

ARIEL ZUCKER

OFFICE CONTACT INFORMATION

UC Santa Cruz Department of Economics
1156 High Street
Santa Cruz, CA 95064
arzucker@ucsc.edu
<https://www.arielzucker.net/>

CURRENT POSITION	Assistant Professor (UC Santa Cruz)	2021-present
EDUCATION	Massachusetts Institute of Technology (MIT) PhD, Economics, September 2018 Columbia University in the City of New York B.A., <i>cum laude</i> , Economics (with honors), July 2009	
FIELDS	Primary Field: Development Economics Secondary Fields: Health Economics, Environmental Economics	
TEACHING	Health Economics and Policy (undergraduate, UCSC course ECON 156) Instructor	2022-present
	Introduction to Econometrics (undergraduate, UCSC course ECON 113) Instructor	2022-present
	Energy Economics and Policy (graduate, MIT Sloan School of Management course 15.037) Teaching Assistant to Professor Christopher Knittel	2018
	Principles of Microeconomics (undergraduate, MIT course 14.01) Teaching Assistant to Professor Jonathan Gruber	2017
	Foundations of Development Policy (undergraduate, MIT course 14.74) Teaching Assistant to Professors David Donaldson and Benjamin Olken	2017
	Intermediate Microeconomics (undergraduate, Columbia course ECON 3211) Teaching Assistant to Professor Anna Caterina Musatti	2008
PREVIOUS POSITIONS	Ciriacy-Wantrup Postdoctoral Research Fellow	2018-20
	Research Assistant to Professor Tavneet Suri (MIT)	2012-13
	Research Assistant to Professors Abhijit Banerjee (MIT) and Rohini Pande (Harvard)	2011-12
	Research Assistant, Federal Reserve Bank of New York	2009-2011

GRANTS AND AWARDS	International Growth Centre Grant, <i>Price Incentives for Resource Conservation: Experimental Evidence from Groundwater Irrigation</i> (with Nick Hagerty)	2022
	J-PAL HCDI Grant, <i>Encouraging Abstinence Behavior in a Drug Epidemic</i> , (with Rebecca Dizon-Ross)	2021
	J-PAL ATAI Grant, <i>Measuring Demand for Groundwater Irrigation: Experimental Evidence from Conservation Payment</i> (with Nick Hagerty)	2021
	King Climate Action Initiative Grant, <i>Price Incentives for Resource Conservation: Experimental Evidence from Groundwater Irrigation</i>	2020
	Weiss Family Program Fund Grant (with Rebecca Dizon-Ross and Seema Jayachandran)	2020
	Becker Friedman Institute (BFI) Grant (with Rebecca Dizon-Ross and Seema Jayachandran)	2020
	Global Poverty Research Lab Grant (with Rebecca Dizon-Ross and Seema Jayachandran)	2020
	International Growth Centre Grants (with Nick Hagerty)	2020, 2018
	Weiss Family Program Fund Grant (with Nick Hagerty and Jeremy Magruder)	2019
	George and Obie Shultz Fund Grant	2019
	University of Chicago Tata Center for Development Grants (with Rebecca Dizon-Ross)	2018, 2017
	International Growth Centre Grant (with Nick Hagerty and Michael Greenstone)	2017
	Abdul Latif Jameel World Water and Food Security Lab Grant (with Nick Hagerty)	2017
	J-PAL Health Care Delivery Initiative Grant (with Rebecca Dizon-Ross)	2017
	India Trust Grant (Rebecca Dizon-Ross and Shilpa Aggarwal) Fellow, Tata Center for Technology and Design	2017
	MIT Presidential Fellow	2014-2016
	J-PAL Urban Services Initiative Grant (with Rebecca Dizon-Ross and Shilpa Aggarwal)	2013-2014 2015
	Weiss Family Program Fund Grant (with Nick Hagerty)	2015
	National Science Foundation Graduate Research Fellowship Program: Honorable Mention	2011

PROFESSIONAL ACTIVITIES **Referee:** *American Economic Review, American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, Journal of Development Economics, Journal of Health Economics, Quarterly Journal of Economics, Management Science*

Presentations:

SOCCAM	2024
UCSD-World Bank Workshop on Climate Change Adaptation	2024
Economics Seminar, IZA, Bonn University	2024
Barcelona Summer Economic Forum	2023
NBER Summer Institute	2022
CHIBE, University of Pennsylvania	2022
LMU Munich	2022
Undergraduate Research Seminar, UC Santa Cruz	2022
Early-Career Behavioral Economics Conference	2021
Pac Dev	2021
Health Economics, Cornell University	2021
Cities and Development Workshop, University of Chicago	2020
Development Workshop, UC Davis	2020
Economics Seminar, UC Merced	2019
Health and Labor Market Effects of Public Policy, UC Santa Barbara	2019
Environmental Market Solutions Lab, UC Santa Barbara	2018
North East Universities Development Consortium (NEUDC), Cornell University	2018
Discussions:	
Occasional Workshop, UC Santa Barbara	2022

**WORKING
PAPERS**

“Mechanism design for personalized policy: A field experiment incentivizing exercise” (Revise & Resubmit, Econometrica)

With Rebecca Dizon-Ross

Incentives for health behaviors are an increasingly important policy tool in both developed and developing countries, and there is widespread interest in improving the effectiveness of incentive contracts. However, people are different, and no one contract is most effective for everyone. The theory of price discrimination offers two promising strategies to effectively customize contracts: tagging on observables (i.e., 3rd-degree price discrimination), and offering a menu of contract choices (i.e., 2nd-degree price discrimination). However, a key concern is that participants might manipulate information to take advantage of the principal. We adapt each of these strategies to customize incentive contracts for walking. Using a randomized controlled trial among more than 5,000 adults in urban India, we show that both mechanisms increase physical activity, leading to a 75% increase in steps walked relative to a one-size-fits-all benchmark. Moreover, we find that the concern about incentives to manipulate is not only misplaced, but exactly backwards. Instead, a common force in health behavior settings - commitment motives - leads agents to self-sort into more effective contracts under both mechanisms. In particular, sophisticated time inconsistent agents demand contracts that commit their future selves to walk more, bringing their preferences in partial alignment with the principal and improving the effectiveness of customization.

**“Designing Incentives for Impatient People: An RCT Promoting Exercise to Manage Diabetes” (Reject & Resubmit, Journal of Political Economy)
With Shilpa Aggarwal and Rebecca Dizon-Ross**

How should the design of incentives vary with agent time preferences? We develop two predictions. First, “bundling” the payment function over time – specifically by making the payment for future effort increase in current effort – is more effective if individuals are impatient over effort. Second, increasing the frequency of payment is more effective if individuals are impatient over payment. We test the efficacy of time-bundling and payment frequency, and their interactions with impatience, using a randomized evaluation of an incentive program for exercise among diabetics in India. Consistent with our theoretical predictions, bundling payments over time meaningfully increases effort among the impatient relative to the patient. In contrast, increasing payment frequency has limited efficacy, suggesting limited impatience over payments. On average, incentives increase daily steps by 1,266 (13 minutes of brisk walking) and improve health outcomes.

**“Measuring Demand for Groundwater Irrigation: Experimental Evidence from Conservation Payments”
With Nick Hagerty**

We measure the price response of demand for groundwater and electricity in irrigated agriculture in Gujarat, India, where both resources are scarce and largely unregulated. To do so, we install meters and offer payments for voluntary conservation in a randomized controlled trial. First, we use the price variation introduced by this program to estimate the price elasticity of groundwater demand, a key parameter required for efficient regulation by any means. Then, we evaluate conservation payments as a potentially useful policy tool given political constraints, measuring its treatment effects, spillovers, and cost-effectiveness.

“Paying for Prevention: The Role of Incentives in Eliminating Care Gaps”

An important aspect of the Affordable Care Act was an increased focus on quality-of-care. The act created new quality measures that emphasize closing gaps in care and decreasing the use of costly acute care through preventive services. While insurance providers now have substantial stake in encouraging their members to close preventive care gaps, there is limited evidence on the most effective means to do so. We conduct a randomized controlled trial among members of a large health insurance provider in a midwestern state who had one of seven critical care gaps in 2018. Members either receive a letter with an incentive to close their (or their child’s) care gap, a letter with information regarding the gap, or no letter. We find that while incentives are effective for encouraging closure of children and teens’ care gaps, they do not improve care gap closures for adults – and may even discourage gap closure among this population. Information regarding existing care gaps has no detectable effect on closures.

**“Does Micro-irrigation Save Energy? An Investigation in Gujarat, India”
With Nick Hagerty**

Energy efficiency is a global priority, but investments in energy efficiency do not always deliver the expected benefits. This paper studies micro-irrigation systems (MIS), a technology thought to reduce the energy required for irrigation by as much as 70 percent. We installed individual meters to directly measure the energy consumption of several hundred farmers in Gujarat, India, and linked this meter data with survey data to yield a comprehensive view into energy use patterns in smallholder agriculture. We document two facts. One, energy use varies widely across farmers, and this variation is unexplained by factors such as farm area or village geography. Two, MIS users in our sample consume 30 to 40 percent more energy than nonusers of MIS. This difference does not appear to be explained by observable differences across farmers nor by rebound effects, suggesting that the energy impacts of MIS under real-world conditions may be disappointing. While these findings are not causal, they highlight a need for increased attention to details of implementation and further research into the actual benefits of resource-conserving technologies.

**RESEARCH IN
PROGRESS**

**“Encouraging Drug Abstinence with Dynamic Incentives”
With Rebecca Dizon-Ross**

Data collection in progress (AEA Registry Record No. AEARCTR-0005000.)

**“De-biasing over-optimism about personal COVID-19 health risk”
With Rebecca Dizon-Ross and Seema Jayachandran**

Data collection complete. (AEA Registry Record No. AEARCTR-0005951.)