Alfredo Martin

Georgia State University

amartin90@gsu.edu
(734)9997702
alfredomartinc.github.io

220 26th Street NW
Apt. 1204
Atlanta, GA 30309, US

Research Statement

My research lies in the intersections between applied econometrics and human rights. With a special focus on economic, social, and cultural rights, such as education, labor, or housing, I study the effect of public policies on low-income households' access to such rights. I use a combination of reduced-form estimations and structural models to answer relevant policy questions that directly impact human rights.

The bulk of my research has focused on labor economics and the economics of education. My dissertation studies the effect of technical education on unemployment duration, and the role of economic constraints in the self-selection into technical colleges.

My job market paper, "The Effect of Free Higher Education on Students' Choices and Performance. Evidence from Chile", uses a policy that offered free college for the poorest 50% of the population, to estimate the effect of economic constraints in low-income students' college choices. I found that low-income eligible students were 6.7 percentage points more likely to attend any college, and 5.3 points more likely to enroll in an academic program. Around 40% of those moving to an academic program, would have enrolled in a technical program without the policy. The policy also led low-income students to apply and enroll in better quality institutions.

This is the first attempt to estimate the causal effect of this policy. This lack of evidence is, in part, due to data restrictions and difficulties identifying causal effects. I overcame these issues by getting access to restricted data from the Department of Education in Chile and using several empirical strategies that minimized the potential bias in my estimations. The main empirical challenge comes from the self-selection into applying for financial aid. Because free-college may have incentivized students to apply for aid, comparing eligible to non-eligible students in a classical difference-in-difference, is subject to potential bias. To avoid this problem, I first use school-level variation where all students, regardless of financial aid application, were considered in the analysis. I construct deciles of schools based on the proportion of poor students in each school. I then compare students from the poorest schools to students in the richest schools, before and after the policy. By using all students, I can bypass the self-selection problem, but at the cost of a noisier estimate of the policy effect.

The second approach deals with self-selection by explicitly modeling financial aid application and allowing this decision to be correlated with college choice. To estimate this model, I use an Expectation-Maximization (EM) algorithm that controls for unobserved factors affecting both financial aid and college decisions.

In the second chapter of my dissertation, "Technical Education, Economic Shocks and Unemployment Duration", I use a dynamic discrete choice model to evaluate the effect of high school technical education on unemployment duration and reemployment wages, up to 12 years after graduating high school. Because graduating from a technical high school affects college decisions, and these, in turn, affect labor outcomes, I include college choices in my model to fully capture the effect of technical education. This comprehensive approach evaluates the different channels high school technical education may affect future labor outcomes. The estimation uses a Discrete Factor Maximum Likelihood, a semi-parametric approach where the different decisions are correlated within and across time, through a set of unobserved factors.

In other projects, I worked with Thomas Goldring, Daniel Kreisman and Brian Jacob in a regression discontinuity design to evaluate the effect of earning a technical, industry recognized credential in high school on college going. Using administrative records from the Michigan Department of Education, we compare college enrollment between students who scored just high enough to pass an industry recognized exam, and those who just missed the cutoff. We find that getting the credential does not deter students from enrolling in college, but with significant heterogeneity by career clusters and tests.

In my near-future agenda, I expect to use a Regression Discontinuity Design to evaluate the effect of the free-tuition policy on the probability of working while studying, with a special focus on non-traditional students. The Department of Social Development in Chile agreed to give me access to income information, which will let me compare students just below and just above the eligibility threshold. I also expect to expand my second chapter to study the effect of technical high schools on intergenerational mobility. The Department of Social Development in Chile has individual-level income and education information that can be linked to parents' income administrative records. This would be the first study linking technical education to income mobility in Chile.

Overall, my future work will continue to use applied econometrics for evaluating policies linked to different human rights. Every policy has a human rights component that has not been exploited in empirical studies. I anticipate my research will expand to related areas, such as health, housing, and labor, to better understand how different programs and policies are affecting low-income households' opportunities. I intend to complement these causal studies with descriptive and normative analysis linking human rights and economic analysis; something that has not been explored in depth so far.