The recent Washington Post op-ed by House science committee chair Lamar Smith (R-TX) consists of a laundry list of talking points that omit crucial facts. Overall he claims we know little about what influences the climate or what can be done to stop climate change. However:

- Increased carbon dioxide in the atmosphere causes warming. There is no uncertainty in this fact. Even if the lowest warming estimates turn out to be correct, we will still experience ruinous impacts that go far beyond the current costs unless we start acting soon to reduce emissions.

- Extreme weather has already increased measurably due to warming, and scientists project this will continue.

- The United States has emitted the most carbon pollution of any country, and if we act on emissions reductions, we can change our climate fate as part of a global effort.

The details:

- Physicists have known of the warming effects of CO₂ for more than one hundred years. Scientists are only uncertain about how exactly much warming each doubling of CO₂ causes, and they have that question narrowed down to a range of a few degrees (2-4.5 °C). While that range has recently narrowed, there has been little change to the bottom of the range, which is still way above what could possibly be considered “safe.”

- Our understanding of the climate of the past informs our knowledge of the magnitude of the risks we face today. The last time the world experienced our current concentration of 400 ppm of CO₂, temperatures were so warm that now-extinct mammals roamed a forested, ice-free Arctic. That was over three million years ago; humans have never experienced such conditions.

- Warming has continued to increase, and models have predicted warming accurately. Current atmospheric temperatures are on the lower end of projections but still within the bounds of variation predicted by modeling. Furthermore, ocean warming has continued unabated, and sea level rise and Arctic ice melt have exceeded estimates. To say that “global” warming has stopped or stalled is simply wrong.

- Many types of extreme weather have been connected to climate change. It’s no surprise that Smith references the IPCC Special Report on Extremes, yet doesn’t link to it. That’s because the report makes
the opposite point he describes: it connects extreme precipitation, heat waves, and droughts with human-caused climate change.

- Regulations to reduce pollution have historically been found to be good for the economy, despite hyperbolic claims of imminent doom from industry groups (and, in the case of the Keystone XL pipeline, inflated job creation statistics). The United States has emitted the most cumulative CO₂ of any country, and as such should take a leading role in reducing emissions.