

Who is Served by the Tip Credit? Effects of Minimum Wage Laws on Tipping, Employment, and Prices at Restaurants

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U.S. Census Bureau

LED Partnership Virtual Workshop

April 5, 2022

Disclaimer: The views expressed are those of the authors and not those of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed (CBDRB-FY22-CES008-001, CBDRB-FY22-CES008-006).

Research Questions

How do businesses respond when the minimum cost of hiring workers rises?

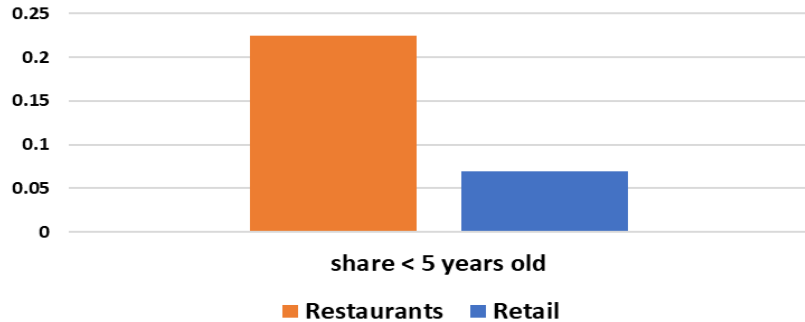
- Choose to have fewer workers
- Raise prices
- Go out of business

Are the workers currently employed at the business better off?

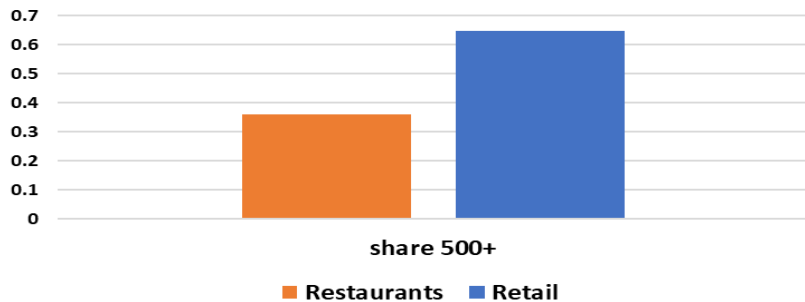
- Earn more in base pay (wages) or in tips
- Fewer hours so earn less
- Lose their jobs

Why study restaurants?

Share of Industry Employment at young firms, 2018



Share of Industry Employment at large firms, 2018



Net job creation 2005-2018, by industry



- A dynamic portion of the U.S. economy where small business owners are still a significant share of the employers
 - Larger share of employment at small and young firms
- Prior to the pandemic, a growing section of our economy
 - Restaurants had a high net job creation rate
 - Entry-level jobs for younger workers
- Restaurants experienced a huge shock in 2020 Q1
 - Quarterly Workforce Indicators (QWI) report 2.5 million jobs lost
 - This industry can be disrupted by macro-economic shocks

Two minimum wages



Combining Federal and State Data Restaurant establishments (NAICS 722)

Census of Retail Trade (CRT) Longitudinal Business Database (LBD)

All restaurants 1992-2018

CRT every 5 years

Collects state, type of restaurant, prices, revenue, employment, payroll

LBD every year

Federal tax filings with state, employment, payroll, revenue, firm survival

UI Wage records W-2 records

All restaurant workers 2005-2018

UI: EIN to SEIN to PIK

- state, quarterly earnings, job tenure, limited hours data

W2: EIN to PIK

- annual earnings, annual tips

Summary Statistics BDS and QWI 2018

Total number of restaurants
600,000

Total number of workers March 12th
12 million

Average quarterly earnings
age 19-21: \$1100

age 25-34: \$2000

Age distribution of workers
56% under age 35

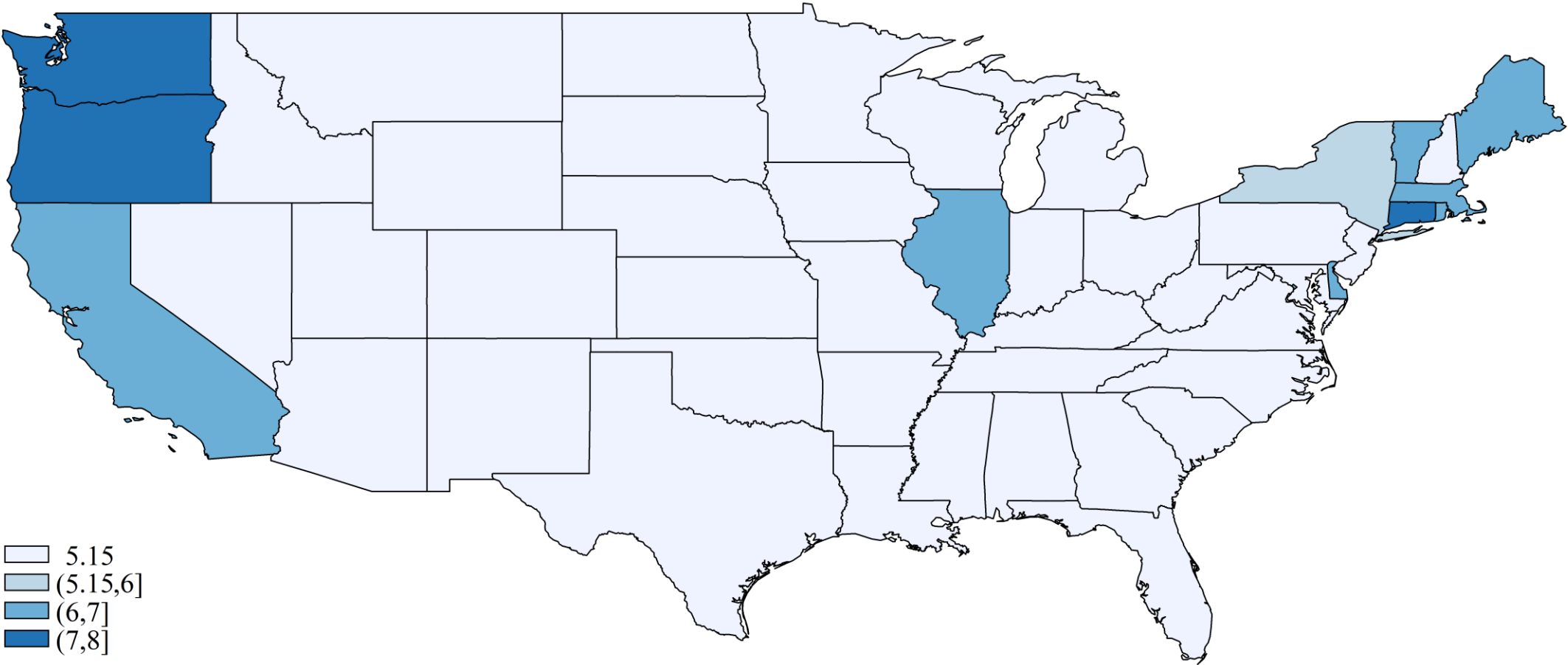
Quarterly Job Transitions

19% Hire rate

18% Separation rate

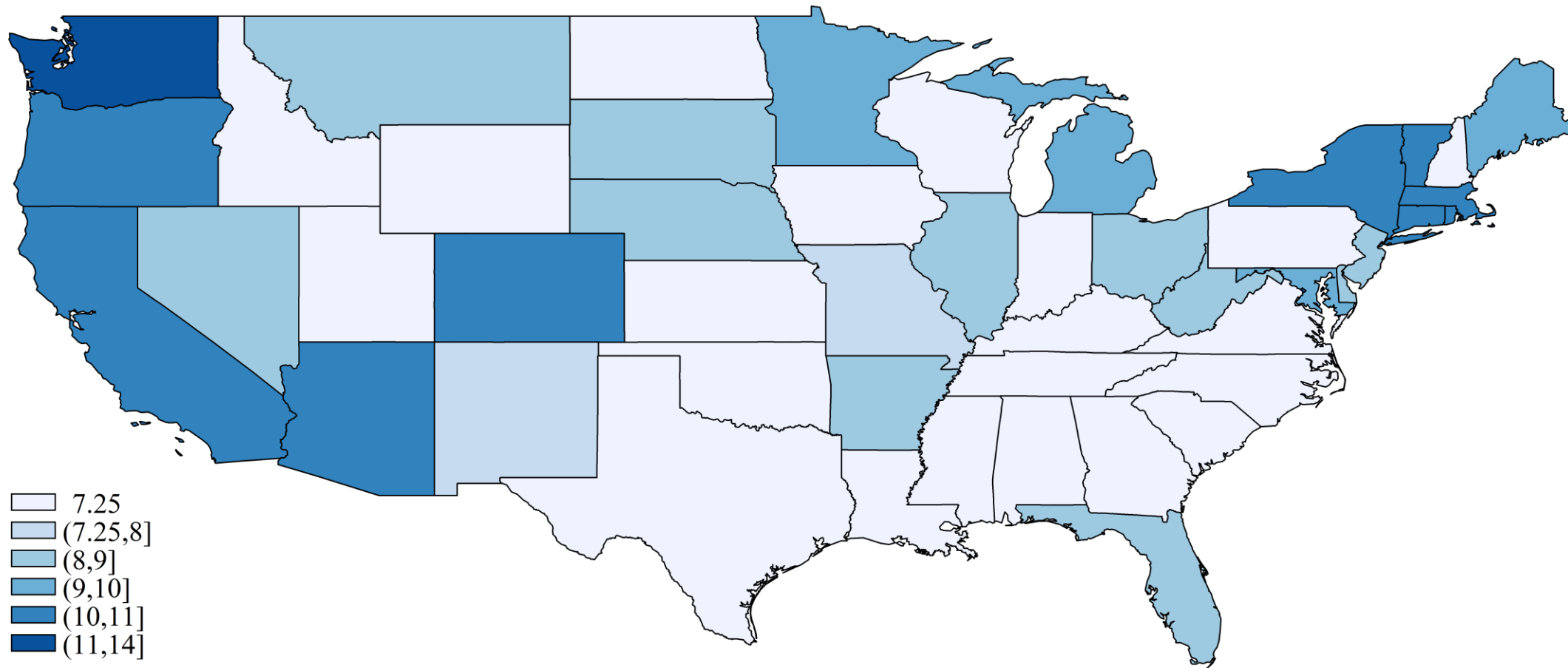
States laws provide a natural experiment for studying the effect of minimum wages

Levels of Minimum Wage by State, 2005



States have become more diverse over time

Levels of Minimum Wage by State, 2018



How we measure the impact of minimum wage: Compare changes over time across states

Change in earnings across two years related to change in minimum wage

State XX 2006 - 2005

State YY 2006 - 2005

Min wage Diff = $\$5.25 - \$4.00 = \$1.25$

Min wage Diff = $\$4.00 - \$4.00 = \$0.00$

Restaurant 1

Restaurant 2

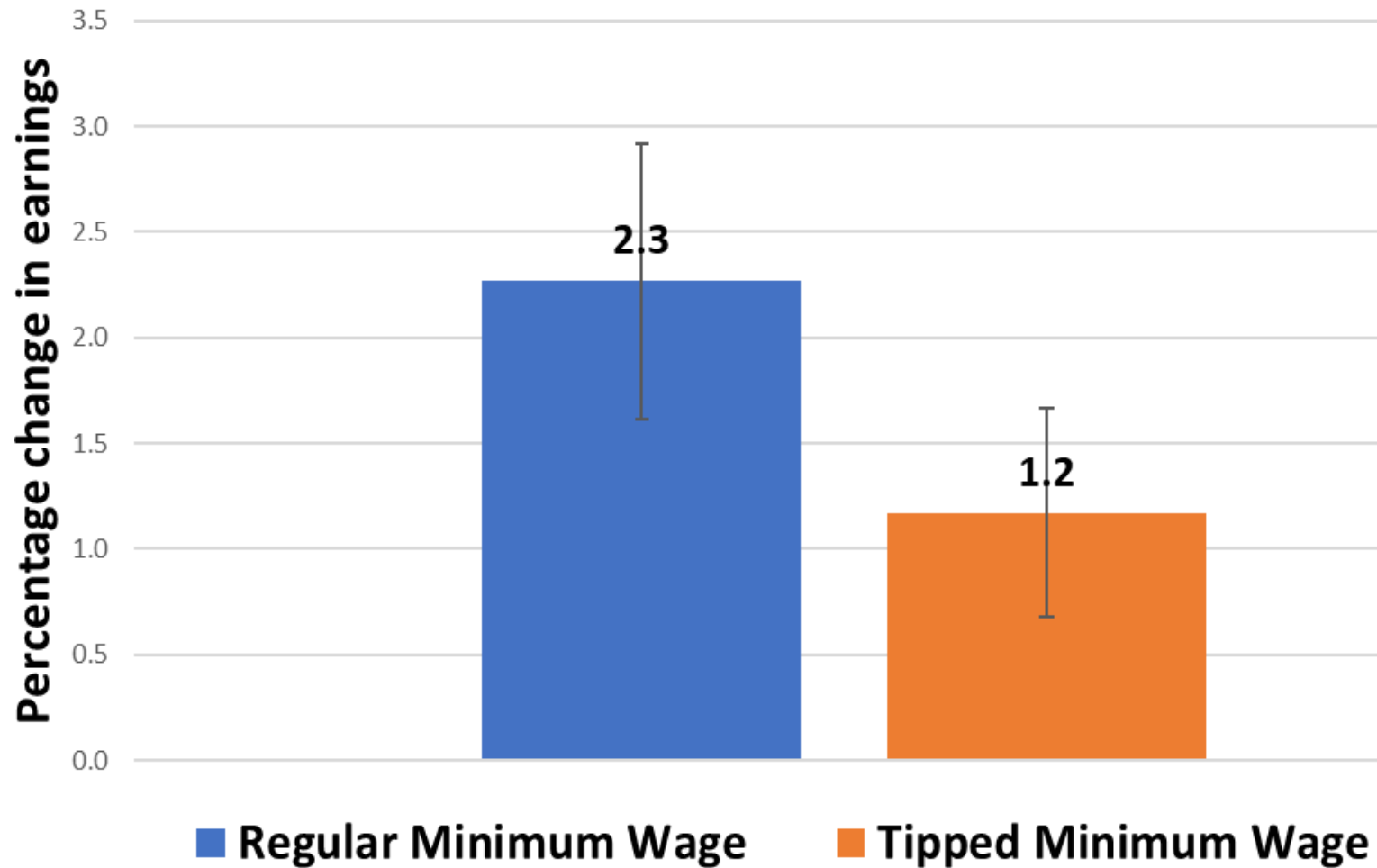
Earnings Diff Worker A

\$25

Earnings Diff Worker B

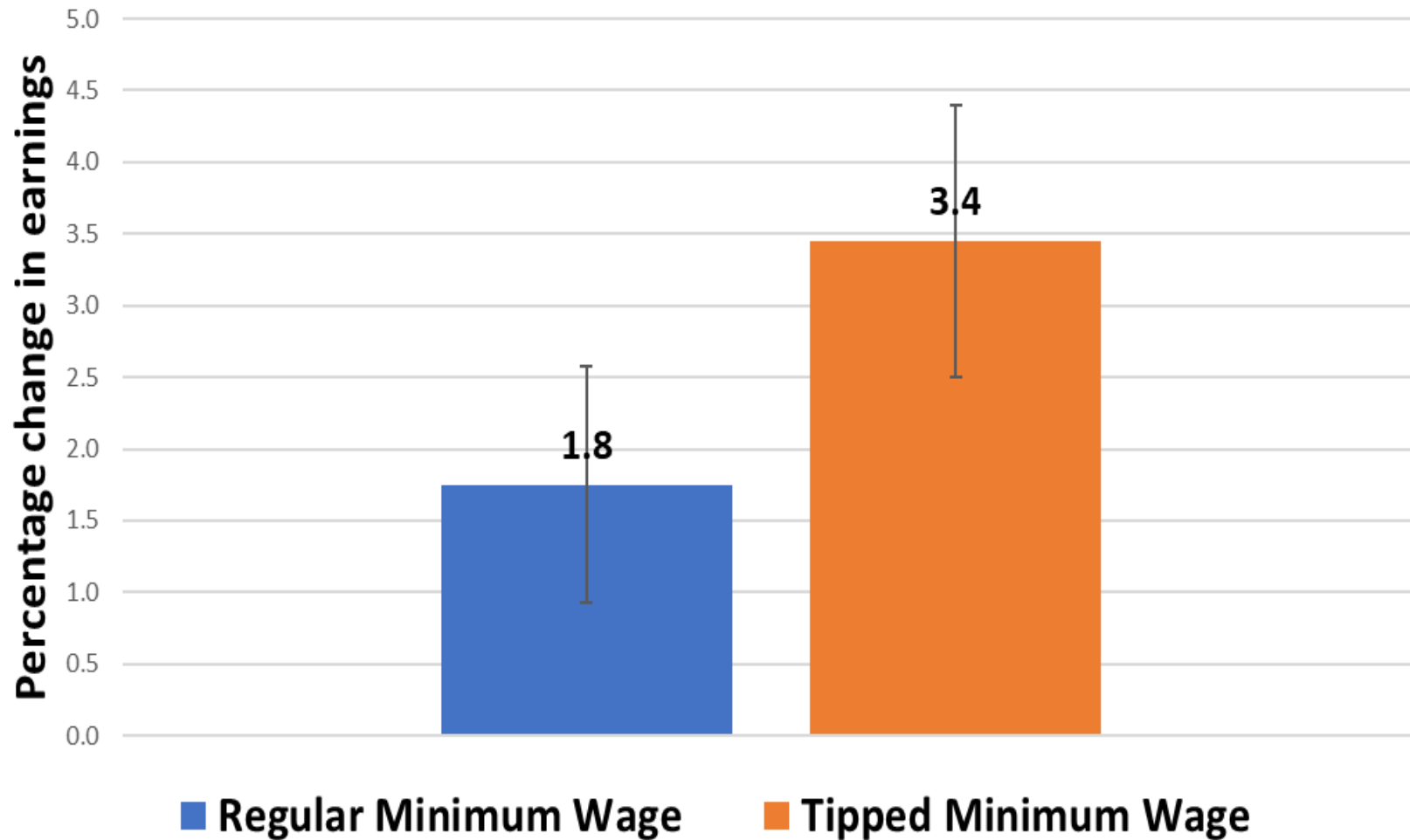
\$10

Change in Regular Earnings due to 10% increase in Minimum Wages



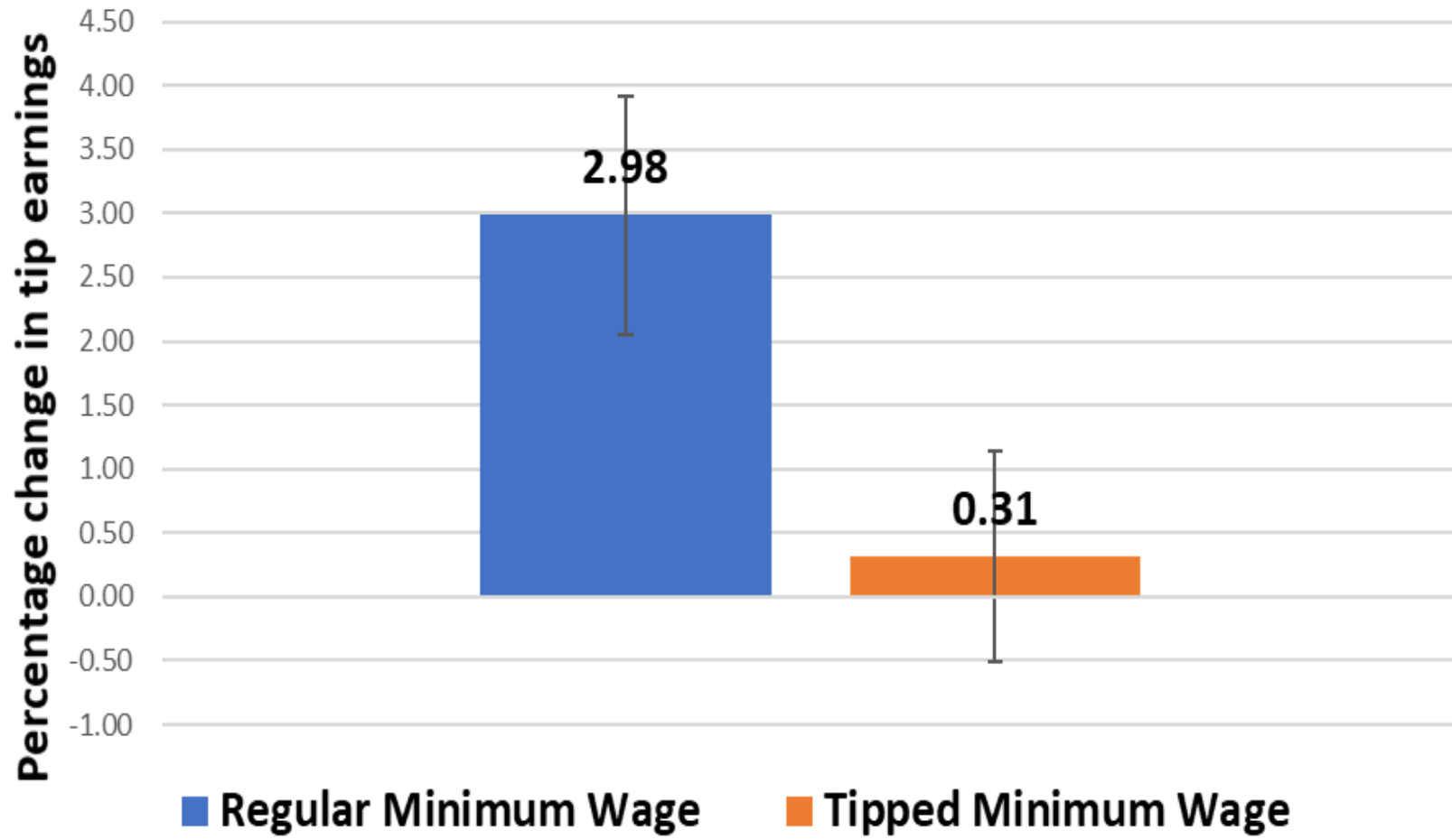
Results for
all workers

Change in Regular Earnings due to 10% increase in Minimum Wages



Results for
tipped
workers

Change in Tip Earnings due to 10% increase in Minimum Wages



Results for
tipped
workers

Results for restaurants

	All Restaurants		Single Restaurants (not chains) with tipped workers or table service	
	Regular Min. Wage rises		Regular Min. Wage rises	Tipped Min. Wage rises
Employment	<i>no signif. effect</i>		<i>no signif. effect</i>	rises ↑
Base Payroll	rises ↑		rises ↑	rises ↑
Total Tips			rises ↑	<i>no signif. effect</i>
Prices	rises ↑		<i>no signif. effect</i>	<i>no signif. effect</i>
Revenue	rises ↑		<i>no signif. effect</i>	rises ↑
Exit	<i>no signif. effect</i>			

Summary

- Combination of state and federal data provides insight on how law changes impact both businesses and workers
 - Workers earn more in the same job
 - Restaurants see a rise in payroll and often raise prices but don't exit
- Heterogeneity in how laws impact businesses and workers
 - Tipped workers
 - Single establishment restaurants versus chains
- Future work
 - Further understand differences between table service and fast food restaurants
 - How does minimum wage impact age distribution of workers?
 - How does it impact worker turnover?

Thank you!

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