Afras Sial
Curriculum Vitae

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Education

University of California, Berkeley   In progress
Ph.D., Economics

Georgetown University   2019
Bachelor of Science, International Economics (with Honors), *Summa Cum Laude*

Relevant Research Experience

University of Pennsylvania   2019 – 2021
Research Coordinator for Profs. Benjamin Lockwood (Wharton) and Dmitry Taubinsky (UC Berkeley)

- Performed regression analysis and other estimation procedures on experimental and quasi-experimental data in Stata, performed simulations in MATLAB on questions about optimal income taxation and optimal policies addressing limited self-control, scraped sites for data with Python, implemented online experiments in Qualtrics, conducted literature reviews, proofread drafts, and more.

Georgetown University   2018 – 2019
Research Assistant for Prof. Charlotte Cavaillé

- Collected data on social attitudes and redistributive preferences, conducted literature reviews, audited survey designs, created data visualizations, and processed and matched spatial data in R Studio.

Georgetown University   2017 – 2018
Research Assistant for Prof. Pedro Gete

- Collected and cleaned large datasets and reviewed literature on the credit and housing markets. Produced data visualizations of event studies and performed regression analysis on panel data in Stata.

Publication

"Designing, not Checking, for Policy Robustness: An Example with Optimal Taxation" with Benjamin Lockwood and Matthew Weinzierl (*Tax Policy and the Economy*, 2021, 35, pp. 1-54)

Abstract: Economists typically check the robustness of their results by comparing them across plausible ranges of parameter values and model structures. A preferable approach to robustness—for the purposes of policymaking and evaluation—is to design policy that takes these ranges into account. We modify the standard optimal income tax model to include the policymaker's subjective uncertainty over parameter values, and we characterize robust optimal policy as that which maximizes expected social welfare. After calibrating uncertainty over the elasticity of taxable income from past empirical work and novel survey data on economists' beliefs, we compare the implied robust optimal marginal tax rates to the alternative benchmark policy based on the best point estimates of relevant parameters. Our results suggest that robust optimal marginal tax rates are typically more progressive than in benchmark analyses, raising top marginal tax rates by between 5 and 7 percentage points, and generating modest expected welfare gains.

Working Papers

"Biased Memory and Perceptions of Self-Control" with Justin Sydnor and Dmitry Taubinsky

Abstract: Do biases in memory help to explain failures to fully recognize self-control problems (i.e., partially naive present focus)? We use data from a field experiment on gym members and document that on average people have slightly inflated past recall of prior visit patterns. Those with more inflated memories of past visits are more overconfident about their future visit rates and display lower willingness-to-pay to use incentives to change their future behavior. We estimate a structural model of present focus and find that those with above-median recall errors have similar actual present focus but are significantly more naive about their present focus.

"What Drives Demand for State-Run Lotteries? Evidence and Welfare Implications" with Hunt Allcott, Benjamin B. Lockwood, and Dmitry Taubinsky (*NBER Working Paper 28975*)

Abstract: We use a series of natural experiments embedded in the administration of state-run lotto games, as well as a new nationally-representative survey linking lottery expenditures to behavioral biases, to provide reduced-form and structural estimates of people's risk preferences in this domain. In new data on prizes and sales, we find that sales respond more to the expected value of the jackpot than to price, but are unresponsive to variation in the second prize—a pattern that implies probability weighting but is inconsistent with typically-used parameterizations. In our survey, we find that individual-level lottery spending decreases modestly with income and is strongly associated with survey measures of innumeracy, poor statistical reasoning, and other proxies for behavioral bias. These bias proxies decline with income and account for 43 percent of lottery purchases. This suggests that the measured probability weighting is at least in part due to biases rather than wishful thinking, entertainment utility, or other "non-standard" preferences. We illustrate the policy relevance of the empirical estimates by setting them in a model of optimal lottery design. In the model, current multi-state lottery designs increase welfare but may harm heavy-spending low-income people.

Work in Progress

"Ideology and Moral Hazard" with Na'ama Shenhav and Dmitry Taubinsky

- Using large-scale online experiments and surveys, we study differences in behavioral responses to taxation by political ideology and perceived social norms around labor supply responses.

Acknowledgements of Research Assistance

Allcott, Hunt, Joshua Kim, Dmitry Taubinsky, and Jonathan Zinman, "Are High-Interest Loans Predatory? Theory and Evidence from Payday Lending," Forthcoming at the *Review of Economic Studies*, 2021.

Anagol, Santosh, Allan Davids, Benjamin B. Lockwood, and Tarun Ramadorai, "Do Firms Have a Preference for Paying Exactly Zero Tax?," Unpublished, 2021.

Butera, Luigi, Robert Metcalfe, William Morrison, and Dmitry Taubinsky, "Measuring the Welfare Effects of Shame and Pride," Forthcoming at the *American Economic Review*, 2021.

Carrera, Mariana, Heather Royer, Mark Stehr, Justin Sydnor, and Dmitry Taubinsky, "Who Chooses Commitment? Evidence and Welfare Implications," Forthcoming at the *Review of Economic Studies*, 2021.

Dillon-Merrill, Robin, Lei Ge, and Pedro Gete, "Natural Disasters and Housing Markets: The Tenure Choice Channel," Working Paper, 2018.

Ferey, Antoine, Benjamin B. Lockwood, and Dmitry Taubinsky, "Sufficient Statistics for Nonlinear Tax Systems with Preference Heterogeneity," Unpublished, 2021.

Strack, Philipp, and Dmitry Taubinsky, "Dynamic Preference "Reversals" and Time Inconsistency," *NBER Working Paper 28961*, 2021.

Morrison, William, and Dmitry Taubinsky, "Rules of Thumb and Attention Elasticities: Evidence from Under-and Overreaction to Taxes," Forthcoming at the *Review of Economic Studies*, 2021.

Presentations and Conferences

Participant at Tax Policy and the Economy Conference, National Bureau of Economic Research. September 2020. Virtual.

"Fair Play? State-run Lotteries and Income Concentration in the United States." Presenter at Carroll Round XVIII International Economics Conference, Georgetown University. April 2019.

"The Startup Sector: Support Systems in the U.S. and Khyber Pakhtunkhwa." Presenter at Kohat University of Science and Technology. May 2017. Virtual: Kohat, Pakistan.

Undergraduate Projects

"Fair Play? State-run Lotteries and Income Concentration in the United States," Senior Thesis for Honors in International Economics

- Used an instrumental variables approach to find evidence against the claim that state-run lotteries increase income inequality, also finding evidence that they lead to increases in education spending and decreases in regressive sales taxation.

"Does It Get Better with Age? Demands for Equality of Opportunity Programs for Children in an Aging U.S. Population," Independent Research Project for *Political Economy of Inequality and Redistribution* course

- Used age-period-cohort and logistic regression analysis to find that the elderly tend to have lower support for three equality of opportunity programs, consistent with a simple model of redistributive preferences across age groups.

Teaching Experience

Microeconomics – ECON 100A 2021
Departmental Tutor

GitHub Tutorial 2021
Two-session tutorial for professors at Monash University

Stata Tutor 2019
Private Tutor

Map of the Modern World – INAF 008 2018 – 2019
Teaching Assistant for Prof. Mark Giordano, Georgetown University

Other Research Experience

U.S. Consulate General Peshawar 2016 – 2017
Student Foreign Service Intern, Startups Connex Project

- Conducted research on the startup landscape in Khyber Pakhtunkhwa. Interviewed leaders in the startup sector and connected them to U.S. government and local resources.

University of Utah 2016
Student Researcher, Policy Innovation Lab

- Drafted case studies on place-based initiatives for official project proposal. Attended Pay-for-Success Institute and researched social intervention monitoring and evaluation systems.

Center for Civic Innovation 2016
Research Intern

- Reviewed literature on participatory budgeting initiatives and researched access to finance for social entrepreneurs. Analyzed co-working cost packages across the U.S. and provided recommendations based on findings.

Georgetown University 2015 – 2016
Student Researcher, Beeck Center for Social Impact & Innovation

- Researched early childhood development program evaluations, public-private partnerships in infrastructure construction, and the state of impact investing education.

Salt Lake City Council 2015
Policy Research Intern

- Researched campaign finance reform, contacting municipalities and organizations to determine best practices, while compiling and analyzing historical municipal campaign finance data.

Community Service and Volunteer Experience

Berkeley Economists for Equity 2021
Underrepresented Minorities in Economics Mentor and Faculty Recruitment Volunteer

Predoctoral Research in Economics Workshop 2021
Panelist and Small Group Mentor

Hoya Taxa Volunteer Income Tax Assistance 2017 − 2019
IRS-Certified Tax Preparer and On-Campus Clinic Co-founder

Georgetown University Muslim Students Association 2017 − 2018
Director of Communications

Drew Elementary School 2016
DC Reads Youth Literacy Tutor

Muslim Public Affairs Council 2016
Policy Research Volunteer

Honors, Scholarships, and Fellowships

Berkeley Economics Departmental Fellowship	2021
Phi Beta Kappa	2019
Student Coalition for Social Impact Delegate	2019
Critical Language Scholarship, Urdu	2017
Winter Student Program in Islamic Studies Scholarship	2017
Lannan Center for Poetics and Social Practice Fellowship	2016 − 2017
Compass Fellowship	2015 − 2016
GU Impacts Fellowship	2016

Skills

Technical: Stata, MATLAB, Python, R, LaTeX, LyX, Qualtrics (with custom HTML, CSS, and JavaScript), Prolific, GitHub, and Bloomberg Terminal

Language: Native English, Intermediate Urdu, Intermediate French, Beginner Classical Arabic