[9:00 - 9:10am] Welcome

Short self-introduction, explanation of the seminar format.

- ENERGY AND ENVIRONMENT -

[9:10 - 9:40am] Jesse Fleischer Buchsbaum (UC Berkeley)

The Equity and Efficiency of Electricity Fixed Charges in the Presence of Behavioral Agents

Abstract: In the last ten years, there has been a dramatic uptick in the number of electric utilities attempting to implement and increase residential customer fixed charges. Economists have long believed that efficient rate design would set marginal prices equal to marginal costs and recover the rest of costs through fixed charges. However, recent research has challenged this notion with two substantial concerns: (1) residential electricity customers are behavioral agents and may not respond to fixed charges optimally; and (2) the incidence of fixed charges may create structural winners and losers by income. This project leverages temporal and spatial variation in fixed and volumetric prices across utility companies. I use utility microdata to characterize customers by behavioral type and consider how these types correlate with income. I then consider the welfare and equity implications of fixed charges in the presence of behavioral agents.

[9:40 - 10:10am] Dora Simon (UC Berkeley)

To Beef or Not to Beef: Trade, Meat, and the Environment

Abstract: This paper analyzes the environmental consequences of trade policy and gauges the true impact of the "buy local" rule on emissions. Using confidential data from a cooperation with a European retailer, I estimate a discrete choice model of consumer demand for meat products. Combining my estimates with emissions related to meat production and transport, I show the effects of tariff changes on the environment. The counterfactual exercises include autarky and free trade scenarios, an assessment of the EU's free trade agreement with the Mercosur, and the calculation of an environmentally optimal tariff.

[10:10 - 10:20am] Break
Expanding Business Networks to Overcome Supply-Chain Frictions: Early Results from Tanzania

Abstract: Small firms in rural areas of developing countries supply essential goods and services to their local markets, such as food staples, household products, and specialized services. Substantial information frictions along supply chains of small firms slows dissemination of market information, resulting in stock-outs of key supplies, high transaction costs, and low productivity. Yet, little is known about small firms' relationships with their input suppliers. For example, do firms rely on long-term relationships with relatively few suppliers? Or do they shop around to a multitude of suppliers to search for low prices? To uncover firm preferences in their supply chain relationships, we conducted a discrete choice experiment with firms in rural Tanzania. We find that firms are willing to pay a price premium to conduct business with familiar suppliers. But, firms are willing to pay more for other contract features - such as delivery to their storefront and provision of credit. In practice, attaining these favorable contract terms requires long-term relationships with suppliers but only half of firms report consistent purchases with the same supplier.

Decentralization and Elections in Burkina Faso

Abstract: Decentralizing government services (moving them to more local governments closer to the site of use) should make it easier for citizens to access services and hold politicians accountable. However, decentralization may create political incentives for local governments, which may be more vulnerable to some forms of elite capture. Assessments of development interventions which include decentralization have historically paid little attention to the political incentives, despite a widespread acknowledgment that politicians can make or break the success of a project. In this paper, I examine how political actors (both politicians and voters) react to a donor-mediated intervention which provides land documentation services through local governments in Burkina Faso. These land offices represent a potentially valuable resource for political control by elected municipal councils, as documenting previously informal rights creates opportunities for elite capture. I exploit the experimental pilot phase of this decentralization, along with official electoral returns, to find political responses to the announcement of the decentralization (such as contesting local elections), particularly by those who may anticipate larger private benefits, although these effects seem not to persist after implementation.
WIC participant access and store disqualification

Abstract: WIC participants’ access to their benefits is mediated by their access to authorized vendors. Given the documented benefit of WIC benefits to participants, maintaining access to benefits is important for social welfare. However, program administrators also want to be able to shut down vendors which are committing fraud. These two objectives are potentially in conflict. Participants’ shopping behavior and interaction with vendors is not well studied. This project uses California administrative data to evaluate how participants adjust their extensive and intensive margins of program participation to an exogenous shock to their vendor access.

- COVID-19 -

Are We #stayinghome to Flatten the Curve?

Abstract: The recent spread of COVID-19 across the U.S. led to concerted efforts by states to "flatten the curve" through the adoption of stay-at-home mandates that encourage individuals to reduce travel and maintain social distance. Combining data on changes in travel activity with COVID-19 health outcomes and variation in state policy adoption, we characterize the direct impact of stay-at-home mandates on mobility patterns and link these behavioral changes to health benefits. We estimate a "mandate effect" of 5-6% reductions in travel activity and a 236% decrease in human encounters relative to pre-COVID-19 levels due to early policies. Using previous changes in mobility, we find significant effects on current mortality and morbidity, with 1% reductions in distances traveled, visits to non-essential businesses, and unique human encounters associated with 6.5 fewer hospitalizations and 0.8 fewer deaths per day for the average early-adoption state. For a two week policy and "mandate effect" equivalent reductions, we predict 126 avoided deaths and a $932.4 million benefit per state. Our findings provide evidence that states' stay-at-home ordinances induce additional social distancing and ultimately attenuate the negative health consequences of COVID-19, revealing themselves as important policy tools in the fight against pandemic.
[1:30 - 2:00pm] Joel Ferguson (UC Berkeley)

Conservation Agriculture and Crop Residue Burning

Abstract: In recent years, organizations such as the FAO have promoted conservation agriculture as a sustainable approach to improving yields in the developing world. However, relatively little research has been done evaluating the effectiveness of conservation agriculture extension in improving environmental outcomes. I provide, to my knowledge, the first causal estimate of the impact of conservation agriculture promotion on crop residue burning. I utilize a novel unsupervised machine learning unit aggregation method to construct regions in space that capture potential spillovers from extension services and perform an event study using the resultant units. I find that four years after first receiving extension services, the areas I study have significantly less burned area and significantly lower aerosol optical depth.

[2:00 - 2:30pm] Emily McGlynn (UC Davis)

Virtuous or vicious: Structural shifts in wood product demand and U.S. forest carbon storage

Abstract: Forests can mitigate climate change both by storing carbon in trees, litter, and soils, and by supplying the raw materials for wood products like timber and biomass which can offset fossil fuel use. There is significant debate in the literature about whether, and the degree to which, these two mitigation options are complements or substitutes. Increasing wood products use might increase standing carbon in forests by (1) raising forest rents and expanding forest area, and (2) by incentivizing forest owners to plant trees more densely and grow trees more quickly (collectively, increasing management intensity). Yet increasing harvest rates also causes forest carbon loss and, depending on the type of wood product produced, varying levels of CO2 emissions to the atmosphere over time. Different economic models predict a wide spectrum of the net effects of increased wood product utilization on forest carbon. I propose methods for using 30+ years of historical data on forest biomass density and wood processing mill locations and capacities to estimate the effect of a structural increase in wood product demand on carbon stored in Georgia forests.

[2:30 - 3:00pm] Hanlin Wei (UC Davis)

Evaluating the environmental benefit of organic pesticide use in California

Abstract: Compared to conventional growers, organic growers adopt numerous practices that benefit the environment. Most pesticides used in organic fields contain only non-synthetic ingredients, which are less toxic and less harmful to the environment in general. This paper evaluates environmental benefits of pesticide use in organic crop productions using data from Pesticide Use Report. The result shows that organic productions significantly reduced pesticide use risks. However the beneficial effect shrinks over time.