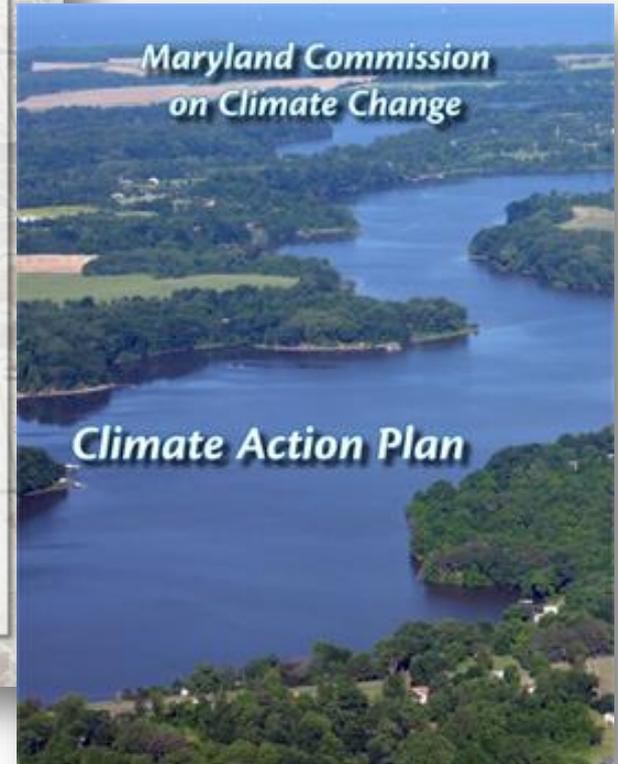
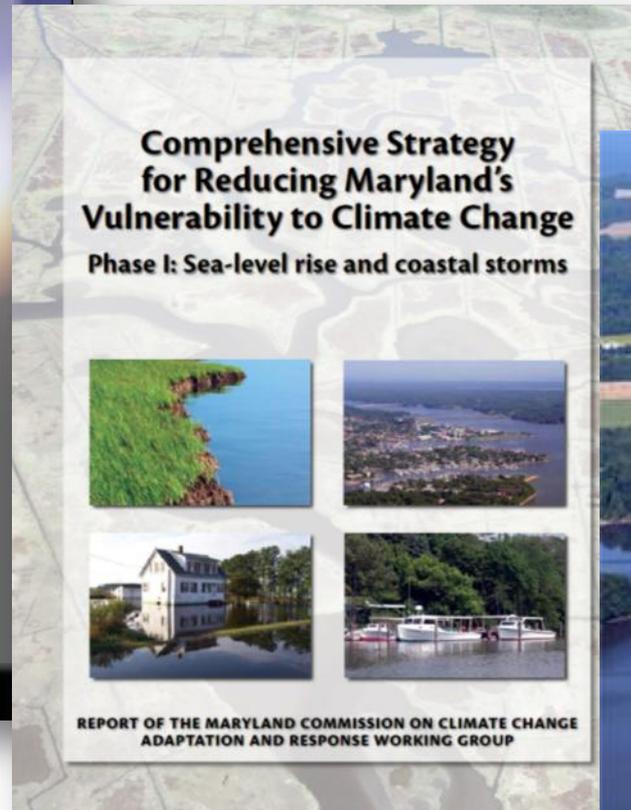
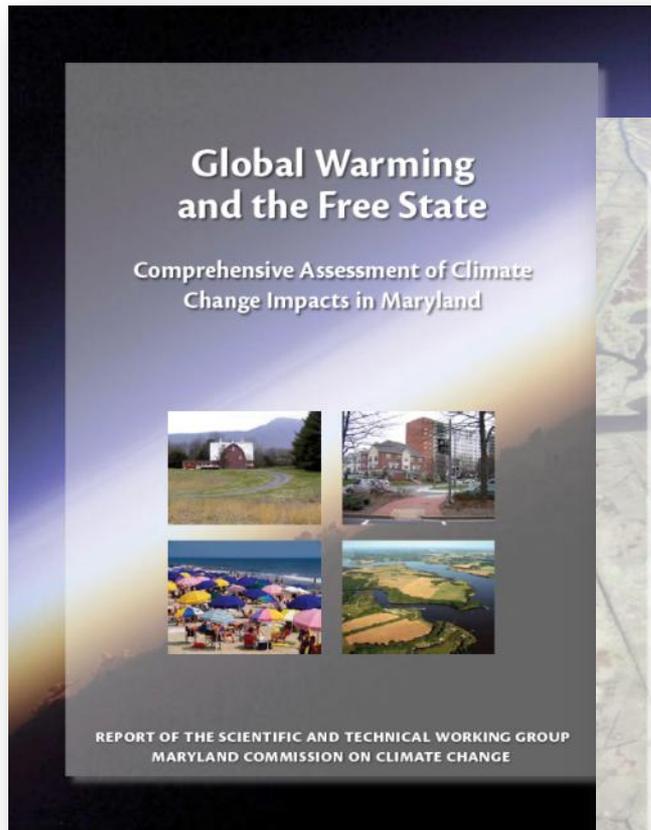




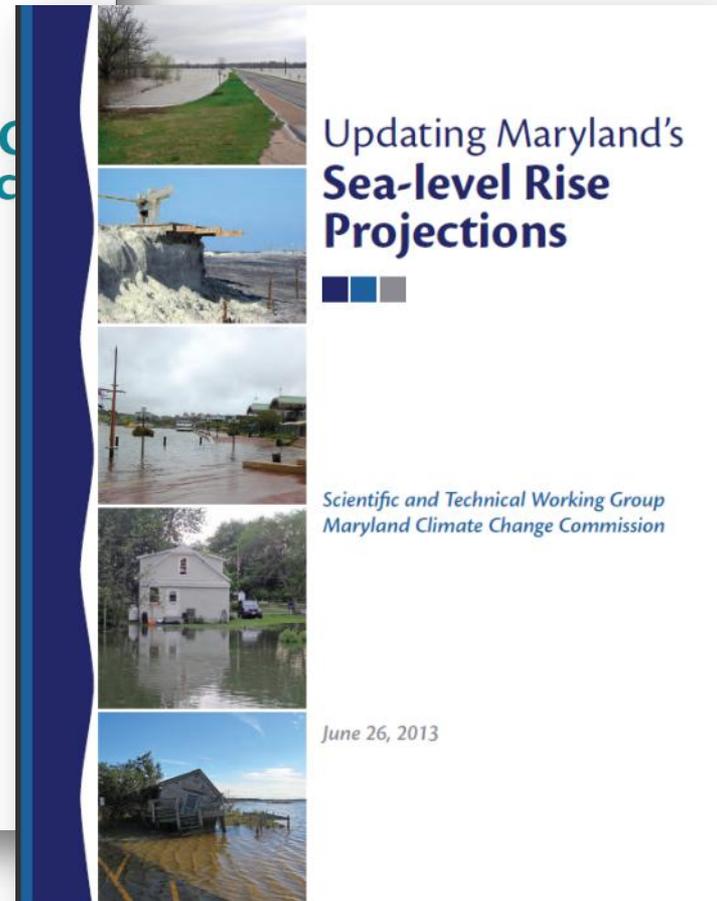
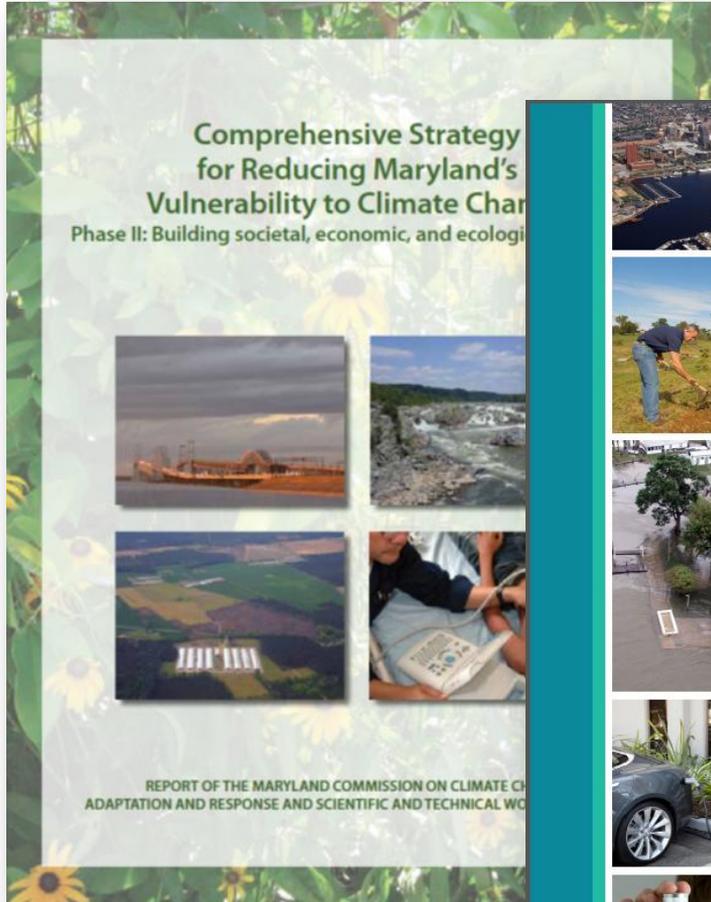
Maryland Commission on Climate Change

Scientific and Technical Working Group

STWG Contributions 2008-2009



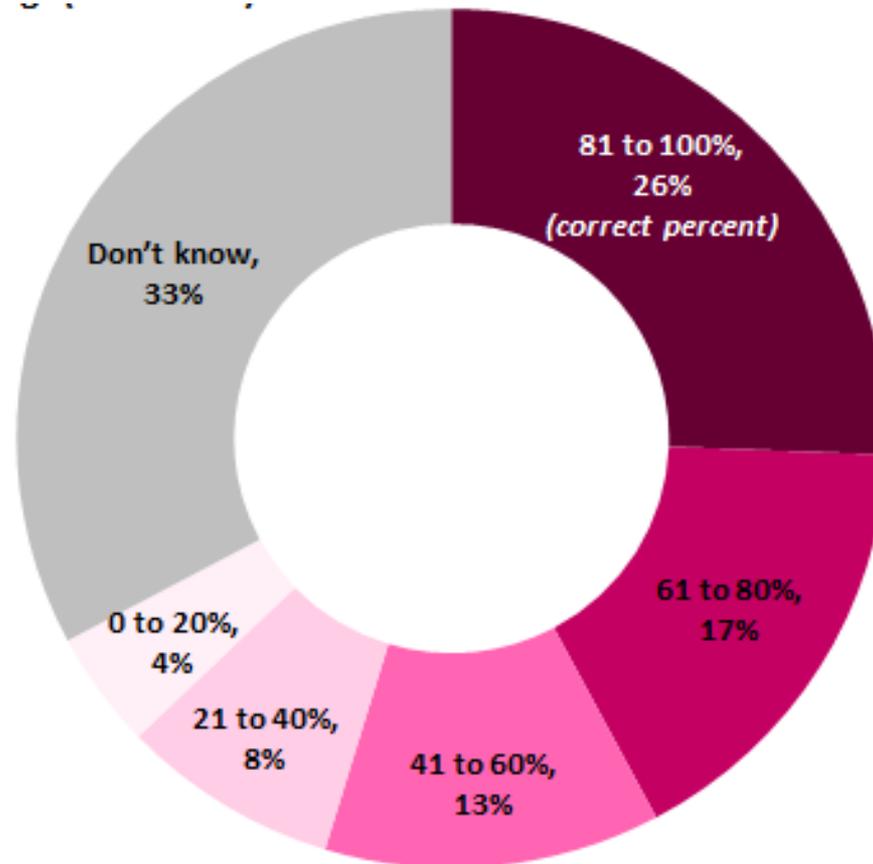
Subsequent STWG Contributions



STWG Members

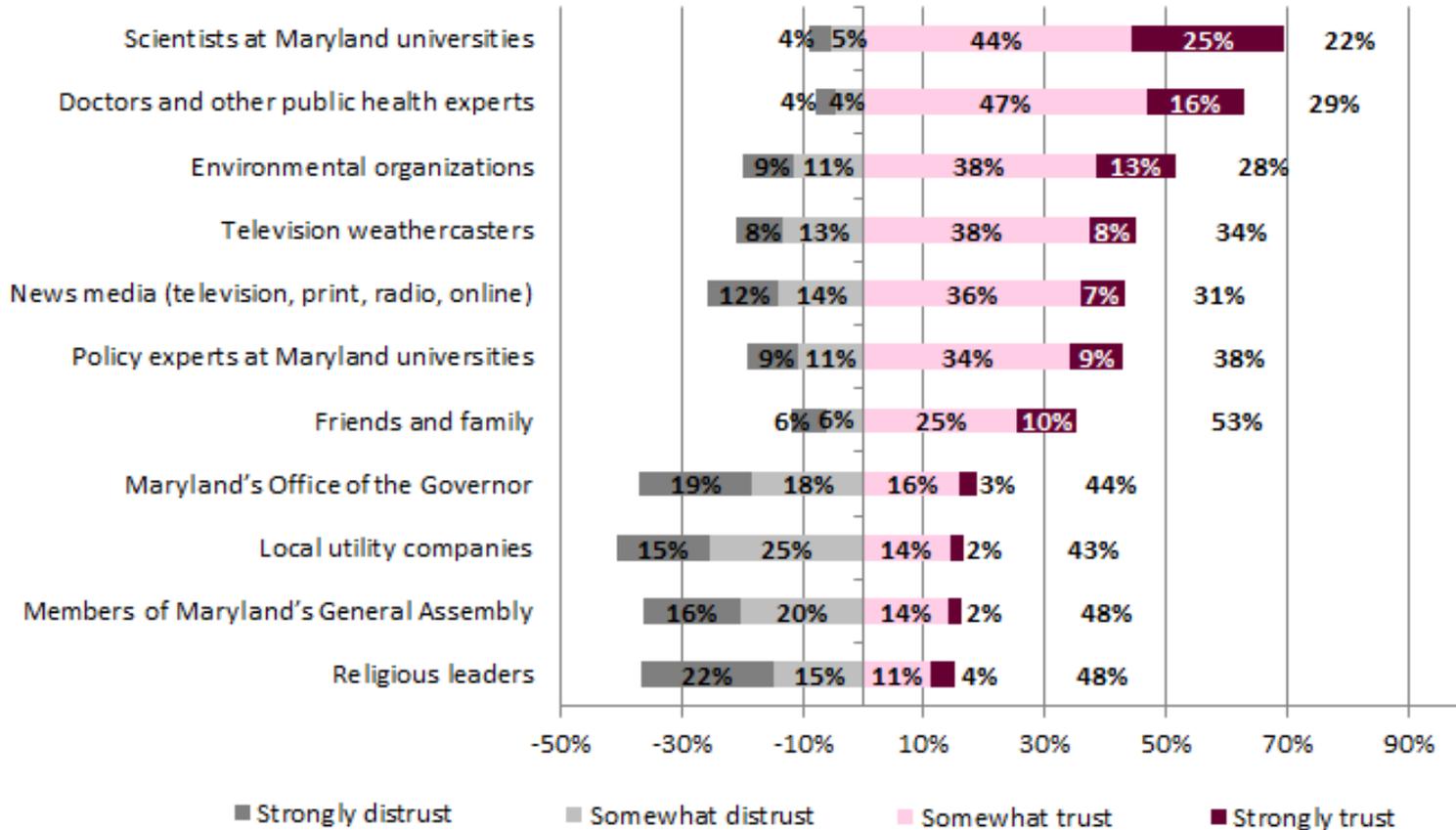
Name	Affiliation
Ghassem Asrar	Joint Global Change Research Institute
Donald F. Boesch	University of Maryland Center for Environmental Science (UMCES)
Antonio J. Busalacchi	Earth Science Interdisciplinary Center, UMCP
Eric A. Davidson	Appalachian Laboratory, UMCES
Gerrit J. Knaap	National Center for Smart Growth Research and Education, UMCP
Cindy L. Parker	Bloomberg School of Public, Johns Hopkins University
Belay Demoz	Joint Center for Earth Systems Technologies, University of Maryland Baltimore County
David A. Vanko	Fisher School of Science, Towson University
Eric D. Wachsman	University of Maryland Energy Research Center, UMCP

To the best of your knowledge, what proportion of climate scientists think that climate change is happening?



Akerlof et al. 2014. Public Perceptions of Climate Change: A Maryland Statewide Survey, Fall 2014, George Mason University.

How much do you trust each of the following as a source of information about climate change?

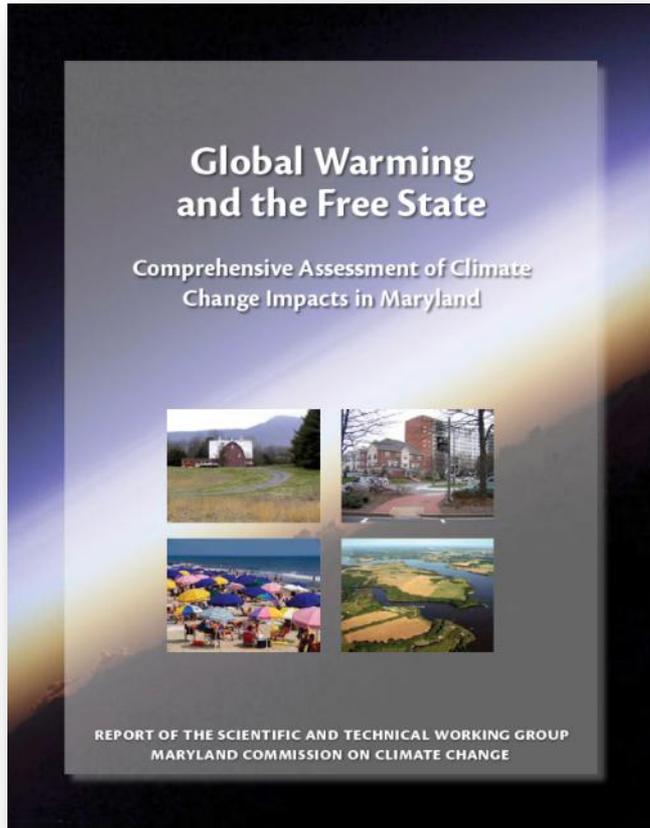


Akerlof et al. 2014. Public Perceptions of Climate Change: A Maryland Statewide Survey, Fall 2014, George Mason University.

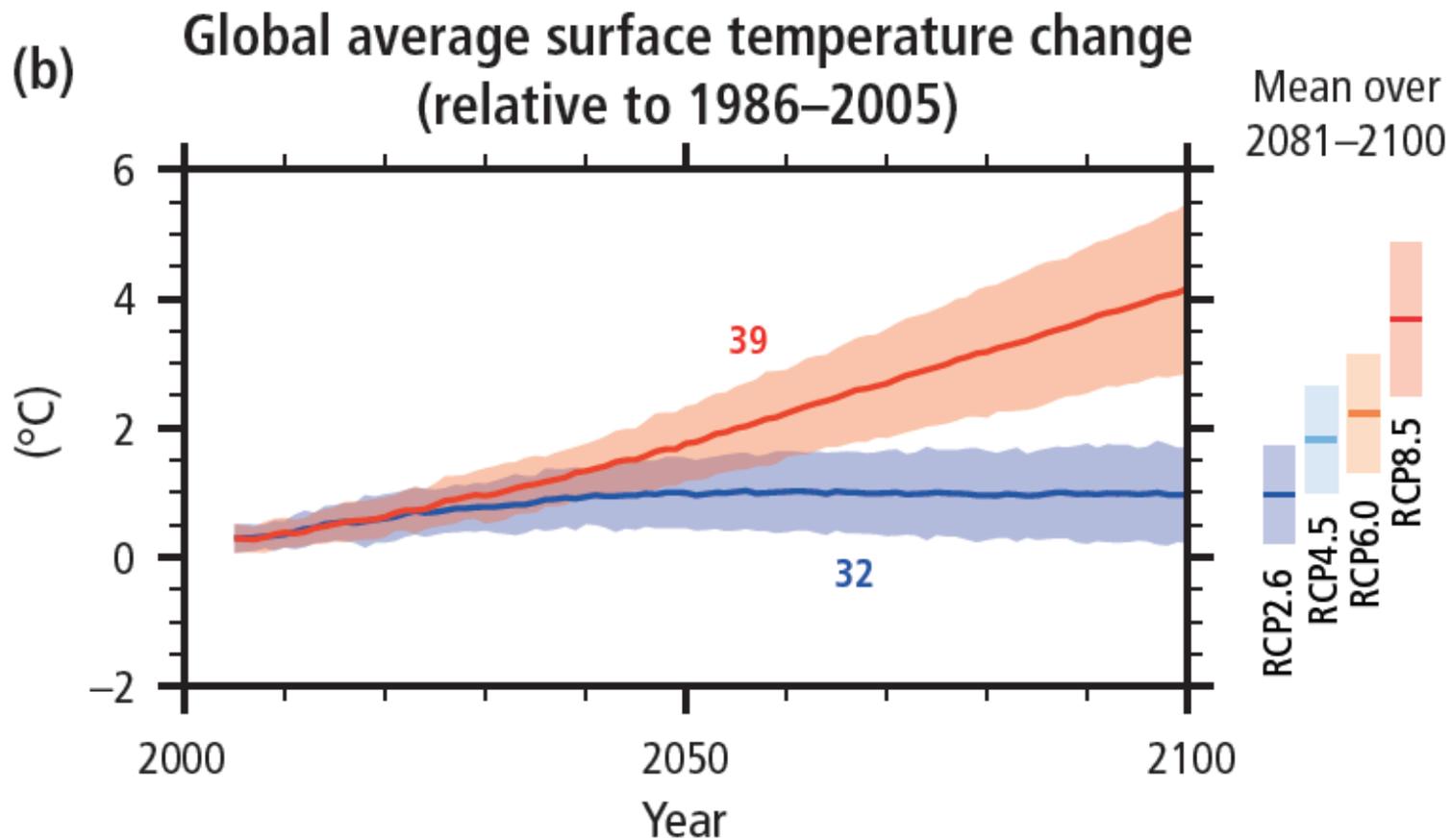
STWG Work Plan 2015

- Update Climate Impacts Report
- Provide scientific & technical support for resilience strategies
- Develop scientific background to inform post-2020 emissions reduction trajectories
- Improve technical effectiveness of inventory of GHG emission sources & sinks
- Ensure sound scientific basis for communication & outreach

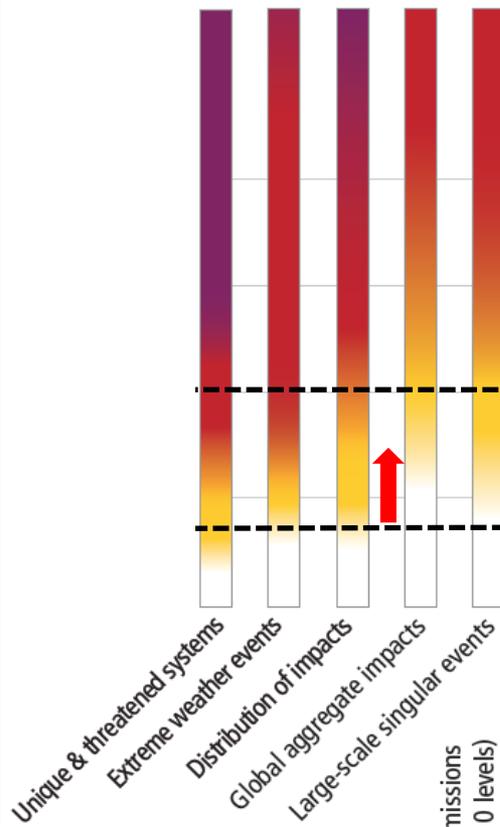
Update Climate Change Impact Assessment



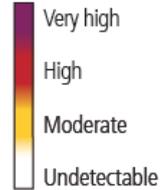
- + IPCC Fifth Assessment 2013-2014
- + U.S. National Climate Assessment 2014
- + Other relevant recent literature
- + Deeper dive on agriculture
- + Factor in more on economic impacts



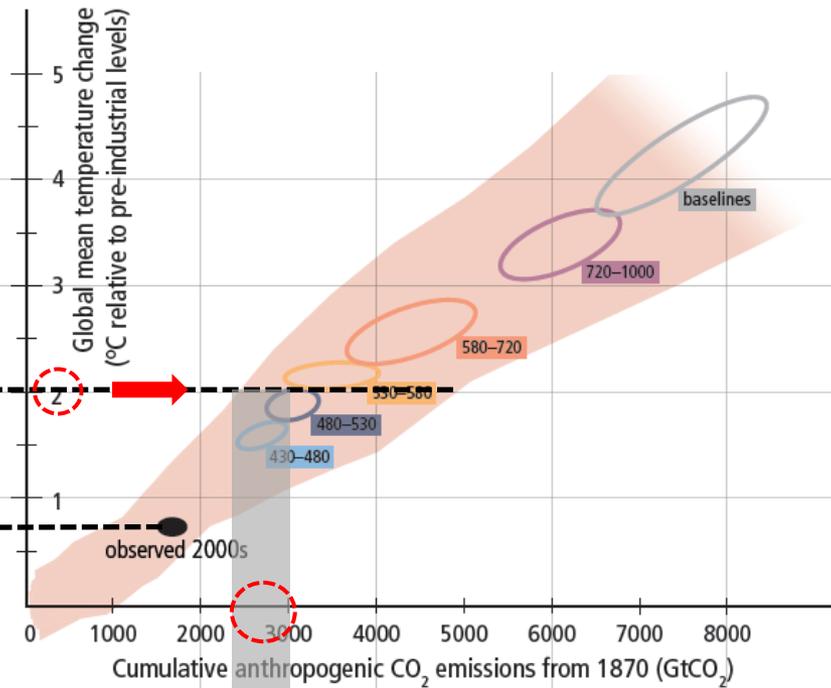
(a) Risks from climate change...



Level of additional risk due to climate change (see Box 2.4)



(b) ...depend on cumulative CO₂ emissions...



(c) ...which in turn depend on annual GHG emissions over the next decades

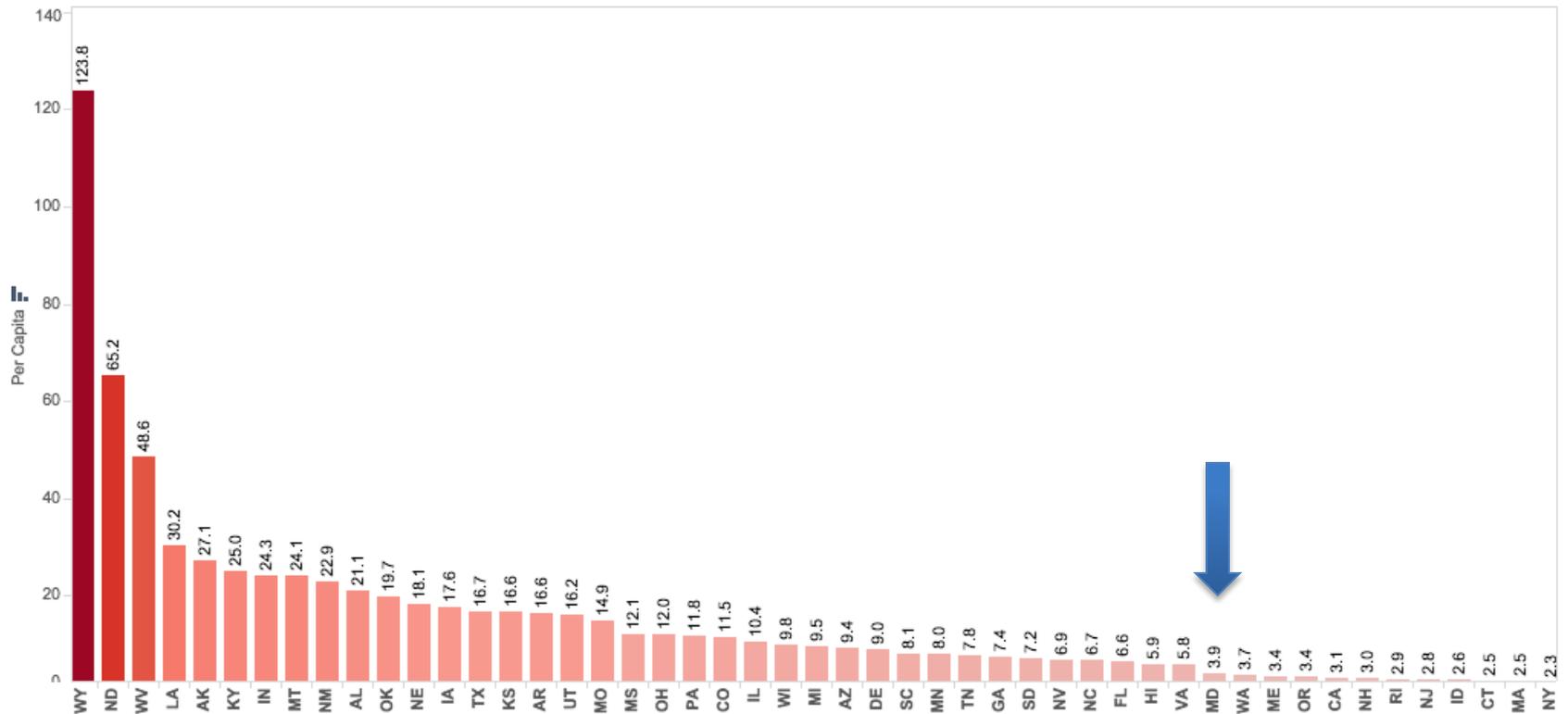
CO ₂ -eq Concentrations in 2100 (ppm CO ₂ -eq) ^f Category label (conc. range)	Subcategories	Relative position of the RCPs ^d	Change in CO ₂ -eq emissions compared to 2010 (in %) ^c		Likelihood of staying below a specific temperature level over the 21st century (relative to 1850–1900) ^{d,e}			
			2050	2100	1.5°C	2°C	3°C	4°C
<430	Only a limited number of individual model studies have explored levels below 430 ppm CO ₂ -eq ¹							
450 (430 to 480)	Total range ^{a,g}	RCP2.6	–72 to –41	–118 to –78	<i>More unlikely than likely</i>	<i>Likely</i>	<i>Likely</i>	<i>Likely</i>
500 (480 to 530)	No overshoot of 530 ppm CO ₂ -eq		–57 to –42	–107 to –73	<i>Unlikely</i>	<i>More likely than not</i>		
	Overshoot of 530 ppm CO ₂ -eq		–55 to –25	–114 to –90		<i>About as likely as not</i>		
550 (530 to 580)	No overshoot of 580 ppm CO ₂ -eq		–47 to –19	–81 to –59		<i>More unlikely than likelyⁱ</i>		
	Overshoot of 580 ppm CO ₂ -eq		–16 to 7	–183 to –86				
(580 to 650)	Total range	RCP4.5	–38 to 24	–134 to –50	<i>Unlikely</i>	<i>Unlikely</i>	<i>More likely than not</i>	
(650 to 720)	Total range		–11 to 17	–54 to –21			<i>More unlikely than likely</i>	
(720 to 1000) ^b	Total range	RCP6.0	18 to 54	–7 to 72	<i>Unlikely^h</i>	<i>Unlikely^h</i>	<i>Unlikely</i>	<i>More unlikely than likely</i>
>1000 ^b	Total range	RCP8.5	52 to 95	74 to 178		<i>Unlikely^h</i>	<i>Unlikely</i>	<i>More unlikely than likely</i>

What's the true/full story on Maryland's GHG emissions relative to other states?

Per Capita Greenhouse Gas Emissions, by State

in metric tons

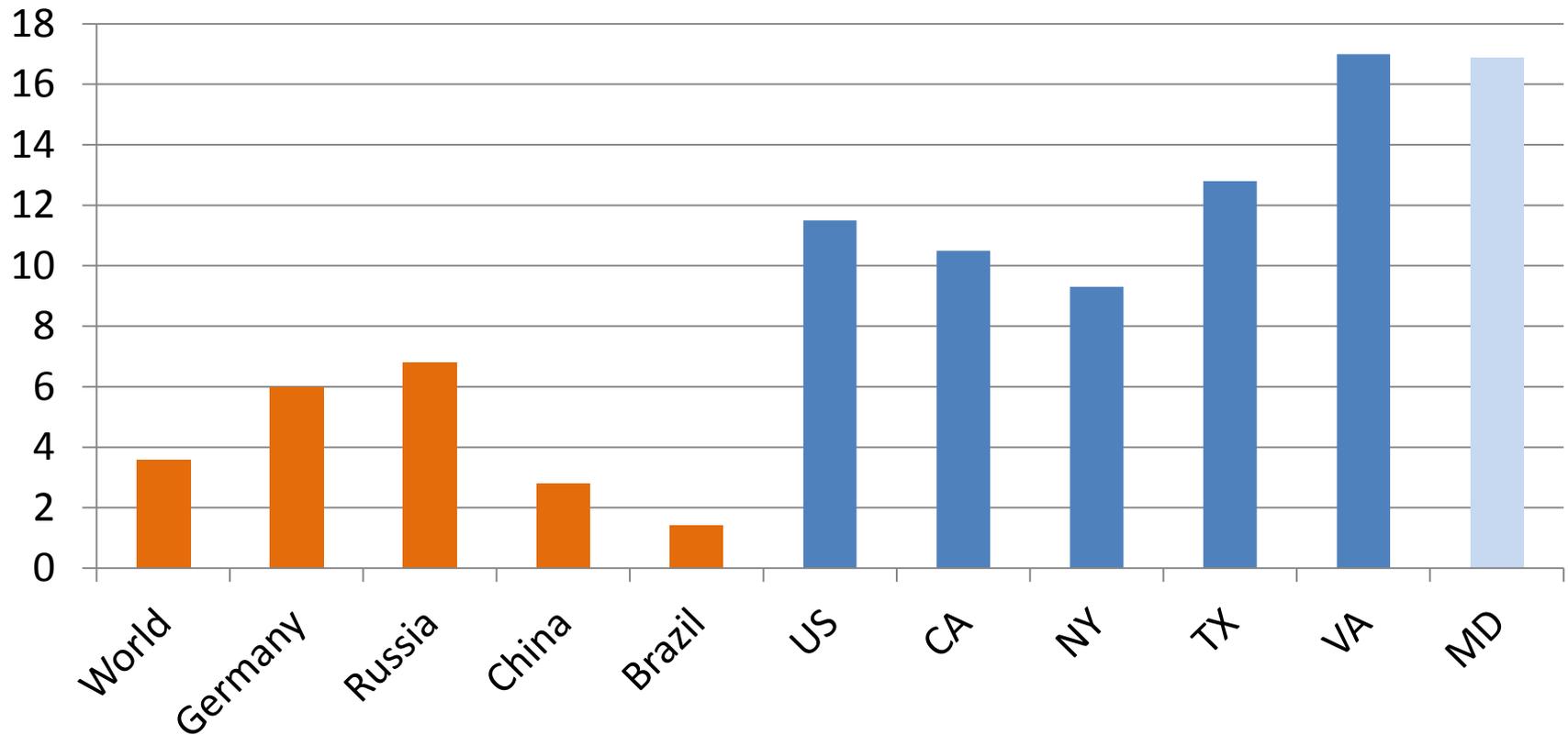
STATE



Data via EPA, Census Bureau. (Chart: John Light/Moyers & Company)

Maryland's Full Carbon Footprint

Carbon Ecological Footprint (acres per capita)



Global Footprint Network. 2015. State of the States Report