

Research Statement

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I am an applied economist working in international trade and labor economics. I ask how the effects of trade shocks reach beyond the workers and countries directly exposed to them, to the next generation and to other countries linked through production. This question runs through two strands of my research. The first studies shocks that countries receive, such as China's accession to the World Trade Organization (WTO), and how they shape children's schooling and income mobility. The second studies tariffs, which countries choose, and where along a supply chain to levy them. My work ranges from quasi-experimental analysis of large administrative data to general equilibrium models.

1. The intergenerational impact of trade shocks

Since the late twentieth century, trade liberalization has moved millions of manufacturing jobs out of developed economies and into developing ones. A rich literature studies how this shift affected the employment, wages, and inequality of the workers directly exposed to it; my first two papers go a step further and ask how it affected their children. I follow the most prominent episode of this shift, the China Shock triggered by China's accession to the WTO, in both China, which gained these manufacturing jobs, and Canada, which lost them.

In *The Impact of Trade Liberalization on School Enrolment: Evidence from China (Conditionally accepted, Canadian Journal of Economics)*, I ask whether trade liberalization raises the human capital of the next generation in developing countries. A natural expectation is that the jobs and income created by the resulting export expansion keep children in school longer, especially where high school is not free, as in China. I use China's accession to the WTO in 2001 as a quasi-experiment, with population census data on cohorts turning 16 between 1995 and 2014. Contrary to this expectation, I find that a one-standard-deviation increase in prefecture-level trade exposure reduces high school enrolment by 8% relative to the baseline rate of the last pre-accession cohort, almost entirely in academic high schools. This pattern points to an export-driven rise in demand for low-skilled labor. My paper also makes two further contributions. First, I follow successive cohorts for more than a decade and show that the decline does not fade but grows through 2014, consistent with sustained capital investment in labor-intensive export sectors. Second, I develop a new measure of prefecture-level trade exposure that incorporates spatially determined geographic trade costs in addition to industrial composition and tariff reductions, and I show that measures without trade costs overstate the decline.

My job market paper, *The China Shock's Surprising Impact on Intergenerational Income Mobility (Under review)*, turns to the other side of the same shock. In developed economies such as Canada, the workers the shock displaced suffered lasting losses. Displaced workers are easy to see; their children are not. I ask whether the shock changed how closely these children's incomes follow their parents', a standard measure of intergenerational income mobility. This dependence measures how far a child's prospects are set by the family they are born into, so a shock that changes it carries a parent's fortunes into the next generation. Using Canadian matched employer-employee data that

link children to their parents, I provide the first family-level evidence on this question. One might expect family background to matter more after such a large negative shock, since richer families can cushion their children while poorer ones cannot. However, I find the opposite. In the most exposed families, the dependence of children's income on their parents' falls by 20%. But this rise in income mobility is not shared evenly, with children from poorer families climbing and children from richer families falling with their parents. This happens because the shock pushes children out of their parents' manufacturing industries. Children from poorer families leave industries that tied their incomes to their family background without paying well, so leaving costs them little, while children from richer families lose well-paid jobs worth inheriting.

2. Tariffs in a supply chain world

My first two papers show how far-reaching a trade shock can be, extending beyond the workers directly exposed to it to their children. These effects matter all the more now that trade shocks are increasingly ones that countries choose. Since 2018, they come from tariffs that governments impose on one another, and they travel through supply chains that link countries ever more tightly. When production is split into sequential stages located in different countries, a tariff on one input moves the prices of the goods made from it downstream and of the inputs used to make it upstream, and part of its effect returns to the country that imposed it. A government choosing where to levy a tariff is therefore also choosing who bears its effects. In *Hit Them Where It Hurts: Strategically Chosen Tariffs in a Supply Chain World (Working paper)*, I ask where along a supply chain a country should levy a tariff, and how high it should be. I develop a two-country model of sequential production in which the government chooses both. The optimal tariff at a given stage extends the classic inverse-elasticity rule with two new forces. The first is a re-export rent borne by foreign buyers of downstream output. The second is a cost boomerang, the domestic value that returns through the price of the taxed import. Because a tariff on final goods forgoes the re-export rent entirely, taxing further upstream can raise welfare more than taxing final goods. Yet the best stage depends on the structure of the chain, shifting to a late stage when the home country makes its own upstream inputs but relies on foreign producers for final assembly. In US input-output and tariff data, I show that both new forces vary across stages, so where a tariff is placed shapes its effects.

3. Work in progress and future research

My future research continues both lines of my work. The first follows trade shocks further into the family. In joint work with Feng Di, we ask how trade shocks, including the China Shock, affected fertility in Canada, using Canadian employer-employee data. Where my first two papers study how trade shocks shape the schooling and income of the next generation, this project asks how they shape parents' decisions to have children. The second line extends my work on the policies that countries choose, from tariffs to pollution. I study whether trade liberalization changes how countries regulate global pollution, such as carbon emissions. After China joined the WTO, its carbon emissions roughly doubled, while those of the US and other rich countries stayed flat or fell. I ask how much of this shift reflects the choices of countries, rather than production simply moving to China.