

The Questionable Death of Jim Crow: How Systemic Racism Impacts Voting Accessibility by Ways of Wait Times

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Introduction

- Utilizing the Cooperative Election Study dataset from the 2020 survey waves I worked to analyze the effects of race and income on the experienced wait time of participants at the polls.
- This study focuses on the heightened wait times experienced by non-white voters displayed in former studies but goes beyond common current research as it focuses on systemic factors such as intergenerational wealth and redlining.
- Increased wait times in these scenarios decrease voting accessibility.

Primary Literature

- An, B., Orlando, A. W., & Rodnyansky, S. (2019). The physical legacy of racism: How redlining cemented the modern built environment. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3500612>
- Chen, M. K., Haggag, K., Pope, D. G., & Rohla, R. (2020). Racial disparities in voting wait times: Evidence from Smartphone Data. The Review of Economics and Statistics, 1-27. https://doi.org/10.1162/rest_a_01012
- Mendez-Carbajo, D. (2021, September). Neighborhood redlining, racial segregation, and homeownership. Economic Research - Federal Reserve Bank of St. Louis. Retrieved November 12, 2021, from <https://research.stlouisfed.org/publications/page1-econ/2021/09/01/neighborhood-redlining-racial-segregation-and-homeownership>

Hypothesis and Analysis

Table 1: Wait Times Experienced by Various Racial Groupings at the Polling Booth

Wait Time Experienced (N=9,641)	Respondent's Race							Total
	White	Black	Hispanic	Asian	Native American	Middle Eastern	Two or More Races	
Less Than 10 Minutes	Count: 4511	Count: 714	Count: 476	Count: 218	Count: 39	Count: 73	Count: 80	Count: 6,050
% Wait Time	27.6%	28.1%	22.8%	25.3%	27.2%	21.6%	22.6%	27.8%
10-20 Minutes	Count: 2728	Count: 877	Count: 481	Count: 114	Count: 39	Count: 93	Count: 91	Count: 4,333
% Wait Time	21.4%	26.8%	22.8%	25.8%	22.3%	23.5%	16.4%	22.5%
21 Minutes-1 Hour	Count: 2018	Count: 374	Count: 182	Count: 44	Count: 14	Count: 37	Count: 20	Count: 2,707
% Wait Time	15.4%	14.7%	18%	18.4%	11.2%	16.7%	8.7%	11.5%
More Than 1 Hour	Count: 845	Count: 224	Count: 105	Count: 33	Count: 4	Count: 24	Count: 1	Count: 1,236
% Wait Time	5.2%	8.8%	5.8%	5.3%	2.8%	6.9%	0.6%	5.8%
Total	Count: 17,942	Count: 2,541	Count: 1,377	Count: 417	Count: 143	Count: 347	Count: 289	Count: 17,296
% Wait Time	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hypothesis 1: Non-white Respondents will have an increased chance of experiencing wait times of more than ten minutes at the polling booth. Chi = 294.190, P < .001. Cramer's V = .056

Table 2: Simplified Categories of Annual Income Respondents Reported for the Last Year Interacting with Racial Identity

Simplified Categories of Annual Income	Race of Participants							Total
	White	Black	Hispanic	Asian	Native American	Middle Eastern	Two or More Races	
Annual Income of \$15,000-\$19,999	Count: 15965	Count: 1376	Count: 422	Count: 194	Count: 487	Count: 275	Count: 27	Count: 23005
% Respondents Reported for the Last Year	26.8%	32.3%	22.2%	41.6%	28.8%	22.9%	36.8%	32.9%
Annual Income of \$40,000-\$79,999	Count: 18447	Count: 1714	Count: 503	Count: 149	Count: 349	Count: 277	Count: 17	Count: 22810
% Respondents Reported for the Last Year	34.5%	32.4%	26.4%	33.6%	27.8%	33.2%	23.8%	33.6%
Annual Income of \$80,000-\$149,999	Count: 16758	Count: 1431	Count: 393	Count: 82	Count: 306	Count: 249	Count: 29	Count: 19508
% Respondents Reported for the Last Year	31.2%	27.8%	42.2%	28.6%	28.5%	29.8%	18.4%	29.8%
Annual Income of \$200,000-\$499,999	Count: 2353	Count: 174	Count: 177	Count: 8	Count: 62	Count: 34	Count: 1	Count: 2943
% Respondents Reported for the Last Year	4.4%	3.3%	6.3%	1.8%	4.9%	4.1%	1.4%	4.2%
Total	Count: 53523	Count: 5206	Count: 1395	Count: 443	Count: 1268	Count: 825	Count: 74	Count: 70814
% Respondents Reported for the Last Year	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hypothesis 2: Non-white respondents will be more likely to report an income under the 2020 United States' median income of \$67,521 (round: \$70,000) than white respondents. Chi = 1695.285, P < .001. Cramer's V = .089

Table 3: The Interaction of Income and Experienced Wait Time at the Polling Booth

Experienced Wait Time (N=9,641)	Simplified Categories of Annual Income Respondents Reported for the Last Year				Total
	Annual Income of \$15,000-\$19,999	Annual Income of \$40,000-\$79,999	Annual Income of \$80,000-\$149,999	Annual Income of \$200,000-\$499,999	
Less Than 10 Minutes	Count: 2990	Count: 3432	Count: 2932	Count: 263	Count: 9717
% Wait Time	26.8%	25.6%	26.2%	24.1%	27.1%
10-20 Minutes	Count: 2222	Count: 2671	Count: 2380	Count: 283	Count: 7556
% Wait Time	20.8%	21.8%	21.1%	18.8%	20.1%
21 Minutes-1 Hour	Count: 1628	Count: 1027	Count: 1488	Count: 217	Count: 4360
% Wait Time	9.6%	10.6%	13.3%	14.8%	11.3%
More Than 1 Hour	Count: 858	Count: 487	Count: 736	Count: 157	Count: 2238
% Wait Time	4.7%	5.3%	7.4%	10.7%	5.1%
Total	Count: 10802	Count: 12051	Count: 11181	Count: 1482	Count: 25916
% Wait Time	100.0%	100.0%	100.0%	100.0%	100.0%

Hypothesis 3: Those who report an income under the 2020 United States' median income of \$67,521 (round: \$70,000) will be more likely to experience wait times of more than ten minutes at the polling booth. Chi = 261.810, P < .001. Cramer's V = .049

Table 4: Crosstabulation of Experienced Wait Time Between Simplified Classes of Race with Included Income

Experienced Wait Time	Race of Participants						
	White	Black	Hispanic	Asian	Native American	Middle Eastern	Two or More Races
Less Than 10 Minutes	Count: 4511	Count: 714	Count: 476	Count: 218	Count: 39	Count: 73	Count: 80
10-20 Minutes	Count: 2728	Count: 877	Count: 481	Count: 114	Count: 39	Count: 93	Count: 91
21 Minutes-1 Hour	Count: 2018	Count: 374	Count: 182	Count: 44	Count: 14	Count: 37	Count: 20
More Than 1 Hour	Count: 845	Count: 224	Count: 105	Count: 33	Count: 4	Count: 24	Count: 1
Total	Count: 17,942	Count: 2,541	Count: 1,377	Count: 417	Count: 143	Count: 347	Count: 289

A Crosstabulation between income, race, and experienced wait times.

- Category 1: Chi = 110.319, P < .001. Cramer's V = .080, df=4
- Category 2: Chi = 62.005, P < .001. Cramer's V = .064, df=4
- Category 3: Chi = 26.659, P < .001. Cramer's V = .090, df=4

Total: Chi = 164.512, P < .001. Cramer's V = .068, df=4

Results and Implications

- The results indicate a statistically significant connection between non-whiteness, lower economic status, and increased wait times experienced at the voting booth.
- These increased wait times create unnecessary barriers to one's right to vote, with the displayed data indicated a connection between these barriers and race, putting an undue burden on already marginalized groups of people, perpetuating systemic issues connected to voter participation.

