Comments on Autor, Dorn and Hanson's "On the Persistence of the China Shock"

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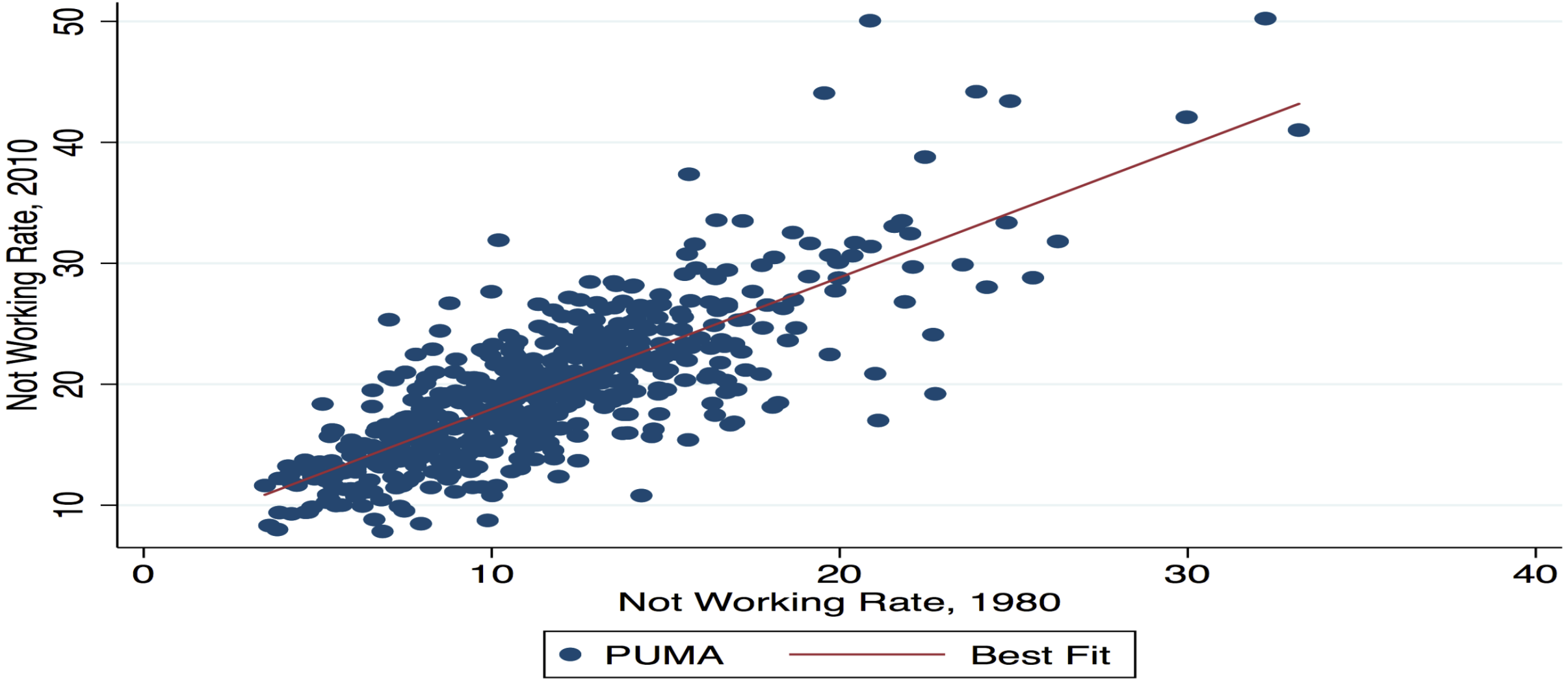
On the Persistence of the China Shock

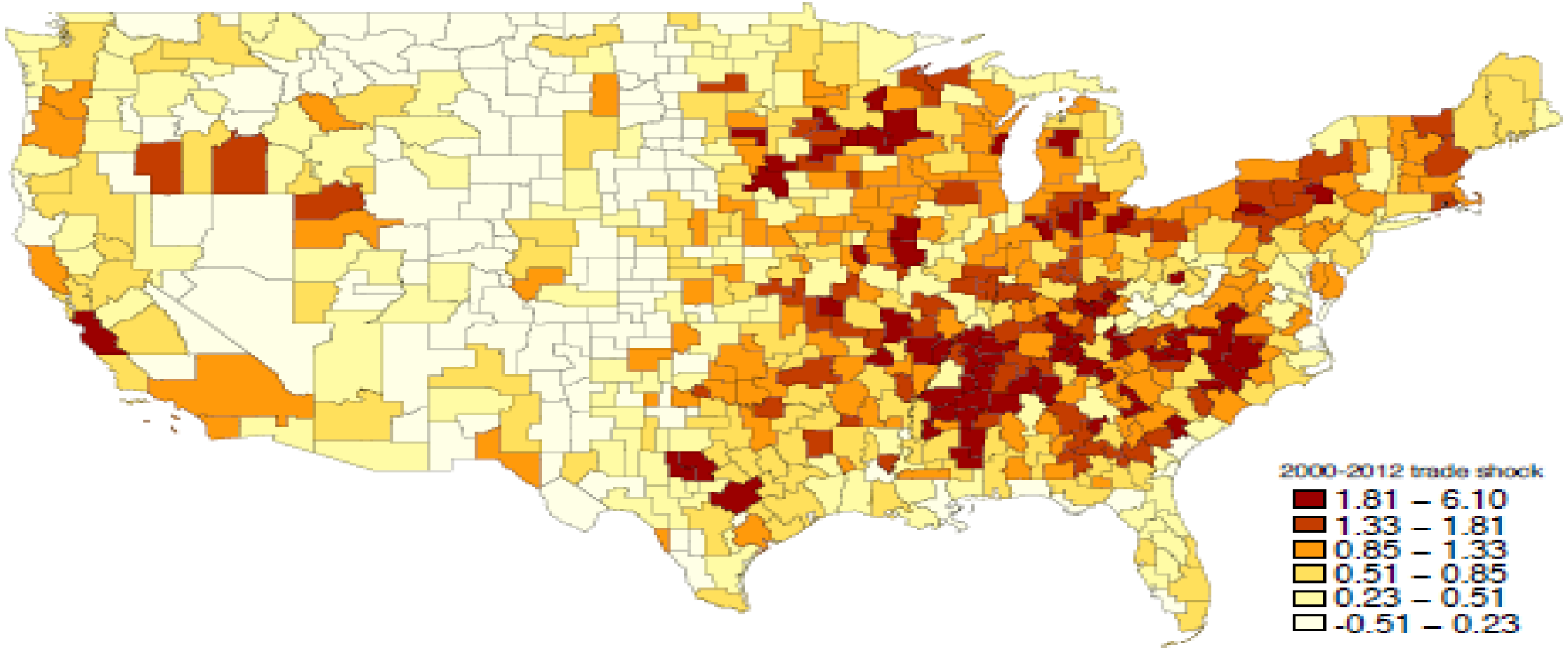
- The China Shock is large and incredibly important.
- The China Shock is remarkably persistent.
- I agree that there are other shocks that are much less persistent – but there are also shocks that are extremely persistent.
  - The decline of rust belt cities (not metropolitan areas) has lasted for 50 years.
  - The Mezzogiorno region has still not recovered from the unification of Italy.
- For me, this is best understood as an exercise in understanding why some places are able to recover from some shocks and other places are not. The deep puzzle of regional resilience.
- And I think that this relates to America's overall geographic sclerosis.

Persistence of not working and the end of regional convergence

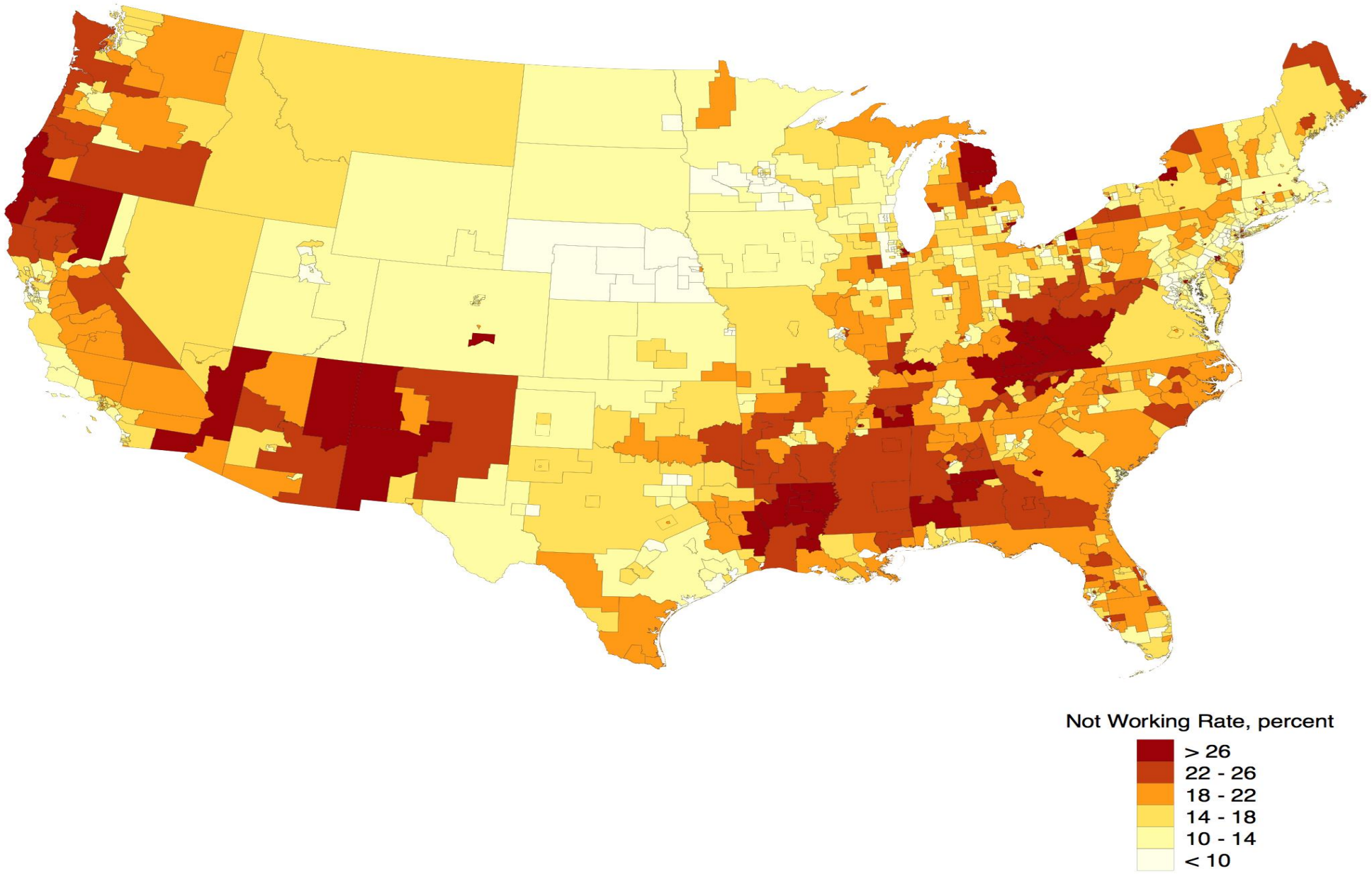


The China Shock and the Eastern Heartland

Figure 4: Chinese Import Penetration (2000-2012) in U.S. Commuting Zones



Geography of not working: Prime men 2015



What Makes a Regional Shock More Persistent?

- Regional shocks are often best seen as a reduction in the value of region-specific human and physical capital.
  - Destruction of buildings by bombs and natural disasters– recovery from these seems reasonably swift if other fundamentals remain (Davis and Weinstein).
  - Declining global demand for a local commodity, like coal?
  - Disease (Fluegge, 2021) or WWI (Ciccone, 2021) kills off entrepreneurs.
  - Technology (steam ships) makes human capital obsolete (Boston 1840)
- But the most common shock is that declining transportation costs reduce the value of an industry in a location.
  - In a sense, this happened to all of America's older, colder cities after WWII as former manufacturing clusters (e.g. garments in NYC) faced competition from Right-to-Work states and lower cost nations.

What about shocks make them more persistent?

- Obviously the size of the shock is important. Does this impact 20 percent of the tradeable sector in the city or 50 percent?
  - Does the local industry become totally non-tenable or just have to cut prices by 15 percent?
- Duration is a more difficult concept – many shocks are really a one-time drop in transportation costs and which requires some time for adjustment.
  - For example, you might permanently destroy a factory with a one time shock of this nature and it might take 15 years for the factory to fully close.
- I was not particularly interested in the comparisons with the Great Recession, which is a vastly more complex phenomenon, the comparison with the Japan Shock (Eriksson et al., 2021) is the most natural.
- The one industry shocks (coal) are interesting, but probably there needs to be more to conceptually link a transport cost shock with a commodity price shock.

What make place more resilient? Switching to different industries.

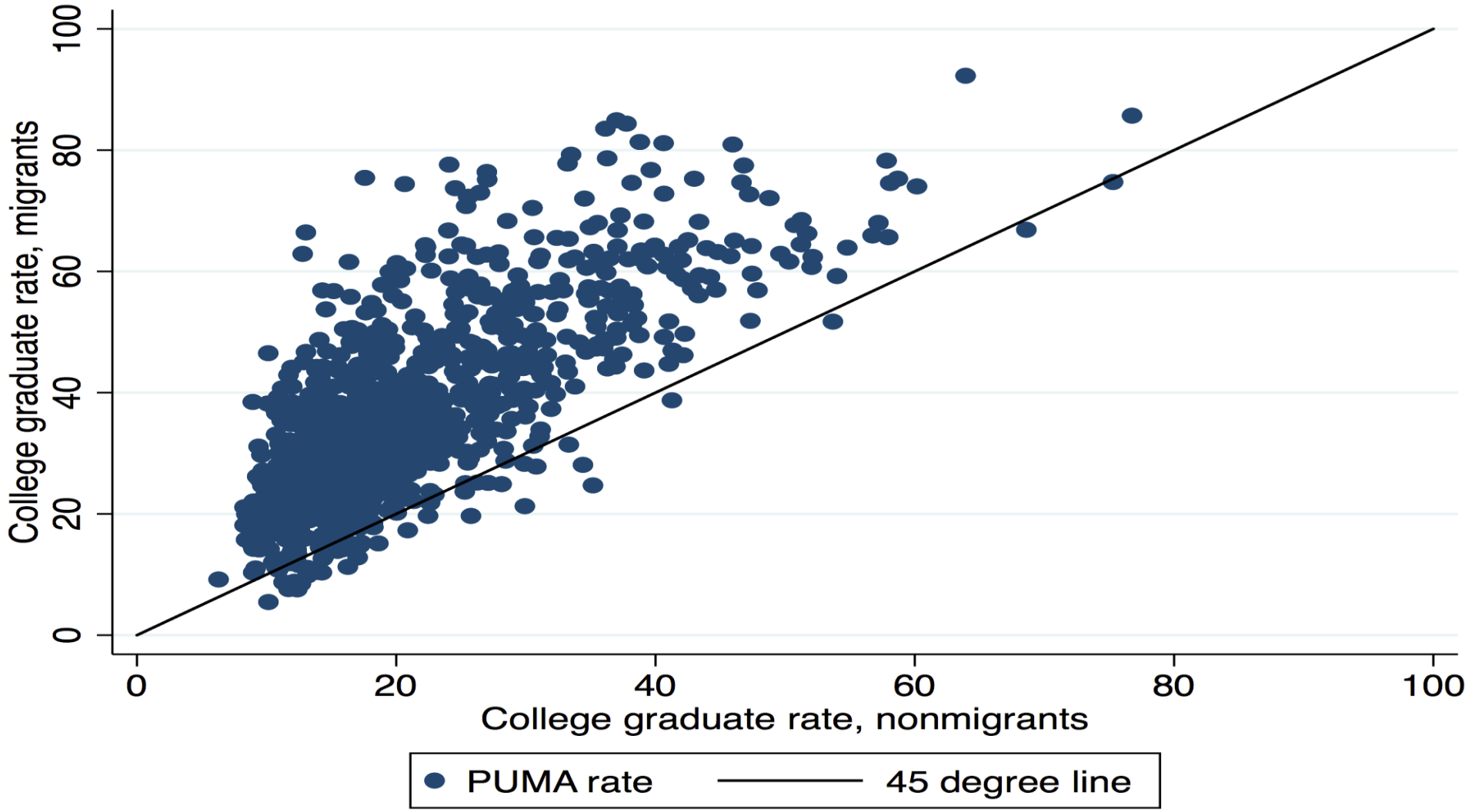
- New York City moved from garments to financial services; Seattle learned to do things beyond Boeing.
- Diversified worker human capital. Typically this is taken to be years of schooling (specific human capital is learned in the factory.
  - This is a strong predictor of both local success and also urban resilience to manufacturing downturns (Glaeser and Saiz, 2004).
  - The Schultz-Welch hypothesis argues that education is more valuable during times of shock (perhaps because it is general rather than specific h.c.)
- Diversified entrepreneurial talent (Chinitz, 1961). Measured with average establishment size (for all its flaw).
- The regulation of start-ups and new forms of employment can also stymie moves to different industries.
- They study industrial diversity and human capital, but not the other two.


Will the last person
leaving SEATTLE -
Turn out the lights.

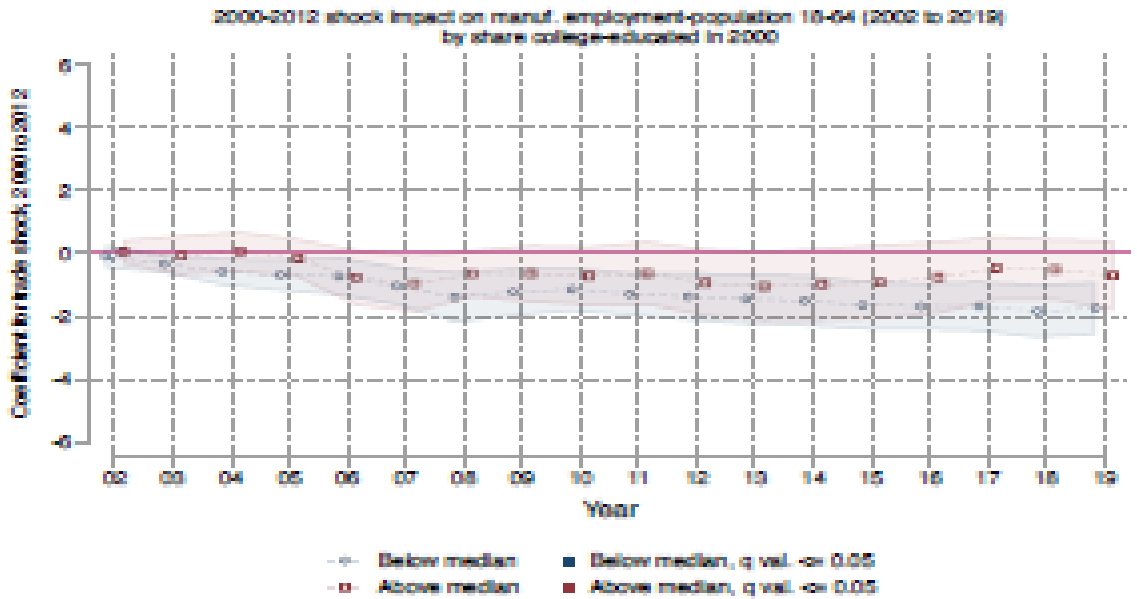
Adjustment Margin # 2: Out-migration

- Flight from natural disaster (Hurricane Katrina, the Dust Bowl) and exodus from the rust belt are classic examples.
- Always makes people more resilient but not necessarily places.
  - In an agricultural economy, yes (more land per person left).
  - In a manufacturing economy, maybe (if the capital stays put)
  - In a service economy, very unclear. The ability of people to relocate certainly makes people more resilient to local Selective out-migration of the skilled can make things worse.
- Durable housing (Glaeser and Gyourko, 2005) means that local shocks are asymmetric, so that booms increase population but busts reduce income and housing prices rather than reduce population.
- Selective out-migration of the skilled can make things worse.

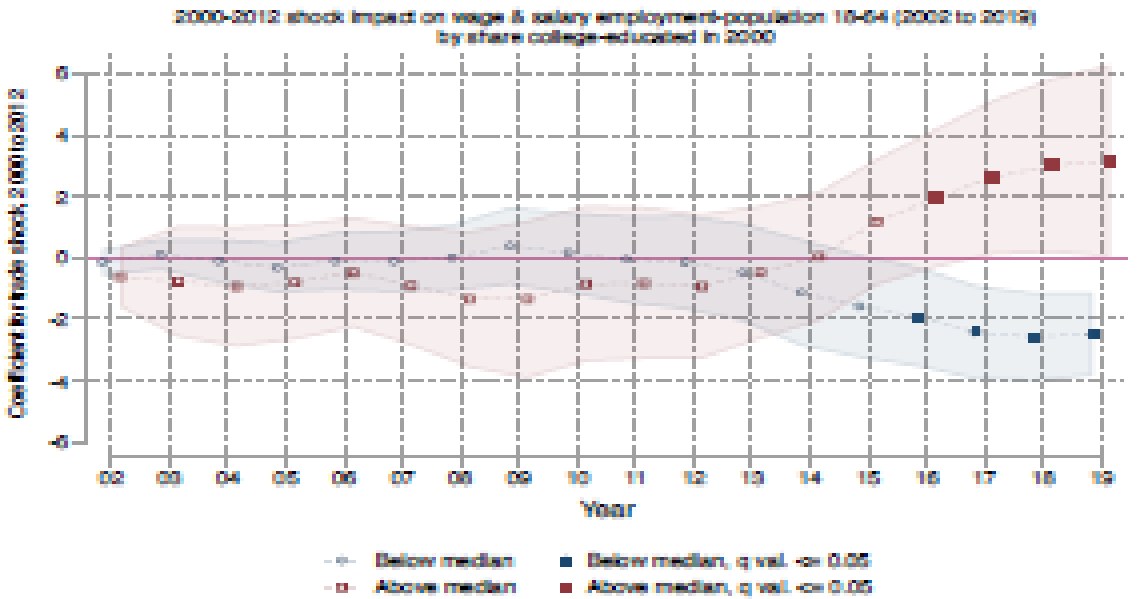
Skilled migration



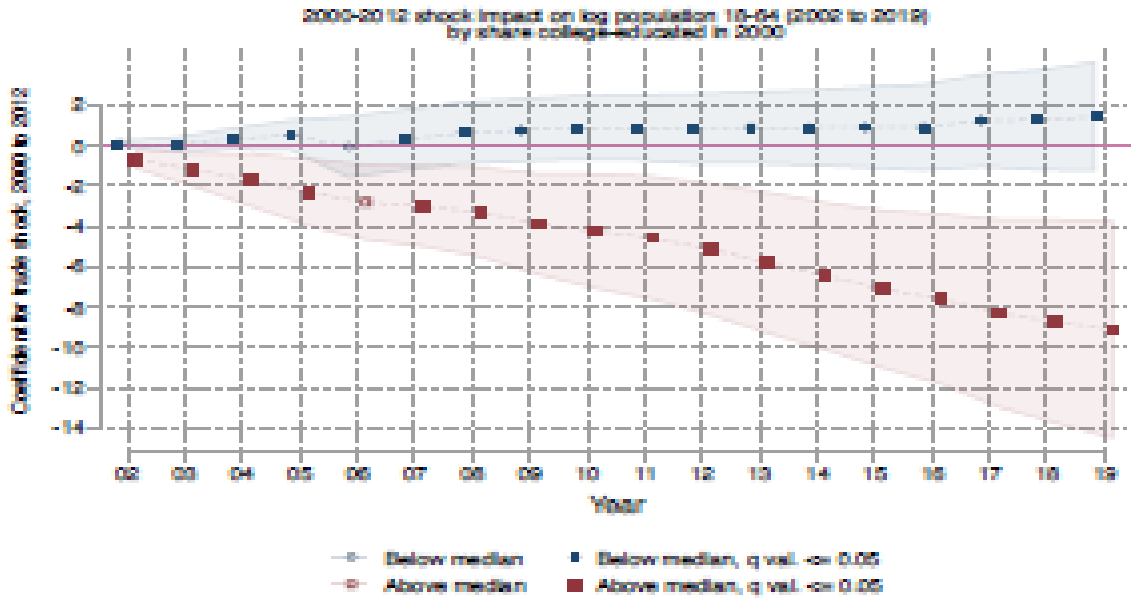
(a) Manuf. employment/Working-age pop.



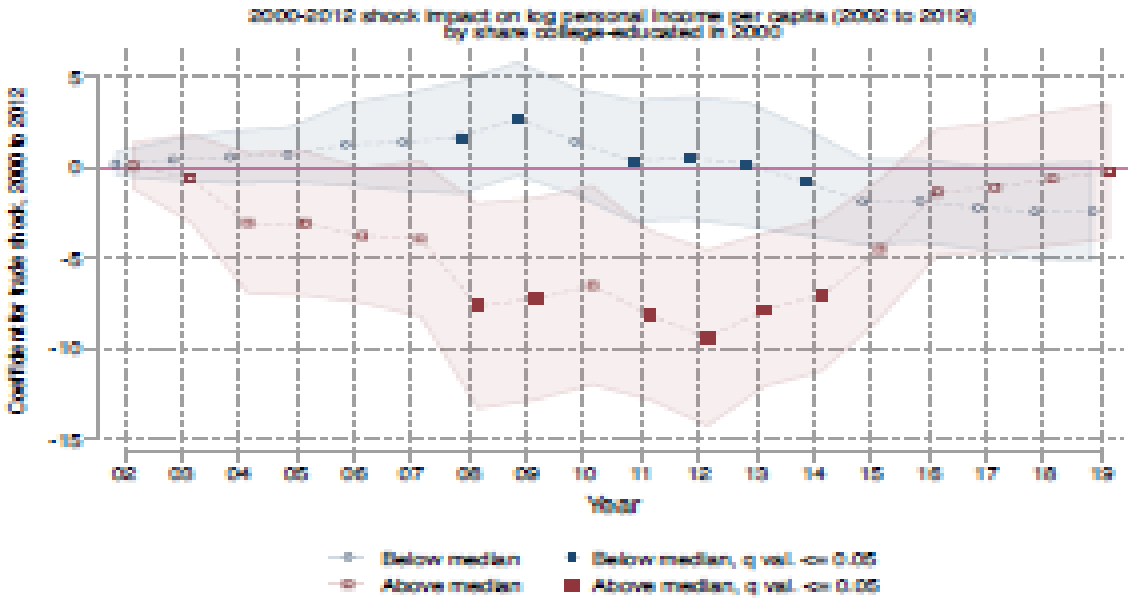
(b) Wage & salary employment/Working-age pop.



(c) Log working-age population



(d) Log personal income per capita

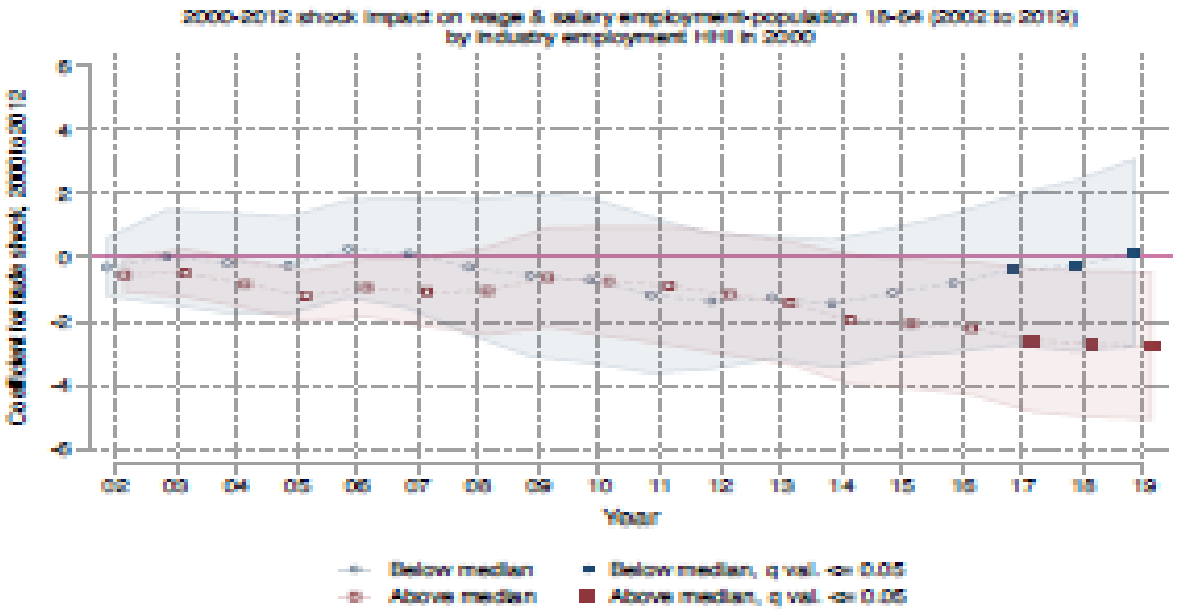


Education and Mobility

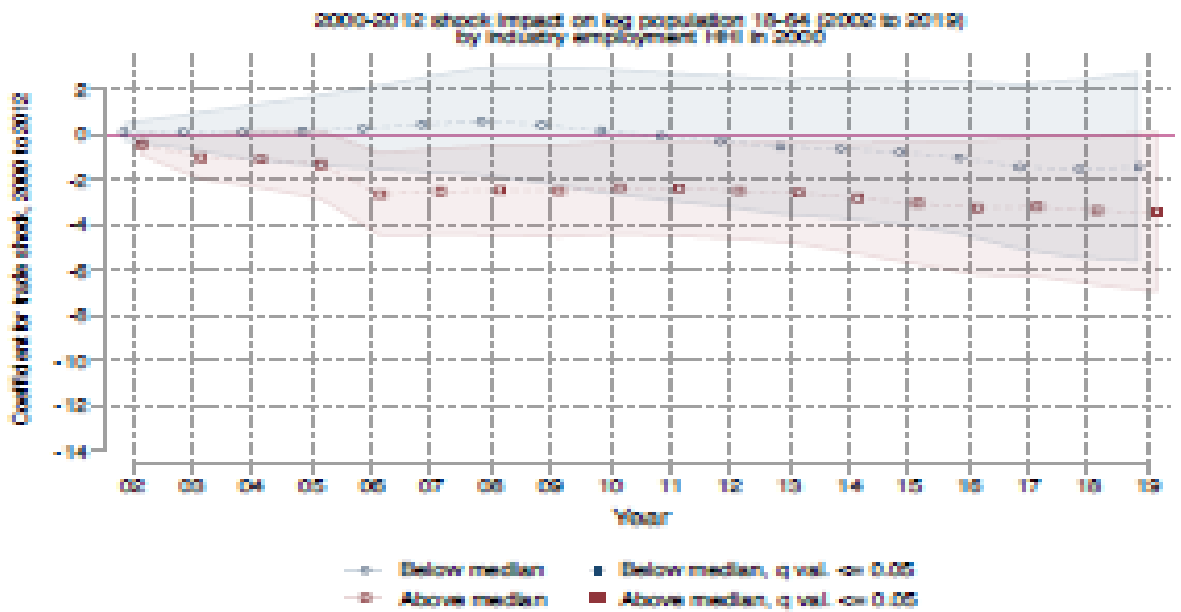
- These are fascinating and I would love to know what they mean.
- The less educated areas are easy (I think) – manufacturing leaves, population remains, some leave the labor force. It all seems reasonable (but why is personal income so steady).
- The more educated areas are odd: working age population falls, employment/working age population rises and incomes increase.
  - Is total number of households falling (do we see rising vacancies) or are workers being replaced with non-workers (like retirees)?
  - Do we have positively selected stayers? So that those who remain are particularly likely to have jobs and higher incomes?
  - Or are those who remain actually seeing competition for their labor push up wages? This seems somewhat relevant.

(a) Manuf. employment/Working-age pop.

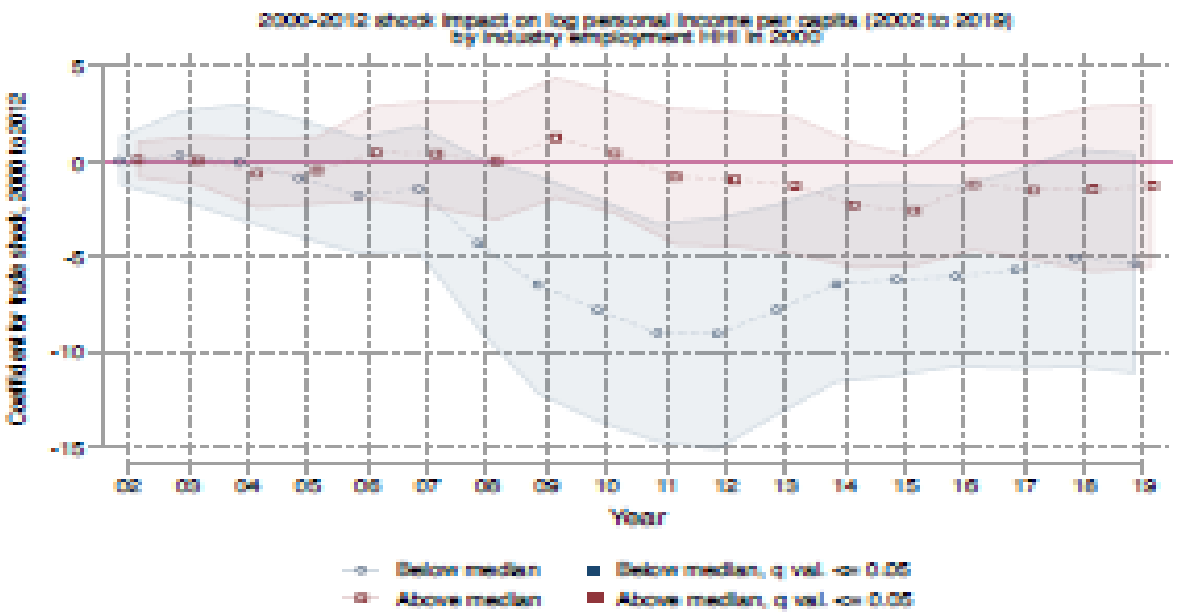
(b) Wage & salary employment/Working-age pop.



(c) Log working-age population



(d) Log personal income per capita

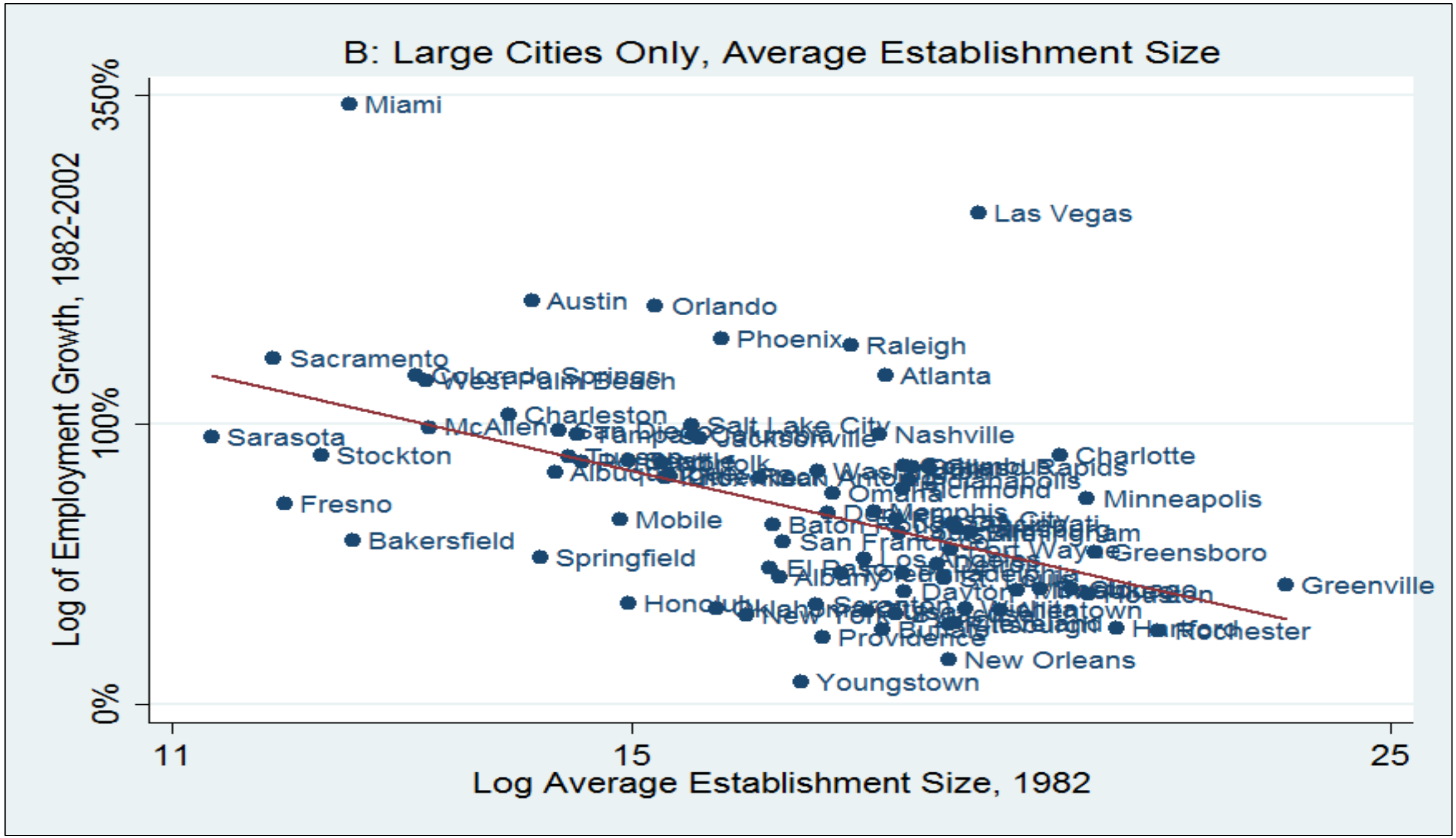


Specialization graphs seem (mostly) sensible

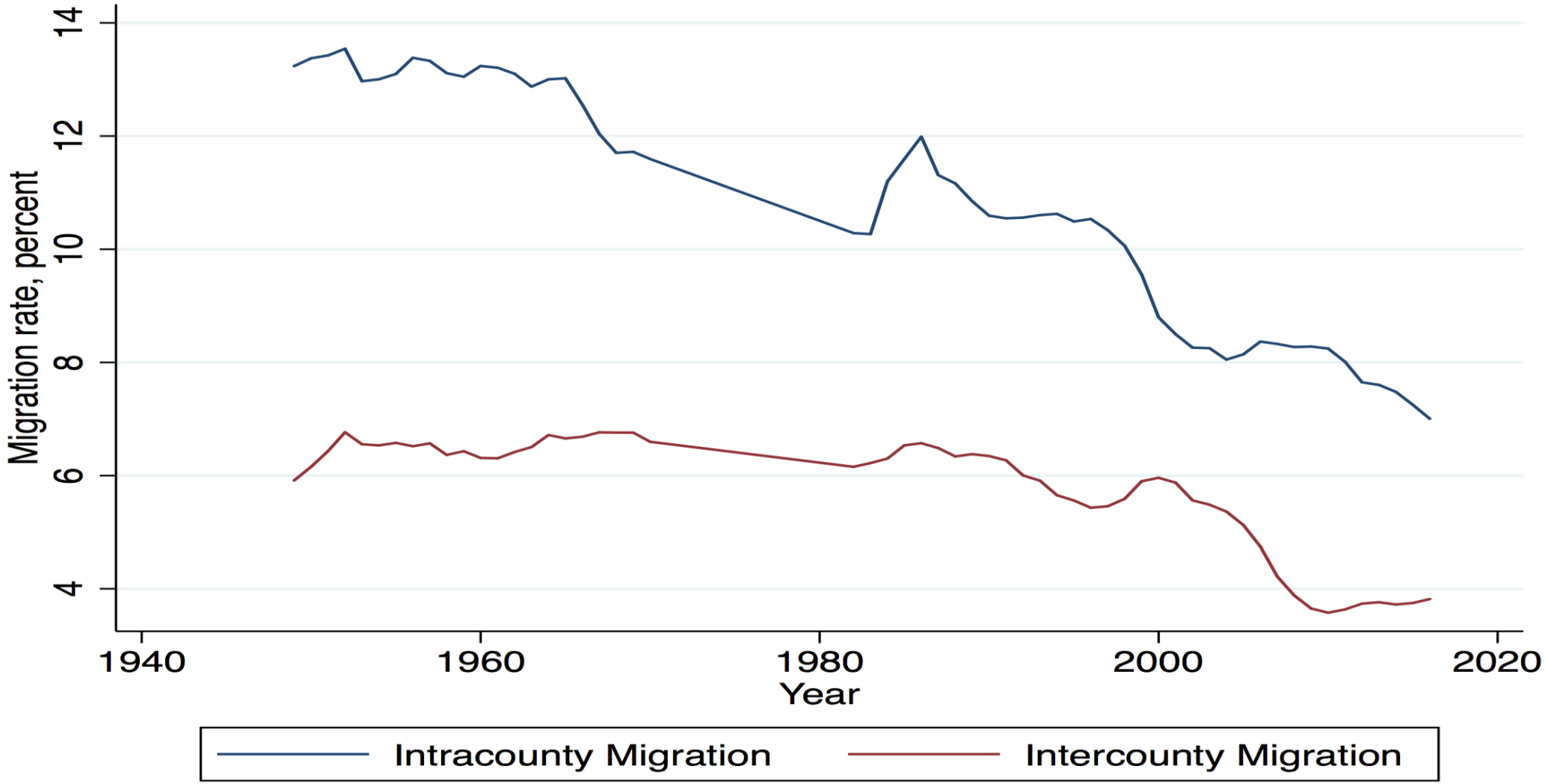
- More specialized areas have greater declines in manufacturing employment, greater drops in employment/population, greater drops in working age population BUT less of a fall in personal income.
- All compatible with the view that diversity creates resistance to the shock, but then why are incomes more robust in less diverse areas.
- Is manufacturing diversity different from non-manufacturing diversity? Tradeables from non-tradeables?
- Are diverse areas growing their pre-China shock manufacturing industries? Are those old firms or new firms?

What's Missing?

- I don't expect the authors to address this – they've done plenty– but there is a research agenda here around place-based vulnerability.
- In general – high frequency (annual) data does little for me – I am happy to look at decadal frequencies for these questions.
- I would like more granular information on the shifts across industries and the growth of firms of different ages and sizes.
- I would love to see more about stayers vs. leavers and the natural of selective out-migration. I would love to understand what's happening to the housing stock.
- The high human capital shocked places are particularly interesting.
- More on the regulation side; more on the entrepreneur, small firms side.


B: Large Cities Only, Average Establishment Size
Log of Employment Growth, 1982-2002
350%
100%
0%
11
15
25
Log Average Establishment Size, 1982
Miami
Las Vegas
Austin
Orlando
Phoenix
Raleigh
Sacramento
Atlanta
Charleston
Salt Lake City
Nashville
Sarasota
Stockton
Charlotte
Minneapolis
Fresno
Mobile
Bakersfield
Springfield
Greensboro
Greenville
Providence
New Orleans
Youngstown

The decline in migration and geographic sclerosis



Trade Policies and Place-Based Policies

- The most obvious policy takeaway from the China Trade Shock papers is that those of us (me included) who took a pollyannish view of lowering trade barriers (good for everyone, rah, rah) got it wrong.
  - The distributional consequences are serious and there were real losers.
  - We should have planned better.
- Place-based responses are more difficult—but growing sclerosis and the rise of prime-age joblessness makes the costs of locational collapse more severe.
  - Better education policies (vocational wrap around experiments?)
  - Targeted employment subsidies?
  - Rethinking regulation of entrepreneurship and new construction.