

# Low-wage earners hit hardest by trade with China

By Brad Larsen, Denis Chetverikov, and Christopher Palmer

## KEY TAKEAWAYS

- Trade with China hit low-wage workers twice as hard as it did the average American worker.
- The unequal effect of trade on low- vs. high-wage earners was most drastic for women, especially those without a college education.
- The new findings help explain why areas that faced particularly strong competition from Chinese imports saw the most political upheaval, with incumbents being voted out of office.

Heated debates about the costs and benefits of U.S.-China trade relations have been front and center in the political discourse in recent years, especially as the two countries negotiated toward this month's deal.

Influential academic work (Autor et al., 2013, 2016) measures some of the costs of rises in Chinese imports. The authors find that U.S. metropolitan areas specializing in manufacturing — areas that faced particularly strong competition from Chinese imports — experienced the largest drops in average wages and the most political upheaval, with incumbent legislators from both parties being voted out of office.

Not only were some areas hit harder than others but some workers were hit harder within each area. Our recent work (Chetverikov et al., 2016) shows that trade with China hit low-wage workers twice as hard as it did the average American worker. This is consistent with the intense voter response to globalization: People in the most difficult economic situations to begin with were walloped by China.

The key contribution of our research is looking *beyond averages*. Unearthing effects beyond just averages reveals who wins or loses the most in a given situation.

Consider an example from a different context: education.

Suppose a change in education policy leads to higher average student test scores. If you're only looking at the averages, you'll never know where the improvement is really coming from. Is the policy only helping the high-scoring students get even better grades on their tests? Or is it also lifting the test scores of the lower-performing students? Important results — and a good deal of nuance — are often misinterpreted or missed altogether by focusing only on averages.

Now let's return to wage inequality and trade with China. Most available estimates of the impact of free trade on wages focus on the *average* effect — on average, trade helps the overall economy but hurts those exposed to the international competition.

But we wanted to dig deeper to understand precisely who was affected by Chinese imports. Our work looks at whether the downward pressure on wages from increased competition with China is shared across the income distribution or whether the impacts on high- or low-wage workers are particularly acute.

We developed a new statistical technique to look at *wage inequality* instead of changes in average wages. We applied our new methodology to data on both the China shock and millions of workers' wages across the U.S. and found a striking effect: The negative impact of Chinese trade on average wages is driven primarily by an even larger negative impact on low-wage earners.

While the average worker saw a wage decrease of about 0.7 percent (for each \$1,000 increase in Chinese imports per worker), workers with wages in the bottom quarter of the wage distribution saw a percentage decrease that was twice as large. High-wage earners, on the other hand, were hardly hurt by increased import competition.

Interestingly, when we separately measure these effects by gender, we find that the gap between the effects on low-wage and high-wage earners is especially strong for women. Women at the bottom of the wage distribution were hit much harder than those at the top, especially among non-college educated women. By contrast, men above the bottom 25 percent of wage earners are roughly equally affected by increased imports from China.

Our results by no means paint the full picture of the effects of trade with China. For example, other recent research focuses on the *benefits* of trade — especially lower prices for consumers (Jaravel and Sager, 2019). This research finds that such benefits are widespread and may outweigh the costs of trade: Both high-wage

earners and low-wage earners benefit extensively from increased trade.

In this light, large tariffs on Chinese imports will likely harm all U.S. consumers who will be forced to pay higher prices for many Chinese-made products. As policymakers and economists try to evaluate the merit of this month's trade deal (or future deals), they would do well to home in on how *low-wage earners* are impacted. Any tightening of trade policy that doesn't benefit these hardest-hit workers is unlikely to be worth the price increases.

Nevertheless, our findings help explain the strong public reaction to increased trade in general and trade with China in particular: Low-wage workers in industries that have faced more import competition are understandably upset with increased trade with China, given that their wages have been significantly more affected than the wages of other workers.

Economists have long understood that international trade affects different people differently. There are winners and losers. Our work identifies those who are more negatively affected precisely along the key dimension of wage inequality, highlighting the intense harm done to those at the bottom of the distribution. This does not mean the U.S. should give up on international trade, but it provides a deeper understanding of who is most negatively affected by it.

Our work also speaks to broader trends in income inequality, connecting recent debates on both inequality and trade. Income inequality within the United States has increased drastically during the past four decades. Top earners' wages far outpaced those of low-wage earners. Economists have debated why that is and what — or who — is to blame. Could it be technological changes, which benefit high-wage earners? Or, declining real minimum wages? Our findings help make precise a mechanism by which globalization plays an important role.

## References

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**Brad Larsen** is a SIEPR faculty fellow and an assistant professor of economics at Stanford. His research interests include bargaining and negotiation, occupational licencing, consumer search, trade, and grey-market activity.



**Denis Chetverikov** is an associate professor of economics at UCLA. His recent research includes work on high-dimensional models, shape restrictions, and applications of empirical process theory in econometrics.



**Christopher Palmer** is the Albert and Jeanne Clear Career Development Professor and an assistant professor of finance at the MIT Sloan School of Management. His research focuses on how credit, real estate, and labor markets respond to periods of significant upheaval.

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