Do Frictions Matter in the Labor Market? Accessions, Separations and Minimum Wage Effects

Federal Reserve Bank of Cleveland's 2012 Policy Summit on Housing, Human Capital, and Inequality

Arindrajit Dube

Department of Economics, University of Massachusetts Amherst

June 21, 2012

(Joint with T. William Lester, and Michael Reich)

Goals for the Talk

Narrow:

- Provide evidence on minimum wage effects on wages, jobs, turnover

Broad:

- Show how this evidence informs us about structure of low-wage labor market
- Consider theories where job search is subject to some "frictions" and similar workers paid different wages

Goals for the Talk

Narrow:

- Provide evidence on minimum wage effects on wages, jobs, turnover

Broad:

- Show how this evidence informs us about structure of low-wage labor market
- Consider theories where job search is subject to some "frictions" and similar workers paid different wages

Search Frictions and Minimum Wage

- Lack of employment effect often attributed to imperfect competition in labor market
  - Card and Krueger (1995)
- Using new data and better study design, we are able to show this more directly in the US context:
  - We consider effects of minimum wages on jobs as well as turnover
  - The relative magnitude of the two effects indicate search frictions matter

Minimum Wage "Puzzle:" 1st and 2nd Generations

1st Generation:

- Time series evidence: a 10% increase in minimum wage lowered teen employment by 1-3%
- Evidence turned out to be fragile

2nd ("New Minimum Wage Research"):

- State panel studies (Neumark and Wascher 1992, 2007) suggest 2% loss in teen jobs from 10% increase in minimum wage
- Local case studies (Card and Krueger 1994 2000, Dube Naidu Reich 2007) suggest no job losses

3rd Generation Minimum Wage Studies

- Dube Lester Reich (*REStat*, Nov 2010) reconcile these findings.
  - Combines both approaches
  - Regional trends are insufficiently controlled for in the state panel studies
  - Comparing Ohio with Idaho not a good idea
  - Comparing counties across state borders shows no evidence of job loss in restaurants or retail
- Follow up work confirming these findings:
  - Addison Blackburn and Cotti (2008, 2010)
  - Alegretto Dube Reich (2011)

This Study's Contribution

Empirical

- Effect on other low-paid groups (teenagers)
- Effect on composition of workforce
- Effect on turnover

Theoretical

- Link the effect on jobs and turnover to structure of the labor market

This Study's Contribution

Empirical

- Effect on other low-paid groups (teenagers)
- Effect on composition of workforce
- Effect on turnover

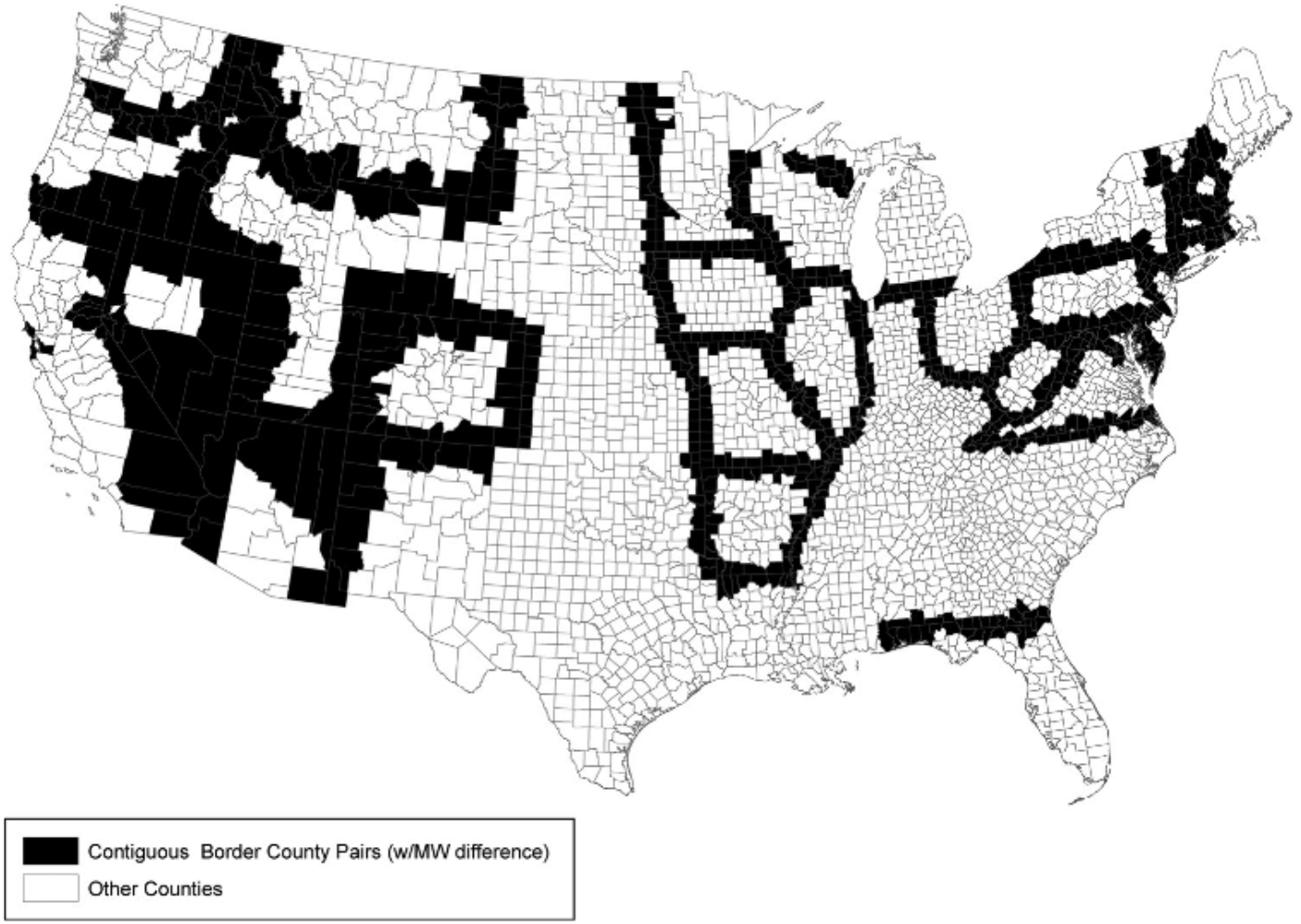
Theoretical

- Link the effect on jobs and turnover to structure of the labor market

Contiguous County Pair Design

- Take all cross-border county pairs in the US between 2001 and 2008
- Compare changes in minimum wages and outcomes within each pair
  - like doing many local case studies
- Pool the findings across 1,169 pairs

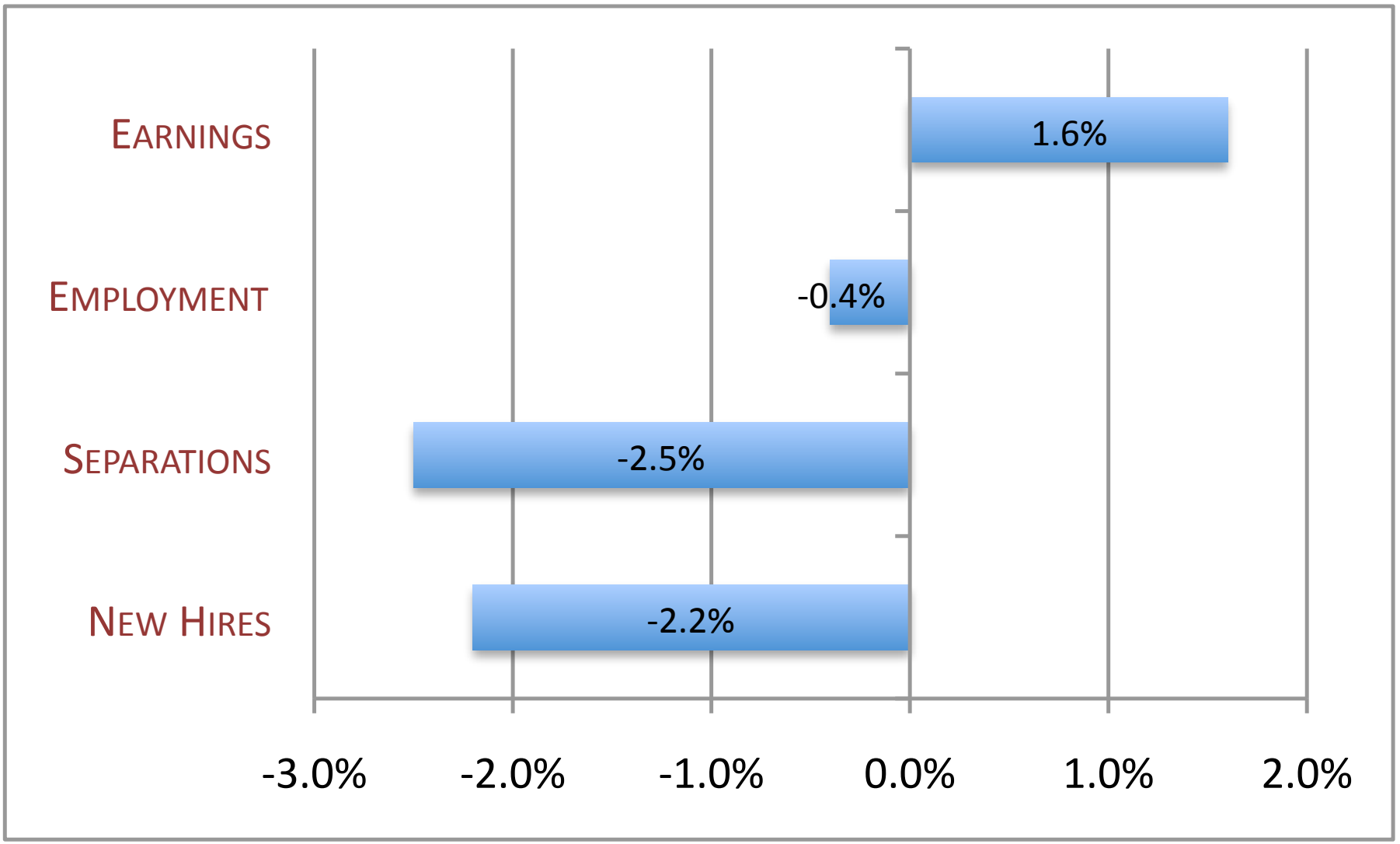
Map of Contiguous Counties with MW Difference



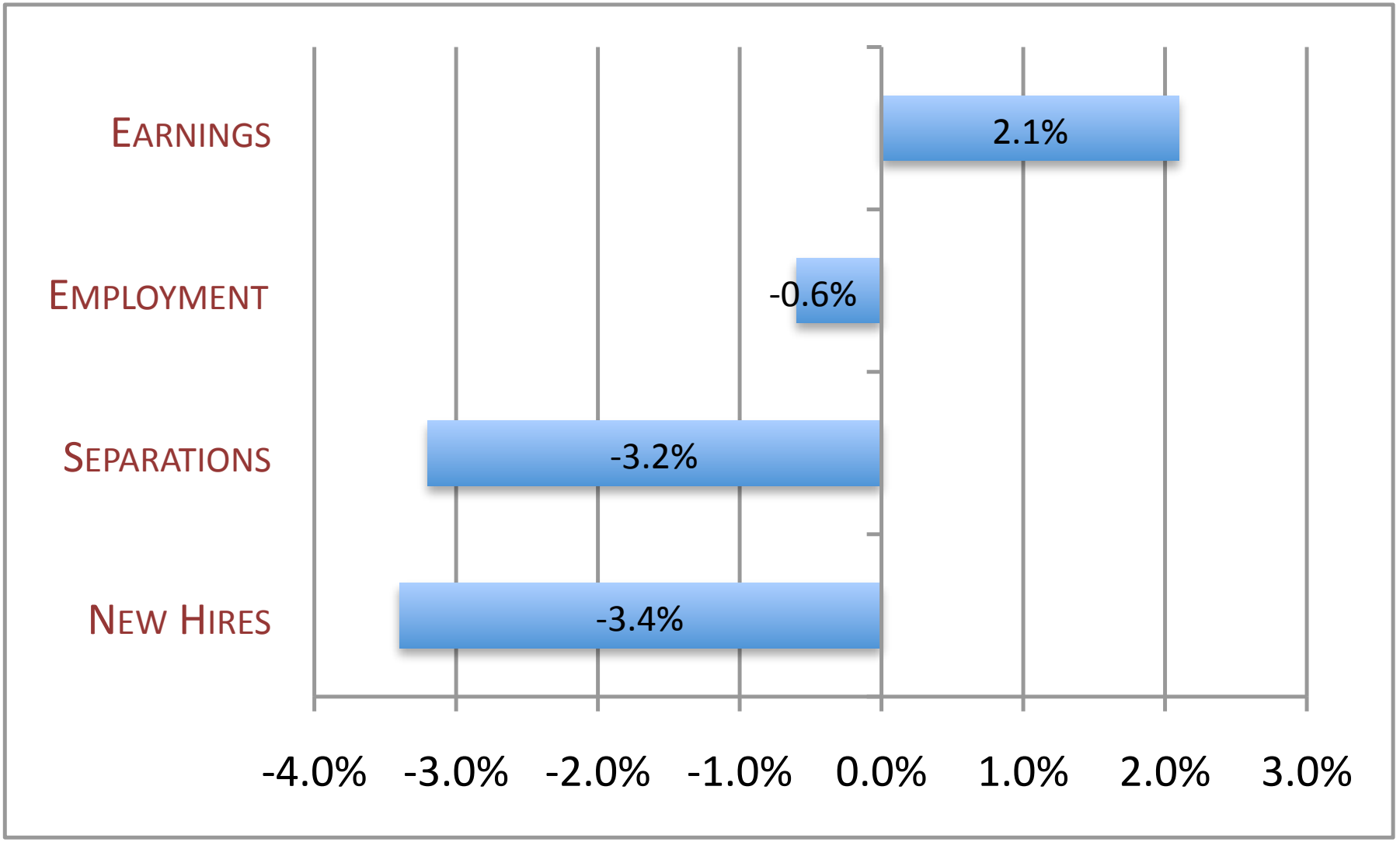
Data: Quarterly Workforce Indicators

- Based on administrative UI data linked with administrative censuses (LEHD)
- Provides employment counts, flows, and average earnings by industry-county-demographic level
- Key variables:
  1. **Average monthly earnings:** Average monthly earnings.
  2. **Employment Counts**
  3. **New Hires (accessions)**
  4. **Separations**

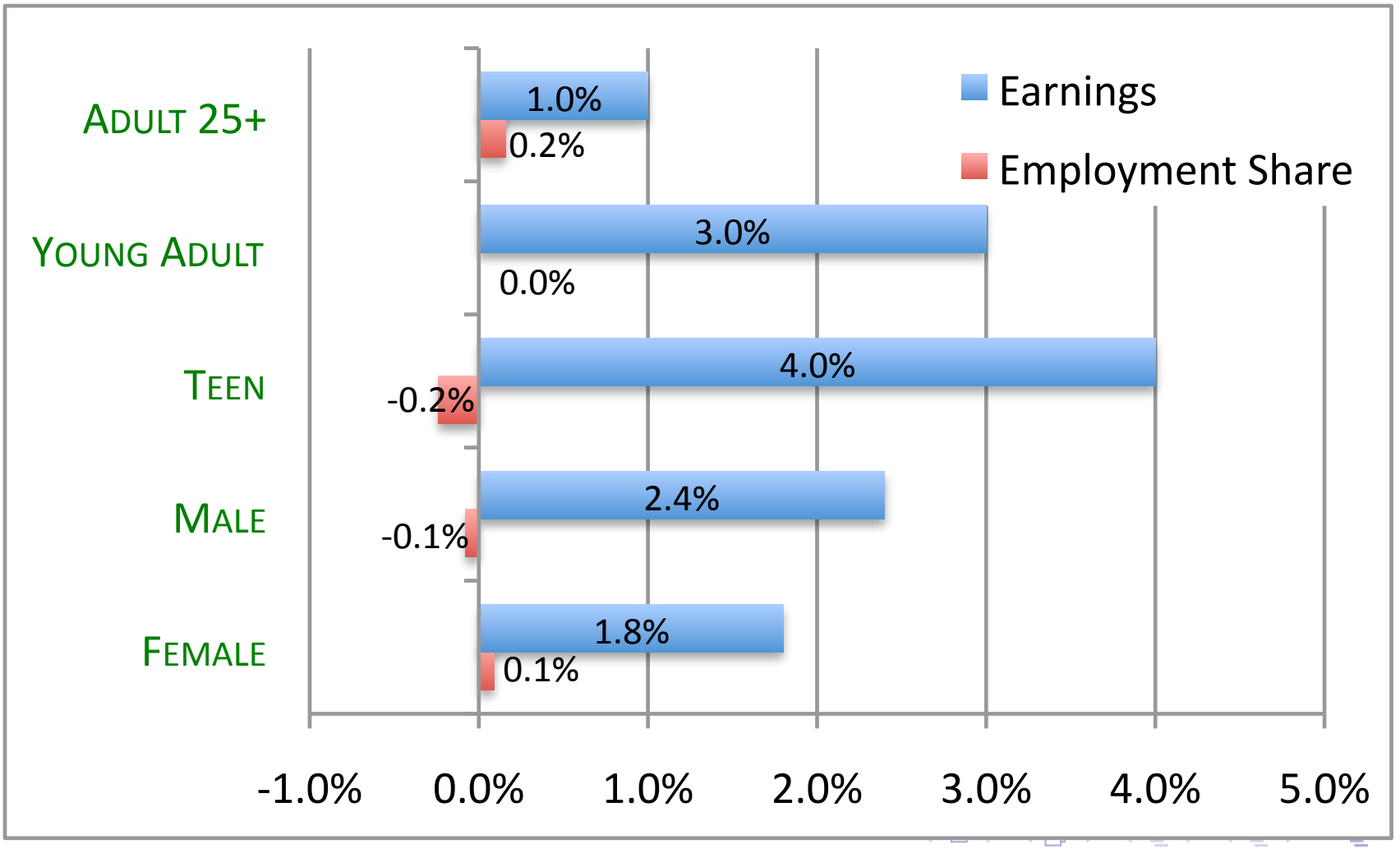
Effects of a 10% increase in MW: Teens



Effects of a 10% increase in MW: Restaurant Workers



Effects of a 10% Increase in MW: Change within Restaurants



Explaining Empirical Findings

- Want to explain small effect on jobs with big effect on turnover
- One avenue - minimum wage gets rid of some low-wage/high-turnover jobs
- A general job-ladder model:
  - workers paid different wages because of search friction
  - workers move when offered higher wage
  - minimum wage reduces churning by reducing wage inequality

Comparing our Findings with Model Predictions

- Following Hornstein Krussell Violante (2011), we calibrate a job ladder model using:
  - monthly job-to-job flows (0.027)
  - job destruction rate (0.03)
  - job-finding rate (0.043)
- Model prediction: the fall in jobs should be only 22% as large as the fall in separations.
- Close to our empirical findings: the ratio was 18% for teens, 23% for restaurant workers.
- Suggests substantial frictional inequality in low wage labor market.

Summary

- We study two low-wage groups: teens, restaurant workers
- Minimum wage increases raise their earnings, have small effect on jobs, and larger reduction in turnover
- Consistent with search frictions being important in low-wage labor market
- Moderate increases in wages can compress wage distribution, lower vacancies and turnover, without substantially affecting jobs
- Caveat: findings apply to the type of moderate-sized increases in minimum wages of the past decade