What are the effects of **high** minimum wages in the US?

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Introduction

Two ways to learn about the effects of high minimum wages in the US:

(1) Simulate the effects of $15 minimum wages in states that will implement them in the future, using a general equilibrium model:

- Reich, Allegretto, Jacob, Montialoux (2016) [here] on New York State.
- Reich, Allegretto, Montialoux (2017) [here] on California and Fresno county.
- Reich, Allegretto, Montialoux (forthcoming) on the US and Mississippi.

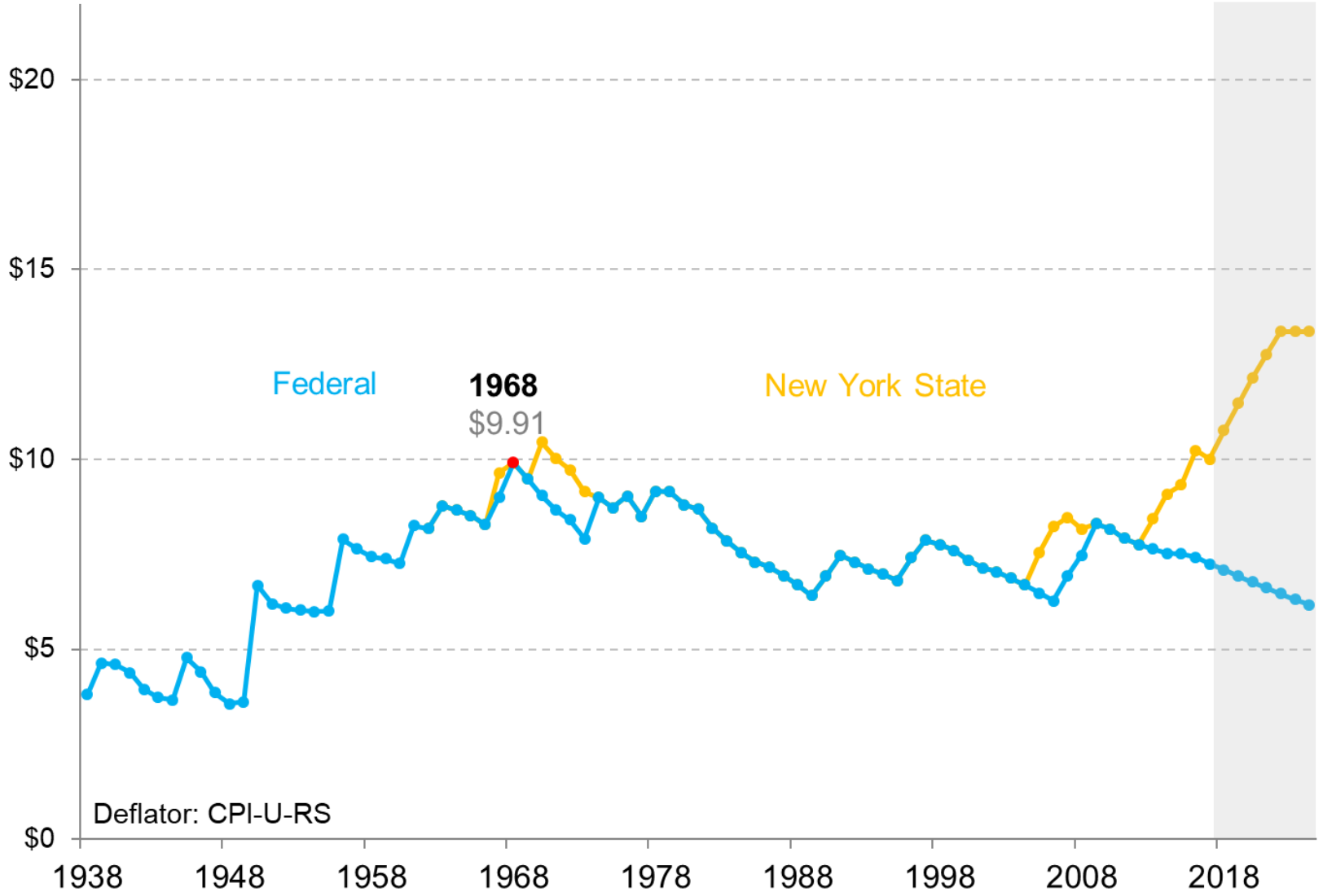
(2) Investigate the effects of high minimum wages in the 1960s:

- Ongoing research with Ellora Derenoncourt.

Part 1

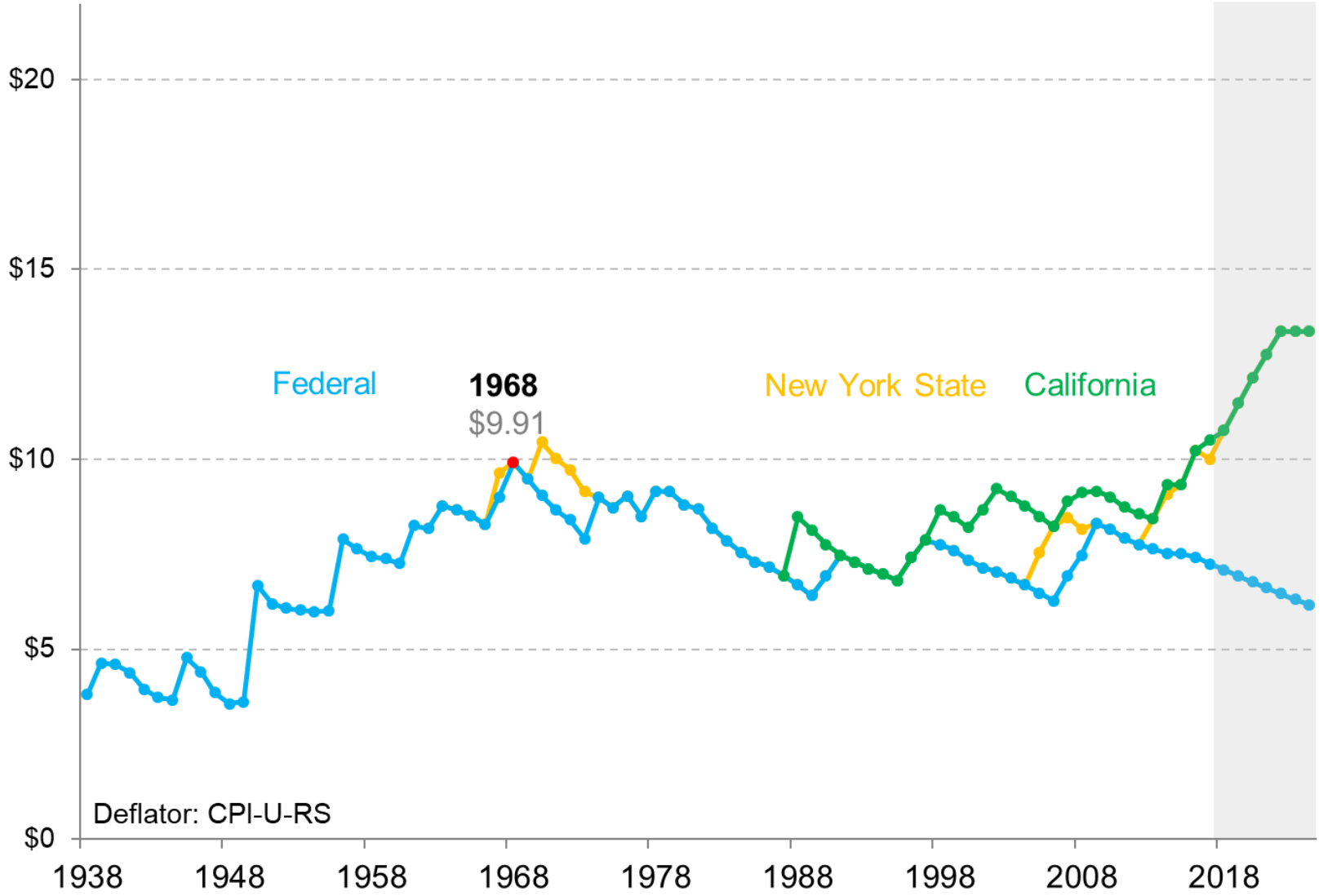
Simulating the effects of $15 minimum wage in New York State and California

Real minimum wage (1938-2024), $2017



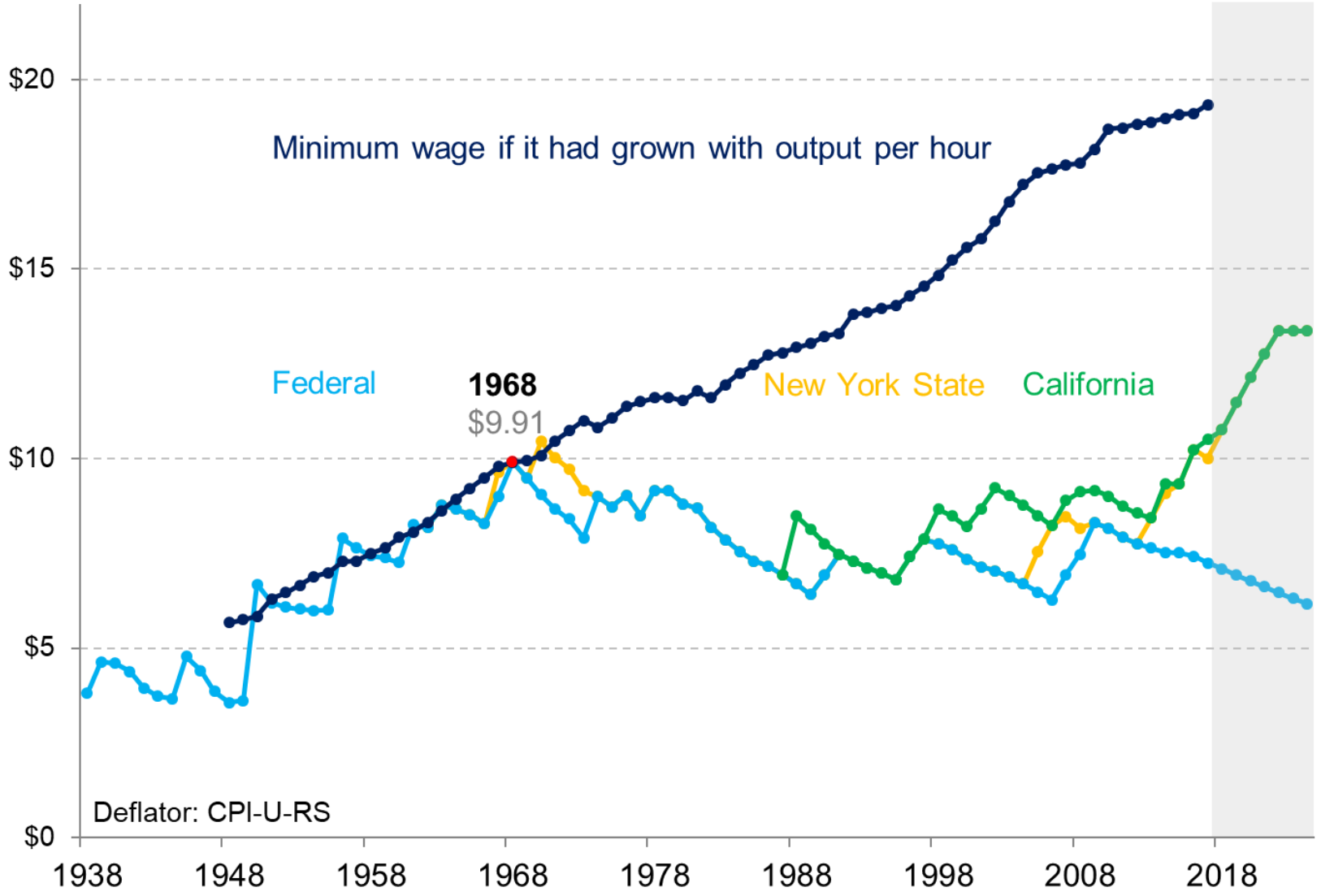
Source: From 2016 in New York State, wage rate schedule for Long Island and Westchester; see all rates here.

Real minimum wage (1938-2024), $2017



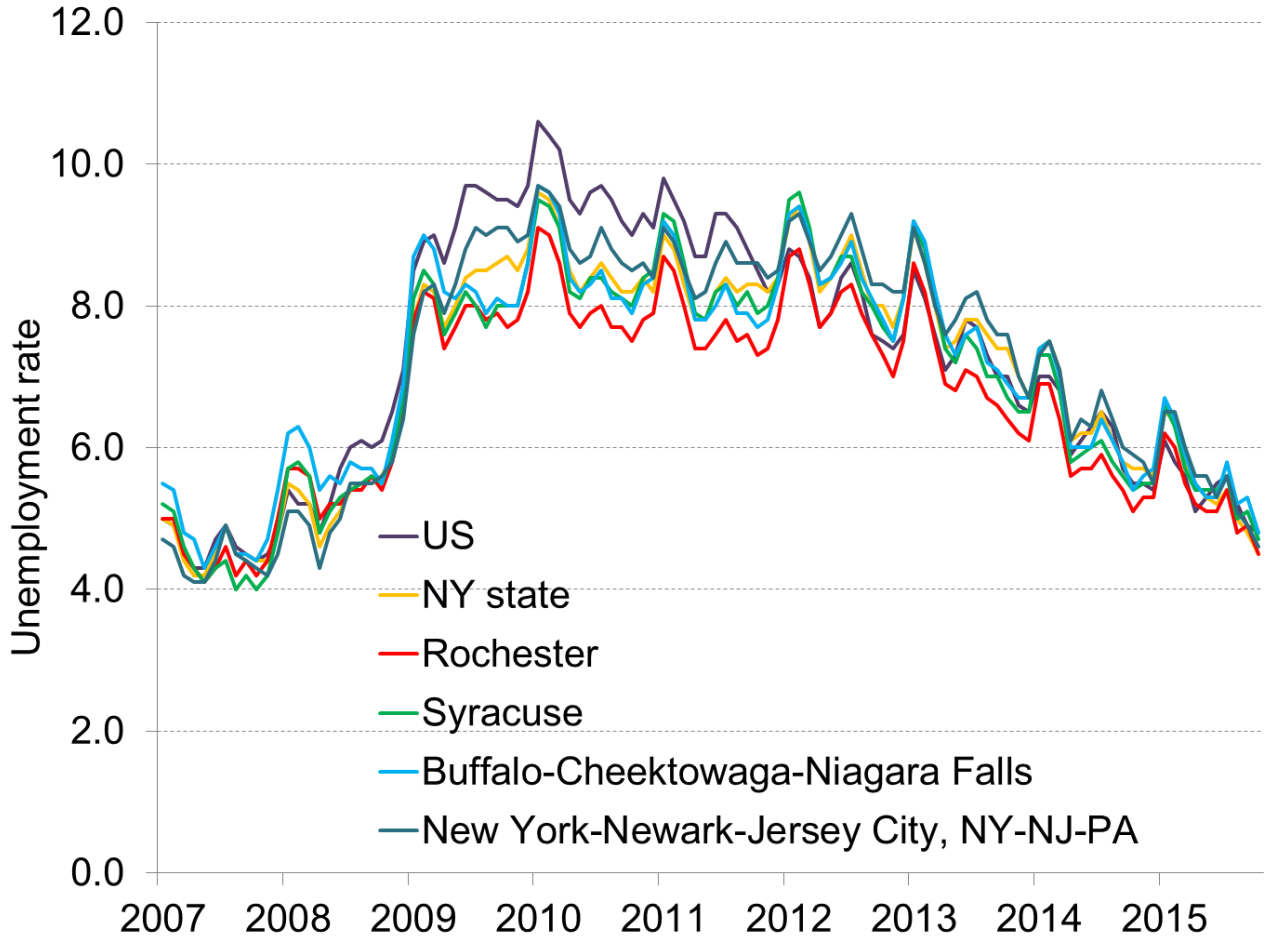
Source: From 2016 in California, Senate Bill No.3 from 2016, rates for employers with 26 employees or more; see all rates here.

Real minimum wage (1938-2024), $2017



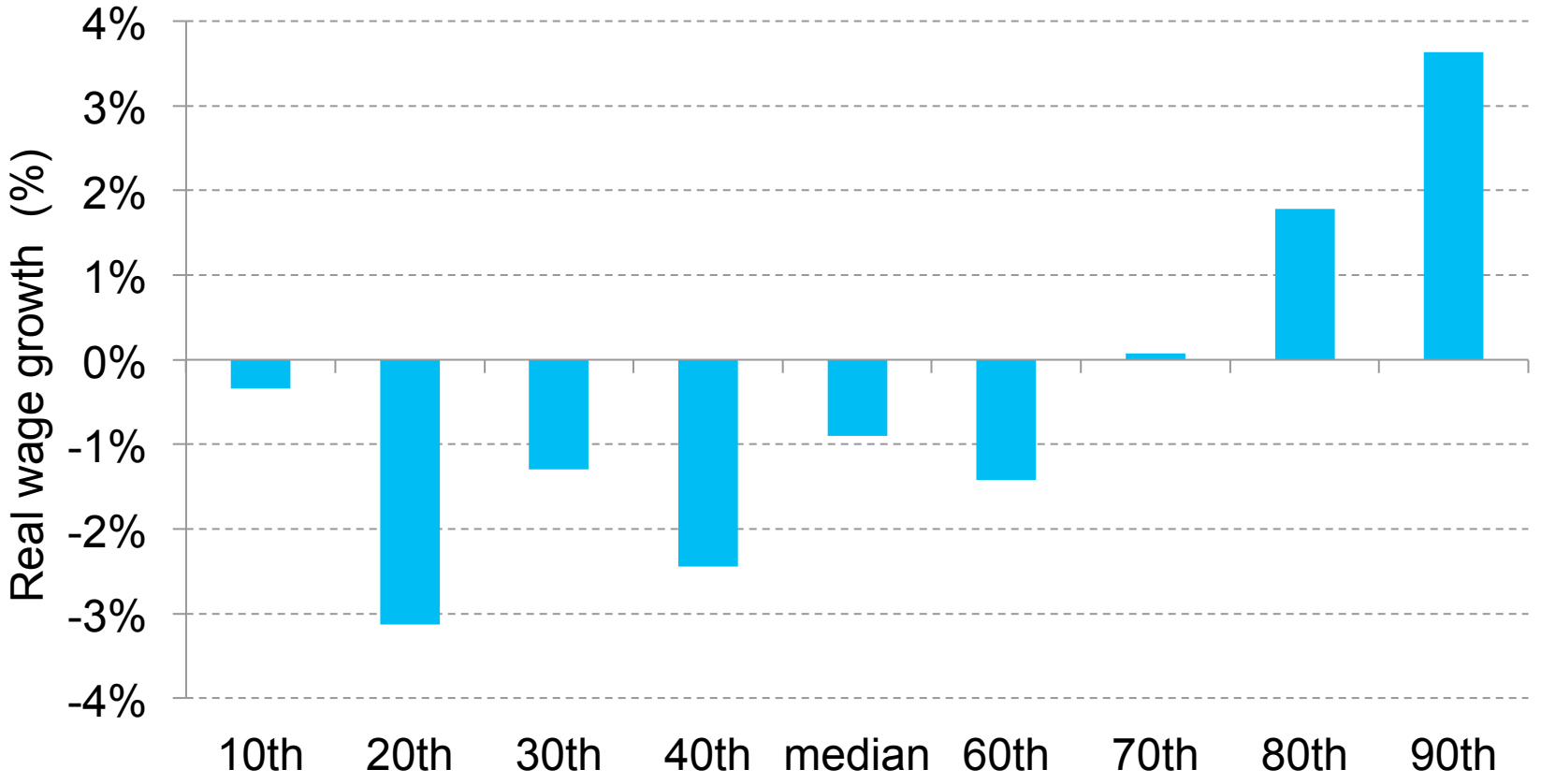
Source: BLS series for growth of output per hour.

Context (1/2): New York's unemployment rate has been falling and has returned to its 2007 level…



Source: Bureau of Labor Statistics, not seasonally adjusted series. Rochester, Syracuse, Buffalo and New-York-Newark-Jersey City statistics are shown at the Metropolitan area level.

Context (2/2): …But wages in New York State have fallen for the bottom 60% since 2010



Source: Current population Survey and Economic Policy Institute. CPI-U-RS used to translate nominal wages into 2014 dollars.
Note: Wage distribution of workers. Nominal wage growth rate from 2010 to 2014.

Almost four in ten workers will receive pay increases in New York State and California

	New York State (by 2021)	California (by 2023)	Fresno (by 2023)
Number of Workers Affected			
Directly (millions)	2.42	3.95	0.15
Indirectly (millions)	0.75	1.32	0.05
Total (millions)	3.16	5.27	0.20
Percentage of Workers Affected in the Workforce			
Directly	28.0%	28.5%	39.1%
Indirectly	8.6%	9.5%	11.6%
Total	36.6%	38.0%	50.7%

Source: For New York State: Cooper (2016) [here], using 2014 ACS data. For California and Fresno, Reich, Allegretto, Montialoux (2017) [here], using 2013-2014 ACS data.
Notes: The "directly affected" workers are those with hourly wages between 50 percent of the statutory minimum wage prior to the proposed increase, and the proposed minimum wage applicable in the worker's jurisdiction of work. The "indirectly affected" workers are those whose wages are greater than or equal to the proposed new minimum wage, but less than 115 percent of the dollar value of the proposed increase. This cutoff point is chosen to reflect the findings of Dube, Giuliano, and Leonard (2015) [here], which observed minimum-wage spillover or "ripple" effects for workers earning 15 percent above newly implemented minimum wages.

Key parameters taken into account in our model

	New York State (by 2021)	California (by 2023)	Fresno (by 2023)
Key parameters			
K-L substitution elasticity	0.2	0.2	0.2
Productivity gains (in levels)	0.005	0.005	0.005
Turnover reduction	0.13	0.074	0.075
Price elasticity of demand	-0.72	-0.72	-0.92
Raise in MW offset by changes in:			
EITC	0.80	0.80	0.80
SNAP benefits	4.20	4.20	4.20
Premium tax credits under the ACA	2.30	2.30	2.30
Payroll taxes	7.65	7.65	7.65

Source: For New York State: Reich, Allegretto, Jacob, Montialoux (2016) [here]; For California and Fresno: Reich, Allegretto, Montialoux (2017) [here].

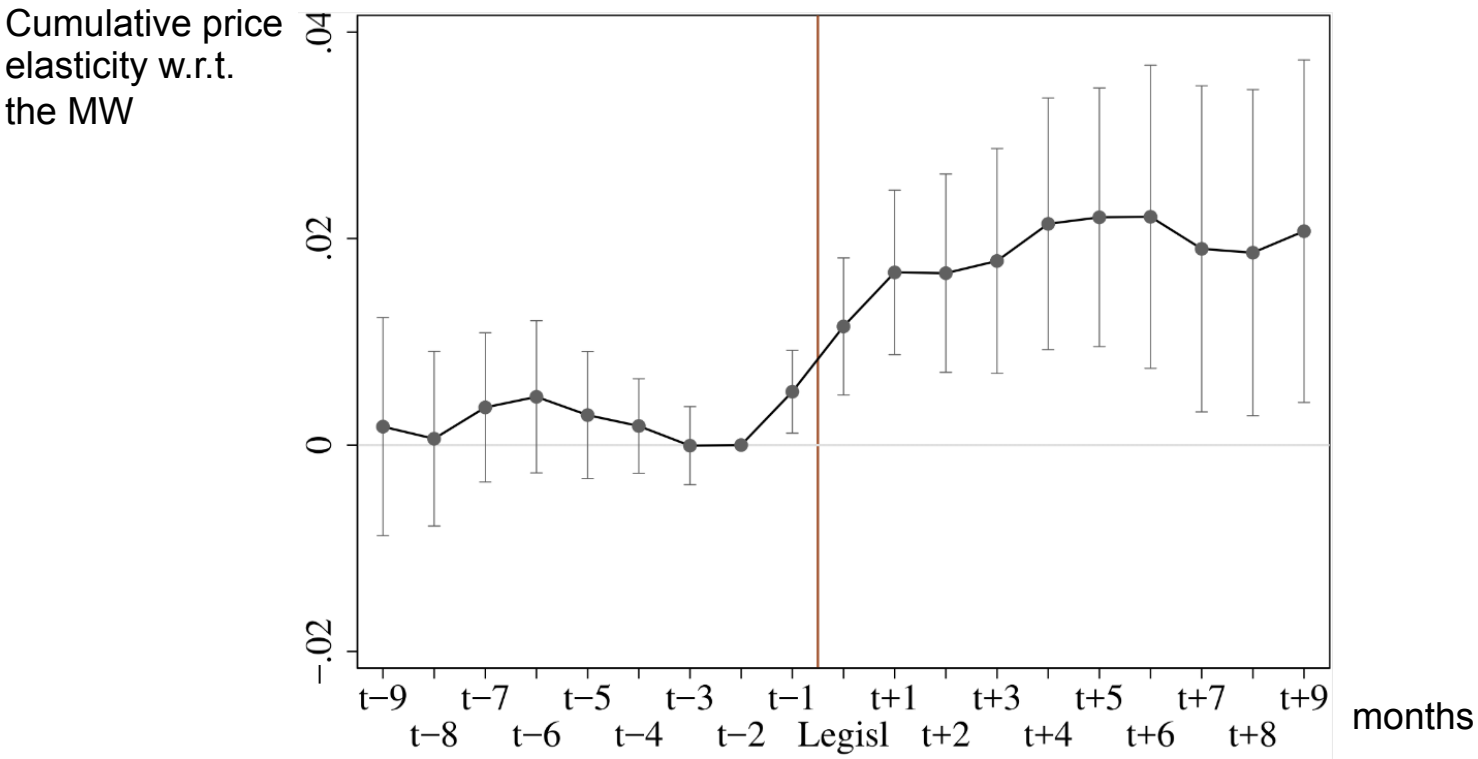
Benefits for workers: the average increase in earnings will be above $4,000 ($2017) per affected worker

	New York State (by 2021)	California (by 2023)	Fresno (by 2023)
Average cumulative increase in:			
Hourly Wage ($)	$3.09	$2.36	$2.47
Earnings per Worker ($)	$5,143	$3,998	$4,222
Earnings per Worker (%)	27.2%	25.4%	27.1%
Wage bill (millions)	$16,263	$20,674	$830
Wage bill (%)	3.5%	2.8%	5.4%

Source: For New York State: Cooper (2016) [here], using 2014 ACS data. For California and Fresno, Reich, Allegretto, Montialoux (2017) [here], using 2013-2014 ACS data. Wage bill increase is estimated here before any reduction in wages due to capital-labor or labor-labor substitution and productivity gains (contrary to the figures shown on the "Net effects" slide (slide 17).
Note: All figures are cumulative pay increases by 2021 for New York State, by 2023 for California and Fresno, converted in 2017 dollars using CPI-U-RS.

The increase in earnings for affected workers will **add to consumer demand**

Costs for firms: evidence of full pass-through in retail trade using scanner-level data (2001-2012)



Source: Renkin, Montialoux, Siegenthaler (2017) [here].
Note: This figure shows the cumulative price elasticities with respect to the minimum wage in the months surrounding the passage of legislation. Standard errors are clustered at the state-level; 90% confidence intervals are displayed.

Full pass-through consistent with **literature on restaurants**, **very little and mixed evidence** of the effect of MW increases **on profits**.

Costs for firms: estimation of price increase in all sectors in New York State by 2021 assuming full pass-through

	% Change in Payroll Costs	Labor Costs as % of Operating Costs	Price increase
Cumulative changes by 2021, private, for profit sector			
All Industries	3.35%	22.10%	0.74%
Restaurants	23.13%	30.70%	7.10%
Retail trade	8.12%	10.80%	0.88%
Food manufacturing	7.61%	10.70%	0.81%

Source: Reich, Allegretto, Jacob, Montialoux (2016) [here].
Note: The price increases are presented in the case of a competitive model, and are calculated as follows: % Change in Payroll Costs * Labor Costs as a % of Operating Costs * Percentage Minimum Wage Increase. A full-pass-through of minimum wage costs into prices is assumed. The percentage minimum wage increase is an average between the percentage minimum wage increase in New York City and outside New York City weighted by the affected workforce in the two areas. Percent change in payroll costs includes payroll taxes and workers' compensation as well as turnover offsets. In this table, the percent change in payroll costs does not take into account the reduction in total wage bill due to substitution and productivity gains job losses. Those effects are, however, taken into account in our GE model.

The increase in prices will **reduce consumer demand.**

Costs for firms: the minimum wage increase would raise prices by about 0.7% in New York State and California

	New York State (by 2021)	California (by 2023)	Fresno (by 2023)
Cumulative price increases in:			
All Industries	0.74%	0.64%	1.21%
Restaurants	7.10%	5.06%	6.11%
Retail trade	0.88%	0.62%	0.89%
Food manufacturing	0.81%	n.a.	4.50%
Agriculture	n.a.	n.a.	1.00%

Source: For New York State: Reich, Allegretto, Jacob, Montialoux (2016) [here]; For California and Fresno: Reich, Allegretto, and Montialoux (2017) [here].
Note: The price increases are presented in the case of a competitive model. A full-pass-through of minimum wage costs into consumer prices is assumed. It is also assumed that there is no increase in the cost of intermediary inputs.

There is a great deal of **heterogeneity in price increases across industries.**

Net effects: model estimated elasticities

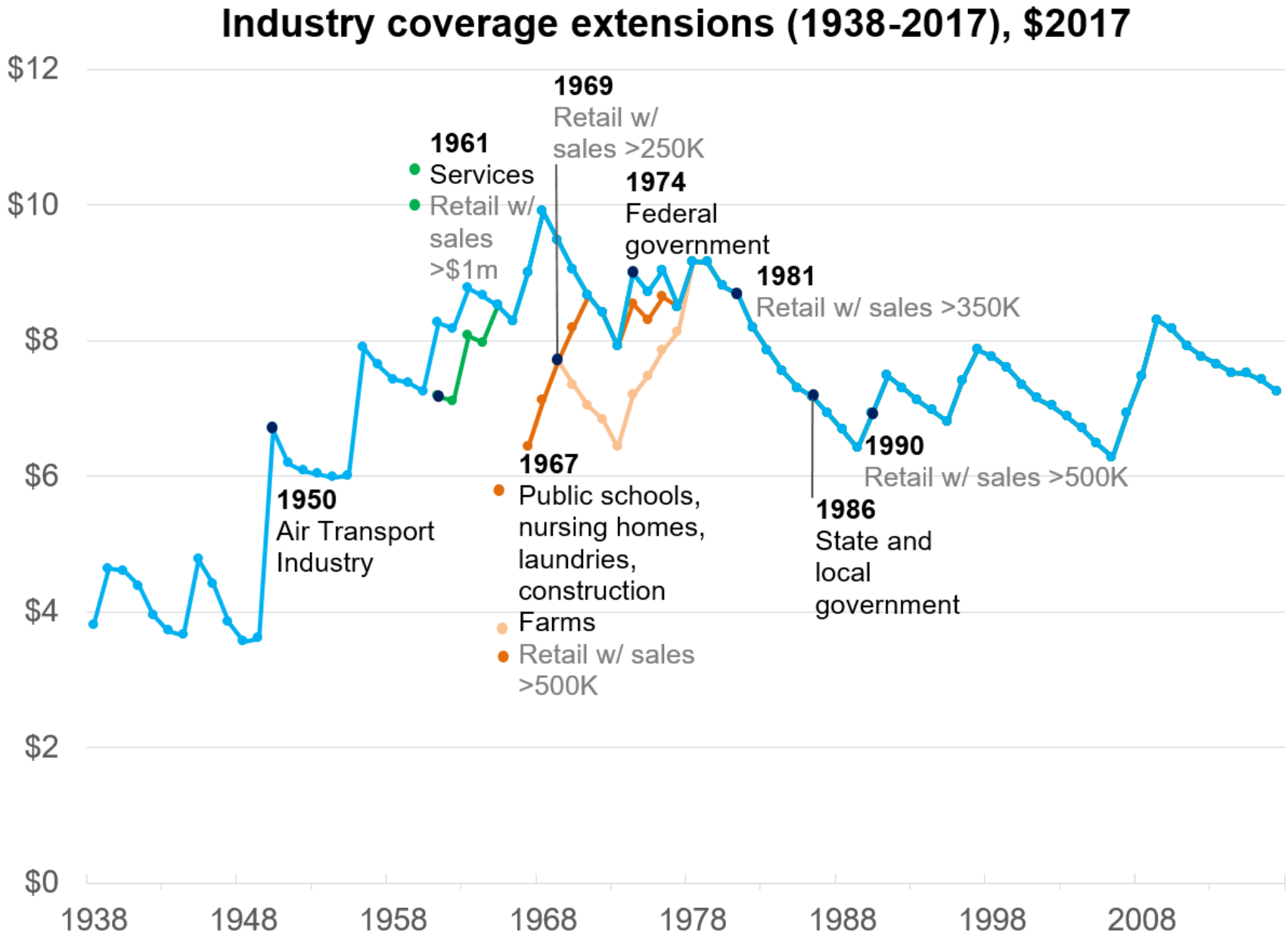
	New York State (by 2021)	California (by 2023)	Fresno (by 2023)
Percent employment change			
Substitution	-0.48	-0.48	-0.67
Scale	-0.43	-0.45	-0.53
Income	0.94	0.98	1.29
Total	0.04	0.06	0.03
Percent wage change	3.36	2.68	5.1
Labor demand elasticity	0.01	0.02	0.01

Source: For New York State: Reich, Allegretto, Jacob, Montialoux (2016) [here]; For California and Fresno: Reich, Allegretto, and Montialoux (2017) [here].

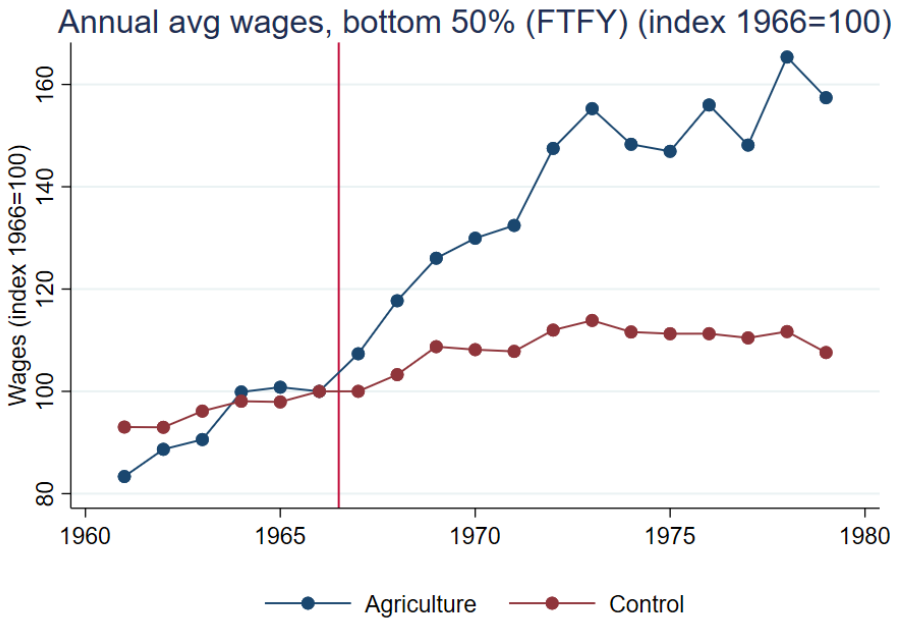
Labor demand elasticities **in the range of previous literature.**

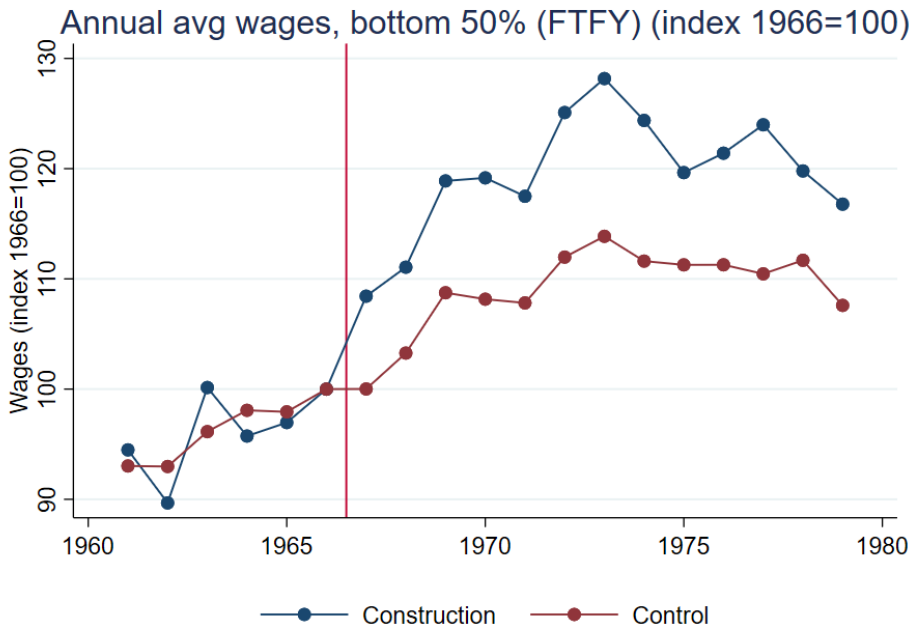
Part 2

Investigating the effects of high minimum wages in the 1960s


Industry coverage extensions (1938-2017), $2017
$12
$10
$8
$6
$4
$2
$0
1938
1948
1958
1968
1978
1988
1998
2008
1950
Air Transport Industry
1961
Services
Retail w/ sales >$1m
1967
Public schools, nursing homes, laundries, construction
Farms
Retail w/ sales >500K
1969
Retail w/ sales >250K
1974
Federal government
1981
Retail w/ sales >350K
1986
State and local government
1990
Retail w/ sales >500K

Annual average wages (FTFY) (index 1966=100)





Source: Derenoncourt and Montialoux (ongoing research) using March-CPS 1962-1980.
Note: annual average wages for adults 25-64, excluding self-employment, for the bottom 50% of the wage distribution, full-time, full year. The control group is a weighted average of all the sectors already covered by FLSA in 1966.

Conclusion

(1) Simulate the effects of $15 minimum wages:

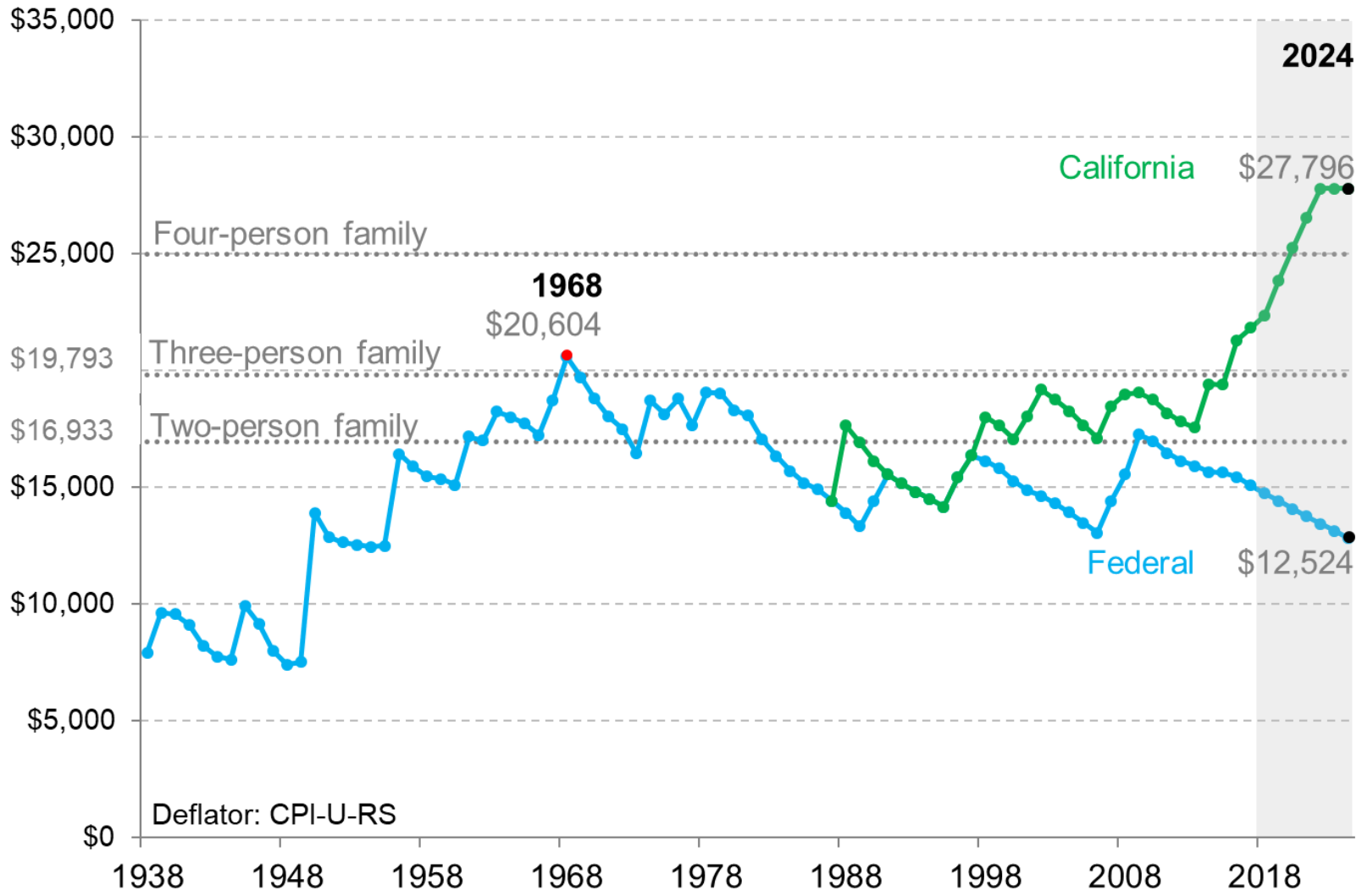
- Positive and negative effects on employment seems to largely offset each other for New York State and California.
- Further research needed on:
  - the effect of MW increases on **profits**.
  - the **pass-through** of labor costs increases **in intermediary inputs** for nationwide MW increases.

(2) Investigate the effects of high minimum wages in the 1960s:

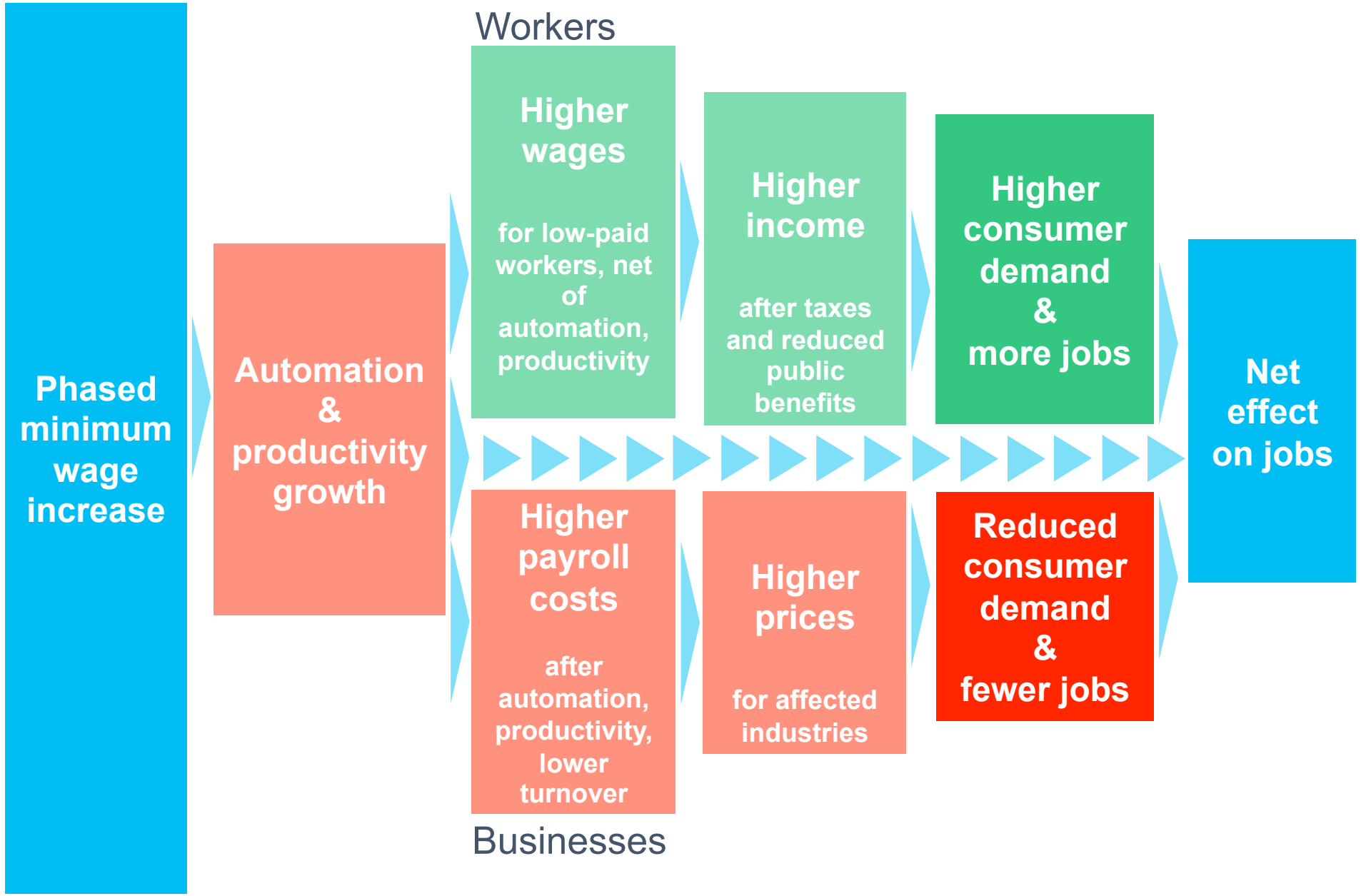
- Substantial relative wage growth in the newly covered *vs.* previously covered industries.
- Next steps: looking at the employment effects of coverage expansion in these industries.

Appendix

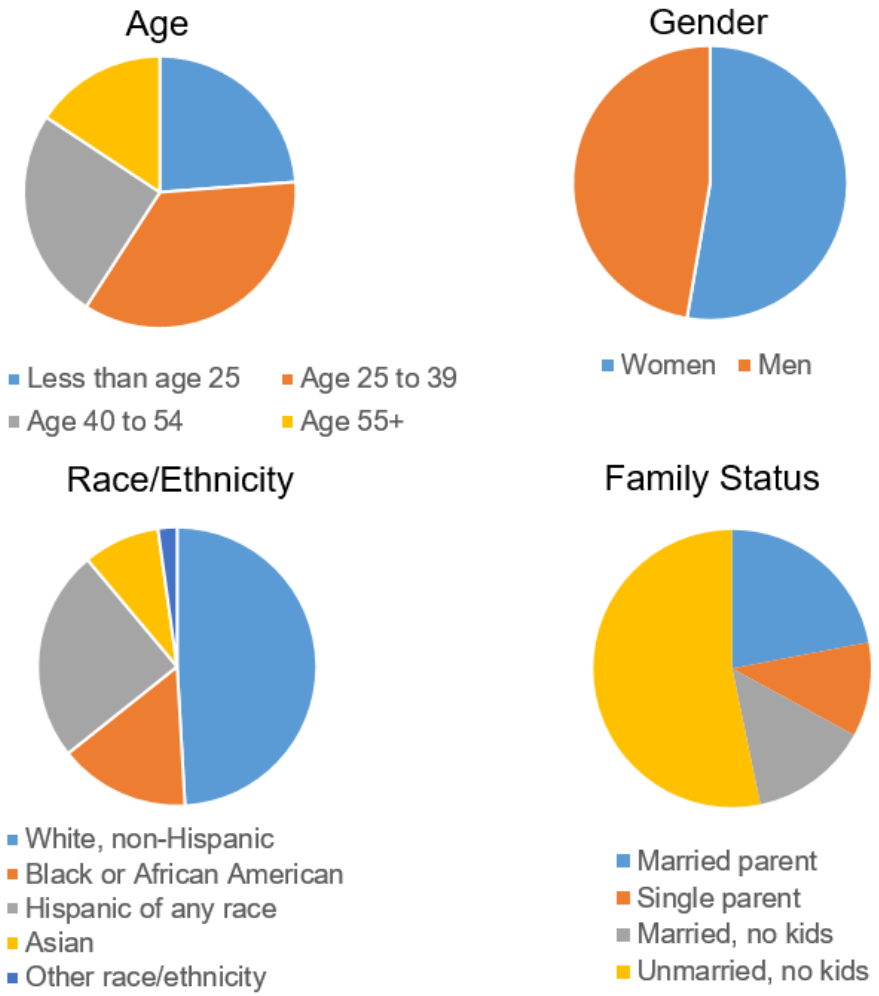
Annual wage income for a full-time minimum wage worker compared with various poverty threshold (1938-2024), $2017



Source: poverty thresholds from the Census Bureau, here. Census Bureau data for 2016 poverty thresholds, inflated to obtain $2017.

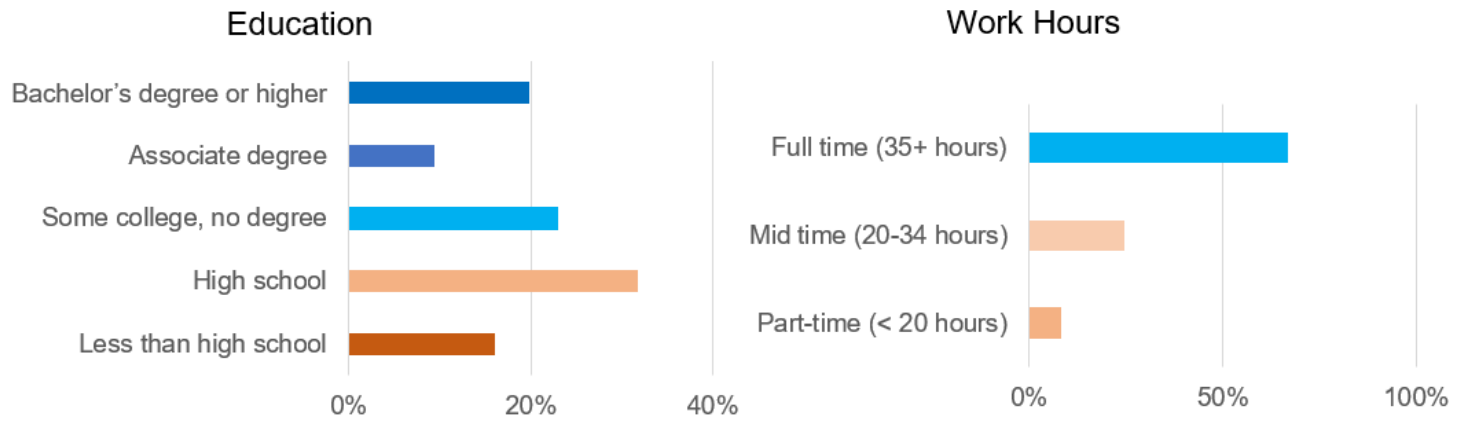

Phased minimum wage increase
Automation & productivity growth
Workers
Higher wages
for low-paid workers, net of automation, productivity
Higher income
after taxes and reduced public benefits
Higher consumer demand & more jobs
Businesses
Higher payroll costs
after automation, productivity, lower turnover
Higher prices
for affected industries
Reduced consumer demand & fewer jobs
Net effect on jobs

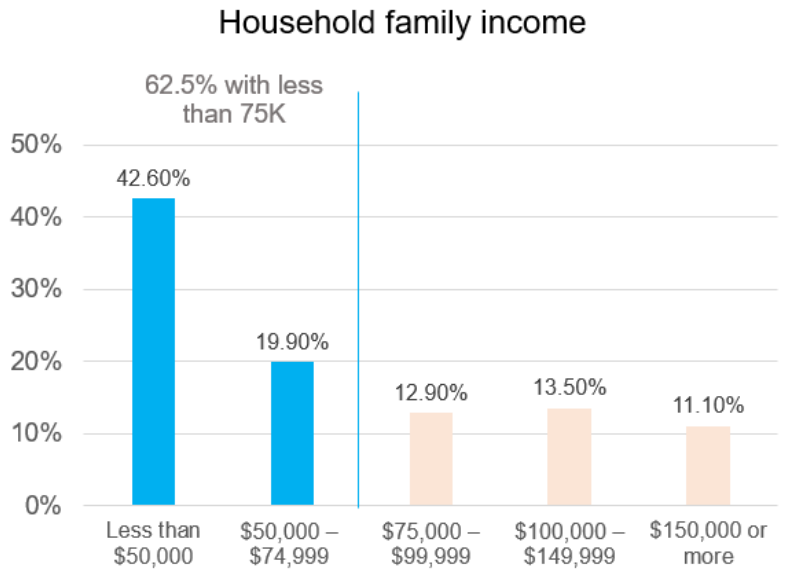
Demographics of affected workers in New York's state



Source: Cooper (2016) [here], using 2014 American Community Survey microdata.

Demographics of affected workers in New York's state





Source: Cooper (2016) [here], using 2014 American Community Survey microdata.