Adapting to Climate Change & Sea Level Rise

A Maryland Statewide Survey | Fall 2014

GEORGE MASON UNIVERSITY

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Executive Summary

Sea levels off of Maryland's shorelines have risen about one foot over the past 100 years[1] – almost twice the global average – and are climbing at increasing rates.[2] With nearly 1 million residents at risk from even 2 feet of higher sea levels,[3] which projections say is possible by 2050,[4] Maryland is one of the states most at risk from rising waters. State government – in addition to local governments, businesses and all manner of private- and public-sector organizations – have begun to take measures to ensure that the state's citizens, infrastructure, and natural resources and habitat are protected from flooding, erosion and saltwater intrusion into groundwater.[5] Moreover, climate change will not just impact the state's coastal regions; more frequent heavy rain events, droughts, high heat days, and weather extremes will likely be felt in communities across the state.[6]

Last spring, George Mason University partnered with the Maryland Department of Health and Mental Hygiene on the first survey of climate change, energy and public health in the state. The survey included questions on Marylanders' perceptions of climate change's impacts on their communities and policy preferences. In 2014, we repeated some of the questions and added new ones, including a number on sea level rise and state adaptation policies. This report is the first of four that will be released from the 2014 survey; follow-on reports will highlight attitudes, behaviors and policy preferences on public health and climate change, energy, and climate change generally.

While many of the survey questions we asked Marylanders focused on sea level rise due to the prominence of its impacts on the state, we also asked more broadly about perceived climate

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[1] Maryland Commission on Climate Change. (2008). *Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change*, *Phase I: Sea Level Rise and Coastal Storms.* Report of the Maryland Commission on Climate Change Adaptation and Response Working Group. Maryland Department of Natural Resources, Annapolis, MD; Maryland Department of the Environment, Baltimore, MD; Maryland Department of Planning, Baltimore, MD.

[2] Sallenger Jr., A. H., Doran, K. S., & Howd, P. A. (2012). Hotspot of accelerated sea-level rise on the Atlantic coast of North America. *Nature Climate Change*, *2*(12), 884–888.

[3] Goldner, B. (2013). *Rising seas, sinking land put Maryland's waterfront communities at risk.* Capital News Service. Phillip Merrill College of Journalism, University of Maryland. Available at http://cnsmaryland.org/sealevelrise/?p=62

[4] Boesch, D., Atkinson, L., Boicourt, W., Boon, J. D., Cahoon, D., Dalrymple, R., Ezer, T., Horton, B., Johnson, Z., Kopp, R., Li, M., Moss, R., Parris, A., & Sommerfield, C. (2013). *Updating Maryland's Sea-level Rise Projections*. Special Report of the Scientific and Technical Working Group to the Maryland Climate Change Commission. University of Maryland Center for Environmental Science, Cambridge, MD.

[5] Johnson, Z. P. (ed.). (2013*). Climate Change and Coast Smart Construction: Infrastructure Siting and Design Guidelines.* Special Report of the Adaptation Response Working Group of the Maryland Commission on Climate Change. Maryland Department of Natural Resources, Annapolis, MD.

[6] Boicourt, K., & Johnson, Z. P. (eds.). (2010). *Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change, Phase II: Building societal, economic, and ecological resilience. Report of the Maryland Commission on Climate Change, Adaptation and Response and Scientific and Technical Working Groups.* University of Maryland Center for Environmental Science, Cambridge, Maryland and Maryland Department of Natural Resources, Annapolis, Maryland.

harms to local resources and preferred policies to protect communities that are applicable to all of the state's counties.

Key findings include:

A majority support protecting Maryland from rising waters

- More than half of Marylanders (55%) say that protecting coastal areas from sea level rise should be a high or very high priority for the state's General Assembly and the Governor.
- A majority of state residents support policies that protect shorelines and low-lying lands from sea level rise, such as changes to regulations like zoning laws and set-back distances for building (67%), long-range planning (66%), tax incentives to property owners to take protective actions (55%), and using government funds to buy natural areas as buffers against rising waters and storms (55%).

Many Marylanders don't know that sea level rise is happening locally, or its cause

- A majority of survey respondents (53%) say that they do not know whether sea level rise is currently happening along Maryland's shorelines. Of those who state an opinion, more think it is happening (39%) than think it isn't (8%).
- More than a third of state residents (36%) say they do not know what is causing sea levels to rise – whether it is from natural causes or human activities. Almost a quarter (23%) say that sea level rise is about equally the result of both natural and human influences on the environment. The rest of Marylanders are split between which of the two are a stronger influence on sea level rise (human activities, 18%; natural changes, 17%).
- A majority of Marylanders say that climate change is at least partially responsible for sea level rise – at least a little (5%), if not some (22%), or a lot (34%).

There is strong support for state climate protection actions

- Almost three quarters of Marylanders (73%) say they would like local and state governments to take actions to protect their communities against climate harms.
- Most state residents support a number of policies to protect communities against the effects of climate change, and only a very small percentage oppose them. Increasing trees in urban areas (82%), maintaining and restoring natural areas (80%), and helping Maryland's farmers become more water efficient (78%) are at the top of the list.

Marylanders see looming local climate changes and impacts to community resources

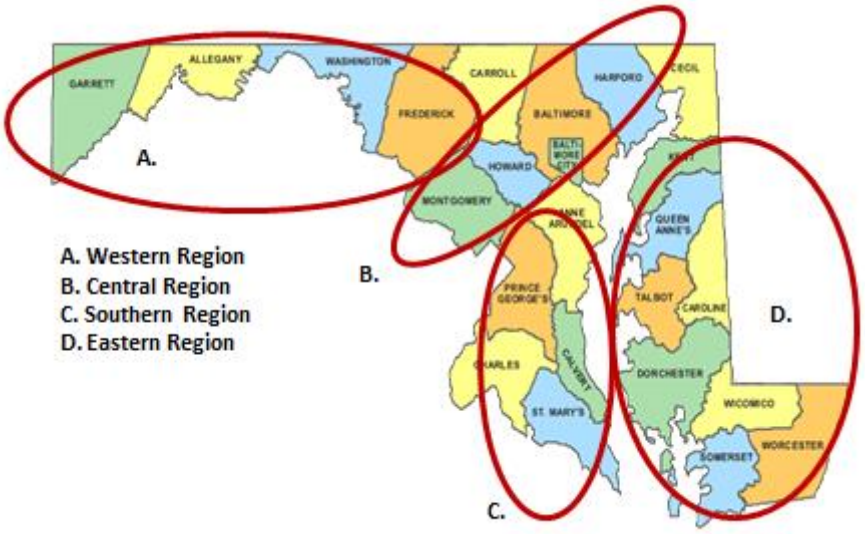
- Across the state, hotter weather (77%) and more severe storms (72%) are mentioned the most frequently as likely impacts from climate change that will occur in Marylanders' communities in the next 10-20 years.

- Agriculture (56%), people's health (55%), and coastlines (53%) are the types of resources that Marylanders are most likely to say are at risk from climate change in the next several years.

Study methodology

The survey was mailed to 6,401 households in the state of Maryland, randomly selected from within each of four regions of the state. (See Figure 1) We sampled at the regional level to ensure the final data was generalizable to these distinctly different geographic and cultural areas of the state, as well as to the state as a whole, weighting the data at both the state and regional levels in accordance with U.S. Census population distributions. Households that responded to the survey in 2013 were not re-contacted in 2014. The survey was fielded from March 17 to June 10, 2014 with a response rate of 35%. The unweighted sample margin of error is +/- 2 percentage points at the 95% confidence interval for the state and less than +/- 5 percentage points for each region. (See study methodology, p. 15). This report includes survey data from 2013 as a basis for comparison; statistical comparisons between years were assessed for significance. Survey reports from 2013 can be found at climatemaryland.org and include a description of the sample and methodology. Both were consistent across years.

Figure 1 | *Four regions of the state were sampled in the survey*



Western Region – Allegany, Frederick, Garrett and Washington counties; Central Region – Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City; Southern Region – Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties; Eastern Region – Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties.

1. A majority support protecting Maryland from rising waters

In 2014, Maryland issued new guidelines for resilient state construction against sea level rise and coastal flooding,[7] and passed two bills that bolster climate adaptation efforts.[8] Indeed, more than half of Marylanders (55%) say that protecting coastal areas from sea level rise should be a high or very high priority for the state's General Assembly and the Governor. (See Figure 2). Though coastal protection ranks lower than many other state priorities – such as creating jobs (89%), reducing water pollution (81%), and improving access to health care (74%) – very few people (5%) say it should not be a priority. Moreover, majorities of three of the state's four regions – Central (56%), Southern (58%) and Eastern (56%) – say that the state should make it a top priority. (See Table 1, Appendices, p. 21) You will note that throughout this report we highlight regional differences in the survey results. The four regions of the state have varying levels of coastal exposure to sea level rise and likely climate impacts. The Western region, located in the hills of Appalachia, lies completely inland, while long coastlines along the Chesapeake Bay and Atlantic Ocean are prominent features of the Southern and Eastern regions. The Bay also fronts Cecil, Harford, and Baltimore counties and Baltimore City in the Central region.

Changes to regulations and long-range planning are the most preferred policy responses

When presented with a list of five strategies for protecting communities from sea level rise impacts, Marylanders are more supportive than not of all of them, with majorities backing four of the five approaches: changes to regulations like zoning laws and set-back distances (67%), long-range planning (66%), tax incentives to property owners to take protective actions (55%), and using government funds to buy natural areas as buffers against rising waters and storms (55%). (See Figure 3) Residents are least likely to favor building walls and other structural barriers against coastal waters, with almost a quarter opposed (23%). Notably, significant numbers of Marylanders remain undecided on these policies; a quarter or more (24-29%) say they have no position.

Of the five types of sea level rise policies presented, all four regions of the state most strongly support changes in regulations, such as zoning laws and increased set-back distances to discourage building in vulnerable areas (Western, 61%; Central, 66%; Southern, 72%; Eastern, 67%), and long-range planning that takes sea level rise into account (Western, 56%; Central, 66%; Southern, 69%; Eastern, 64%). (See Table 2, Appendices, p. 22)

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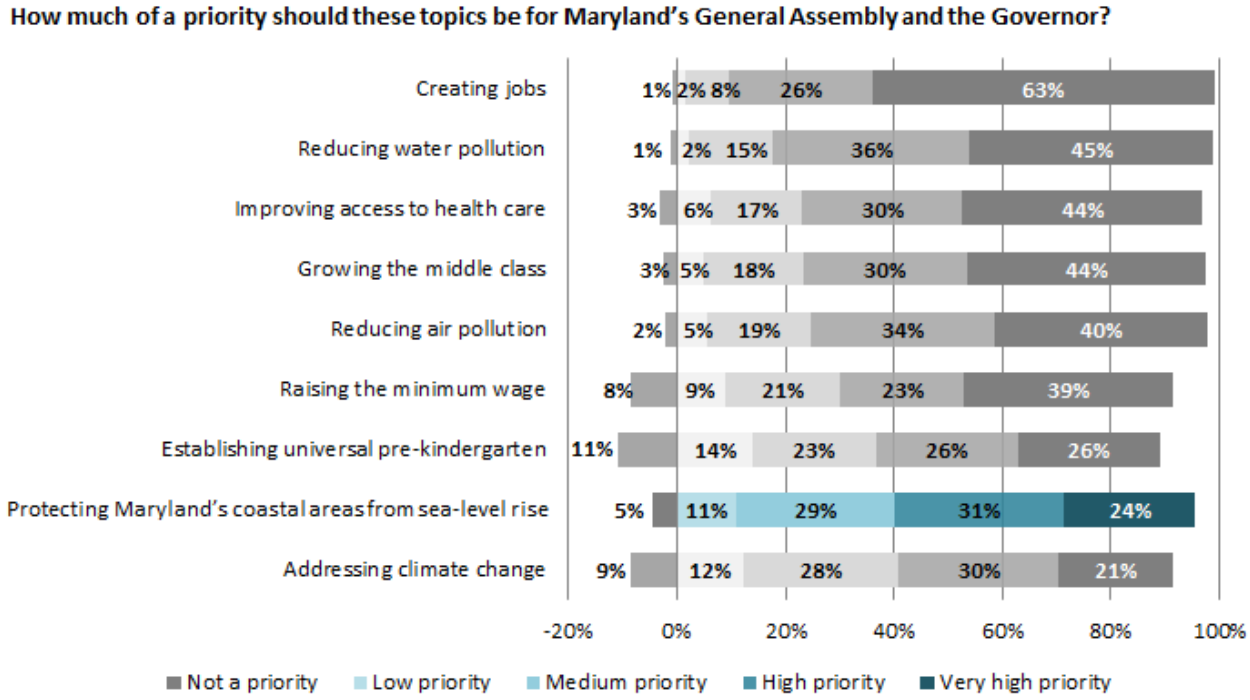
[7] Johnson, Z. P. (ed.). (2013). *Climate Change and Coast Smart Construction: Infrastructure Siting and Design Guidelines. Special Report of the Adaptation Response Working Group of the Maryland Commission on Climate Change.* Maryland Department of Natural Resources, Annapolis, MD.

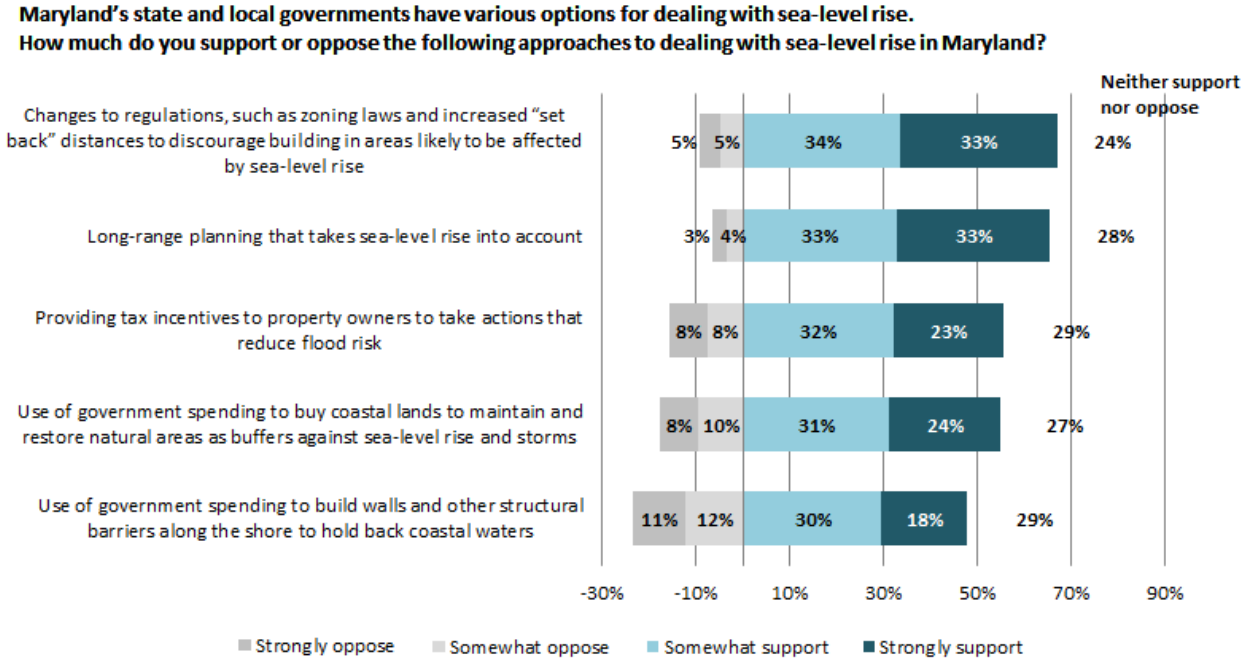
[8] Office of Governor Martin O'Malley. (2014, May 6). *Governor O'Malley Signs Bills to Prepare for Impacts of Climate Change and Extreme Weather.* Annapolis, MD. Available at http://www.governor.maryland.gov

Figure 2 | *More than half of Marylanders say protecting coastal areas should be a high priority*



Unweighted base, n=2,035

Figure 3 | *Large majorities support regulations and long-range planning for sea level rise*



Unweighted base, n=2,035

2. Many Marylanders are unsure whether sea level rise is occurring in the state and what causes it

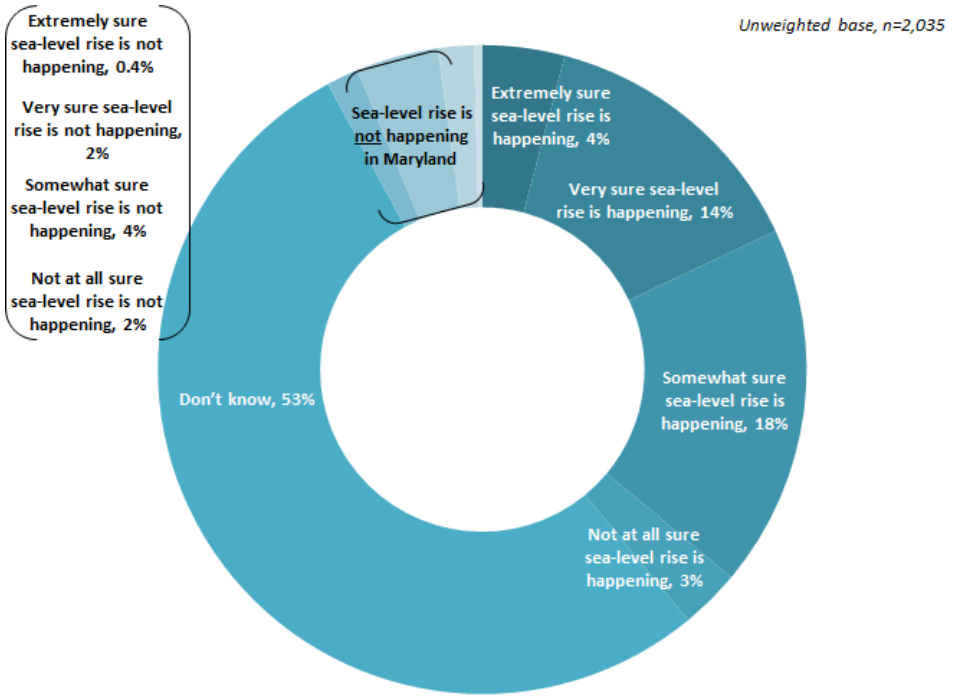
While Marylanders overwhelmingly support taking actions that would protect the state from the effects of sea level rise, many Marylanders also say that they are unsure whether the problem is affecting the state, and if so, what is causing it. A majority of survey respondents (53%) admit that they do not know whether sea level rise is currently occurring along Maryland's shorelines. Of those who state an opinion, more think it is happening (39%) than that it isn't (8%), but very few are "extremely sure" (4%). (See Figure 4)

Marylanders from counties in the Eastern region – from Kent County down to Worcester on the Eastern Shore – are most likely to say that they are very or extremely sure sea level rise is happening (32%), compared to those in the Western, Central and Southern regions (15%, 18% and 17% respectively). (See Table 3, Appendices, p. 23)

A majority say sea level rise will cause significant harm within the next 25 years

When asked when the effects of sea level rise will significantly harm people and property in Maryland within a 100-year period, more than half say that significant harms are currently

Figure 4 | *Most say that they don't know whether sea level rise is happening in Maryland*



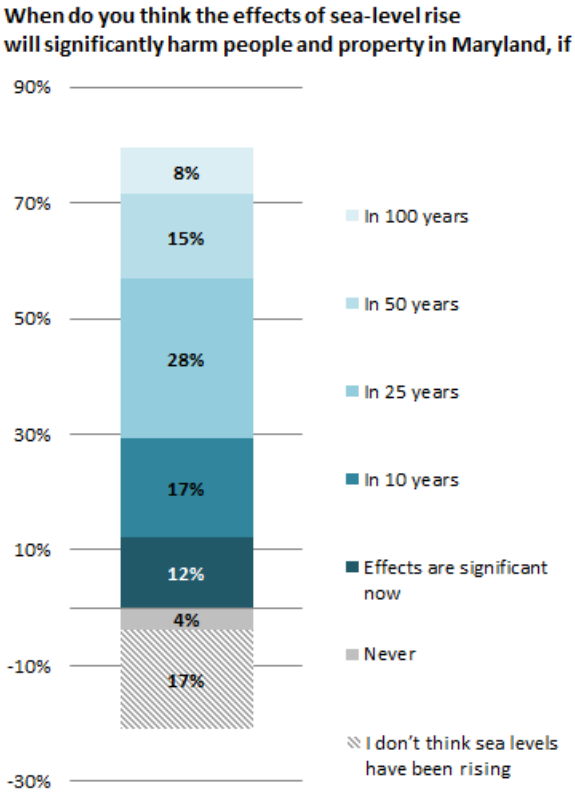
Sea-level rise is an issue that some Maryland communities have been discussing recently. Sea-level rise refers to increases in the average height of water relative to the land. Do you think that sea-level rise is currently happening along Maryland's coastlines? If you answered either yes or no, how sure are you?

manifesting or will do so in the next 10 or 25 years (12%, 17%, 28% respectively). Smaller percentages see sea level rise as a longer-term problem (50 years, 15%; 100 years, 8%), or not a problem at all. Slightly more than 1 in 5 Marylanders say that sea level rise has not been increasing (17%) or would never significantly cause harm (4%). (See Figure 5) Residents from the inland Western counties without coastal exposure are the most likely to say that sea levels will never significantly harm the state (Western, 12%; Central, 3%; Southern, 3%; Eastern, 5%). (See Table 4, Appendices, p. 23)

Many don't know what causes seas to rise, but think climate change contributes

More than a third of state residents (36%) say that they don't know what is causing sea levels to rise – whether it is from natural causes or human activities. Almost a quarter (23%) say that sea level rise is caused about equally by both natural and human influences on the environment. The rest of Marylanders are split between which has a stronger influence (human activities, 18%; natural changes, 17%). (See Figure 6) When asked specifically how much climate change contributes to sea level rise, many again say that they don't know (31%), but a majority of Marylanders say that climate change is at least partially responsible – at least a little (5%), if not some (22%), or a lot (34%). (See Figure 7)

Figure 5 | *More than half say sea- level rise will harm the state within the next 25 years*



Unweighted base, n=2,035

Figure 6 | *More than a third are unsure whether rising seas are natural or human-caused*

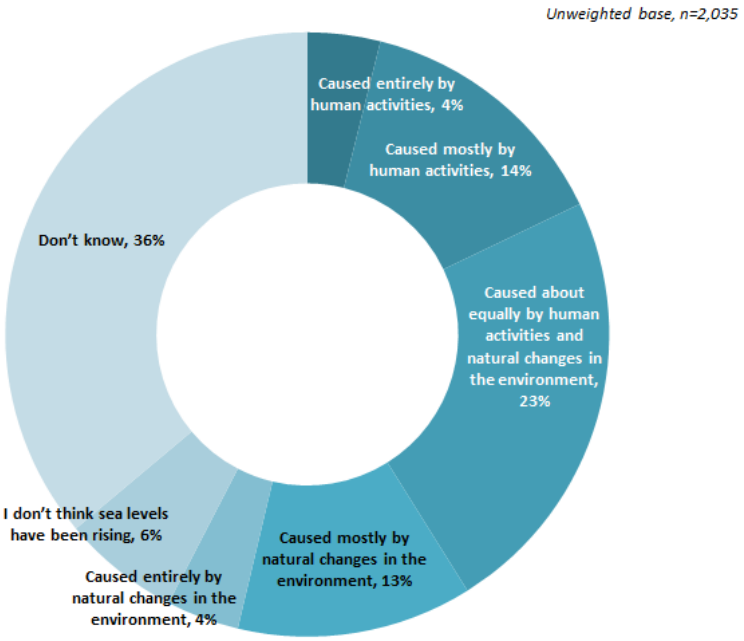
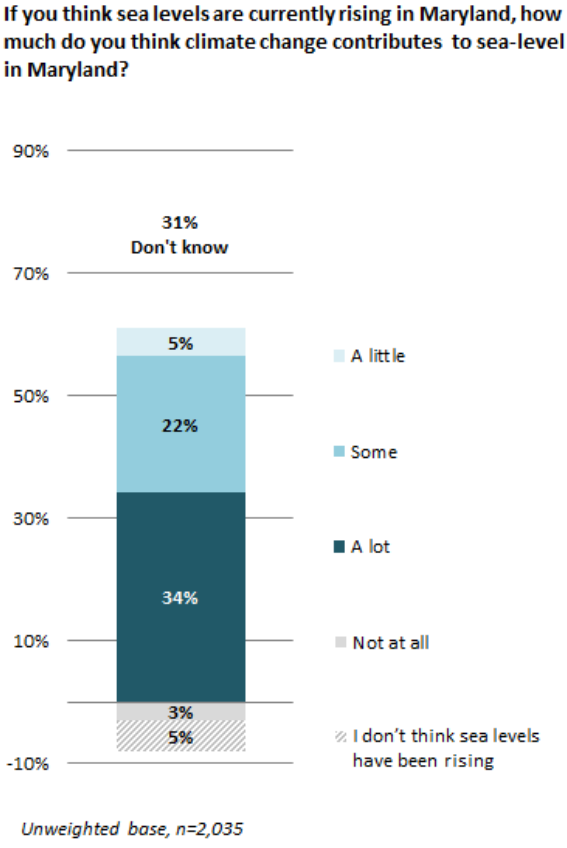


Figure 7 | *A majority says climate change contributes to sea level rise in Maryland*

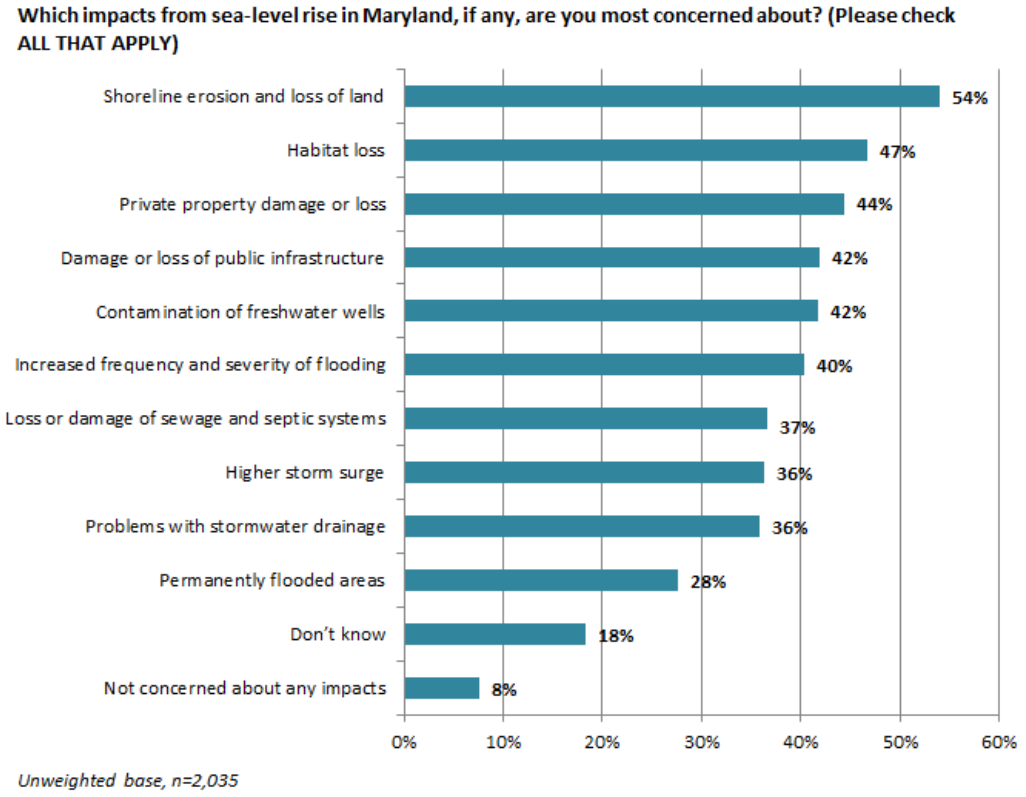


Indeed, human causes are not the only reason that water lines are creeping up Maryland's shores. While global climate changes affect the oceans – and cause sea level rise – through warming and expansion of waters, melting of glaciers and ice sheets, and slowing of the Gulf Stream, so do changes in the height of the land surface, including shifts that have been ongoing for thousands of years.[9] In Maryland, about half of relative sea level is from land subsidence, mostly in response to glacial retreat from Northern America approximately 12,000 years ago.

Shoreline erosion and loss of land are of most concern to residents

Marylanders generally are most concerned about erosion and loss of land as a result of sea level rise (54%), followed by habitat loss (47%) and private property damage (44%). (See Figure 8) The areas of the state with the longest lengths of coastlines are the Southern region and Eastern Shore. Survey respondents from those areas are more likely to say that they are concerned about impacts from sea level rise than residents from the Western and Central regions, and are particularly worried about erosion and land loss (Southern, 61%; Eastern, 63% vs. Western, 45%; Central, 52%) and property damage and loss (Southern, 54%; Eastern, 51% vs. Western, 30%; Central, 41%). Habitat also ranks highly in these regions, but third (Southern, 50%; Eastern, 50% vs. Western, 39%; Central, 47%). (See Table 7, Appendices, p. 25)

Figure 8 | *Shoreline erosion and land loss are most concerning to Marylanders*



Unweighted base, n=2,035

[9] Boesch et al. (2013).

3. State climate protection actions receive strong support

Sea level rise represents just one of the impacts of climate change in Maryland that are projected to be many and varied across the state's regions, including higher temperatures, extreme weather conditions, and heavy precipitation events.[10] A second set of questions in the survey asked Marylanders how they think climate change will impact their communities and what types of policies they support to address these challenges. Almost three quarters of Marylanders (73%) say they would like local and state governments to take actions to protect their communities against harms from climate change.[11] (See Figure 9) The Central and Southern regions of the state are more strongly in favor of government action (76%, 75% respectively) than the more rural counties to the west and east (59%, 67% respectively). (See Table 8, Appendices, p. 26)

Majorities support a variety of policies to protect communities against environmental change

While Marylanders have not always heard of state policies to help make communities more resilient to environmental changes, large majorities say they are supportive of them. Less than half of state residents say they have heard of the five policies listed in the survey – ranging from maintaining and restoring various natural areas (46%) to helping Maryland farmers become more efficient in their use of water (24%). (See Figure 10) Yet, survey respondents are supportive of all five policies, with very small percentages in opposition to any of them. Increasing trees in urban areas (82%), maintaining and restoring natural areas (80%), and helping Maryland's farmers become more water efficient (78%) are at the top of the list. Reducing the amount of pavement and other hard surfaces to lessen stormwater run-off is the least popular of the five listed, but is still strongly supported with 59% of Marylanders saying that they somewhat or strongly support it, and only 12% in opposition.

Awareness of state policies to protect against environmental changes generally varies little across regions of the state with slight exception. The more coastal Eastern and Southern regions are more likely to say that they are aware of the state's policy to strengthen coastal building codes and infrastructure (43%, 34% respectively) than inland areas (Western, 26%; Central, 25%). (See Table 9, Appendices, p. 27) All regions of the state report high support for policies that protect citizens, land and property against environmental changes, with none below 50%. (See Table 10, Appendices, p. 28)

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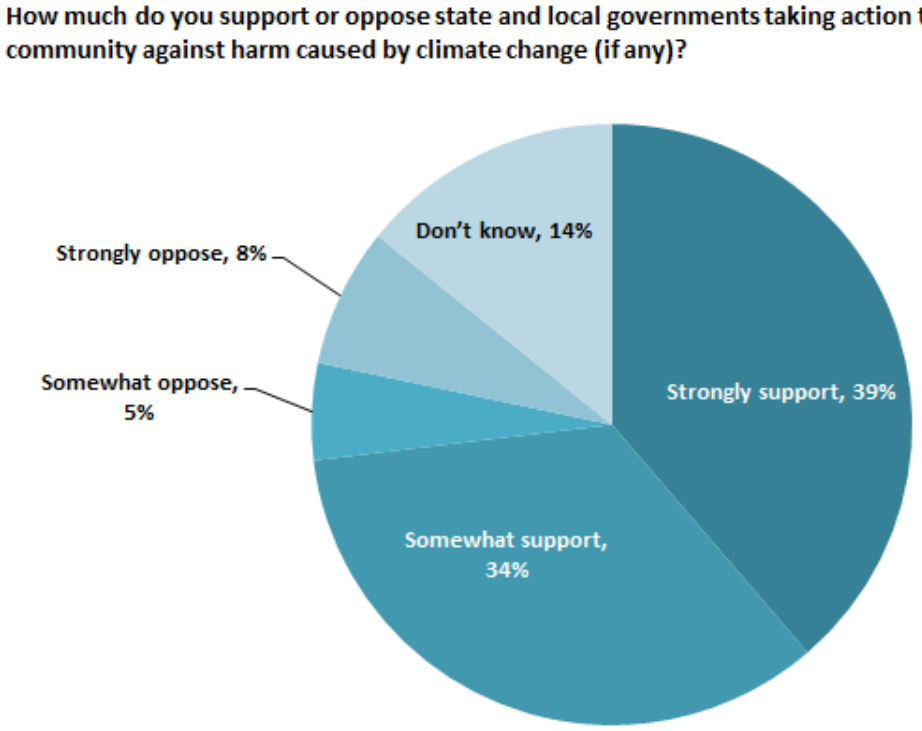
[10] Boesch, D.F. (Ed.). (2008). *Global Warming and the Free State: Comprehensive Assessment of Climate Change Impacts in Maryland.* Report of the Scientific and Technical Working Group of the Maryland Commission on Climate Change. University of Maryland Center for Environmental Science, Cambridge, MD.

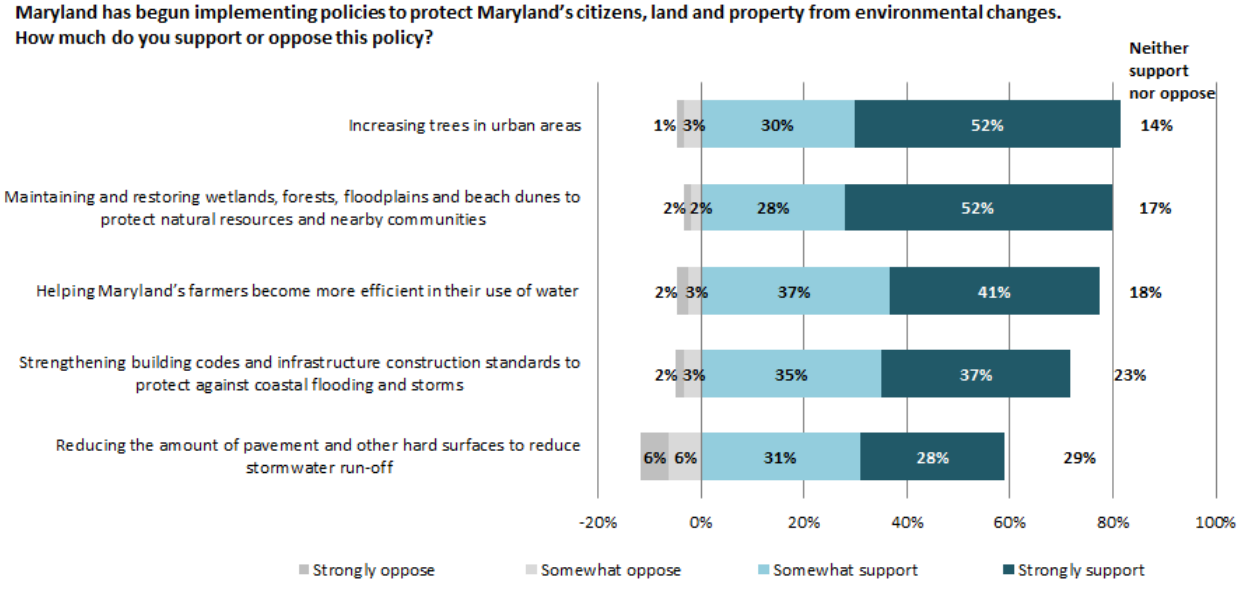
[11] This represents a small, though statistically significant, difference from the past year in which 76% said they supported local and state actions to prepare and protect against climate change. (See Table 8, Appendices, p. 26)

Figure 9 | *A large majority supports local and state action to protect communities from climate*



Unweighted base, n=2,035

Figure 10 | *Restoration and protection of trees and natural areas rank highly among residents*



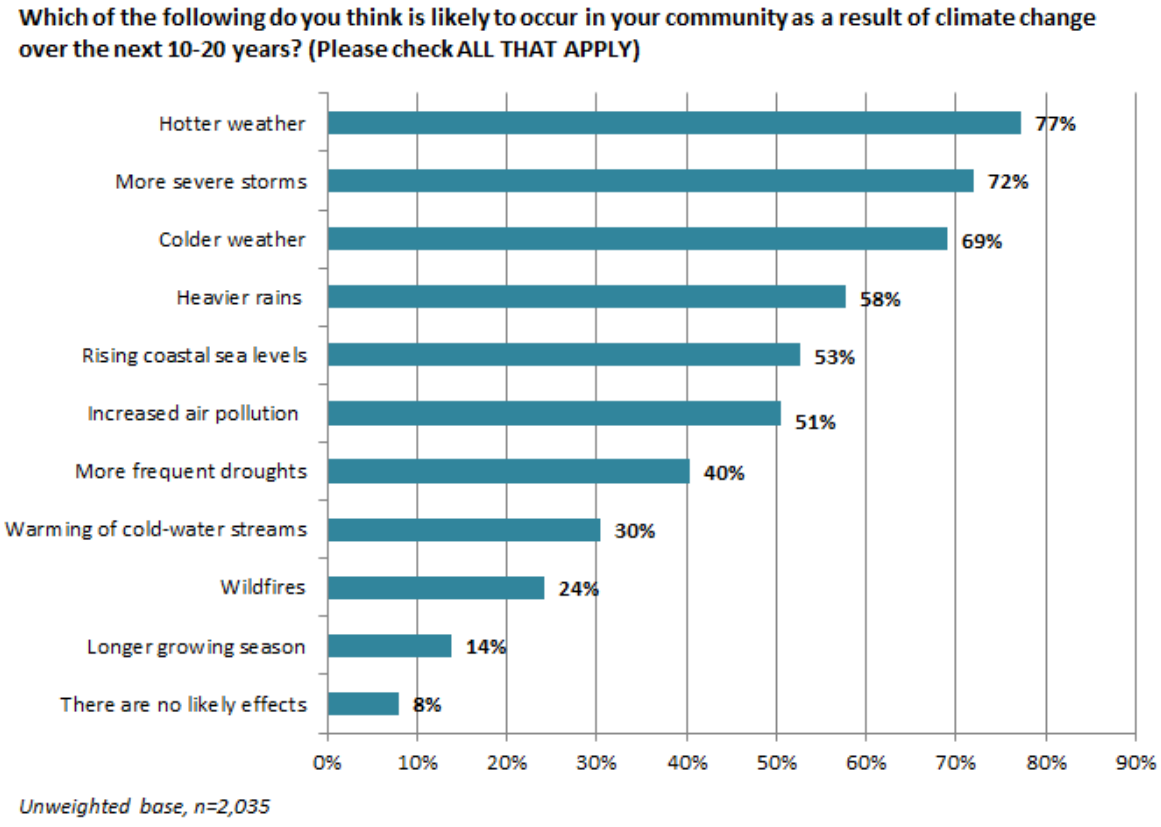
Unweighted base, n=2,035

4. Marylanders see incipient local climate changes and impacts to community resources

Over the past year many Marylanders say they have experienced loss of services and damages, especially loss of electrical power (76%), but also wind- or storm-related damage (39%), loss of drinking water (19%), breathing problems from poor air quality (18%), and flooding (9%). (See Table 11, Appendices, p. 29) Majorities of state residents say they anticipate that climate change will increase many of the conditions that cause these types of damages, such as hotter weather (77%), more severe storms (72%), heavier rains (58%), rising coastal sea levels (53%), and increased air pollution (51%). (See Figure 11)

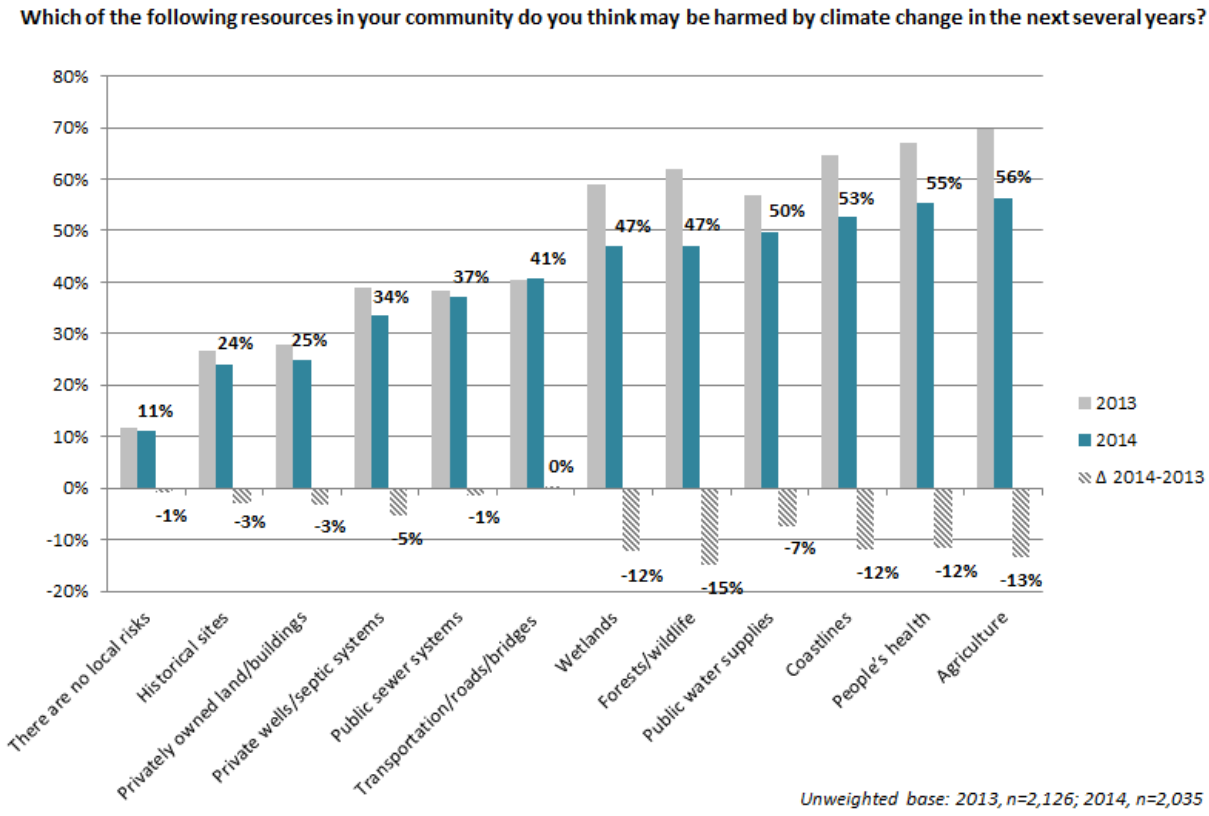
Across all four regions of the state, hotter weather and more severe storms are mentioned the most frequently as likely impacts from climate change that will occur in Marylanders' communities in the next 10-20 years. Coastal regions such as the Eastern Shore and counties south of Anne Arundel are more likely to cite rising coastal sea levels as one of these community impacts (53%, 59% respectively) than more inland areas (Western, 34%; Central, 48%). (See Table 12, Appendices, p. 30)

Figure 11 | *Hotter – and colder – weather and more severe storms expected*



Unweighted base, n=2,035

Figure 12 |*Agriculture, health and coastlines top the list of local resources believed to be at risk*



Half or more say that agriculture, health, and coastlines will be affected

This year we again asked state residents which resources in their communities they thought would be affected over the next several years by climate change – the same question was asked in 2013. Across a list of 11 possible areas of community impact, respondents were equally or somewhat less likely to say each was at risk in 2014 compared to 2013. Transportation, for example, remained about the same between years (2013, 40%; 2014, 41%), whereas the steepest observed drop (15 percentage points) was to forests and wildlife (2013, 62%; 2014, 47%). While there were some declines in risk perceptions over the past year, the ranking of the top three at-risk community resources that Marylanders are concerned about remained the same across both years: agriculture (2013, 70%; 2014; 56%), people's health (2013, 67%; 2014, 55%), and coastlines (2013, 65%; 2014, 53%). (See Figure 12)

Residents across the state's regions vary in their perceptions of risk to resource areas

People in the Western region of the state in 2014 are least likely to say that one or more of 11 resources in their community will be affected, while residents in the Southern region are most likely to perceive climate risks to local resources. Agriculture is the resource area most likely to

be perceived as threatened by climate change by residents in the Western counties of Allegany, Frederick, Garrett and Washington (52%). Less than half of Western county residents name any of the other types of resources as being at risk. (See Table 13, Appendices, p. 31)

In contrast, those in Southern counties are most likely to say one or more aspects of their community are at risk from climate change in the next several years. Half or more of respondents from Anne Arundel south through St. Mary's counties named six resources that concerned them, including agriculture (63%), coastlines (58%), people's health (56%), wetlands (54%), forests and wildlife (52%), and public water supplies (51%). The Central region is most likely to cite people's health (58%), agriculture (55%), public water supplies (52%), and coastlines (52%); whereas the Eastern region is most likely to point to coastlines (63%), wetlands (55%), and agriculture (52%).

5. Study methodology

This study was conducted by George Mason University's Center for Climate Change Communication in partnership with the Maryland Department of Health and Mental Hygiene to explore Marylanders' views on public health, energy and the environment. The survey instrument was developed at George Mason University, partially based on questions used in the Climate Change in the American Mind national surveys run by the Yale Project on Climate Change Communication (http://environment.yale.edu/ climate-communication/) and George Mason's Center for Climate Change Communication (http://climatechange communication.org/). The mail survey consisted of 50 questions, and took approximately 20 minutes to complete.

For reporting purposes, the data has been broken into four separate documents; this survey report focused on sea level rise and climate adaptation is the first of these. Three additional reports will follow on Marylanders' attitudes, behaviors and policy preferences regarding public health and climate change, energy, and climate change generally.

The unweighted sample margin of error is +/- 2 percentage points at the 95% confidence interval for the state and less than +/- 5 percentage points for each region. (See Table 1)

Sampling design; fielding

The survey was mailed to 6,401 households in the state of Maryland, randomly selected from within each of four regions of the state from Survey Sampling International household address databases, based primarily on U.S. Postal Service delivery route information. We sampled at the regional level to ensure the final data was generalizable to these distinctly different geographic and cultural areas of the state, as well as the state as a whole. The sample size for the Central region of the state was higher relative to the other three regions because it accounts for more than half of the state's population (see Table 1). Households that responded to the survey in 2013 were not re-contacted in 2014.

The survey was fielded from March 17 to June 10, 2014. Each household was sent up to four mailings: an announcement letter introducing the survey (March 17), a copy of the survey with a $2 bill as a thank you (March 24), a reminder postcard (April 7), and a follow-up survey (April 22). (As a point of comparison, the 2013 survey was fielded from March 28 to June 4. Methodology for the 2013 survey is available within those reports at climatemaryland.org.) In order to achieve randomization of respondents within each household, we requested that the person with the most recent birthday complete the survey. Households that completed and returned the survey were taken off of subsequent mailing lists.

Weighting

The data tables report percentages for the state and each region. State data were weighted for regional representation, gender, age, and education level based on 3-year American Community Survey data from the U.S. Census Bureau, following the same procedure as in 2013. Each region's data were also weighted for the same demographic variables. Base unweighted sample sizes for each question are reported in addition to the weighted percentages.

Respondents who did not provide regional, gender, age or education level data were dropped from the data set. This lowered the number of respondents by 201 cases. (The overall response rate for the study before those cases were dropped was 38%.) Please see the demographics section of the appendix for more information on the characteristics of the survey sample pre- and post-weighting.

Institutional Review Board

The study was reviewed by Institutional Review Boards for both George Mason University (Protocol #8508) and Maryland Department of Health and Mental Hygiene (Protocol #13-04).

Table 1 | *Regional samples, response rates and margin of error*

Region	Counties	Initial sample	Refusals	Undeliverable addresses	Number of respondents*	Response rate	Margin of error
Western	Allegany, Frederick, Garrett, Washington	1,467	14	107	495	36%	+/- 4.40 % points
Central	Baltimore, Carroll, Cecil, Harford, Howard, Montgomery, Baltimore City	2,000	16	130	629	33%	+/- 3.91 % points
Southern	Anne Arundel, Calvert, Charles, Prince George's, St. Mary's	1,467	11	85	435	31%	+/- 4.70 % points
Eastern	Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, Worcester	1,467	18	190	476	37%	+/- 4.49 % points
State	All counties	6,401	70	512	2,035	35%	+/- 2.2 % points

Appendices

– Data tables

– Sample demographics

The following tables provide data at the state and regional level for each of the questions included in this survey report. “Unweighted n” refers to the number of people who responded to each question. The samples were weighted to better approximate U.S. Census data on state population distributions. More information can be found in the study methodology section. The counties included in each region are listed below.

Region	Counties
Western	Allegany, Frederick, Garrett and Washington counties
Central	Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City
Southern	Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties
Eastern	Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties
State	All counties

Data tables | Marylanders' priorities for the Assembly and Governor

Table 1 | *Top priority areas for the state*

How much of a priority should these topics be for Maryland's General Assembly and the Governor?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Improving access to health care	Not a priority	**3.2%**	5.3%	3.2%	2.3%	4.4%
	Low	**6.3%**	9.7%	5.7%	7.4%	5.2%
	Medium	**16.7%**	25.5%	16.4%	11.6%	32.4%
	High	**29.5%**	21.5%	28.3%	33.7%	25.1%
	Very high	**44.3%**	37.9%	46.5%	45.1%	32.9%
	Unweighted n	1997	485	617	431	464
Establishing universal pre-kindergarten	Not a priority	**11.0%**	17.5%	10.7%	9.5%	14.4%
	Low	**13.9%**	21.0%	12.4%	14.3%	17.6%
	Medium	**22.8%**	28.1%	21.1%	23.6%	24.7%
	High	**26.1%**	15.1%	28.8%	25.5%	22.4%
	Very high	**26.2%**	18.3%	26.9%	27.0%	20.9%
	Unweighted n	1993	485	614	428	466
Reducing water pollution	Not a priority	**1.2%**	2.0%	1.5%	.5%	2.4%
	Low	**2.3%**	5.4%	1.2%	2.2%	5.8%
	Medium	**15.4%**	24.8%	15.7%	12.0%	18.9%
	High	**36.3%**	30.0%	37.7%	36.5%	30.6%
	Very high	**44.8%**	37.8%	44.0%	48.8%	42.4%
	Unweighted n	1989	485	613	426	465
Addressing climate change	Not a priority	**8.6%**	16.3%	6.7%	9.1%	16.0%
	Low	**12.3%**	17.5%	11.1%	11.8%	18.0%
	Medium	**28.4%**	25.8%	27.3%	31.3%	29.1%
	High	**29.6%**	18.3%	31.4%	29.9%	20.0%
	Very high	**21.0%**	22.1%	23.6%	17.9%	16.9%
	Unweighted n	1994	486	614	430	464
Raising the minimum wage	Not a priority	**8.4%**	12.5%	8.8%	6.6%	12.8%
	Low	**8.8%**	14.3%	8.4%	7.2%	15.9%
	Medium	**21.2%**	19.1%	21.3%	20.5%	25.6%
	High	**22.9%**	20.9%	22.4%	24.4%	18.8%
	Very high	**38.7%**	33.2%	39.1%	41.4%	26.9%
	Unweighted n	2001	487	620	430	464

Table 1 Continued>>

Table 1 Continued>>

How much of a priority should these topics be for Maryland's General Assembly and the Governor?		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Reducing air pollution	Not a priority	**2.0%**	3.2%	1.9%	1.7%	4.3%
	Low	**5.4%**	7.7%	3.3%	8.1%	8.4%
	Medium	**19.2%**	27.5%	19.1%	16.8%	25.1%
	High	**33.8%**	29.8%	35.9%	33.2%	28.7%
	Very high	**39.5%**	31.8%	39.9%	40.2%	33.5%
	Unweighted n	1993	485	613	429	466
Creating jobs	Not a priority	**0.9%**	.8%	.8%	.9%	2.4%
	Low	**1.5%**	3.4%	2.1%	.6%	.5%
	Medium	**8.2%**	7.5%	8.0%	7.9%	8.9%
	High	**26.2%**	21.8%	26.0%	28.8%	28.4%
	Very high	**63.1%**	66.5%	63.2%	61.8%	59.8%
	Unweighted n	2002	487	618	429	468
Growing the middle class	Not a priority	**2.5%**	1.9%	2.4%	2.6%	2.4%
	Low	**4.9%**	5.7%	5.0%	5.8%	4.9%
	Medium	**18.4%**	19.8%	19.3%	16.6%	18.2%
	High	**30.1%**	29.8%	27.9%	31.9%	36.4%
	Very high	**44.1%**	42.7%	45.3%	43.1%	38.1%
	Unweighted n	1982	483	609	427	463
Protecting Maryland's coastal areas from sea-level rise	Not a priority	**4.5%**	9.3%	3.3%	4.2%	7.1%
	Low	**11.0%**	15.4%	11.7%	8.8%	10.1%
	Medium	**29.2%**	30.6%	29.4%	29.1%	27.2%
	High	**31.2%**	19.3%	32.1%	33.5%	26.0%
	Very high	**24.1%**	25.4%	23.4%	24.5%	29.7%
	Unweighted n	1998	487	613	429	469

Data tables | Support for state sea-level rise strategies

Table 2 | *Support for types of community sea-level rise strategies*

Maryland's state and local governments have various options for dealing with sea-level rise. How much do you support or oppose the following approaches to dealing with sea-level rise in Maryland?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Long-range planning that takes sea-level rise into account	Strongly oppose	**3.0%**	4.0%	2.1%	3.9%	3.9%
	Somewhat oppose	**3.5%**	5.1%	2.8%	4.2%	3.1%
	Neither support nor oppose	**28.1%**	34.5%	29.1%	23.1%	28.7%
	Somewhat support	**32.7%**	32.3%	33.9%	31.3%	28.2%
	Strongly support	**32.7%**	24.1%	32.1%	37.5%	36.1%
	Unweighted n	1964	476	607	419	462
Changes to regulations, such as zoning laws and increased "set back" distances to discourage building in areas likely to be affected by sea-level rise	Strongly oppose	**4.5%**	5.9%	3.2%	5.2%	5.4%
	Somewhat oppose	**4.8%**	5.6%	3.6%	5.4%	9.5%
	Neither support nor oppose	**23.8%**	27.9%	27.1%	17.4%	18.4%
	Somewhat support	**33.6%**	26.0%	32.3%	38.5%	33.1%
	Strongly support	**33.3%**	34.7%	33.9%	33.5%	33.5%
	Unweighted n	1980	481	610	422	467
Use of government spending to buy coastal lands to maintain and restore natural areas as buffers against sea-level rise and storms	Strongly oppose	**8.3%**	14.1%	7.3%	8.0%	9.4%
	Somewhat oppose	**9.5%**	10.2%	6.9%	11.0%	17.9%
	Neither support nor oppose	**27.3%**	29.5%	29.2%	22.8%	25.8%
	Somewhat support	**30.9%**	24.1%	33.9%	30.5%	29.2%
	Strongly support	**23.9%**	22.1%	22.6%	27.7%	17.7%
	Unweighted n	1965	476	606	417	466
Use of government spending to build walls and other structural barriers along the shore to hold back coastal waters	Strongly oppose	**11.3%**	14.5%	11.3%	10.2%	13.2%
	Somewhat oppose	**12.3%**	14.8%	11.0%	11.4%	19.9%
	Neither support nor oppose	**28.7%**	30.3%	32.3%	22.4%	19.8%
	Somewhat support	**29.5%**	25.7%	29.2%	30.9%	35.8%
	Strongly support	**18.2%**	14.7%	16.2%	25.2%	11.3%
	Unweighted n	1975	482	608	421	464
Providing tax incentives to property owners to take actions that reduce flood risk	Strongly oppose	**8.3%**	13.0%	6.0%	11.1%	6.6%
	Somewhat oppose	**7.5%**	8.4%	7.6%	7.6%	8.4%
	Neither support nor oppose	**28.7%**	30.9%	30.9%	22.8%	25.4%
	Somewhat support	**32.1%**	27.5%	36.6%	25.9%	34.8%
	Strongly support	**23.4%**	20.2%	19.0%	32.7%	24.7%
	Unweighted n	1967	480	605	420	462

Data tables | Sea-level rise knowledge and beliefs

Table 3 | *Certainty of belief that sea-level rise is occurring in Maryland*

Sea-level rise is an issue that some Maryland communities have been discussing recently. Sea-level rise refers to increases in the average height of water relative to the land. Do you think that sea-level rise is currently happening along Maryland's coastlines? If you answered either yes or no, how sure are you?

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Extremely sure sea-level rise is not happening	**.4%**	1.0%	.3%	.4%	.5%
Very sure sea-level rise is not happening	**1.8%**	3.4%	1.9%	1.0%	2.9%
Somewhat sure sea-level rise is not happening	**4.1%**	3.5%	4.2%	3.3%	6.4%
Not at all sure sea-level rise is not happening	**1.6%**	3.4%	1.6%	.4%	1.9%
Don't know	**53.1%**	54.6%	54.4%	53.7%	32.7%
Not at all sure sea-level rise is happening	**3.0%**	1.7%	4.0%	2.1%	1.4%
Somewhat sure sea-level rise is happening	**18.1%**	17.8%	15.9%	22.2%	22.4%
Very sure sea-level rise is happening	**13.9%**	11.6%	13.8%	12.7%	19.6%
Extremely sure sea-level rise is happening	**4.1%**	2.9%	3.8%	4.2%	12.2%
Unweighted n	2012	490	617	432	473

Table 4 | *When sea-level rise will harm Maryland people and property*

When do you think the effects of sea-level rise will significantly harm people and property in Maryland, if ever? (Check ONE)

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Effects are significant now	**12.0%**	5.9%	13.0%	9.8%	14.7%
In 10 years	**17.3%**	16.4%	14.1%	21.5%	23.5%
In 25 years	**27.5%**	18.4%	31.3%	28.1%	18.1%
In 50 years	**14.7%**	16.8%	14.2%	16.0%	12.3%
In 100 years	**8.1%**	11.6%	8.5%	5.6%	12.2%
Never	**3.9%**	12.0%	3.2%	2.6%	5.2%
I don't think sea levels have been rising	**16.6%**	19.0%	15.7%	16.4%	14.0%
Unweighted n	1807	420	551	401	435

Table 5 | *Human vs. natural causes of rising sea-levels in Maryland*

If you think sea levels are currently rising in Maryland, what do you think is causing it? (Check ONE)

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Caused entirely by human activities	**3.9%**	5.2%	4.5%	3.0%	1.6%
Caused mostly by human activities	**14.0%**	11.5%	15.8%	13.6%	6.5%
Caused about equally by human activities and natural changes in the environment	**23.2%**	15.1%	20.5%	30.1%	27.4%
Caused mostly by natural changes in the environment	**12.6%**	16.8%	13.0%	9.7%	20.9%
Caused entirely by natural changes in the environment	**3.9%**	6.6%	2.7%	3.9%	10.8%
I don't think sea levels have been rising	**6.3%**	8.3%	6.1%	4.6%	8.9%
Don't know	**36.1%**	36.5%	37.5%	35.1%	24.0%
Unweighted n	1874	447	567	410	450

Table 6 | *Role of climate change in contributing to sea-level rise*

If you think sea levels are currently rising in Maryland, how much do you think climate change contributes to sea-level rise in Maryland? (Check ONE)

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Not at all	**3.0%**	4.6%	2.3%	3.1%	5.9%
A little	**4.6%**	7.7%	4.2%	4.7%	8.3%
Some	**22.2%**	21.0%	21.5%	22.6%	26.2%
A lot	**34.3%**	30.4%	34.7%	35.9%	29.2%
I don't think sea levels have been rising	**5.2%**	4.7%	4.9%	4.6%	7.8%
Don't know	**30.7%**	31.7%	32.5%	29.0%	22.7%
Unweighted n	1873	447	569	411	446

Table 7 | *Types of state sea-level rise impacts that cause most concern*

Which impacts from sea-level rise in Maryland, if any, are you most concerned about? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Private property damage or loss	No response	**55.6%**	70.2%	59.4%	45.6%	49.3%
	Yes	**44.4%**	29.8%	40.6%	54.4%	50.7%
	Unweighted n	2035	495	629	435	476
Damage or loss of public infrastructure, like roads	No response	**58.1%**	72.2%	57.5%	55.8%	59.7%
	Yes	**41.9%**	27.8%	42.5%	44.2%	40.3%
	Unweighted n	2035	495	629	435	476
Habitat loss	No response	**53.3%**	61.2%	53.1%	50.1%	50.3%
	Yes	**46.7%**	38.8%	46.9%	49.9%	49.7%
	Unweighted n	2035	495	629	435	476
Shoreline erosion and loss of land	No response	**45.9%**	54.7%	47.6%	38.9%	36.7%
	Yes	**54.1%**	45.3%	52.4%	61.1%	63.3%
	Unweighted n	2035	495	629	435	476
Increased frequency and severity of flooding	No response	**59.7%**	71.2%	59.0%	56.2%	56.1%
	Yes	**40.3%**	28.8%	41.0%	43.8%	43.9%
	Unweighted n	2035	495	629	435	476
Permanently flooded areas (inundation)	No response	**72.4%**	82.9%	72.2%	66.9%	72.9%
	Yes	**27.6%**	17.1%	27.8%	33.1%	27.1%
	Unweighted n	2035	495	629	435	476
Higher storm surge	No response	**63.7%**	77.5%	62.6%	62.2%	56.4%
	Yes	**36.3%**	22.5%	37.4%	37.8%	43.6%
	Unweighted n	2035	495	629	435	476
Contamination of freshwater wells	No response	**58.2%**	64.4%	60.1%	53.6%	57.2%
	Yes	**41.8%**	35.6%	39.9%	46.4%	42.8%
	Unweighted n	2035	495	629	435	476
Problems with stormwater drainage	No response	**64.1%**	74.4%	64.1%	60.7%	63.5%
	Yes	**35.9%**	25.6%	35.9%	39.3%	36.5%
	Unweighted n	2035	495	629	435	476
Loss or damage of sewage and septic systems	No response	**63.4%**	70.3%	62.9%	64.5%	60.5%
	Yes	**36.6%**	29.7%	37.1%	35.5%	39.5%
	Unweighted n	2035	495	629	435	476
Not concerned about any impacts	No response	**92.4%**	87.2%	93.6%	93.1%	90.0%
	Yes	**7.6%**	12.8%	6.4%	6.9%	10.0%
	Unweighted n	2035	495	629	435	476
Don't know	No response	**81.7%**	82.9%	79.7%	85.6%	88.9%
	Yes	**18.3%**	17.1%	20.3%	14.4%	11.1%
	Unweighted n	2035	495	629	435	476

Data tables | Awareness and support for state adaptation strategies

Table 8 | *Support for government action to protect communities*

How much do you support or oppose state and local governments taking action to protect your community against harm caused by climate change (if any)? (Check ONE)

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Strongly oppose	**7.5%**	13.5%	6.3%	7.5%	9.3%
Somewhat oppose	**5.2%**	10.1%	5.9%	2.5%	8.2%
Somewhat support	**34.4%**	30.7%	37.7%	27.6%	41.5%
Strongly support	**38.7%**	27.8%	38.6%	46.9%	25.7%
Don't know	**14.2%**	17.9%	11.5%	15.3%	15.3%
Unweighted n	2012	488	621	433	470

	2013	2014	Δ
Strongly oppose	6.5%	7.5%	1.0%
Somewhat oppose	6.0%	5.2%	-0.8%
Somewhat support	36.0%	34.4%	-1.6%
Strongly support	40.3%	38.7%	-1.6%
Don't know	11.3%	14.2%	3.0%
Unweighted n	2092	2012	

Table 9 | *Awareness of policies to protect communities and resources*

Maryland has begun implementing policies to protect Maryland's citizens, land and property from environmental changes. For each of the following policies, please answer two questions:

Have you heard of this policy?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Helping Maryland's farmers become more efficient in their use of water	Yes	**23.6%**	27.3%	22.9%	23.6%	32.1%
	No	**76.4%**	72.7%	77.1%	76.4%	67.9%
	Unweighted n	1919	469	582	410	458
Increasing trees in urban areas	Yes	**39.9%**	42.6%	42.0%	35.7%	42.1%
	No	**60.1%**	57.4%	58.0%	64.3%	57.9%
	Unweighted n	1906	463	582	407	454
Reducing the amount of pavement and other hard surfaces to reduce stormwater run-off	Yes	**29.5%**	27.0%	32.4%	27.1%	32.8%
	No	**70.5%**	73.0%	67.6%	72.9%	67.2%
	Unweighted n	1876	459	568	402	447
Strengthening building codes and infrastructure construction standards to protect against coastal flooding and storms	Yes	**28.5%**	25.9%	25.2%	34.0%	43.3%
	No	**71.5%**	74.1%	74.8%	66.0%	56.7%
	Unweighted n	1895	461	576	403	455
Maintaining and restoring wetlands, forests, floodplains and beach dunes to protect natural resources and nearby communities	Yes	**45.8%**	50.1%	43.0%	48.9%	69.2%
	No	**54.2%**	49.9%	57.0%	51.1%	30.8%
	Unweighted n	1887	462	573	400	452

Table 10 | *Support for policies to protect communities and resources*

How much do you support or oppose this policy?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Helping Maryland's farmers become more efficient in their use of water	Strongly oppose	**2.3%**	2.0%	1.9%	2.2%	4.3%
	Somewhat oppose	**2.5%**	1.0%	1.2%	4.5%	3.8%
	Neither support nor oppose	**17.8%**	23.0%	18.1%	13.3%	22.3%
	Somewhat support	**36.6%**	37.8%	37.8%	37.2%	38.0%
	Strongly support	**40.8%**	36.1%	41.0%	42.8%	31.6%
	Unweighted n	1878	442	593	404	439
Increasing trees in urban areas	Strongly oppose	**1.4%**	.8%	1.1%	2.3%	.8%
	Somewhat oppose	**3.2%**	4.4%	3.3%	2.5%	1.0%
	Neither support nor oppose	**13.9%**	14.2%	12.8%	13.1%	19.4%
	Somewhat support	**29.8%**	35.3%	29.8%	27.9%	33.2%
	Strongly support	**51.8%**	45.2%	52.9%	54.1%	45.6%
	Unweighted n	1891	454	591	409	437
Reducing the amount of pavement and other hard surfaces to reduce stormwater run-off	Strongly oppose	**5.6%**	3.4%	5.9%	4.9%	8.6%
	Somewhat oppose	**6.2%**	9.3%	6.4%	5.0%	7.5%
	Neither support nor oppose	**29.2%**	35.2%	30.8%	21.6%	31.4%
	Somewhat support	**30.9%**	30.3%	28.3%	38.2%	28.5%
	Strongly support	**28.2%**	21.8%	28.7%	30.4%	24.0%
	Unweighted n	1867	444	582	400	441
Strengthening building codes and infrastructure construction standards to protect against coastal flooding and storms	Strongly oppose	**1.7%**	.9%	1.8%	1.8%	2.3%
	Somewhat oppose	**3.2%**	8.0%	2.8%	1.9%	6.3%
	Neither support nor oppose	**23.4%**	26.7%	23.8%	22.8%	20.9%
	Somewhat support	**35.1%**	33.4%	33.0%	37.2%	40.0%
	Strongly support	**36.6%**	31.0%	38.7%	36.2%	30.5%
	Unweighted n	1896	452	587	407	450
Maintaining and restoring wetlands, forests, floodplains and beach dunes to protect natural resources and nearby communities	Strongly oppose	**1.5%**	2.6%	2.1%	1.0%	1.0%
	Somewhat oppose	**1.9%**	2.0%	1.5%	2.0%	1.9%
	Neither support nor oppose	**16.8%**	17.6%	18.0%	13.7%	14.1%
	Somewhat support	**28.0%**	33.6%	27.5%	25.0%	28.8%
	Strongly support	**51.8%**	44.2%	50.9%	58.3%	54.2%
	Unweighted n	1924	459	594	414	457

Data tables | Experiences of loss of services and damage

Table 11 | *Types of service loss, weather damage and harm*

How frequently have you personally experienced the following during the past 12 months?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Loss of electric power	Not at all	**24.1%**	17.4%	25.9%	21.2%	27.6%
	Once	**30.3%**	26.5%	32.8%	25.6%	25.6%
	2-3 times	**33.6%**	39.3%	31.7%	39.0%	31.9%
	4-5 times	**8.3%**	10.1%	6.8%	11.1%	6.4%
	More than 5 times	**3.6%**	6.6%	2.8%	3.1%	8.6%
	Unweighted n	2016	488	624	432	472
Loss of drinking water	Not at all	**80.8%**	75.0%	80.4%	82.0%	81.0%
	Once	**10.1%**	7.8%	10.0%	11.5%	9.2%
	2-3 times	**6.8%**	10.7%	7.8%	4.2%	7.2%
	4-5 times	**1.7%**	5.4%	1.1%	1.7%	2.0%
	More than 5 times	**.6%**	1.0%	.7%	.5%	.5%
	Unweighted n	2004	486	618	430	470
Flood damage	Not at all	**91.3%**	94.9%	91.4%	92.0%	82.2%
	Once	**6.6%**	3.7%	6.6%	6.9%	9.1%
	2-3 times	**1.7%**	1.2%	1.3%	1.0%	8.0%
	4-5 times	**.4%**	.1%	.6%	.2%	.5%
	More than 5 times	**.0%**	0.0%	.0%	0.0%	.1%
	Unweighted n	2009	485	619	434	471
Wildfire damage	Not at all	**99.0%**	99.3%	98.7%	99.5%	98.7%
	Once	**.2%**	.7%	.0%	.4%	.1%
	2-3 times	**.7%**	0.0%	1.2%	.1%	1.0%
	4-5 times	**.0%**	0.0%	.0%	0.0%	0.0%
	More than 5 times	**.0%**	0.0%	0.0%	0.0%	.2%
	Unweighted n	2013	488	620	433	472
Wind- or storm-related damage	Not at all	**61.4%**	57.7%	61.7%	63.5%	55.4%
	Once	**27.0%**	23.0%	27.8%	26.0%	29.9%
	2-3 times	**9.1%**	13.9%	8.6%	7.4%	12.4%
	4-5 times	**1.4%**	3.9%	.4%	3.0%	1.8%
	More than 5 times	**1.1%**	1.4%	1.5%	.1%	.5%
	Unweighted n	2007	488	617	432	470

Data tables | Perceptions of local climate changes and impacts

Table 12 | *Perceived types of local climate changes likely to occur*

Which of the following do you think is likely to occur in your community as a result of climate change over the next 10-20 years? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Hotter weather	No response	**25.8%**	30.5%	24.4%	22.7%	34.7%
	Yes	**74.2%**	69.5%	75.6%	77.3%	65.3%
	Unweighted n	2035	495	629	435	476
Colder weather	No response	**35.3%**	37.5%	36.0%	30.9%	45.8%
	Yes	**64.7%**	62.5%	64.0%	69.1%	54.2%
	Unweighted n	2035	495	629	435	476
Heavier rains	No response	**42.9%**	52.9%	39.8%	42.3%	54.1%
	Yes	**57.1%**	47.1%	60.2%	57.7%	45.9%
	Unweighted n	2035	495	629	435	476
More frequent droughts	No response	**58.7%**	59.2%	58.7%	59.6%	57.9%
	Yes	**41.3%**	40.8%	41.3%	40.4%	42.1%
	Unweighted n	2035	495	629	435	476
Wildfires	No response	**78.1%**	76.7%	79.3%	75.9%	78.5%
	Yes	**21.9%**	23.3%	20.7%	24.1%	21.5%
	Unweighted n	2035	495	629	435	476
Increased air pollution	No response	**53.2%**	59.0%	52.6%	49.5%	64.1%
	Yes	**46.8%**	41.0%	47.4%	50.5%	35.9%
	Unweighted n	2035	495	629	435	476
Warming of cold-water streams	No response	**71.7%**	73.2%	72.6%	69.6%	74.3%
	Yes	**28.3%**	26.8%	27.4%	30.4%	25.7%
	Unweighted n	2035	495	629	435	476
Longer growing season	No response	**83.5%**	83.0%	82.5%	86.2%	86.5%
	Yes	**16.5%**	17.0%	17.5%	13.8%	13.5%
	Unweighted n	2035	495	629	435	476
More severe storms	No response	**30.2%**	36.9%	28.6%	28.1%	37.3%
	Yes	**69.8%**	63.1%	71.4%	71.9%	62.7%
	Unweighted n	2035	495	629	435	476
Rising coastal sea levels	No response	**51.5%**	66.4%	52.1%	47.4%	41.4%
	Yes	**48.5%**	33.6%	47.9%	52.6%	58.6%
	Unweighted n	2035	495	629	435	476
There are no likely effects	No response	**89.6%**	84.5%	89.7%	92.0%	87.3%
	Yes	**10.4%**	15.5%	10.3%	8.0%	12.7%
	Unweighted n	2035	495	629	435	476

Table 13 | *Perceptions of climate impacts to one's own community*

Which of the following resources in your community do you think may be harmed by climate change in the next several years? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Public water supplies	No response	**50.2%**	53.8%	48.2%	48.7%	59.8%
	Yes	**49.8%**	46.2%	51.8%	51.3%	40.2%
	Unweighted n	2035	495	629	435	476
Public sewer systems	No response	**62.9%**	69.0%	60.6%	64.6%	68.8%
	Yes	**37.1%**	31.0%	39.4%	35.4%	31.2%
	Unweighted n	2035	495	629	435	476
People's health	No response	**44.6%**	52.6%	41.7%	44.2%	57.0%
	Yes	**55.4%**	47.4%	58.3%	55.8%	43.0%
	Unweighted n	2035	495	629	435	476
Transportation/roads/bridges	No response	**59.3%**	64.9%	57.8%	58.9%	64.7%
	Yes	**40.7%**	35.1%	42.2%	41.1%	35.3%
	Unweighted n	2035	495	629	435	476
Historical sites	No response	**75.9%**	80.8%	74.8%	76.5%	75.8%
	Yes	**24.1%**	19.2%	25.2%	23.5%	24.2%
	Unweighted n	2035	495	629	435	476
Coastlines	No response	**47.3%**	65.9%	48.3%	42.4%	36.8%
	Yes	**52.7%**	34.1%	51.7%	57.6%	63.2%
	Unweighted n	2035	495	629	435	476
Wetlands	No response	**53.0%**	64.9%	55.0%	46.2%	44.7%
	Yes	**47.0%**	35.1%	45.0%	53.8%	55.3%
	Unweighted n	2035	495	629	435	476
Forests/wildlife	No response	**52.9%**	53.5%	54.6%	48.5%	62.0%
	Yes	**47.1%**	46.5%	45.4%	51.5%	38.0%
	Unweighted n	2035	495	629	435	476
Agriculture	No response	**43.6%**	47.9%	45.5%	37.5%	48.0%
	Yes	**56.4%**	52.1%	54.5%	62.5%	52.0%
	Unweighted n	2035	495	629	435	476
Private wells/septic systems	No response	**66.5%**	60.4%	69.2%	66.2%	58.3%
	Yes	**33.5%**	39.6%	30.8%	33.8%	41.7%
	Unweighted n	2035	495	629	435	476
Privately owned land/buildings	No response	**75.1%**	77.7%	76.4%	72.8%	65.9%
	Yes	**24.9%**	22.3%	23.6%	27.2%	34.1%
	Unweighted n	2035	495	629	435	476
There are no local risks from climate change	No response	**88.9%**	78.6%	89.9%	92.2%	83.9%
	Yes	**11.1%**	21.4%	10.1%	7.8%	16.1%
	Unweighted n	2035	495	629	435	476

Which of the following resources in your community do you think may be harmed by climate change in the next several years? (Please check ALL THAT APPLY)				
		2013	2014	Δ
Public water supplies	No response	43.0%	50.2%	
	Yes	57.0%	49.8%	-7.2%
	Unweighted n	2126	2035	
Public sewer systems	No response	61.8%	62.9%	
	Yes	38.2%	37.1%	-1.2%
	Unweighted n	2126	2035	
People's health	No response	33.1%	44.6%	
	Yes	66.9%	55.4%	-11.5%
	Unweighted n	2126	2035	
Transportation/roads/bridges	No response	59.7%	59.3%	
	Yes	40.3%	40.7%	0.4%
	Unweighted n	2126	2035	
Historical sites	No response	73.2%	75.9%	
	Yes	26.8%	24.1%	-2.7%
	Unweighted n	2126	2035	
Coastlines	No response	35.5%	47.3%	
	Yes	64.5%	52.7%	-11.8%
	Unweighted n	2126	2035	
Wetlands	No response	41.0%	53.0%	
	Yes	59.0%	47.0%	-12.1%
	Unweighted n	2126	2035	
Forests/wildlife	No response	38.0%	52.9%	
	Yes	62.0%	47.1%	-14.8%
	Unweighted n	2126	2035	
Agriculture	No response	30.3%	43.6%	
	Yes	69.7%	56.4%	-13.3%
	Unweighted n	2126	2035	
Private wells/septic systems	No response	61.2%	66.5%	
	Yes	38.8%	33.5%	-5.3%
	Unweighted n	2126	2035	
Privately owned land/buildings	No response	72.1%	75.1%	
	Yes	27.9%	24.9%	-3.0%
	Unweighted n	2126	2035	
There are no local risks from climate change	No response	88.3%	88.9%	
	Yes	11.7%	11.1%	-0.7%
	Unweighted n	2126	2035	

Sample demographics

Region

	STATE unweighted sample n	STATE weighted %
Western Region	**495**	**8.4%**
Central Region	**629**	**55.4%**
Southern Region	**435**	**30.2%**
Eastern Region	**476**	**6.0%**
Unweighted n	2035	

Gender

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Male	799	**48.0%**	50.0%	48.0%	49.0%	49.0%
Female	1236	**52.0%**	50.0%	52.0%	51.0%	51.0%
Unweighted n	2035	2035	495	629	435	476

Age

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
18 to 24 years	42	**13.0%**	11.8%	12.0%	14.0%	14.0%
25 to 34 years	223	**17.5%**	15.6%	18.0%	18.0%	14.0%
35 to 44 years	295	**17.5%**	17.8%	17.0%	18.0%	15.0%
45 to 54 years	392	**20.0%**	20.6%	20.0%	20.0%	18.5%
55 to 64 years	487	**16.0%**	16.1%	16.0%	15.5%	17.0%
65 to 74 years	355	**9.0%**	9.7%	9.0%	9.0%	12.0%
75 to 84 years	179	**5.0%**	5.9%	5.0%	4.0%	7.0%
85 years and over	62	**2.0%**	2.4%	3.0%	1.5%	2.5%
Unweighted n	2035	2035	495	629	435	476

Number of people under 18 years of age currently living in the household

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
0	1102	**55.5%**	49.8%	55.2%	57.4%	60.8%
1	300	**19.4%**	22.2%	20.0%	17.3%	21.9%
2	245	**16.1%**	19.7%	15.3%	17.3%	11.3%
3	85	**6.7%**	5.7%	7.3%	5.9%	3.4%
4	22	**1.2%**	2.1%	.6%	1.7%	2.1%
5	7	**0.6%**	.5%	1.0%	.1%	.4%
6	2	**0.2%**	0.0%	.2%	.2%	0.0%
7	2	**0.2%**	0.0%	.4%	0.0%	0.0%
9	2	**0.0%**	0.0%	.0%	0.0%	.2%
Unweighted n	1767	1767	422	552	386	407

Education

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Less than high school	43	**11.0%**	11.5%	11.0%	11.0%	13.0%
High school or GED	845	**46.0%**	53.5%	41.0%	41.0%	54.0%
Associate's degree	175	**6.0%**	8.0%	6.0%	6.0%	7.0%
Bachelor's degree	471	**20.0%**	16.0%	22.0%	22.0%	15.0%
Advanced degree beyond a bachelor's degree	501	**17.0%**	11.0%	20.0%	20.0%	11.0%
Unweighted n	2035	2035	495	629	435	476

Income

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Less than $10,000	77	**8.6%**	5.2%	9.3%	8.7%	7.9%
$10,000 — $14,999	79	**4.8%**	8.4%	3.8%	5.3%	5.1%
$15,000 — $24,999	125	**7.3%**	8.8%	9.0%	3.0%	8.1%
$25,000 — $34,999	162	**8.5%**	7.8%	8.8%	7.9%	12.3%
$35,000 — $49,999	250	**11.6%**	15.1%	10.4%	11.4%	18.0%
$50,000 — $74,999	343	**16.5%**	18.1%	14.2%	17.8%	20.3%
$75,000 — $99,999	238	**12.4%**	10.3%	11.8%	14.8%	11.8%
$100,000 — $149,999	338	**15.9%**	18.6%	18.0%	13.6%	10.4%
$150,000 or more	295	**14.4%**	7.7%	14.7%	17.6%	6.0%
Unweighted n	1907	**1907**	458	595	417	437

Political ideology

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Very conservative	182	**6.5%**	10.8%	4.3%	8.1%	11.1%
Somewhat conservative	418	**18.9%**	21.9%	18.2%	18.0%	19.7%
Moderate, middle of the road	844	**46.8%**	46.8%	46.0%	48.2%	50.8%
Somewhat liberal	380	**20.8%**	13.1%	23.5%	19.8%	13.0%
Very liberal	168	**7.1%**	7.5%	8.0%	6.0%	5.3%
Unweighted n	1992	1992	485	612	428	467

Hispanic or Latino ethnicity

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Hispanic or Latino	53	**3.7%**	1.4%	3.8%	3.8%	2.3%
Not Hispanic or Latino	1907	**96.3%**	98.6%	96.2%	96.2%	97.7%
Unweighted n	1960	1960	472	600	424	464

Race

	STATE unweighted sample n	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
White	1548	**67.1%**	91.0%	68.9%	55.7%	83.6%
Black or African American	303	**21.0%**	3.6%	19.4%	30.1%	9.5%
Asian	44	**3.4%**	.9%	4.7%	3.5%	0.0%
American Indian or Alaska Native	4	**0.1%**	0.0%	.1%	.1%	.3%
Native Hawaiian or other Pacific Islander	2	**0.1%**	0.0%	.2%	0.0%	0.0%
Other	44	**2.8%**	2.0%	1.7%	4.3%	.9%
Two or more races	57	**5.5%**	2.4%	4.9%	6.2%	5.7%
Unweighted n	2002	2002	487	614	428	473