LABOR MARKETS IN *TRANSITION:*

Demographics, Productivity and Macroeconomic Policy

JACKSON HOLE ECONOMIC POLICY SYMPOSIUM

FEDERAL RESERVE BANK OF KANSAS CITY

AUG. 21-23, 2025

INTER-STATE LABOR MOBILITY AND THE U.S ECONOMY

LINDA TESAR

Interstate-State Labor Mobility and the U.S. Economy

Andrea Foschi
Bank of Italy

Christopher L. House
University of Michigan
& NBER

Christian Proebsting
KU Leuven

Linda L. Tesar
University of Michigan
& NBER

Jackson Hole Symposium
August 2025

LABOR MARKETS IN TRANSITION:
DEMOGRAPHICS, PRODUCTIVITY AND MACROECONOMIC POLICY

Modest decline in the gross migration rate since the 1970s

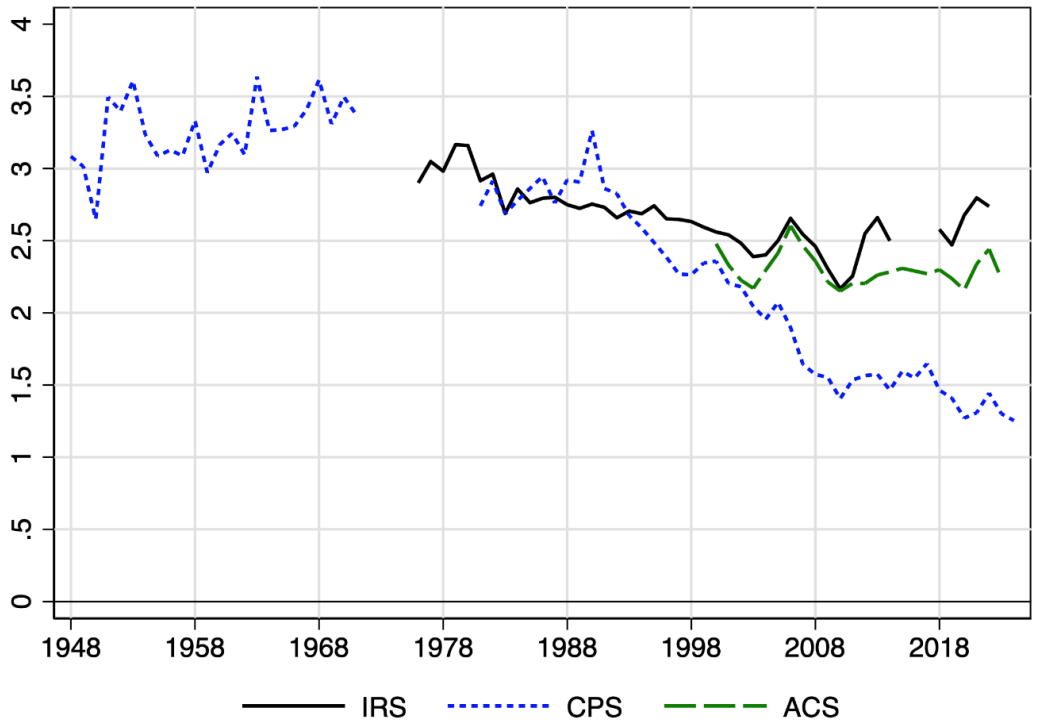

Figure 1: Gross migration rates

Note: The figure plots gross migration rates from three different sources: the CPS, the IRS and the ACS. Figures are expressed in percent of the US population and only refer to internal migration. There was a change in the method for collecting and producing IRS migration data, which generated large variations in the IRS figures for 2014-2016 (see DeWaard et al. 2022 for a complete discussion). We dropped those observations from the plot and used the three-year average instead. Including values for those years does not change the estimated trends.

IRS data: change in residence of tax filers

CPS data miss significant number of movers (Hyatt et al. 2018)

Decline in migration by about one-half of a percentage point since the 1970s, stable since 2000.

Decomposition of gross migration into offsetting and net flows

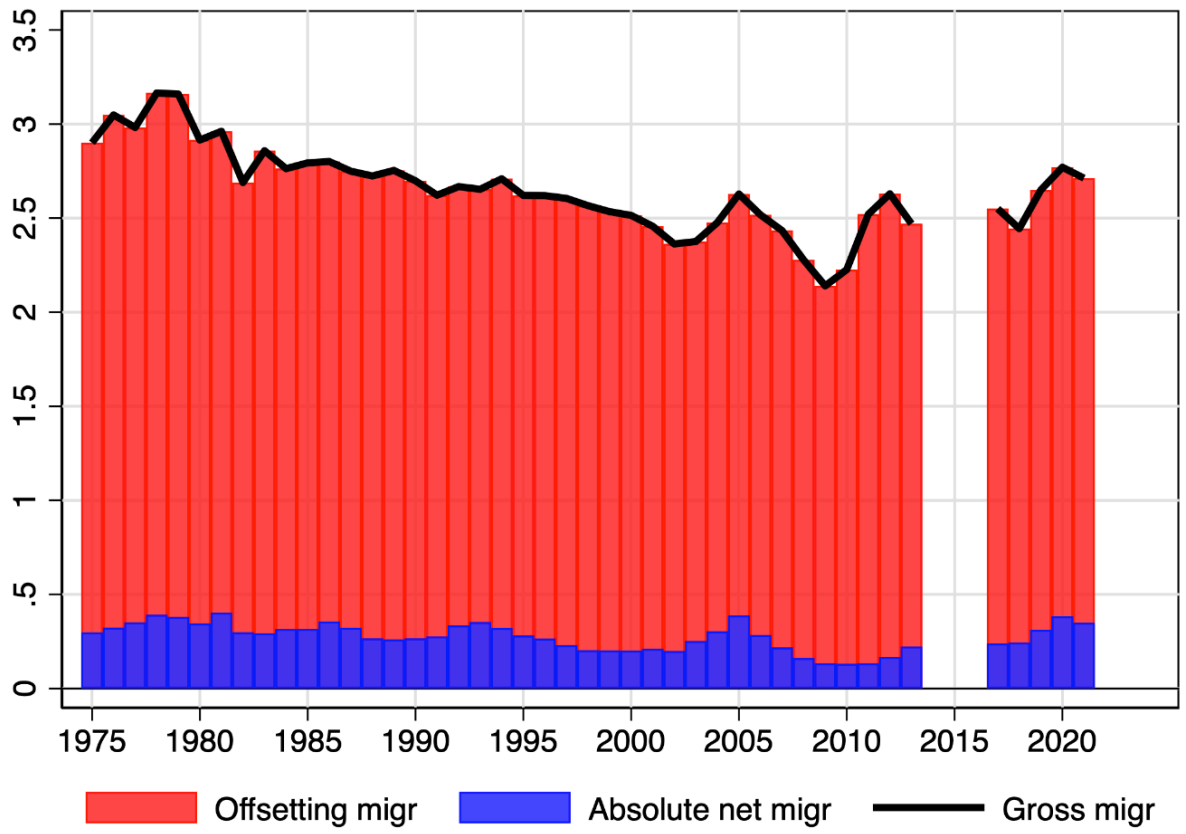

Figure 2: Gross, net and offsetting migration flows

Note: The figure plots the gross migration rate, the offsetting migration rate and the absolute net migration rate across states. Figures are expressed in percent of the US population. Data source is the IRS.

Offsetting migration:

- Defined as # of individuals leaving a state matched by the same # coming into the state
- Declines with gross migration comparable to churn or turnover

Net migration:

- Reflects reallocation from one state to another
- Small share of overall migration flows, stable throughout

Taken together, demographic factors cannot explain the decline in gross migration

Cross-state movers tend to be young, college-educated and rent rather than own.

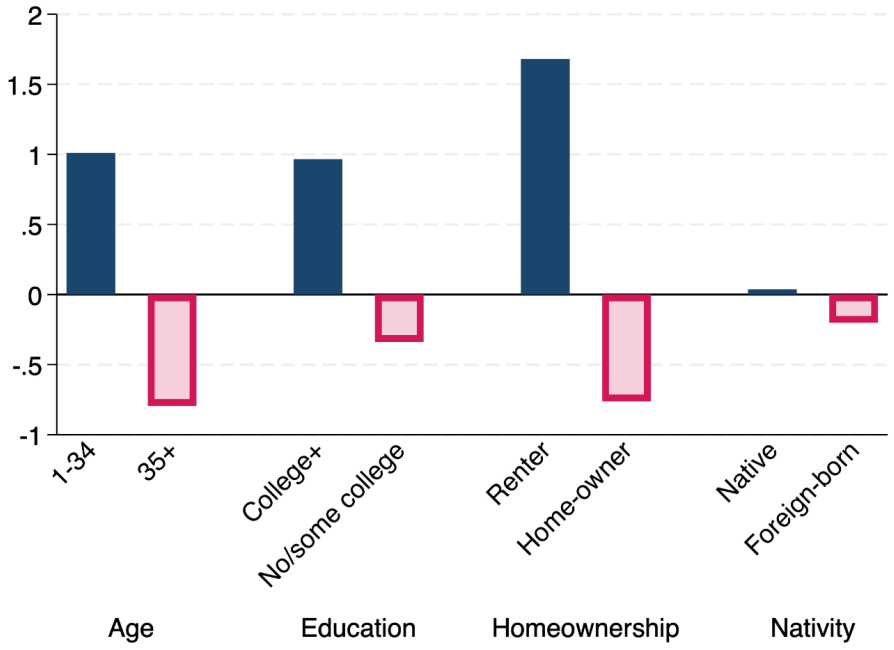

Figure 4: Migration rates relative to overall migration rates

Note: The figure plots gross migration rate for various demographic groups, pooled over the years 2020 - 2024. Migration rates are expressed as a difference from the overall migration rate. Data source is the ACS.

The U.S. population has gotten older (=> less migration) … but is also more educated (=> more migration)

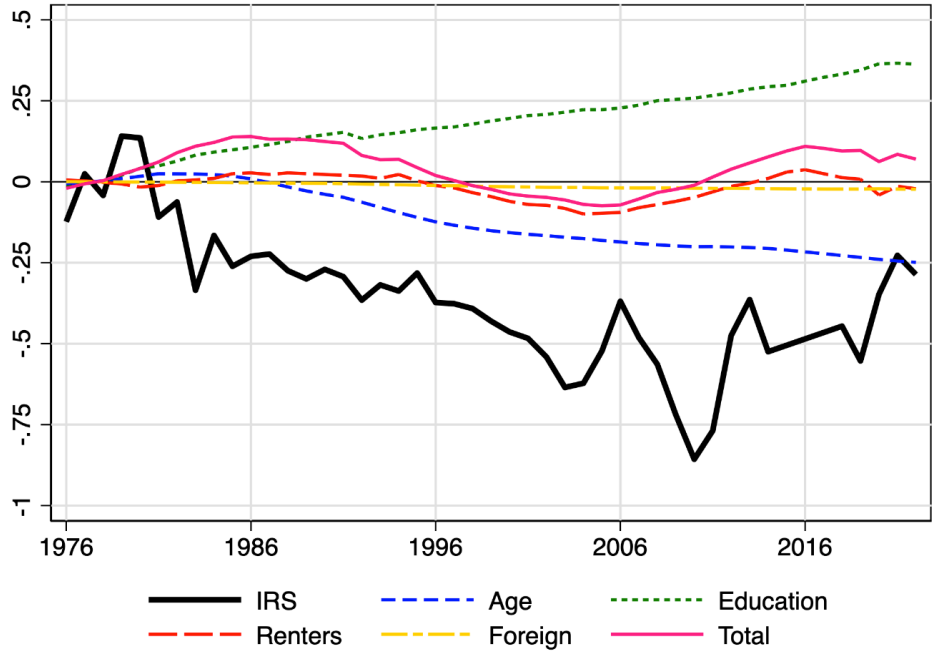

Figure 5: Counterfactual migration rates: Deviations from 1976-1979.

Note: The figure displays the gross migration rate from the IRS data together with a set of counterfactual migration rates. The counterfactual rates are calculated by fixing the migration rate for each demographic group estimated from the 2020-2024 ACS sample and then aggregating across groups using observed population shares back to 1976. The 'Total' counterfactual is the sum of all the other counterfactual migration rates. All rates are expressed in difference to the average rate over 1976 - 1979.

Basic econometric specification: Blanchard and Katz (1992) redux

$$Y_{i,t+h} = \alpha^Y_{i,h} + \alpha^Y_{t,h} + \beta^Y_h Z_{i,t} + \Gamma^Y_h X_{i,t} + \varepsilon^Y_{i,t+h}$$

$Y_{i,t}$: log change in $E_{i,t}$, $1 - ur_{i,t}$, $LFP_{i,t}$ or $POP_{i,t}$

$Z_{i,t}$: regional labor demand instrument

Region and time fixed effects

Response of Y to a shift in the instrument at horizon h – i.e., h years after the demand shock.

$$\gamma^Y_h = \beta^Y_h / \beta^E_h$$

Fraction of the change in employment attributed to change in Y at horizon h

The elasticity of labor migration to shifts in labor demand

Labor market responses to a shift in labor demand (β)

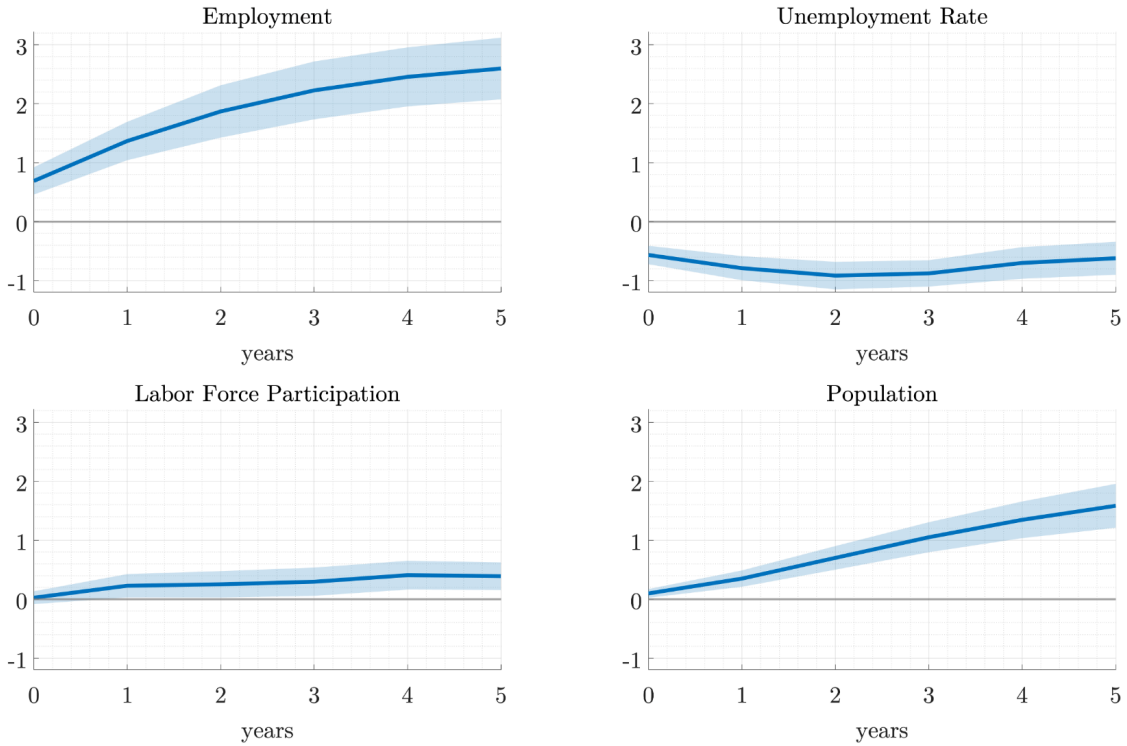

Figure 6: Response to Bartik instrument: Labor market variables

Note: The figure plots the estimated β_h coefficients obtained from running (1) for each labor market variable at different horizons h (x-axis). The sample period is from 1976 to 2016, with projections going up to 2021 (for $h = 5$). Shaded areas represent 90% confidence intervals.

Implied elasticities (γ)

At a 4-5 year horizon, migration accounts for 60 percent of the employment response

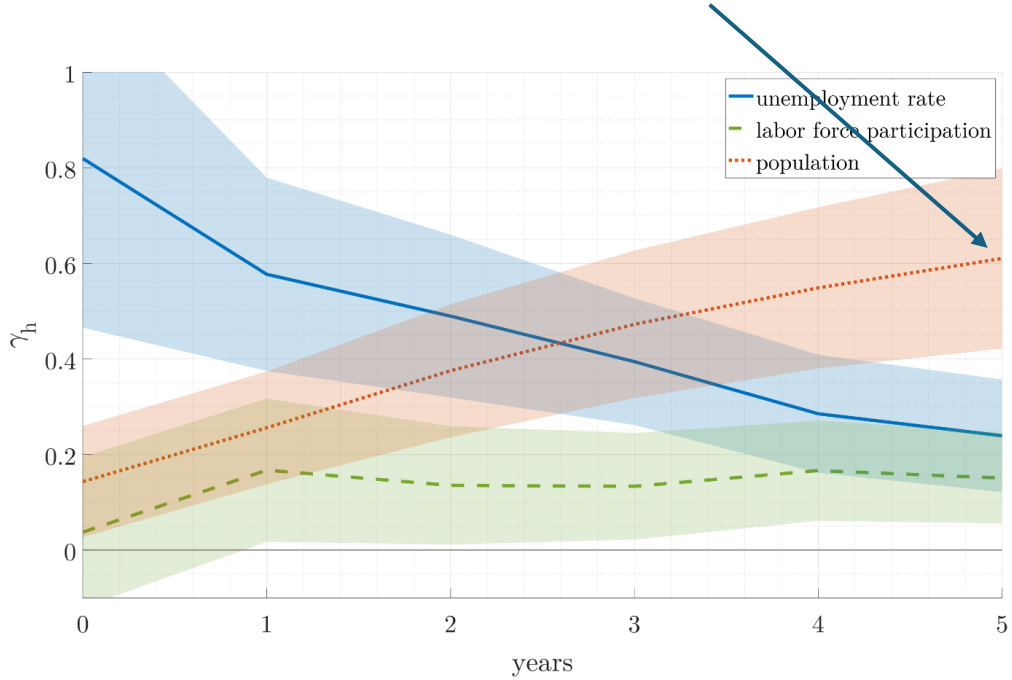

Figure 7: Ratio between each labor market response and the employment response

Note: The figure plots the γ_h coefficients for each labor market variable at different horizons h (x-axis). The sample period is from 1976 to 2016, with projections going up to 2021 (for $h = 5$). Shaded areas represent 90% confidence intervals.

The migration elasticity has remained fairly constant since the 1950s

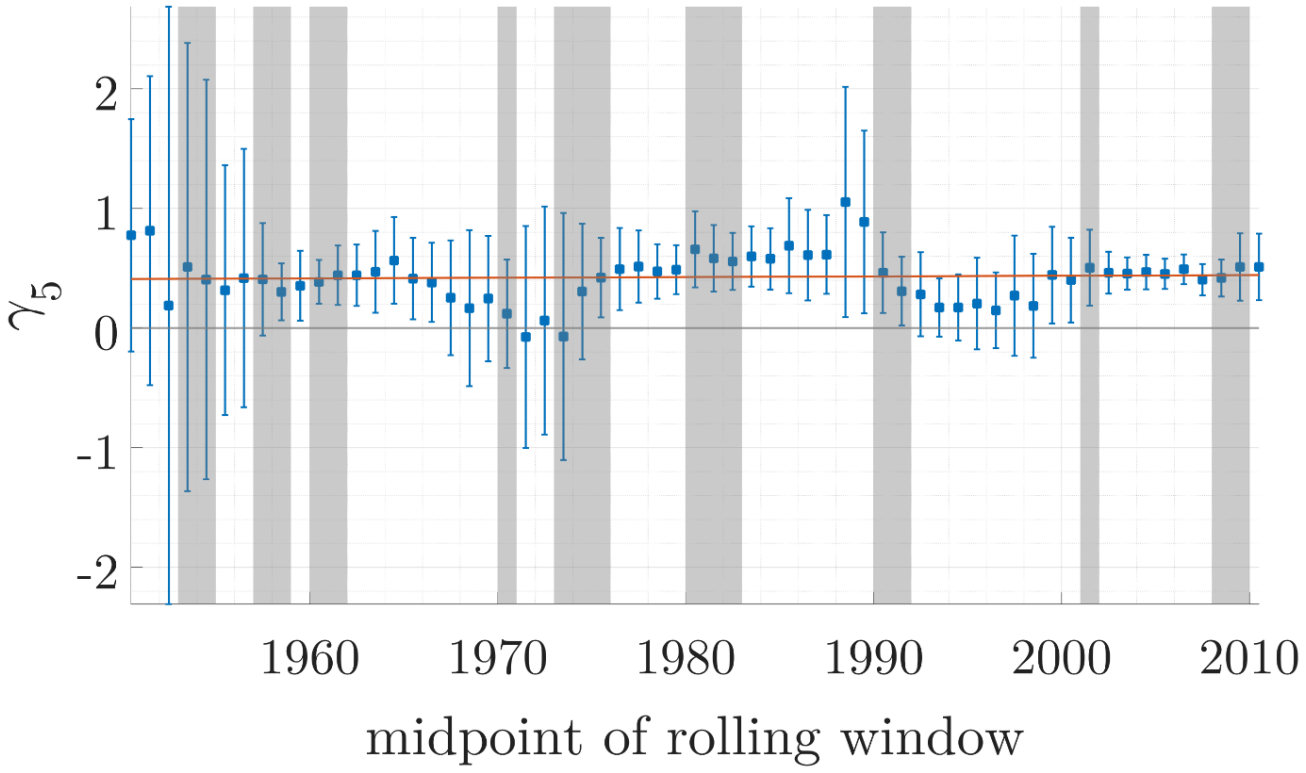

Figure 8: Ratio of population and jobs responses (γ_5^{POP})

Note: The figure plots estimates for $\hat{\gamma}_5^{POP}$ for 10-year data windows. Each point is centered at the mid-point of the 10-year window on the horizontal axis. Bars represent 90% confidence intervals. The red line is a weighted least square fit, where the weights are the inverse of the standard errors. Shaded areas indicate NBER recessions.

While the overall rate of migration has come down, the responsiveness of migration to labor demand shifts has remained constant.

No clear relationship between the migration elasticity and the business cycle.

Validity of the Bartik instrument

State-level wages, house prices and rents increase in response to the labor demand shift

Figure 9: Wages, House Prices, and Rent

Note: The figure plots estimated β_h coefficients obtained from running (1) for wages, house prices, and rent prices for different horizons h (x-axis). The sample period is 1976-2016 (1983-2016 for rent). Shaded areas represent 90% confidence intervals.

The Bartik explains about 30% of the change in employment and 16 percent of The change in net migration

Table 2: Forecast error variance decomposition

Horizon	Employment	Net migration
0	0.057	0.109
1	0.298	0.171
2	0.366	0.175
3	0.388	0.176
4	0.388	0.169
5	0.384	0.164

Some evidence that the Bartik shocks are changing over time

The cross-state dispersion of both the Bartik instrument and employment growth have fallen by about 50 percent since the 1980s.

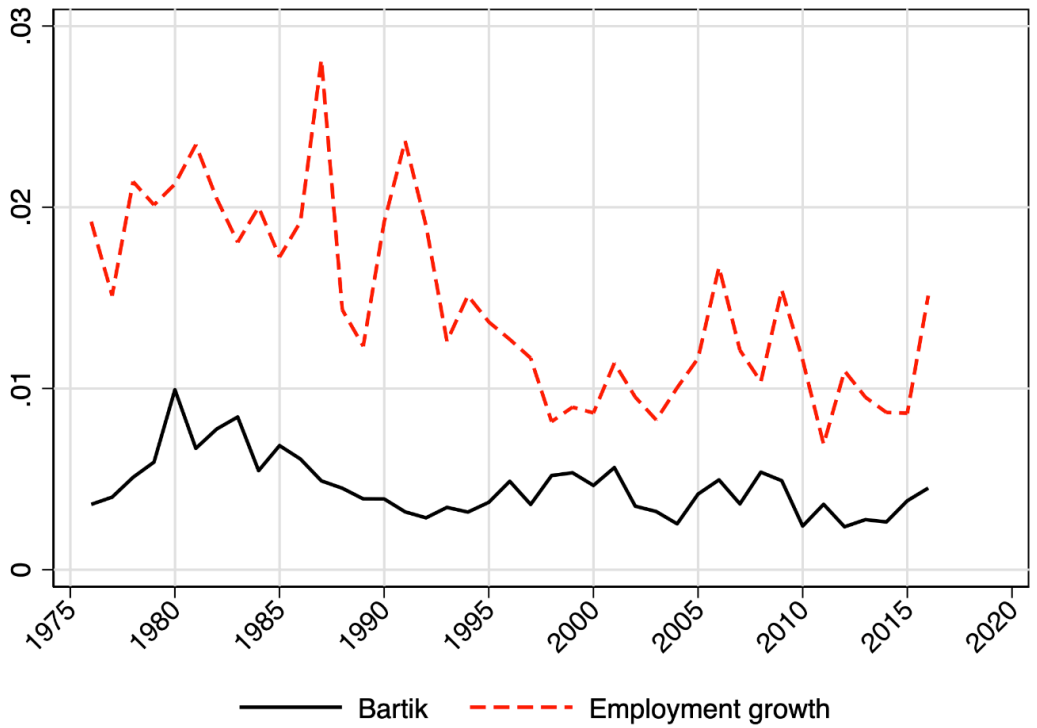

Figure 12: Cross-sectional standard deviation

Note: The figure displays the cross-sectional standard deviation of the Bartik instrument and employment growth.

Does the decline in variance reflect a change in the shifts or in the shares?

A decomposition of the variance suggests both are equally important.

In other words, industry-composition has become more similar across states

and shocks are more correlated across industries.

A promising candidate to explain declining gross migration?

Gross migration also responds to the Bartik. As Bartik shocks become less volatile, this could help explain the downward trend in gross migration.

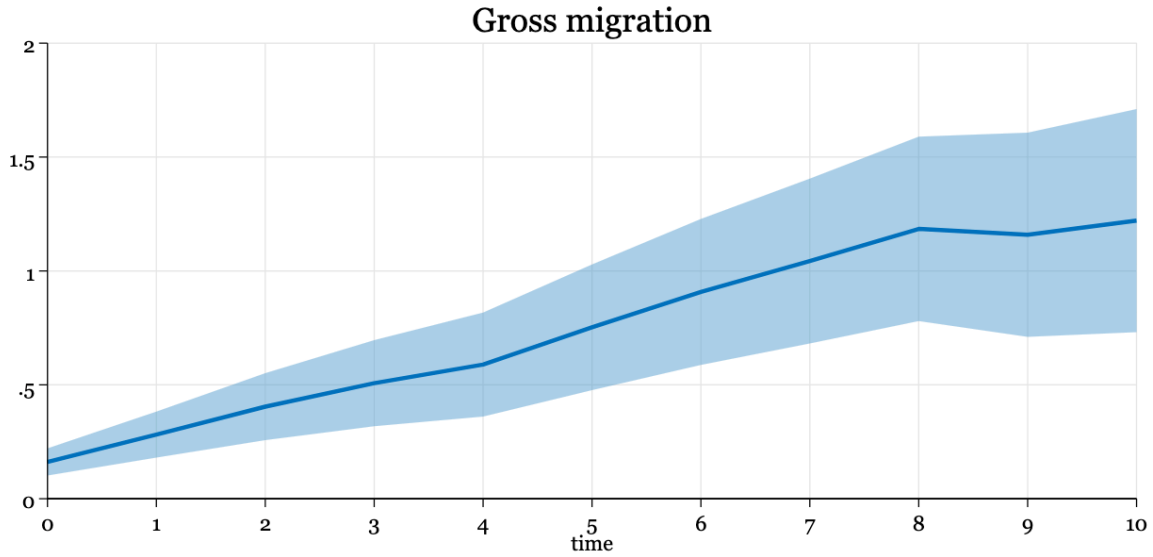

Figure 13: Response to the absolute value of the Bartik instrument

Note: The figure plots the estimated β_h coefficients from running regression (4).

Conclusions and policy implications

- Observe a modest decline in gross migration.
- Elasticity of net migration to local demand shifts remains robust.
- Migration remains an important adjustment mechanism in response to differences in economic conditions across locations.
- However, those who move tend to be more educated and younger.
- Place-based policy vs. removing barriers to migration:

  Our results suggest both policies are important