Do Higher State Minimum Wages Reduce the Racial Wage Gap for Men?

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Using data from the 2019 Current Population Survey, we find that black, non-Hispanic men who reside in states with the highest minimum wages (above $10 in 2018) have a slightly smaller wage gap relative to white, non-Hispanic men. However, wage regressions show no appreciable improvement in the relative earnings of black men in states with minimum wages that exceed the federal level when accounting for other demographic determinants of earnings. Our results indicate that increasing a state's minimum wage does not appear to be an effective policy tool to reduce racial wage inequality for men.

Keywords: minimum wage, racial wage gap, inequality

INTRODUCTION

Labor market inequality between black and white American workers is a well-documented and widely discussed subject among researchers in the social sciences. Even before the economic disruptions resulting from the Covid-19 Pandemic, racial wage inequalities for men were substantial. For instance, in the fourth quarter of 2019, the median wage of full-time black men was 73.5 percent of that for white males (U.S. Department of Labor (2020)). The historical persistence of the racial wage gap has been discussed extensively in the literature (for recent examples see Lang and Lehmann (2012); Wilson and Rodgers (2016); Daly et al. (2017); Katz and Krueger (2017); Hammond et al. (2020).

This paper investigates whether government-mandated state minimum wages reduce U.S. racial wage inequality for men. It has been established that minimum wages disproportionately benefit certain demographic groups such as women and minorities because of their over-representation among lower-wage occupations (Freeman (1996); Blau and Kahn (2017)). For example, Derenoncourt and Montialoux (2021) show that increases in the federal minimum wage during the 1960s and 1970s contributed to a significant reduction in racial wage inequality between white and black workers. However, the federal minimum wage, initially mandated by the 1938 Fair Labor Standards Act (FLSA), is an unwieldy policy tool for reducing wage inequality. The erratic and infrequent adjustments to the minimum wage appear to be based more on political considerations than on well-defined algorithms such as cost-of-living adjustments or targeted reductions in wage inequality.

The U.S. federal minimum wage has remained fixed in nominal terms for decades at a time (e.g., 1981-1990: $3.35; 1997-2007: $5.15; and $7.25 since 2009). By the mid-1980s a growing number of states took advantage of FLSA provisions which allowed them to mandate minimum wages that exceed the federal

level (Neumark and Wascher, (2008); Autor, et al., (2016)). Currently, nearly 60% of U.S. civilian labor force resides in the 29 states, plus the District of Columbia, that have minimum wages exceeding the federal level (U.S. Department of Labor, (2022)). An increase in the variability of minimum wages across the U.S. offers an opportunity to explore whether these differences affect the relative earnings of black and white workers. Our primary objective is to determine if variations in state-level minimum wages reduces racial wage inequality for male workers. We believe our approach differs from previous studies by pursuing a more direct method to examine the impact on racial earnings for workers in states with higher minimum wages.

DATA AND EMPIRICAL RESULTS

We utilize the 2019 March Current Population Survey (CPS) for a nationally representative sample of male wage and salary workers. We focus on year-round, full-time workers to identify black and white workers with comparable levels of labor-market attachment. Our samples are partitioned into three groups based on the state minimum wage statutes where a worker resides: *Low:* the federally mandated minimum wage ($7.25 in 2018); *medium:* minimum wages between $7.50 and $9.80; and *high:* minimum wages at $10.00 and above.

Table 1 lists the states within each minimum wage group. Since CPS earnings data is based on the previous calendar year (i.e., 2018), we use the state minimum wages for that year. Table 2 provides an overview of the black-white male wage gap, expressed as the difference in the average log of weekly earnings. Here, and in the empirical analysis below, we have adjusted weekly earnings for regional variations in the cost of living (as measured by the 2018 Consumer Price Index for a worker's census region). Table 2 shows a modest decrease in the racial log wage gap in high minimum wage states (from 0.27 to 0.22).

To shed additional light on the possibility that black, non-Hispanic men benefit from high state-mandated minimum wages, we estimate the parameters of the following Mincer wage equation:

$$lnW_i = \alpha + \beta MEDIUM_i + \delta HIGH_i + \theta BLK_i + \lambda(BLK_i * MEDIUM_i) + \rho(BLK_i * HIGH_i) + \gamma X_i + \varepsilon_i \qquad (1)$$

where W_i is the logarithm of CPI-adjusted weekly earnings for each worker in the sample $(i = 1, ..., N)$, X is a set of covariates linked to earnings (see Appendix Table 1), $\alpha, \beta, \gamma, \delta, \theta, \lambda \rho$ are parameters and ε is the stochastic error term $[\varepsilon_i \sim N(0, \sigma^2)]$. The dummy variables MEDIUM and HIGH capture respectively whether a worker resides in a *medium wage state*, or a *high wage state* (the base category is LOW). Of particular interest for this study are the estimated coefficients $\hat{\gamma}, \hat{\delta}, \hat{\theta}, \hat{\lambda}$, and $\hat{\rho}$. These estimates allow us to approximate the expected earnings premium for workers in medium and high minimum wage states, as well as the possible interactions between a worker's race and his state's minimum wage level.

The parameters of the Mincer equation (1) are estimated using a standard Heckman two-step selectivity bias correction. The first stage is identified by a labor force participation logistic regression, resulting with the inclusion of the Inverse Mill's Ratio in the wage equation as a means of controlling for the endogeneity labor force participation.

The descriptive statistics for the Mincer wage equation variables (including bases for the dummy variables) are shown in Table 3. Racial differences in earnings, education, potential labor market experience, disability status, region and other variables are similar to those reported elsewhere (U.S. Department of Labor, (2020)). One noteworthy finding is the racial disparity for residing in low minimum wage states. Over half of black males live in these states, compared to forty percent of white males.

TABLE 1
STATE LEVEL MINIMUM WAGES: 2018

Effective state minimum wage = $7.25 (federal) (Low)	State minimum wage set between $7.50 and $9.80 (Medium)	State minimum wage set at $10.00 and above (High)
• Alabama • Georgia • Idaho • Indiana • Iowa • Kansas • Kentucky • Louisiana • Mississippi • New Hampshire • North Carolina • North Dakota • Oklahoma • Pennsylvania • South Carolina • Tennessee • Texas • Utah • Virginia • Wisconsin • Wyoming *21 states*	• Alaska ($9.80) • Arkansas ($8.50) • Delaware ($8.25) • Florida ($8.25) • Illinois ($8.25) • Michigan ($9.25) • Minnesota ($9.65) • Missouri ($7.85) • Montana ($8.30) • New Jersey ($8.60) • Nebraska ($9.00) • New Mexico ($7.50) • Nevada ($8.25) • Ohio ($8.30) • South Dakota ($8.85) • West Virginia ($8.75) *16 states*	• Arizona ($10.50) • California ($11.00) • Colorado ($10.20) • Connecticut ($10.10) • District of Columbia ($13.25) • Hawaii ($10.10) • Maine ($10.00) • Maryland ($10.10) • Massachusetts ($11.00) • New York ($10.40) • Oregon ($10.75) • Rhode Island ($10.10) • Vermont ($10.50) • Washington ($11.50) *13 states, plus D.C*

Source: U.S. Department of Labor

TABLE 2
2019 RACIAL WAGE GAP – WHITE AND BLACK NON-HISPANIC MEN
(LOG OF WEEKLY EARNINGS – ADJUSTED FOR REGIONAL CPI)

State Minimum Wage	Log wage gap
$7.25	0.27
$7.50 - 9.80	0.27
$10.00 and above	0.22

TABLE 3
DESCRIPTIVE STATISTICS – 2019 CPS SAMPLE OF YEAR-ROUND,
FULL-TIME MALE WORKERS

	Sample Mean or Proportion	
Variable	White	Black
WKLYWAGE ($) *- adjusted for 2018 regional CPI (1982-84=100)*	585	435
LOGWAGE	6.14	5.88
LOW	0.41	0.51
MEDIUM	0.30	0.26
HIGH	0.29	0.23
SCHOOLING	14.02	13.72
EXP	24.47	24.96
EXPSQ	732.79	758.73
MSP	0.69	0.48
DISAB	0.02	0.02
UNIONWKR	0.02	0.02
VETERAN	0.10	0.12
URBAN	0.23	0.39
MANAGERIAL	0.16	0.09
PROFESSIONAL	0.25	0.20
SALES	0.09	0.06
ADMINSTRATIVE SUPPORT	0.06	0.08
SERVICE	0.10	0.17
CONSTRUCTION	0.11	0.06
MAINTENANCE	0.07	0.06
PRODUCTION	0.09	0.11
TRANSPORTATION	0.08	0.18
Sample size	**23,388**	**2,962**

Table 4 presents the estimated Mincer equation coefficients for the CPS sample. The negative (and statistically significant) coefficients on race are consistent with the wage discrimination literature (e.g., Lang and Lehmann, (2012)). However, those who advocate for higher minimum wages as a means to reduce racial inequality would be disappointed by the results in Table 4. First, we find no statistically significant effect on weekly earnings for workers residing in medium and high-wage states. Second, the coefficients on the interaction terms $BLK * MEDIUM(\hat{\lambda})$ and $BLK * HIGH$ $(\hat{\rho})$ are not significant, indicating no improvement in the racial wage gap for males in medium and high minimum wage states.

TABLE 4
WAGE REGRESSIONS (OLS) - 2019 CPS SAMPLES
(YEAR-ROUND, FULL-TIME MALE WORKERS)
DEPENDENT VARIABLE: LOG OF WEEKLY EARNINGS

Variable	Parameter Estimates
MEDIUM	0.009
	(0.009)
HIGH	0.002
	(0.009)
BLACK	-0.147[a]
	(0.015)
BLACK*MEDIUM	-0.004
	(0.026)
BLACK*HIGH	0.003
	(0.027)
SCHOOLING	0.098[a]
	(0.003)
EXP	0.029[a]
	(0.001)
EXPSQ	-0.0004[a]
	(0.00002)
MSP	0.323[a]
	(0.025)
DISAB	-0.317[a]
	(0.056)
UNIONWKR	0.071[a]
	(0.024)
VETERAN	0.040[a]
	(0.011)
URBAN	0.021[a]
	(0.008)
MANAGERIAL	0.207[a]
	(0.015)
PROFESSIONAL	0.084[a]
	(0.014)
ADMINSTRATIVE SUPPPORT	-0.204[a]
	(0.018)
SERVICE	-0.291[a]
	(0.016)
CONSTRUCTION	-0.098[a]
	(0.016)
MAINTENANCE	-0.070[a]
	(0.018)
PRODUCTION	-0.133[a]
	(0.016)
TRANSPORTATION	-0.169[a]
	(0.016)

Variable	Parameter Estimates
INVERSE MILLS	3.148[a]
	(0.550)
Constant	4.012[a]
	(0.080)
R-squared	0.321
Sample size	**26,350**
a, b: significant at the 1%, and 5% level, respectively	

CONCLUSION

This study explores the racial wage gap for men based on variations in state mandated minimum wages in the United States. We employed three categories of state minimum wages: ***low*** -- set at the federal level ($7.25); ***medium --*** between $7.50 and $9.80; and ***high*** -- $10.00 and above. Our analysis of 2019 U.S. CPS data indicates that wage inequality for black men is not reduced in states with minimum wages above the federal level. Although there is a slight reduction in the racial wage gap (log of weekly earnings), wage regressions show no improvement in the relative earnings of black men, holding other characteristics constant. Our results provide a somewhat counter-intuitive policy outcome: increasing a state's minimum wage does not appear to be an effective policy tool to reduce racial wage inequality for men.

ENDNOTE

[1.] The sample is from the 2019 IPUMS-CPS (Flood, et al., 2020) non-institutionalized civilian labor force, ages 25 – 65, and includes year-round, full-time wage and salary workers with positive earnings and complete information on relevant characteristics. To eliminate outliers, workers with annual earnings below the 1st, and above the 99th percentiles were trimmed from the data.

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APPENDIX

TABLE 1
VARIABLE DEFINITIONS

Dependent Variable:	Variable Descriptions
LogWage	Log of weekly earnings
• **Continuous Variables:**	
SCHOOLING	Years of schooling completed
EXP EXPSQ	Potential Labor Market Experience (Age-Schooling-5); Experience squared
INVMILLS	Inverse of the Mill's ratio from a Heckman sample-selection correction logistic regression of labor force participation
• **Categorical Variables:**	
LOW	State minimum wage = $7.25 (base category for regressions)
MEDIUM	State minimum wage between $7.50 and $9.80
HIGH	State minimum wage $10.00 and above
DISAB	Work limiting disability
BLK	Black, non-Hispanic worker
UNIONWKR	Union member (or covered by collective bargaining)
VETERAN	Military veteran
MSP	Married, spouse present
URBAN	Urban residence
Occupational categories:	MANAGERIAL, PROFESSIONAL (professional specialty & technical), SALES (base category), ADMINISTRATIVE SUPPORT, SERVICE, CONSTRUCTION (construction and extractive), MAINTENANCE (maintenance & repair), PRODUCTION, TRANSPORTATION