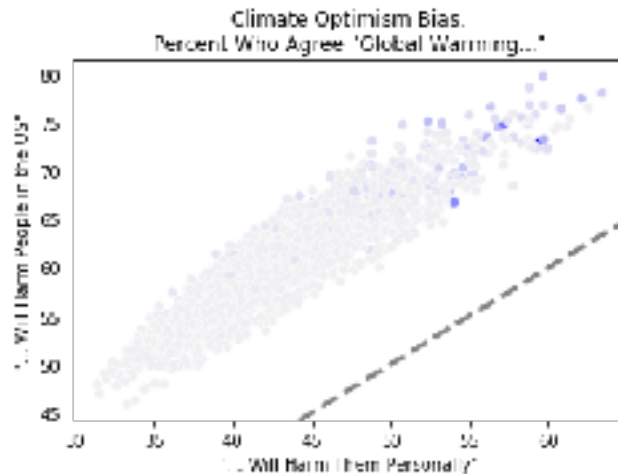Title: The Climate Ego Gap

American opinions on climate change have come a long way. As of 2022, 76% of Americans believe climate change is happening and 60% believe it is human caused. A majority of Americans believe global warming will harm them personally in the future and is harming others right now, according to surveys by the Yale Climate Change Communications project. Sounds like a pretty strong mandate for the government to set an ambitious climate policy. Yet today's policy provides anything but a safe future.

In contrast, the planet is on track for "catastrophic changes" according to the UNEP Emissions Gap Report. What is "catastrophic"? Well, Keep 1.5ºC Alive was fighting for a world where only 8% of plant species lose *half* their survivable geographic range. Current commitments put us on track for 2.7ºC. Why aren't administrations from either side of the aisle meeting the moment?

I'd like to offer an explanation for our emissions gap. My hypothesis is that it's deeper than a red/blue or even an urban/rural split. Digging into public opinion data revealed something interesting. The weak mandate behind our emissions gap — it may be an ego gap.

The climate ego gap (a form of optimism bias) means that people believe that they themselves are less likely to experience the negative impacts of climate change than the average person. Across the board, regardless of individuals' self-perceived harm

from climate change, they are 17% more likely to agree that *other* people in the US will be harmed, and 15% more likely to agree that citizens "should do more to address global warming".

US counties, shaded by population
(source YCC)

The climate ego gap evokes the familiar environmental collective action problem and unwillingness to internalize the impacts of our high-consumption lifestyles. These are apolitical human traits. They just don't fit the tired red/blue and urban/rural narratives. What are the real drivers of climate opinion and the ego gap?

To answer this, I had to pull in more data. My hypothesis was that local "kitchen table" factors were more important than affiliations you'd draw on a map. I gathered country-level data from a few sources to match against the Yale Climate Opinion Map: urban/rural classifications from the Census Bureau, 2020 presidential election results collected

by the <u>New York Times</u>, employment industry diversity from the <u>Bureau of Economic Analysis</u>, and commuting flows from the Census <u>American Community Survey</u>.

I ran a statistical regression of county-level climate opinion against this slate of factors, also controlling for population size. The top three indicators of climate opinion were the diversity of employment by industry, the percent of commuters who drove, and the vote margin for Democrats.

REGRESSION RESULTS			

To measure economic robustness, I tallied the percentage of jobs falling within each BLS-defined industry category, then took the standard deviation of this distribution as a measure of economic health. A high standard deviation means jobs are split among multiple industries; a low number means one industry dominates the local economy. I also repeated this procedure tallying wages instead of jobs.

The data shows small but statistically significant effects of these factors on climate opinion. A 1% increase in employment diversity was associated with a 0.4% decrease in opinion that global warming "would harm people in the US" and a 0.22% decrease in opinion that citizens "should do more to address global warming". **A one percent increase in the number of commuters who drove alone to work was associated**

with an 0.16% decrease in opinion that climate change exists. A one percent increase in vote margin for Democrats was associated with a 0.11% increase in opinion that climate change exists.

This type of analysis is what statisticians call an "observational study", meaning it's vulnerable to the "correlation is not causation" critique. I can't claim that these factors directly influence opinion, but I can provide more evidence that it's worth looking into. For one, the results hold in size and significance even with state fixed effects (controlling for state-level politics and economic health).

What does this mean for climate communicators? First, to address the climate ego gap we need to bring the story to our backyard and focus less on foreign calamities and less on abstract climate projections. Second, it suggests that people can afford to care about climate change when they have economic options. Policies that promote local economic health will likely have the added benefit of increasing support for climate policy. Third, there is probably some endogeny between heavy car commuters and climate denial. Finally I was wrong that voting affiliation had no effect. This is the clearest opportunity of all: **XX of all people live in the reddest and most car-heavy counties, which were also YY of all urban counties. Ignoring urbanites messaging is obviously bad.**

Though I was focused on the climate ego gap, there are a lot of other instructive inconsistencies hidden in this opinion data. On a bright note, the data shows that "tax rebates for people who purchase energy-efficient vehicles or solar panels" and "funding

research into renewable energy sources" are across the board very popular. They not only have 18% more support, on average than other topics, they also have very consistent support across the opinion spectrum, only rising or falling 0.5% per a 1% change in other opinions.