

I am an applied micro-economist with interests at the intersection of development economics, political economy, and behavioral economics. This statement describes my research, service, and advising activities.

Research:

Broadly, my research focuses on improving the capacity of the state to deliver public services by changing the selection, incentives, and motivation of bureaucrats, and also through political empowerment of the marginalized. I use randomized field trials and observational causal inference methods to explore questions that are fundamental to our understanding of developing states. My research can be divided into four interconnected areas, that I describe below.

1- Incentives and Motivations of the State Personnel

This stream of research examines the intrinsic and pro-social motivations of people and contrasts them with private incentives. Economic theory has long argued that economic agents are driven not just by money but also ‘warm glow’ (Andreoni 1989), altruism (Becker 1974), who they work for (Akerlof and Kranton 2003), and mission (Besley and Ghatak 2005). My research in this stream investigates empirically if the intrinsic motivations of economic agents can be leveraged to improve the selection and performance of public service providers.

I have two papers in this stream.

First, in the “Mission motivation and public sector performance: experimental evidence from Pakistan” (*American Economic Review*, 2025), I study what emphasizing the organizational mission does to the motivation and performance of workers. In partnership with the Department of Health in Pakistan, I randomly introduce health workers to the organizational mission through a video of their manager emphasizing the mission and its importance to them. I benchmark the incentive effect of the mission against financial rewards linked to performance, and track how the two interact. Using data from approximately 21,000 household surveys, the paper finds that mission motivates workers to improve core performance, measured by home visits, by 16%. Mission also motivates workers to perform multiple tasks – they perform more antenatal checks, screen more households for Tuberculosis, and organize more vaccination camps for children. Financial incentive treatment improve household visits by 27% but does not affect performance on the other tasks. This difference in allocation of effort between one task and multiple tasks leads to financial incentives becoming less effective in improving household visits when the two treatments are combined. Since the mission motivates effort on multiple tasks, workers who receive both treatments do not increase household visits by as much the workers who receive just the financial incentives for visiting more households. More importantly, mission treatment leads to better health outcomes for the client population compared to the financial incentives, suggesting that motivating workers with the mission is a much more powerful strategy compared to providing financial incentives. The paper highlights the effect of mission as an incentive when contracts are incomplete.

My second paper in this stream, co-authored with Saad Gulzar, is titled ““Good Politician”: Experimental Evidence on Motivations for Political Candidacy and Government Performance” published in the *Review of Economic Studies* (2025). In this paper, we focus on the importance of selection of politicians for improving the capacity of the state. We examine whether the supply of politicians can be improved by highlighting pro-social motivations associated with political office, and compare it to the status-quo personal motivations, such as prestige, associated with political office. We randomly highlight these motivations associated with the political office to a random selection of about 9000 citizens in a field experiment conducted in the run-up to village council elections in Pakistan. We find that more people from the randomly approached sample run for political office when prosocial motivations linked to political office, such as the ability to help the community, are highlighted. The effect of such messages is particularly stronger for people who may be regarded as “high pro-social” types. More importantly, these candidacy decisions are meaningful — the new politicians win elections with higher probability and the subsequent village councils are more likely to make policy decisions aligned with the preferences of citizens. This paper adds to the rich literature on political selection (Dal Bó and Finan 2018) by highlighting that, the hitherto unexplored channel of, non-financial motivations also influences the decision to enter a political race, and that the supply of “good” politicians can be improved by portraying politics as prosocial to citizens.

2- Psychology and Performance of the State Personnel

Psychological traits, such as personality traits, have been shown to play a role in economic decision-making (Heckman 2011) but their influence on the performance of workers remains understudied. In this stream of research, I explore if personality traits and preferences of workers influence their behavior on the job, and how these preferences can be used in designing contracts.

I have two papers and two work-in-progress projects in this stream.

In the first paper, “Personalities and Public Sector Performance: Evidence from a Health Experiment in Pakistan” (co-authored with Michael Callen, Saad Gulzar, Syed Ali Hasanain, and Arman Rezae) published in the *Economic Development and Cultural Change* (2025), we collect detailed personality attributes of doctors and supervisors from a representative sample in Punjab, Pakistan. We find that the personality types of doctors and their supervisors are correlated with how they perform on their job, finding two interesting relationships between them: (1) Doctors who score high on the Big Five measures of personality and Perry (1996)’s public service motivation questions are less likely to shirk on the job and are also less likely to collude with supervisors to provide false attendance reports. (2) Reforms aimed at removing information frictions interact with the personality traits of principals — senior managers with high personality scores are more likely to take action on information pertaining to the under-performance of health staff. This work helped identify several important areas of further research — most importantly, the role of time preferences of agents in designing contracts, which I explored in the following study.

In the second paper under this theme, “Using Preference Estimates to Customize Incentives: An Application to Polio Vaccination Drives in Pakistan” (co-authored with James

Andreoni, Michael Callen, Karrar Jaffar, and Charles Sprenger) published in the *Journal of European Economic Association* (2023), we take forward the lessons about procrastination by health staff observed in the previous study and attempt to address them through personalized contracts. This paper uses estimates of time preferences measured in real tasks to customize incentive contracts for polio vaccinators in Pakistan. The experiment follows a convex time budget design of Andreoni and Sprenger (2012); Augenblick et al. (2015) to first elicit incentivized decisions of workers on intertemporal work that shows the vaccinators are present-biased. Then we use the estimated preferences to structurally tailor contracts for each worker for subsequent work. The individually tailored contracts move performance 30% closer to the policy goal overall, and 50% closer to that goal when present bias in decision-making is relevant. We test this policy against several alternatives, including atheoretic, random and broadly tailored contracts, and find it does best in achieving the policy goal compared to all other alternatives. This paper demonstrates the existence of present bias in public service delivery and provides empirical evidence it can be addressed by designing incentives that use preference parameters.

In the first work-in-progress project under this stream, “Mental Health and Worker Performance: Evidence from the Public Sector” (joint with Prashant Bhandhari, Zain Chaudhry, Deitmar Fehr, and Karrar Hussain), I take forward the idea that psychological state of public workers correlates with their job performance by exploring the link between mental health of public sector workers their job performance. I also study if a low cost, cognitive behavioral therapy based, non-clinical training intervention can help improve the mental health and performance of these workers. The project pilot with sixty four workers revealed promising results of the intervention in the form reduction in mental stress and improvement in the performance of community health workers. In the scale up, we have designed an experiment that will also shed light on the mechanisms for the effectiveness of the intervention by providing evidence if the treatment only helps workers with chronic mental health issues or if it helps them learn skills to deal with any stressful situation. The design of the study also enables us to explore if the effects spillover to clients, particularly new and pregnant mothers as they suffer from maternal depression.

In the second work-in-progress project under this theme, “Time Preferences and Dishonesty in the Public Sector”, I theorizes a link between time preferences and the tendency to act dishonestly in tasks that are spread over multiple time periods due to procrastination. This project is being implemented in partnership with my recently graduated student, Priyoma Mustafi, and the Department of Health in Pakistan. The project establishes through empirical analysis that in the absence of high expected cost of malfeasance, workers who are present biased procrastinate more on their job, leaving more tasks to be done closer to the deadline. But as the deadline to finish the job arrives, performing all tasks to meet targets becomes impossible, so the worker dishonestly claims completing the tasks. In a pilot study we have found workers change their reporting behavior in response to incentives. We are now implementing the full study to establish this in a bigger sample, and to test if the changes in reporting behavior also reduce dishonest reporting.

3- Information Frictions, Moral Hazard, and Technology in Public Service

I study the problem of information frictions in the delivery of public services using mobile-

based information-gathering and dissemination technologies. My research in this stream sheds light on why eliminating information frictions in public-service delivery will not always address moral hazard but technology can help improve performance of the public sector workers.

I have three papers and two work-in-progress projects in this stream

The first paper in this stream, “Data and Policy Decisions: Experimental Evidence from Pakistan” (co-authored with Michael Callen, Saad Gulzar, Syed Ali Hasanain and Arman Rezae) published in the *Journal of Development Economics* (2020). We evaluate a large-scale phone-based monitoring system of a provincial health department, which encompasses nearly 3000 clinics that provide healthcare to a province of 100 million in Pakistan. In this paper, we show that the monitoring system increases inspection rates of health facilities overall but only improves the attendance of doctors if the worst-performing clinics are flagged to senior managers. We identify political economy reasons as potential explanations for the weaker-than-expected effect on moral hazard when information frictions were eased through a monitoring system.

In a second paper, titled “The Political Economy of Public Employee Absence: Experimental Evidence from Pakistan,” with the same set of co-authors and published in the *Journal of Public Economics* (2023), we argue that the monitoring system had a stronger positive impact in constituencies with higher political competition and weaker impact in areas where politics is captured, potentially creating a patronage channel between workers and politicians that saves the staff from sanction if the monitoring system finds them shirking.

In the third paper, “No bulls: Experimental evidence on the impact of veterinarian ratings in Pakistan¹” (co-authored with Syed Ali Hasanain and Arman Rezae and published in the *Journal of Development Economics*) we provide information to citizens, instead of managers, on the performance of public workers. We use a mobile-based system to gather information about the quality of service provided by livestock technicians to farmers, and send back aggregated ratings about the best service providers in their area. Farmers equipped with this information received better-quality service the next time. We find suggestive evidence that the effect is driven by changes in the effort of workers rather than farmers switching, ex-ante, to higher-quality technicians.

I have three work in progress projects under this stream.

In the first work-in-progress project, tentatively titled “Extending State Capacity with Technology: Interactive Mobile Support to Improve Consistency and Accuracy for Community Health Workers ” (co-PI Erica Field, Kate Vyborny, Laura Stillwell, and Nicola Singletary), we pursue the dual goal of using technology for data management, and promoting algorithm based decision making to improve the quality of the services. We are developing an application to be provided to semi-trained community health workers to collect and manage data on their clients so they can better plan their services based on the needs of the citizens.

¹Old title: “Coordinating Farmers with Cell Phones: Technology Innovation in Livestock Extension in Pakistan”

This application will also be loaded with simple algorithms that can be used to support decision making of the service providers with respect to the medical treatment needed for new mothers.

The second project, focuses on using addressing resource constraints that limit the state's ability provide essential service, like mental health support for new and expecting mothers, with the help of technology. In the project titled, "Remote Delivery of Behavioral Therapy for Perinatal Depression and Anxiety through Digital Clinics in Low-Resource Settings: A Randomized Controlled Trial" (with Zia Hydari), I study if remote interactions with psychologists, using video and audio calls, can help improve mental health of new and expecting mothers that are most prone to peri-natal depression.

The third work-in-progress project, focuses on reducing violence against women by making it easier for women to report crimes with the use of technology. This project uses a fixed effects and difference-in-difference model to study the roll out of dedicated reporting system (like 911), on (i) whether more crimes get reported, and (ii) if police is more likely to take action on the reporting. This joint work with Saad Gulzar, Ali Bakhtawar, Amna Baig, and Punjab Police in Pakistan.

4- Economic and Political Empowerment of the Marginalized

In this stream of work, I study how to economically and politically empower marginalized groups of people. The first paper, tentatively titled "Economic and Political Consequences of Credit Policy for Minorities: Evidence from India" (co-authored with S. K. Ritadhi), explores what happens to economic and political well-being of minorities in divided societies when policies design to increase economic opportunities for the marginalized are put in place. We use a policy experiment from India to study this question where Banks were asked by the state to extend credit to religious minorities. This policy expanded bank credit to minority households in districts selected through an arbitrary policy rule. Exploiting the policy rule in a regression discontinuity design, we first find that even in a developing state policies for the well being of the marginalized can improve economic outcomes. Second, changes in the economic well-being affect what happens in the political economy but minorities face a blow-back due to these changes. As a result of the policy, candidates belonging to minority groups are more likely to run for office, secure higher share of votes, and are more likely to win, while the right-wing party's vote share goes down. However, the political empowerment comes at the cost increased inter-group violence, concentrated in months after the elections.

The second paper, titled "Norms, Beliefs, and Networks: Descriptive Findings on Women's Political Participation in Pakistan" (co-authored with Saad Gulzar and Luke Sonnet), argues that one reason for the gender gap in political participation gap is a discrepancy between what people believe others think about women's political participation and what those people think themselves. We survey women and men from households in 37 communities in Peshawar, Pakistan. In the survey, we collect information about respondents' social and political networks and their beliefs regarding female participation in politics and also what they think others in their community believe about women in politics. Using this data, we first show that expectations of norms around women's political participation are more pessimistic than actual beliefs, for both women and men. Second, despite previous evidence

that the household primarily structures women's behavior in patriarchal societies, we find (1) that women's social networks are distinct from those of men in their households and (2) that women's pessimistic expectations about others' beliefs are more strongly correlated with the beliefs of socially proximate women than men in their households. We argue that efforts to reduce the gender gap in political participation may therefore benefit from targeting pessimistic expectations of norms and focusing on women's distinct social networks.

In a follow-up to this paper, we implement a field experiment in rural Pakistan that provides correct information about the beliefs of others to a random selection of households. We also introduce a treatment about alignment in candidate choices of women and men. These two interventions are cross randomized to study if there is complementary between norms and men's concerns about misalignment in political preferences of women and men. The experiment was implemented right before national elections of Pakistan. We used actual voting of women respondents as outcome for the study. The working paper on this project will be released soon, however, in summary, we find that women voter turnout increases when we correct beliefs about norms and also about misalignment in candidate choices. Importantly, we do not find these corrections to lead to additively larger effects, and instead, find that the treatments was more effective in households where men had correct beliefs about one of the two dimensions. Simply, removing information friction on one dimension is more effective if the household already has correct information on the other dimension. This study sheds light on the importance of taking into consideration the full set of concerns in conservative societies instead of focusing on one margin of information friction.

Service:

Since joining University of Pittsburgh, I have been actively contributing to the department, university, and the profession formally and informally.

Service to the Department and University: I have served three roles in the department. First, I have been a member of the graduate students admissions committee for three years. In this role, I read graduate admission files for the region of Asia (except China). This service normally entails reading essays, recommendation letters, writing samples of nearly 100 applicants a year, and ranking all files as per the Department's admission criteria. Then, along with other committee members, I review files of the candidates ranked highly across regions to identify a limited set of candidates for admission. While serving in this role, I have also used my network to help the committee gather more information about candidates who are on the margin. Second, I have also served on the committee to identify the best second-year paper during the year 2022-23. This entailed reading papers written by our graduate students in the second year of their Ph.D and ranking them based on quality of the work as well as providing feedback for further improvement. Third, I am the faculty responsible for the Development Economics under the Behavioral Economics Design Initiative. In this role, I co-designed and implemented a funding initiative to promote field experiments in development economics among the graduate students.

Along with these formal roles, I have also tried to be a good citizen of the department participating actively in almost all searches for junior faculty since I arrived, by attending talks,

meeting the candidates, and participating in dinners/lunches. I also participate actively in labor, development, and experimental economics seminars and brown bags, meet speakers visiting the department, and in some cases drive speakers to and from dinners. Additionally, I have involved Cohen undergraduate fellows in my research and also shared my research in an undergraduate course taught by Katherine Wolfram as a guest speaker.

Besides participating in activities in the department, I also volunteered to act as a mentor for the Mobilization and Political Economy program (<https://www.migaprogram.com/summerprogram>) headed by Professor Fernando Tormos-Aponte at the Department of Sociology. This program's aim is to "train undergraduate students from underrepresented groups to conduct research and support their placement in graduate studies programs". I enthusiastically volunteered for this program but unfortunately, none of the students were matched with my profile and interests.

Lastly, I have created inter-disciplinary partnerships in the University that contribute to fostering research excellence at the University level through cross department/school collaborations. First, I have been an active member of CGM at GSPIA, having participated in their events and being part of their dissertation committees. Second, I am working with a faculty colleague at Katz Business School, Dr. Zia Hydari, to work on a joint research project that, if successful, may support the business school's goal of becoming a leading institution for research related to health economics.

Service to the Profession: I have provided service to the profession in three ways. First, I have been an active reviewer for several top peer-reviewed academic journals. Second, I have also been active in mentoring graduate students through the platform of the Association for Mentoring and Inclusion in Economics (<https://econmentoring.org/>). In this role, I have worked with five students enrolled in the Ph.D. programs, generally lower ranked than Pitt, to help them navigate their research and professional journey. Lastly, I have given guest lectures in courses at multiple universities including Princeton, University of Chicago, and Stanford University, sharing insights with students on how to design and run field experiments in developing countries. Additionally, I have informally been advising students from Pakistan interested in pursuing graduate education in Economics. So far two of my informal advisees have been admitted to UC Berkeley and Duke.

Advising: Since my arrival at Pitt, I have tried my best to develop a nurturing environment for students interested in topics related to development economics, and also played my role in attracting best students to join us. I have been active member of the faculty participating all department activities that provide opportunities for our graduate students to get the best available training, such as, through active participation in multiple brown-bag seminars series, helping students in their second year papers, and guiding them in writing grant and fellowship applications along with writing letters of support. This support has resulted in my students winning grants (Priyoma Mustafi), getting invited to paid summer schools (Prashant Bhandari and Humoyun Abdumavlon), and converting second year papers to R&R at top journals (Bruno Komel).

Understanding that Development Economics is not as established as other sub-fields of eco-

nomics at our department, I have supported students, with interests in development economics, in two ways. First, I have mentored graduate students to create synergistic opportunities in their research ideas that engage with other sub-fields in the department, including experimental economics, labor economics, and economic history. This is evident from my recently graduated students who worked at the intersection of multiple fields and have found jobs in academia. Second, I involve students in my own research. I always offer my students an opportunity to work either as a paid research assistant or join as a coauthor to work on research ideas. As a result, I have three projects in progress with graduate students in the Department. This number would have been higher but as is expected projects fail and do not lead to any outcome.

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