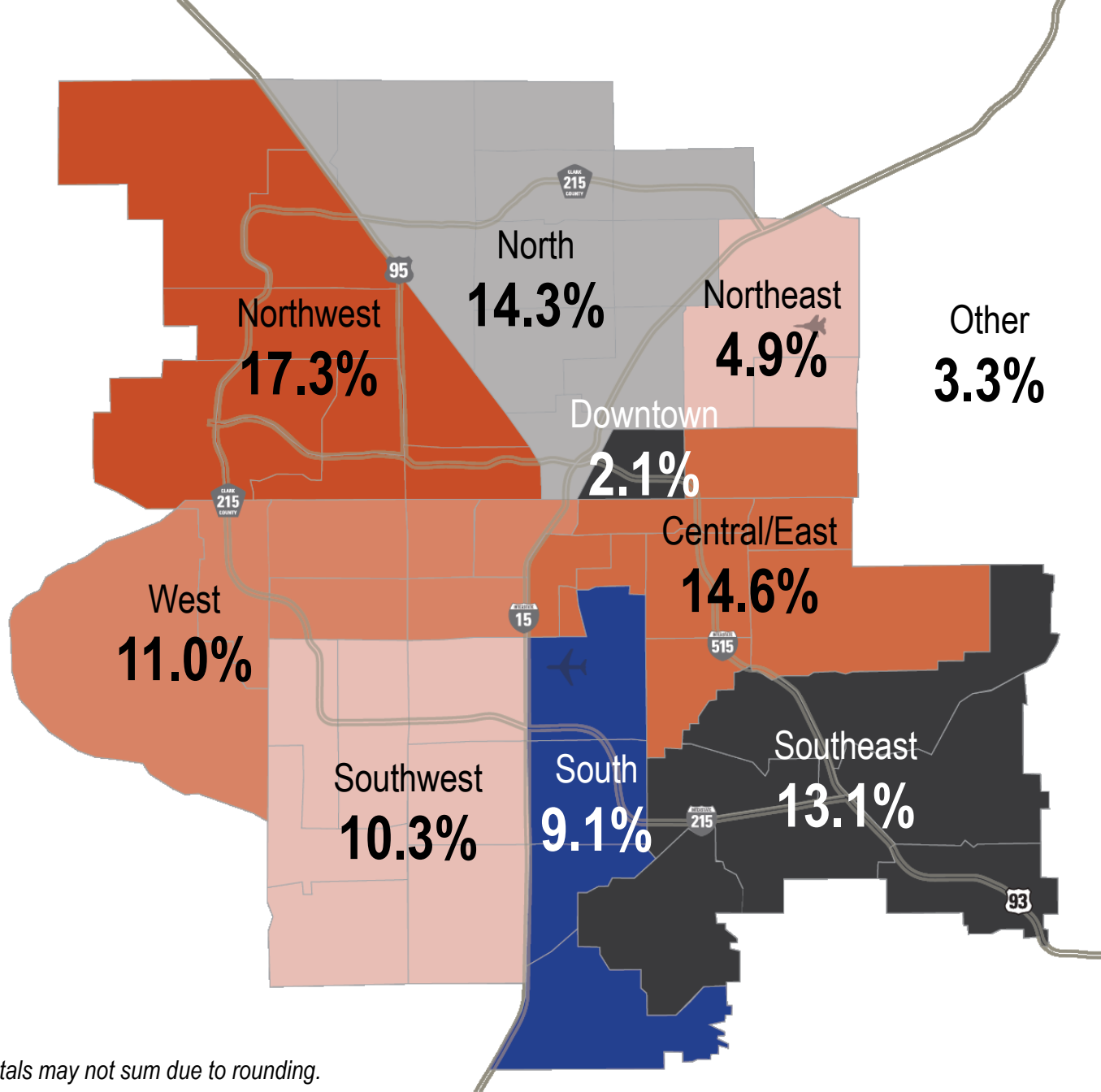


N = 700

What is the highest level of education you have attained?



N = 700



Top 10 Zip Codes		Share
1	89108	4.1%
2	89115	3.7%
3	89031	3.6%
4	89119	3.6%
5	89128	3.1%
6	89121	2.9%
7	89122	2.7%
8	89015	2.6%
9	89148	2.6%
10	89012	2.4%
Other		68.7%

Note: Totals may not sum due to rounding.

REGIONAL FLOOD
CONTROL DISTRICT



APPLIED
ANALYSIS

