

# Import penetration and workplace safety

How does increased import competition from China affect workplace safety at U.S. manufacturing firms?

Existing research shows that rising import competition is associated with job losses, reduced wages and earnings, slower sales growth, decreased profitability, and elevated innovation. Previous work has also linked import penetration to declines in worker mental health and increases in mortality. Building on this, Mao and colleagues analyze how the inflow of Chinese imports influences workplace safety in U.S. manufacturing firms and investigate the economic mechanism driving these effects.

Complying with safety regulations imposes substantial costs. They propose that competition from Chinese imports curtails sales growth and lowers profitability among U.S. manufacturers. This reduction in financial resources may compel firms to scale back investments in safety-related technology and training, leading to higher injury rates.

Additionally, sustaining workplace safety depends heavily on employees adhering to safety procedures. Mao suggests that import competition can generate job insecurity, stress, and anxiety among workers, which in turn undermines compliance and contributes to elevated injury rates.

Using OSHA establishment-level injury data from 2002 to 2011, Mao finds that instrumented measures of Chinese import competition significantly increase injury rates among

U.S. workers. Import competition also diminishes firms' revenue and market share, and reduces safety investments. Moreover, a rise in heavy and binge drinking is observed—especially among male workers—which further supports the idea that heightened job insecurity and stress impair safety compliance and increase workplace injuries.

The adverse effects on workplace safety are less pronounced in firms with greater product differentiation, higher market concentration, stronger union bargaining power, and elevated levels of social capital.

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## MAJOR TAKEAWAYS:

- Chinese import competition increases injury rates among workers in the U.S. manufacturing firms.
- Increased imports lead to a decrease in workplace safety investments and workers' safety compliance.
- Negative effects due to import competition can be reduced with product differentiation, stronger unions, and higher levels of social capital.

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## WHO NEEDS TO KNOW:

- Employees
- Manufacturers
- Policy Makers

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