



Climate Resilience is Possible: Assessing Hoosier Communities' Climate Preparedness

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The Hoosier Resilience Index

The Hoosier Resilience Index Readiness Assessment was developed by Indiana University's Environmental Resilience Institute (ERI). The tool helps local governments understand the gravity of climate change, that adaptation and mitigation are important, and that preparedness is necessary, feasible, and unique to each community.

Summer Undergraduate Internship

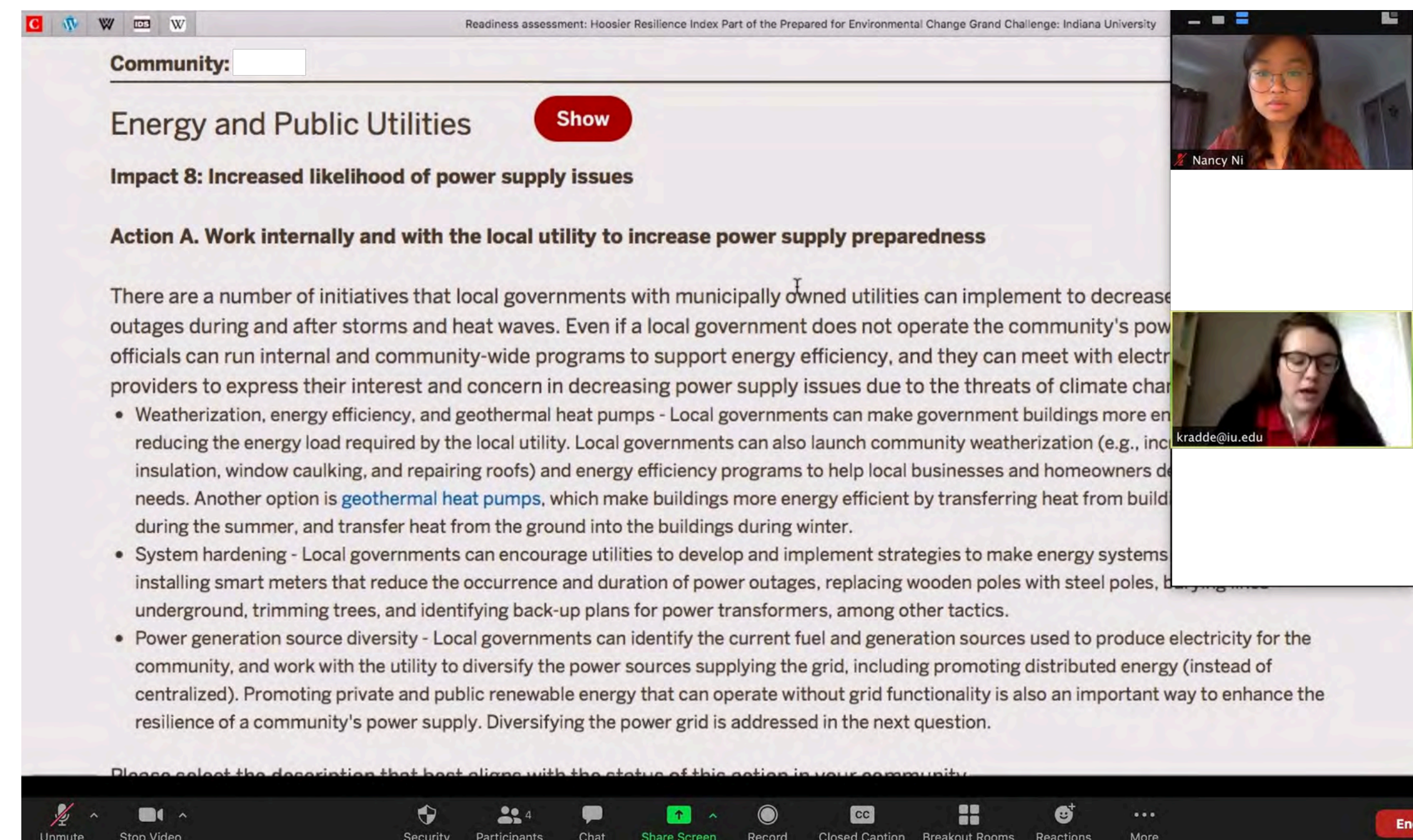
In summer 2020, ERI – together with the Indiana Political Analysis Workshop (IPAW) – worked with six undergraduate research assistants to administer the HRI to communities throughout Indiana.

While covid-19 posed logistical hurdles, this endeavor was a remarkable success. Undergraduate research assistants:

- Learned how to professionally administer a detailed survey
- Developed best practices for conducting surveys during a major public health emergency
- Gained awareness of the unique challenges facing Indiana communities
- Interviewed leaders from six municipalities – assessing communities' preparedness for the long-term effects of climate change (and laying the groundwork for interviews in the fall)
- Analyzed secondary data on Indiana counties' climate risk profiles, political attitudes, and socioeconomic status

Finding #1: Communities want to be resilient.

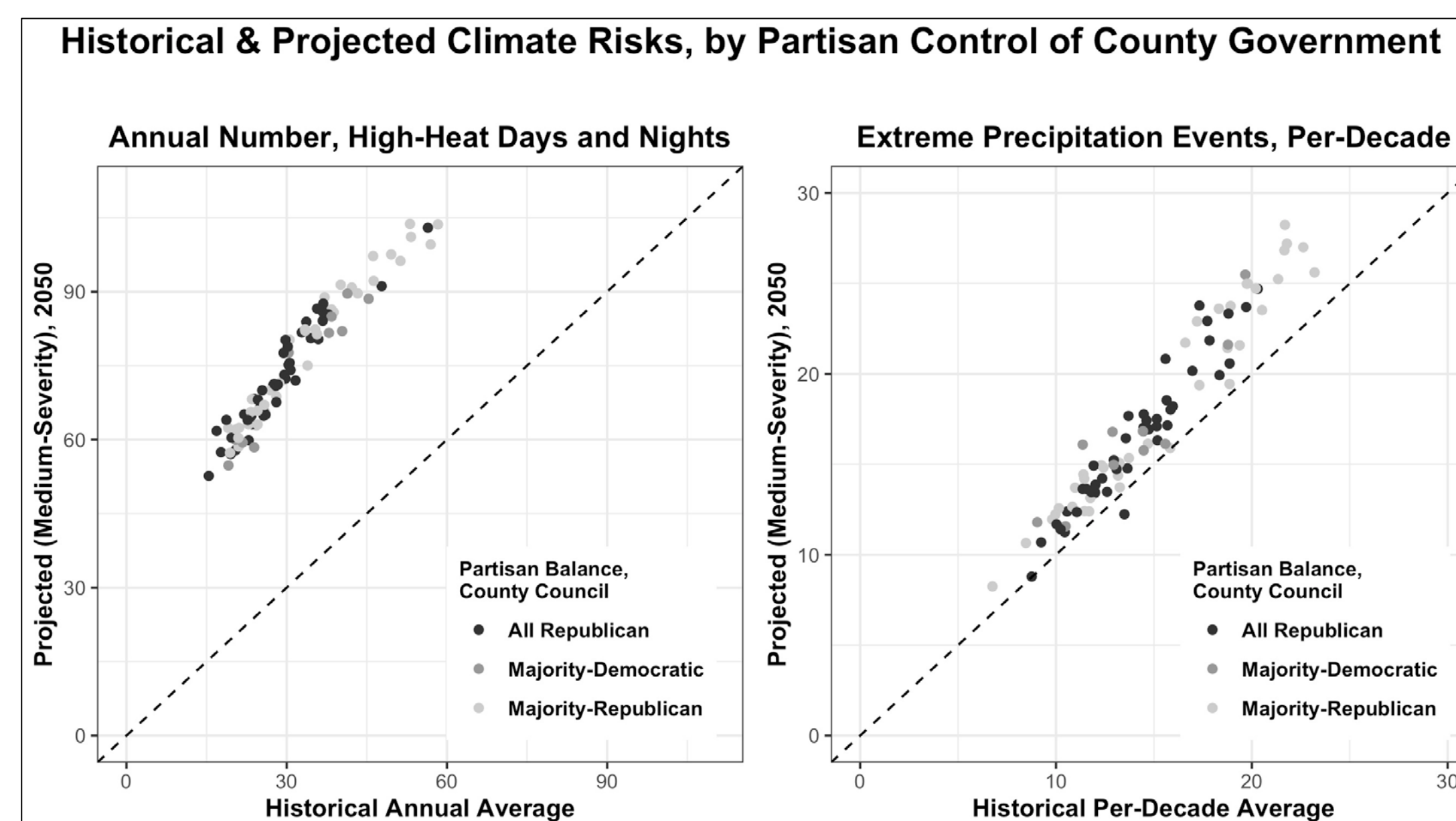
- Undergraduates administered the Hoosier Resilience Index (HRI) to elected leaders in six Indiana communities; ERI followed up to provide tailored recommendations for improving preparedness.
- These interactions were overwhelmingly positive.
- While some officials were skeptical about climate change, hostility was rare.
- *Framing climate change as an opportunity for resilience helps elected leaders see the merits of climate preparedness.*



Nancy Ni and Kaitlyn Radde, via Zoom, administering the Hoosier Resilience Index to an Indiana elected official. Identifying information removed – but the interview went great!

Finding #2: Climate change doesn't care about Hoosiers' political attitudes.

The team compiled data on the partisan balance of Indiana counties' Boards of Commissioners and County Councils – merging these data with ERI indicators of counties' historical weather patterns and projected climate risks.



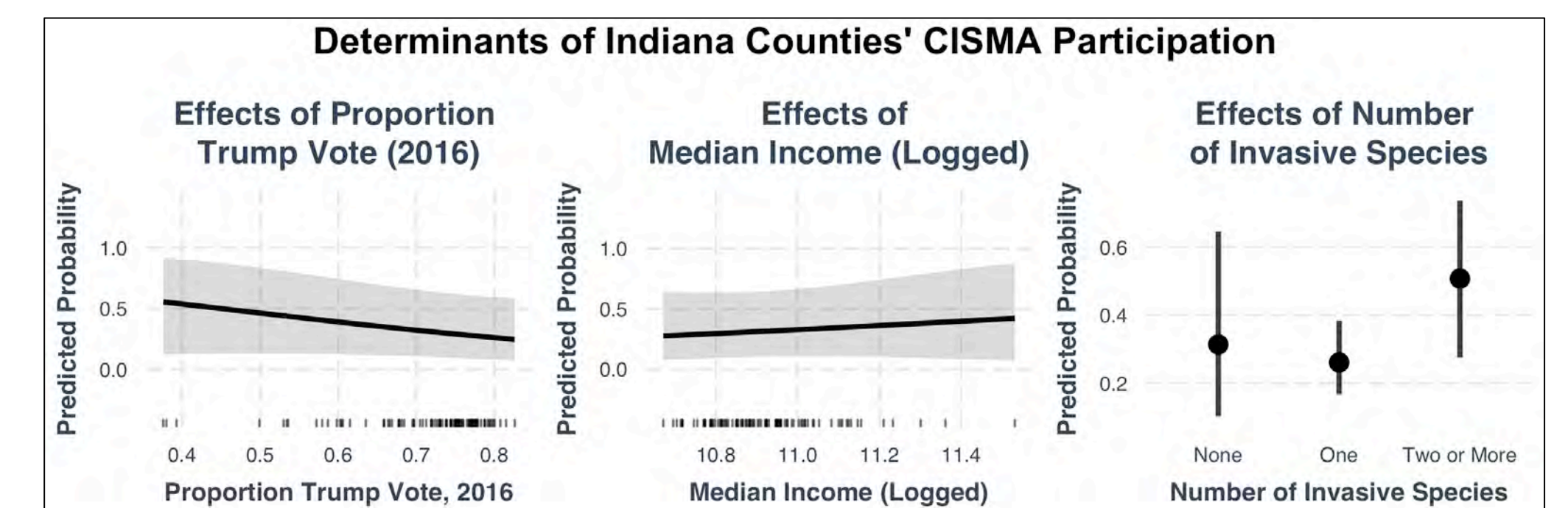
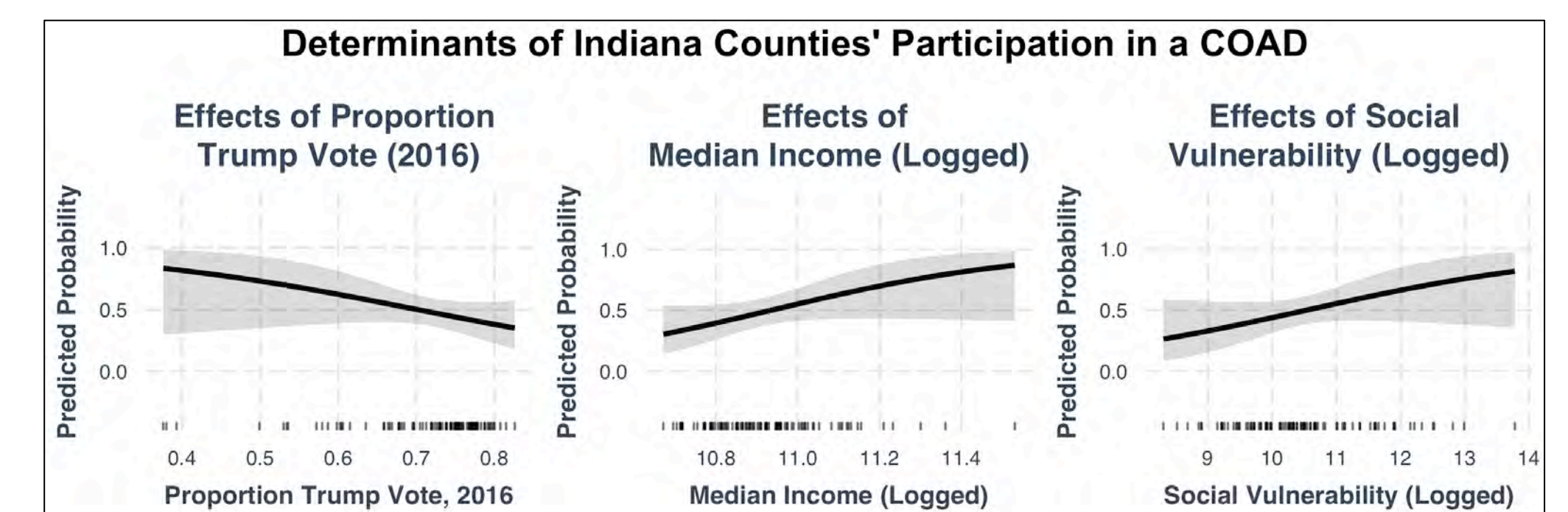
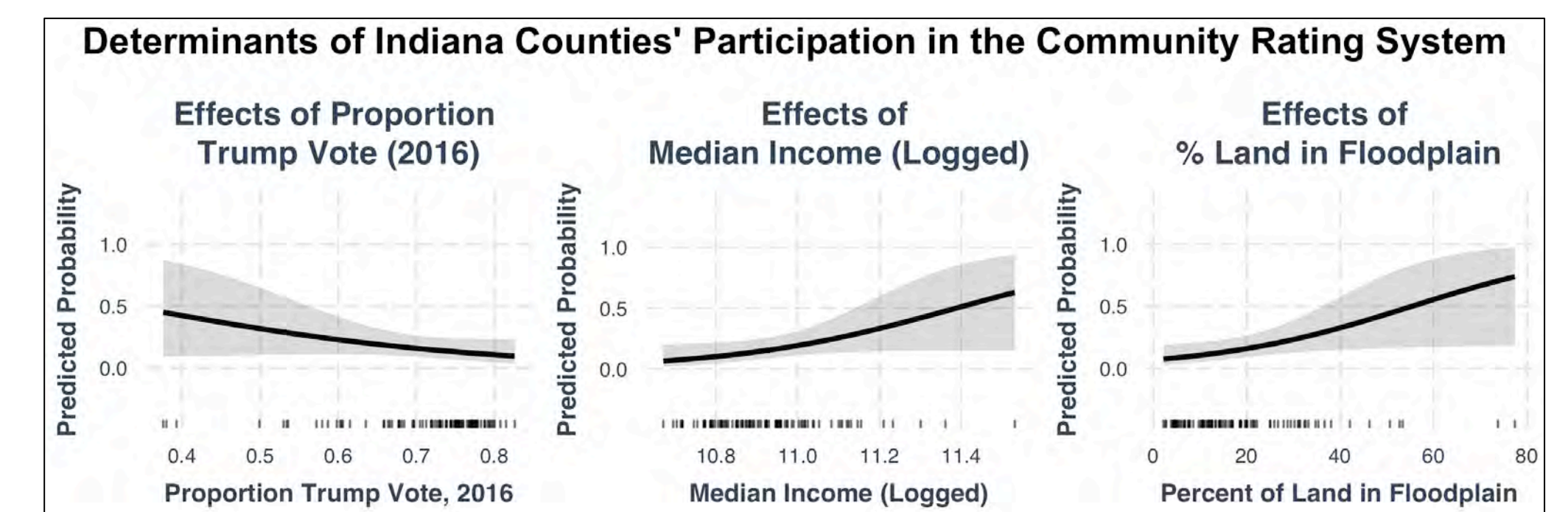
By 2050, local governments– regardless of political leanings – can anticipate:

- Higher annual rates of high heat days and nights
- Higher per-decade rates of extreme precipitation events

Finding #3: Climate resilience depends on risk and resources – not just politics.

We collected original data on different things communities can do to promote resilience:

- Community Rating System (CRS) for discounted flood insurance
 - Cooperative Invasive Species Management Areas (CISMAs)
 - Community Organizations Active in Disaster (COADs)
- Counties' participation modeled as function of:
- Risk (% land in floodplain; CDC social vulnerability index; or number of invasive species)
 - Political Attitudes (% of Trump vote in 2016 general election)
 - Resources (logged median income)



After controlling for the risks that communities face from climate change and the resources these communities have, counties' support for Donald Trump is no longer a potent predictor of climate preparedness.