

*Policies Towards Trade, Outsourcing,  
and Foreign Investment*

Why Was the 'China Shock' so Shocking?  
– And What Does that Mean for Policy?

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# Why Was the 'China Shock' so Shocking?

## Question

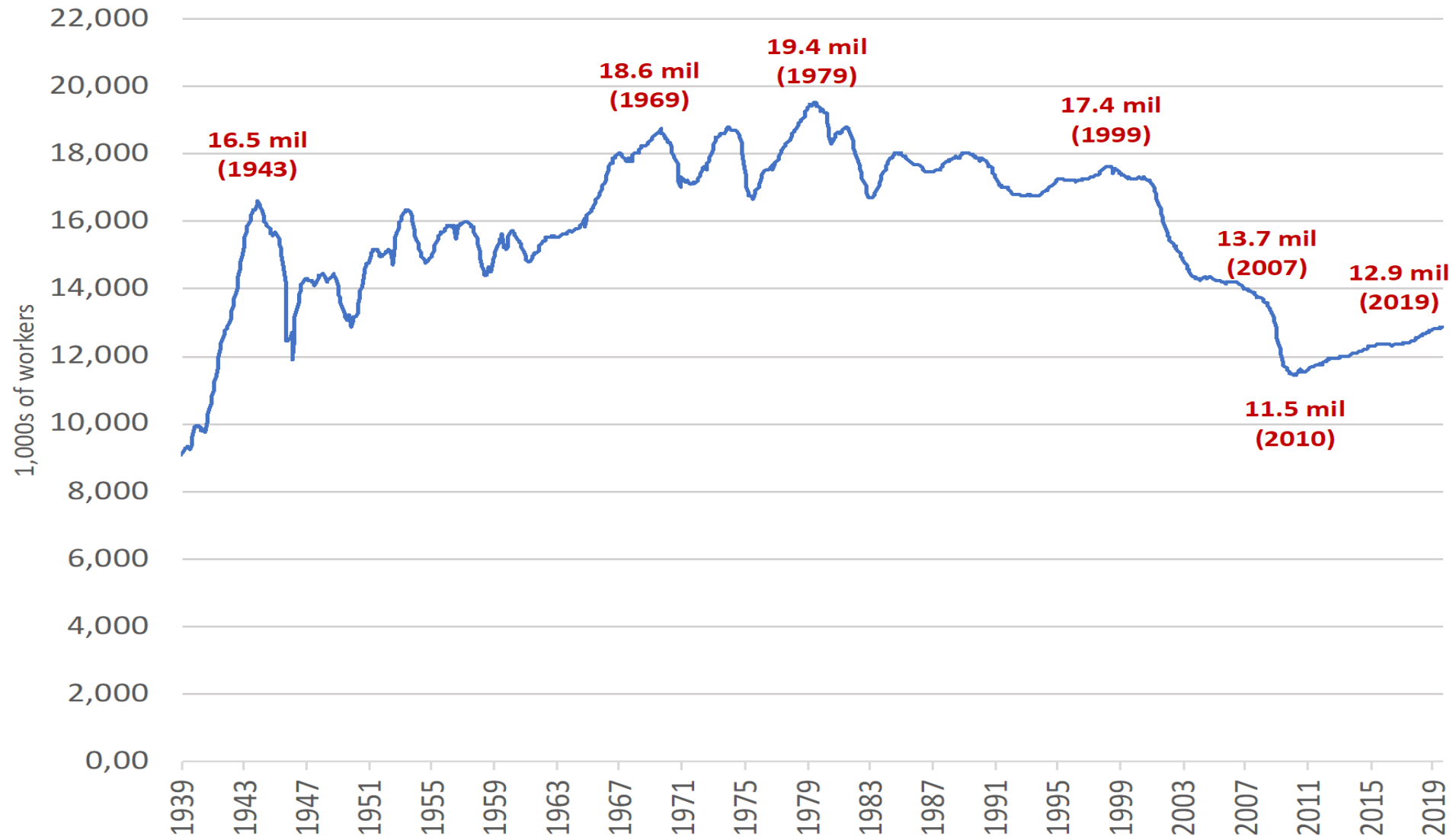
- Was something special (or especially bad) about the 'China Shock' **per se** – or was something special (or especially vulnerable) about the China-shocked **places**?
- And **what does the answer mean** for public policy / trade policy?

# Why Was the 'China Shock' so Shocking?

An Enormous Adverse Shock to U.S.  
Manufacturing Employment

*Swift, Measurable, Durable Effects on  
Workers and Households in Import-  
Exposed Labor Markets*

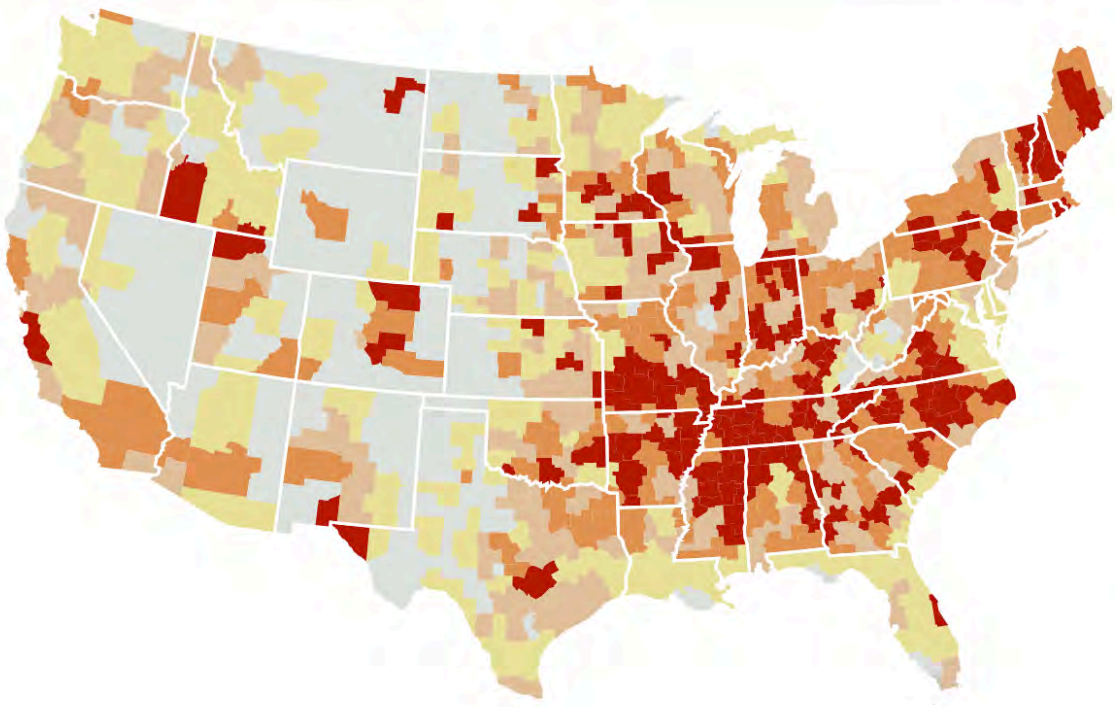
# U.S. Manufacturing Employment Fell by 20% between 1999 and 2007, and by 33% between 1999 and 2010



# Concentrated Geographic Impact of China Trade Shock: South Atlantic, South Central, Northeast, Great Lakes

### Most-affected areas of the U.S.

Colors show which areas were most affected by China's rise, based on the increase in Chinese imports per worker in each area from 1990 to 2007. Hovering over each area on the map will show a demographic breakdown of that area, below, and its most-affected industries, at right.



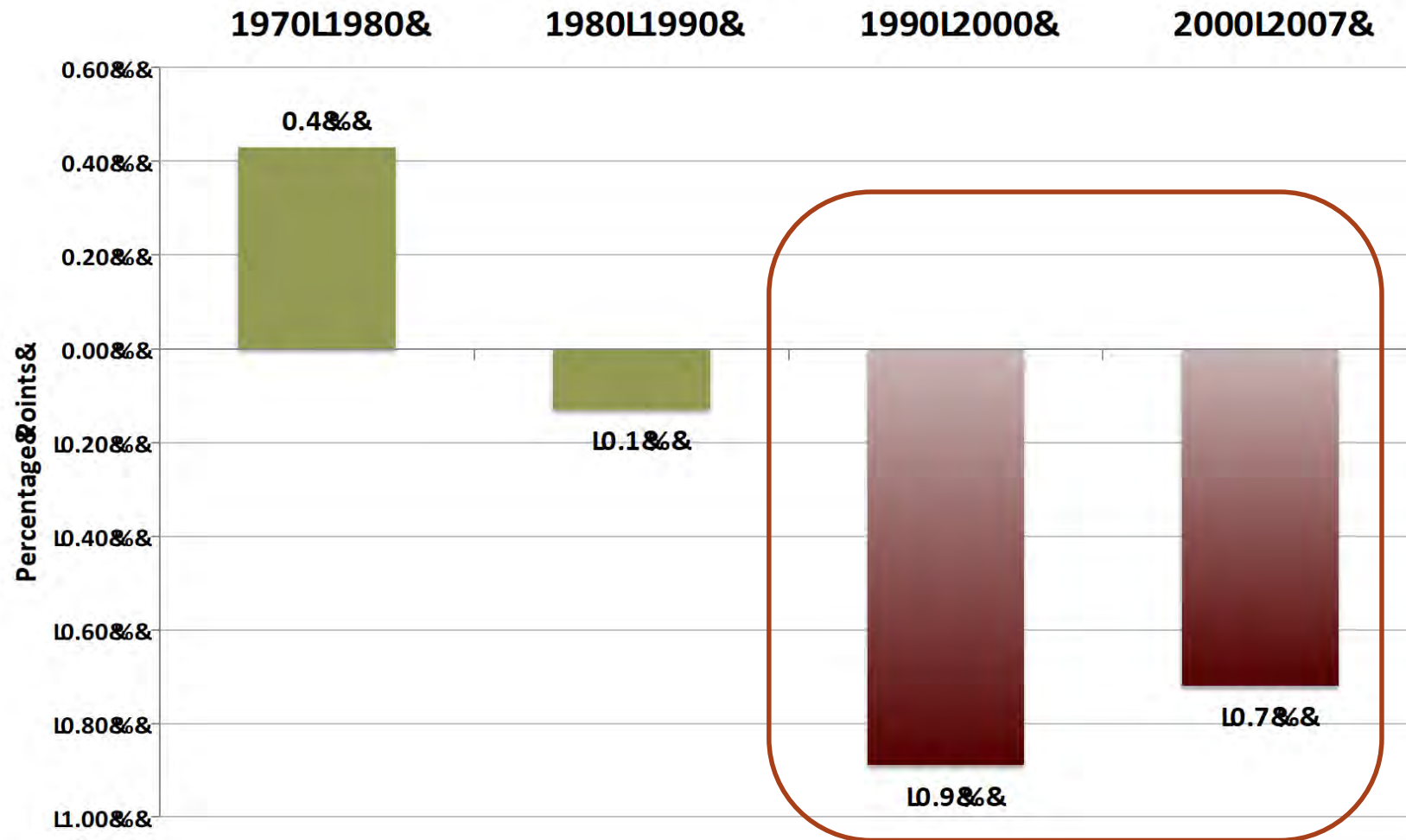
### Most-affected industries

Most-affected industries, based on number of areas\*      Impact per worker†

<b>Furniture and fixtures</b>	196 areas	\$44k
<b>Games, toys, and children's vehicles</b>	114 areas	\$488k
<b>Sporting and athletic goods</b>	106 areas	\$82k
<b>Electronic components</b>	87 areas	\$65k
<b>Plastics products</b>	84 areas	\$11k
<b>Motor-vehicle parts and accessories</b>	79 areas	\$12k
<b>Electronic computers</b>	68 areas	\$207k

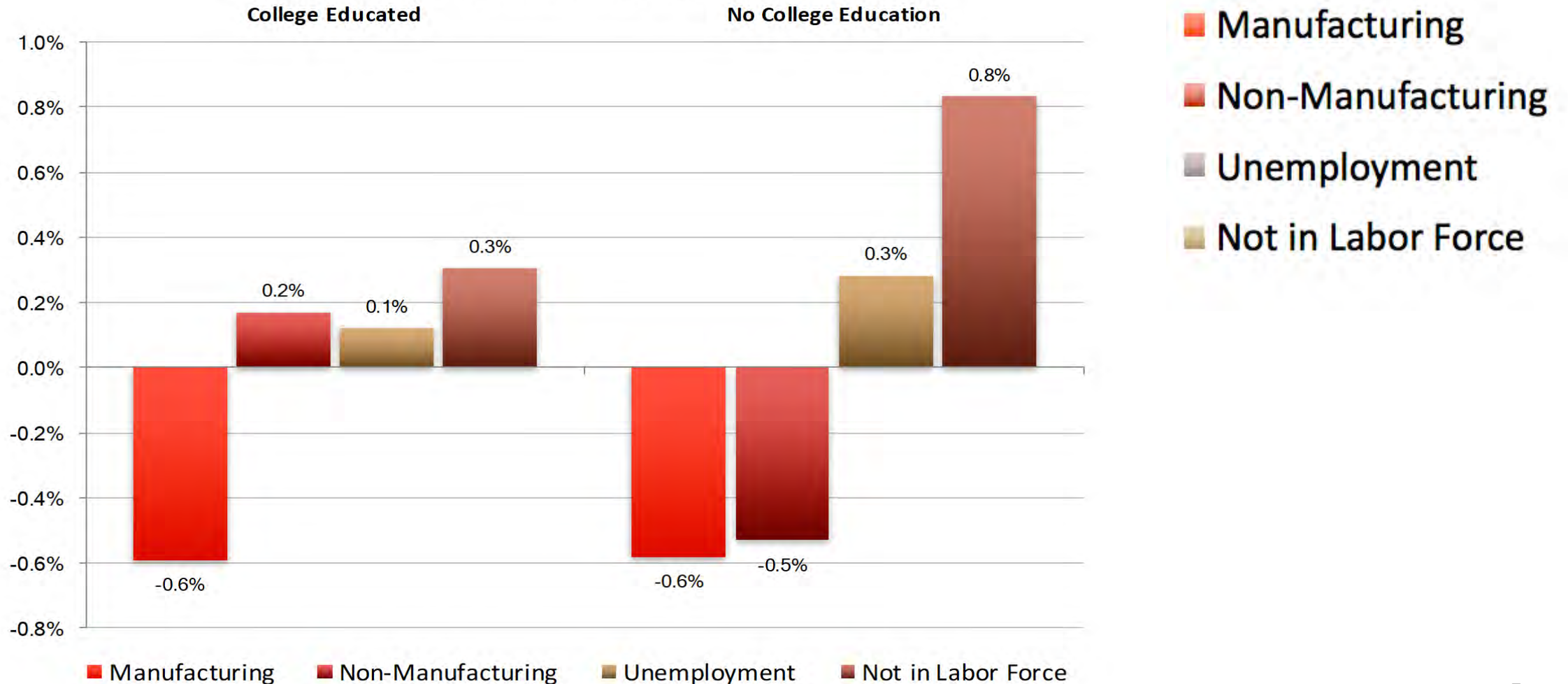
# Adverse Effect of China Trade Shock on Manufacturing Employment Per U.S. Adult by Decade: **Begins in 1990s**

*Effect of an \$1000 Per Worker Increase in Imports from China during 1990-2007 on the Change in Manufacturing Employment as a Percentage of the Working age Population*

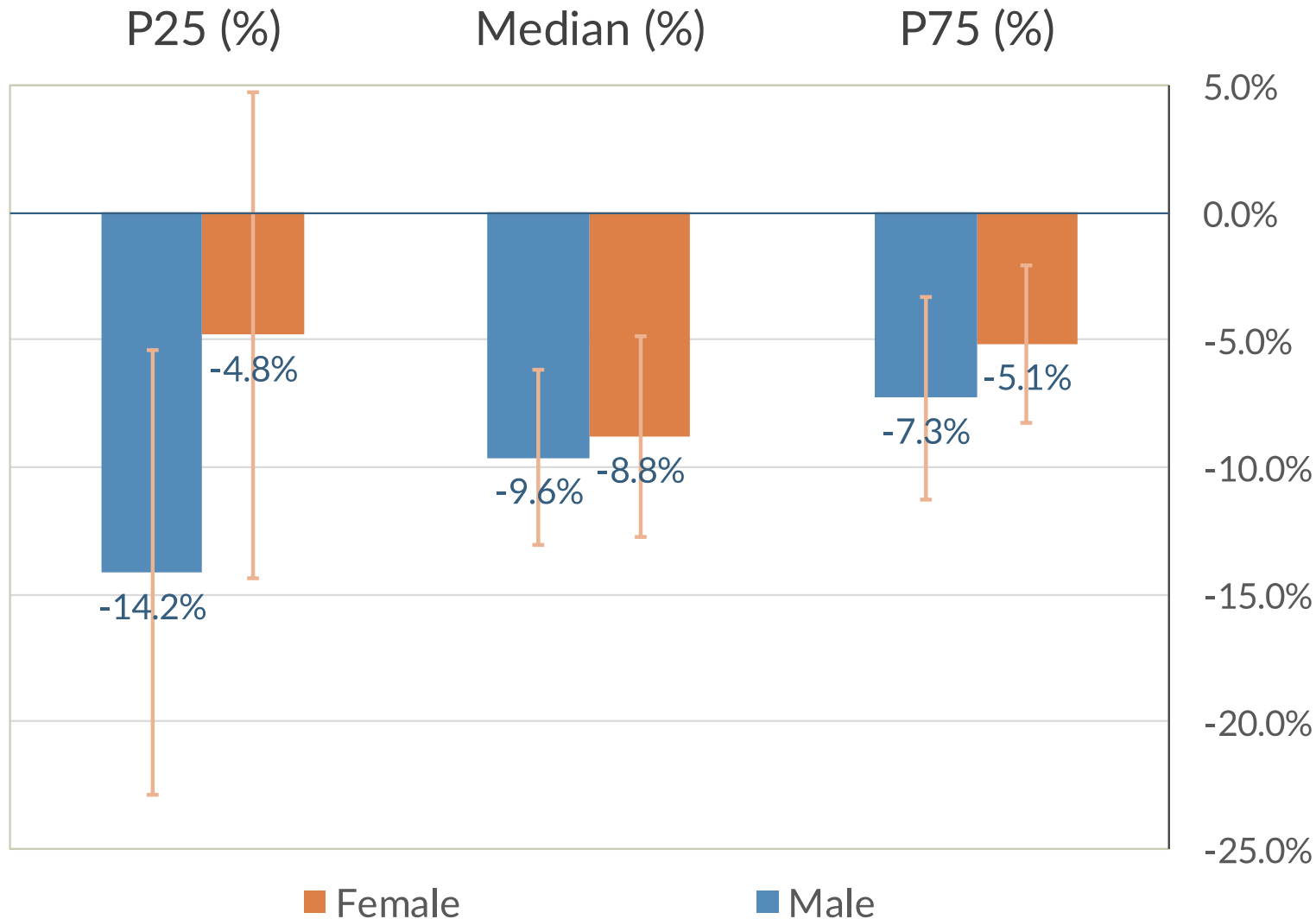


# Effects Much More Severe for Non-College Adults: Jumps in Unemployment & Mostly Nonparticipation

*Effect of an \$1000 Per Worker Increase in Imports from China during 1990-2007 on  
Share of Population in Employment Categories*



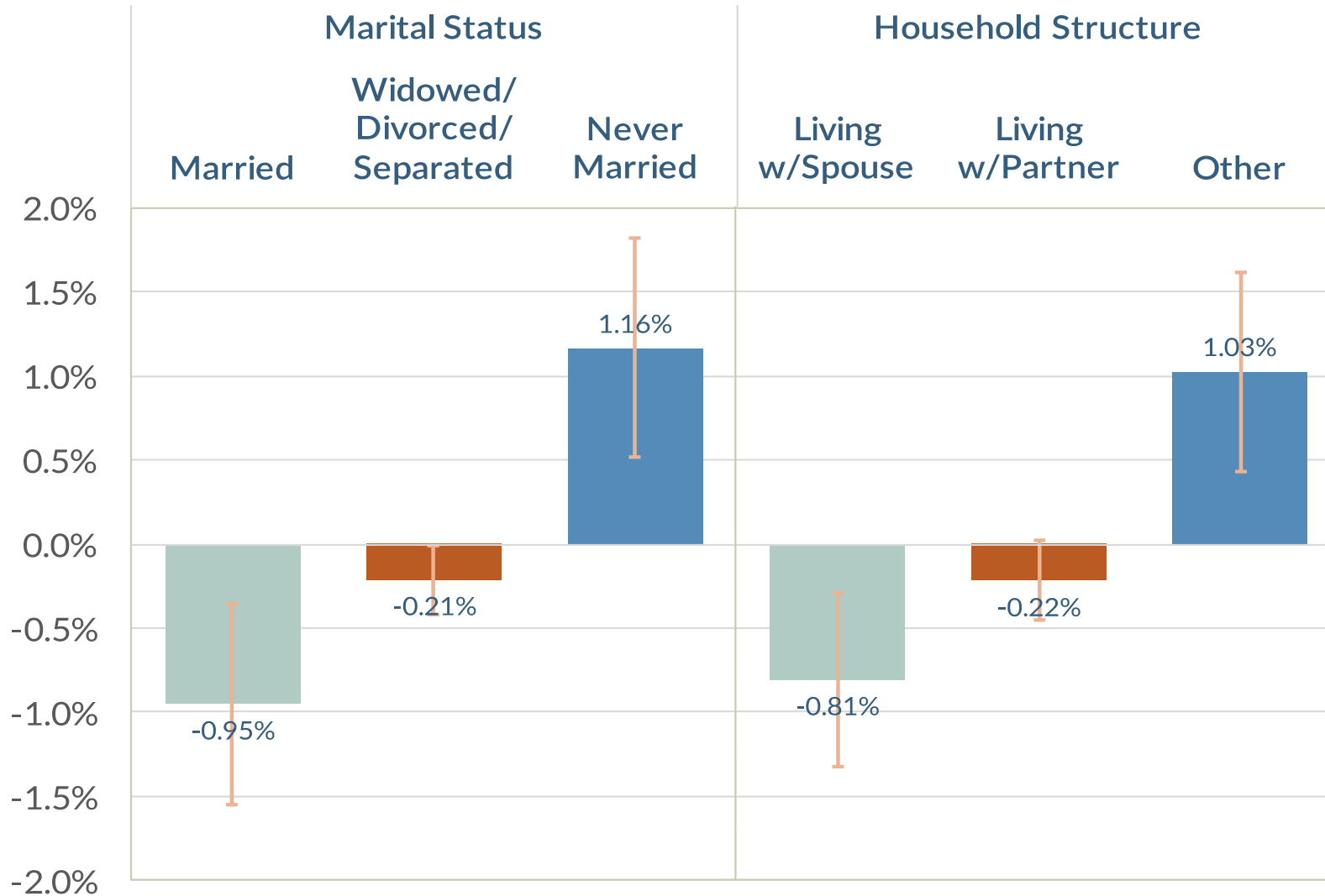
# Disproportionate Fall in Earnings of Adult Men @ P25, P50, and P75



Male and female earnings fall in shocked CZs, but falls especially steep among lower-wage men

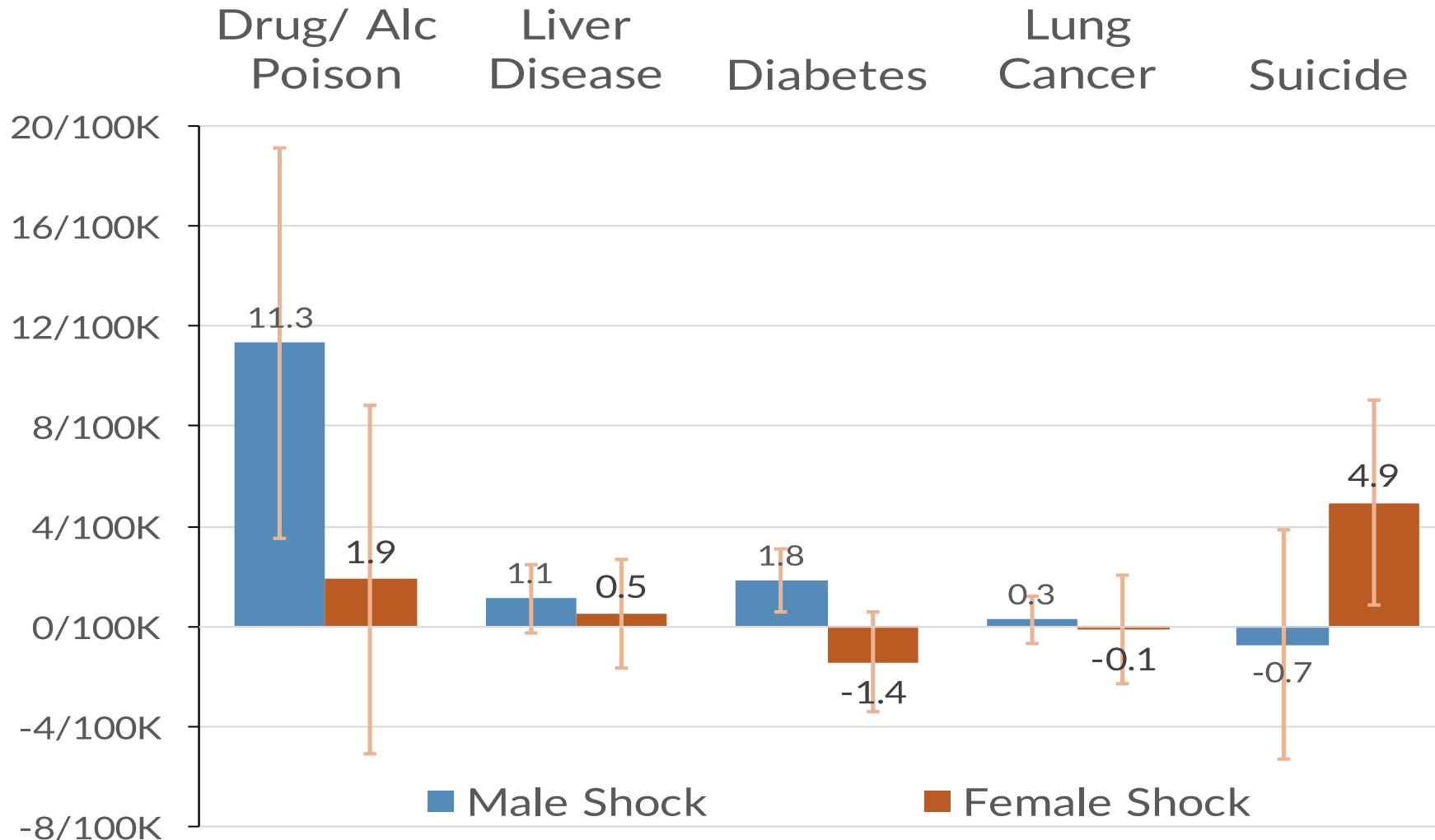


# Impacts Beyond the Labor Market: Effects on Marital Status and HH Structure of Adults Ages 18 to 39



In affected region, fraction of young adults who are ever married, living with spouse, or living with partner falls

# A Rise in 'Deaths of Despair': Shock Leads to Rise in Mortality among Adults Ages 20 – 39 (per 100K Adults)



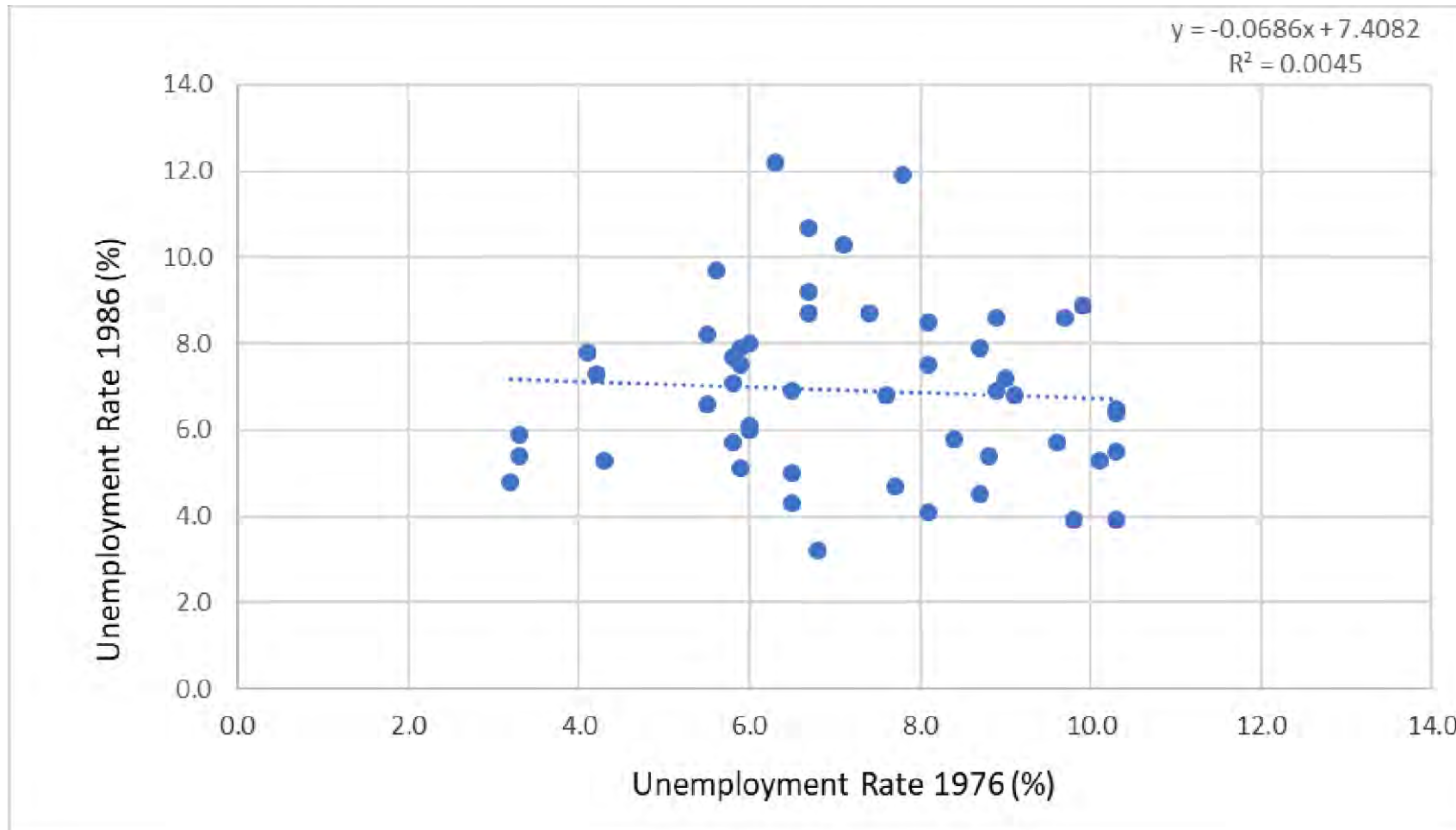
In affected CZs, a significant increase in mortality among young adults – esp. males

Why Was the 'China Shock' so Shocking?

China Shock Occurred Against Backdrop  
of **Falling Regional Convergence**

# Non-Persistence of Unemployment in mid 70's – mid 80's: State Unemployment Rates, 1986 vs 1976

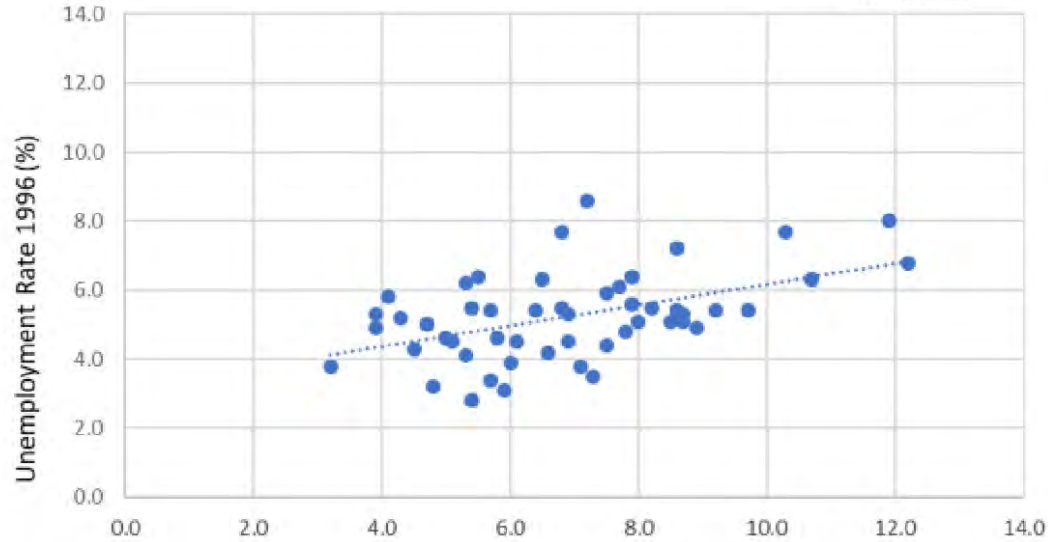
Figure 3: Changes in State Unemployment Rates 1976-1986



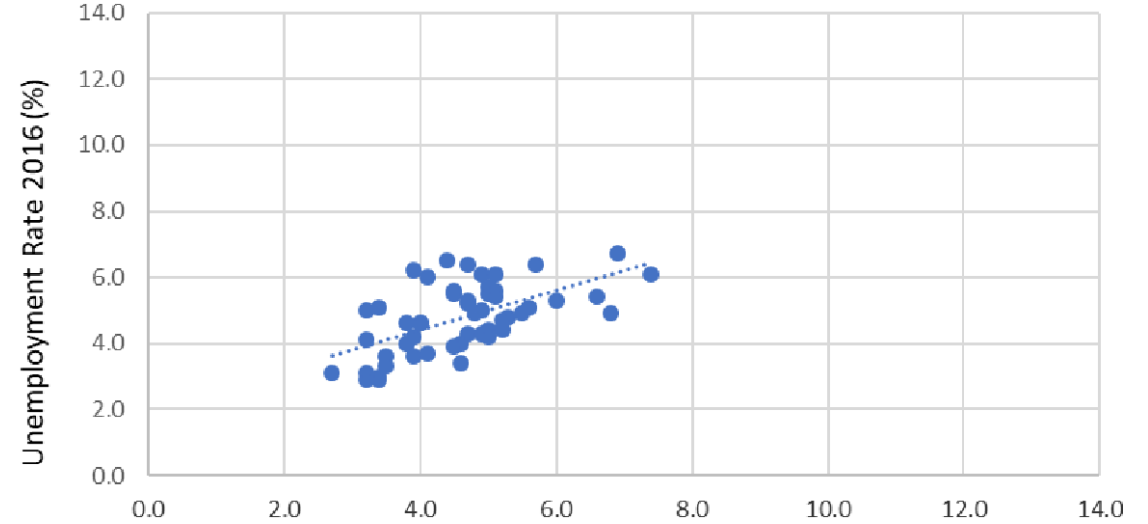
Russ & Shambaugh 2019

# But Look at the Next Three Decades: Persistence

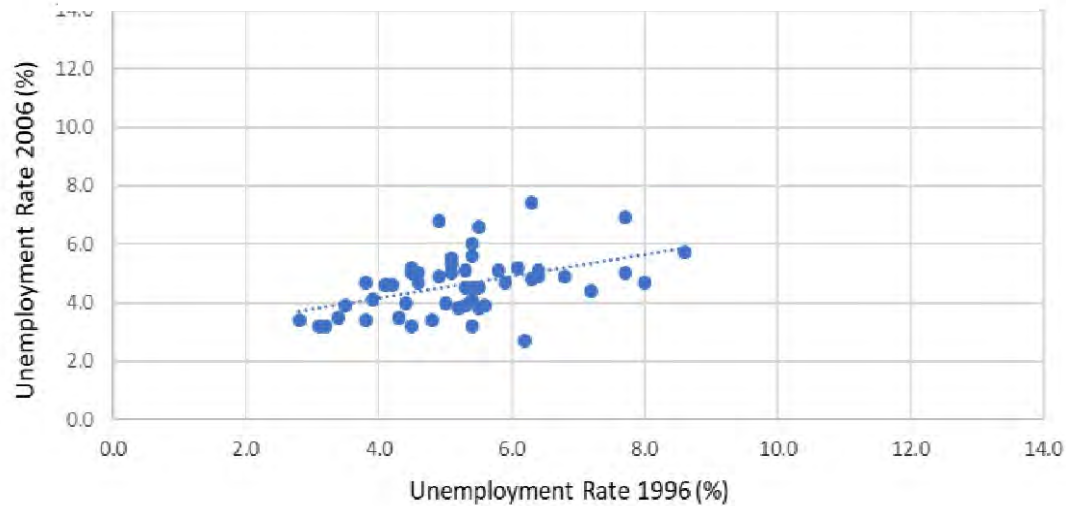
1986 vs. 1996



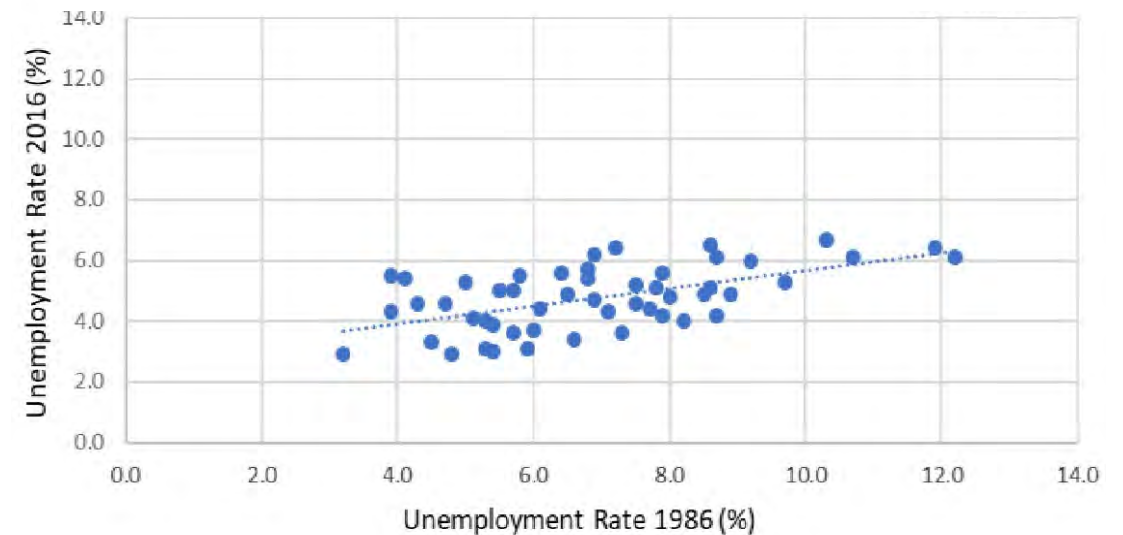
2006 vs. 2016



1996 vs. 2006



1986 vs. 2016



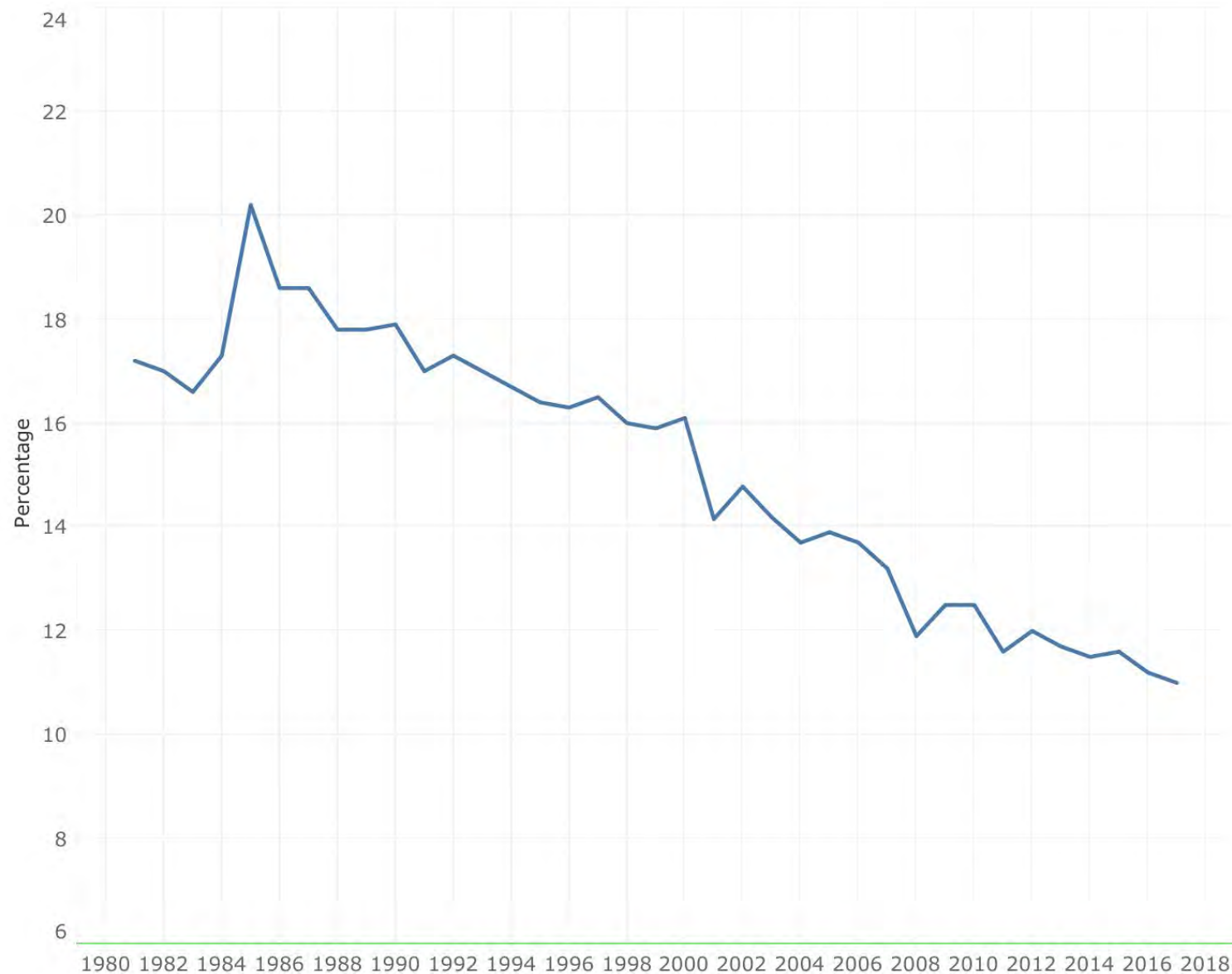
# Why Was the 'China Shock' so Shocking?

Geographic Mobility of U.S. Residents

**Has Been Falling for Three Decades**

– And it's Not Clear Why

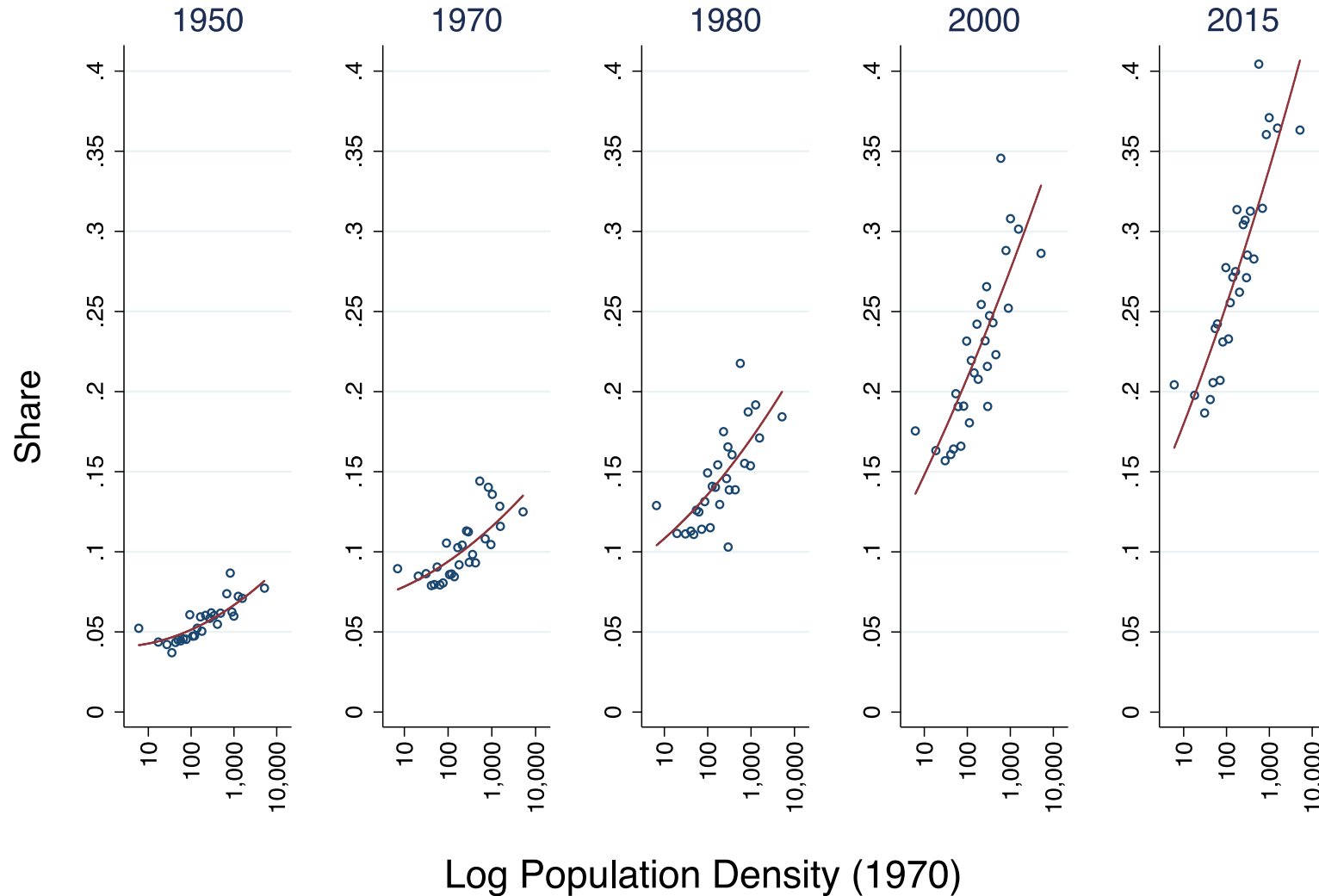
# Share of the U.S. Population Making Interstate Moves Fell From 20% in 1985 to 11% in 2017



Source: Third Way and U.S. Census Bureau,  
Current Population Survey, Historical  
Migration/Geographic Mobility Tables

# As the Skill Premium Rose, Urban Areas Became Vastly More Educated

## College Educated Share of Working-Age Population



**Urban Areas Have  
Become Much More  
Educated Since 1980**

Urban-Rural College  
Degree Gap

**1950: 5 pct points**

**1970: 5 pct points**

**1980: 8 pct points**

**1990: 13 pct points**

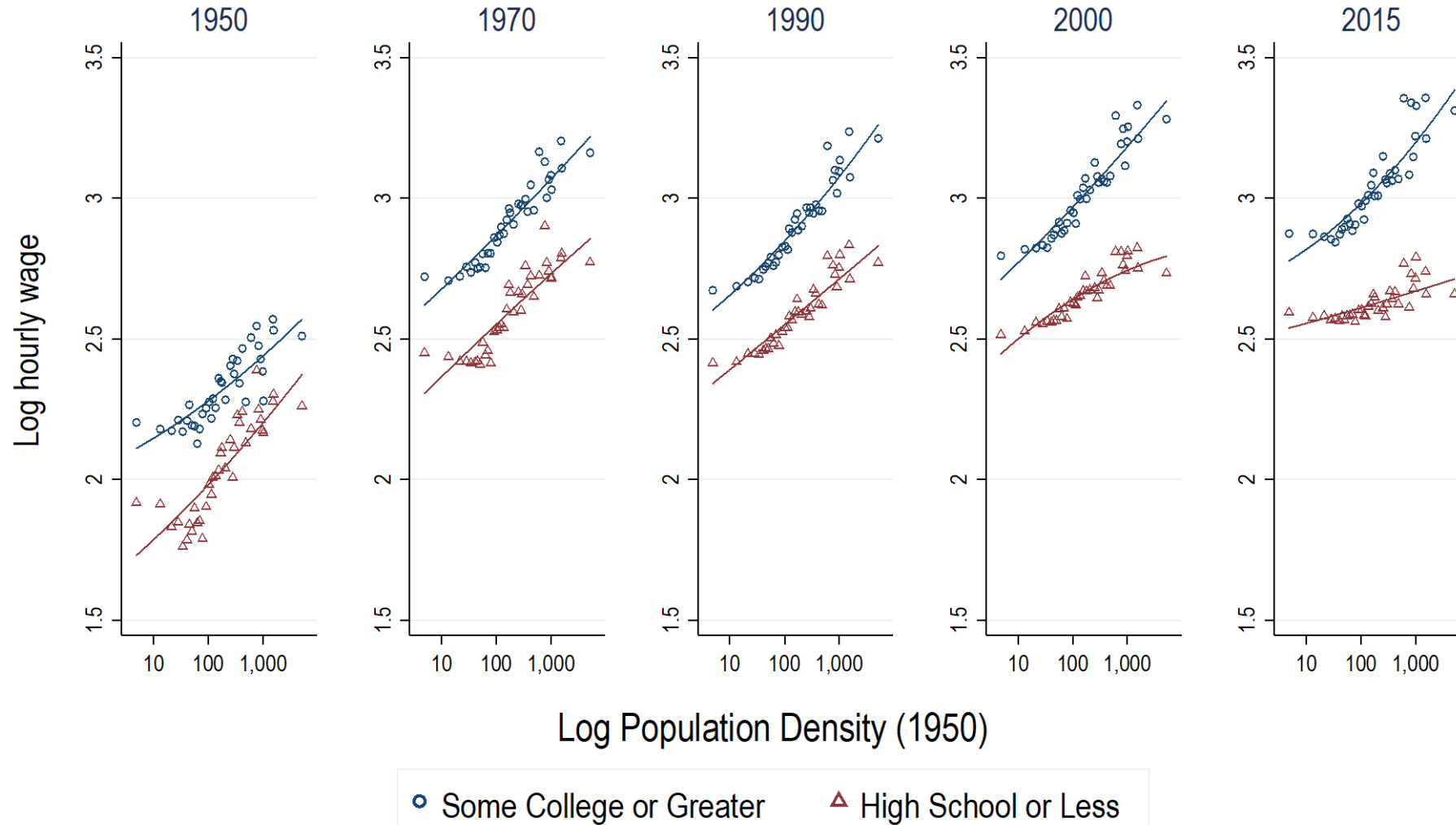
**2000: 17 pct points**

**2015: 20 pct points**



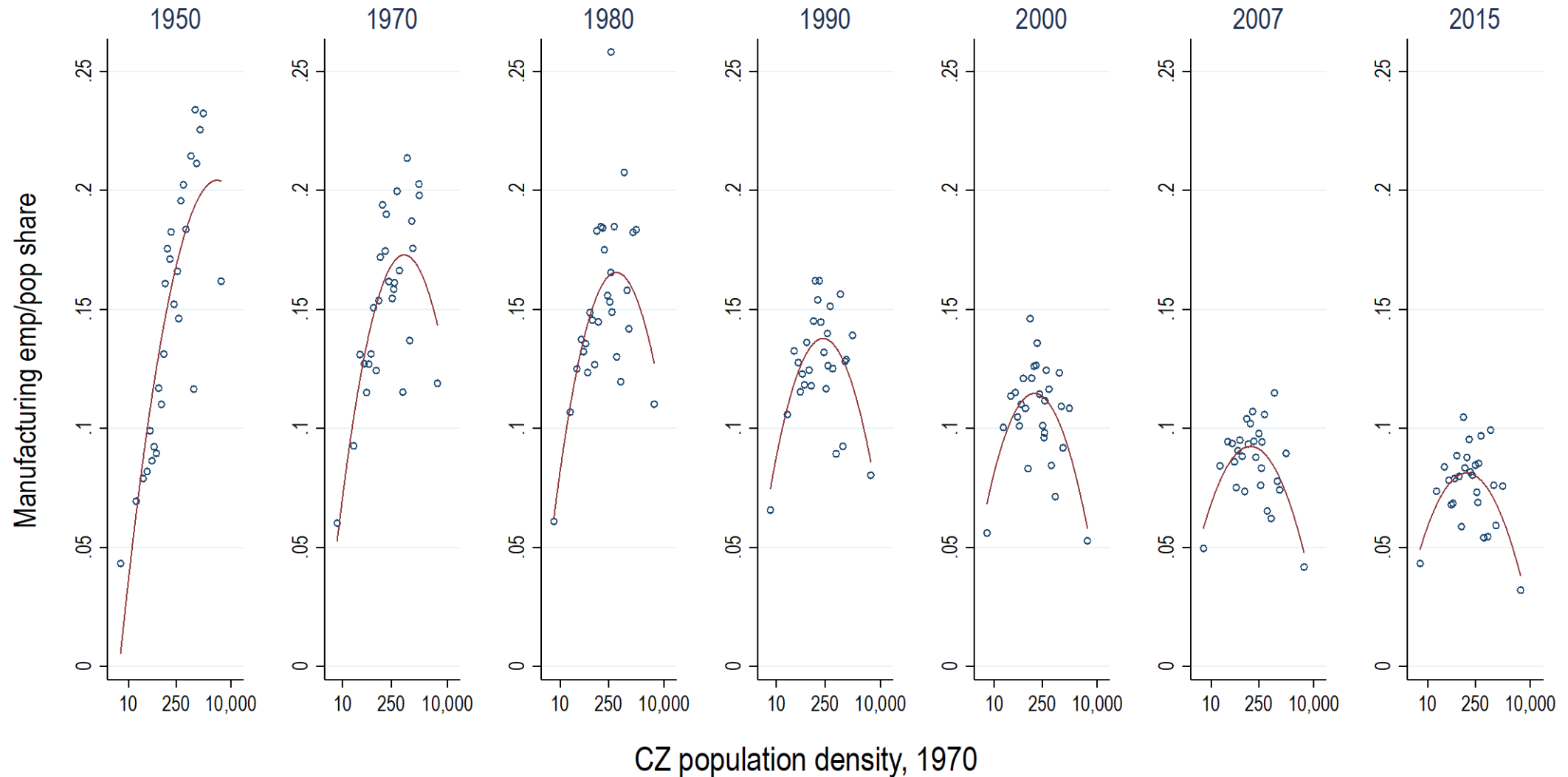
# Urban Wage Premium Collapsed for Non-College Workers after 1990, Rose for College Workers

Declining Urban Wage Premium among Non-College Workers  
Log Real Earnings of Working-Age Adults (\$2015)



# Meanwhile, Manufacturing Moved Out of Urban Labor Markets during the Post-War Decades

Manufacturing Employment to Population, 1970-2015

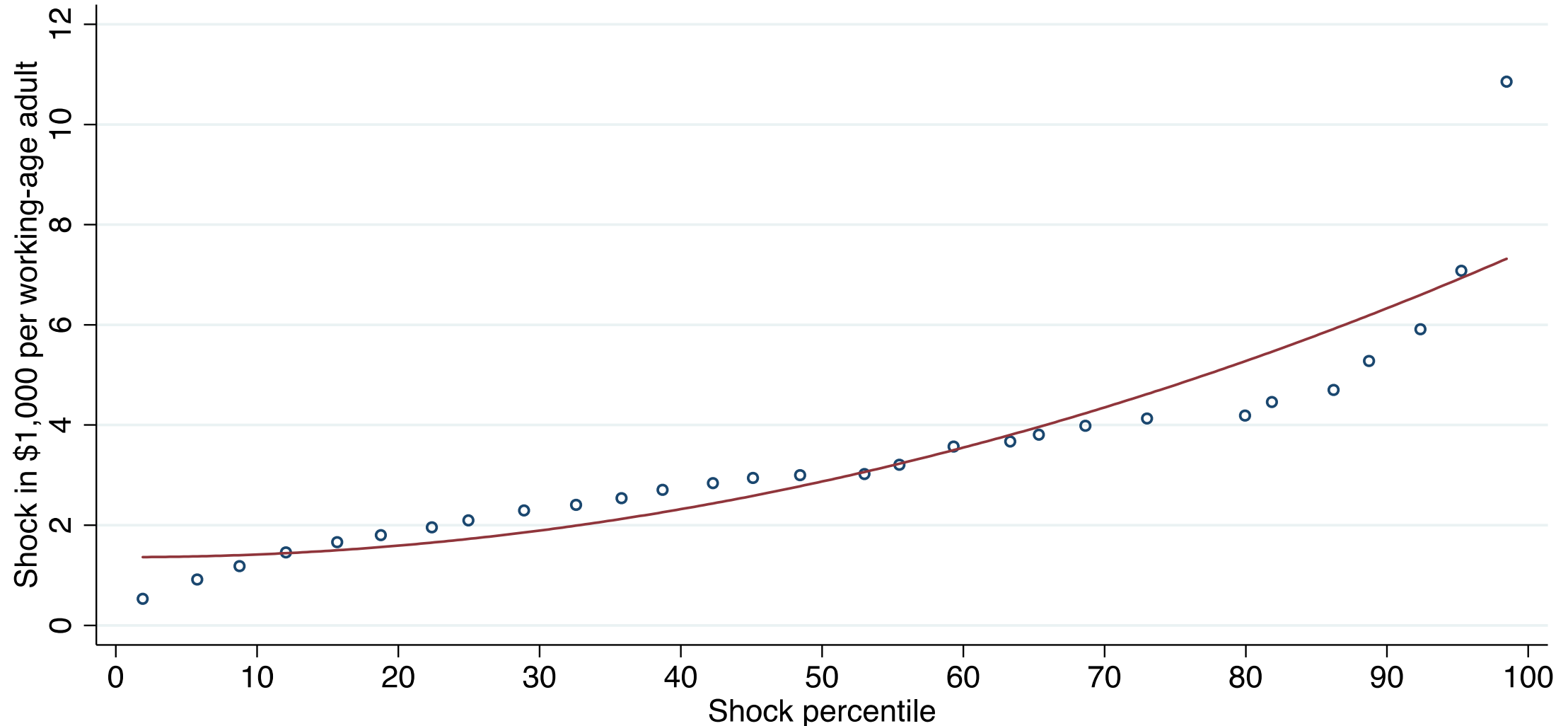


# Why Was the 'China Shock' so Shocking?

Future 'China-Shocked' Local  
Labor Markets Were **Vulnerable**

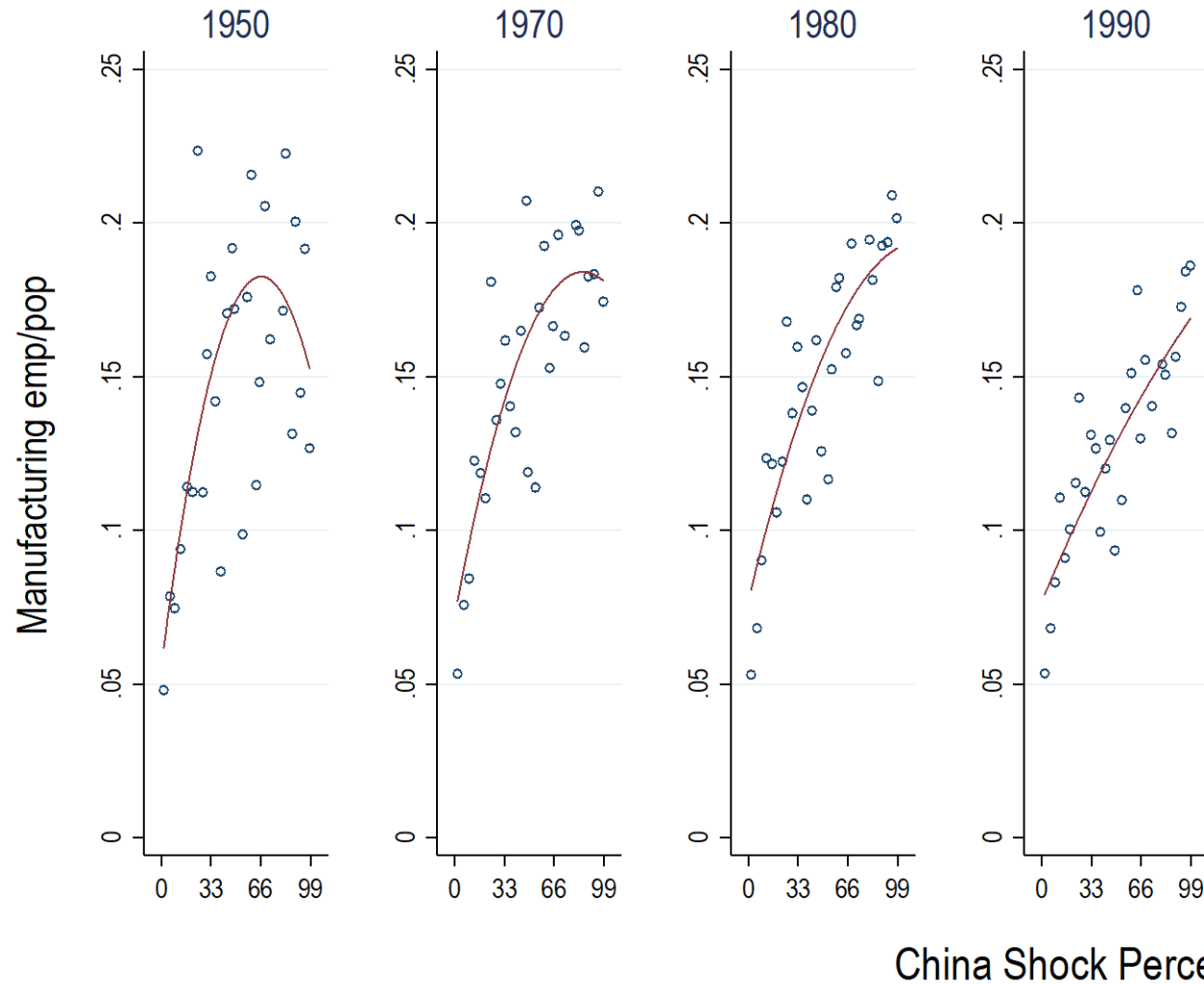
# Percentiles of the 'China Shock' – CZ Level Increase in Imports per Working-Age Adult between 1990 and 2007

CZ Level China Shock 1990 - 2007 in \$1,000s/Adult  
by CZ Exposure Percentile in 1990



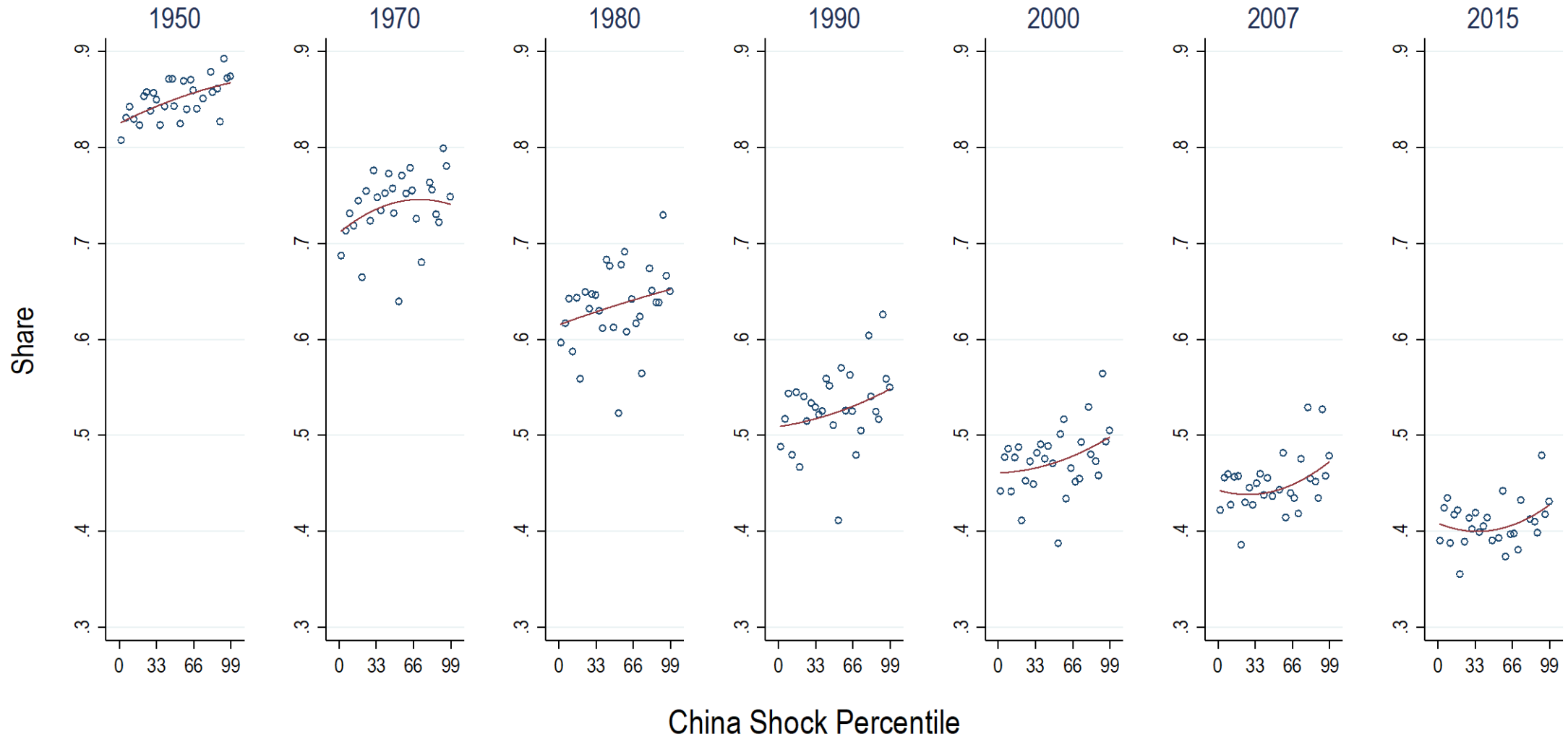
# Manufacturing Was **Moving Into** Future 'China Shocked' CZs During the 1970s and 1980s

Manufacturing Emp/Pop  
vs. China Shock Exposure 1990-2007



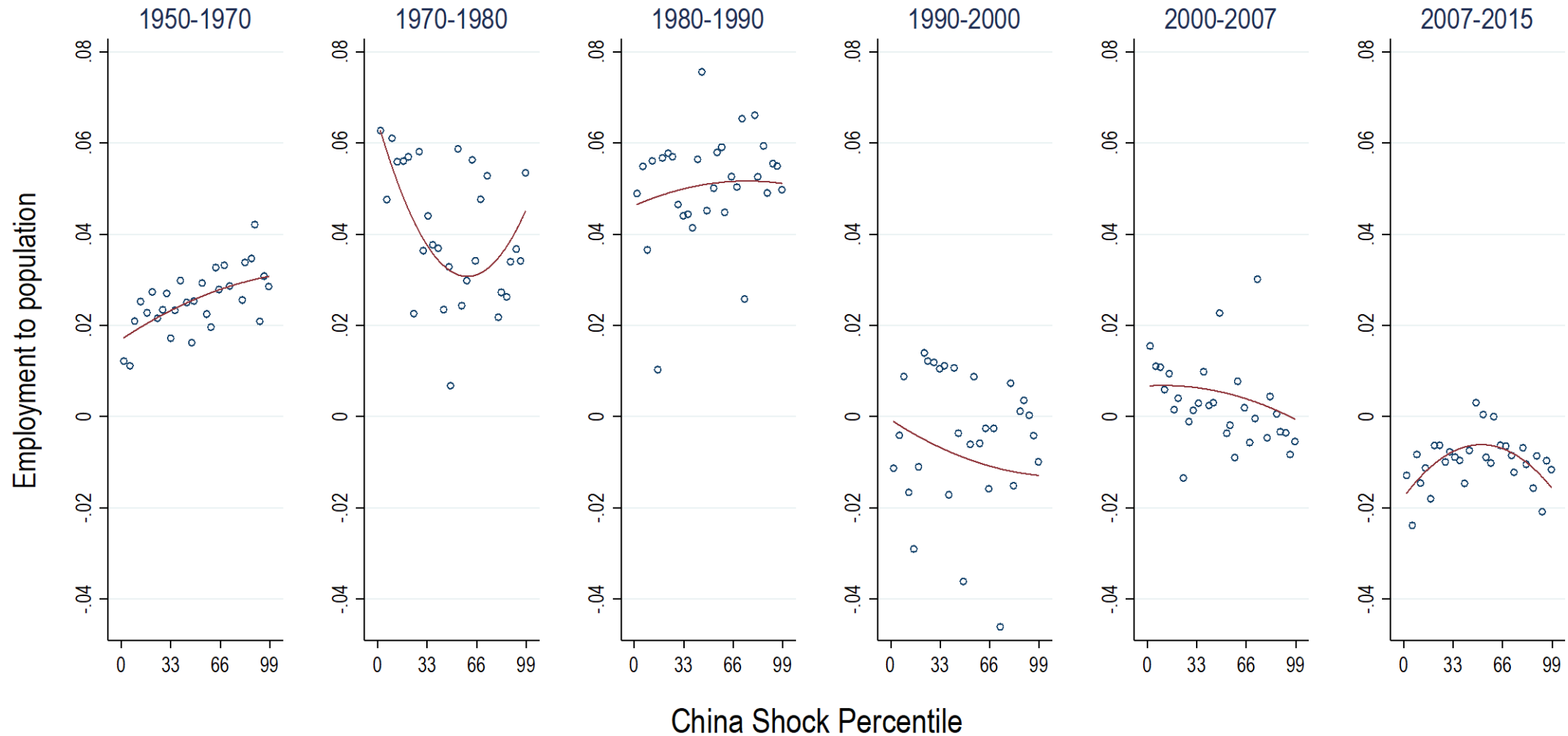
# 'China-Shocked' Labor Markets were **Always** Intensive in Non-College Adults, 1950 to Present

Non-College Share of Adults  
vs. China Shock Exposure 1990-2007



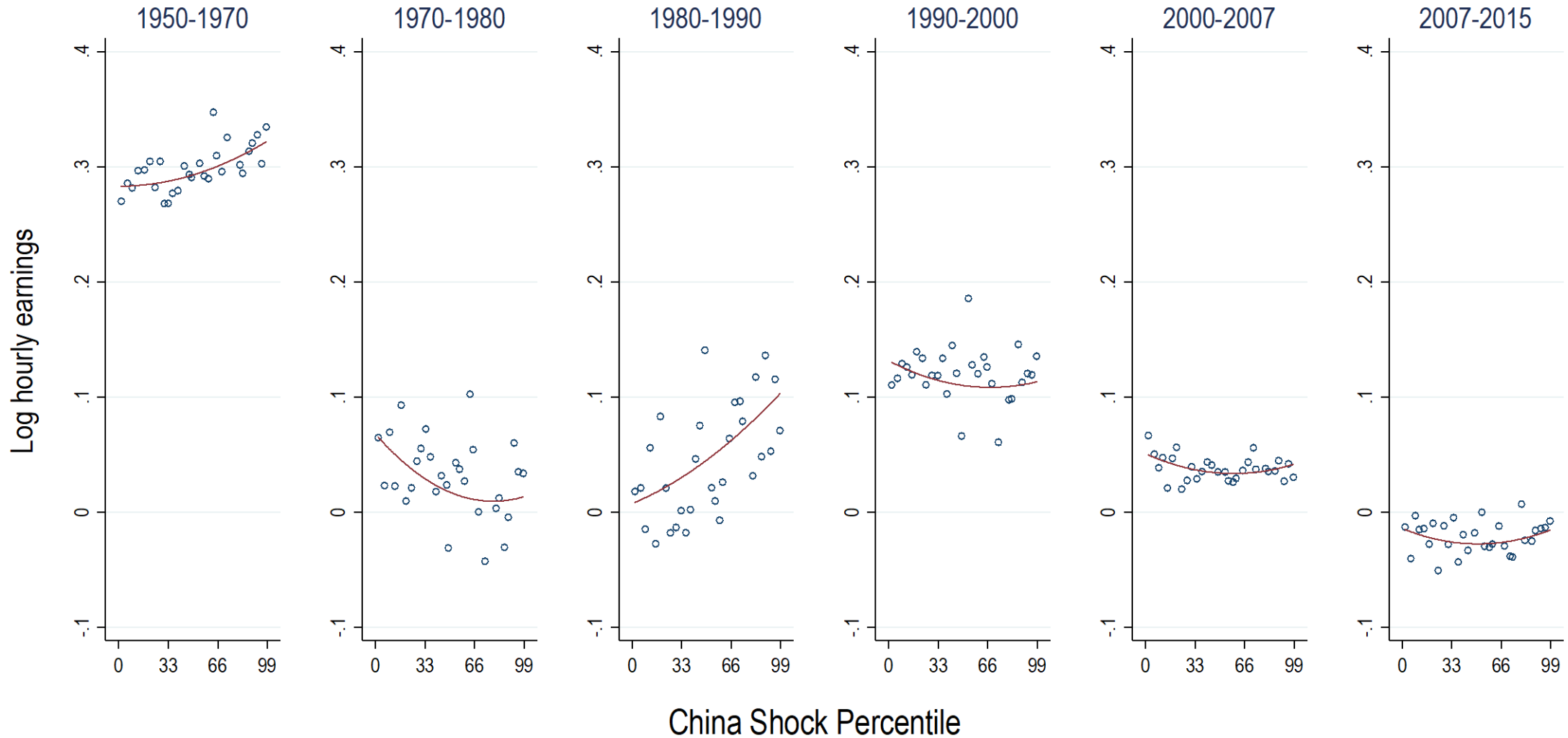
# Employment Rates Differentially Rose in To-Be China-Shocked Labor Markets during the 1970s and 1980s

Decadal Change in Employment to Population vs. China Shock Exposure 1990-2007



# Rise Before the Fall: Despite Growing U.S. Skill Premium, Real Wages Rose in To-Be 'China-Shocked' CZs in the 1980s

Decadal Change in Mean Log Hourly Wage vs. China Shock Exposure 1990-2007





Why Was the 'China Shock' so Shocking?

**Was the China Shock so Bad,  
or the Shocked Places so Vulnerable?**

*Both – of Course!*

# Policies Towards Trade, Outsourcing, and Foreign Investment

1. U.S. labor market adjustment problems **precede and supersede** our trade adjustment problems
  - The China Shock laid these issues bare
2. China Shock afflicted the places that had fewest 'outside options'
  - These same places experienced **positive pre-China shock** in 70s and 80s
  - But the economic tide was running against them

# Policies Towards Trade, Outsourcing, and Foreign Investment

1. U.S. Trade Adjustment Assistance program (TAA) works better than we realized (Hyman '18)
  - But it's small, hard to access, **insures only one type of shock**
  - **Why** predicate labor market assistance on "who is to blame"?
2. In retrospect, **gradualism would have been better trade policy** at the time of PNTR + China's WTO accession
3. But focusing on 'trade shock' now is **fighting the last war**
  - Trade policy should mostly **not** be about protection
  - Should be about innovation, investment, skills, adjustment
4. The '**AI and Robot**' shock will **differ greatly** from the China shock: **less traumatic** but will require different policies