

International Trade: The USA & China

Autor, David H., David Dorn, and Gordon H. Hanson. 2013. The China Syndrome: Local Labor Market Effects of Import Competition in the United States. *American Economic Review* 103(6): 2121-2168.

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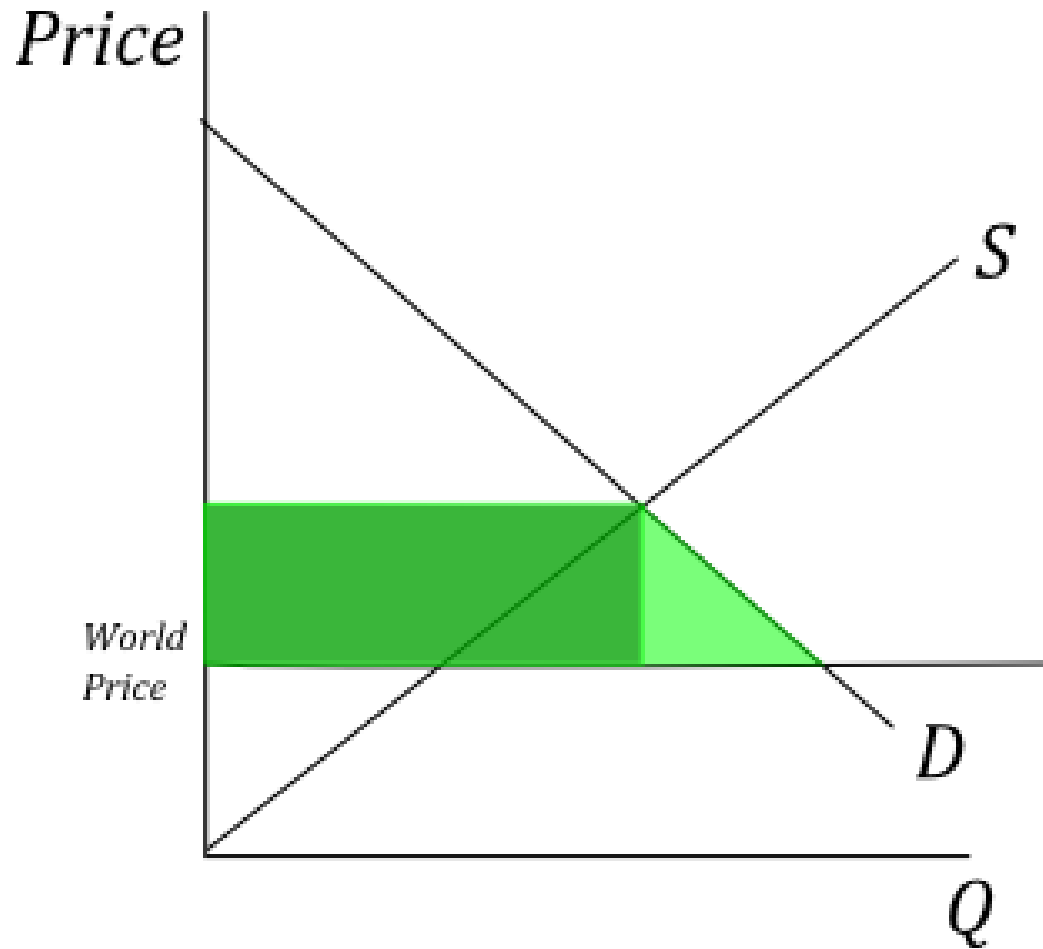
China's Comparative Advantage

- Labor Intensive Manufacturing
- Why?
- Labor Intensive: China has a large population of relatively unskilled workers with low wages
- Manufacturing: you can ship the product overseas
- Other labor intensive sectors, like restaurants, tourism, janitorial work are safer from overseas competition

China's Comparative Advantage

- 40% of US imports
 - Luggage
 - Rubber and Plastic Footwear
 - Games and Toys
 - Die-cut paperboard
- 30% of US imports
 - Apparel
 - Textiles
 - Furniture
 - Leather Goods
 - Electrical Appliances
 - Jewelry
 - and more

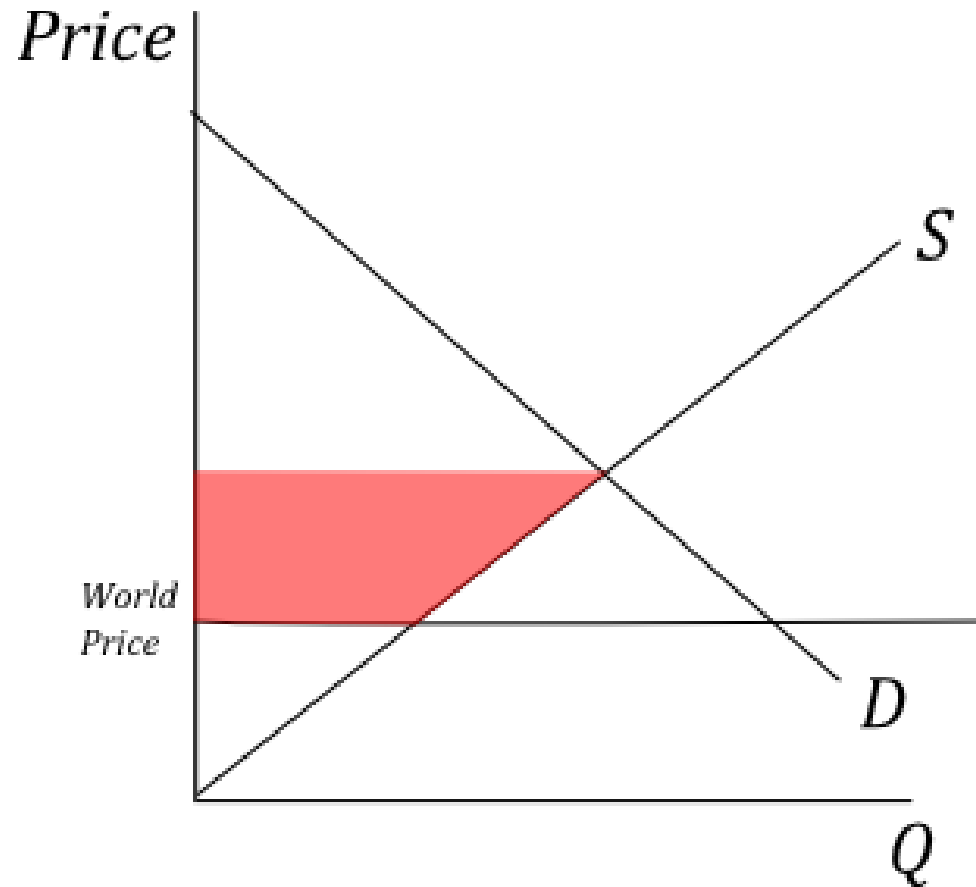
Who in the US Benefits?



Gains to Consumers

- Share of US spending on Chinese goods
 - 1991: 0.6% (\$1 in \$200)
 - 2007: 4.6% (\$1 in \$20)
- Walmart Effect

Who in the US Loses?



Predictions

- US Firms operating in sectors where China has a competitive advantage will be:
 - Less profitable
 - More likely to exit the market
 - Reduce output/employment

US Manufacturing and Chinese Imports

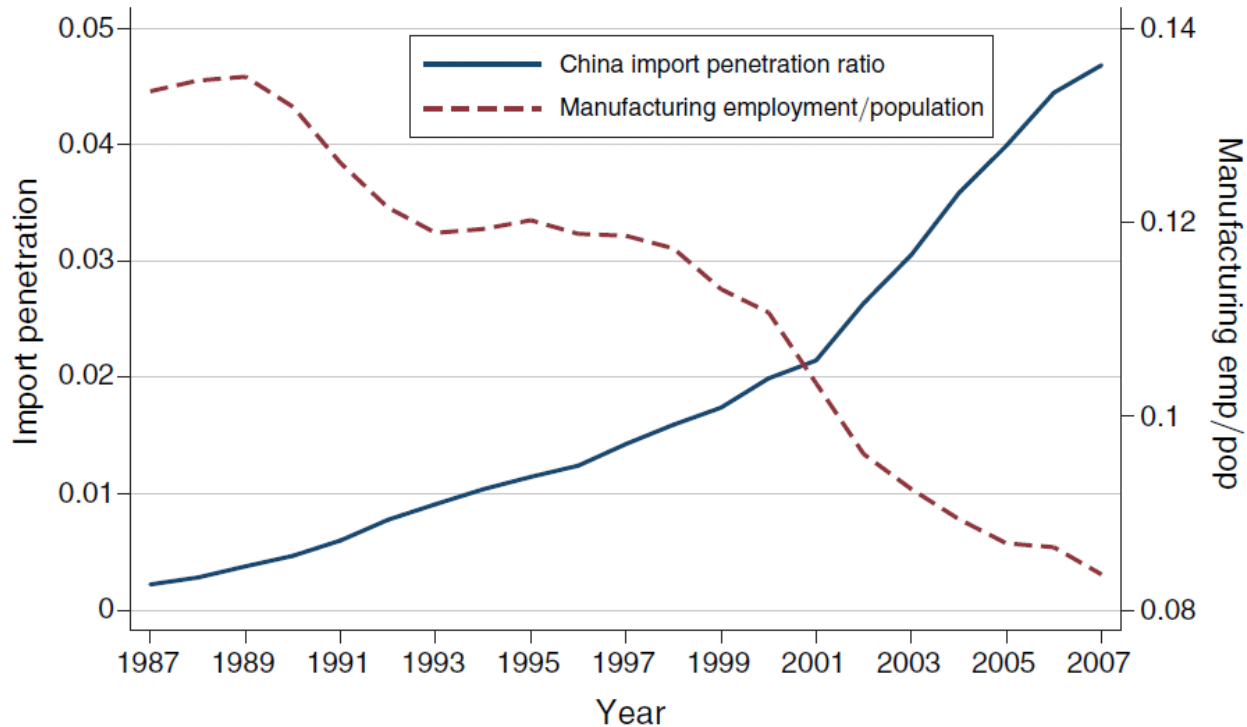


FIGURE 1. IMPORT PENETRATION RATIO FOR US IMPORTS FROM CHINA (*left scale*), AND SHARE OF US WORKING-AGE POPULATION EMPLOYED IN MANUFACTURING (*right scale*)

Not Conclusive

- Consistent with predictions
- Possible Causes for Doubt
 - Spurious Correlation (luck)
 - Reverse Causality
 - Omitted Variable

Just Luck?

- Ideally...
 - many economies
 - all identical except for exposure to Chinese import competition
- Could use countries...
 - but each country is different in many ways
- These papers uses local economies in the USA

What's a Local Economy?

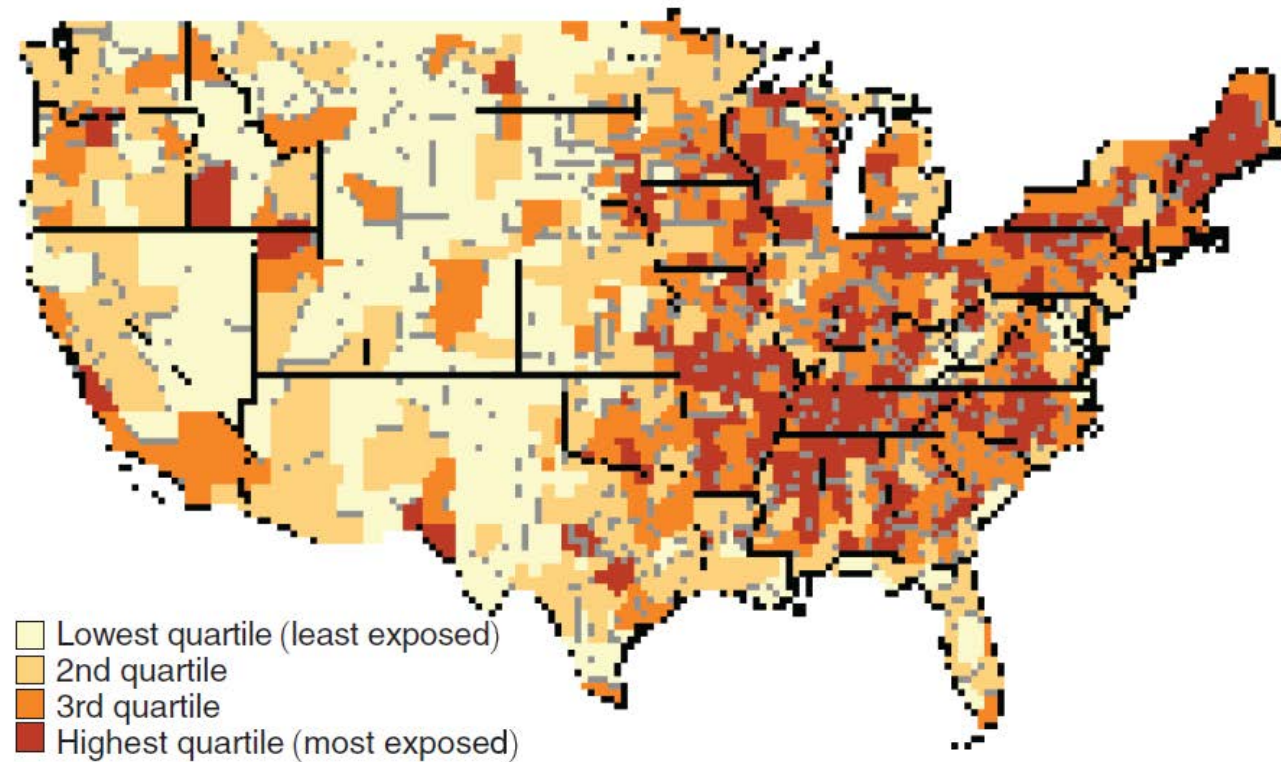
- They have data on commuting in every county in USA
- They assume:
 - If its *highly likely* people in one county commute to another, then the counties belong to the *same* local economy
 - If its *highly unlikely* people in one country commute to another, then the counties belong to *different* local economies
- This *cluster analysis* provides 722 local economies in USA

Exposure to Chinese Competition

- For every industry, assign a score based on how much competition from China has risen (based on imports)
- For every local economy, look at what industries are present
- Some local economies are highly exposed to Chinese competition
- Others are not

Who is Exposed?

Panel B. Trade Exposure by Commuting Zone, 1990–2007



Results

- More Exposure to China...
 - Larger decline in manufacturing employment
 - Reduced non-manufacturing wages
- How much? Increased trade with China accounts for...
 - 1990s: 16-33% of decline in US Manufacturing
 - 2000s: 26-55% of decline in US Manufacturing
 - Approximately 1.5mn workers

Do Workers Move Into New Fields?

- There is little evidence non-manufacturing employment rises to offset declines
- Instead, more exposure to China indicates
 - Higher unemployment rates (almost 1 for 1)
 - Higher rates of claiming disability benefits
- Non-college educated workers are disproportionately impacted

Omitted Variables?

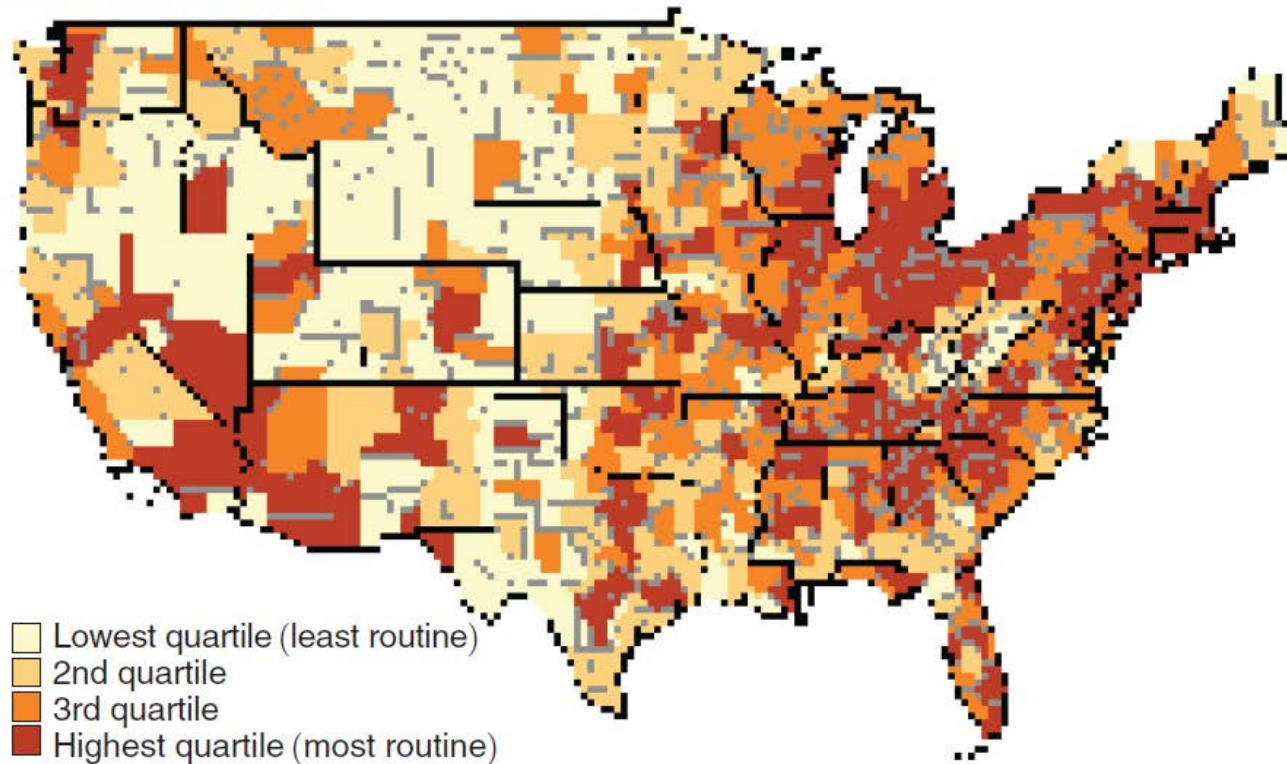
- Perhaps industries exposed to Chinese competition are *also* easier to automate
- Switch away from labor to capital
- This would also reduce employment

Measuring Ease of Automation

- Authors code every industry for number of...
 - Routine tasks (easiest to automate)
 - Manual tasks
 - Abstract tasks (hardest to automate)
- Assign each local economy a score for share of easily automated industries

Ease of Automation

Panel A. Routine Employment Share by Commuting Zone in 1990



Overlap

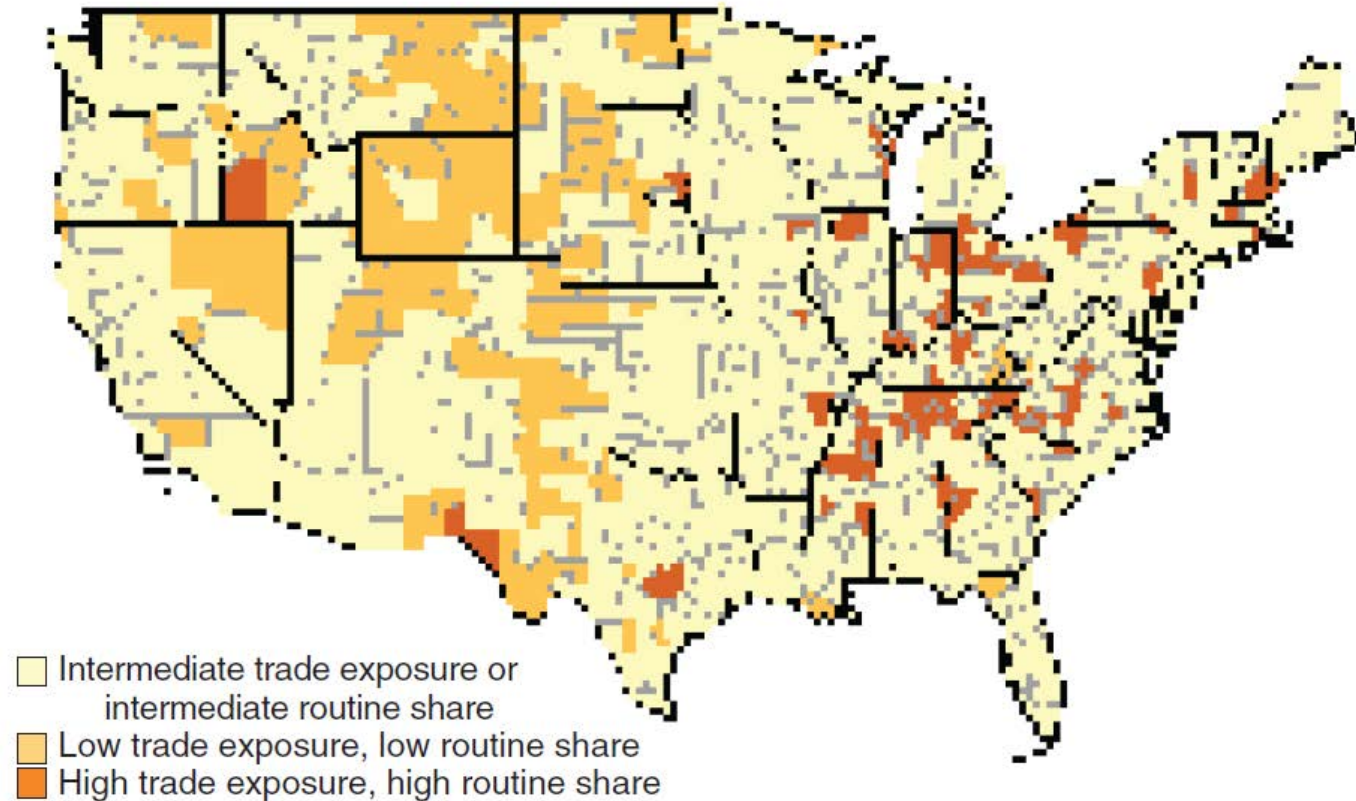


FIGURE 2. THE JOINT GEOGRAPHIC DISTRIBUTION OF TRADE AND TECHNOLOGY EXPOSURE

Conclusions

- USA consumers gain from trade with China
 - \$1 in \$20 spent on cheaper goods than otherwise
 - Diffuse and difficult to see
- Labor Intensive Manufacturing loses from trade with China
 - Jobs lost
 - Local wages suppressed
 - Difficulty transitioning to new careers