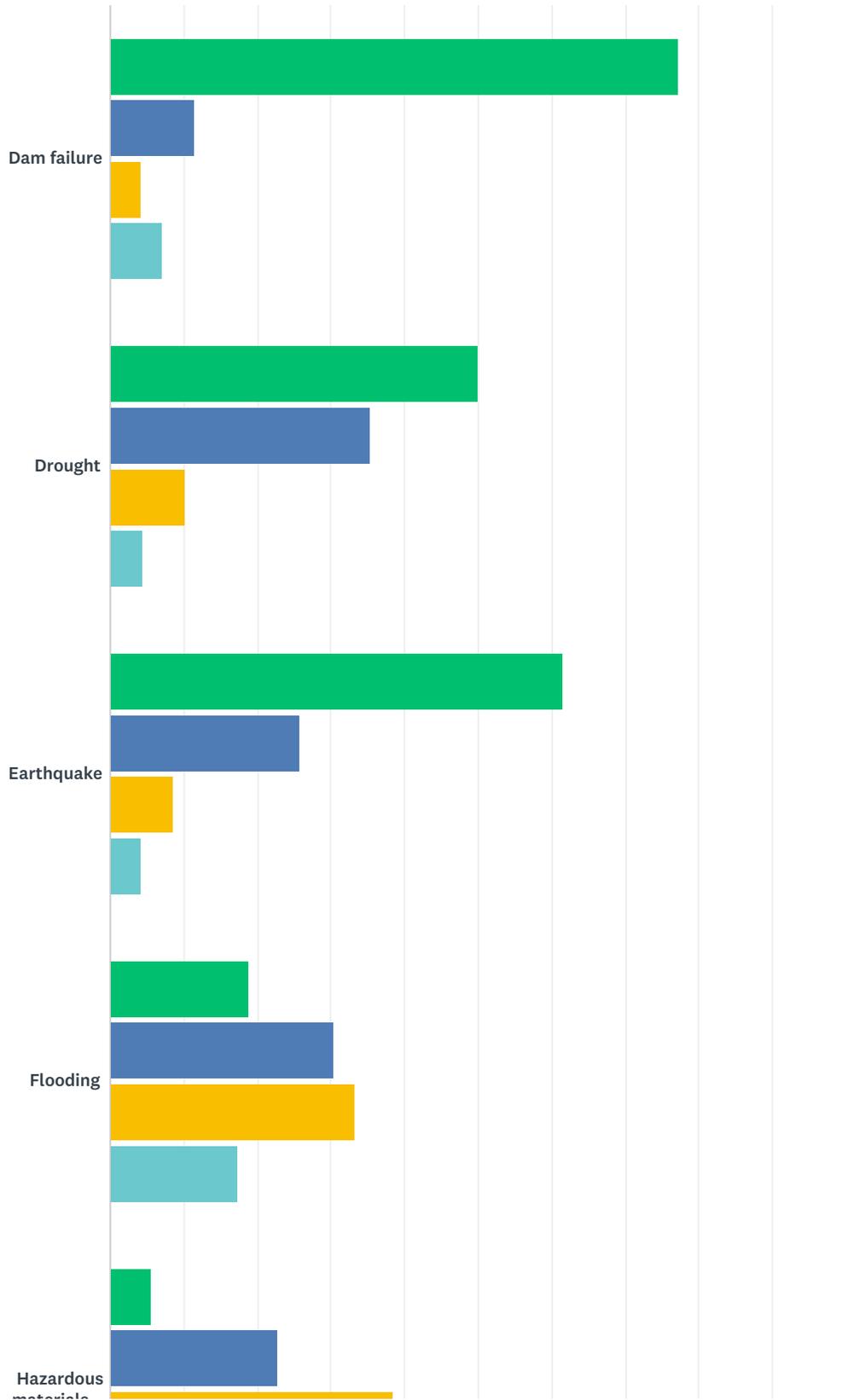


APPENDIX 4: PUBLIC SURVEY, RAW DATA

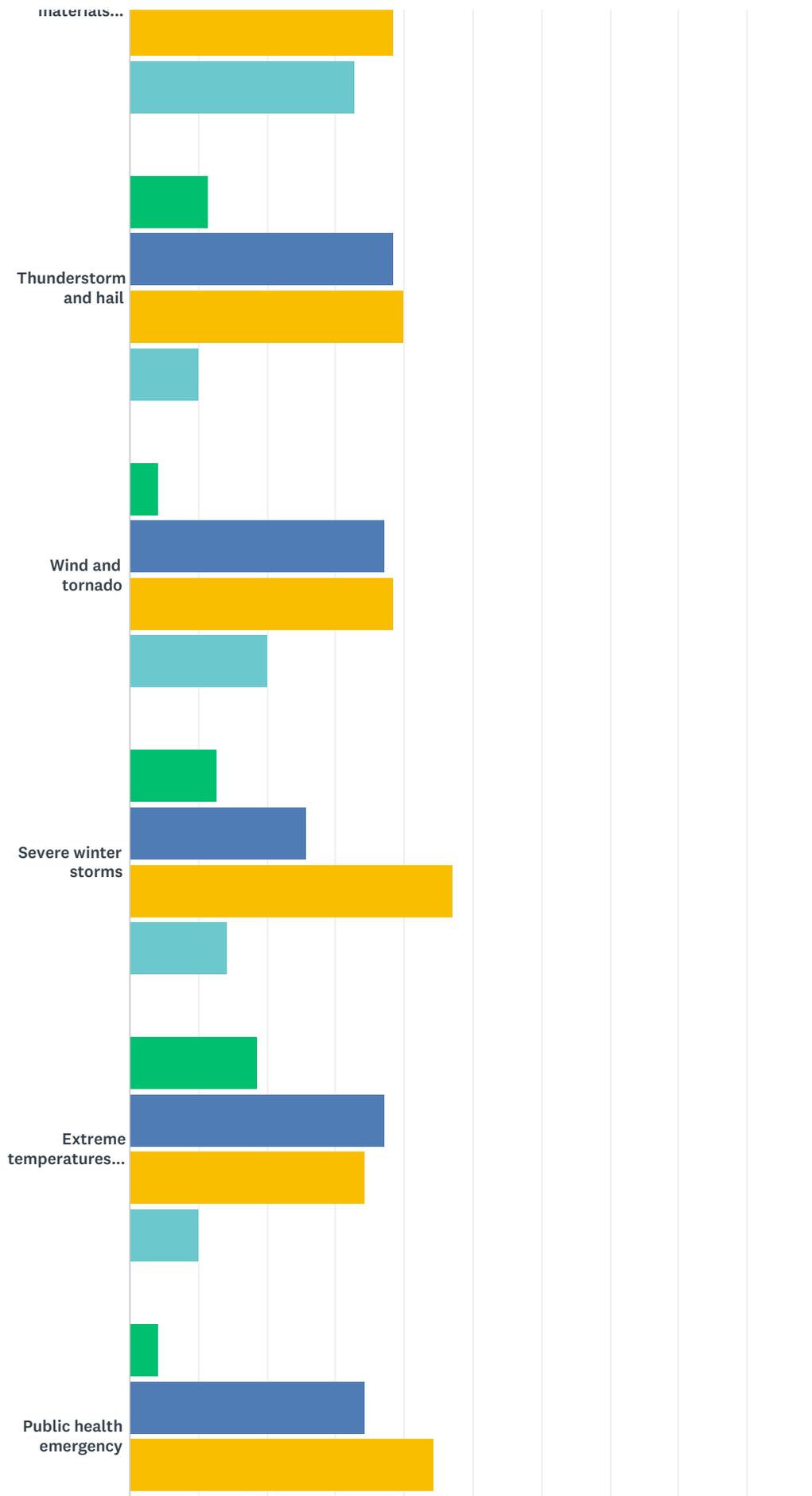
The appendix contains a summary of the raw data from the online survey distributed as part of this project. It also contains a blank copy of the mini-survey distributed at the Sky Warn training and a summary of the mini-survey results.

Q1 Please indicate how concerned you are about the following hazards where you live.

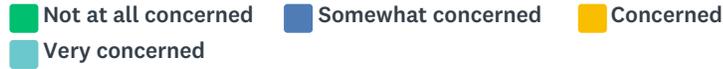
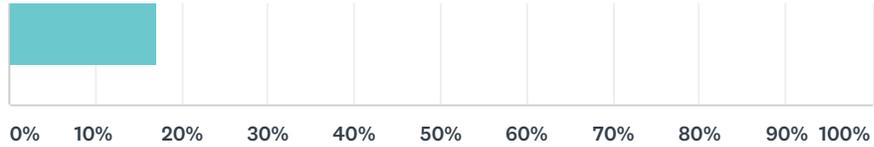
Answered: 70 Skipped: 0



Columbiana County Hazard Mitigation Survey



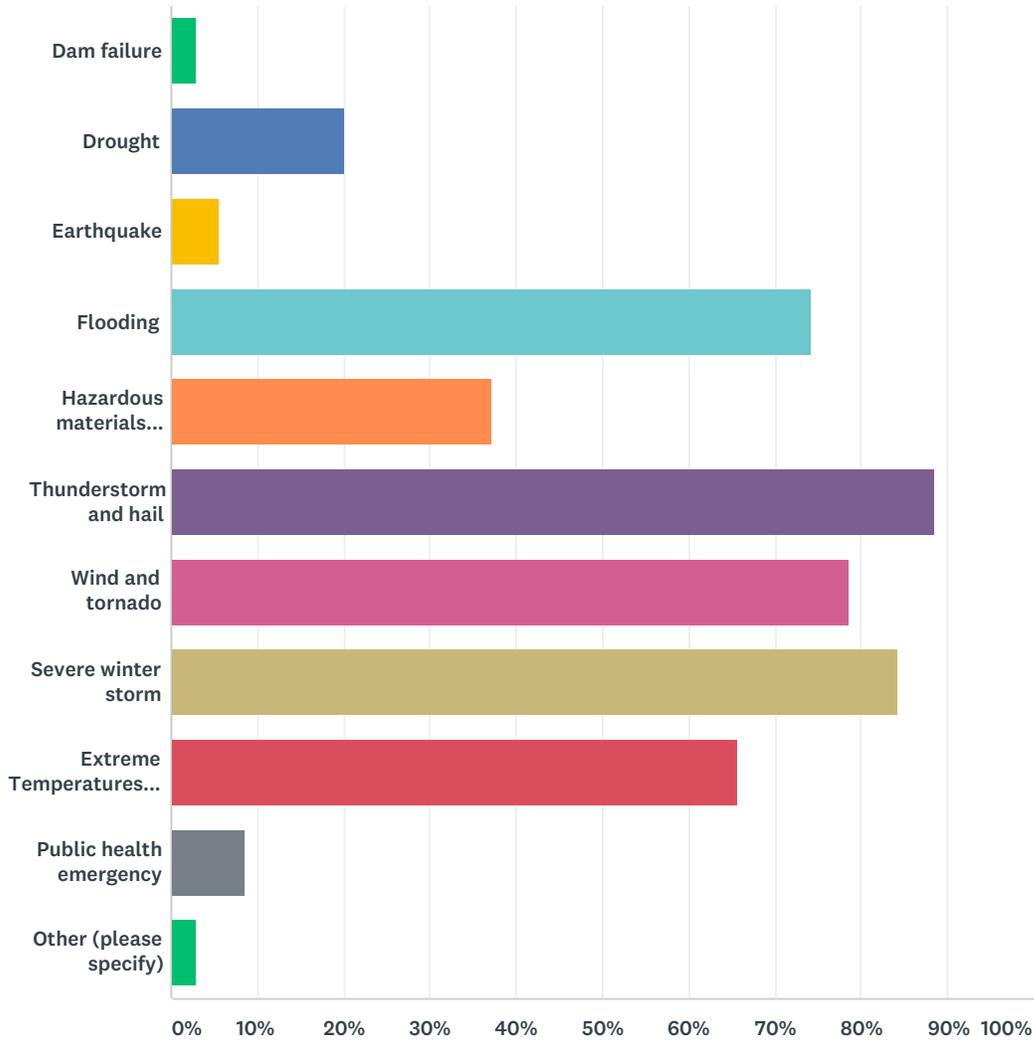
Columbiana County Hazard Mitigation Survey



	NOT AT ALL CONCERNED	SOMEWHAT CONCERNED	CONCERNED	VERY CONCERNED	TOTAL	WEIGHTED AVERAGE
Dam failure	77.14% 54	11.43% 8	4.29% 3	7.14% 5	70	1.41
Drought	50.00% 34	35.29% 24	10.29% 7	4.41% 3	68	1.69
Earthquake	61.43% 43	25.71% 18	8.57% 6	4.29% 3	70	1.56
Flooding	18.84% 13	30.43% 21	33.33% 23	17.39% 12	69	2.49
Hazardous materials (transportation-based, pipelines, nuclear power plant, chemical facilities)	5.71% 4	22.86% 16	38.57% 27	32.86% 23	70	2.99
Thunderstorm and hail	11.43% 8	38.57% 27	40.00% 28	10.00% 7	70	2.49
Wind and tornado	4.29% 3	37.14% 26	38.57% 27	20.00% 14	70	2.74
Severe winter storms	12.86% 9	25.71% 18	47.14% 33	14.29% 10	70	2.63
Extreme temperatures (hot & cold)	18.57% 13	37.14% 26	34.29% 24	10.00% 7	70	2.36
Public health emergency	4.29% 3	34.29% 24	44.29% 31	17.14% 12	70	2.74

Q2 In the past 10 years, which hazards do you remember occurring in your community? (Check all that apply)

Answered: 70 Skipped: 0



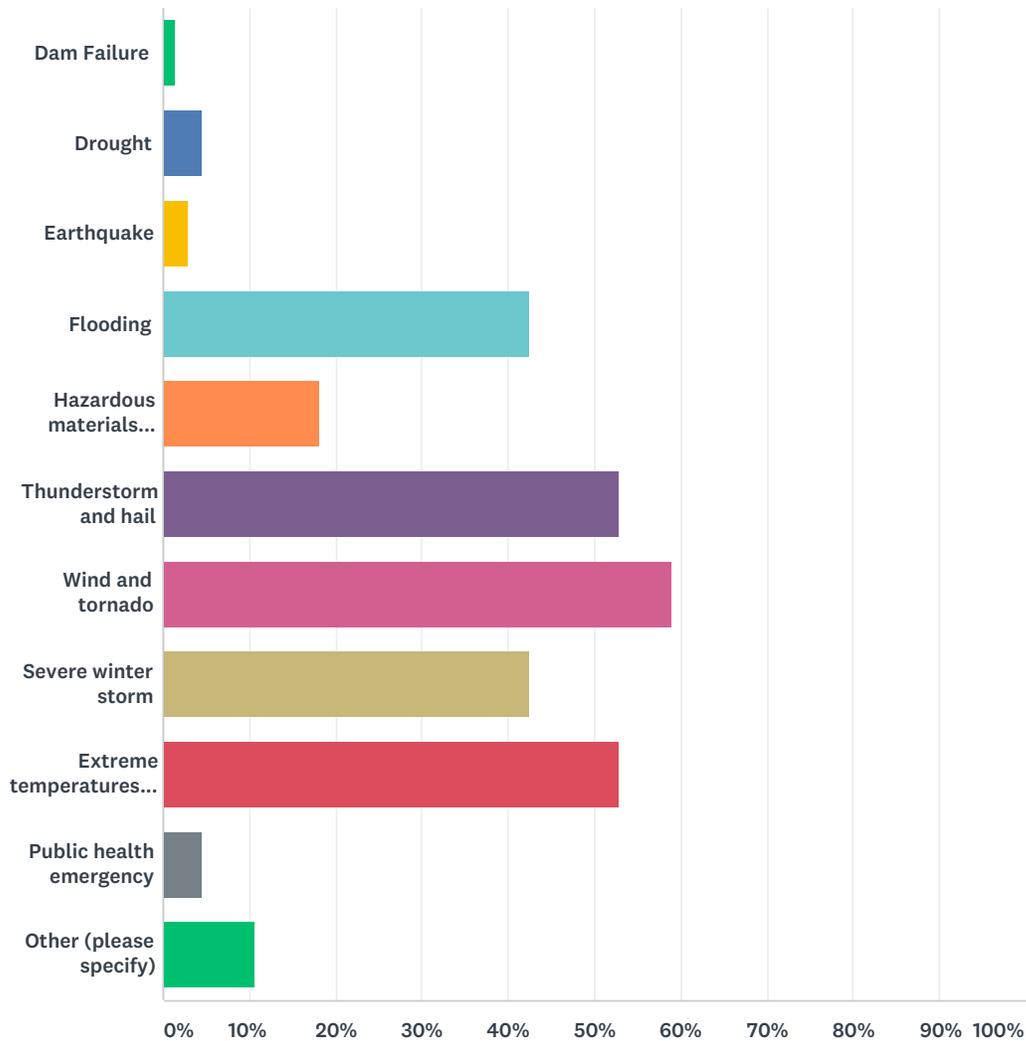
ANSWER CHOICES	RESPONSES	
Dam failure	2.86%	2
Drought	20.00%	14
Earthquake	5.71%	4
Flooding	74.29%	52
Hazardous materials (transportation-based, pipelines, nuclear power plant, chemical facilities)	37.14%	26
Thunderstorm and hail	88.57%	62
Wind and tornado	78.57%	55
Severe winter storm	84.29%	59
Extreme Temperatures (hot & cold)	65.71%	46

Columbiana County Hazard Mitigation Survey

Public health emergency	8.57%	6
Other (please specify)	2.86%	2
Total Respondents: 70		

Q3 Have you noticed an increase in the occurrences or intensity of any of the following hazards? (Check all that apply, if yes)

Answered: 66 Skipped: 4



ANSWER CHOICES	RESPONSES
Dam Failure	1.52% 1
Drought	4.55% 3
Earthquake	3.03% 2
Flooding	42.42% 28
Hazardous materials (transportation-based, pipelines, nuclear power plant, chemical facilities)	18.18% 12
Thunderstorm and hail	53.03% 35
Wind and tornado	59.09% 39
Severe winter storm	42.42% 28
Extreme temperatures (hot & cold)	53.03% 35

Columbiana County Hazard Mitigation Survey

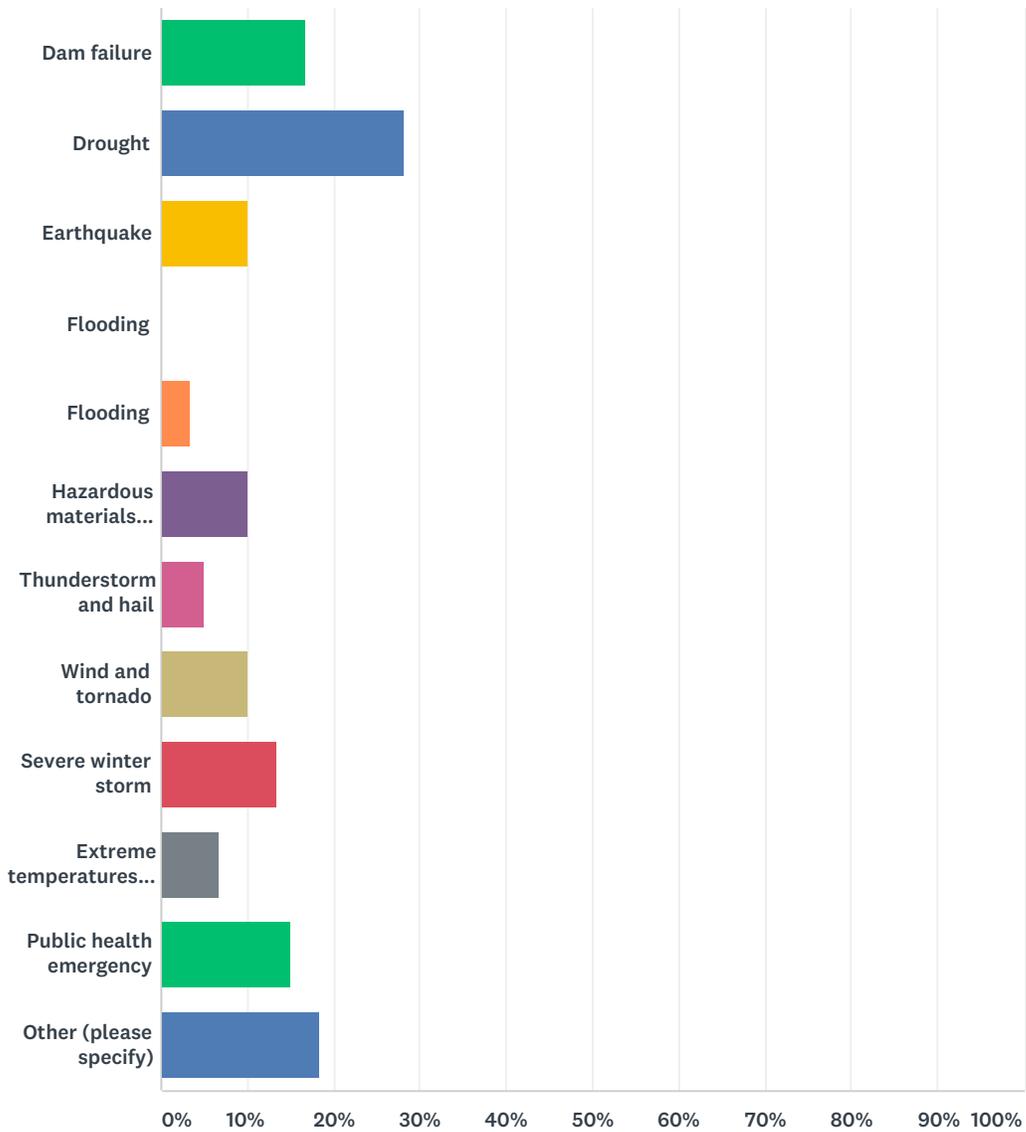
Public health emergency	4.55%	3
Other (please specify)	10.61%	7
Total Respondents: 66		

Q4 To what do you think the increase could be attributed?

Answered: 21 Skipped: 49

Q5 Have you noticed a decrease in the occurrences or intensity of any of the following hazards? (Check all that apply, if yes)

Answered: 60 Skipped: 10



ANSWER CHOICES	RESPONSES	
Dam failure	16.67%	10
Drought	28.33%	17
Earthquake	10.00%	6
Flooding	0.00%	0
Flooding	3.33%	2
Hazardous materials (transportation-based, pipelines, nuclear power plant, chemical facilities)	10.00%	6
Thunderstorm and hail	5.00%	3

Columbiana County Hazard Mitigation Survey

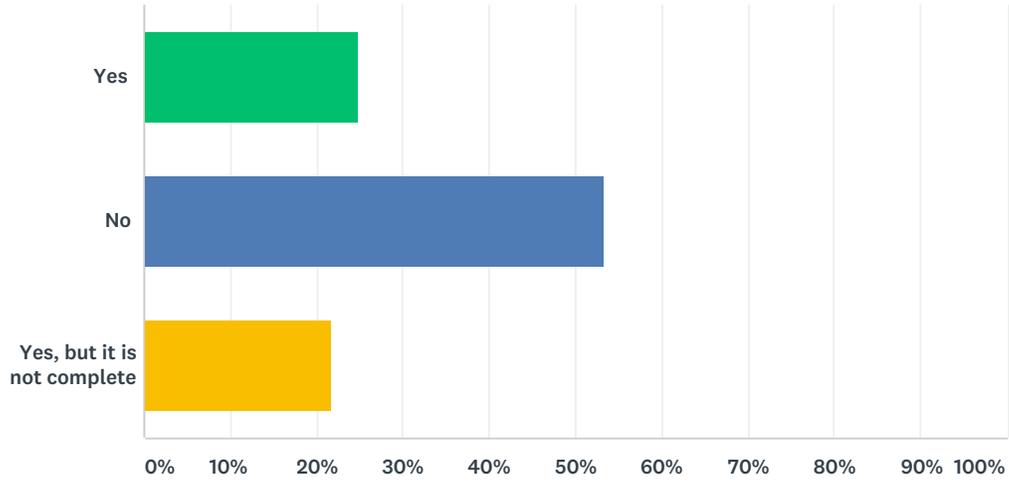
Wind and tornado	10.00%	6
Severe winter storm	13.33%	8
Extreme temperatures (hot & cold)	6.67%	4
Public health emergency	15.00%	9
Other (please specify)	18.33%	11
Total Respondents: 60		

Q6 To what do you think the decrease could be attributed?

Answered: 16 Skipped: 54

Q7 Do you have a 72-hour emergency kit in your home?

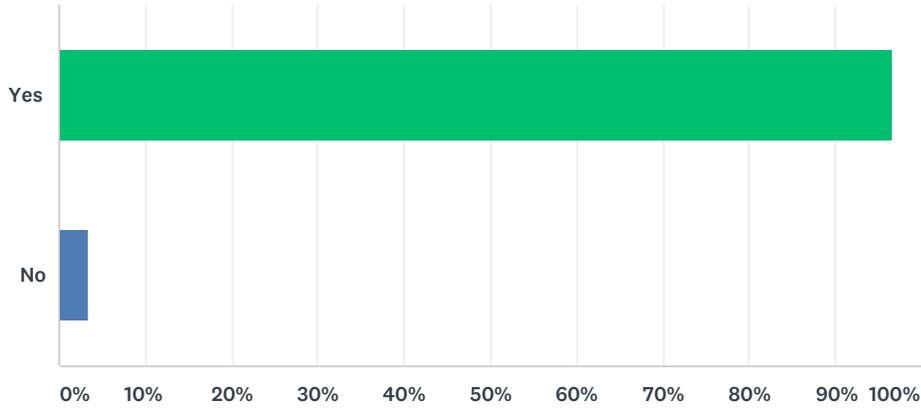
Answered: 60 Skipped: 10



ANSWER CHOICES	RESPONSES	
Yes	25.00%	15
No	53.33%	32
Yes, but it is not complete	21.67%	13
TOTAL		60

Q8 Do you have homeowner or renter's insurance?

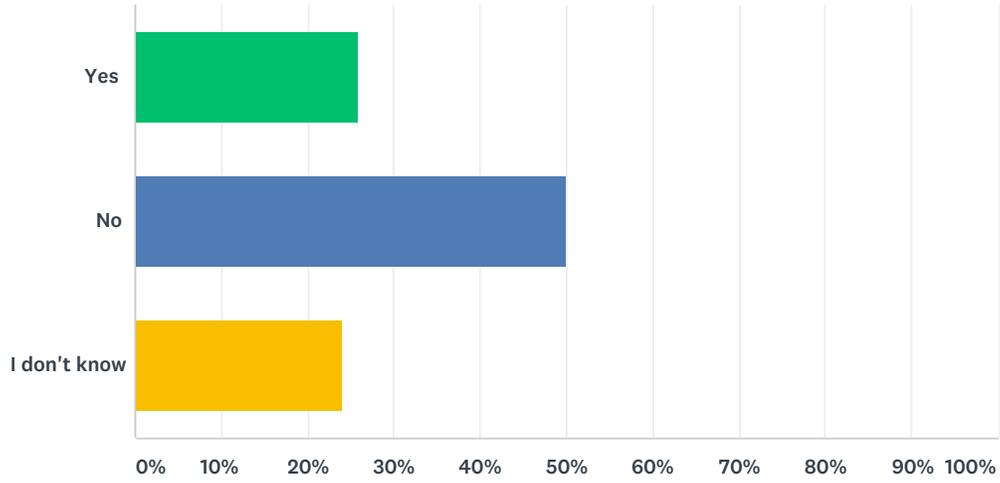
Answered: 60 Skipped: 10



ANSWER CHOICES	RESPONSES	
Yes	96.67%	58
No	3.33%	2
TOTAL		60

Q9 Does your homeowner or renter's insurance include flood insurance?

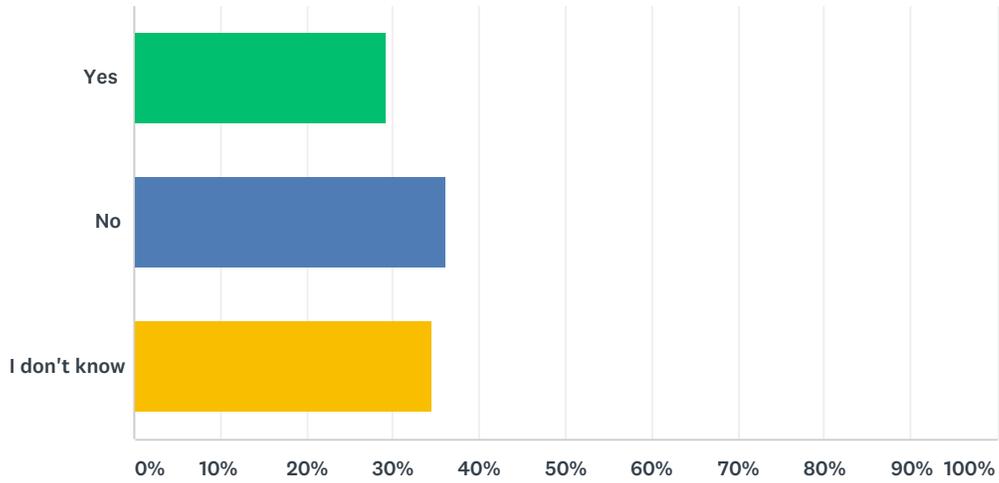
Answered: 58 Skipped: 12



ANSWER CHOICES	RESPONSES	
Yes	25.86%	15
No	50.00%	29
I don't know	24.14%	14
TOTAL		58

Q10 Does your homeowner or renter's insurance include sewer backup insurance?

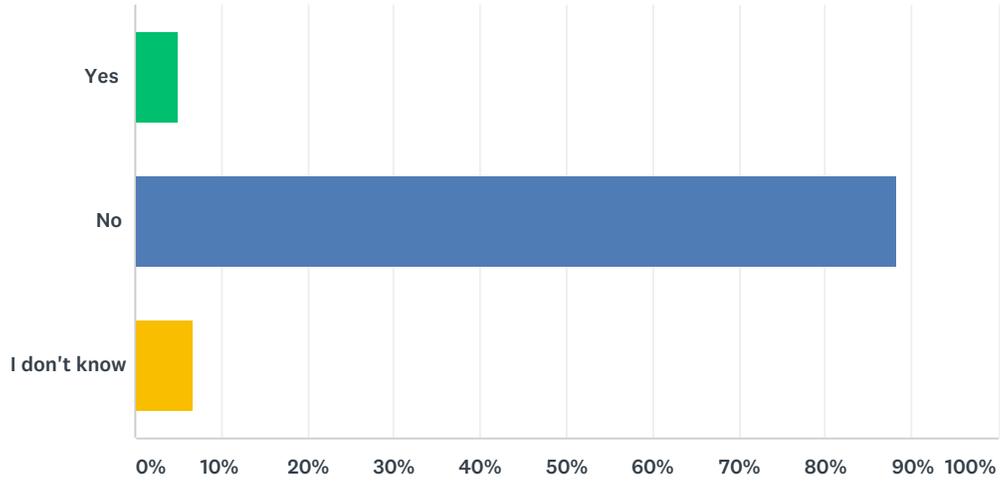
Answered: 58 Skipped: 12



ANSWER CHOICES	RESPONSES	
Yes	29.31%	17
No	36.21%	21
I don't know	34.48%	20
TOTAL		58

Q11 Do you live in a special flood hazard area (SFHA)?

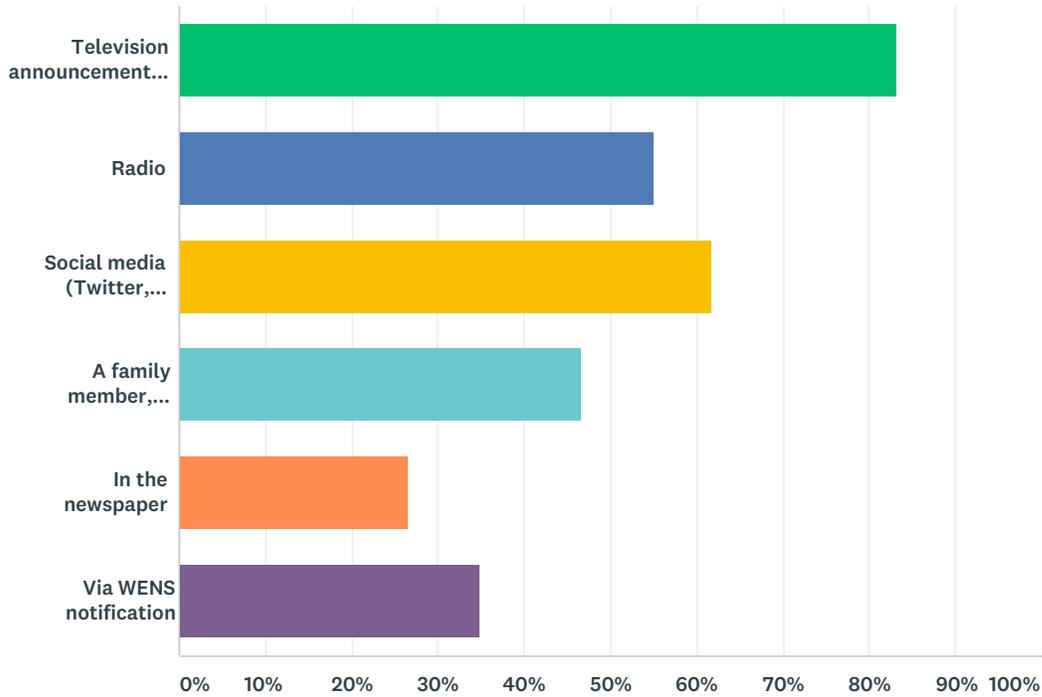
Answered: 60 Skipped: 10



ANSWER CHOICES	RESPONSES	
Yes	5.00%	3
No	88.33%	53
I don't know	6.67%	4
TOTAL		60

Q12 How do you find out about upcoming hazards such as the ones previously mentioned? (Select all that apply)

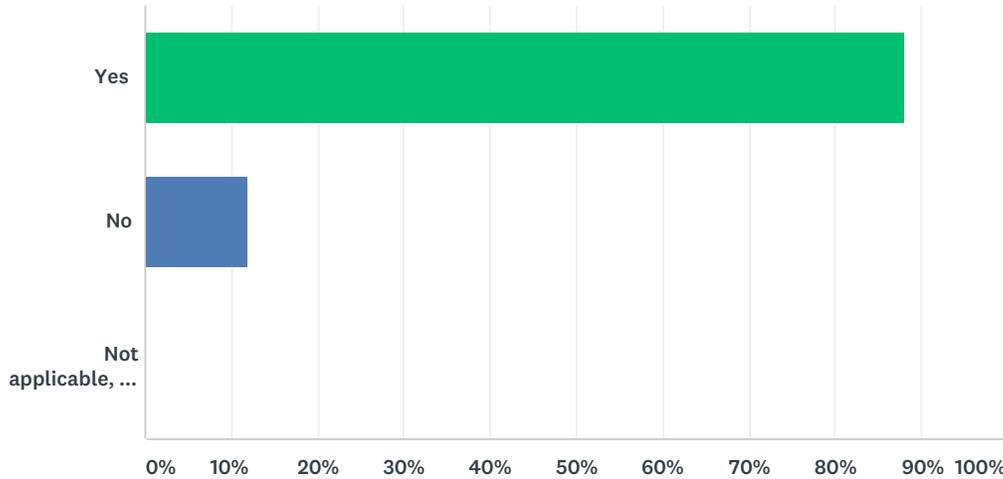
Answered: 60 Skipped: 10



ANSWER CHOICES	RESPONSES	
Television announcements or the news	83.33%	50
Radio	55.00%	33
Social media (Twitter, Facebook, etc.)	61.67%	37
A family member, neighbor, friend, or acquaintance	46.67%	28
In the newspaper	26.67%	16
Via WENS notification	35.00%	21
Total Respondents: 60		

Q13 Do you receive timely, accurate, and effective notifications from these sources that allow you to make appropriate decisions about what to do?

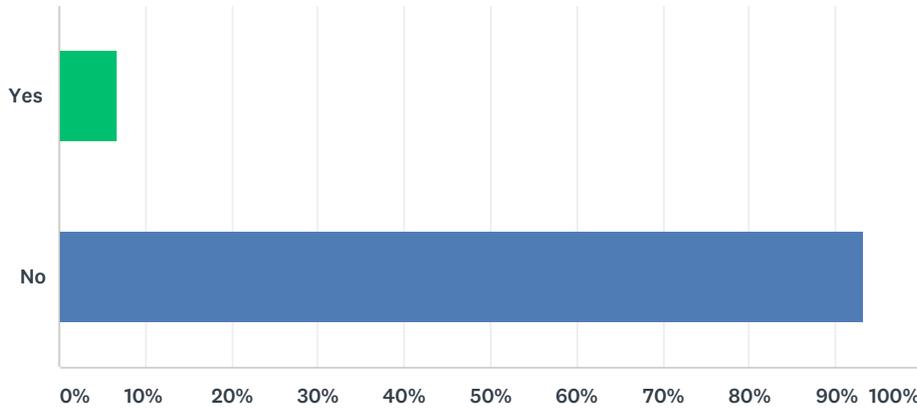
Answered: 59 Skipped: 11



ANSWER CHOICES	RESPONSES	
Yes	88.14%	52
No	11.86%	7
Not applicable, I do not receive notifications	0.00%	0
TOTAL		59

Q14 Have you ever evacuated your home or community due to a hazard when officials suggested or mandated you do so?

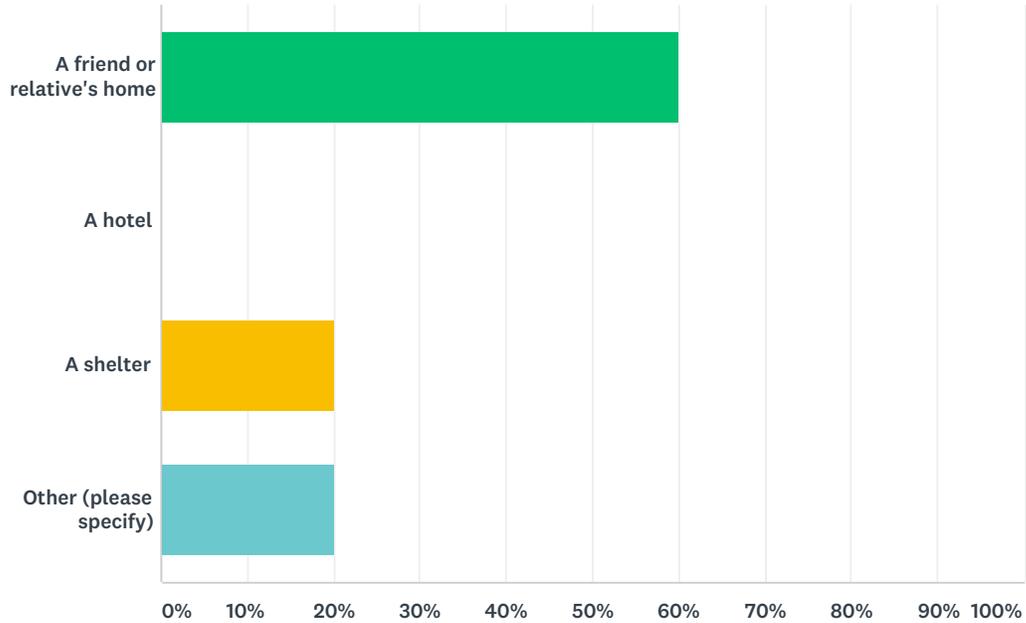
Answered: 59 Skipped: 11



ANSWER CHOICES	RESPONSES	
Yes	6.78%	4
No	93.22%	55
TOTAL		59

Q15 To where did you evacuate?

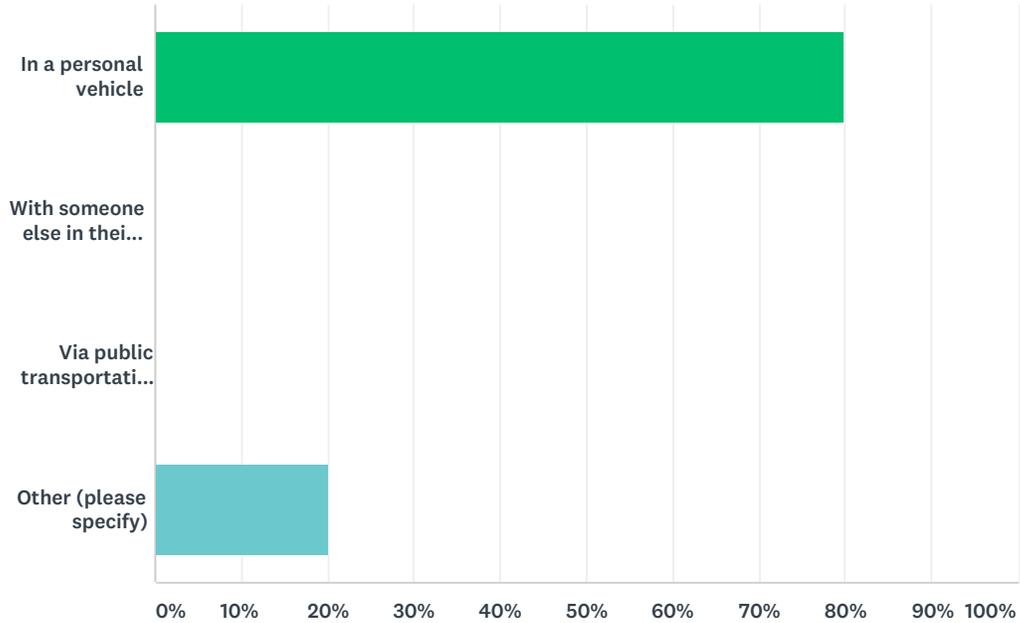
Answered: 5 Skipped: 65



ANSWER CHOICES	RESPONSES	
A friend or relative's home	60.00%	3
A hotel	0.00%	0
A shelter	20.00%	1
Other (please specify)	20.00%	1
TOTAL		5

Q16 How did you evacuate?

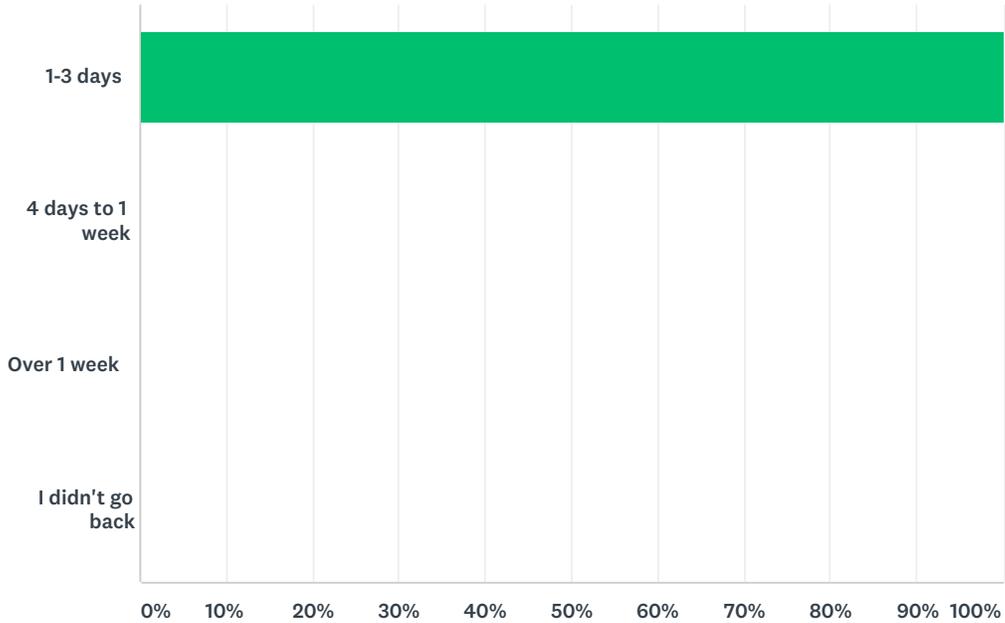
Answered: 5 Skipped: 65



ANSWER CHOICES	RESPONSES	
In a personal vehicle	80.00%	4
With someone else in their vehicle	0.00%	0
Via public transportation or transportation provided by the county/city/village/etc.	0.00%	0
Other (please specify)	20.00%	1
TOTAL		5

Q17 How long were you away from home?

Answered: 5 Skipped: 65



ANSWER CHOICES	RESPONSES	
1-3 days	100.00%	5
4 days to 1 week	0.00%	0
Over 1 week	0.00%	0
I didn't go back	0.00%	0
TOTAL		5

Q18 Please indicate the reason you did not evacuate

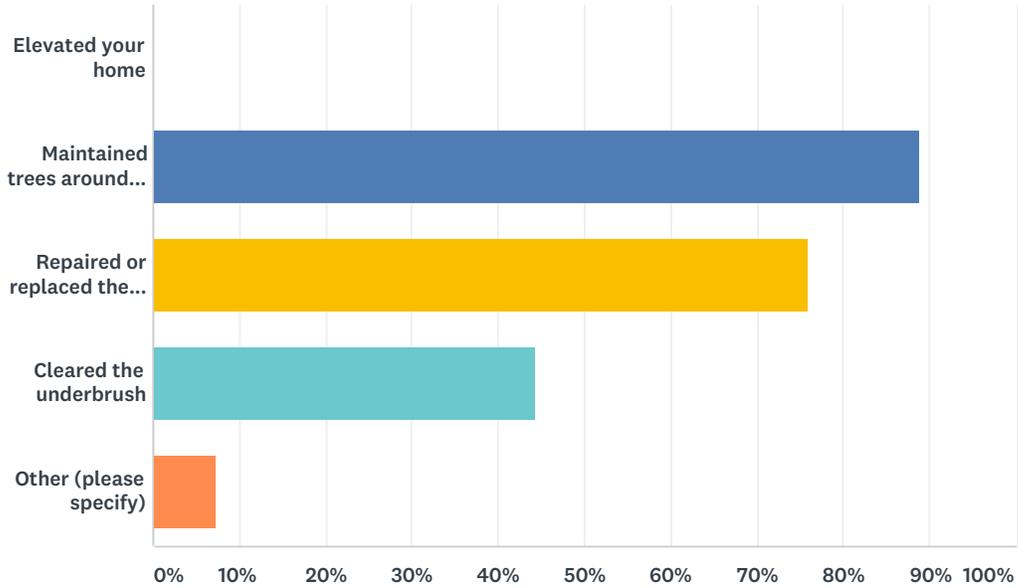
Answered: 0 Skipped: 70

 No matching responses.

ANSWER CHOICES	RESPONSES	
I/we did not receive notification in time to leave	0.00%	0
I/we do not own a vehicle	0.00%	0
It is too expensive to evacuate	0.00%	0
It was not necessary to evacuate, the danger was over exaggerated	0.00%	0
Other (please specify)	0.00%	0
Total Respondents: 0		

Q19 Have you ever... (check all that apply)

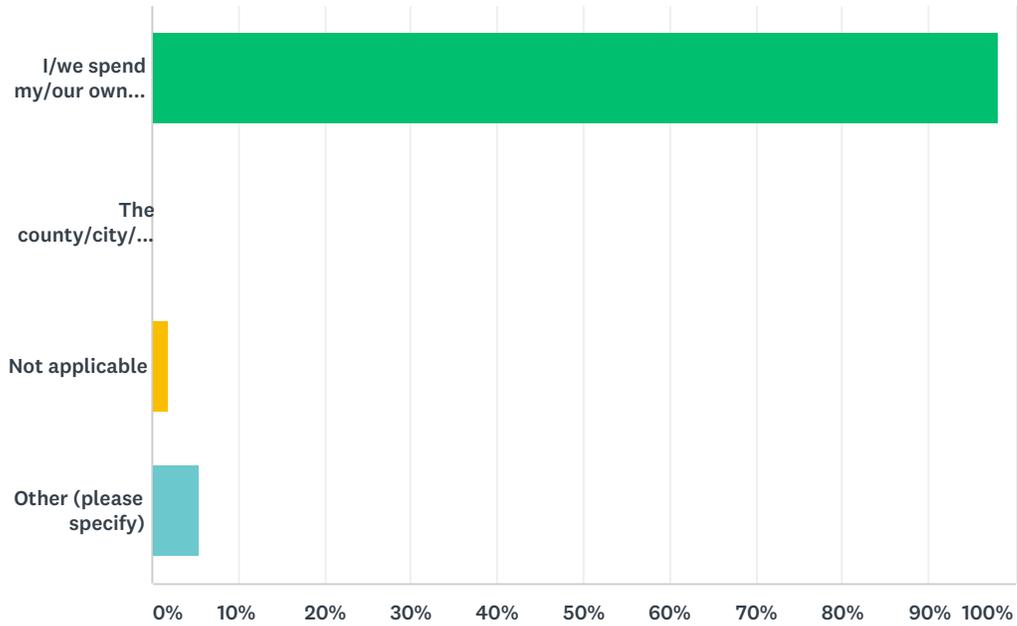
Answered: 54 Skipped: 16



ANSWER CHOICES	RESPONSES	
Elevated your home	0.00%	0
Maintained trees around the house or removed problematic trees	88.89%	48
Repaired or replaced the roof	75.93%	41
Cleared the underbrush	44.44%	24
Other (please specify)	7.41%	4
Total Respondents: 54		

Q20 If you have done any of the previous to your property, how was it paid for?

Answered: 55 Skipped: 15

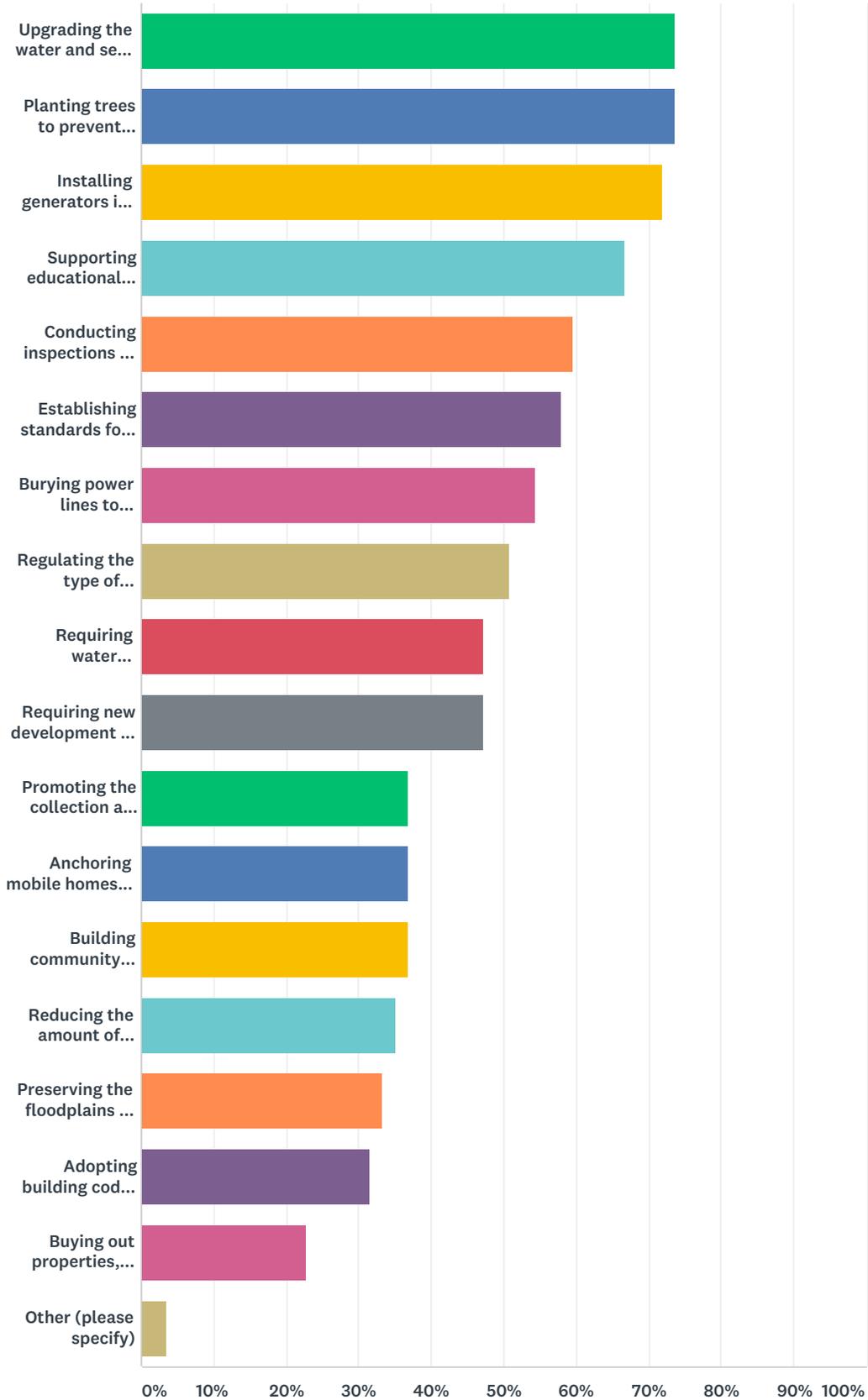


ANSWER CHOICES	RESPONSES	
I/we spend my/our own money	98.18%	54
The county/city/village paid for it	0.00%	0
Not applicable	1.82%	1
Other (please specify)	5.45%	3
Total Respondents: 55		

Q21 Please indicate the types of mitigation actions of which you would be supportive; these could be something you can do, or an initiative by your officials (check all that apply)

Answered: 57 Skipped: 13

Columbiana County Hazard Mitigation Survey



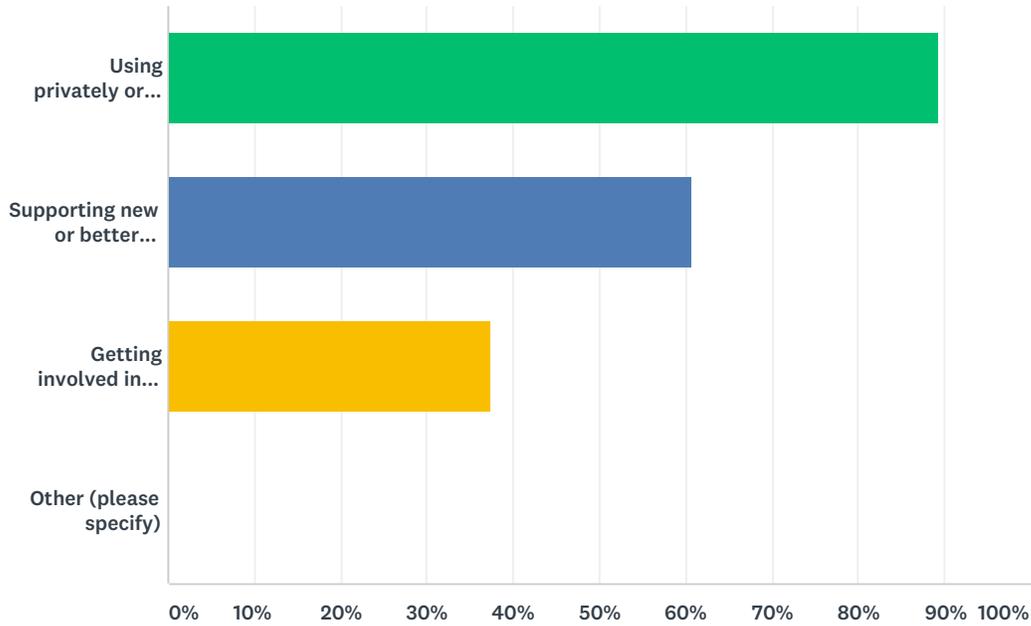
ANSWER CHOICES	RESPONSES
Upgrading the water and sewer systems	73.68% 42

Columbiana County Hazard Mitigation Survey

Planting trees to prevent erosion and promote cooler micro-climates	73.68%	42
Installing generators in critical facilities such as hospitals, police stations, fire stations, etc.	71.93%	41
Supporting educational campaigns aimed at preparing the population for a variety of hazards	66.67%	38
Conducting inspections of new construction and enforcing existing building codes	59.65%	34
Establishing standards for all utilities regarding tree pruning around lines	57.89%	33
Burying power lines to provide uninterrupted power during severe weather	54.39%	31
Regulating the type of development that is permitted in areas that are dangerous due to hazards	50.88%	29
Requiring water conservation during drought conditions	47.37%	27
Requiring new development to construct on-site retention basins for excessive stormwater runoff and as a firefighting water source	47.37%	27
Promoting the collection and reuse of rainwater such as in rain gardens and green roofs	36.84%	21
Anchoring mobile homes and roof-mounted and ground equipment	36.84%	21
Building community shelters for tornadoes and severe weather events	36.84%	21
Reducing the amount of surface pavement to reduce flooding and the heat island effect	35.09%	20
Preserving the floodplains as open space	33.33%	19
Adopting building codes that go above and beyond the basic requirements of construction	31.58%	18
Buying out properties, relocating homes, or elevating structures that are prone to repetitive flooding	22.81%	13
Other (please specify)	3.51%	2
Total Respondents: 57		

Q22 Please indicate how you would support mitigation projects such as the ones listed previously (check all that apply)

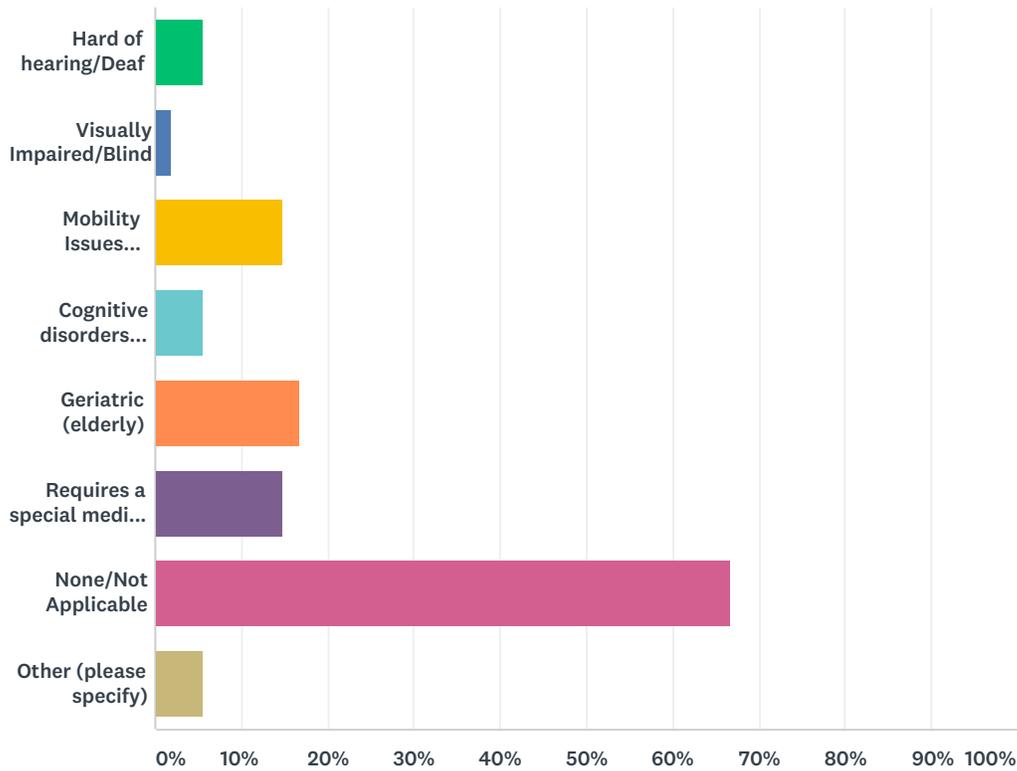
Answered: 56 Skipped: 14



ANSWER CHOICES	RESPONSES	
Using privately or publicly-funded grants	89.29%	50
Supporting new or better regulations	60.71%	34
Getting involved in education	37.50%	21
Other (please specify)	0.00%	0
Total Respondents: 56		

Q23 Do you, or someone who resides in your residence, have a special need that emergency service providers should be aware of in an emergency? (Check all the apply)

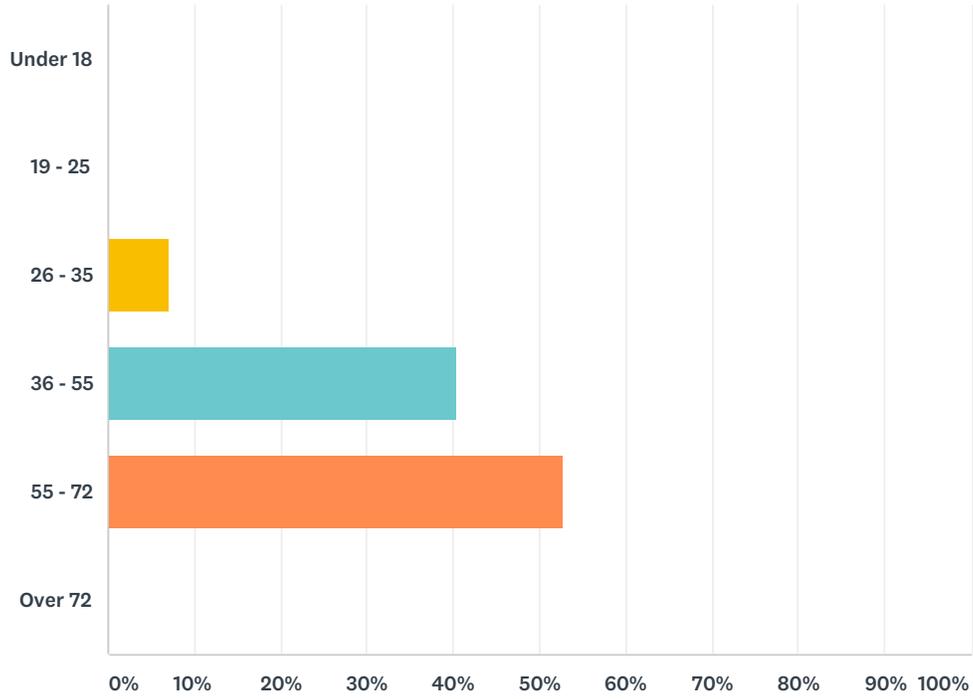
Answered: 54 Skipped: 16



ANSWER CHOICES	RESPONSES	
Hard of hearing/Deaf	5.56%	3
Visually Impaired/Blind	1.85%	1
Mobility Issues (non-ambulatory, confined to a wheelchair, requires the use of a can or walker)	14.81%	8
Cognitive disorders (includes autism, depression, etc.)	5.56%	3
Geriatric (elderly)	16.67%	9
Requires a special medical device (such as a Ventilator, CPAP machine, or drugs that require refrigeration [I.E. insulin])	14.81%	8
None/Not Applicable	66.67%	36
Other (please specify)	5.56%	3
Total Respondents: 54		

Q24 Please provide your age

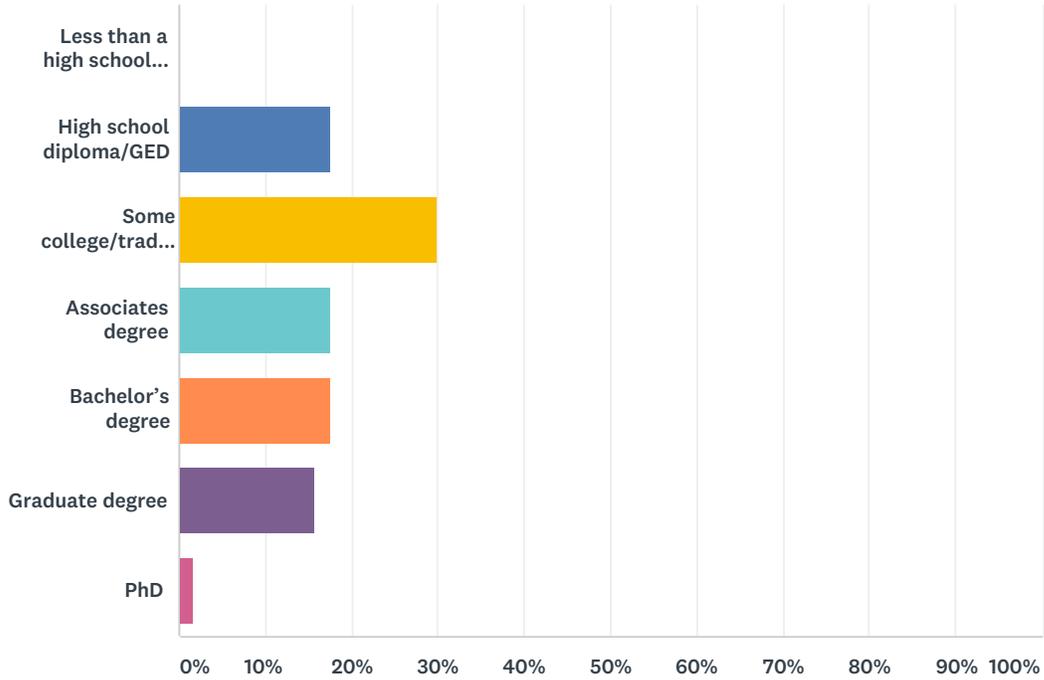
Answered: 57 Skipped: 13



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
19 - 25	0.00%	0
26 - 35	7.02%	4
36 - 55	40.35%	23
55 - 72	52.63%	30
Over 72	0.00%	0
TOTAL		57

Q25 Please indicate your level of education

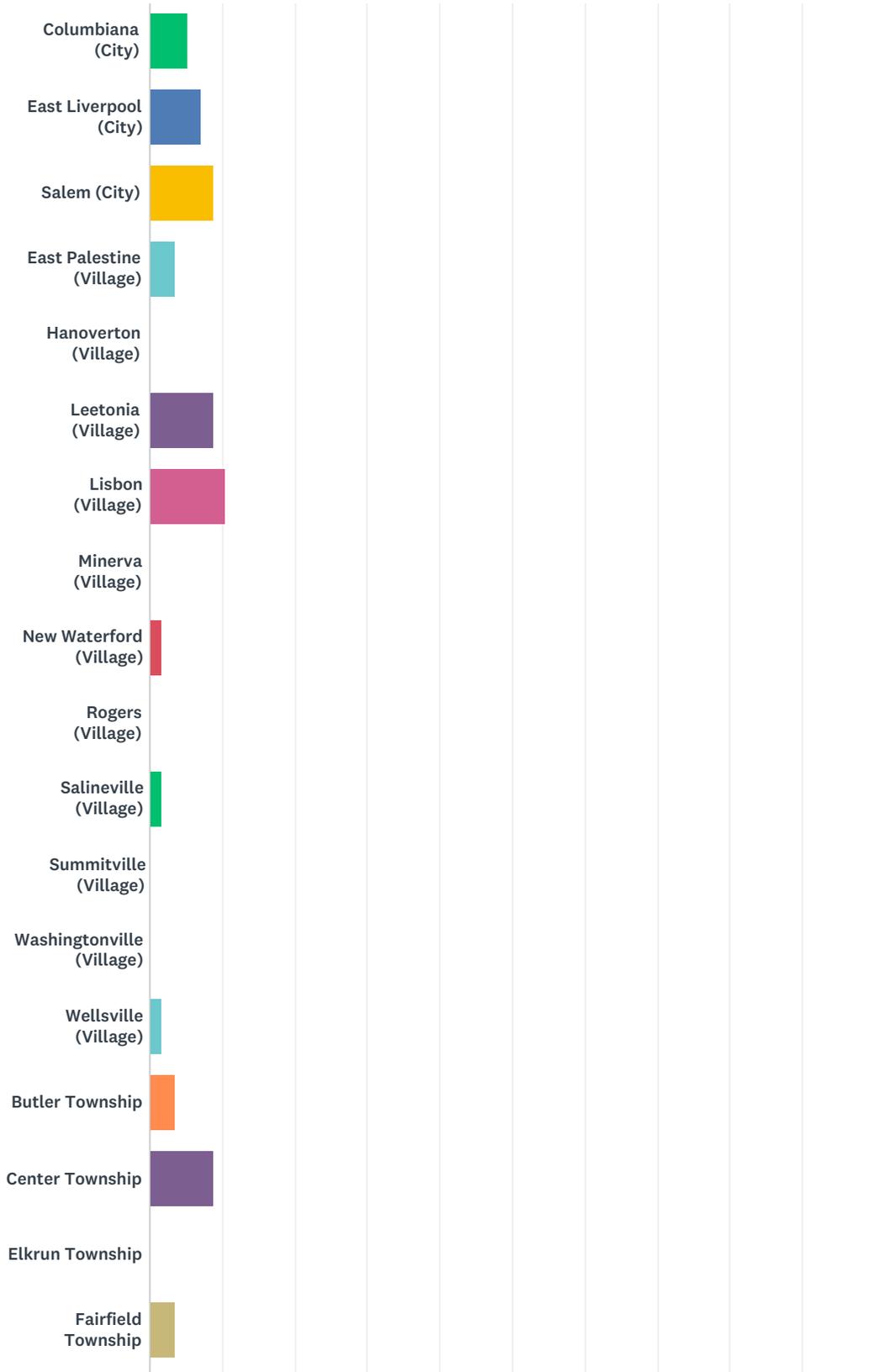
Answered: 57 Skipped: 13



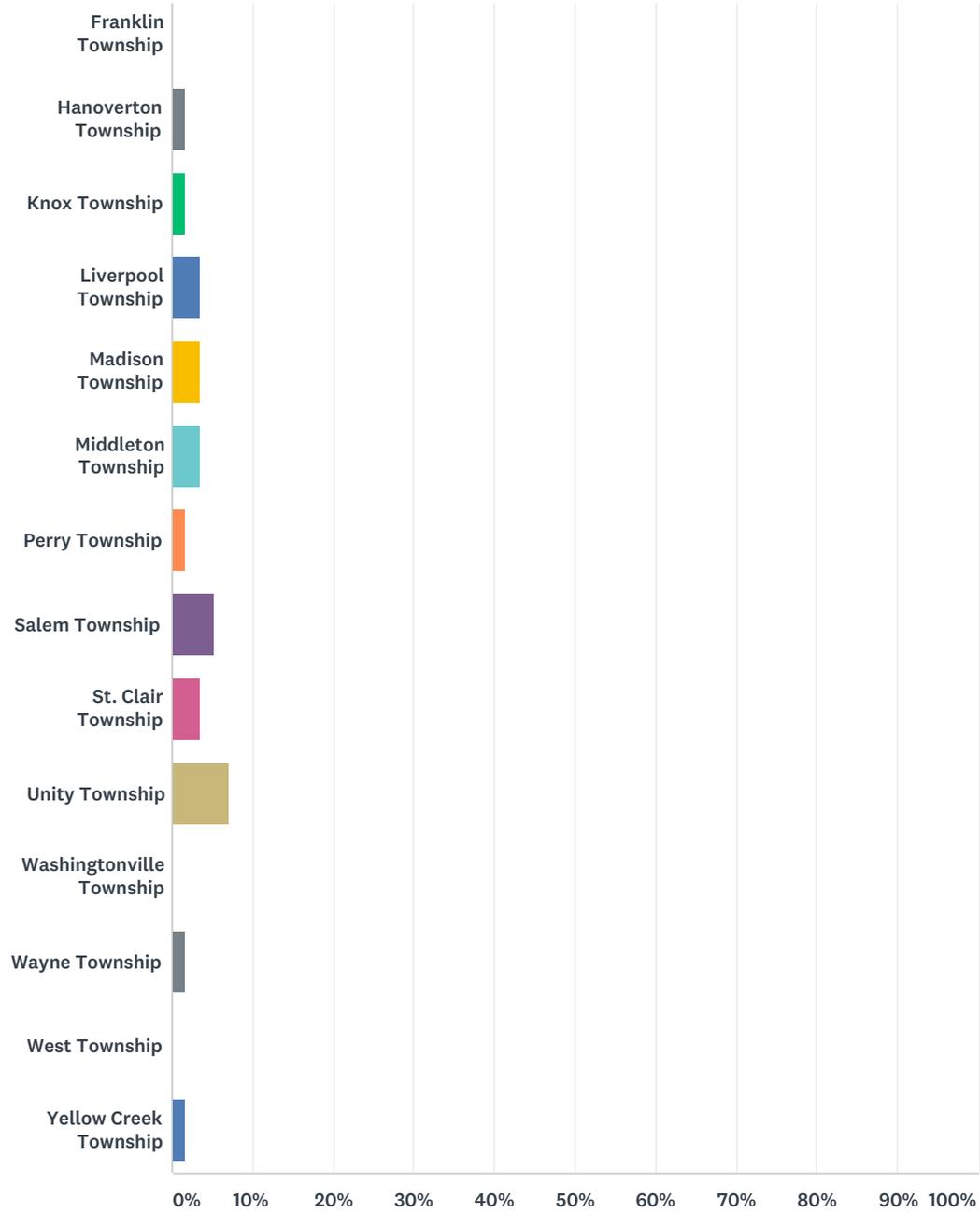
ANSWER CHOICES	RESPONSES	
Less than a high school diploma	0.00%	0
High school diploma/GED	17.54%	10
Some college/trade school	29.82%	17
Associates degree	17.54%	10
Bachelor's degree	17.54%	10
Graduate degree	15.79%	9
PhD	1.75%	1
TOTAL		57

Q26 In which community do you live (or work, if you do not live in Columbiana County)?

Answered: 57 Skipped: 13



Columbiana County Hazard Mitigation Survey



ANSWER CHOICES	RESPONSES	
Columbiana (City)	5.26%	3
East Liverpool (City)	7.02%	4
Salem (City)	8.77%	5
East Palestine (Village)	3.51%	2
Hanoverton (Village)	0.00%	0
Leetonia (Village)	8.77%	5
Lisbon (Village)	10.53%	6
Minerva (Village)	0.00%	0

Columbiana County Hazard Mitigation Survey

New Waterford (Village)	1.75%	1
Rogers (Village)	0.00%	0
Salineville (Village)	1.75%	1
Summitville (Village)	0.00%	0
Washingtonville (Village)	0.00%	0
Wellsville (Village)	1.75%	1
Butler Township	3.51%	2
Center Township	8.77%	5
Elkrun Township	0.00%	0
Fairfield Township	3.51%	2
Franklin Township	0.00%	0
Hanoverton Township	1.75%	1
Knox Township	1.75%	1
Liverpool Township	3.51%	2
Madison Township	3.51%	2
Middleton Township	3.51%	2
Perry Township	1.75%	1
Salem Township	5.26%	3
St. Clair Township	3.51%	2
Unity Township	7.02%	4
Washingtonville Township	0.00%	0
Wayne Township	1.75%	1
West Township	0.00%	0
Yellow Creek Township	1.75%	1
TOTAL		57

Q27 Please write any comments here.

Answered: 0 Skipped: 70

COLUMBIANA COUNTY HAZARD MITIGATION PLAN 2019

Mitigation is any action you or your community takes to reduce the negative impacts of hazards such as weather, hazardous materials, and floods.

1. Do you live or work in Columbiana County? Yes No

2. What is the name of your city/village/town?

3. What hazard (see back) represents the biggest risk?

4. Do you have a 72-hour emergency kit in your home?

Yes No I don't know

5. Do you live in a special flood hazard zone? know

Yes No I don't know

6. If you have homeowner's or renter's insurance, does it include flood insurance?

Yes No I don't know I don't have insurance

7. What mitigation efforts would you support in your community?
Check all that apply.

- _____ Buying out properties or relocating or elevating houses that are prone to repetitive flooding
- _____ Upgrading the water and sewer systems
- _____ Installing generators in critical facilities such as police and fire stations, hospitals, etc.
- _____ Promoting the collection and reuse of rainwater such as in rain gardens and green roofs
- _____ Building shelters for tornadoes and severe weather events
- _____ Supporting educational campaigns aimed at preparing the population for a variety of hazards

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3. What hazard (see back) represents the biggest risk?

4. Do you have a 72-hour emergency kit in your home?

Yes No I don't know

5. Do you live in a special flood hazard zone? know

Yes No I don't know

6. If you have homeowner's or renter's insurance, does it include flood insurance?

Yes No I don't know I don't have insurance

7. What mitigation efforts would you support in your community?
Check all that apply.

- _____ Buying out properties or relocating or elevating houses that are prone to repetitive flooding
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HAZARDS LIST

Dam Failure
Drought
Earthquake
Flood
Hazardous Materials (includes Radiological)
Severe Thunderstorm / Hail
Severe Wind / Tornado
Severe Winter Storm
Temperature Extreme (Heat and Cold)
Public Health Emergencies

HAZARDS LIST

Dam Failure
Drought
Earthquake
Flood
Hazardous Materials (includes Radiological)
Severe Thunderstorm / Hail
Severe Wind / Tornado
Severe Winter Storm
Temperature Extreme (Heat and Cold)
Public Health Emergencies

THANK YOU!

THANK YOU!

**COLUMBIANA COUNTY HAZARD MITIGATION PLAN
2019 MINI-SURVEY**

Total Surveys: 67

	Option	Quantity	% of Respondents	START 14
1 Do you live or work in Columbiana County?	YES	65	97.01%	
	NO	2	2.99%	
2 What is the name of your city/village/town?	CENTER TWP	1	1.49%	
	COLUMBIANA	3	4.48%	
	DAMASCUS	1	1.49%	
	EAST LIVERPOOL	4	5.97%	
	EAST PALESTINE	2	2.99%	
	GLENMOOR	3	4.48%	
	HANOVERTON	2	2.99%	
	HOMEWORTH	3	4.48%	
	KNOX TWP (BELOIT)	3	4.48%	
	LEETONIA	7	10.45%	
	LISBON	5	7.46%	
	MIDDLETON TWP	1	1.49%	
	NEGLEY	1	1.49%	
	NEW ALEXANDER	1	1.49%	
	NEW WATERFORD	3	4.48%	
	NORTH GEORGETOWN	2	2.99%	
	SALEM	19	28.36%	
	SUMMITVILLE	1	1.49%	
	WELLSVILLE	3	4.48%	
	WINONA	1	1.49%	
3 What hazard represents the biggest risk?	FIRE	2	2.99%	
	FLOODING	14	20.90%	
	HAZMAT	18	26.87%	
	PUBLIC HEALTH	1	1.49%	
	RADIOLOGICAL	1	1.49%	
	RAILROAD	4	5.97%	

		SEVERE THUNDERSTORM	8	11.94%
		SEVERE WEATHER	14	20.90%
		TORNADO	18	26.87%
		WIND	10	14.93%
		WINTER STORM	3	4.48%
		DID NOT ANSWER	8	11.94%
4	Do you have a 72-hour emergency kit in your home?			
		YES	35	52.24%
		NO	30	44.78%
		I DON'T KNOW	2	2.99%
5	Do you live in a special flood hazard zone?			
		YES	2	2.99%
		NO	59	88.06%
		I DON'T KNOW	6	8.96%
6	If you have homeowner's or renter's insurance, does it include flood insurance?			
		YES	13	19.40%
		NO	35	52.24%
		I DON'T KNOW	15	22.39%
		I DON'T HAVE INSURANCE	4	5.97%
7	What mitigation efforts would you support in your community?			
	13	19.40%	Buying out properties or relocating or elevating houses that are prone to repetitive flooding	
	39	58.21%	Upgrading the water and sewer systems	
	47	70.15%	Installing generators in critical facilities such as police and fire stations, hospitals, etc.	
	22	32.84%	Promoting the collection and reuse of rainwater such as in rain gardens and green roofs	
	31	46.27%	Building shelters for tornadoes and severe weather events	
	51	76.12%	Supporting educational campaigns aimed at preparing the population for a variety of hazards	