

Study ranks six American cities on preparation for climate change

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A new study assesses the factors that affect climate change adaptation and ranks six American cities, finding that Portland, Boston and Los Angeles are all in the advanced to middle stages of planning for extreme weather events linked to climate change while Raleigh and Tucson are in the early to middle stages. Tampa, a city that is at the highest risk for hurricanes in the United States, was at the bottom of the list with little or no planning for the shifting risks due to climate change, according to researchers at Milken Institute School of Public Health (Milken Institute SPH) at the George Washington University.

This study, which is a first of a kind, found that the political culture of a given city could affect how well city officials moved to prepare for [extreme weather](#).

"Tampa is vulnerable to climate change and associated extreme weather," says lead author Sabrina McCormick, PhD, an associate professor of environmental and occupational health at Milken Institute SPH. "Despite this risk, Florida's political representatives remain largely unconcerned about climate change." Without the political will or public education, city decision-makers interviewed said that Tampa was one of the least prepared cities in the nation. McCormick notes that more than 125,000 residents of the Tampa area live below the flood line and would face great danger during the next big hurricane that hits the Tampa coastline.

The study is the first to look at societal factors, such as the political

environment, and how they affect a city's ability to act on climate change. "This research is critical to moving cities forward in addressing [climate impacts](#) so that economic risk can be reduced and human health can be protected," McCormick and her co-author report. According to the U.S. Centers for Disease Control and Prevention (CDC) and others, climate change will lead to a number of human health threats that range from premature death or injuries caused by wildfires or hurricanes to post-traumatic stress disorder and other mental health issues triggered by natural disasters.

McCormick interviewed sixty-five local decision makers in each of the six cities, finding there are three factors that play a role in how well city planners plan for or prepare for climate change. The study found swing factors, such as the risk of extreme weather, could motivate city officials or hamper them—often the outcome depended on the political culture in a given city.

For example, Tampa has the highest risk for hurricanes in the United States, yet has a public and political climate that has impeded action on climate change. In contrast, Los Angeles faces a high risk of wildfires/heat waves due to rising temperatures. Unlike Tampa, politicians in Los Angeles acknowledge the high risk and have used it to take action. This study found that Los Angeles was in the middle of extensive planning for such disasters and had a well-developed emergency management system as a result.

Second, scientific uncertainty and political opposition could affect the ability of a city to plan and prepare for climate change. For example, Portland, a city with many liberal politicians and public concern about climate change, had the most advanced plans of all of the cities in the study. Tucson, Tampa and Raleigh, cities that had more Conservative Democrats or Republicans, had many politicians who dismissed climate change and rarely made it part of their political platform.

Finally, a [city](#)'s ability to move aggressively on climate change also depends on a well-informed public and political engagement, the study found. "For example, in Los Angeles and Portland, decision makers generally felt that a majority of the citizens accepted the existence of [climate change](#), often pressuring politicians and [decision makers](#) to address it," McCormick says.

More information: The study, "American Adaptation: Social factors affecting new developments to address climate change," was published in the November issue of *Global Environmental Change*.

[www.sciencedirect.com/science/ ... ii/S0959378015300522](http://www.sciencedirect.com/science/.../ii/S0959378015300522)

Provided by George Washington University

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