

# NATASHA JHA

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## EDUCATION

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Ph.D., Applied Economics and Management, Cornell University, 2018-2023 (Expected)

M.S., Applied Economics and Management, Cornell University, 2021

M.A., Economics, Delhi School of Economics, 2014

B.A. (Honours), Economics, University of Delhi, 2012

## RESEARCH INTERESTS

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**Fields:** Development, Labor, Environmental Economics

**Topics:** Gender, Program Evaluation

## PUBLICATIONS

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**Alcohol Ban and Crime: The ABC's of the Bihar Prohibition** (Kalyani Chaudhuri, Natasha Jha, Mrithyunjayan Nilayamgode and Revathy Suryanarayana), Forthcoming, *Economic Development and Cultural Change*

We studied the relationship between alcohol consumption and crime using the implementation of a statewide total prohibition of alcohol in the Indian state of Bihar in 2016. Testing the theoretical argument that alcohol has differential effects on different kinds of crime, we used a difference-in-differences approach and found that the prohibition led to a 0.22 standard deviation point reduction in the reported incidence of violent crimes but had no significant impact on nonviolent crimes. The effect is fairly persistent over time, with the initial impact being large enough that, on average, there is a reduction in violent crime over at least a three-year period following the ban. Heterogeneity tests revealed that the effect on crime was stronger in interior districts and districts with higher baseline alcohol consumption. We also observed stronger effects in districts where a smaller proportion of the population faced religious restrictions on alcohol consumption. Since all these subgroups indicate districts where the ban is likely to have had a larger effect on alcohol availability and consumption, we conclude that the ban affects crime through this channel rather than that of institutional changes.

## RESEARCH PAPERS

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**Social Norms and Human Capital Investment: Examining the Educational Impacts of Dowry in Rural India (Job Market Paper).** Manuscript in preparation for submission at the *Journal of Development Economics*

This paper examines the consequences of sticky social norms for investments in human capital in the context of dowry payments and educational attainment. Using data from rural India I test for educational impacts of a change in dowry payments brought about by the 1985 amendment to the Dowry Prohibition Act. The empirical strategy uses a difference-in-differences design along with variation in exposure to the amendment by religion. Findings document a 18% reduction in education as well dowry paid for exposed females post amendment. Households that experienced the most change in dowry payments exhibit the largest declines in years of education. Dowry and education are considered as signals communicating adherence to traditional norms to explain these results. Declines in educational attainment increase with increases in enforcement capacity, consistent with a backlash against challenged social norms.

*Previously circulated as "Dowry and Human Capital Formation: Evidence from India"*

**Agriculture and Arsenic: Can over extraction of groundwater make us sick?**

This paper brings attention to an environmental externality that arises as a consequence of agricultural policies that supported the Green Revolution. While the expansion of irrigation was a significant factor in the success of the Green Revolution, there has been an overlooked impact of irrigation technology, which is the contamination of groundwater with Arsenic. Using historical geological variations in

aquifer depth to instrument for groundwater irrigation, I discover a higher incidence of Arsenic exposure beyond safety levels in areas with more extensive uptake of the Green Revolution. Drawing from insights in hydrology, I identify groundwater extraction for irrigation as the primary catalyst for Arsenic release in water sources, as opposed to alternative pathways such as fertilizer or pesticide usage. I also explore the implications of Arsenic exposure on fertility and infant mortality rates.

**Minimum Support Prices in Indian Agriculture: Supporting Whom and at What Price?** (Shilpa Aggarwal, Natasha Jha & Ishani Chatterjee)

While the distortions from price controls are well-understood in theory, these may be underestimated if the controls are captured for uses beyond fixing market failures. We study this issue in the context of minimum support prices (MSP), the government of India's procurement price of food grains. We find that when a district with a historically larger area under cultivation for a crop is slated to go for elections, the central government announces a higher MSP for that crop. Since government procurement price is the same across the country, the center uses this blunt instrument only when other policy instruments are unavailable, i.e., when the incumbent state government is not aligned with the center. Even small increases in MSP can have large welfare effects as the central government spent nearly 1% of the GDP on procurement in 2020-21.

**Gender differences in Tertiary Health Care Utilization: Evidence from India** (Tarun Jain, Natasha Jha and Revathy Suryanarayana)

We examine gender differences in access to and service within a publicly financed tertiary healthcare program in a developing country. Using claim-level administrative data from the program we estimate gender differences in access and services. We find that women on average experience shorter interactions with the healthcare system with fewer days between surgery and discharge, reduced hospital revisits, and are less likely to travel to seek healthcare. Further, we find women in childbearing years face the brunt of these differences and that public hospitals perpetuate these differences.

(Authors listed alphabetically with equal contributions for all papers)

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**RESEARCH IN PROGRESS**

**Like Mother, Like Daughter? The Impact of Mother's Work Experience on Daughter's Educational and Employment Aspirations: Evidence from WWII** (Natasha Jha, Giulia Olivero, Revathy Suryanarayana and Meredith Welch)

We examine the influence of mothers as role models on the math and science ability self-beliefs, preferences for STEM based education and career paths of adolescent girls in the United States. We propose to leverage the increase in mothers' employment during World War II, particularly in unconventional manufacturing jobs, as a historical shift in societal attitudes towards women's work in the United States. To construct variables to instrument for mothers' employment, we use historical data (1940s) on manufacturing, war mobilization, and casualty rates. Our outcomes are derived from the Project Talent database, a unique cohort panel dataset that captures career choice and subject-based interest scores of the 1942-1946 cohorts of high-school students. The empirical methodology will use an Instrumental variable approach and instruments for mothers' employment using wartime production, mobilization, and casualty rates.

**Can Confidence Boosts Attenuate Gender Stereotypes?** (Zihan Hu and Natasha Jha)

In this project we propose a lab-in-the-field experiment to explore the potential of confidence boosts in reducing self perceptions about gender stereotypes. The goal of the experiment is to examine whether providing "confidence boosts" can help to reduce gender stereotypes surrounding performance in STEM tasks among adolescent youths in India. Our approach involves using relative performance on tasks as a reference point and comparing subsequent performance levels for varying degrees of "confidence boosts". In our experiment, "confidence boosts" are gender-specific performance metrics (e.g., "you performed better than X% of boys on this task") and tasks are categorized as either "girls-oriented" (e.g., assembling a kaleidoscope) or "boys-oriented" (e.g., building a rocket), and vary in difficulty level. We are currently in the process of designing a randomized experiment to be conducted via a smartphone application with mixed-gender groups.

**De-stigmatizing Mental Health: Evidence from Police Personnel in India** (Natasha Jha and Nishith Prakash)

How does help-seeking behavior in the context of mental health varies by gender in a hyper-masculine work setting? Our proposed experiment will test the impact of different types of information about

mental health status on police officers' willingness to seek help for mental health issues. Specifically, we will examine the impact of personal information about one's own mental health status, information about the prevalence of mental health issues among other police officers of similar ranks, and the personalized or non-personalized nature of avenues of mental health counseling. We plan to conduct a clustered randomized experiment at the police station level across three Indian states, with a pilot scheduled for later this year.

### **Sterilization and Structural Change: Evidence from India** (Natasha Jha and Vrinda Kapoor)

We investigate the potential of a brutal and regime imposed mass sterilization program in India to bring about structural change. The 1975-76 sterilization program sterilized over 8 million men. According to news reports the sterilization camps were unsanitary and operations were rushed which resulted in casualties and lifelong disabilities that impacted labor market productivity. We posit that the reduction in agent productivity triggered a structural change on account of movement away from labor intensive occupations. We combine twenty years (1970-1990) of state level digitised records on sterilization targets and achievements from the Ministry of Health and Family Welfare yearbooks with census data on occupation categories to explore our hypothesis. Using a cohort by year analysis we explore if cohorts of men who were likely to be exposed to the sterilization programs are less likely to be in agricultural and labor heavy industries.

### **OTHER WRITING**

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Arsenic and Agriculture: Is Our Growing Dependence on Groundwater Irrigation Poisoning Our Water? Blog post for Tata-Cornell Institute, published June 2022

Thinking About Soil from the Farmers' Perspectives. Blog post for Tata-Cornell Institute, published April 2021

### **CONFERENCE PRESENTATIONS**

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**2022:** PacDev, *University of San Francisco*; MIEDC, *University of Minnesota*; 21st Summer School in International and Development Economics, *CEPR/LEAP*; NEUDC, *Yale University*

**2019:** APPAM, *Denver*

**2018:** NEUDC, *Cornell University*; SEA, *DC*; International Conference on South Asian Economic Development, *South Asian University*;

**2017:** Winter School, *Delhi School of Economics*; Human Capital Workshop, *Indian School of Business*

### **INVITED SEMINAR PRESENTATIONS**

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**2023:** University of Georgia (scheduled); Indira Gandhi Institute of Development Research (scheduled)

### **PROFESSIONAL SERVICE**

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**Referee:** *China Economic Review*, *Economics of Education Review*, *Economic Modelling*, *PLOS ONE*

**Cornell University:** Member Graduate Students for Gender Equity in Economics

### **RESEARCH EXPERIENCE**

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Research Assistant, Prabhu Pingali, Cornell University  
January 2020 - Present

Research Associate, Tarun Jain, Indian School of Business  
March 2018 - May 2018

Research Associate, Shilpa Aggarwal, Indian School of Business  
July 2016 - February 2018

### **TEACHING EXPERIENCE**

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AEM 2000 - Contemporary Controversies in the Global Economy (January 2023 - May 2023)

AEM 2020 - Better Decisions for Life, Love and Money (January 2022 - May 2022)

AEM 6120 - Applied Econometrics (August 2019 - December 2019)

## **AWARDS**

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Tata-Cornell Scholar, Annual Assistantship Award (\$35,000) (2019 - Present)

## **TECHNICAL SKILLS**

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STATA, SAS, Python, R, Microsoft Office, L<sup>A</sup>T<sub>E</sub>X, QGIS, VBA

## **REFERENCES**

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