Political power, status threat, and population health*

Extended Abstract, July 2024

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Short Abstract: Status threat has been hypothesized as an explanation for the stagnation and fall in the life expectancy of White adults without a college degree over the last four decades, even as life expectancies for Black adults with similar levels of education have generally increased. Status threat may harm the health of lower-educated White adults by increasing psychosocial stress and through support for policies or political leaders that address intergroup threat by reducing critical public investments. Despite these theoretical links, evidence on the casual role of status threat in driving population health trends remains thin. This paper addresses this gap by leveraging the 1975 extension of the Voting Rights Act (VRA), which removed long-standing barriers to voting faced by minority populations, as a natural experiment. We find that status affirmation for minoritized groups in counties covered by the VRA extension led to immediate relative *increases* in mortality among older White adults, a pattern driven by increases in cardiovascular disease mortality. In contrast, mortality for non-White adults generally declined after the extension. The relative increases emerged despite improvements in socioeconomic outcomes and public finances for all population groups, as revealed through direct assessment of these outcomes and by declines in infant mortality for White and non-White populations after the VRA. Further, consistent with the role of status threat are the larger relative increases in White mortality in areas with lower average college graduation rates.

* A complete draft will be posted as an NBER Working Paper in the Fall of 2024. The authors would like to thank Paula Chatterjee, Norma Coe, Eric Roberts, Harsha Thirumurthy, and seminar participants at the University of Pennsylvania and Harvard Medical School for helping comments and suggestions.

Introduction

The secular decline in mortality for White adults in the United States without a college degree has slowed and fully reversed in the last four decades (Case and Deaton, 2021). This pattern stands stark contrast to the experience of Black adults with similar levels of education, for whom mortality has mostly continued to decline over the same period. Typical explanations for these adverse trends, such as shifting economic opportunities (Autor et al., 2019; Moorthy and Shaloka, 2021; O'Brien et al., 2022; Pierce and Schott, 2020), fraying social supports (Putnam, 2015), or the opioid crisis, alone are unlikely to explain this pattern given that we would expect them to affect all population groups, not just less-educated White adults (Gould, 2021; Wilson, 1996).

An alternate explanation is status threat, where the position of White adults in the social hierarchy is threatened by a decline in resources or power relative to other population groups, such as racial and ethnic minorities (Blalock, 1967; Blumer, 1958; Bobo and Hutchings, 1996; Darity, 2005). Status threat may affect health through multiple pathways, including reduced investment in salutary public goods and services seen to benefit minority populations (Metzl, 2019) and increased psychosocial stress (Malat et al., 2018). Empirical support for the role of status threat in shaping modern population health trends remains limited (Kwate and Goodman, 2014; Siddiqi et al., 2019), with key challenges being measurement of status threat and disentangling status threat from other gradually changing social and economic trends.

In this paper, we address these challenges, providing new evidence on the impact of status and status threat on mortality trends among White and non-White adults. We leverage the 1975 extension of the Voting Rights Act (VRA) as a natural experiment. The VRA was first passed in the 1965 to outlaw discriminatory practices in voting (such as literacy tests and poll taxes) and to establish a federal pre-clearance process for any future changes to voting procedures in jurisdictions with a history of such practices. Thus, the VRA address the first challenge, measurement of status threat, by construction: it *affirmed* status for non-White individuals and, as a result, *threated* status for White majorities. The threat proffered by the VRA is underscored by documented shifts to Republican candidates soon after implementation (Ang, 2019; Bernini et al., 2023; Fresh, 2018) and the immediate reinstatement of potentially discriminatory voting practices after pre-clearance clauses were overturned in *Shelby v. Holder* (2013). In terms of the second challenge, we focus on the 1975 extension of the VRA – which covered all counties in Texas and Arizona, as well as selected counties in 9 other states -- given that it came suddenly and as a surprise, with county coverage determined by a specific formula whose data inputs (shares of language minorities, literacy rates, and voter turnout in prior elections) were not available until late 1975. We also choose the 1975 episode because there was no other large-scale legislation expected to have major population health benefits correlated its passage. Ascertaining the independent effects of the original 1965 VRA on status threat and health is challenging, given that it coincided with the establishment of Medicare and Medicaid, hospital desegregation, federal minimum wage increases, and War on Poverty programs – all of which have been tied to improvements in minority health (Almond et al., 2007; Bailey and Goodman-Bacon, 2015; Chay and Greenstone, 2000; Goodman-Bacon, 2018; Musen, 2023).

Data and Research Design

County-year-age group-race level mortality rates for the period 1970-1988 were computed using death counts from Vital Statistics death certificate data and population denominators from the U.S. Census Bureau. The age groups we considered were 20-49 and 50

and above; given limitations in racial classification in historical death certificates, we focused on White and non-White racial groups. Data on VRA coverage was obtained from Ang (2019) and data on 1970 county attributes were obtained from the U.S. Census. We excluded all counties covered by the initial 1965 VRA and the 1970 extension to restrict the control group to never treated units (Goodman-Bacon, 2021).

We employ a difference-in-differences/event study research design, comparing changes in mortality rates by age and racial group in counties implementing the VRA versus those that did not. Specifically, we estimated the following:

$$Y_{it} = \sum_{j=-6}^{j=-2} \boldsymbol{\gamma_t} \times \mathbf{1}[LeadVRA_{it} = j] + \sum_{k=0}^{k=13} \boldsymbol{\delta_t} \times \mathbf{1}[LagVRA_{it} = k] + \beta \times OilBoom_{it} + \mu_i + \theta_t + e_{it}$$

where *i* indexes the county, *t* the year, and μ_i and θ_t are county and year fixed effects, respectively. The terms $\boldsymbol{\delta_t}$ capture the differential post-VRA evolution of mortality outcomes and the $\boldsymbol{\gamma_t}$ pre-intervention coefficients. We include a measure of area-level exposure to the oil and natural gas boom of the 1970s as a time-varying covariate, as natural resource booms may affect health outcomes through multiple channels. Following Allcott and Keniston (2018), we use as our measure the product of county-level endowments in these natural resources and calendar year national oil and gas prices. Given concerns about the use of time-varying covariates in difference-in-difference models we also pursue an additional check in which we remove high oil and gas endowments from the sample. We find substantively similar estimates regardless of whether and how we adjust for time-varying covariates, as well as in specifications that compare counties that are more closely matched on the characteristics used to determine VRA-coverage eligibility.

We cluster standard errors at the county level (though using the state or federal judicial district provides similar results). Given baseline differences between counties covered by the VRA and those that were not (counties covered by the VRA had higher non-White and language minority population shares and lower levels of educational attainment), we estimate our main equation using the synthetic difference-in-differences estimator, which allows us to make a weaker parallel trends assumption (Arkhangelsky et al., 2021). We find similar estimates using standard two-way fixed effects models.

Results

Core Findings

We find precisely estimated *relative increases* in all-cause mortality after VRA implementation for White adults above the age of 50 and less precisely estimated increases for adults ages 20-49 (**Figure 1**). Event studies demonstrate a sharp relative *increase* in mortality for older adults in the very year of policy implementation. The estimates for White individuals above age 50+ are equivalent to a 2.6% increase relative to the pre-intervention mean.

In contrast, for non-White adults we find relative decreases in mortality in VRA-covered counties, with statistically significant estimates for adults 20-49 (equivalent to a ~10% decrease relative to the pre-intervention baseline), for whom event studies show gradual decline starting in the year of VRA implementation. The race-specific patterns are similar for men and women, except for Black individuals above 50+, where we find a statistically significant mortality decline for Black women and a non-significant increase for Black men.

Mechanisms and Alternate Explanations

The discordant effects of the VRA on White and non-White adult mortality -- as well as the sudden, relative increase in mortality for White adults timed exactly with the implementation of VRA -- is consistent with stress-related death from status threat. Here we provide additional support for this hypothesis and address alternate explanations.

Status threat related mortality, particularly deaths that occur soon after a shock to relative status, should manifest in causes of death that are linked to psychosocial stress. We examine cardiovascular disease, which is strongly linked with stress, and cancer, which is far less so. Focusing on White adults ages 50 and above, we see sharp increases in cardiovascular disease mortality, the magnitude of which is almost identical in magnitude to what we find for all-cause mortality (**Figure 2**). In contrast, we find gradual *declines* in cancer mortality in this group.

Similarly, status threat should materialize most significantly in populations where that threat is likely more consequential. We focus on differences by level of education, median splitting the sample by the share of college graduates in the 1970 census (death certificates during this time-period did not include level of education). Consistent with status threat, we find larger relative increases in older White adult mortality in counties with lower levels of college attainment. (We also see imprecisely estimated relative increases in mortality among non-Whites in these lower educated counties, a pattern that mirrors contemporary trends in which Black adults without college degrees have begun to experience secular increases in mortality).

The main competing explanation is that the VRA (or some other shock) led to declines in the material circumstances of White adults while improving the circumstances of non-White adults. We show that this is unlikely to be the case in four sets of analyses. First, we use data from the Current Population Surveys, and show that household incomes *increased* for both White and non-White adults after the VRA (though more so for the latter, which supports the status threat hypothesis). Second, we show that public finances, as measured by county expenditures per capita, increased similarly in VRA covered counties with low and high Non-White population shares, suggesting that all population groups benefitted from increases in Non-White political participation. Third, the largest relative mortality increases among White adults were centered in counties that experienced the biggest swing towards conservative politicians.

Finally, we find the VRA led to reductions in *both* White and non-White infant mortality rates (**Figure 3**). Given that infant mortality is influenced by an array of social, economic, environmental, and health care related inputs, this suggest that material conditions improved for all racial groups.

Discussion

"Dying of Whiteness" has become an increasingly popular explanation for the mortality crisis heralded by the halting and reversal of secular improvements in mortality among White adults in the last four decades. This narrative suggests that changes in relative social-status and reductions in intergroup inequality can harm health in majority groups – and, eventually, in minority groups -- through biopsychosocial stress processes and reactionary reduction in salutary public goods and services. Our study tests this hypothesis by leveraging a highly salient shock to relative status – enfranchisement of non-White voters as part of the 1975 extension of the Voting Rights Act. Our analysis suggests that status threat plays an important role in population health, showing that racial mortality patterns after the VRA were effectively a harbinger for the population health trends that were to follow. The results also provide an explanation for

contemporary links between political preferences and health outcomes. The findings highlight the importance of understanding and intervening on the historical, social, psychological, and political processes that lead to perceived threats to status.

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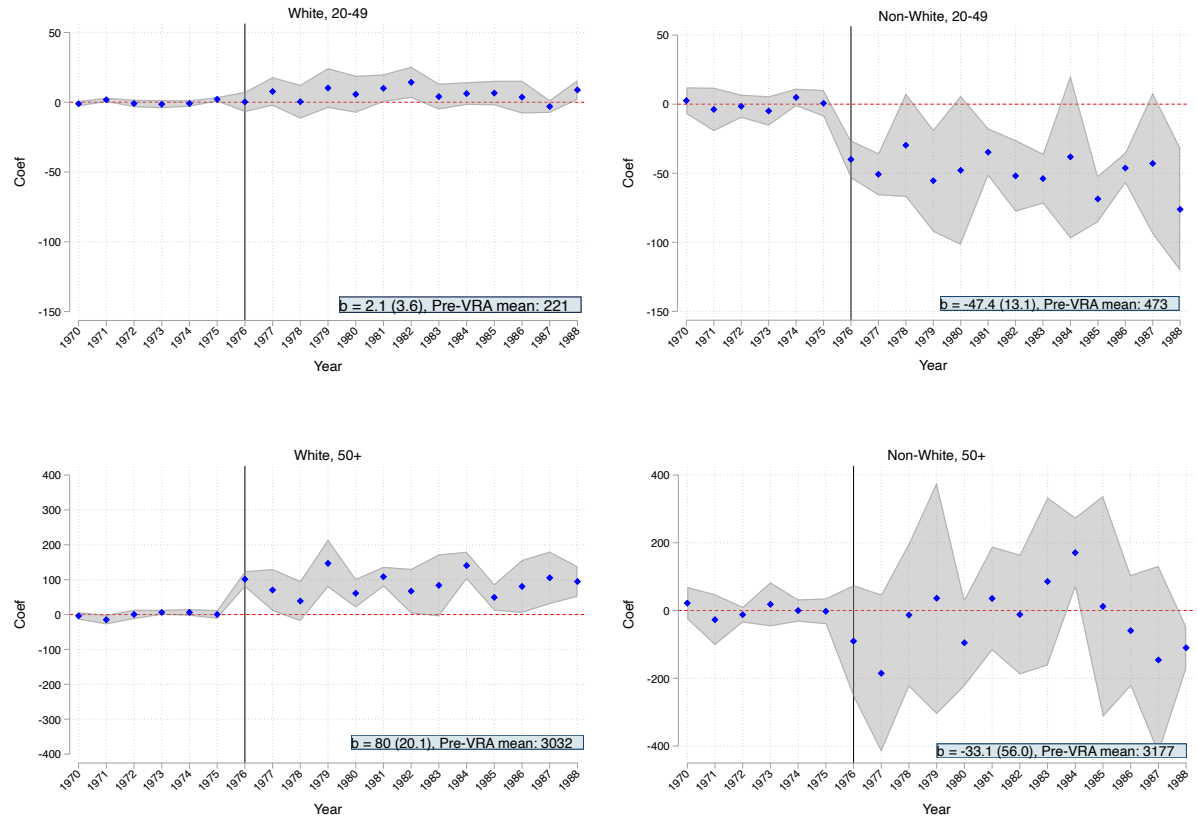
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Figure 1. Impact of 1975 Extension of the VRA on All-Cause Mortality

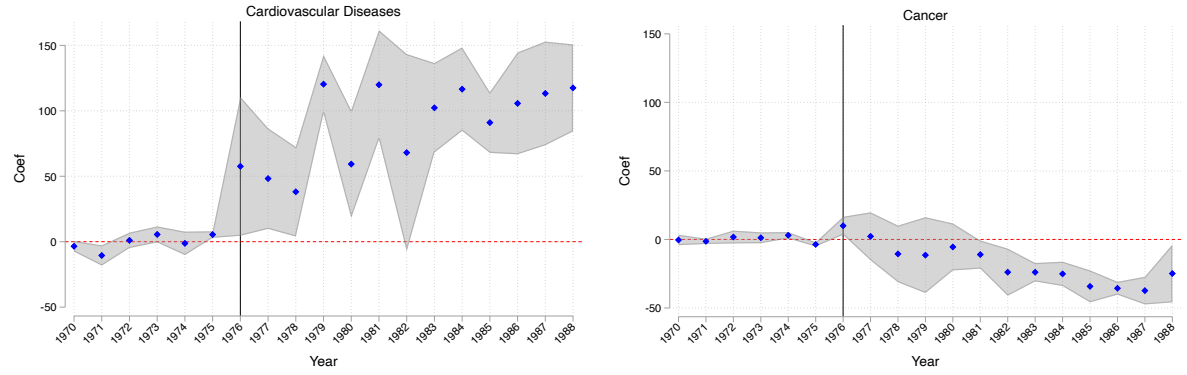


Notes: Synthetic difference-in-differences estimates for age adjusted all-cause mortality rates (per 100,000). For each age-race group, the graph plots event study estimates with the grey shaded region representing bootstrapped 95% confidence intervals accounting for clustering at the county-level. Estimates averaged over the entire post-treatment period are provided in the boxes on the lower right corner of each panel. Estimates for each age group are plotted on common axes, to facilitate easier comparisons across racial groups.

All models include time-varying measures of exposure to the oil boom, using data from Allcott and Kensiton (2018). Models do not weight by county population, given the desire to recover place-level effects and the unique trajectory of health outcomes experienced by large population centers in the 1980s. As a result, we winsorize mortality rates at the 95th percentile, to reduce noise from large year to year fluctuations in mortality rates in smaller counties. Of note, weighted and unweighted two-way fixed effects models that correctly account for heterogeneous effects in large cities recover similar results.

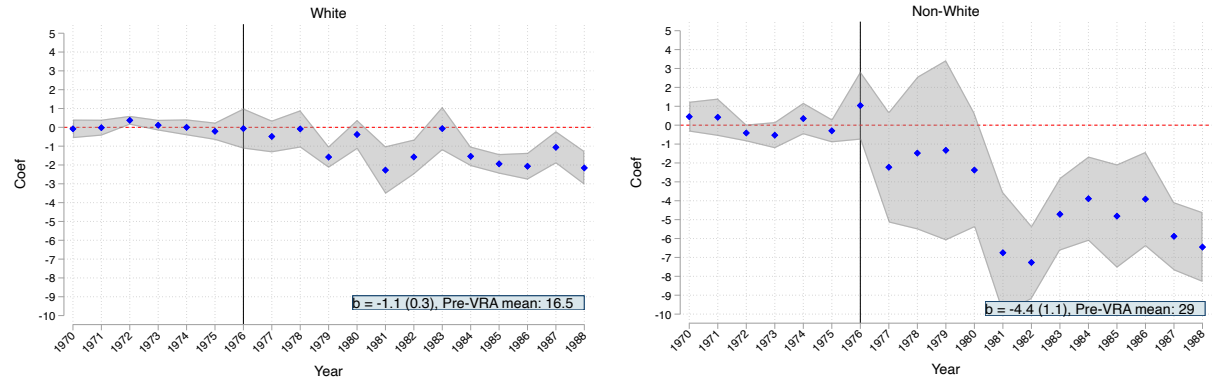
We note that all estimates represent *relative* increases or decreases given that mortality rates were falling over this period for most groups.

Figure 2. Impact of 1975 Extension of the VRA on Cardiovascular and Cancer Mortality, White Adults 50 and Above



Notes: Synthetic difference-in-differences estimates for cardiovascular (include stroke) mortality and cancer mortality (per 100,000), White adults ages 50+. See Fig 1 notes for further details.

Figure 3. Impact of 1975 Extension of the VRA on Infant Mortality



Notes: Synthetic difference-in-differences estimates for infant mortality (deaths per 1,000 live births), by mother's race. See Fig 1 notes for further details.