MIT Economics

# ANNA RUSSO


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**DOCTORAL STUDIES**

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2024
DISSERTATION: "Essays in Environmental and Healthcare Market Design"

DISSERTATION COMMITTEE AND REFERENCES

Professor Amy Finkelstein
MIT Department of Economics
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Professor Parag Pathak
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**PRIOR EDUCATION**

Yale University 2017
B.S., Applied Mathematics and Economics, *summa cum laude*

**CITIZENSHIP** USA, Canada, Germany **GENDER:** Female

**FIELDS**

Primary Fields: Environmental Economics, Public Economics, Industrial Organization

Secondary Fields: Market Design, Health Economics

**RELEVANT POSITIONS**

Research Assistant to Professor Amy Finkelstein 2017-2018
Research Assistant to Professor Aleh Tsyvinski 2016-2017

**FELLOWSHIPS, HONORS, AND AWARDS**

| | |
|---|---|
| Martin Family Society of Fellows for Sustainability | 2023-2024 |
| Best Student Paper Award, Urban Economics Association | 2023 |
| NBER Pre-Doctoral Fellowship in Aging and Health Research | 2021-2023 |
| George and Obie Shultz Fund (3x) | 2021-2023 |
| MIT Center for Real Estate, Young Researcher Seed Award | 2021 |
| C. Lowell Harriss Dissertation Fellowship | 2020 |
| National Science Foundation Graduate Research Fellowship | 2018-2023 |
| MIT Department of Economics Fellowship | 2018-2020 |
| Russell Henry Chittenden Prize | 2017 |
| Wrexham-Heinz Award | 2017 |
| Dickerman Prize | 2017 |
| Bishop Berkeley Prize | 2017 |
| Tobin Scholar Award | 2017 |
| Phi Beta Kappa (elected Junior Year) | 2016 |

**PROFESSIONAL ACTIVITIES**

**Referee**: *American Economic Review: Insights, American Economic Journal: Economic Policy*

**RESEARCH PAPERS**

**"Additionality and Asymmetric Information in Environmental Markets: Evidence from Conservation Auctions" (Job Market Paper)**
(with Karl M. Aspelund)

Market mechanisms aim to deliver environmental services at low cost. However, this objective is undermined by participants whose conservation actions are not marginal to the incentive — or "additional" — as the lowest cost providers of environmental services may not be the highest social value. We investigate this potential market failure in the world's largest auction mechanism for ecosystem services, the Conservation Reserve Program, with a dataset linking bids in the program's scoring auction to satellite-derived land use. We use a regression discontinuity design to show that three of four marginal winners of the auction are not additional. Moreover, we find that the heterogeneity in counterfactual land use introduces adverse selection in the market. We then develop and estimate a joint model of multi-dimensional bidding and land use to quantify the implications of this market failure for the performance of environmental procurement mechanisms and competitive offset markets. We design alternative auctions with scoring rules that incorporate the expected impact of the auction on bidders' land use. These auctions increase efficiency by using bids and observed characteristics to select participants based on both costs and expected additionality.

**"Waiting or Paying for Healthcare: Evidence from the Veterans Health Administration"**

Healthcare is often allocated without prices, sacrificing efficiency in the interest of equity. Wait times then typically serve as a substitute rationing mechanism, creating their own distinct efficiency and distributional consequences. I study these issues in the context of the Veterans Health

Administration (VA) healthcare system, which provides healthcare that is largely free but congested, and the Choice Act, a large-scale policy intervention that subsidized access to non-VA providers to reduce this congestion. Using variation in Choice Act eligibility in both patient-level and clinic-level difference-in-differences designs, I find that the price reduction for eligible veterans led to substitution away from the VA, an increase in overall healthcare utilization and spending, and reduced wait times at VA clinics in equilibrium. I then use the policy-induced price and wait time variation to estimate the joint distribution of patients' willingness-to-pay and willingness-to-wait. I find that rationing via wait times redistributes access to healthcare to lower socioeconomic status veterans, but at a large efficiency cost (-24%). This equity-efficiency trade-off is steep: rationing by wait times is an inefficient form of redistribution across a range of equity objectives. By contrast, I find that a coarsely targeted, modest increase in copayments increases consumer surplus by more than the Choice Act, at lower cost to the VA, while disproportionately benefitting low-income veterans.

**"The Effects of Floodplain Regulation on Housing Markets"**
(with Abigail Ostriker)

We investigate the effects of regulations designed to correct a wedge between privately- and socially-optimal construction in areas at risk of flooding in Florida. Using a spatial regression discontinuity around regulatory boundaries and an event study around the policy's introduction, we document that floodplain regulation reduces new construction in high-risk areas and mitigates damages at homes constructed under flood-safe building standards. Embedding these effects in a model of the housing market, we find the policy reduces damages to the socially-efficient level, but incurs higher costs than a first-best corrective tax. Improved targeting of the existing policy achieves 94% of first-best welfare gains, or $7,567 per newly-constructed house.

## RESEARCH IN PROGRESS

**"Ex-Ante Moral Hazard and Risk-Based Contracting in Wildfire Insurance"**
(with Abigail Ostriker)

Thinning vegetation reduces wildfire risk, but contracting on this homeowner action has historically been difficult for insurers and regulators due to asymmetric information. In theory, this could lead to increased wildfire risk and inefficiency in insurance markets. We test for the presence of this form of ex-ante moral hazard with a unique dataset measuring vegetative cover (at 60cm resolution) around nearly two million homes in California and an empirical strategy exploiting insurance pricing regulations. Over the time period of our data coverage (2014-2022), monitoring technology was developed and adopted differentially by insurers. In 2022, California mandated that wildfire safety actions be incorporated into the design of insurance contracts. Our research will analyze the extent to which a failure to price on risk-reducing actions can lead

to inefficiencies that hinder adaptation to climate change, and the impacts of technology and regulation on wildfire risk, insurance prices and coverage, and consumer and social welfare.

**"Consumer Direction or Consumer Protection: Evidence from California Home Care"**
(with David Autor, Amy Finkelstein, and Matthew Notowidigdo)

Delivering cost-effective and convenient supportive services that allow the elderly and disabled to live safely at home is an important policy goal in the face of an aging population. However, the market for publicly-financed home care is characterized by a complex and varied set of regulations limiting what care can be provided and who can provide it. Are these regulations protecting consumers or simply limiting their choices? We investigate this question in the context of a large-scale deregulated consumer-directed home care program in California, which provides more than 500,000 beneficiaries complete freedom over who to hire and which tasks providers can perform. We leverage rich data on provider arrangements and performed tasks to estimate preferences for care when choices are unrestricted. We then will use an examiner design to test for the health effects of allowing this free choice. Together, our results will shed light on whether there are opportunities to (re)-design markets for supportive services that jointly improve consumer welfare and health outcomes.