

# **Do Minimum Wages Reduce Job Opportunities for Blacks?**

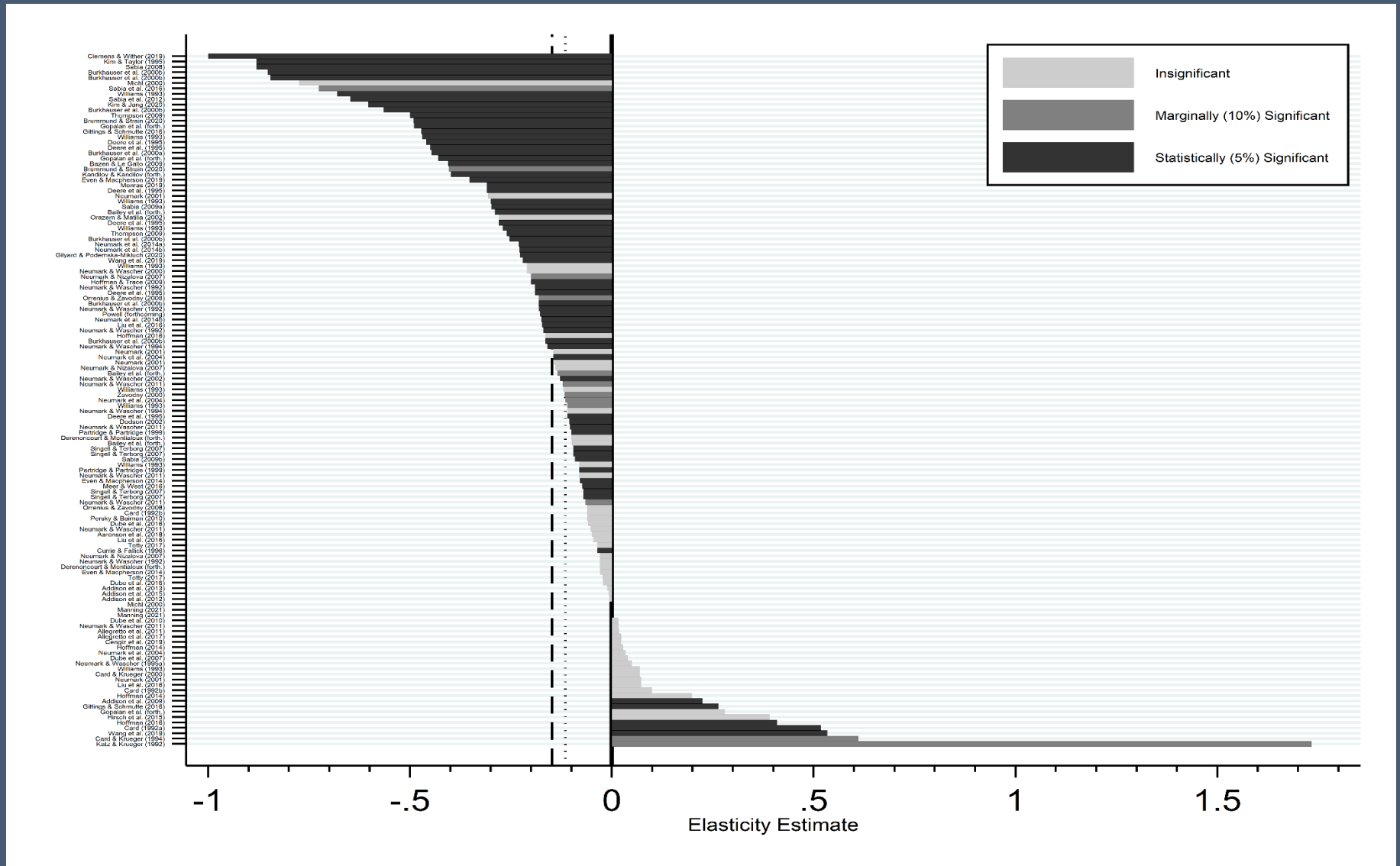
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**David Neumark  
Jyotsana Kala**

# Recent work (and advocacy) argues that higher minimum wages close race gaps

- By and large starts from premise that there are no/negligible employment effects
- Since blacks have lower wages/skills, higher MW narrows race wage gaps (Deroncourt and Montialoux 2021)
- A few problems:
  - Based on data from 1960s (large expansions of federal MW)
  - Bailey et al. (2021) have similar paper and find offsetting job loss for blacks (and argue that they use more appropriate empl. measure and controls)
  - Premise that minimum wages have no/negligible employment effects is of course contested, and contradicted by most research (Neumark and Shirley 2022)

# All preferred estimates from N&S 2022



# Assessing effects of minimum wages on race gaps requires studying employment

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- Looking at how MWs affect wage/earnings gaps conditional on working is not very interesting or informative about policy, given evidence of job loss
- And ... could employment effects be more adverse for blacks?

# There is very little evidence on the empl. effects of minimum wages on blacks

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- Scattered exceptions
  - Neumark and Wascher (2011), but in context of effects of MWs, EITC, and their interaction
  - Deere et al. (1995) look at 1990-91 federal increases, show higher fraction of low-wage workers among blacks, and larger employment declines for them
    - Hard to identify effects of federal changes; they largely pitch this as DDD using whites to control for other changes (but also estimate models for blacks with cyclical controls)
- But a lot of work documents largest disemployment effects for the least-skilled (usually defined by age or education), presumably because MW is more binding for them
  - Does this carry over to blacks?

# Hypothesis of more adverse effects on blacks is not new

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- Whether blacks are paid less because of lower skills or employer discrimination, a more binding MW would – in the competitive model – imply larger job loss from a higher MW
- Friedman put this succinctly and provocatively in a 1966 op-ed in *Newsweek*: “I am convinced that the minimum-wage law is the most anti-Negro law on our statute books.”
- Core goal of paper is to estimate employment effects of MWs for blacks as compared to whites

# Conclusion: MWs lead to substantial job loss for low-skilled blacks

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- Some elasticities are as large as  $-.3$  or more
- In contrast, effects for whites are much weaker, and generally not statistically significant
- Suggests an important feature of the employment effects of minimum wages has been missed, despite the large volume of research on employment effects in general
- For blacks, wage elasticities are a good deal smaller than employment elasticities, implying earnings declines on average – which we also confirm directly
- We find the sharp contrast between effects on blacks vs. whites very surprising
  - Policy implications for addressing race differences in employment could be dramatic (and controversial)

# **We also explore the role of space**

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- **There is extensive residential racial segregation in the U.S.**
- **Are stronger adverse effects of MWs for blacks attributable to stronger effects for black individuals regardless of where they live, or attributable to stronger effects of MWs in black areas?**



# Many reasons racial concentration could be correlated with MW effects on jobs

- Poverty among minorities is highly spatially concentrated, and may affect business opportunities
  - Different businesses/industries can have different sensitivity to MW, lower profit margins (fewer margins of adjustment)
  - Marshall's laws: Could affect availability of substitutes (e.g., work on presence of food stores), product market concentration – both making product demand less elastic
  - Labor market concentration may vary (weaker MW effects?)
- Selection of lower-productivity blacks in areas with high share black
- Adverse effects on employment of blacks may spill over more in black areas
  - Lower incomes in neighborhoods
  - Racially stratified labor market networks (Hellerstein et al. 2011, 2014)
- Possible offset: easier L-L substitution away from blacks when share black *lower*
- We find relatively little evidence of variation in MW effects with share black

# Data

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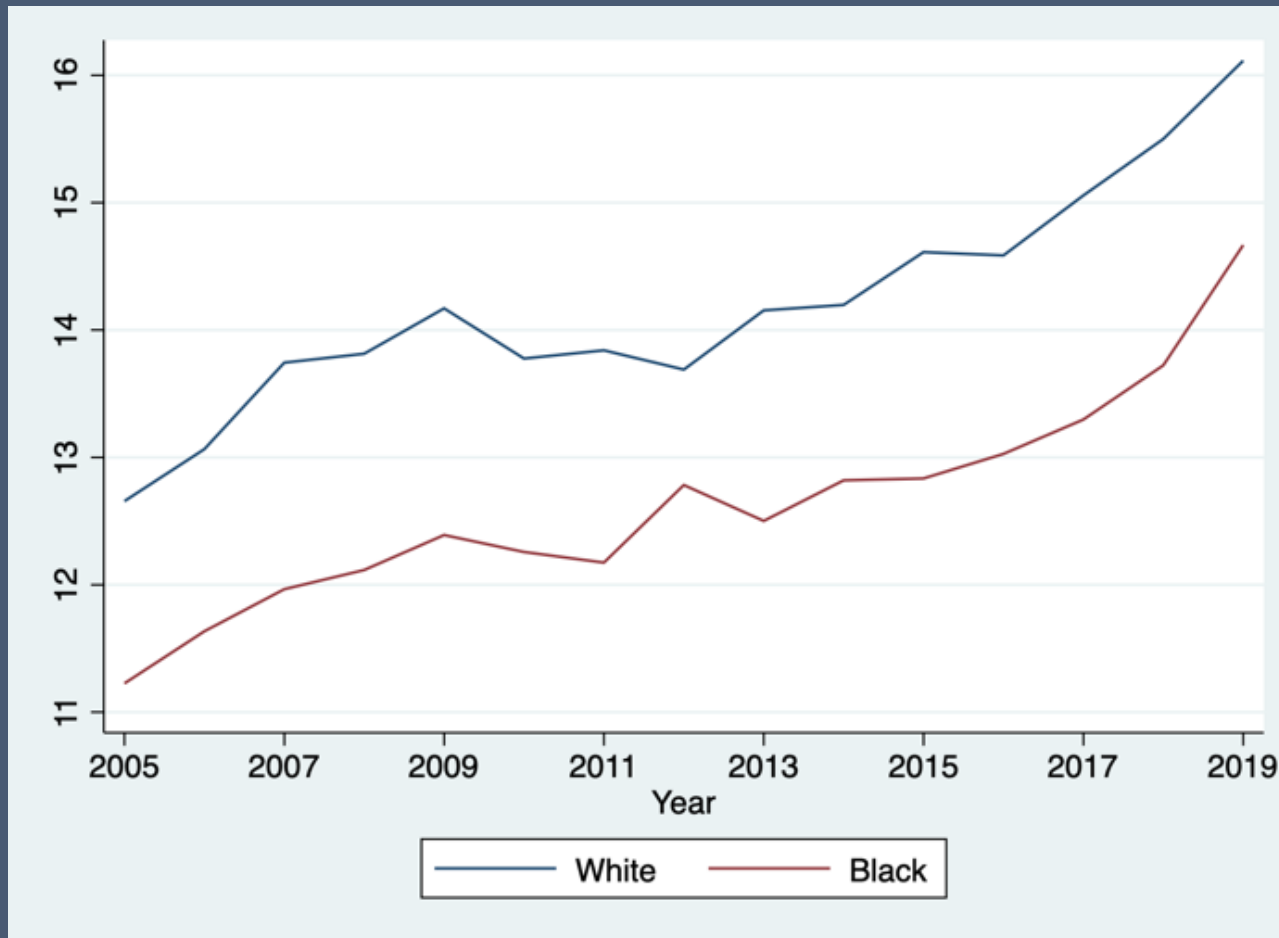
- ACS, 2005-2019
- Blacks and non-Hispanic whites aged 16-65
- When we look at wages, we drop unpaid family workers and the self-employed, but otherwise retain them
- Study variation with share black across Public Use Microdata Areas (PUMA)
  - Smallest geographic unit in public ACS micro data (and tract is too small to define a labor market anyway)
  - Population  $\geq 100,000$
  - Can only aggregate counties/census tracts, and don't cross state boundaries
  - Building blocks contiguous
  - Updated every 10 years, so one change in our sample period
- State and local MWs mapped to PUMAs based on highest MW in PUMA

# Estimating wages in ACS

- Wages aren't central to analysis, but they provide valuable information in assessing bindingness of MW, and to interpret implications of employment effects for earnings
- ACS does not have hourly wages, just annual wage and salary income, weeks worked (categories), and usual hours per week
- We did a lot of work to compute hourly wages and screen or in some cases correct outliers (e.g., by spotting cases where very clearly a zero was left off of reported hours)
  - Will forego going into these details
- Having done this, we restrict wages to between  $\frac{1}{2}$  of the federal tipped MW and \$130 (2019 \$)

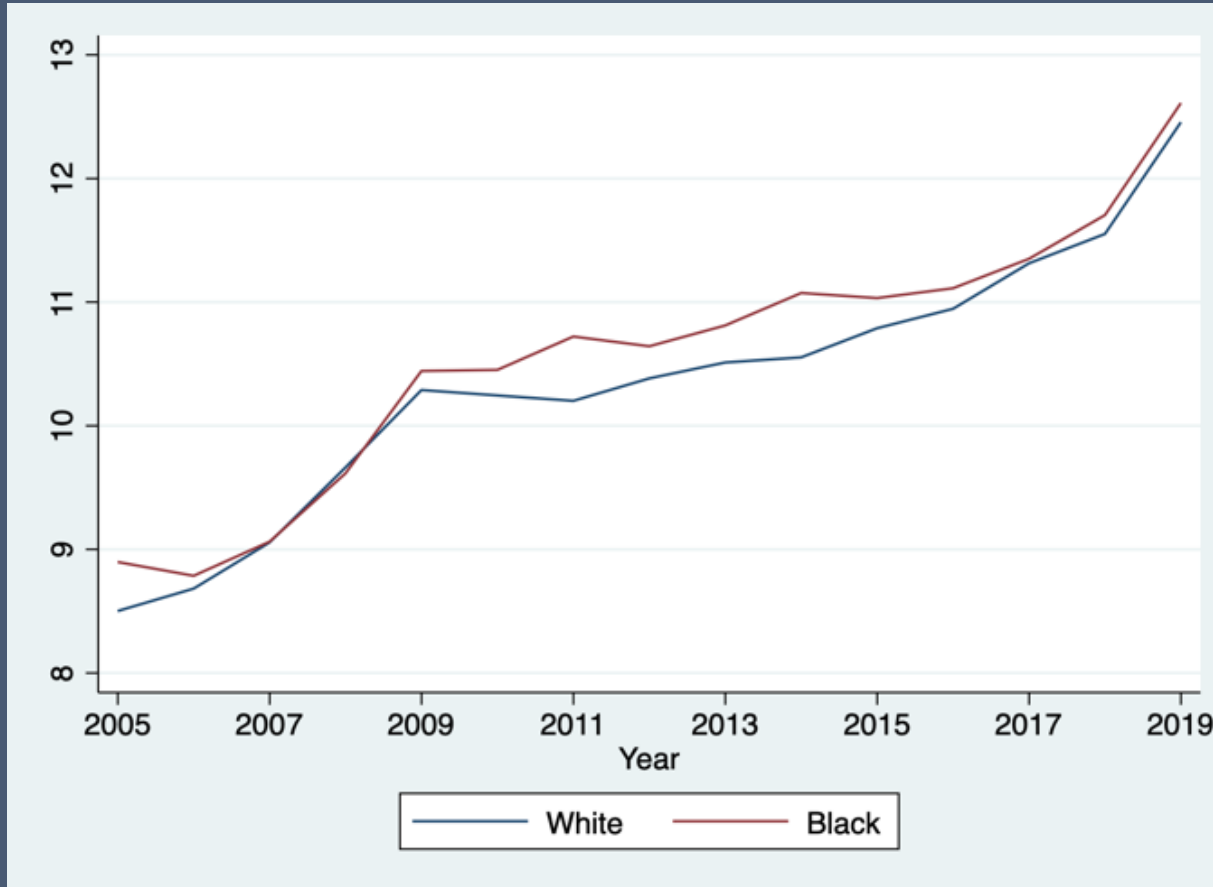
# Blacks earn lower wages, even conditioning on low skills (example)

Males,  $\leq$  HS,  $<$  30 years old,  
FY/FT (nominal \$)



# One exception is for teens

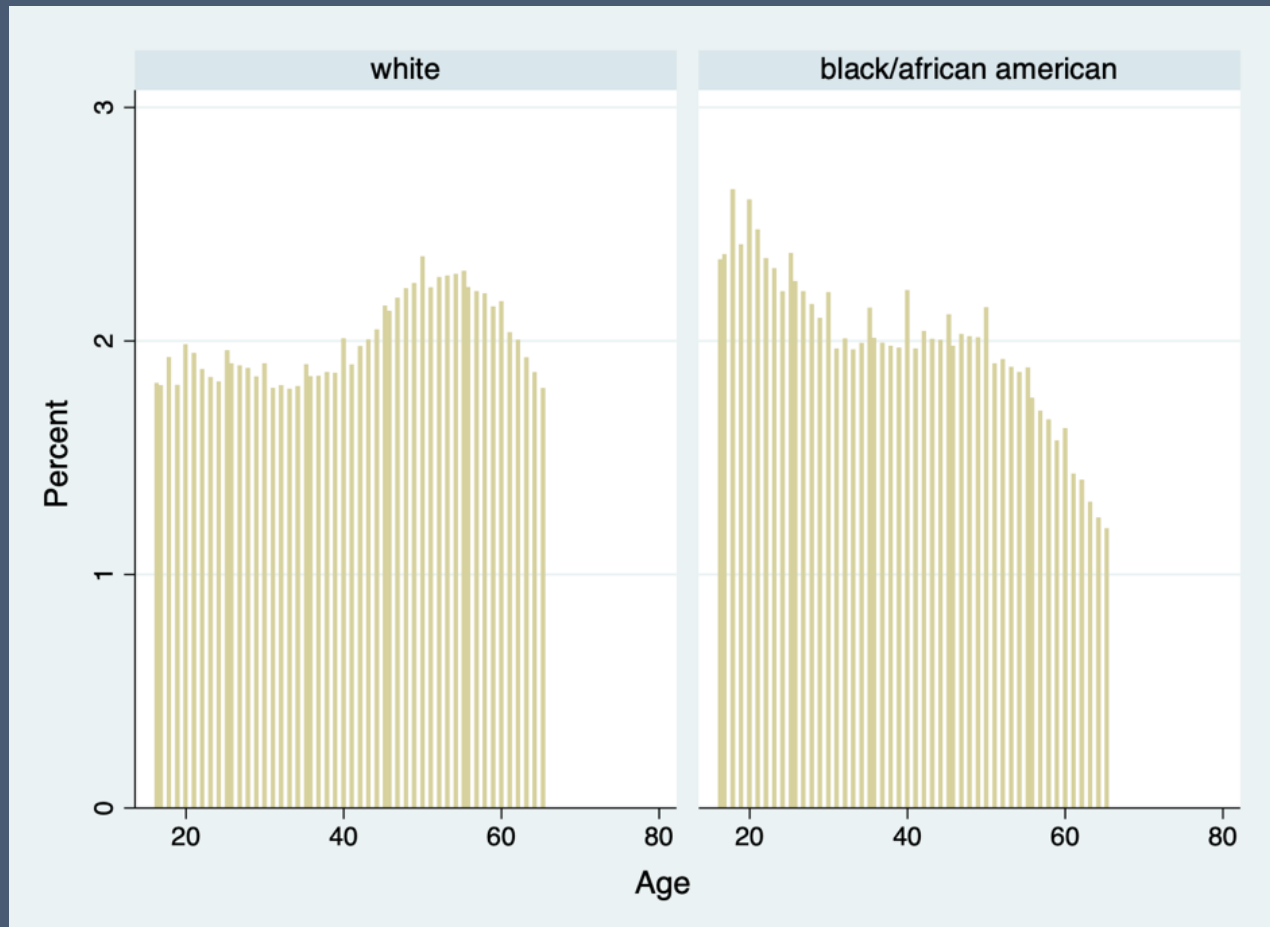
16-19



Teens heterogeneous, ranging from HS dropouts to future PhDs, and composition may differ by race, so less surprising.

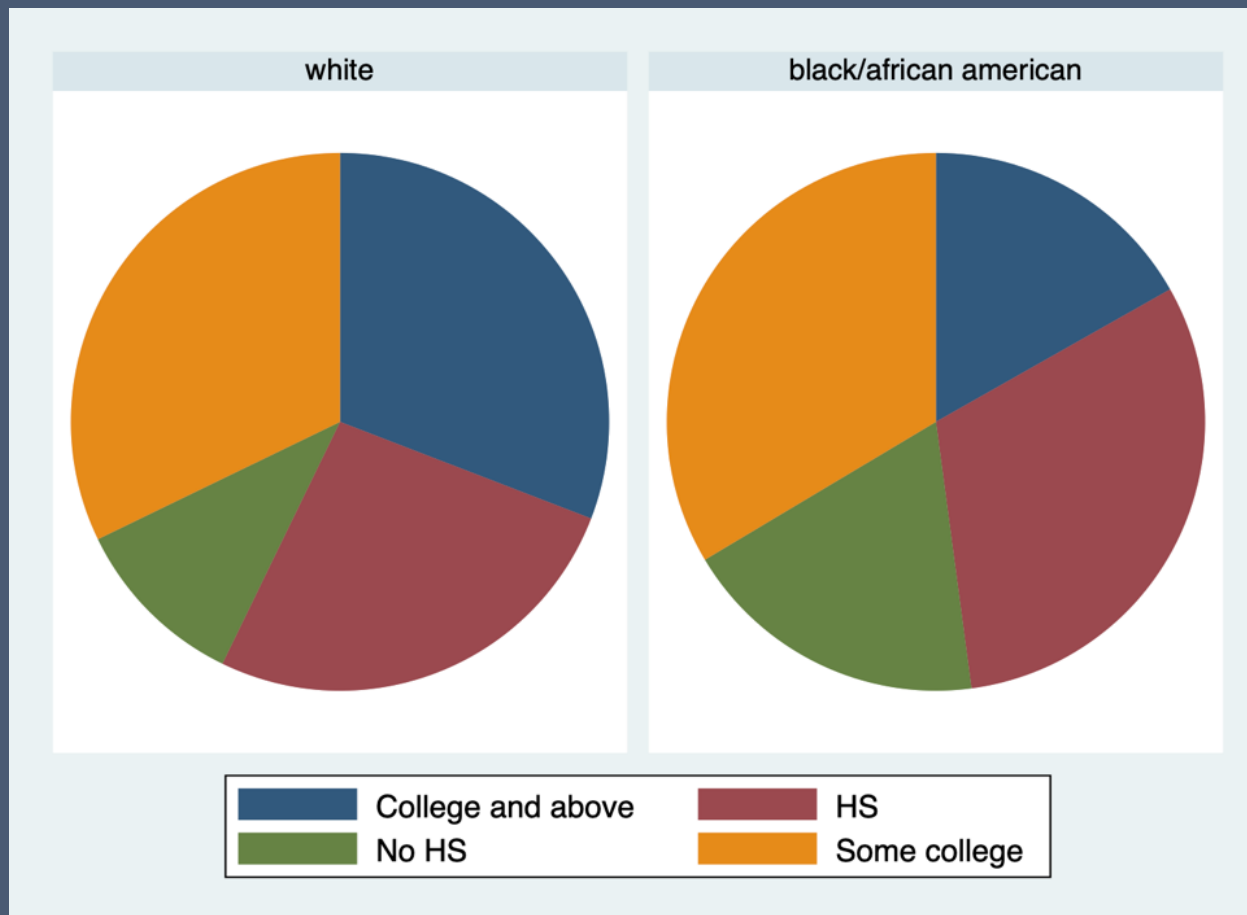
# Blacks are younger and have less education (lower skills, per ACS)

Age distributions



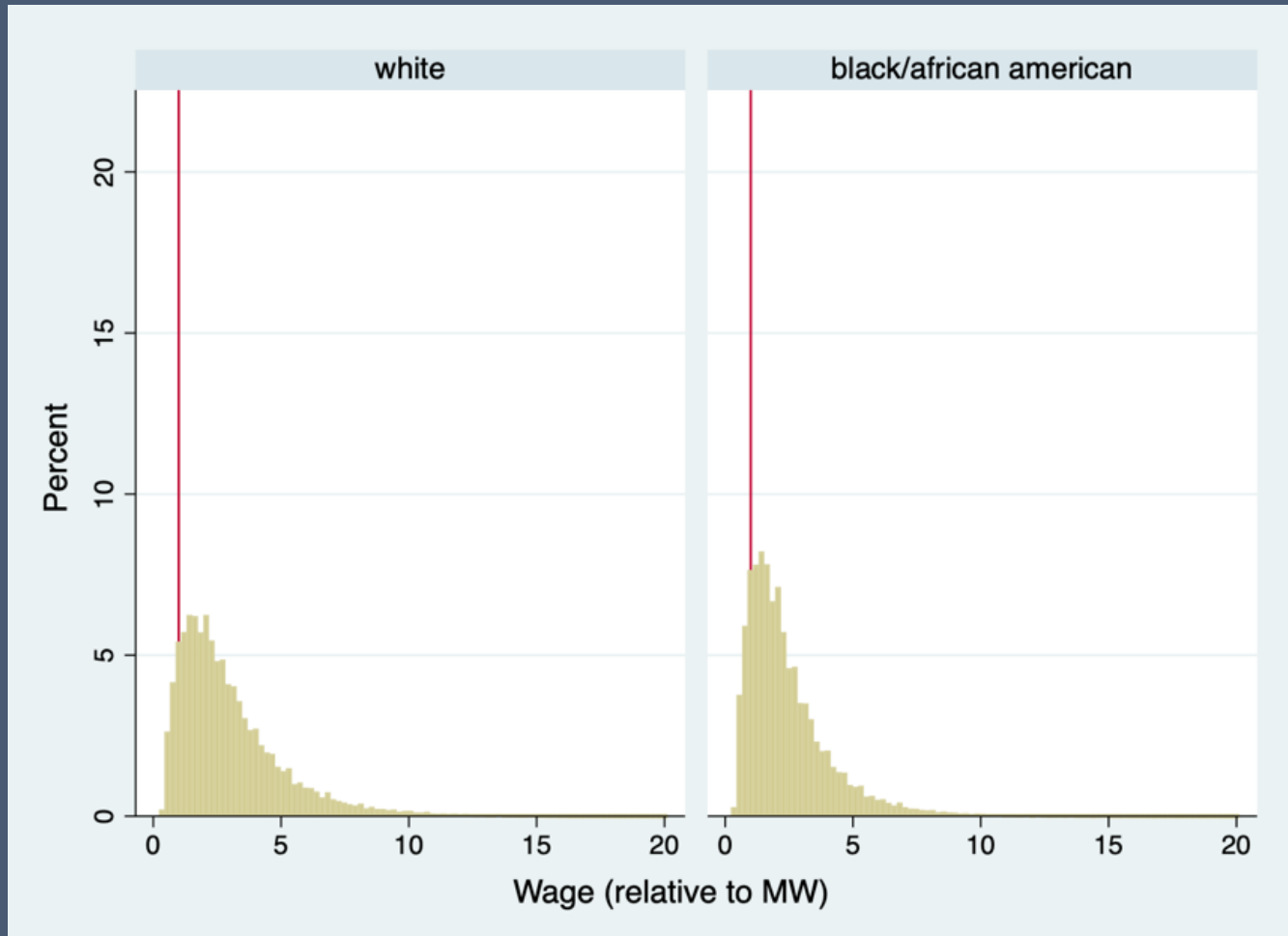
# Blacks are younger and have less education (lower skills, per ACS)

## Education distributions



# Minimum wages are more binding for blacks (wages relative to MW)

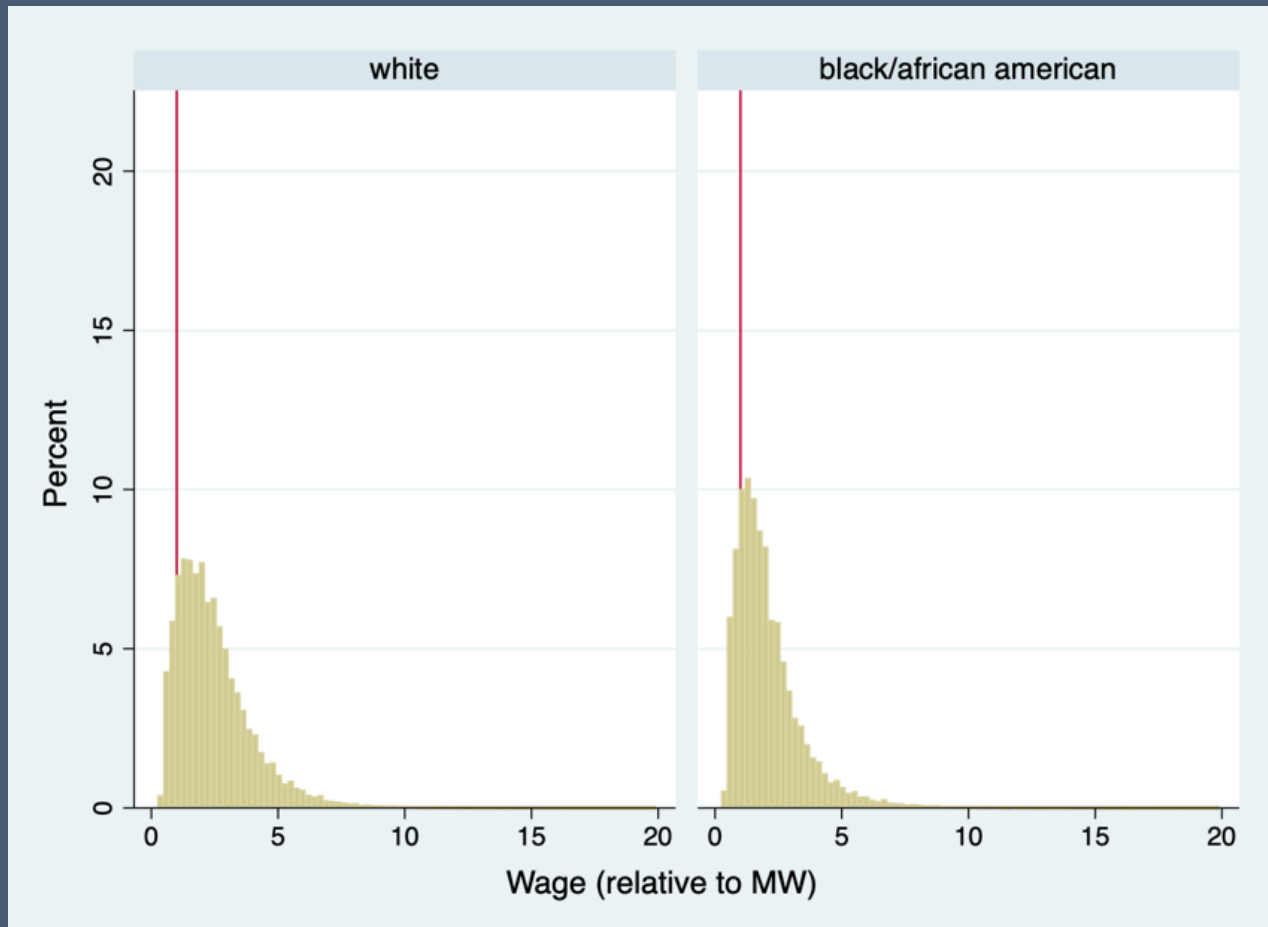
All





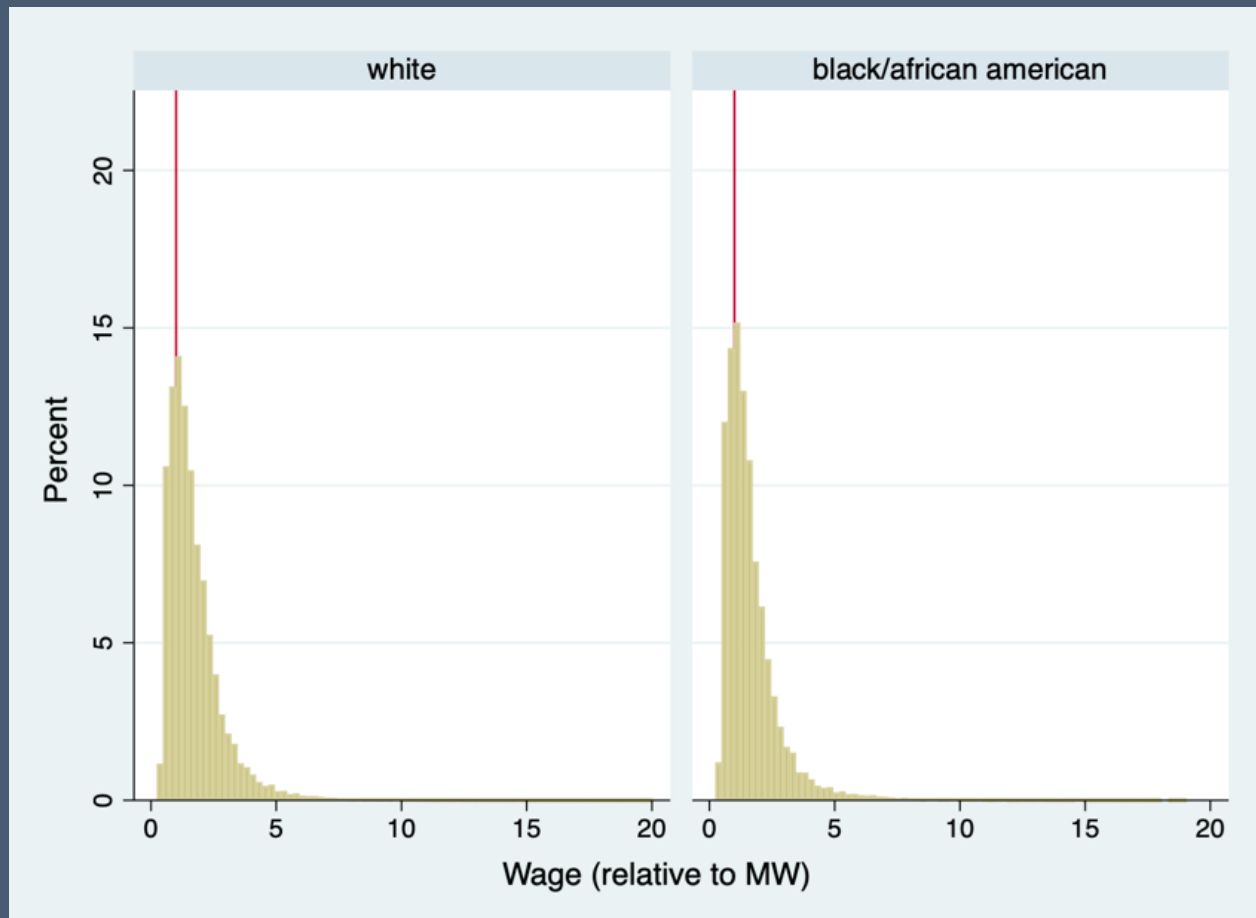
# Not fully attributable to skill, appears conditional on skill, but more muted (I)

Males,  $\leq$  HS



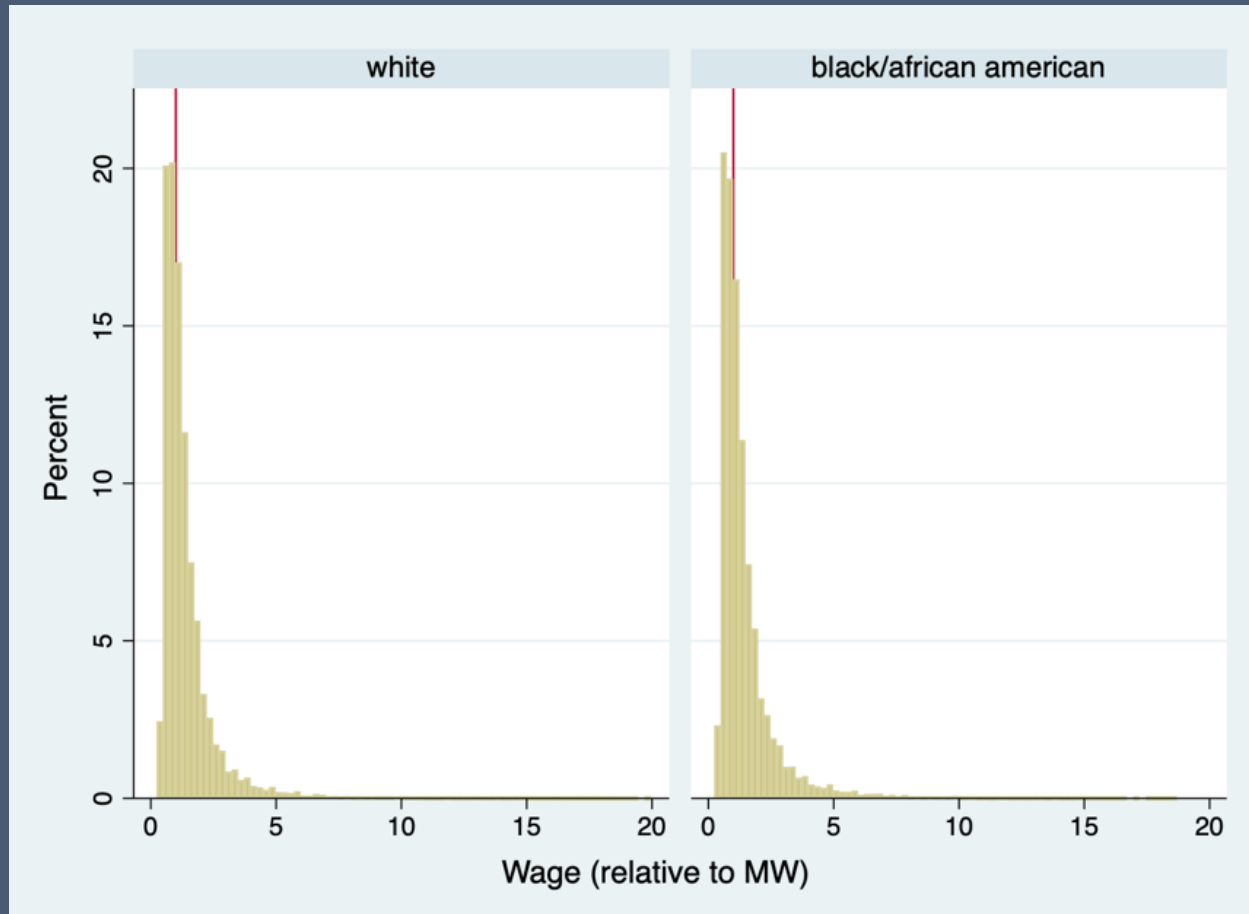
# Not fully attributable to skill, appears conditional on skill, but more muted (II)

Males,  $\leq$  HS,  $<$  30 years old



# Again, less clear for teens

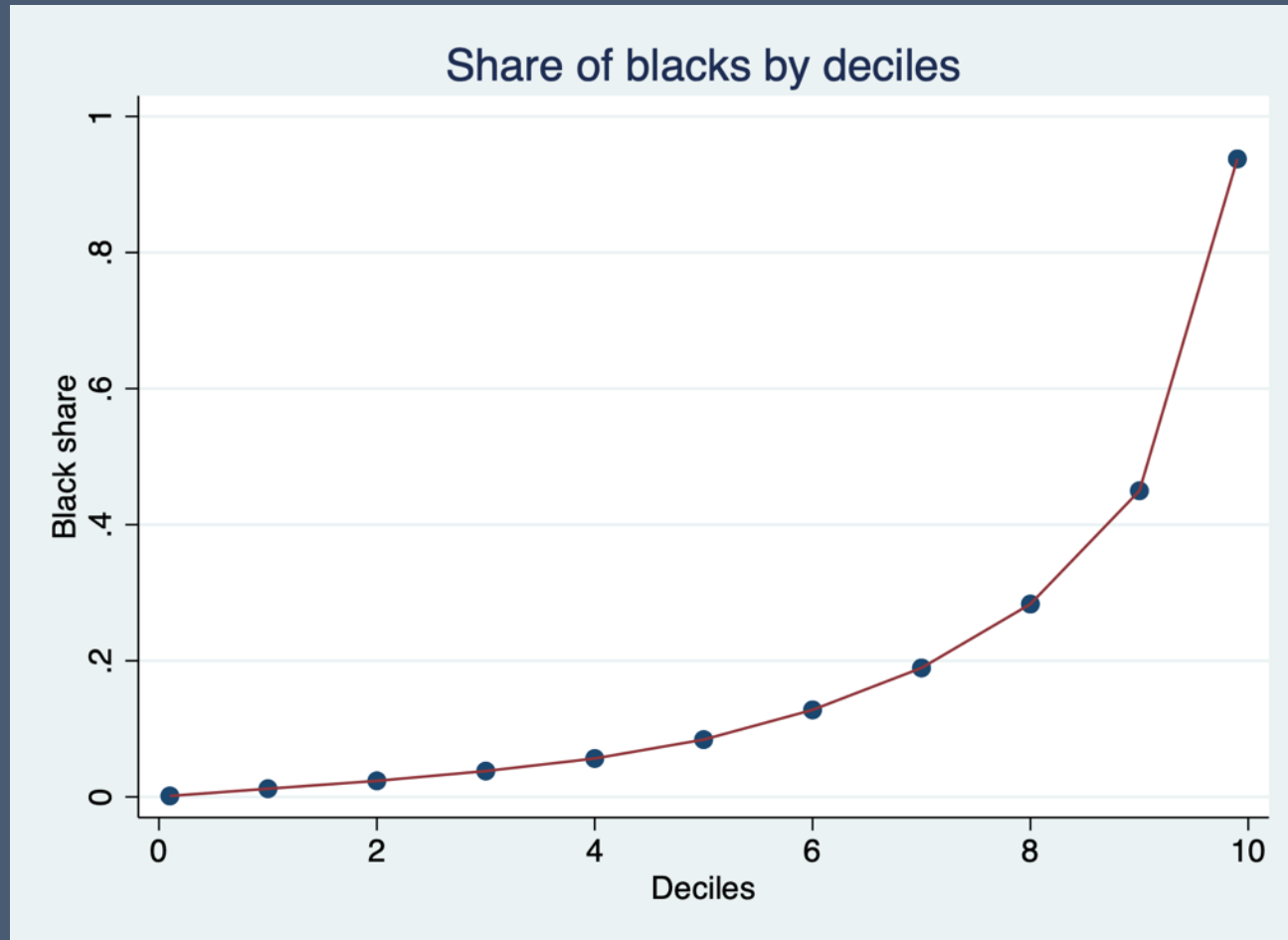
## Teens



# Key takeaways from wages

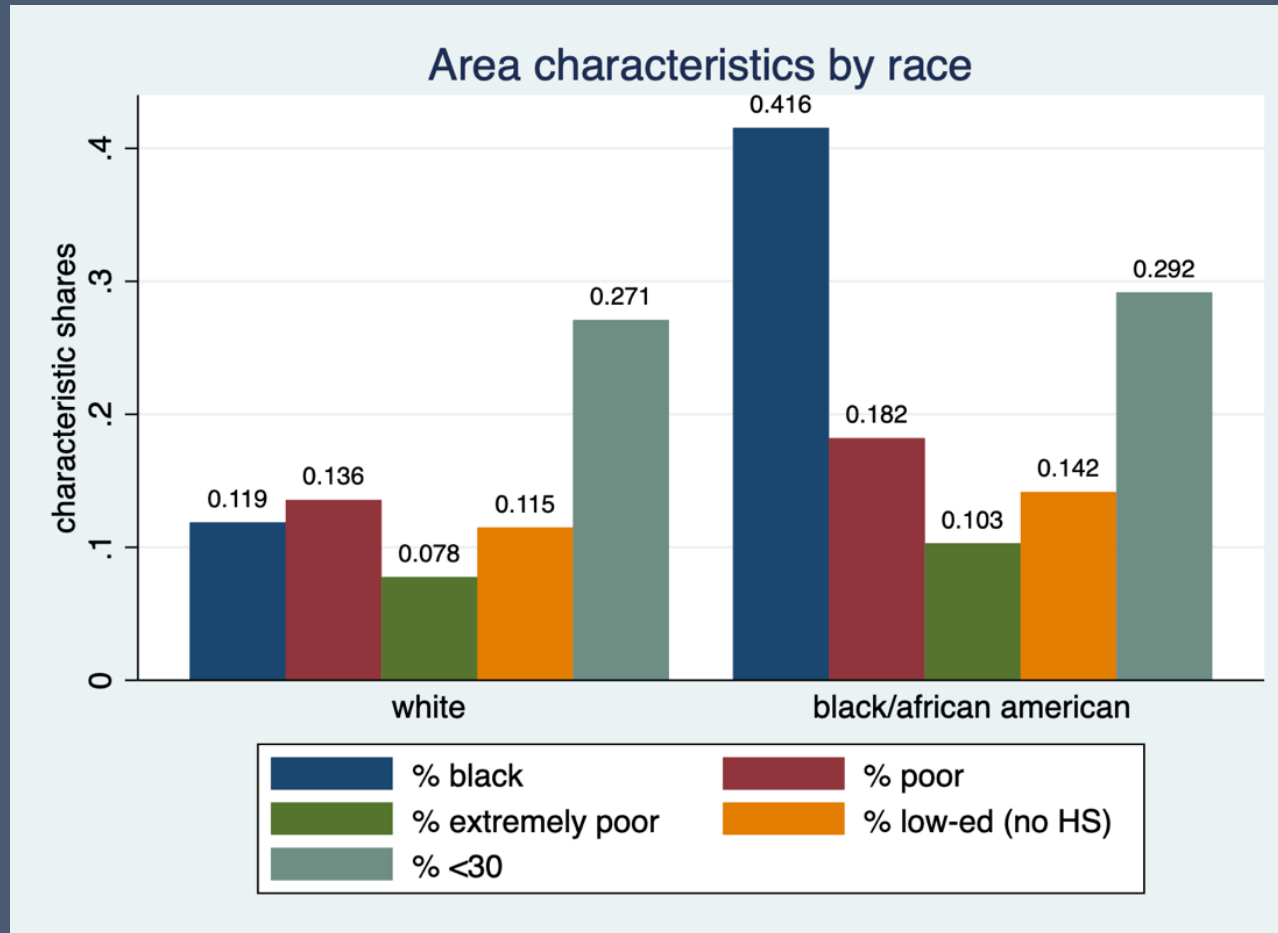
- **MWs more binding for blacks than whites, which predicts stronger MW-employment effects for blacks**
- **Even for low-skill groups, proportion at or near MW is well below 1 (i.e., many earn higher wages)**
  - **Implies employment effects “averaged” over those directly affected and those not directly affected**
  - **So relevant employment effect for those whose wages are increased is larger than conventional minimum wage elasticity – motivates looking directly at earnings effects**
- **Caveat I return to: We see observed wages, and not counterfactual wages for those not employed – possibly because of higher MW**
  - **Can be particularly problematic when estimating the effects of MWs on wages**

# Racial segregation by area (here, PUMAs) is severe



Note: The first point in the graph corresponds to the 1<sup>st</sup> percentile and the last point corresponds to the 99<sup>th</sup> percentile of share black at the PUMA level. The other points are the deciles (10<sup>th</sup>, 20<sup>th</sup>, etc., percentiles).

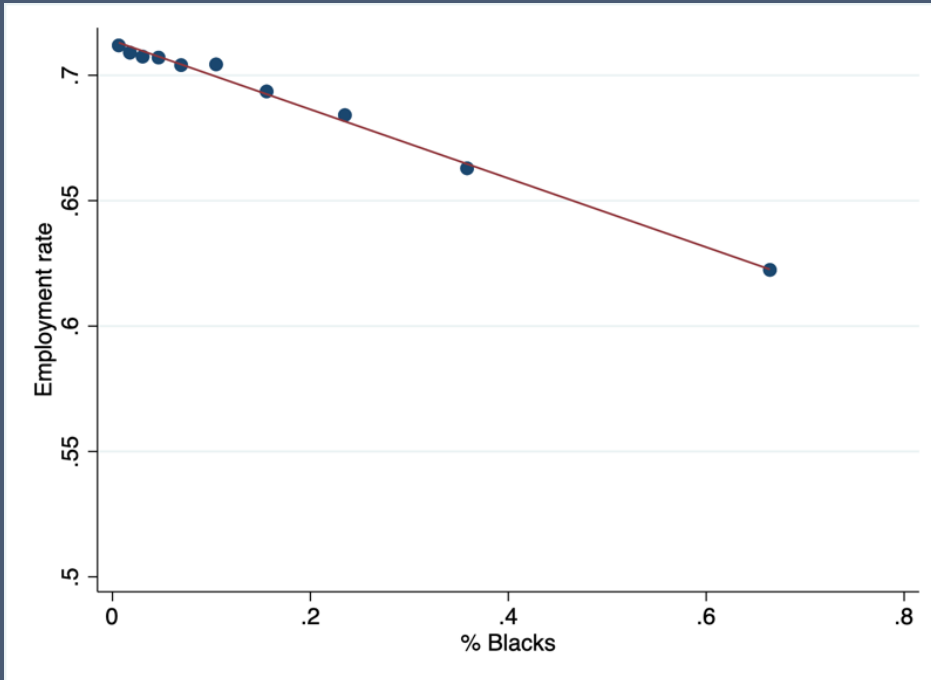
# Blacks live in areas with lower-skilled and poorer people



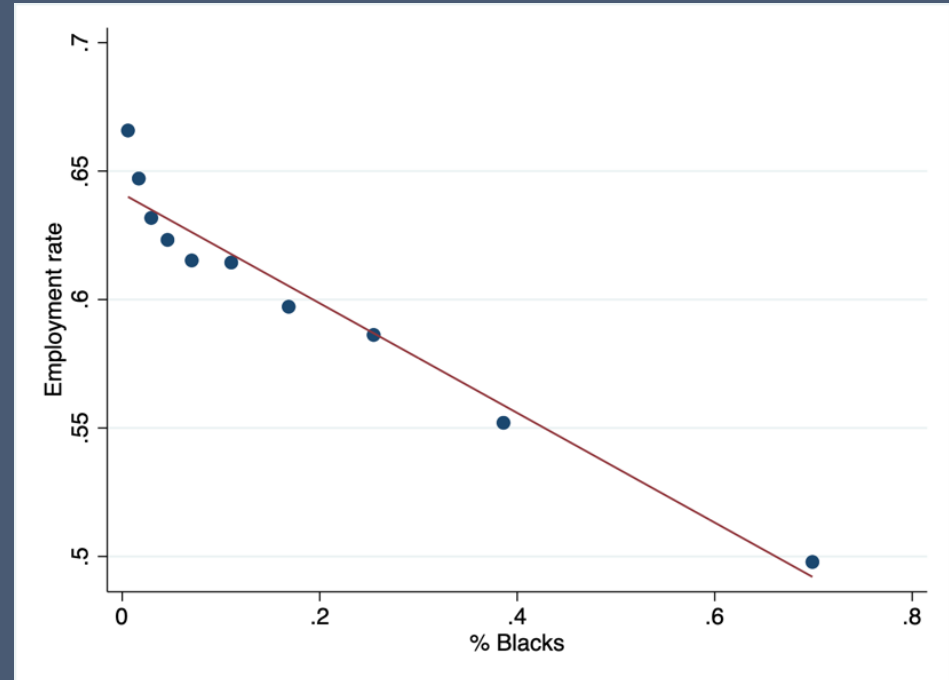
But regressions condition (roughly) on skill, so this doesn't imply MW effects on employment will be stronger in areas with higher share black.

# Employment rates are lower in areas with higher share black, especially for lower-skilled

All



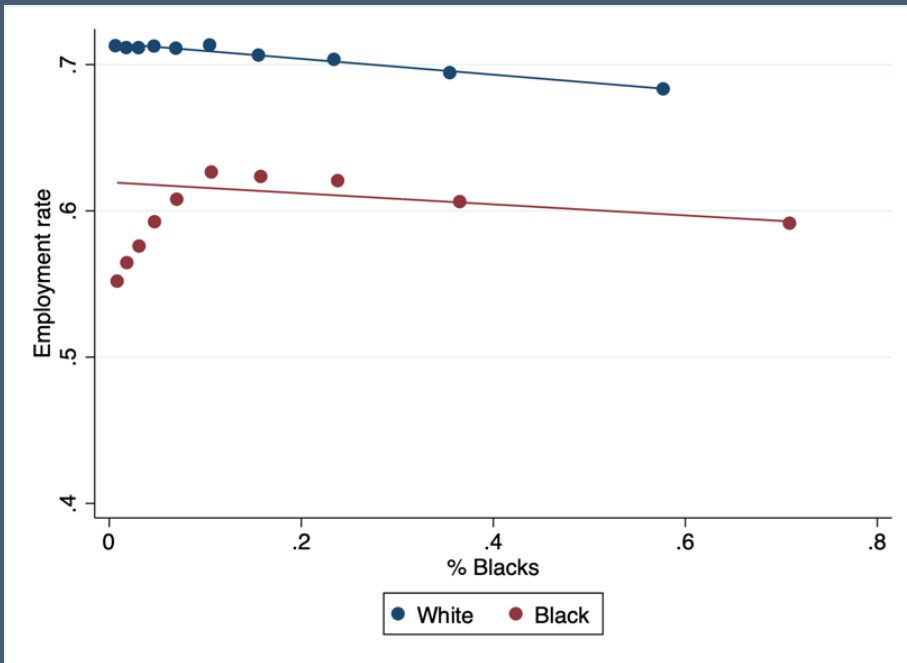
Males,  $\leq$  HS



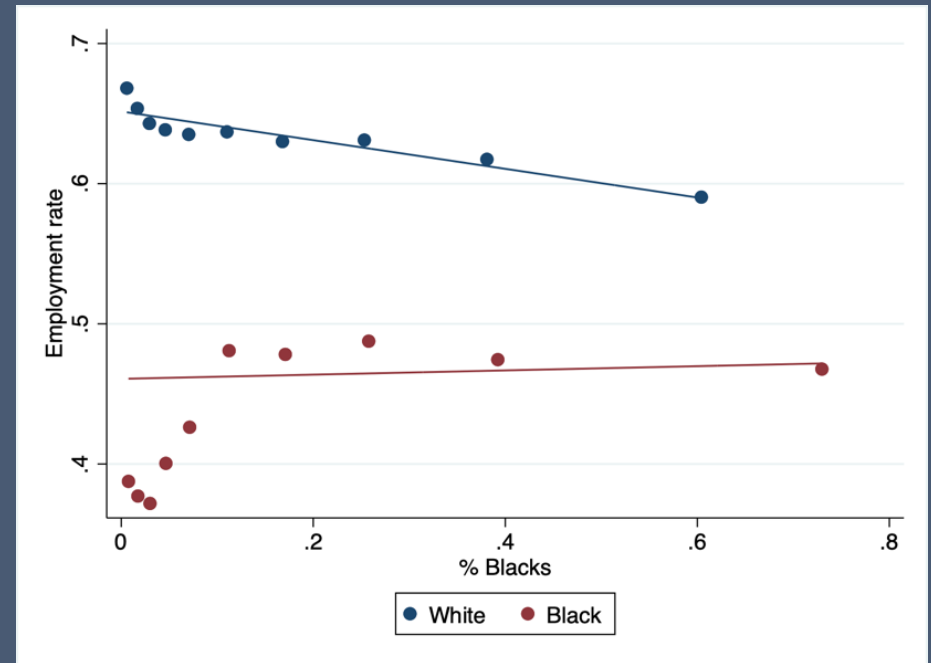
Resident's skills/incomes may present challenges for businesses, enhancing adverse effects of MW.

# But this is quite different for whites and blacks

All



Males,  $\leq$  HS



Gradient steeper for whites than blacks, and line much higher for whites, so decline in employment rates with share black is largely because of lower white employment.

Differences in employment rates have implications for MW employment elasticities.



# No clear relationship between share black and labor market concentration (and HHIs low), so we do not pursue this topic

10<sup>th</sup> percentile of share black (each PUMA weighted by population)

	<b>Retail (NAICS = 44,45)</b>	<b>Food &amp; Accommodation (NAICS = 72)</b>	<b>Low wage (NAICS = 44,45,71,72,56,81)</b>	<b>All</b>
<b>HHI (estab)</b>	112.38	76.62	30.77	21.35
<b>HHI (firm)</b>	139.01	80.78	33.58	44.42
Count (estab)	1115	506	6253	14663
Employment	9110	8079	33544	100765

90<sup>th</sup> percentile of share black (each PUMA weighted by population)

	<b>Retail (NAICS = 44,45)</b>	<b>Food &amp; Accommodation (NAICS = 72)</b>	<b>Low wage (NAICS = 44,45,71,72,56,81)</b>	<b>All</b>
<b>HHI (estab)</b>	237.59	53.75	38.59	46.60
<b>HHI (firm)</b>	256.37	58.05	41.56	78.10
Count (estab)	807	334	4023	9276
Employment	7018	4639	19174	62182

Other low-wage NAICS: Arts, Entertainment, and Recreation; Administrative and Support and Waste Management; Other Services (except Public Administration)

# The usual approach

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$$Y = \alpha + \beta \cdot \ln(\text{MW}) + \gamma_B \cdot \text{Black} + X\delta + D_P \cdot \lambda + D_T \cdot \tau + \varepsilon$$

- Controls (X) for sex, children, marital status, age, and education (some drop out when we disaggregate); PUMA and year dummies

# Baseline minimum wage employment effects, ACS 2005-2019, by age

Population	Employment effect ( $\beta$ )	Black effect ( $\gamma_B$ )	Avg. empl. rate	Empl. elasticity	N
<b>Teens 16-19</b>	-0.025 (0.019)	-0.080*** (0.004)	0.329	-0.076 (0.058)	1,855,113
<b>Male teens</b>	-0.029 (0.022)	-0.088*** (0.004)	0.310	-0.094 (0.071)	954,509
<b>Female teens</b>	-0.022 (0.019)	-0.070*** (0.004)	0.350	-0.063 (0.054)	900,602
<b>&lt; 25</b>	-0.005 (0.015)	-0.082*** (0.004)	0.518	-0.010 (0.029)	3,833,332
<b>Male &lt; 25</b>	-0.004 (0.018)	-0.106*** (0.004)	0.506	-0.008 (0.036)	1,962,020
<b>Female &lt; 25</b>	-0.008 (0.014)	-0.054*** (0.004)	0.530	-0.015 (0.026)	1,871,312

In MW-employment effects literature, focus is on teens, and somewhat on 16-24 year-olds.

In ACS data, estimates for these groups negative, not significant, and elasticities in low-range.

# Baseline minimum wage employment effects, ACS 2005-2019, by education (and age x education)

Population	Employment effect ( $\beta$ )	Black effect ( $\gamma_B$ )	Avg. empl. rate	Empl. elasticity	N
$\leq$ HS	0.015 (0.017)	-0.071*** (0.005)	0.566	0.027 (0.030)	9,139,046
Male $\leq$ HS	0.019 (0.019)	-0.122*** (0.005)	0.603	0.032 (0.032)	4,900,300
Female $\leq$ HS	0.011 (0.014)	-0.013** (0.005)	0.524	0.021 (0.026)	4,238,746
< HS	-0.006 (0.020)	-0.080*** (0.005)	0.367	-0.016 (0.054)	2,776,506
Male < HS	0.001 (0.024)	-0.123*** (0.005)	0.394	0.003 (0.061)	1,541,189
Female < HS	-0.013 (0.018)	-0.022*** (0.006)	0.334	-0.039 (0.054)	1,235,317
< HS, under 30	-0.020 (0.024)	-0.105*** (0.004)	0.289	-0.069 (0.083)	1,397,624
Male < HS, under 30	-0.016 (0.027)	-0.134*** (0.005)	0.290	-0.055 (0.093)	769,149
Female < HS, under 30	-0.024 (0.025)	-0.065*** (0.005)	0.289	-0.083 (0.087)	628,473

In MW-employment effects literature, less common to focus on these low-skill groups. Estimates negative if we look at low-educated *and* young, but not significant. (Also true for additional combinations involving  $\leq$  HS, < 25.)

# Estimating race differences in MW effects

$$Y = \alpha + \beta \cdot \ln(\text{MW}) + \beta_B \cdot \ln(\text{MW}) \cdot \text{Black} + \gamma_B \cdot \text{Black} + X\delta + X \cdot \text{Black} \cdot \delta_B \\ + D_P \cdot \lambda + D_P \cdot \text{Black} \cdot \lambda_B + D_T \tau + D_T \cdot \text{Black} \cdot \tau_B + \varepsilon$$

- Full set of interactions with Black, so point estimates the same as from separate models
- If you are concerned with shocks correlated with MWs, then under identifying assumption that these are the same for blacks and whites, we still identify relative effects on blacks
  - We also show that there is no evidence of leading effects, and contemporaneous effects including leads are robust

# Race differences in minimum wage employment effects, ACS 2005-2019, by age

Population	Empl. effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white empl. rate	Avg. black empl. rate	White empl. elas	Black empl. elas.	Black – white empl. elas.
Teens 16-19	-0.014 (0.019)	-0.049*** (0.018)	-0.064** (0.024)	0.357	0.226	-0.039 (0.053)	-0.283** (0.106)	-0.244
Male teens	-0.021 (0.021)	-0.051** (0.020)	-0.072** (0.027)	0.338	0.204	-0.062 (0.062)	-0.353** (0.132)	-0.291
Female teens	-0.007 (0.021)	-0.055** (0.023)	-0.062** (0.025)	0.377	0.249	-0.019 (0.056)	-0.249** (0.100)	-0.230
<25	-0.001 (0.015)	-0.024 (0.016)	-0.024 (0.023)	0.547	0.408	-0.002 (0.027)	-0.059 (0.056)	-0.057
Male < 25	0.003 (0.018)	-0.036* (0.019)	-0.033 (0.026)	0.539	0.380	0.006 (0.033)	-0.087 (0.068)	-0.092
Female < 25	-0.005 (0.014)	-0.014 (0.021)	-0.019 (0.024)	0.555	0.437	-0.009 (0.025)	-0.043 (0.055)	-0.034

Black x MW interactions negative for every case (including in subsequent tables).

Estimated differences statistically significant for many groups, as are overall effects for blacks.

Black teen elasticities sizable. (More sizable elasticities follow.)

# Race differences in minimum wage employment effects, ACS 2005-2019, by education

Population	Empl. effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white empl. rate	Avg. black empl. rate	White empl. elas	Black empl. elas.	Black - white empl. elas.
$\leq$ HS (50% sample)	0.025 (0.016)	-0.017 (0.012)	0.007 (0.023)	0.591	0.475	0.042 (0.027)	0.015 (0.048)	-0.028
Male $\leq$ HS	0.028 (0.020)	-0.045*** (0.015)	-0.017 (0.024)	0.639	0.467	0.044 (0.031)	-0.036 (0.051)	-0.080
Female $\leq$ HS	0.013 (0.013)	-0.015 (0.017)	-0.003 (0.026)	0.534	0.486	0.024 (0.024)	-0.006 (0.053)	-0.031
$<$ HS	0.008 (0.018)	-0.059*** (0.016)	-0.050** (0.023)	0.392	0.297	0.020 (0.046)	-0.168** (0.077)	-0.189
Male $<$ HS	0.021 (0.023)	-0.075*** (0.019)	-0.054** (0.025)	0.433	0.284	0.048 (0.053)	-0.190** (0.088)	-0.17
Female $<$ HS	-0.004 (0.017)	-0.040* (0.022)	-0.044* (0.026)	0.342	0.312	-0.012 (0.050)	-0.141* (0.083)	-0.129

# Race differences in minimum wage employment effects, ACS 2005-2019, by age x education

Population	Empl. effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white empl. rate	Avg. black empl. rate	White empl. elas	Black empl. elas.	Black – white empl. elas.
< HS, under 30	-0.003 (0.024)	-0.073*** (0.021)	-0.076*** (0.026)	0.319	0.201	-0.009 (0.072)	-0.378*** (0.129)	-0.369
Male < HS, under 30	0.004 (0.027)	-0.081*** (0.024)	-0.077*** (0.028)	0.325	0.184	0.012 (0.083)	-0.418*** (0.152)	-0.431
Female < HS, under 30	-0.007 (0.026)	-0.068** (0.027)	-0.076** (0.032)	0.311	0.222	-0.023 (0.085)	-0.342** (0.144)	-0.320
$\leq$ HS, under 30	0.006 (0.019)	-0.039** (0.018)	-0.033 (0.027)	0.499	0.369	0.012 (0.038)	-0.089 (0.073)	-0.101
Male $\leq$ HS, under 30	0.012 (0.023)	-0.051** (0.023)	-0.039 (0.028)	0.529	0.355	0.023 (0.043)	-0.110 (0.079)	-0.133
Female $\leq$ HS, under 30	-0.002 (0.019)	-0.025 (0.025)	-0.027 (0.035)	0.443	0.358	-0.005 (0.043)	-0.075 (0.098)	-0.071
$\leq$ HS, under 25	-0.002 (0.021)	-0.050*** (0.017)	-0.052** (0.024)	0.445	0.310	-0.004 (0.047)	-0.168** (0.077)	-0.163
Male $\leq$ HS, under 25	0.003 (0.024)	-0.066** (0.025)	-0.063** (0.029)	0.458	0.296	0.007 (0.052)	-0.213** (0.098)	-0.219
Female $\leq$ HS, under 25	-0.010 (0.021)	-0.031 (0.020)	-0.041 (0.027)	0.429	0.327	-0.023 (0.049)	-0.125 (0.083)	-0.102

Adverse effects for blacks particularly clear when we look at low education and younger – some elasticities exceed  $-.3$ .

We have appendix table for other related cuts showing similar findings.



# Diff-in-diff concerns?

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- Recent econometric work highlights potential biases in panel data estimates when there are pre-trends or heterogeneous/dynamic treatment effects
- Newer methods can't be applied in transparent/agreed-upon way to multiple and repeated treatments with continuous variation (like MW)
- We largely focus on race differences, so, e.g., common shocks/changes for low-skill groups netted out – but they could differ by race
- Key concern is black employment in treated areas was falling in relative terms before MW increases

# Address in two ways: 1. Test for adverse leading effects for blacks

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- Use state-level data, so we can define leads and lags (can't at PUMA level because definitions change mid-sample)
  - Results same at state level
  - No clear evidence of adverse pre-treatment changes for blacks relative to whites (or overall)

# Address in two ways: 2. Compare to never-treated for sub-period

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- Look at subperiod post-Great Recession (2011-19), compare never-treated states (no MW change, mainly because federal MW binds) to ever-treated states, where MW increases accumulate towards end of period
  - State-level estimates robust to using shorter time period
  - No evidence of relative decline in early years in ever-treated states
  - Permits clear comparisons avoiding contaminated controls
    - Story: blacks in ever-treated states “miss out” on (or worse) improving relative black employment rate during dramatic tightening of labor market in 2016-19

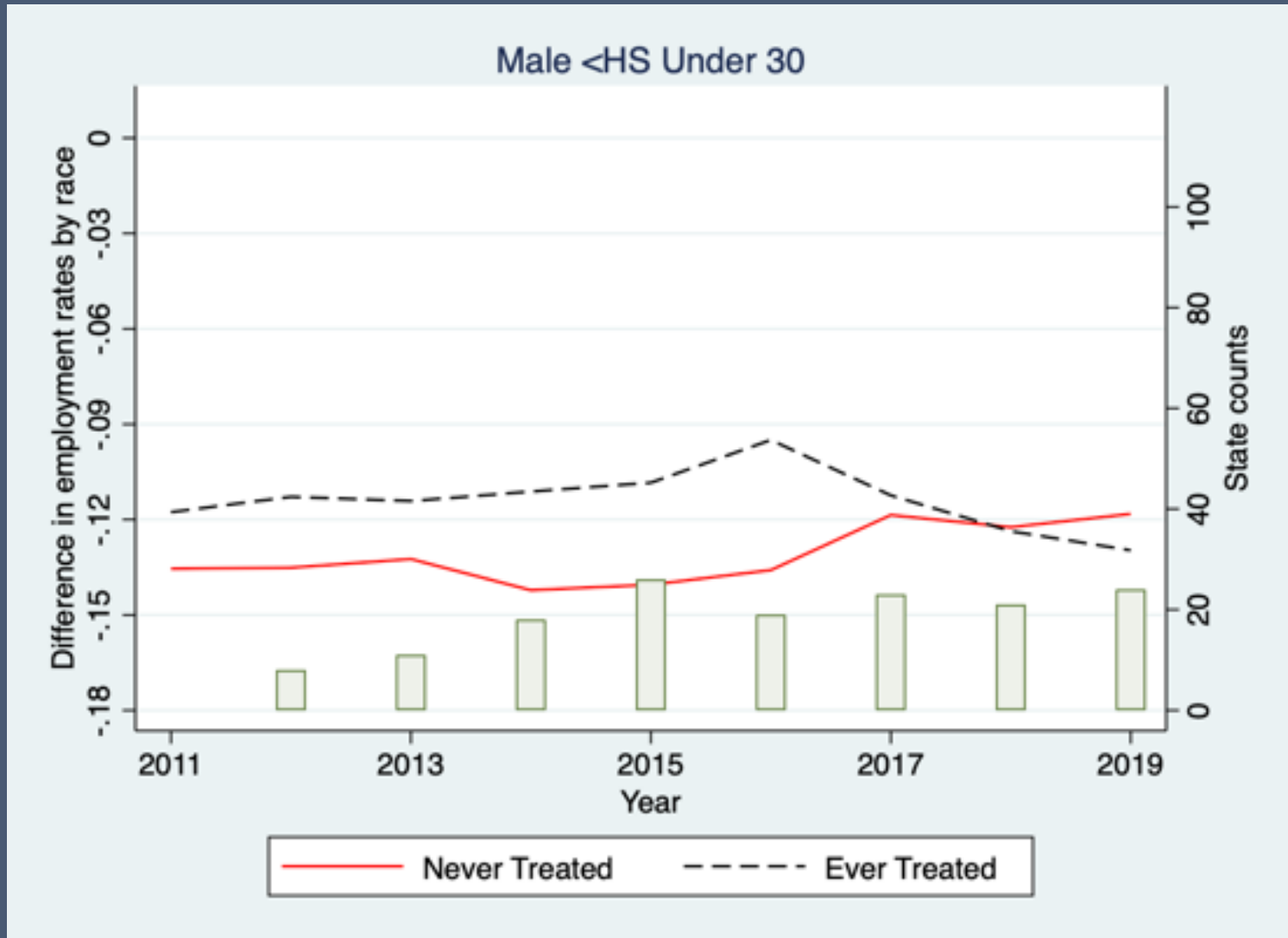
# Employment rates by race and treatment, and state MW increases (2011-19)



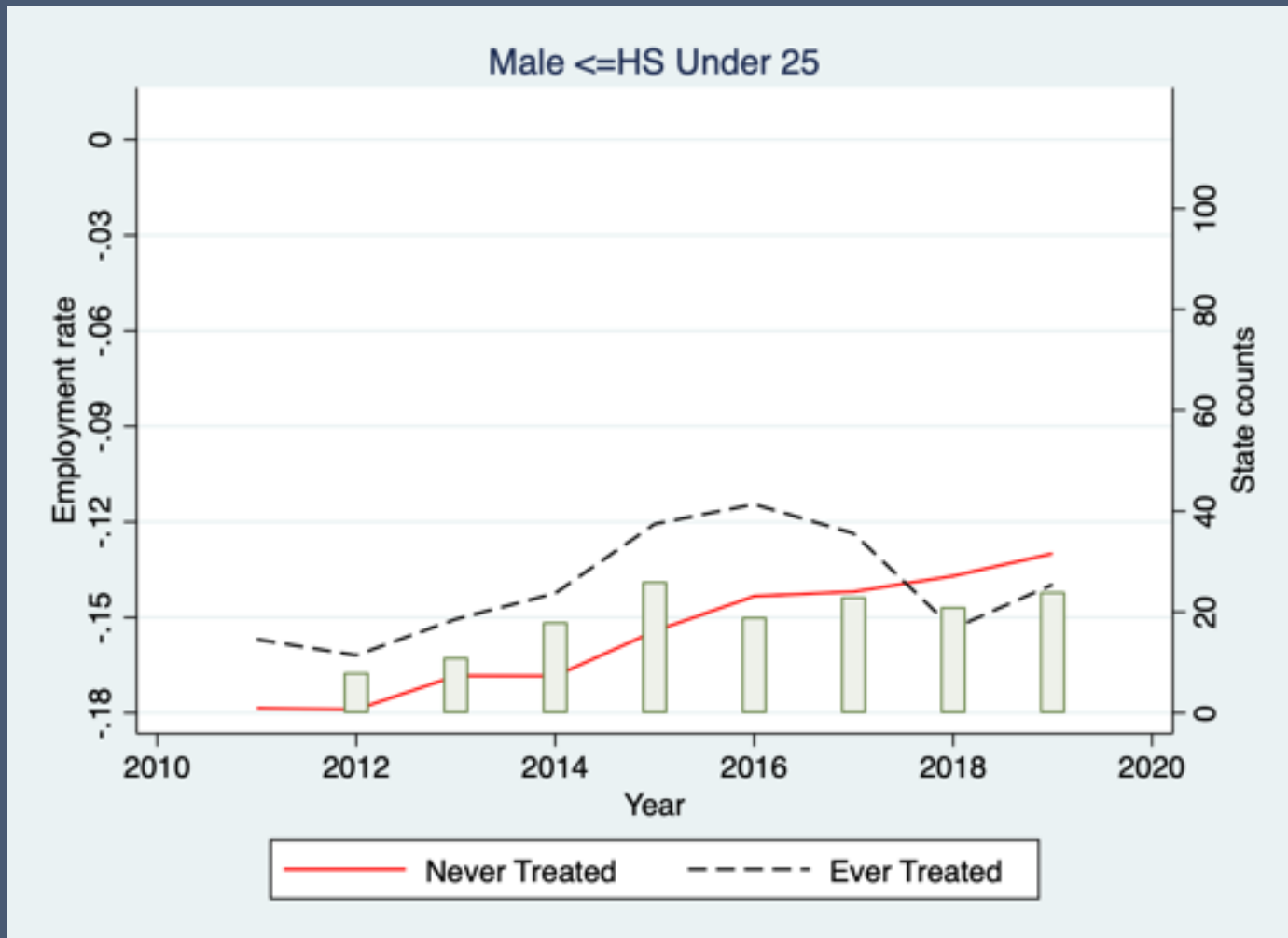
# Difference in employment rates by race and treatment, and state MW increases (2011-19, black – white)



# Difference in employment rates by race and treatment, and state MW increases (2011-19, black – white)



# Employment rates by race and treatment, and state MW increases (2011-19, black – white)



# Adding differences based on share black in area

$$\begin{aligned} Y = & \alpha + \beta \cdot \ln(\text{MW}) + \beta_B \cdot \ln(\text{MW}) \cdot \text{Black} + \beta_{\%B} \cdot \ln(\text{MW}) \cdot \% \text{Black} + \gamma_B \cdot \text{Black} + \gamma_{\%B} \cdot \% \text{Black} \\ & + X\delta + X \cdot \text{Black} \cdot \delta_B + X \cdot \% \text{Black} \cdot \delta_{\%B} + D_P \lambda + D_P \cdot \text{Black} \cdot \lambda_B + D_P \cdot \% \text{Black} \cdot \lambda_{\%B} \\ & + D_T \cdot \tau + D_T \cdot \text{Black} \cdot \tau_B + D_T \cdot \% \text{Black} \cdot \tau_{\%B} + \varepsilon \end{aligned}$$

- Since Black is highly correlated with %Black, this lets us sort out effect of individual's race vs. race composition of area



# Differences in minimum wage employment effects by race and share black in area, ACS 2005-2019, by age

Population	Empl. effect, white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	%Black-MW interaction ( $\beta_{\%B}$ )	Effect at percentile of %black	Avg. white empl. rate	Avg. black empl. rate	White empl. elas.	Black empl. elas.	Black – white empl. elas.
<b>Teens</b>	-0.023 (0.019)	-0.051* (0.026)	0.037 (0.040)	10 <sup>th</sup>	0.398	0.292	-0.056 (0.047)	-0.251** (0.118)	-0.196
				50 <sup>th</sup>	0.350	0.275	-0.055 (0.052)	-0.257** (0.118)	-0.202
				90 <sup>th</sup>	0.303	0.217	-0.019 (0.068)	-0.263** (0.119)	-0.244
<b>Teens Male</b>	-0.024 (0.024)	-0.036 (0.028)	-0.008 (0.051)	10 <sup>th</sup>	0.375	0.237	-0.065 (0.064)	-0.256 (0.176)	-0.192
				50 <sup>th</sup>	0.333	0.248	-0.075 (0.065)	-0.248 (0.156)	-0.173
				90 <sup>th</sup>	0.295	0.197	-0.095 (0.066)	-0.327** (0.133)	-0.232
<b>Teens Female</b>	-0.021 (0.021)	-0.082** (0.035)	0.096 (0.062)	10 <sup>th</sup>	0.422	0.364	-0.047 (0.048)	-0.279** (0.108)	-0.232
				50 <sup>th</sup>	0.368	0.303	-0.035 (0.054)	-0.312** (0.121)	-0.277
				90 <sup>th</sup>	0.313	0.237	0.072 (0.093)	-0.251* (0.127)	-0.322

%Black x MW interaction *never* statistically significant, and not consistently negative.

Avg. empl. rates at different percentiles of %Black affect estimated elasticities. Leads to some variation in MW effects across areas with different %Black, but not systematically strongest in areas with highest %Black.

# Differences in minimum wage employment effects by race and share black in area, ACS 2005-2019, by education

Population	Empl. effect, white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	%Black-MW interaction ( $\beta_{\%B}$ )	Effect at percentile of %black	Avg. white empl. rate	Avg. black empl. rate	White empl. elas.	Black empl. elas.	Black - white empl. elas.
< HS	0.008	-0.039*	-0.043	10 <sup>th</sup>	0.417	0.279	0.017	-0.113	-0.131
	(0.020)	(0.020)	(0.033)				(0.048)	(0.117)	
				50 <sup>th</sup>	0.385	0.294	0.011	-0.118	-0.129
							(0.048)	(0.106)	
< HS Males	0.017	-0.048**	-0.049	10 <sup>th</sup>	0.454	0.258	0.037	-0.120	-0.157
	(0.023)	(0.021)	(0.042)				(0.050)	(0.122)	
				50 <sup>th</sup>	0.424	0.274	0.031	-0.126	-0.157
							(0.052)	(0.109)	
< HS Females	0.001	-0.024	-0.050	10 <sup>th</sup>	0.371	0.323	0.001	-0.073	-0.074
	(0.020)	(0.033)	(0.044)				(0.052)	(0.132)	
				50 <sup>th</sup>	0.337	0.321	-0.010	-0.085	-0.075
							(0.052)	(0.125)	
			90 <sup>th</sup>	0.308	0.308	-0.071	-0.148	-0.078	
						(0.057)	(0.097)		

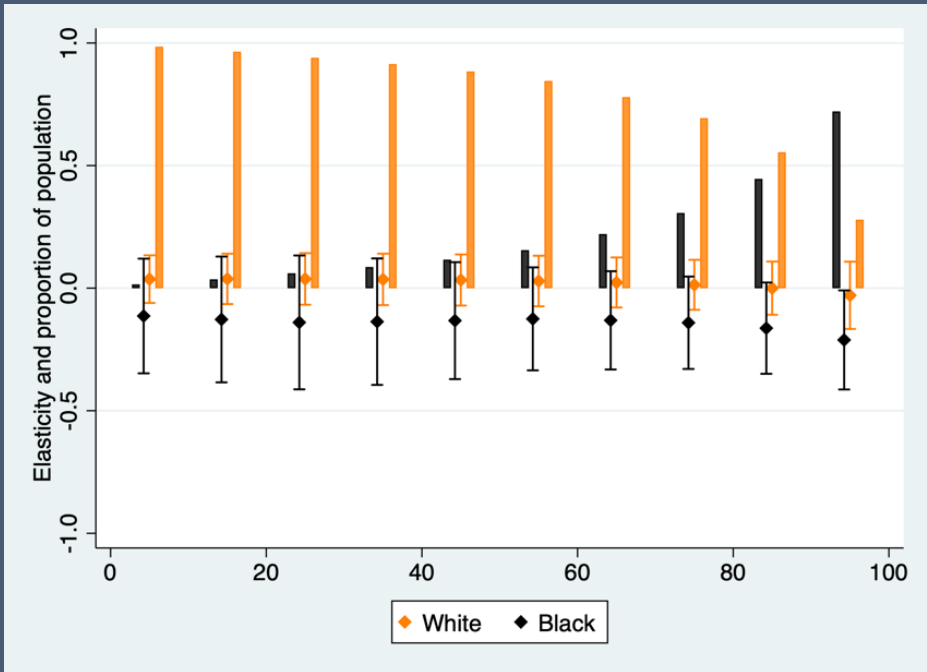
# Differences in minimum wage employment effects by race and share black in area, ACS 2005-2019, by age x education

Population	Empl. effect, white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	%Black-MW interaction ( $\beta_{\%B}$ )	Effect at percentile of %black	Avg. white empl. rate	Avg. black empl. rate	White empl. elas.	Black empl. elas.	Black - white empl. elas.
< HS, under 30	-0.008	-0.055**	-0.042	10 <sup>th</sup>	0.360	0.221	-0.023	-0.286**	-0.263
	(0.024)	(0.022)	(0.039)				(0.065)	(0.141)	
				50 <sup>th</sup>	0.307	0.221	-0.036	-0.299**	-0.263
							(0.075)	(0.135)	
				90 <sup>th</sup>	0.279	0.203	-0.095	-0.401***	-0.306
							(0.093)	(0.134)	
< HS, under 30, Males	-0.003	-0.047	-0.068	10 <sup>th</sup>	0.365	0.198	-0.011	-0.257	-0.246
	(0.026)	(0.035)	(0.064)				(0.071)	(0.181)	
				50 <sup>th</sup>	0.314	0.201	-0.029	-0.277*	-0.248
							(0.084)	(0.163)	
				90 <sup>th</sup>	0.297	0.189	-0.114	-0.427***	-0.313
							(0.128)	(0.138)	
< HS, under 30, Females	-0.012	-0.073*	0.007	10 <sup>th</sup>	0.354	0.268	-0.035	-0.317	-0.283
	(0.027)	(0.037)	(0.058)				(0.077)	(0.193)	
				50 <sup>th</sup>	0.299	0.248	-0.039	-0.341*	-0.302
							(0.084)	(0.196)	
				90 <sup>th</sup>	0.257	0.220	-0.036	-0.373**	-0.337
							(0.100)	(0.165)	

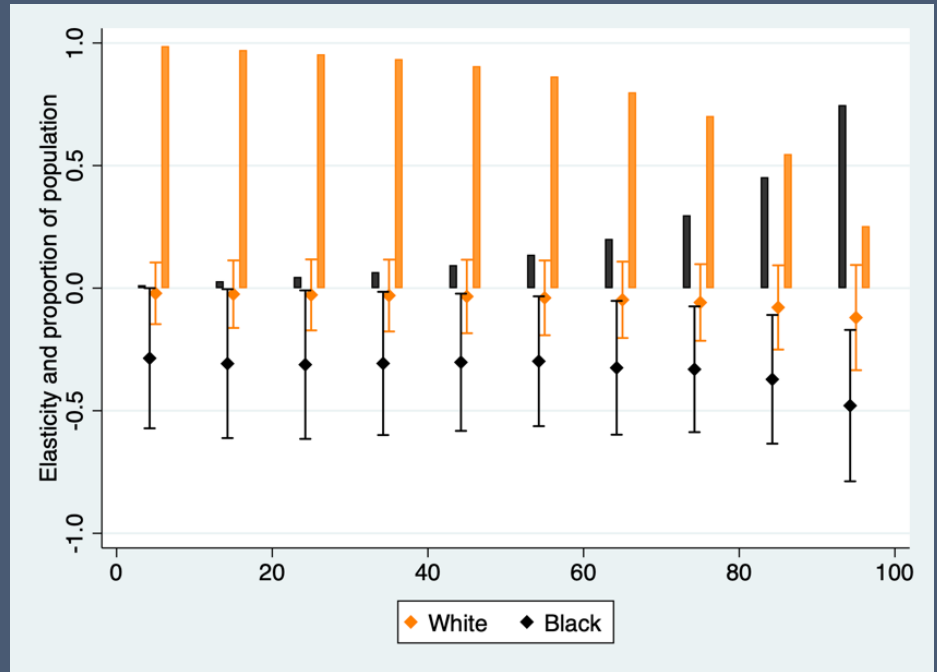
Show selected results, but they are similar for other low-skill definitions.

# Estimated minimum wage effects for blacks and whites generally vary little with share black in area (selected groups)

Male < HS



< HS, < 30



# But adverse empl. effects of MWs are still much stronger in black areas

- Sharp residential segregation + much more adverse minimum wage effects for blacks imply overall disemployment effects strongly concentrated in black areas

	Homogeneous effects by %Black (Table 2)		Heterogeneous effects by %Black (Table 3)	
	10 <sup>th</sup>	90 <sup>th</sup>	10 <sup>th</sup>	90 <sup>th</sup>
<b>Share black percentile</b>				
White sub-population share	.979	.440	.979	.440
Black sub-population share	.021	.560	.021	.560
White employment rate	.360	.279	.360	.279
Black employment rate	.221	.203	.221	.203
Weighted employment rate	.357	.236	.357	.236
White MW-empl. elas.	-.008	-.011	-.023	-.095
Black MW-empl. elas.	-.344	-.374	-.286	-.401
Weighted empl. elas.	-.015	-.214	-.028	-.266
Impact of MW increase (\$7.25 to \$12) on empl. rate	-.003	-.029	-.006	-.037

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Weighted empl. elas.	-.015	-.214	-.028	-.266
<b>Impact of MW increase (\$7.25 to \$12) on empl. rate</b>	<b>-.297</b>	<b>-2.875</b>	<b>-.611</b>	<b>-3.744</b>

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<b>Weighted employment rate</b>	.357	.236	.357	.236
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<b>Black MW-empl. elas.</b>	<b>-.344</b>	<b>-.374</b>	<b>-.286</b>	<b>-.401</b>
<b>Weighted empl. elas.</b>	<b>-.015</b>	<b>-.214</b>	<b>-.028</b>	<b>-.266</b>
<b>Impact of MW increase (\$7.25 to \$12) on empl. rate</b>	<b>-.003</b>	<b>-.029</b>	<b>-.006</b>	<b>-.037</b>

# But adverse empl. effects of MWs are still much stronger in black areas

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Impact of MW increase (\$7.25 to \$12) on empl. rate	-.003	-.029	-.006	-.037

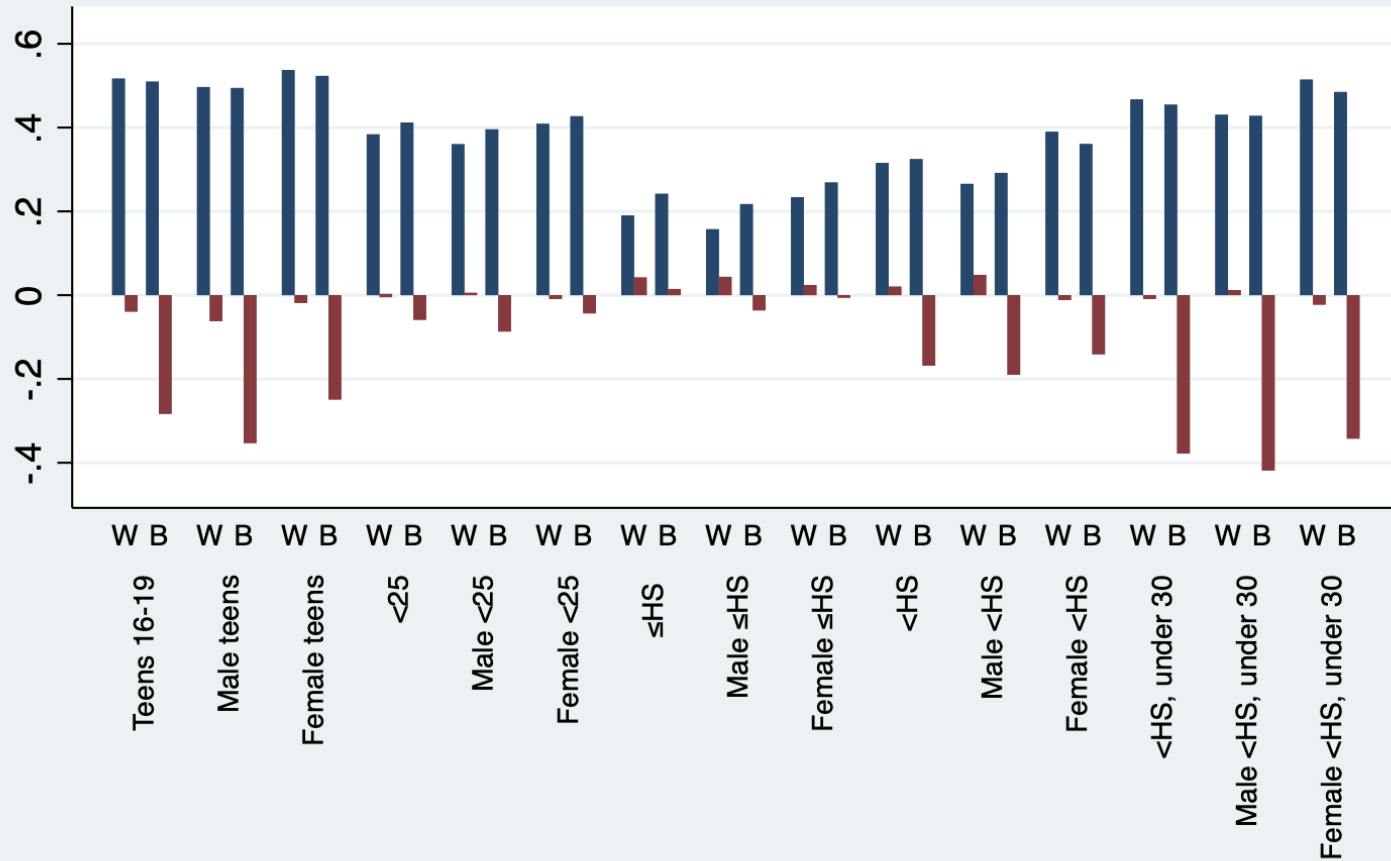


# What might explain stronger employment effects of minimum wages on blacks?

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- **MWs more binding for blacks than whites, and blacks are younger and less educated**
  - **Our regressions condition on age and education, although there can still be differences**
  - **Can also be unmeasured productivity differences or discrimination**

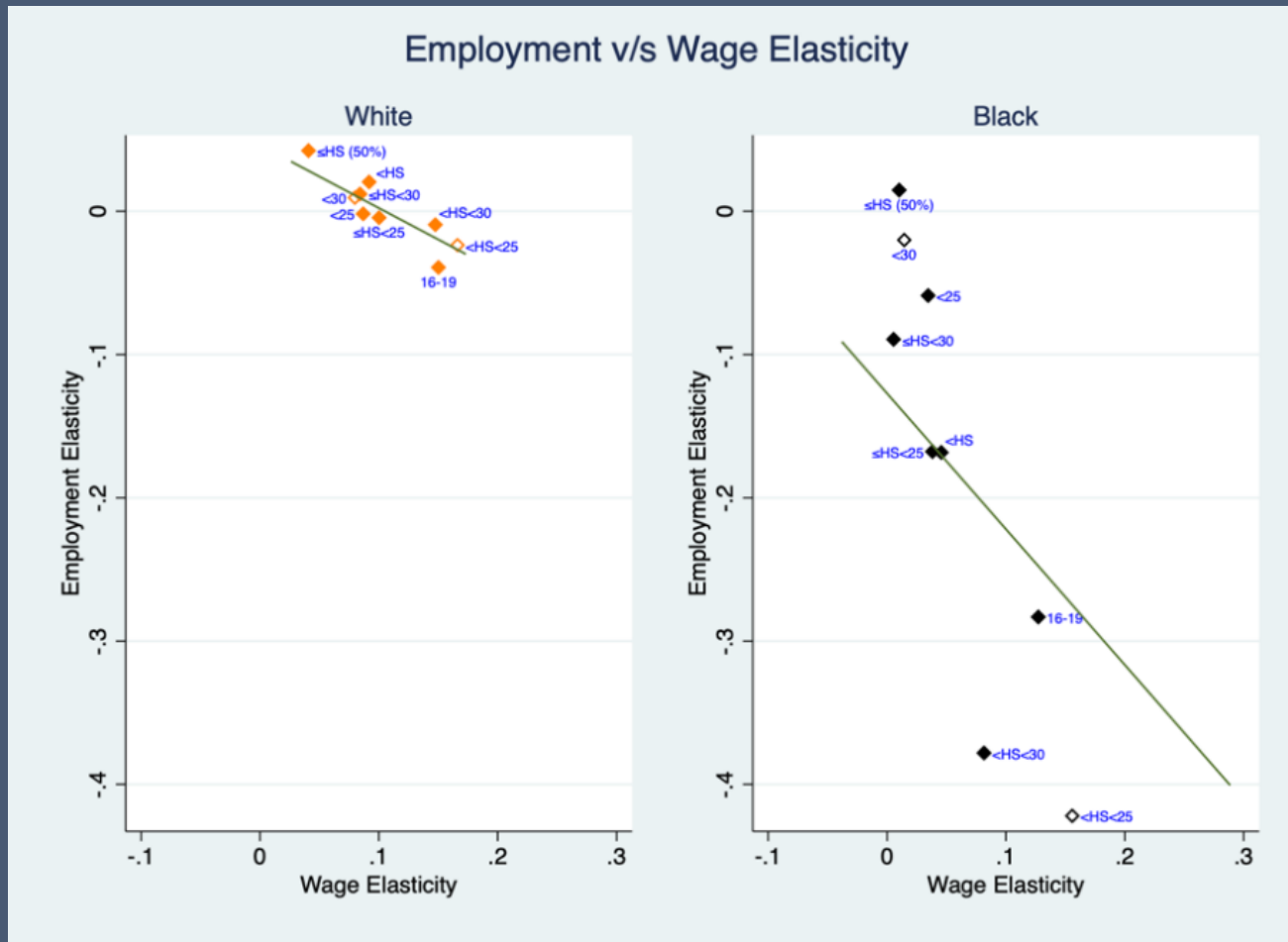
# Estimated minimum wage effects stronger for blacks, but not clear MW more binding for them



■ Proportion of people < 110% MW
 ■ Employment elasticity

# Employment effects larger for blacks, but wage effects are not (although influenced by employment effects)

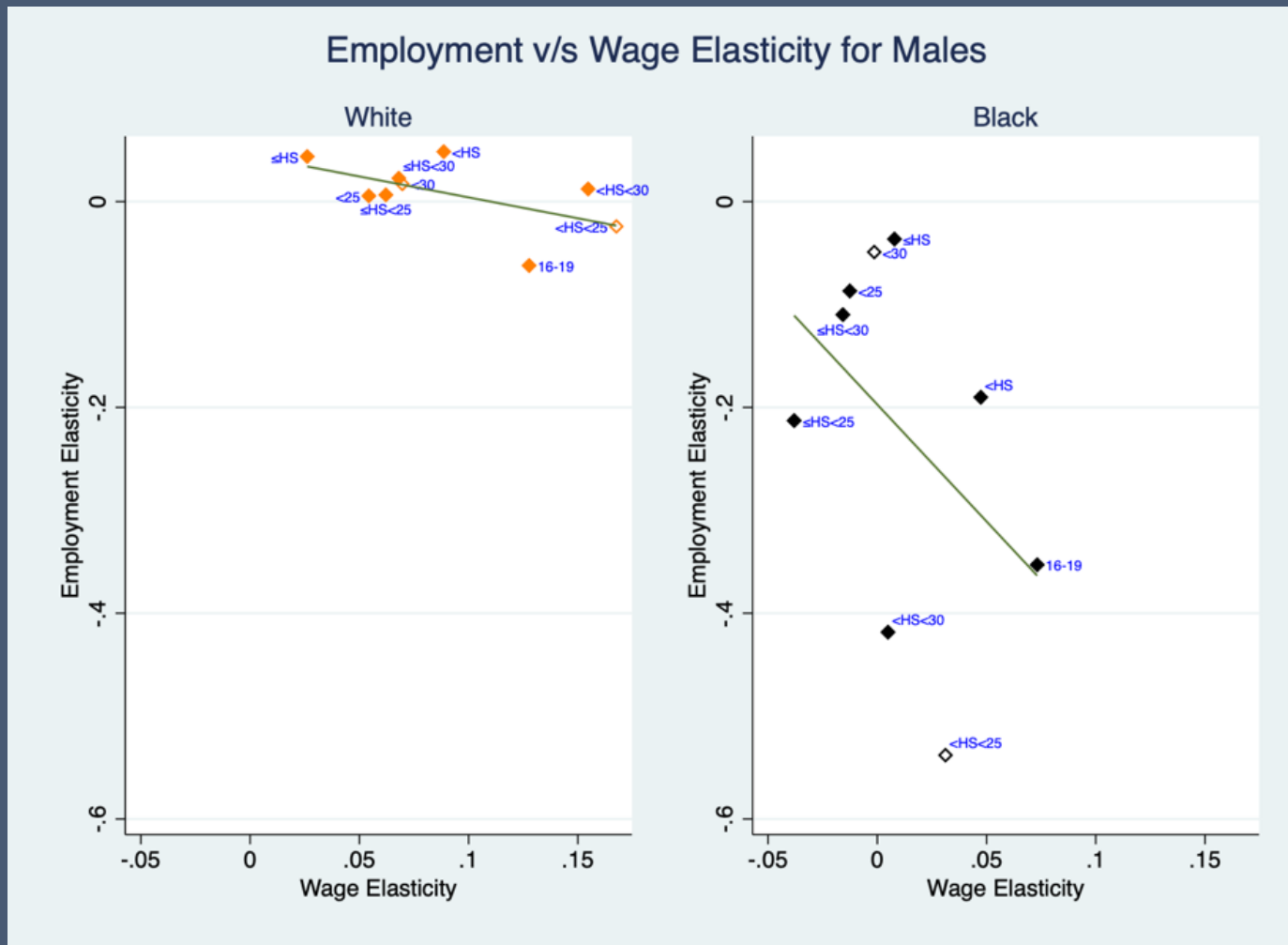
All



Includes some groups not in earlier tables.

# Employment effects larger for blacks, but wage effects are not (although influenced by employment effects)

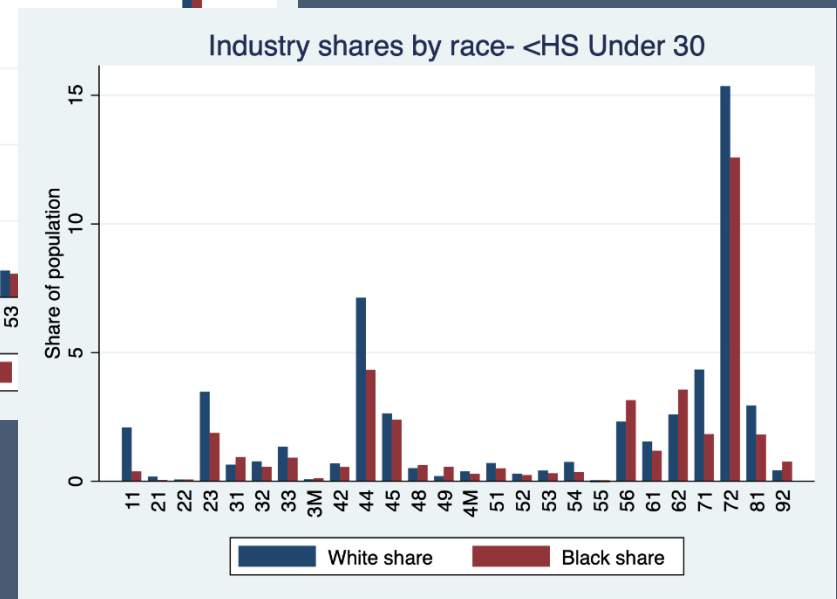
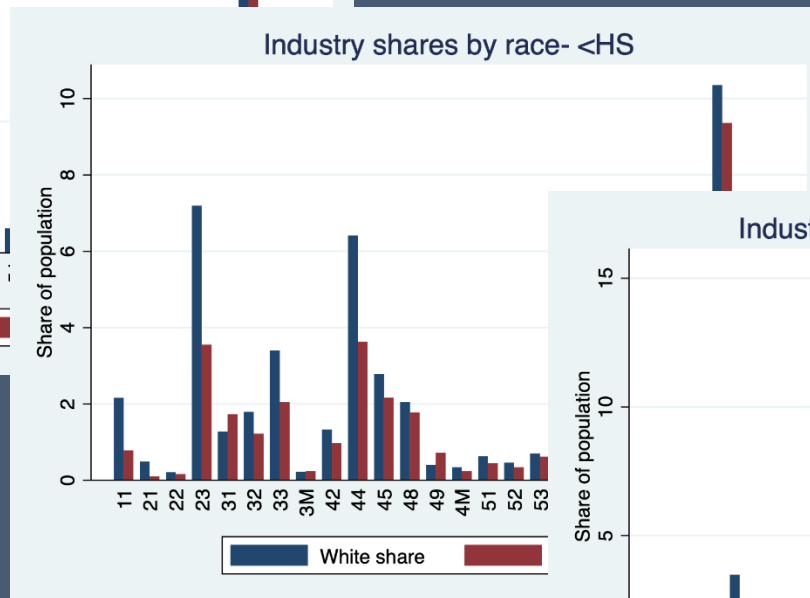
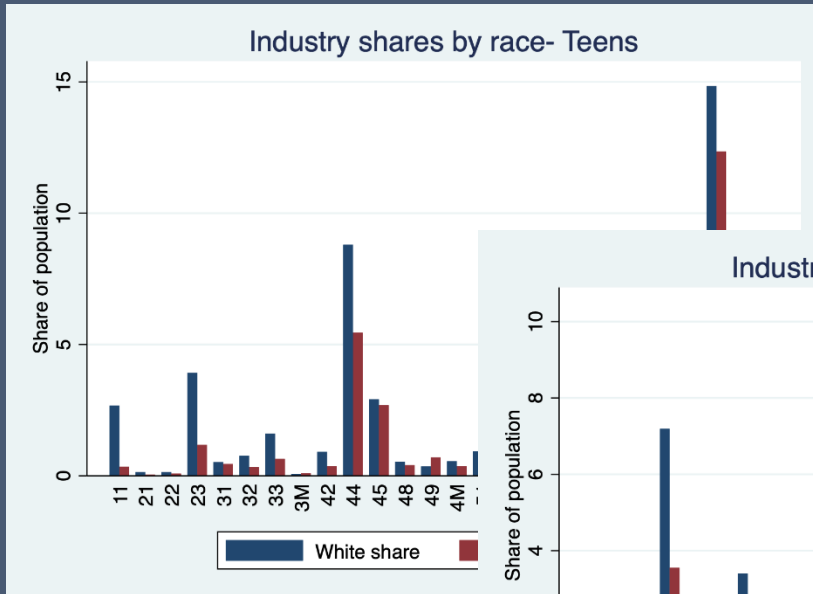
## Males



# Key takeaways from wage (and employment) elasticities

- Wage elasticities positive (range up to about .3, but most are lower)
- Clear evidence that when wage elasticity is higher, employment elasticity is larger (in absolute value)
  - Boosts credibility of employment estimates
- Wage elasticities *not* notably larger for blacks (and sometimes smaller)
- For similar wage elasticities, employment elasticities for blacks are larger
- Suggests the evidence is most consistent with employment effects of higher minimum wage falling disproportionately on blacks, but not because MWs are more binding for them
  - Caveat: we estimate wage effects only for those still employed, and if blacks experience more wage loss, there may be more selection of lowest-wage blacks out of wage sample
  - This should bias estimated wage effects upward for blacks – making the conclusion even stronger – but mechanism may be more complicated

# Can industry differences (elas. $L^D$ ) explain race differences in empl. effects?



Correlations in industry shares are very high (0.98-0.99).

# Discrimination?

- Alternative is that when firms cut employment in response to MW, the job loss falls mainly on blacks
  - Some work indicates that employment adjustment is mainly via slower hiring (e.g., Liu et al. 2016), and there is evidence of race discrimination in hiring
  - Brandon et al. (2024) have correspondence study evidence suggesting hiring of blacks goes up *more* after MW increase, but this ignores changes in job posting and job search – not the same as estimating effects on hiring
  - “Radical” economists have noted that discrimination may be stronger when labor markets slack
    - Higher MW does create  $L^S > L^D$
    - In a sense, parallels Becker on competition and discrimination, as higher MW prevents paying less for group that experiences discrimination

# Likely effects on incomes of blacks?

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- Large disemployment effects for blacks indicate we cannot just look at effects on wages to conclude MWs will close race gaps in earnings
- Indeed, with larger employment than wage elasticities for blacks, the elasticities of employment w.r.t. wages may be well below  $-1$  (larger negative), implying earnings declines
- For whites, wage elasticities generally larger than employment elasticities, so higher MWs may boost earnings of whites but not blacks
- Confirmed by directly analyzing the differential effects of MWs on earnings of blacks and whites



# Minimum wage effects on earnings, ACS 2005-2019, by age

Population	Earnings effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white earnings	Avg. black earnings	White earnings elasticity	Black earnings elasticity	Black – white earnings elasticity
<b>Teens 16-19</b>	62.908 (279.241)	-902.910*** (307.289)	-840.002** (381.207)	2640.065	1922.450	0.024 (0.106)	-0.437** (0.198)	-0.461
<b>Male teens</b>	-65.395 (336.732)	-869.190** (346.400)	-934.585* (511.927)	2822.391	1870.817	-0.023 (0.119)	-0.500* (0.274)	-0.476
<b>Female teens</b>	196.179 (265.673)	-1017.121*** (356.113)	-820.942** (359.037)	2447.591	1976.392	0.080 (0.109)	-0.415** (0.182)	-0.496
<b>&lt;25</b>	1118.091** (503.832)	-971.015* (532.783)	147.076 (715.563)	8711.434	6208.253	0.128** (0.058)	0.024 (0.115)	-0.105
<b>Male &lt; 25</b>	711.750 (614.104)	-802.396 (530.695)	-90.646 (782.363)	9653.385	6245.032	0.074 (0.064)	-0.015 (0.125)	-0.088
<b>Female &lt; 25</b>	1548.506*** (439.423)	-1217.406** (604.747)	331.100 (698.071)	7719.574	6170.582	0.201*** (0.057)	0.054 (0.113)	-0.147

# Minimum wage effects on earnings, ACS 2005-2019, by education

Population	Earnings effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white earnings	Avg. black earnings	White earnings elasticity	Black earnings elasticity	Black – white earnings elasticity
<b><math>\leq</math> HS (50%)</b>	2104.912** (937.680)	-852.118 (725.644)	1252.794** (570.157)	18770.427	12899.990	0.112** (0.050)	0.097** (0.044)	-0.015
<b>Male <math>\leq</math> HS</b>	2209.586* (1182.725)	-1047.430 (944.890)	1162.155* (639.718)	23751.276	14120.430	0.093* (0.050)	0.082* (0.045)	-0.011
<b>Female <math>\leq</math> HS</b>	1117.740** (524.163)	-338.540 (426.041)	779.200 (705.673)	12931.881	11500.180	0.086** (0.041)	0.068 (0.061)	-0.019
<b>&lt; HS</b>	900.085 (557.760)	-822.178 (573.559)	77.906 (612.225)	8744.319	6501.108	0.103 (0.064)	0.012 (0.094)	-0.091
<b>Male &lt; HS</b>	1460.036 (1027.170)	-1525.090 (931.078)	-65.055 (670.993)	11631.152	7069.003	0.126 (0.088)	-0.009 (0.095)	-0.135
<b>Female &lt; HS</b>	357.590 (312.370)	-10.940 (910.539)	346.650 (797.953)	5188.473	5837.431	0.069 (0.060)	0.059 (0.137)	-0.010

# Minimum wage effects on earnings, ACS 2005-2019, by age x education

Population	Earnings effect white ( $\beta$ )	Black-MW interaction ( $\beta_B$ )	Black overall effect ( $\beta + \beta_B$ )	Avg. white earnings	Avg. black earnings	White earnings elasticity	Black earnings elasticity	Black – white earnings elasticity
< HS, < 30	-38.938 (383.053)	-627.104* (352.965)	-666.043* (344.730)	3374.205	2675.374	-0.012 (0.114)	-0.249* (0.129)	-0.237
Male < HS, < 30	97.480 (560.720)	-1544.427*** (527.582)	-1446.947*** (460.485)	4261.332	2770.605	0.023 (0.132)	-0.522*** (0.166)	-0.545
Female < HS, < 30	-151.930 (243.217)	431.295 (408.538)	279.365 (393.172)	2330.367	2557.187	-0.065 (0.104)	0.109 (0.154)	0.174
≤ HS, < 30	429.416 (602.132)	-715.147* (396.682)	-285.731 (557.792)	9073.915	6703.965	0.047 (0.066)	-0.043 (0.083)	-0.090
Male ≤ HS, < 30	481.698 (792.756)	-1040.882* (567.620)	-559.184 (614.403)	11308.153	7140.771	0.043 (0.070)	-0.078 (0.086)	-0.121
Female ≤ HS, < 30	412.2429 (442.202)	-414.4694 (543.413)	-2.226411 (763.011)	5575.026	6174.163	0.074 (0.079)	0.000 (0.124)	-0.074
≤ HS, < 25	160.852 (547.201)	-978.588* (498.356)	-817.735* (450.750)	5973.387	4335.080	0.027 (0.092)	-0.189* (0.104)	-0.216
Male ≤ HS, < 25	-58.858 (721.655)	-1295.268** (556.039)	-1354.127** (572.563)	7236.496	4568.169	-0.008 (0.100)	-0.296** (0.125)	-0.288
Female ≤ HS, < 25	389.270 (417.588)	-574.750 (609.653)	-185.481 (556.050)	4430.302	4056.508	0.088 (0.094)	-0.046 (0.137)	-0.134

# Conclusions

- A priori reasons to expect that employment effects of MWs would be worse for blacks than whites, whether because of lower skills/productivity or discrimination, or because of more adverse effects where blacks tend to live
- Race differences in employment effects little-explored in the large literature on MW-employment effects
- Employment effects of MWs appear to be far worse for blacks than for whites (and are hard to detect for whites)
  - Driven by individual race, not neighborhood/area
  - Some elasticities for groups of low-skill blacks are in the range of  $-.2$  to  $-.3$  or higher
  - Impacts often worse for black males
- Unintended consequence of higher MW is that blacks bear a steep cost and whites bear little cost and more likely gain
- Potentially important implications for thinking about low employment of blacks, in and areas with high black population shares

# Thank you!

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