

MUHAMMAD BIN KHALID

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EDUCATION

Yale-NUS College	Singapore
Bachelor of Arts with Honors (<i>Magna Cum Laude</i>)	2019 - 2023
Major: Economics, Minor: Mathematical, Statistical and Computational Sciences	CAP: 4.86/5
Yale University	New Haven, USA
Exchange Student in Economics	Jan - May 2022

AWARDS

Magna Cum Laude - second highest latin honor awarded based on GPA.

NUS Outstanding Undergraduate Researcher's Award, 2022 - awarded to one project per faculty for most impactful research in an academic year. Recognized for my research on Small States' Development.

Yale-NUS Outstanding Capstone Project in Economics, 2023 - awarded to one student per major with the best senior-year thesis. Recognized for my research on cash transfers and flood adaptations in Pakistan.

Yale-NUS Study Award (2019-2023) - a merit-based scholarship covering full tuition and residential college fees for four years.

EXPERIENCE

Pre-Doctoral Fellow - National University of Singapore	Singapore
<i>Supervisors: Prof. Martin Mattsson & Prof. Yogita Shamdasani</i>	July 2023 - Present

- Using Python, harmonized administrative division names, matched four rounds of Kenyan census data with shapefiles, resulting in a balanced panel dataset (30 years) to analyze the impact of global warming on fertility.
- Proved extensions of core mathematical model about bureaucrat behavior under asymmetric information.
- Reviewed mathematical derivations, wrote grant proposals, created publication-ready tables and figures in Stata and overleaf.

Research Assistant - Yale Research Initiative on Innovation and Scale (Y-RISE)	New Haven
<i>Supervisor: Prof. Ahmed Mushfiq Mobarak</i>	Dec 2021 - May 2023

- Cleaned and analyzed (using Stata) 3 rounds of survey data from a large scale RCT in Bangladesh related to village courts.
- Assisted in designing survey instrument, programmed automated survey (using Twilio and Manychat) for RCT about migration mentorship in Nepal.
- Conducted literature reviews, and assisted in writing academic papers.

Research Intern - Institute of South Asian Studies	Singapore
<i>Supervisor: Prof. Diego Maiorano</i>	Jan 2020 - Sep 2020

- Assisted in data cleaning and analysis (using R), conducted literature review for two research projects: State Directed Development in India, and Politics of Public Service Delivery in India.
- Co-authored four articles with resident experts on political economy issues in the South Asian region.

Fieldwork Intern - Akhuwat Microfinance	May 2019 - Aug 2019
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- Conducted in person interviews of loan recipients in Rawalpindi (Pakistan).

RESEARCH (ONGOING)

Can aid prevent flood induced migration? Evidence from Pakistan's 2010 floods

Coauthor: Prof. Martin Mattsson

Leveraging satellite data on settlement patterns, we construct a panel dataset of village populations spanning 1975 to 2020. Using a difference in differences approach, we study the effect of disaster relief in the wake of 2010 floods on migration behavior.

The effect of timely cash transfers during an extreme flood shock: Evidence from the 2022 Pakistan Floods (World Bank funded study)

Coauthors: Rocco Zizzamia (Oxford) & Ashley Pople (World Bank)

Leveraging a discontinuity in the design of Pak's 2022 flood relief program, we investigate the effect of cash transfers on household welfare. We conduct a 6000 household survey in rural Sindh and combine survey data with national socio-economic registry and spatial data on floods and rainfall.

RESEARCH (COMPLETED)

Unintended consequences of government support: impact of Pakistan's flood relief program on adaptation behavior (senior-year thesis) (Draft)

Supervisors: Prof. Martin Mattsson & Prof. Lei Yu Hsiang

Combining household survey with spatial data on rainfall, nightlights, and population density, I investigate the effect of flood relief on adaptation behavior. I find that geographically targeted flood relief discourages community adaptation. I construct an economic model, consistent with the data, to explain the mechanisms.

The Blessings of Scarcity: The Institutional Underpinnings of Small States' Prosperity (R&R at Perspectives in Politics) (Draft)

Supervisor & Coauthor: Prof. Steve L. Monroe

We investigate the effect of state size at the time of independence on long run development. We use a mixed methods approach, combining an instrumental variable analysis with a comparative case study.

Other writings

- "Pak-US relations and Pakistan's fiscal behavior" (supervised by Prof. Rohan Mukherjee)
- Muhammad Bin Khalid, Nadia Dohadwala, and Karthik Nachiappan. 2020. "Pakistan and the IMF: Debts, Deficits and Dependency." *Insights, NUS Institute of South Asian Studies (ISAS)*.
- Muhammad Bin Khalid, and Iqbal Singh Sevea. 2020. "Economic Impact of a Pandemic: Pakistan Grapples with COVID-19." *Insights, NUS Institute of South Asian Studies (ISAS)*.

CONFERENCE PRESENTATIONS

- Fifth IGC International Conference on Applied Development Economics (Lahore, August 2023)
- 79th Annual Midwest Political Science Association Conference (Chicago USA, April 2022)
- Asian Polmeth 2023 Annual Meeting (Singapore, Jan 2023)
- Yale-NUS Summer Research Symposium (Singapore, Sept 2021)

SKILLS

Programming skills:

R, Stata, Python, ArcGIS, L^AT_EX

Languages:

English (Professional), Urdu (Native), Arabic (Beginner), German (Beginner).