Research idea summaries

March 22, 2024 Coly Elhai

1 Overview

My methane project with Toren has been somewhat stalled due to issues getting data. In the meantime, I've been thinking about a few other research ideas.

2 In progress

1. **Methane and Markets: Firm Incentives to Emit** *with Toren Fronsdal*
   - **Purpose:**
   - **Motivation:**
   - **Approach:**
     - **Theory:**
     - **Empirics:**
   - **Results:**
   - **Contribution:**

3 Ideas

1. **Cost-sharing, ordeals, and climate resilience infrastructure in the U.S.**
   - **Purpose:** Determine whether local cost-sharing requirements and arduous application processes help or hinder the targeting of climate resilience funds towards the communities most in need
   - **Motivation:** The U.S. federal government allocates funding for climate resilience through application-based programs (BRIC, FMA). Communities that receive grants must pay for some share (generally 25%) of total project costs. These requirements screen out applicants with the lowest private project valuations, but may also screen out credit-constrained (in money or labor) localities. The optimality of costly applications and cost-sharing depends on how accurately the government can assess social value of potential projects, as well as the correlation between locality ability to pay and project social value.
   - **Approach:**
     - **Theory:** In a simple model with localities and a central planner, show under what conditions quality of enacted projects, equity increases when the central planner increases application costs and required cost-sharing.
     - **Empirics:** Use data on BRIC, FMA program applications and selected projects to compare the characteristics (including climate risk levels) of applicants and non-applicants, grant recipients and rejects. Assess whether conditions from [Theory] are met, and whether outcomes would improve given changes to application costs and/or cost-sharing requirements.
   - **Contribution:** This project will speak to the efficiency and equity impacts of funding climate resilience through competitive grants with cost-sharing requirements. It will suggest ways to improve these funding structures going forward, as climate resilience becomes ever more important.
2. **Which Companies Abate? Evidence from 10-Ks**
   - **Purpose:** f
   - **Motivation:**
   - **Approach:**
   - **Results:**

- **Contribution:**

3. **Emissions in Space: The Case of Manufacturing**
    - **Purpose:**
    - **Motivation:**
    - **Approach:**
    - **Results:**
    - **Contribution:**