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Research Briefs

Mortality, Income Inequality, and Race in America

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Does income inequality lead to higher mortality rates? Several researchers have found such a link, leading one study to conclude that the loss of life owing to income inequality is “comparable to the combined loss of life from lung cancer, diabetes, motor vehicle crashes, HIV infection, suicide and homicide in 1995” (Lynch, Kaplan, & Pamuck, 1998). However, other research has found little evidence of such a link.

In their Center for Health and Wellbeing working paper, **Mortality, Inequality, and Race in American Cities and States**, Angus Deaton and Darren Lubotsky explore this correlation further, and find little evidence that income inequality directly affects mortality. Using data on U.S. states and 287 Metropolitan Statistical Areas (MSAs) in 1980 and 1990, they find, rather, that the correlation between inequality and mortality is confounded by the racial composition of cities and states.

Regional Racial Composition and Mortality

That the estimated effects of income inequality are potentially confounded by the effects of race has long been recognized. Blacks have higher mortality rates than whites and, on average, have lower incomes. Therefore, in places with a substantial black population, both income inequality and mortality tend to be higher for the population as a whole. However, this is not the whole story: mortality rates for both blacks and whites are higher in places with higher income inequality, a fact that has led some researchers to conclude that income inequality is bad for health.

Deaton and Lubotsky’s work casts doubt on this conclusion. Their results indicate that the positive relationship between inequality and white mortality can be accounted for by regional racial composition. Specifically, they show that *white* mortality rates are higher in states and MSAs where the black population is a larger fraction of the total. Moreover, although average white incomes are positively correlated with the fraction of the population that is black, average black incomes are negatively correlated with the fraction black. As a result, and even controlling for average income, there is a correlation between white mortality and income inequality, particularly the income inequality generated by between-race differences in income. It is this correlation, not simply the pooling of black and white mortality, that has led other researchers to find a correlation between income inequality and mortality. However, once account is taken of the racial composition of cities and states, there is no correlation between white mortality and income inequality

Deaton and Lubotsky’s results indicate that for white men, the risk of death is 14% higher in Mississippi, which is one-third black, than in Vermont, which has virtually no blacks. The corresponding risk is 9% higher among white women.

Explaining Mortality Rates

Although controlling for an area’s racial composition eliminates the correlation between income inequality and mortality, it does not help explain what factors actually drive mortality rates. The authors next turn to testing various explanations for why whites have higher mortality rates in places with a larger black population.

Higher educational attainment is associated with lower mortality rates. If the presence of a large black minority results in low levels of education for both blacks and whites, this might cause a correlation between

racial composition and mortality. The authors find that, although those with higher education indeed have lower mortality rates, education levels do nothing to moderate the estimated effect on white mortality rates of the fraction black in the population.

Mortality among both whites and blacks and fraction of the population that is black are higher in southern cities and states than in other parts of the United States. However, the authors find that the strong positive correlation between white mortality and the fraction black holds within all four broad Census regions of the country, and within states. Thus, the relationship is not driven by any particular region of the country, or by a comparison of geographically dissimilar places.

Access to public services and health care among both whites and blacks may be lower in places with large black populations. Past research, however, has found little evidence that the availability of health services accounts for any of the differences in individual health across socioeconomic groups. Moreover, other research finds that spending on public health tends to be higher in places with a larger fraction black in the population. These facts, and the above results, which use state fixed effects, suggest that provision of public services does not explain the correlation between white mortality and racial composition.

Finally, the authors examine mortality rates by age group. With the exception of males ages 1–9, the fraction of the population that is black is a significant risk to mortality at all ages. It is particularly high for 15–19-year-old males, falling off for the following 15 years, but rising again rapidly thereafter. The correlation is present for all age groups of women. These results are consistent with work by Miller and Paxson (2001) that finds the fraction black is correlated with mortality among whites aged 25–64 across a wide range of diseases.

Conclusion

In American cities and states, the fraction of the population that is black significantly affects white mortality rates. Deaton and Lubotsky's results cast remarkably little light on which mechanisms cause the findings. They are robust to the inclusion of state fixed effects and education controls, and holds within all four Census regions and among nearly all age groups of men and women. They also cannot plausibly be attributed to variation in the local provision of public health services. Nevertheless, the failure to properly account for racial composition led previous researchers to find a spurious significant correlation between income inequality and mortality. Further research on mechanisms that drive the correlation between racial composition and mortality is likely to be a more fruitful line of inquiry for learning about how social forces influence population health than would additional work on the link between income inequality and mortality.

Data

Income and other demographic data are from the 1980 and 1990 5 percent Census. These data identify individuals' "county group" in 1980 and "Public Use Microdata Area" in 1990, which are generally aggregates of one or more counties. The authors combine these to create consistently defined MSAs in both years. Mortality rates are from the 1980 and 1990 Compressed Mortality Files from the National Center for Health Statistics at the Centers for Disease Control. Death and population totals are provided separately by age group, gender, race, and county, and are aggregated to the MSA and state level.

References

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