RESEARCH, TEACHING AND SERVICE STATEMENT

Overview

The lives of people in developing countries, in recent times, have improved dramatically, with tremendous gains in education, health, and access to jobs and livelihoods. However, the gaps in access to education, health and public service delivery across and within developing economies remains a huge development challenge. One of the most valuable lessons relates to the interaction between the state and society in fostering development, especially in the form of affirmative action policies and institution building. Throughout my academic pursuit, I have focused on the relationship between public policies and economic development and harnessed rigorous empirical methods to study the impact of government policies and institutions in enabling inclusive growth.

1. Impact of Government Policies on Measures of Well-Being

   a. Political Quotas for Disadvantaged Groups and Economic Development

Many countries around the world face the difficult policy challenge of dealing with historical discrimination and exclusion based on caste, race, gender or ethnicity. One policy response often used is to implement affirmative action policies which aim to compensate for the damages caused by past discrimination by explicitly favoring the historically disadvantaged groups. However, to date, they remain extremely controversial and raise critical empirical questions. One set of issues relates to whether these policies benefit the intended beneficiaries. The second set of issues relates to the redistributive nature of affirmative action policies. If minority groups are given preferential treatment, then are non-minority groups made worse off? To the extent that affirmative action policies confer few or no benefits to minority groups and hurt members of non-minority groups, then society might be worse off with such policies. Through a series of papers, I have analyzed the impact of affirmative action policies – political and employment quotas – on the lives of the disadvantaged groups in India.

The focus in this literature has largely been on whether political reservation for minorities affects policy choices. Less is known about the impact of such reservation policies on overall poverty. I collaborated with Aimee Chin to answer this question in the paper “The Distributive Effects of Political Reservation for Minorities: Evidence from India” (published in the Journal of Development Economics, 2011). Using panel data from Indian states for 1960–2000, we found that political reservation for certain disadvantaged groups (classified in the Indian Constitution as Schedule Tribes (STs)) reduced both the incidence and intensity of poverty. Hence, contrary to widespread belief, our paper suggests that the benefits from affirmative action are not always captured by the better off. We find that the poor, including those far below the poverty line, also benefited from this reservation policy. Thus, minority political reservation is a policy that is both pro-minority and pro-poor. Given the net reduction in poverty, another important implication of our results is the likely redistribution from richer to poorer. While this positive message augurs well for the use of reservation policies to alleviate poverty, our paper also cautions against a belief that it is effective in all contexts. Our paper finds that political reservation for Schedule Castes (SCs), another disadvantaged minority group, had no impact on poverty.
Nishith Prakash, University of Connecticut

We followed up this paper with an op-ed on our findings for VOX (CEPR’s Policy Portal)\(^1\) and Ideas for India.\(^2\) The findings from this paper are widely cited in outlets including, The Economist\(^3\), The Statesman\(^4\), and The Times of India\(^5\) (an article written by a Member of Parliament in India).

I further explore the impact of political reservation for SCs and STs on child labor and absenteeism among health workers with Elizabeth Kaletski.\(^6\) In the first paper “Does Political Reservation for Minorities Affect Child Labor? Evidence from India” (published in World Development, 2016), we find that ST reservation decreases the incidence of child labor, while SC reservation increases the total number of children working. Further, we found that the impact of reservations for SCs and STs are gender biased – girls are arguably worse off under such policies. Under the assumption that a decrease in paid work for children is positive for well-being, there is also some evidence of a gender bias in the impact, which can potentially lead to worse outcomes for female children. To the best of our knowledge, this is the first paper to study the impact of political reservation for SC and ST members on these specific well-being outcomes of households in Indian states.

In the second paper “Can Elected Minority Representatives Affect Health Worker Visits? Evidence from India” (published in Review of Development Economics, 2017), we examine the relationship between SC and ST elected representatives and health worker visits in rural India using multiple rounds of Rural Economic and Demographic Survey (REDS) data. Absenteeism among teachers and health workers plagues public provision of education and health in India. In this context, we find that when the representatives belong to STs, the frequency of visits by both doctors and mobile medical units rises. On the other hand, the frequency of visits by mobile medical units tends to reduce when representatives are from SC. We speculate that part of the explanation is the political patronage provided by SC representatives for the vote bank politics in Indian states.

Given my thematic emphasis on mandated political representation to disadvantaged groups, my research also addresses reservations given to women in political office and the impact of such reservation. Under-representation of women in political positions relative to their population share is a well-known policy challenge.\(^7\) In order to address the gender gap in women representation at the grassroots level, one of the landmark constitutional amendments the Indian government made, is the 73\(^{rd}\) Amendment in 1992 that paved the way to political decentralization and increased participation of women in local governance. The new policy mandates Indian states to hold an election at the panchayat level, the lowest tier of governance, every five years and reserve at least one-third of the seats for women.\(^8\) In a project with Santosh Kumar, I study the impact of political decentralization and gender quota in local governance on different measures of health outcomes in the paper “Effect of Political Decentralization and Female Leadership on Institutional Births and Child Mortality in Rural Bihar” (forthcoming in Social Science & Medicine). We find that political decentralization is

\(^{1}\) http://voxeu.org/article/indian-politics-redistributive-effects-political-reservation-minorities
\(^{2}\) http://www.ideasforindia.in/article.aspx?article_id=81
\(^{3}\) http://www.economist.com/blogs/banyan/2013/06/affirmative-action
\(^{6}\) Elizabeth Kaletski is a former advisee at University of Connecticut.
\(^{7}\) As of 2016, only 22.8 percent of all national parliamentarians were women, a slow increase from 11.3 percent in 1995.
\(^{8}\) Panchayat is a cluster of villages in rural areas and is the lowest-level of administration.
positively associated with higher probabilities of institutional births, safe delivery, and births in public health facilities in Bihar, a state of India and one of the poorest regions in the world. We also find increased survival rates of children belonging to richer households.

Findings from these papers show that politicians, elected in open elections, do not always represent the interests of the median voter and changing the identity of the elected officials does make a difference to policy outcomes.

I summarized the body of research papers on political quotas in a survey paper commissioned by the United Nations University with Elizabeth Kaletski. In the paper “Affirmative Action Policy in Developing Countries: Lessons Learned and Way Forward” (published in UNU-WIDER Working Paper 52/2016), we argue that the empirical evidence so far provides multiple channels through which political reservation policies can reduce inequities and inequalities in Indian society. It has become increasingly obvious that some constraints faced by disadvantaged groups are outside the scope of affirmative action policies, and they should incorporate complementary policies that relax these existing constraints and enable disadvantaged groups to be represented without any affirmative action in long run.

b. Employment Quotas for Disadvantaged Groups and Economic Development

The Indian constitution employs world’s biggest and arguably most aggressive employment-based affirmative action policy to address the low representation of minorities – the SCs and STs – in public sector jobs. In the working paper “The Impact of Employment Quotas on the Economic Lives of Disadvantaged Minorities in India”, I use multiple rounds of nationally representative household data from India to estimate the effects of this affirmative action policy for minorities on their labor market and children’s outcomes. I find that employment quotas benefit SCs—increasing the share of jobs set aside for SCs significantly increases the probability of acquiring a salaried job, household consumption expenditure, children’s school enrollment, and decreases the incidence of child labor. Contrary to the notion that it was the “creamy layer or the elite” who captured the benefits, I find that the employment quota policy benefitted the SCs who have low education (i.e. completed below secondary schooling). These effects are more mixed for STs; possibly the benefits are less for them because of the greater mismatch between where STs tend to live and where public-sector jobs tend to be located. Prior to this, no one had quantified the causal effects of the policy of ‘setting aside a share of public sector jobs for historically disadvantaged minorities’ on their labor market outcomes, despite this policy being publicly debated all around the globe.

Related to this, in joint work with Larry Howard titled “Do Employment Quotas Explain the Occupational Choices of Disadvantaged Minorities in India?” (published in International Review of Applied Economics, 2012), I investigate the effects of the above-mentioned employment quota policy for disadvantaged minorities (SCs and STs) in India on their occupational choices, as defined by skill level, during the 1980s and 1990s. We find that, the employment quota policy significantly affects the occupational structure of both disadvantaged minority populations. In response to the employment quotas, individuals belonging to the SC group are more likely to choose high-skill occupations and less likely to choose low- and middle-skill occupations, while individuals belonging to the ST group are less likely to choose high-skill occupations and more likely to choose low- and middle-skill occupations. Overall, the results indicate that the employment quota policy changes the occupational choices of individuals within the targeted populations and contributes to their improved socio-economic standing. Given the low occupational mobility in India, the results suggest that
affirmative action in the labor market is a potential mechanism to change the occupational mobility among disadvantaged minorities in India.

Findings from my research papers on India’s employment quota policy have direct policy implications, especially when the federal government is contemplating extension of such policies in the private sector, or to other caste members.

2. Schooling in Developing Countries: The Roles of Supply, Demand and Government Policy on Well-Being

There has been a dramatic increase in enrollment, particularly at the primary level since 1980 in developing countries, but this still remains a challenge at secondary and above level. For example, the gross enrollment rates at the primary level are at or above 100-percent everywhere except in the Sub-Saharan Africa. There exists, however, a wide variation at the secondary level, with the highest being 76-percent in East Asia and Pacific and lowest being 36-percent in Sub-Saharan Africa (World Bank 1998, 2012b). Similar trends exist with school completion and access. Moreover, there remains substantial gaps between rich and poor, between rural and urban households and between males and females. To address these gaps, policy makers have introduced various programs that target poor children or girls. While such programs are often well intentioned, it is not obvious that it would reach the intended beneficiaries. Similarly, translating gains in enrollment into learning and skills remains extremely challenging and the evidence from various interventions are mixed.

I work on several inter-related questions that aim to address the gender gap in enrollment and school attendance at the secondary level and understanding how various factors such as learning, skills and occupation choices affect the well-being of an individual.

a. Male-Female Schooling Gaps

In a project with Karthik Muralidharan, I evaluate the impact of an innovative government program in the Indian state of Bihar (launched in 2006) that aimed to improve secondary school access for girls without additional school construction. In the paper “Cycling to School: Increasing Secondary School Enrollment for Girls in India” (forthcoming in American Economic Journal: Applied Economics), we study the impact of this program that aimed to reduce the gender gap in secondary school enrollment by providing girls who continued to secondary school with a bicycle that would improve access to school.

The policy intervention mimics a unique hybrid of a demand and supply side intervention, where the conditionality resembles a typical conditional cash transfer while the bicycle reduces the distance cost and increases the access to schools. Using data from a large representative household survey, we employ a triple difference approach (using boys and the neighboring state of Jharkhand as comparison groups) and find that being in a cohort that was exposed to the Cycle program increased girls’ age appropriate enrollment in secondary school by 32-percent and also reduced the gender gap in age-appropriate secondary school enrollment by 40-percent. Most importantly, the non-parametric decomposition of the triple-difference estimate as a function of distance to the nearest secondary school has an inverted-U shape, suggesting that the mechanism for program impact was the reduction in the time and safety cost of school attendance made possible by the bicycle. We also find that the Cycle program was much more cost effective at increasing girls’ enrolment than comparable conditional cash transfer programs in South Asia.
Nishith Prakash, *University of Connecticut*

From a policy perspective, it is worth highlighting that we evaluate an “as is” implementation of a program that was scaled up across a state with over 100 million people, and a history of high levels of corruption in public programs. Thus, this may be a promising policy option to boost female secondary school enrollment in other developing country settings as well.


As discussed earlier, several countries in Sub-Saharan Africa face similar challenges, including access and school attendance. In a work in progress “Wheels of Change: Impact of Cycles on Female Education and Empowerment in Zambia” with Nathan Fiala and Kritika Narula, we are conducting a large-scale randomized control trial (RCT) in Zambia, funded by *Union Bank of Switzerland* and *World Bicycle Relief* that aims to address school access, attendance and learning outcomes. This RCT includes multi-treatment arm evaluation design at the school level, where girls in the first treatment arm receive bicycles. This mimics the NGO model that includes high monitoring. In the second treatment arm, girls receive the bicycles; however, there is no monitoring. The objective here is to understand the extent to which one needs to monitor in the context of both conditional cash and kind transfers programs. This is particularly important from a policy perspective where government interventions involve large monitoring costs.

Through this RCT, we aim to estimate both the short and long run impact of this intervention. In the short run, we will estimate the impact on girls’ school attendance, learning, and dropout. In the long run, we will estimate the impact on girls’ aspiration, mobility, fertility, bargaining and empowerment. Evaluating these long run impacts is particularly important, as scholars of the history of women’s empowerment in the United States have also noted the important role played by the bicycle in this process. This historical perspective suggests that the Cycle program may be especially well designed for empowering young women by increasing their mobility and independence in a deeply patriarchal society in developing countries.

### b. Student Behavior and Learning Outcomes

In two ongoing research projects, we borrow tools from the psychology literature to study the impact on student effort and learning outcomes. In the project “Goal Setting and Student Effort” in collaboration with Asadul Islam, Sungoh Kwon and Shwetlena Sabarwal, I study the role of goal setting on student effort and test scores in a school level field experiment in Zanzibar (Tanzania) in collaboration with Ministry of Education and the World Bank. In this RCT, the treatment schools

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¹² [http://economiclogic.blogspot.co.uk/2013/10/give-girls-bicycle.html](http://economiclogic.blogspot.co.uk/2013/10/give-girls-bicycle.html)


¹⁷ [http://www.thehindu.com/opinion/op-ed/it-works-better-in-kind/article5180150.ece](http://www.thehindu.com/opinion/op-ed/it-works-better-in-kind/article5180150.ece)

were randomly placed into goal-setting groups wherein each Grade 7 student is set a specific competitively self-referenced target for an upcoming achievement test in Math or into the control group where students were not asked to set any goals. Our preliminary findings suggest a positive and significant impact on student effort as measured by whether the group studies more than 30 mins/day. We also find interesting heterogeneity by student gender, aspiration, self-control, motivation and goal-intention.

The second work in progress “Habit Formation and Self-Control in Study Effort” with Gautam Rao and Anett John aims to understand whether a lack of student motivation and effort is responsible for the poor levels of learning outcomes. A possible reason comes from the research in behavioral economics and psychology: present bias or limited self-control. This project tests whether external incentives can increase student effort, whether increased effort translates into better learning outcomes, and whether the effects persist after the incentives are removed. We will structure incentives specifically to work effectively for students with limited self-control, to increase effort in the short-run, and to develop self-regulatory capacity and good study habits in the long run. Currently, we are considering both India and Sub-Saharan Africa for the field experiment.

c. Returns to Language Skills, Occupational Choice and STEM Major

Although policy makers tend to focus on labor market outcomes, pecuniary returns on educational investments such as language skills and major choice depend on costs as well as future earnings. Therefore, estimating such returns is important from both individual and policy maker perspective as it can help them decide how much to invest in these skills. Through a series of research papers, I attempt to estimate the returns to English language skills, STEM major and occupational choice in India.

In collaboration with Aimee Chin and Mehtabul Azam, I study the highly debatable question of promoting a globally accepted language such as English in the context of India. It has always been believed that there are sizable economic returns to English-language skills in India, but these returns were not quantified due to lack of data containing measures of both earnings and English-language ability. In the paper “The Returns to English-Language Skills in India” (published in Economic Development and Cultural Change, 2013), we provide the first estimates of the economic returns to English-language skills in India. We use the India Human Development Survey-2005 to quantify the effects of English-speaking ability. We find that being fluent in English (compared to not speaking any English) increases hourly wages by 32-percent, which is as much as the return to completing secondary school and half as much as the return to completing a Bachelor’s degree. Being able to speak a little English significantly increases hourly wages by 12-percent. Our paper highlights the relationship between English language and its returns. We also find strong evidence of language-skill complementarity, with more experienced, educated and able workers receiving a higher return to English-language skills.

The results of our paper were disseminated to a larger audience through an op-ed for VOX and Ideas for India. The findings were subsequently discussed by the media advisor of the ex-Prime

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19 http://voxeu.org/article/it-pays-speak-english
20 http://www.ideasforindia.in/article.aspx?article_id=196
Minister of India, Dr. Manmohan Singh and cited by leading newspapers in India, including *The Business Standard*\(^{21}\), *Daily News & Analysis*\(^{22}\), *The Economic Times*\(^{23}\) and *The Financial Times*\(^{24}\).

In a country like India, a sizable proportion of the labor force is employed in the public sector. The returns to these public sector jobs therefore form an important component in understanding the labor market. In the paper “*A Distributional Analysis of Public-Private Wage Differential in India*” (published in *LABOUR, 2015*) with Mehtabul Azam, I study the returns to working in public vs. private sector in India. It is often argued that the government employees are underpaid compared with similarly skilled private sector employees, especially at top end of the distribution. Therefore, we attempt to shed light on this debate by examining the public-private wage differential among men in India across the entire wage distribution using a quantile regression-based decomposition technique proposed in Machado and Mata, 2005. Our findings suggest that the public-private wage differential among male workers is positive across the entire wage distribution in both urban and rural India. Contrary to the popular belief, we do not find evidence of double imbalance in India, as the wage premium enjoyed by public sector workers is positive across the entire distribution.

In an ongoing work, I delve further into labor supply choices in linking human capital decisions to economic returns. In the project “*The Returns to High School STEM Choices in India*” with Tarun Jain, Abhiroop Mukhopadhyay and Raghav Rakesh, I estimate returns to studying STEM majors. Approximately 25-percent of students enrolled in high school study science, while the remaining study social science. After controlling for other covariates, including measure of ability (grades in a nationwide exam), we find that students studying STEM earn 13-percent more hourly wages than the ones studying social science. We find interesting heterogeneity by students’ ability, English language and computer skills.

d. Drivers of Stream and Career Choice in India

Given the importance of career choices in determining economic returns, the obvious corollary is whether students take these returns into account while choosing their streams. My ongoing project on “*Understanding Career Choice in a Developing Country: Reading the Mind of High School Students in Cities of India*?” with Tarun Jain and Abhiroop Mukhopadhyay aims to understand why school going children study what they study? For example, one objective of this project is to understand the process by which students choose their stream and career paths. In particular, what are the factors that play a role in the decision-making process? Are students actively thinking about how their future career will affect future expected earnings or close sectoral supply-demand gaps? On the other hand, are non-market factors, such as peer effects, stigma, or prestige, playing a larger role in the choice process? Answering these questions are extremely important in the field of development economics as they are far under-studied. We are not aware of any study that aims to answer these questions in India.

\(^{22}\) http://www.dnaindia.com/analysis/interview-in-india-it-pays-literally-to-speak-english-1426390
This project looks specifically at students in secondary or higher secondary schools in smaller cities in India because this group is likely to have less information pertaining to the labor market. We look at demand for careers, by focusing efforts to understand how students make the transition into college majors and the underlying factors that influence this decision. A selected group of students in grade 12 will participate in a survey examining both wage and non-wage drivers of stream and career choices. Non-wage factors include risk aversion, ambiguity aversion, stigma and prestige, lack of information, personal aspirations, and household expectations. The survey will be completed in July 2017 and we anticipate designing an intervention based on the findings in 2018-2019.

e. School Lunch Subsidy and Children’s Well-Being

In a different context, yet within the same theme of policy interventions in education, Larry Howard and I study the impact of the US’s school lunch subsidy program on children’s consumption patterns in the paper “Do Means-Tested School Lunch Subsidies Change Children’s Weekly Consumption Patterns?” (published in Contemporary Economic Policy, 2012). In this paper, we examine whether the means-tested component of the National School Lunch Program changes beneficiaries’ dietary patterns by taking advantage of variation across public school districts in the financing of and demand for lunch and nutrition programs. Using data on fifth grade public elementary school children in the Early Childhood Longitudinal Study-Kindergarten (2003-2004), we find significant increases in weekly rates of consumption amongst fully and partially subsidized children. Our estimates suggest that the increase was for items that were rich sources of vitamins and minerals, essential for children's health and development. The effects are larger for fully subsidized children relative to partially subsidized children, which suggests the nominal price of school lunch is a binding constraint for certain children on the margin of eligibility for the subsidies. To the extent that children from low-income households’ experience undernourishment with greater frequency, policy discussion focusing exclusively on the link between obesity and program participation is overlooking positive effects on those who are directly subsidized.

3. Political Economy of Development

It is often argued that the effectiveness of government policies hinges critically on its political leadership and the bureaucracy – institutions that are important agents of change. To understand how these impact measures of economic development led me to examine three inter-related projects. In the first project, I examine the role of politicians’ quality on measures of economic activity. In the second project, I attempt to understand what factors contribute to effective governance and consequently leading to crime reduction and economic growth. Finally, in the third project I am exploring the role of social ties in bureaucratic corruption. All three projects are in collaboration with other researchers.

a. Elected Representatives and Economic Outcomes

There is a growing body of research on preferences over politician types and how to fight the selection of corrupt politician, all with the implicit assumption that such leaders are bad for their constituencies. We answer this important question by presenting the first quantitative estimates of the ‘economic costs’ of electing criminally accused politicians to state assemblies in India.

In the paper titled “Do Criminally Accused Politicians Affect Economic Outcomes? Evidence from India” with Marc Rockmore and Yogesh Uppal, I study the costs of electing criminally accused politicians in India using constituency level data on the intensity of night-time lights and the sworn
affidavits of candidates on their criminal background.\textsuperscript{25} Using a regression discontinuity design, we find a large negative impact as the yearly growth of the intensity of night lights is roughly 22\%-percentage point lower for constituencies that barely elect a criminally accused candidate as compared with those that do not. Using estimates of the elasticity of GDP to light, we find that the election of criminally accused candidates lead to roughly 2.3\%-percentage point lower GDP growth per year on average. More importantly, it appears that the results are largely driven by candidate accused of serious and financial crimes and from states with low levels of economic development and high corruption. We find similar results for the provision of public goods using data on India’s major rural roads construction program.

We believe this paper makes important contributions to the broader understanding of the costs of electing lower quality politicians in patronage democracies. One manifestation of a patronage democracy is the election of politicians who are able and willing to provide targeted benefits (Burgess et al. 2015). These benefits could be targeted based on caste as in India (Chandra 2004), class, or ethnicity in other contexts. Therefore, instead of focusing on the overall outcomes (such as the delivery of public goods), voters focus on whether politicians can deliver targeted transfers to their specific group or caste. Not only are voters perhaps more likely to overlook accusations but these accusations might serve as a signal of the politician's willingness to use the office to reward fellow-group members (Chauchard 2014, Wade 1985). Therefore, in such democracies, criminally accused politicians may be especially detrimental for economic development and public goods delivery.

We followed up this paper with an op-ed on our findings for VOX\textsuperscript{26} research and Ideas for India\textsuperscript{27}.

To understand why Indian voters elect criminally accused politicians, in ongoing research with Simon Chauchard and Nitin Bharti we are attempting to “decompose” criminality of the candidate. In particular, we are interested in estimating whether politicians accused of serious crimes actually reduce petty criminality.\textsuperscript{28}

\section*{b. Fundamentals of Crime Reduction and Effective Governance (works in progress)}

The importance of crime in determining a country’s economic development has long been recognized in both academic and policy-making circles (Stone 2006). Understanding institutions related to crime and their impacts are therefore important. Identifying causal link requires discontinuous jumps -- episodes when one outcome show dramatic change. A remarkable turnaround in crime in the Indian state of Bihar offered my collaborators and me precisely such an opportunity to try to understand the fundamentals of crime reduction and effective governance.\textsuperscript{29} Since crime data at the police station

\textsuperscript{25} This paper is under review at Journal of Development Economics.\textsuperscript{26} http://voxeu.org/article/economic-consequences-accused-politicians-india\textsuperscript{27} http://www.ideasforindia.in/article.aspx?article_id=1567\textsuperscript{28} There is an argument in the crime literature that when a strong person with extra-judicial violence is in power, some criminals exercise restraint.\textsuperscript{29} For much of its post-colonial history, state of Bihar in India has struggled with violent crime, corruption, communal violence, and low economic growth. However, even since 2005, the state has experienced a “remarkable recovery” (The Economist, 2010; BBC, 2010). Strikingly, Bihar’s turnaround after 2005 was marked by a dramatic and fast improvement in law and order: road robbery decreased by 15\%-percent between 2004 and 2008, murders dropped by 6\%-percent and kidnapping went down by 37\%-percent over the same period (Das Gupta, 2010). The
level is seldom available in both developed and developing countries, along with my co-authors Oliver Vanden Eynde, Clement Imbert and Chinmaya Kumar, I undertook a unique data collection exercise in order to answer a set of questions in the project “Ending the Jungle Raj: Political Change and Crime Reduction in India”.

Our project aims to understand the mechanisms through which Bihar’s political change enabled this swift improvement in law and order. The political changes in 2005 led to a variety of measures and changes that could have led to improved crime outcomes: (i) the introduction of speedy trials and more effective use of the Arms Act; (ii) possible improvements in personnel management at the district police chief level; (iii) the loss of political protection for existing criminal gangs; (iv) increased economic opportunities for (former) criminals, through road construction. Interestingly, the drop-in crime that Bihar experienced after 2005 was far from evenly spread across Bihar (State Crime Records Bureau, 2012).

Our study of Bihar’s improvement of law and order adds to a growing economic literature on the effectiveness of crime reduction strategies (e.g., Dills et al., 2008). Most of this work has focused on industrialized economies and it typically analyses the introduction of specific laws or changes in police presence. As part of our project, we aim to explore channels that appear to have been more important in the context of Bihar and would also be relevant for territories that suffer from the double curse of low economic growth and poor law and order.

We test the various stated hypotheses using a unique data set that required building a repository of crime data for each police station across all districts in Bihar from 2001-2013. The importance of this exercise can be gauged by the collaboration of the Bihar State Police in building this massive database. For the first-time ever, our project consolidates data at the sub-district level and exploit the variation in crime outcomes in order to assess which of the stated policy changes can account for these regional differences in crime reduction. Crime statistics are only systematically published at the district level. However, crime outcomes could differ widely within districts and several key determinants of the crime environment (including the political context and investments in infrastructure) vary at a more local level. Our unique data set also collects information on demographic details and assets for politicians and police officers. Since we are interested in economic outcomes and very few household surveys provide information at below district level, availability of data is a huge challenge. Consequently, we also collected two unique data sets. First is a data on petrol and diesel purchases at the gas station level and second is data on formal and informal firms at the zip code level.

In this project, we attempt to back-engineer Bihar’s reduction in violent crime by exploring a set of plausible mechanisms. Our project uses geographical and temporal variation in crime and relates it systematically to the timing and the intensity of the different explanatory factors. The exact identification strategy depends on the mechanism under consideration.

international press and domestic policy makers alike cited the return of law and order as a major cause of Bihar’s recently improved economic fortunes. Therefore, evidence on the effectiveness of Bihar’s different crime reduction strategies is particularly relevant to understand the sources of the state’s growth miracle.
First, to assess whether speedy trials contributed to the crime reduction, we use the fact that districts’ ability to implement speedy trials after 2005 depended on the initial density of the court network. A difference-in-differences estimate of the effect of initial court density on the number of speedy trial cases acts as a first stage in an IV regression of crime outcomes on the number of speedy trial cases.

Second, to assess whether improved personnel management led to improved crime outcomes, we assess whether more effective officers (as proxied by their pre-2005 records) were matched to high-crime districts, and whether the predicted quality of district police chiefs was responsible for the observed reduction in crime.

Third, to investigate whether crime reduction benefited from the rupture of political protection, we look at whether the constituencies in which an incumbent lost power were those constituencies in which the improvement in law and order was most marked.

c. Social Ties and Bureaucratic Corruption (work in progress)

There is a well-established negative correlation between corruption and economic growth (See, for example, Mauro, 1995). Conceptually, many channels have been identified. Olken et al. (2011), for example, categorizes the economic consequences of corruption as coming from its impact on firms; its impact on the government’s ability to correct an externality; and by its impact on the government provision of goods and services. I focus on understanding corruption through the study of the Indian bureaucracy – an institution which is central to the provision of government goods and services. In my ongoing research project “Social Ties and Bureaucratic Corruption” with Ray Fisman, I aim to estimate the role of social ties on corruption among bureaucrats in India. We use a unique data set on the random assignment of a bureaucrat to the Indian states and his/her self-reported asset.

In most cases, corruption requires the complicity of others to facilitate the exchange of bribes or favours for preferential treatment by officials. For precisely this reason bureaucrats in many countries experience frequent rotation and a similar reasoning may dictate that officials be posted outside of their home regions, to prevent bureaucrats from tapping existing networks of social and familial ties which may facilitate illicit favour exchange (See Rose-Ackerman and Palifka, 2016). It is natural, then, to ask how social ties – potentially the source of trust as well as social sanction – impact corruption. In particular, understanding the role of social ties in facilitating (or hindering) corruption should help governments to design assignment rules to minimize bureaucratic corruption, and in turn improve government efficacy.

Theoretically, the effect of social ties on corruption can go in either direction. On the one hand, social connections may facilitate illicit favour exchange which requires trust. However, social pressure can also facilitate enforcement for shirking or dishonesty, and outsiders may be relatively immune to such pressures. It is thus important to develop empirical evidence on which effect dominates.

In studying social ties and corruption in the Indian Administrative Service (IAS) and the Indian Police Service (IPS), we will be contributing to a small but growing empirical literature on the causes and consequences of corruption (See Olken and Pande, 2012 for an overview). To our knowledge, there is no existing work on the specific channel that is our focus here. The information on several aspects of the IAS and IPS that we propose to collect make them particularly well-suited to the task. First, since 2015, officials in both services have been required to disclose their assets, which allows us to measure rates of (potentially suspicious) wealth accumulation. Furthermore, the randomness in
the assignment of officials to postings – which sometimes leads to placement in home states and sometimes in distant ones – allows us to credibly identify the causal effect of home state placements. Bertrand et al. (2015) use the quasi-experimental assignment of IAS officers to study how individual characteristics of bureaucrats impact the organization’s effectiveness. They do not examine corruption, nor do they consider the home state assignment question that we aim to examine. We thus view this ongoing research as contributing to an important and understudied phenomenon.

4. Household Behavior and Social Practices

Understanding household behavior in response to social practices like signaling status through consumption and marriage payments is important as it directly affects their welfare by altering the resource allocation. In addition, these responses also shed light on households’ consumption and saving behavior.

In a paper “Consumption and social identity: Evidence from India” (published in Journal of Economic Behavior & Organization, 2012) with Melanie Khamis and Zahra Siddique, I examine spending on consumption items which have signaling value in social interactions across groups with distinctive social identities in India, where social identities are defined by caste and religious affiliations. Using nationally representative micro data on household consumption expenditures, we find that disadvantaged caste groups such as Other Backward Castes spend 8 percent more on conspicuous consumption than Brahmin and High Caste groups while social groups such as Muslims spend 14 percent less, after controlling for differences in permanent income, household assets and household demographic composition. Most importantly, we find that the higher spending of OBC households who are relatively poor on visible consumption is diverted from education spending, while Muslim households divert spending from visible consumption and education towards greater food spending. Additionally, we find that these consumption patterns can be partly explained as a result of the status signaling nature of the consumption items.

Our work also has policy importance in the debate on how economic growth can be inclusive for disadvantaged social groups. In particular, giving cash transfers/cash benefits to these groups might not lead to spending on education and health but also on visible consumption. So, for this context, vouchers may be preferable to cash transfers.

In another paper “Dowry: Household Responses to Expected Marriage Payments” (working paper) joint with S Anukriti and Sungoh Kwon, I study household response to an important social practice – marriage payments -- in India. A key feature of these marriages is bride-to-groom (dowry) or groom to- bride (bride price) payments at the time of marriage. In particular, we examine the impact of dowry payments on savings, labor supply and investments in human capital in India. Dowry payments are large and have the potential to affect the wealth distribution across generations and families.

Theoretically, the effect of expected future dowry payments on savings, labor supply, and child investments is ambiguous. In an inter-temporal utility maximization framework, new information about future income should lead to immediate adjustments in the optimal consumption path. But this might be muted by credit constraints. Moreover, for a given expected dowry amount, parents of a daughter who foresee higher returns to female education (or health) on the marriage and labor markets, may increase savings by a lesser amount and may instead invest more in the daughter’s human capital, relative to parents who foresee lower returns to female HCI.
Using the 2006 Rural Economic and Demographic Survey (REDS) of India and plausibly exogenous variation generated by the interaction of expected dowry and the gender of the first born, we find that as expected dowry increases, firstborn girl (FG) families significantly increase per capita savings by 56-percent relative to firstborn boy (FB) families. There is no significant change in FB households’ savings when they expect to receive higher dowry implying the presence of credit constraints. Contrary to the conventional beliefs, we find a significant negative impact on jewelry saving among FG and FB families. In addition, we find that dowry shock causes FG fathers to work 2.5 percent more relative to FB fathers. In both cases, we find the results to be driven by richer households that are less credit constraint. Lastly, we do not find that the effect of dowry payments on children’s education expenditure is statistically significant.

5. Constitutional Rights, Girls Trafficking and Measures of Economic Development

Constitutions rights are the most important determinants of political institutions in any country. They establish the form of government, define the electoral system, specify the rights and obligations of the population, and stipulate the extent to which property (and other) rights are protected. Equally important is the language of the constitutional rights, i.e. enforceable law vs. directive principles (non-enforceable law). In the paper “The Role of Constitutions on Poverty: A Cross-National Investigation” (forthcoming in Journal of Comparative Economics) with Lanse Minkler, we ask a straight-forward yet unanswered question: do constitutional provisions on economic and social human rights reduce poverty? We implement the empirical strategy by constructing a novel historical dataset on constitutional rights for 195 countries. The data include all economic and social rights identified in the Universal Declaration of Human Rights. Crucially, we further differentiate rights that use the language of desirable policy goals from those worded as enforceable law. The main explanatory variables and indices are constructed from this new data, and our main result suggests a negative and statistically significant relationship between economic and social human rights framed as enforceable law and poverty.

The general policy conclusion, therefore, is that those who are interested in headcount poverty reduction should not waste time and energy on amending constitutions with directive principles, but should instead focus solely on enforceable law provisions. Through this paper, we contribute to the emerging empirical literature on the effects of constitutions.

In a related paper “Does Constitutionalizing Economic and Social Rights Promote their Fulfillment?” (published in Journal of Human Rights, 2016) joint with Elizabeth Kaletski, Lanse Minkler and Susan Randolph, we explore whether constitutional provisions promote fulfillment of economic and social rights. The empirical work is accomplished by combining unique data on both enforceable law and directive principles with the Social and Economic Rights Fulfillment Index (SERF Index), which measures government fulfillment of such rights. We find that there is a positive and significant correlation between enforceable law provisions and the right to health and education components of the SERF Index. The strongest relationship appears to be for the right to health component where as the inclusion of an enforceable law provision on economic and social rights in the constitution is correlated with an increase in the health component by 9.55, or 13.0-percent, on average. These results support the idea that constitutional provisions may be one way to improve economic and social rights outcomes.

Related to issues in human rights, in a joint work “Girls for Sale? Child Sex Ratio and Girls Tracking in India” (R&R at Feminist Economics) with Krishna Vadlamannati, I examine if a skewed
sex ratio and shortage of girls is associated with their illegal tracking in India using panel data from 29 Indian states from 1980-2011. While considerable volume of research in the past focused more on understanding the causes of child sex ratio imbalances in India, very little is known about its perverse consequences, particularly on violence against women. In this paper, we attempt to fill this gap in the existing literature. We find a positive relationship between child sex ratio and girls trafficking. This association varies differentially by share of female empowerment, crime against women, and party rule in the state.

Policy Impact

My work on education and crime had led to a deep policy engagement with the highest echelons of the Government of Bihar. I have worked very closely with the Education Ministry in Bihar by providing feedback on their existing policies and currently on policies related to career counselling and skill development among high school students. Due to my work on education in India, I was invited to write a background paper “The Impact of Change in Primary Completion Rate on Learning Outcomes in India” for UNESCO’s Education for All Global Monitoring Report 2015. For the crime project, we worked very closely with the State Police Chief and the Crime Investigation Department of Bihar Police on ways to better understand crime data. Currently, I am collaborating with the Ministry of Education in Zambia to evaluate the long-term impact of providing bicycles to adolescent girls on their educational outcomes.

Teaching and Advising

I have gained invaluable teaching experience at the University of Houston, Ohio University and Dartmouth College. At the University of Connecticut, I teach an undergraduate course in Development Economics, where, I focus on micro-issues in development economics and cover a broad array of topics such as Poverty, Education, Health, Child Labor, Micro-insurance, and Political Economy. In this course, I have introduced the role of field experiments and their contributions in answering important policy questions. To crystalize the theoretical concepts learned in the course, towards the end of the semester, my students work on a research topic that involves data collection and rigorous statistical analysis using STATA.

I have also designed two new courses at the University of Connecticut – Ph.D. level Development Economics and an undergraduate course on Foundations of Gender Inequality. The Ph.D. course in Development Economics provides an overview of the current literature on the microeconomics of development in poor countries. On the methodological side, it equips the students with strong foundation in econometric techniques that researchers use to identify causal relationships. The course on Foundations of Gender Inequality covers four inter-related topics: Gender Gap in Employment, Education, Health and Political Empowerment. I have thoroughly enjoyed teaching this course and learned a lot especially from its interactive format that includes class presentations, and extensive and lively discussions.

For my teaching skills, I received commendation from the Provost in the spring of 2015 and won the Grillo Family Award for Excellence in Teaching, 2016. However, the most satisfying experience for me has been the quality of feedback I received from my students about this course.

Some student comments:
“I truly enjoyed this class. It has made me think about economics and society in a way that I never have before and I have been impacted personally after having taken this class.”

“I appreciate everything you have shared especially with your own research. I feel that this class has opened my eyes to a lot of these issues that I never thought about before. I also learned a lot from reading all the research papers and I enjoyed studying them. Because of that I decided to work for CCEA as a student research analysis over break to explore more. Thanks for a great semester!”

I have been advising both undergraduate and graduate students and have placed them at promising Ph.D. programs, tenure-track positions at research universities, teaching institutions as well as in the private sector. At the University of Connecticut, I advised Archita Banik who accepted a tenure track job at Bloomsburg University of Pennsylvania, Elizabeth Kaletski who successfully secured a tenure track position at Ithaca College and Zheng Zu who is now a Post Doc. at Harvard University. Currently, I am actively advising three Ph.D. students where I am the primary advisor to Sungoh Kwon. I have also been an external advisor for Ph.D. students at University of Houston, Indira Gandhi Institute of Development Research and the University of Cape Town.

To expose the undergraduate students to real world application of economics, I offer a research assistant (RA) program in data analysis, facilitated through my grants and support from my department. While some of the former RAs enrolled in graduate school, others accepted positions in government and the private sector. For example, Lilian Cheung joined North Carolina State University in the Ph.D. program in Economics, Maxwell Aliapoulios joined Tandon School of Engineering at New York University, Alejandro Perez-Segura joined the RA program at Federal Reserve Board, Gregory D. Keiser worked at Melissa & Doug (currently doing MBA at the Hass School of Business), and Tasneem Ahmed will be joining Accenture. This initiative has been received well and appreciated equally by my students and colleagues. Since the majority of my projects require fieldwork in India, Zambia, Kenya and Zanzibar, I have a small team of RAs and field managers located in these countries. I have successfully placed some of my former RAs in top ranked graduate programs. For e.g. Bhanu Gupta at the University of Michigan in the Ph.D. program in Economics and Nitin Bharti at Paris School of Economics in the Masters in Analysis and Policy in Economics.

Service to the Profession

I have expended some energy and effort over the past five years to ensure that my research has an influence on development practitioners and policy makers. I have generated over $1 million in grants to answer research questions that can directly feed into policy. I was invited to contribute a chapter for the UNESCO’s 2015 Education for All Global Monitoring Report, and write a review paper on Affirmative Action Policies in India for UNU-WIDER, an Institute of United Nations University. I write frequently for widely read research sites like Ideas for India and VoxEU. My work has also been featured in many media outlets including The Economist, The Financial Times, The Atlantic, The Feminist, Marginal Revolution, Livemint, Development in Action, National Affairs, The Times of India, The Hindu, World Bank Development Impact Blog, World Economic Forum, The Economic Times, Business Standard, Hindustan Times.

In addition, I have engaged in the usual service activities for University of Connecticut and for the profession, reviewing internal and external grant applications, and refereeing for over 20 journals, and editing a new journal in Development Economics (Economies).