ARUSHI KAUSHIK

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University of California, San Diego

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CONTACT INFORMATION

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EDUCATION

PhD Economics 2016-2022
University of California San Diego (expected)
Committee: Prashant Bharadwaj (chair), Karthik Muralidharan, Julie Cullen, Jeffrey Clemens, Craig McIntosh

MA Economics 2011-2013
Delhi School of Economics, University of Delhi

BA(Hons) Economics 2008-2011
Shri Ram College of Commerce, University of Delhi

REFERENCES

Prashant Bharadwaj	UC San Diego	prbharadwaj@ucsd.edu	(858) 822-6760
Karthik Muralidharan	UC San Diego	kamurali@ucsd.edu	(858) 534-2425
Jeffrey Clemens	UC San Diego	jeffclemens@ucsd.edu	(858) 534-5713
Craig McIntosh	UC San Diego	ctmcintosh@ucsd.edu	(858) 822-1125

FIELDS OF INTERESTS

Public, Labor, Development and Innovation Economics

FELLOWSHIPS, HONORS AND AWARDS

Associate-Instructor Teaching Award *"Courageous and Outstanding Data Educator"*, UCSD, 2017 & 2018
Doc Gosh Fellowship, University of California, San Diego, 2016
Regents Fellowship, University of California, San Diego, 2016
Hira Lal Bhargava gold medal, University of Delhi, 2014
K.C. Nag Memorial Prize, University of Delhi, India, 2013
Dr. Manmohan Singh Fellowship, 2012
Delhi School of Economics Merit Scholarship, 2011

ARUSHI KAUSHIK
UNIVERSITY OF CALIFORNIA, SAN DIEGO

WORKING PAPERS

"Effects of provision of secured Intellectual Property Rights in developing countries: A case study from India" (Job Market Paper)

Abstract: *Since Romer (1990), the endogenous growth models have emphasized the role of innovations in achieving sustainable growth. Due to the "public goods nature of ideas" (Williams and Sampat, 2019), lassiez faire policies may lead to under-investment in R&D activities. Consequently, governments often intervene to provide appropriate incentives to correct these positive externalities. One prominent form of government intervention are provision of intellectual property rights (IPRs) that grant innovators temporary monopolies over their inventions to recoup the R&D costs. However, such legal rights can be used strategically by firms and may prevent follow-on innovations (Williams et al, 2019). The net effect of introduction of such patent laws on R&D activities is, therefore, ambiguous. The trade-offs created by IPR laws get further complicated in the context of developing countries due to the additional uncertainty around the credibility of policy changes and the capacity of institutions to implement them, thus, making firms jittery about such expensive investments.*

In this paper, I study the impact of provision of secured Intellectual Property Rights on innovation activities in developing countries, using the variation caused by TRIPS-induced legal amendments in India's IPR regime. Prior to TRIPS, India's IPR environment was regulated by Indian Patents Act, 1970 that predominantly allowed "process" patenting (a weak form of IPR regulation) while granting "product" patenting only in a few categories. The implementation of TRIPS led to extension of "product" patenting to all the patent classes.

I curated a novel data set by scrapping >1 million patent applications from the website of Indian Intellectual Office. Using the crosswalk provided by Lybbert and Zolas (2014), I match these patent classes to HS (Harmonized Systems) and then to NIC (National Industrial Classification) to map the patent classes to 3-digit industries. I find that both patent count and R&D expenditures by firms have increased in TRIPS-affected industries vis-a-vis non-TRIPS industries. However, in the long term proportionately fewer "domestic" firms are engaging in research activities.

"In Utero Exposure to Industrial Disasters: A Case Study of the Bhopal Gas Traged" Joint with Gordon Carlos McCord, Prashant Bharadwaj, Lotus McDougal and Anita Raj

Abstract:*In the urge to accelerate growth and to attract industries and technological innovations that could generate productive employment opportunities for the local population, many developing countries tolerate weak regulatory frameworks, springing either from weak regulations (environmental or labor standards) (Dean et al, 2009 ; Bocconi et al, 2008) or weak enforcement of existing regulations (Kanbur and Roconi, 2016). But the consequences of such laxed regulatory environment could prove to be detrimental, not only for the immediate actors like workers and customers of the firms but also for the society at large who may continue to face such consequences for generations to come.*

This projects studies one of the world's worst industrial disasters- the Bhopal Gas Tragedy (BGD)- that took place in 1984 in the capital city of Indian state of Madhya Pradesh. We use fourth wave of DHS (Demographic Health Survey) to look at the effects on educational and health outcomes for those who were young children, fetuses or not-yet-conceived at the time of the disaster to uncover the intergenerational spillovers from this industrial disaster. Spatial difference-in-difference is employed to compare the then-younger cohorts to the older cohorts who are living in Bhopal vis-a-vis outside Bhopal.

We find that men currently living within 100 km of Bhopal and born in 1985 have an 8-fold higher risk of cancer than men of other birth cohorts; of those men, those who have never changed residence since the BGD have a 27-fold higher risk of cancer. Employment disability was one percentage point more likely among men who were in utero in districts within 100 km of Bhopal during the BGD than those born prior or more distal to the BGD. This is a meaningful impact since baseline employment disability rates are quite low (0.4%), and men's employment at the time of study was nearly universal at 98%. Moreover, men who were in utero and within 100km of Bhopal during the BGD received more than two fewer years of education than other cohorts. This is a large impact both since the average number of years of education in the control group is only 5.6 years, and because education has such a direct association with subsequent wages and consumption. Our results are important for formulating regulatory frameworks concerning industrial safety standards since ignoring these adverse effects on future generations could result in assignment of under-compensated damages-liability.

"Class-Size Effects in Developing Countries: A Longitudinal Evidence from India" Joint with Karthik Muralidharan

Abstract: *This paper presents evidence on the negative effects of class-size on students' scholastic performance (as measured by value- added scores) in the context of developing countries. Using a unique annual panel dataset from 500 Indian schools and 73,000 students and applying a Maimonides' rule - kind of instrumental variable strategy, we find that a 10% reduction in pupil-teacher ratio (PTR) leads to a 0.02sd improvement in value-added scores. An attempt to replicate the results using test score levels- an often-used outcome variable in the literature- leads to overestimation of the returns to class-size. This happens because test score level is a stock variable that captures the cumulative effect of all the previous human capital investments made in the child. To the extent these investments tend to be highly correlated within the cohort in a school across years, a school fixed-effect strategy removes this bias and gives us a similar point estimate for both the outcome variables. A cost effectiveness calculation suggests that a 10% reduction in PTR, by hiring more regular teachers, entails an additional cost of $12.28 per student per year which is much higher than the cost of some other education interventions in a similar setting.*

PUBLICATIONS

"Crime Against Women: Desirability of Cognizance Level Punishment in the presence of Judicial Errors". DU Journal of Undergraduate Research and Innovation. 2015, 1(2), 51-62. Joint with Garima Agarwal

TEACHING EXPERIENCE

Associate Instructor, UC San Diego

Data Analytics for Social Sciences	Spring 2018, 2019, 2020

Teaching Assistant, UC San Diego

Public Policy Capstone	Winter 2020, 2021 (Prof Gaurav Khanna & Maria Carreri)
GIS & Spatial Data Analysis	Fall 2019, 2020 (Prof. Gordon McCord)
Principles of Microeconomics	Fall 2017 (Prof. Kate Antonovics)
Market Imperfections & Policy	Summer 2021 (Prof. Steven Levkoff)
Economic Development	Summer 2020, 2021 (Prof. Prashant Bharadwaj)
Indian Economy	Winter 2017, 2018, 2019 (Prof. Karthik Muralidharan)

Assistant professor, University of Delhi

Game Theory	Summer 2013
Public Economics	Summer 2013
Applied Econometrics	Winter 2014
Financial Economics	Winter 2014
Macroeconomics	Summer 2014
Financial Economics	Winter 2015
Statistical Methods for Economics	Summer 2015

RELEVANT POSITIONS HELD

Research Assistant	UCSD (Prof. Karthik Muralidharan)	2017-2019
Research Assistant	UCSD (Prof. David Lagakos)	2017
Research Assistant	Delhi School of Economics (Prof. Rohini Somanathan)	2012-2013

PROFESSIONAL ACTIVITIES

Conference Presentations

2019 PACDEV

Referee Service

Economic Development and Cultural Change, *Quarterly Journal of Economics*, *American Political Review*

OTHER INFORMATION

Citizenship: Indian
Languages: English (Proficient), Hindi (Native)