

This summer, I was lucky enough to be chosen to work alongside Professor Mushfiq Mubarak of the School of Management and Professor Jason Fletcher of the School of Public Health on a project entitled *Effects of Nutritional Shocks on Child Health and Development*. Quite frankly, I entered upon largely new territory as I dove into the lifestyle of a graduate student in economics. While the project consisted mostly of staring at my computer screen for several hours a day and reading manuals for a statistical software package, I gained an immeasurably valuable set of quantitative and programming skills for which I am utterly grateful. Under the supervising eyes of my mentors, I learned to think critically about the setup of an experimental study, to suspiciously scrutinize a dataset, and to ask questions about a set of analytical results to discover the numerous nuances that can exist in a seemingly simple research question: How does incentivizing migration during a famine affect child health?

The project was basically an extension of a larger study that Professor Mubarak has been undertaking in the villages of Bangladesh for the past few years. Using means such as cash, credit and information to incentivize households to migrate in order to find work during famine season, Professor Mubarak looked to see if there would follow significant changes in household expenditure and consumption. Sure enough, not only did the migration rate and household caloric intake increase significantly, there was a long-term positive effect on migration rates. While Professor Mubarak continued to probe the issue of families refusing to migrate even in the most desperate situations, Professor Fletcher shared his interest in the effect this nutritional shock may have on children's health, thus bringing about the project that I was honored with the opportunity to be a part of this summer.

We started off with a simple question: If you give families money to migrate, how will this affect the health of their children over several months? The health measure we focused on was mid-upper arm circumference (MUAC), a well-known tool in developing countries for diagnosing child malnutrition. First, I ran regressions that showed that incentivizing through cash or credit had a statistically significant impact on children below the age of seventeen. Second, I ran regressions based on gender and age, and I discovered that, given the treatment, boys within the ages 0-8 did much better than girls in the same bracket with respect to MUAC measures, while girls within the ages 9-16 did much better than their male peers. My mentors taught me to question these findings and hypothesize reasons for the constant existence of a discrepancy between boys and girls as well as the sudden switch in treatment effect around the age of eight. Before we moved on, I ran quantile regressions that showed that kids who were less healthy to begin with benefitted most from the treatment. Professor Mubarak suggested that the switch occurred around the same time that children started working and/or attending school. But even after including these variables, the findings were about the same.

As the research assistant, I did my best to clean up the data, which meant combining and dropping different datasets, creating and changing variables, and analyzing and imputing missing values. After this preliminary work, I ran all the regressions, which included ordinary least squares, fixed effects, instrumental

variable, and quantile regressions. I would convert the output into clear tables for my mentors to look over. They then guided me in asking the right questions and brainstorming possible answers. I came up with “stories” that could explain the results, such as parental favoring of male children in their earlier years and preference toward older girls in preparation for marriage. Unfortunately, due to our limited time, we never had the chance to test these hypotheses.

Within the small time frame of just two months, the most important thing I gained, in addition to new analytical skills and hands-on experience with real data, was an insight into the daily life of an academic. I got a taste of the time, diligence and inquisitiveness it takes to be a great researcher. My SRO experience was a unique and invaluable one, and I look forward to the possibility of continuing and developing my relationship with Professors Mubarak and Fletcher for the next two years, as I start to carve my own professional path in the field of Economics.