

## Research Agenda

*"It takes a village to raise a child"* is an African proverb that emphasizes the role of the community in the success of a child. My interest in Labor Economics is mainly shaped by my belief that one of the most significant determinants of economic growth is in the day-to-day interaction of people in their immediate communities. For this reason, my research will benefit individuals and policymakers in making decisions that affect peer composition, education, and the family.

Within Labor economics, I am particularly interested in the causal effect of immigrants on natives' educational outcomes, salaries, and employment in the United States. My research closely follows both the immigration and education literature. My research incorporates aspects of personnel economics as I investigate how immigrants and natives interact in organizational settings such as higher education and labor unions. In all my research, I employ recent applied microeconomic tools to obtain causal relationships.

My job market paper titled *"How International students Affect Domestic Students' Achievement: evidence from the OPT STEM-extension,"* looks at the role of immigrants in shaping the educational outcome of domestic students pursuing STEM degrees in the United States. By utilizing the mass influx of international students after an immigration policy change (OPT-STEM-extension) in 2008, I investigate the peer effects that international students have on grades, attrition, and first-year salary of STEM graduates. I account for the common selection issues present in the peer-effects literature by looking at the yearly exogenous change in international student share in a specific course-instructor pair and controlling for rich individual ability and demographics. This was made possible by having access to administrative data of a land-grant university with one of the highest international student enrollments in the US. I find that international students tend to lower grades and persistence of domestic students in STEM. Still, this negative effect is more than compensated for in the increase in salary due to spill-over effects in learning for those who persist and graduate.

My research aims to eventually aid policymakers in both the local educational institutions and the federal government. To this end, I have extended my analysis of international students by shifting my focus outside the classroom to the local economies of the college campuses. In my work-in-progress paper titled *"International Students' Effect on Local Businesses,"* I use the zip code-level Census data on small businesses to see how the influx of international students affected the regional college campuses. Using both a difference-in-differences design and a shift-share Instrumental variable approach, I find that international students have a significantly positive effect on job creation in the local economy. The same effect is not seen among native students. To my knowledge this is the first data-driven-causal analysis of international students on local businesses in the US.

As the lead author, I have also written a paper with Alex Nowrasteh and Artem Samiahulin titled *"Immigrants Reduce Unionization in the US."* Here we attempt to relate immigrants with a more traditional labor economics topic: labor unions. Although there is a vast amount of literature on unions, we found that the literature that causally estimates immigrants' effect on unions is severely lacking in the US setting. Using a combination of representative data such as the CPS, Census, and the ACS, we show that immigrants accounted for about one-third of the decline in unions since the 1980s. We based our

paper on the theoretical model of Naylor and Cripps(1993), <sup>1</sup>and borrowed George Borjas's skill-cell method for our empirical method.

In the future stream of research, I would like to continue my investigation into the role of communities as the fundamental building block of an economy. To this end, one of my work-in-progress papers looks at the effect of African immigrants on historically black neighborhoods. African immigrants are one of the fastest growing immigrant groups and I hope to quantify the effect they have on the communities in which they reside, especially the black community. Also, I will continue to build on my job market paper by attempting to quantify the effect of diversity in the classroom that dives further into cultural diversity in addition to citizenship. Last but not least, I have a work-in-progress paper that looks at the returns to engineering degrees using rich administrative data on student characteristics and salary.

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<sup>1</sup> Naylor, Robin, and Martin Cripps. "An economic theory of the open shop trade union." *European Economic Review* 37.8 (1993): 1599-1620.