

PAA 2010 Extended Abstract

Dyed black: Homicide and racial classification on death certificates

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150-Word Abstract

Using the 1993 US National Mortality Followback Survey (NMFS), we show a relationship between cause of death and racial classification of the decedent. The NMFS contains racial data from two sources: the death certificate, and a followback survey of relatives or friends of the deceased. Thus, there is the possibility of discordant classification between how race is recorded in the death certificate (and in vital statistics), and how race was recalled by relatives or friends. Homicide mortality is highly and statistically-significantly associated with being coded black on the death certificate (*viz.*, by the medical examiner). This relationship is net of controls for followback-survey race, so the homicide-black relationship we see is not simply a restatement of the fact that homicide is a more prevalent cause of death among blacks. The plasticity and context-specificity of racial classification in the United States extends to death classification, and cause is important.

1 Introduction

Much previous research has shown that racial classification is plastic. In particular, Penner and Saperstein (2008) show that serial racial classifications of the same individual can differ, and moreover that contextual effects such as incarceration can affect changes in classification. One of the most salient ways in which people are classified racially is not in life, but in death.

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Specifically, race is recorded on the death certificate. Vital statistics — for example, racially-specific death rates and life expectancies, for all causes or for particular causes of death — are calculated from aggregated death certificate data. Thus, the race recorded on the death certificate matters for more than just the particular case. The study of mortality differentials by race is a bread-and-butter topic in demography and in social epidemiology. And, as noted, the fragility of racial classification is a very current topic in the social sciences. This paper twines together these two strands by examining whether there is a relationship between cause of death and plasticity of racial classification.

Given the established changeability of racial classification in the United States, we postulate that some causes of death may affect racial classification of the decedent. The putative mechanism is that stereotypical notions of homicide as being a black cause of death are self-reinforcing. Specifically, medical examiners — who fill-out both death certificate race and (for violent causes such as suicide and homicide) cause of death — subconsciously may be more likely to choose black as the race of decedent once homicide has been established as the cause. We cannot rule out that causality may run the other way, with racial phenotype helping determine cause. We consider this to be less plausible, since objective factors, such as wound character and location, and other factors such as powder residue, come into play when choosing, for example, among the possible causes “homicide”, “suicide”, and “accidental discharge of firearm”.

Given the prevalence of mixed-race people in the United States, some baseline level of discordant racial classification is neither surprising nor noteworthy. Our null hypothesis is that this rate of discordance does not vary among causes of death. The data we use herein are from 1993, before the United States adopted multiracial classification in census data (and death certificate data remain monoracial, in any case).

2 Data and Methods

We use the public-release dataset of the 1993 US National Mortality Follow-back Survey (NMFS) (National Center for Health Statistics, 1998). This is a sample of 22,957 death certificates drawn from the 1993 Current Mortality Sample of the United States. It is representative of the 1993 resident population of the US, age 15 and older, excluding South Dakota. We have racial data from the death certificate and from the followback survey, which asks a proxy respondent questions about the deceased person. This proxy respon-

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dent is usually next-of-kin as listed on the death certificate or as identified by funeral home directors. The response rate was 83% (National Center for Health Statistics, 1998).

We estimate models of the form:

$$\log \left(\frac{Pr(DC_b)}{1 - Pr(DC_b)} \right) = \alpha + \beta_b FS_b + \beta_w FS_w + \beta_H D_H + \beta_O D_O + \boldsymbol{\beta}' \mathbf{X} + \varepsilon$$

where DC_b is “black on Death Certificate” (hereinafter sometimes called “died black”), and FS_b is “black on Followback Survey” (hereinafter sometimes called “lived black”); subscript w denotes white. D_H and D_O are died from homicide and from other causes, respectively. The rest: \mathbf{X} are other control variables, β 's are coefficients, α is a constant, ε is an error term, etc., etc.

In other words, we do a logistic regression of “dying black”, where the key variable is D_H and we control for zero or more other causes of death and we control for all possible followback races, and zero or more other control variables. To say it another way, we are trying to predict what causes (viz., is associated with) being coded black on the death certificate. Does homicide predispose to black death certificate coding? We control for survey race because people who are coded black on both certificate and survey are not our interest.

The “lived white” and “died black” (etc.) labels are shorthands, not intended to privilege either the death certificate or the followback survey as a gold standard. The question of a gold standard for racial classification is not without its intricacies. We would like to have racial self-identification data; the NMFS does not have such. The problem with mortality studies and racial data collection is that there is no self-report possible. One solution would be to do a prospective study, collecting racial data and waiting for deaths; this is costly and time consuming in the extreme. Another way around this would be to match responses from an existing survey to subsequent death records. This is also extremely expensive but has been done, for example by the National Heart, Lung, and Blood Institute in their National Longitudinal Mortality Study (NLMS), which matches cases from the March CPS (Current Population Survey) files to subsequent death certificates. Unfortunately, however, the NLMS public release data do not provide both CPS and death certificate race.

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3 Results

3.1 Indicative regression tables

[please see overleaf]

Odds Ratio	(1) dc_black	(2) dc_black	(3) dc_black	(4) dc_black	(5) dc_black	(6) dc_black
homicide	3.151*** (20.4)	2.193** (2.62)	2.195* (2.56)	2.505* (2.52)	2.521* (2.53)	2.575* (2.57)
fs_white		0.0000707*** (-53.9)	0.0000701*** (-53.7)	0.0000706*** (-53.6)	0.0000655*** (-52.3)	0.0000650*** (-51.0)
fs_API		0.0000476*** (-9.84)	0.0000481*** (-9.83)	0.0000487*** (-9.82)	0.0000455*** (-9.87)	0.0000688*** (-9.44)
fs_AIAN		0.000988*** (-23.2)	0.00100*** (-23.0)	0.000993*** (-23.0)	0.000940*** (-22.9)	0.00121*** (-21.7)
fs_hispanic		0.570 (-1.48)	0.576 (-1.44)	0.576 (-1.44)	0.585 (-1.40)	0.655 (-1.08)
female			0.846 (-0.94)	0.839 (-0.98)	0.840 (-0.97)	0.832 (-1.03)
age			1.002 (0.61)	1.002 (0.54)	1.002 (0.56)	1.001 (0.23)
firearm				0.801 (-0.66)	0.785 (-0.71)	0.773 (-0.75)
Observations	18065	18065	18065	18065	18065	18065
month of death FE	0	0	0	0	1	1
region of death FE	0	0	0	0	0	1

z statistics in parentheses

*** p<0.001, ** p<0.01, * p<0.05

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4 Discussion

This is still a work in-progress at this time. The present document is an extended abstract, not the final paper. Progress is going swimmingly and we will have a complete paper in time for PAA.

The logistic regressions show that, even netting out “lived race”, (i.e. race on the followback survey) and in the presence of other controls, homicide is a large and statistically-significant determinant of being coded black on the death certificate. It is important to control for followback-survey race in the logistic regression. Otherwise, we would be looking at the the simple two-way relationship between being black and dying of homicide. In the United States that relationship is strong and well known.

The logistic regression is highly significant, as is the following point, reiterated from § 3:

For those who lived non-black, dying black for homicide vs. all causes (1.9% vs. 0.64%), highly significant $p = 0.0003$ On the other hand, for those who lived black, dying non-black for homicide vs. all causes (1.0% vs. 1.1%), nowhere near significant ($p = 0.85$).

If you lived black, homicide does not matter for your death classification, but if you lived non-black, homicide makes you black (so to say).

Works Cited

National Center for Health Statistics. 1998. “National Mortality Followback Survey, 1993. Public use data file documentation (machine readable data file and documentation).” NCHS, Hyattsville, Maryland.

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