

Black Lives Matter Protests and Racial Hate Crime in the United States

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Outline of Presentation

1 Intro

2 Data

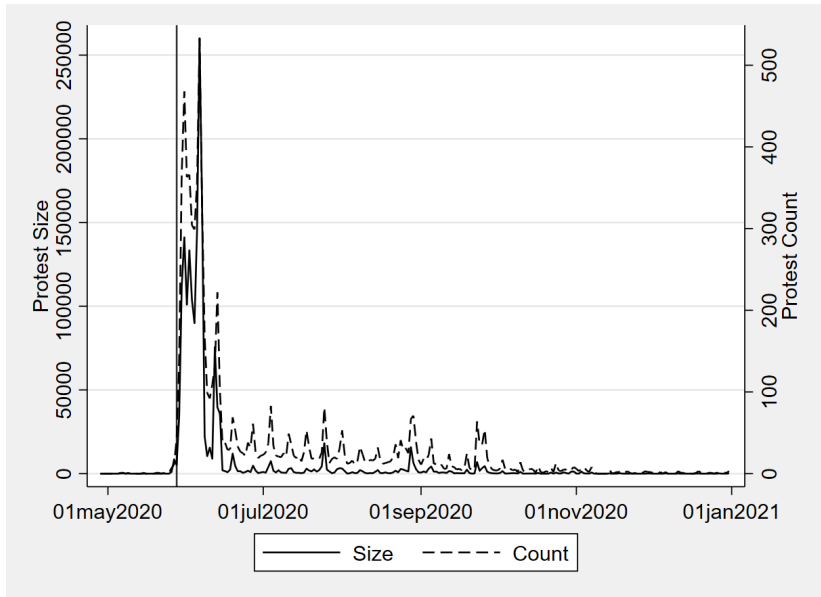
3 Results

4 Conclusion

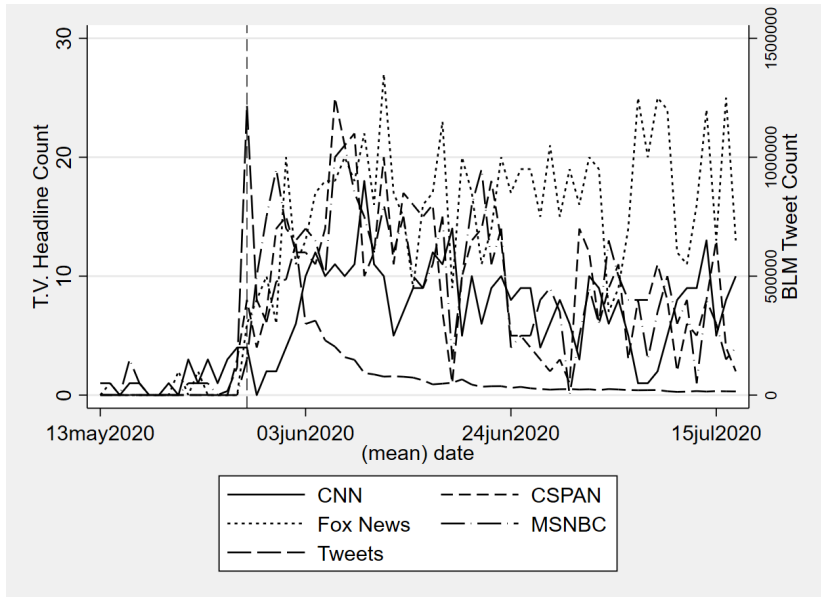
- Did racial hate crime increase following the Black Lives Matter (BLM) protests in response to George Floyd's death?
 - When did victimisation increase?
 - Was the recorded increase due to changes in reporting or perceptions?
 - What was the role of TV and social media?
 - Was the shock homogeneous in the US?
- Hate crimes against Black and White Americans increased significantly following the onset of the protests. While reporting probability did not change for the former, the increase in anti-white HC can be partially explained by an increase in reporting.
- Mediated by changes in unemployment but not COVID policy stringency

- After the murder of George Floyd, a Black American, at the hands of a white police officer the U.S. experienced the largest protests in its history, eclipsing even that of the Civil Rights era.
- Hate crimes carry a high social (Walters, 2014; Paterson et al., 2019; Perry and Alvi, 2012) and individual costs (McDevitt et al., 2001; Iganski and Lagou, 2015) compared to non-biased crimes.
- First research looking at the effects of widespread racial protests on hate crime against both the protesting minority group and the majority group.

2020 Racial Justice Protests



Cable News Headlines and Tweets



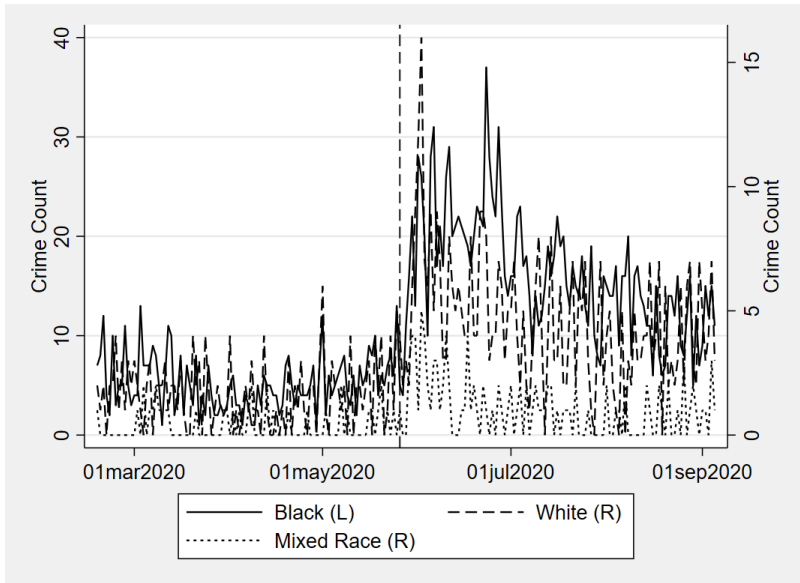
Hate Crimes in the US

(Federal) definition of hate crimes in the US:

Federal Bureau of Investigation defines hate crime as “criminal offense[s] against a person or property motivated in whole or in part by an offender’s bias against a race, religion, disability, sexual orientation, ethnicity, gender, or gender identity”.

Maps

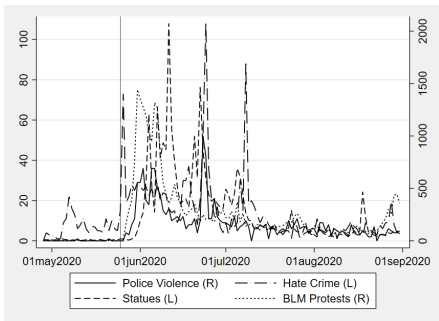
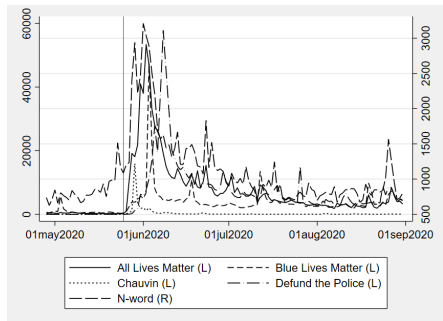
Racial Hate Crime Statistics - Treated



Other Datasets

- Protest data (Crowd Count Consortium)
 - Number of protests recorded
 - Estimated number of protesters
- Cable news headlines (archive.org)
 - CNN, CSPAN, FoxNews, MSNBC
- Google mobility data
- Oxford COVID-19 Government Response Tracker
- Twitter
 - Retaliation - Derek Chauvin's arrest and trial
 - Protectionism - White genocide
 - Support - Defund the police
 - Opposition - All/Blue lives matter, police violence against protesters

Tweet Time Series



- Concerns of overlap with COVID-19
 - Control for hate crime against other groups
 - 8 racial-religious groups, gender, transgender, homophobia, disability
- Immediate and medium-run effects
 - ① RD-DD or diff-in-disc
 - ② Event study and synthetic control methods
- Threats to validity
 - Substitution between groups (i.e. less antisemitism, more anti-Black HC)
 - Spillover effect (control groups positively impacted)
 - Violation of parallel trends
 - Testing of assumption and use of SCM
 - Transform variables into deviations from (pre-protest) averages

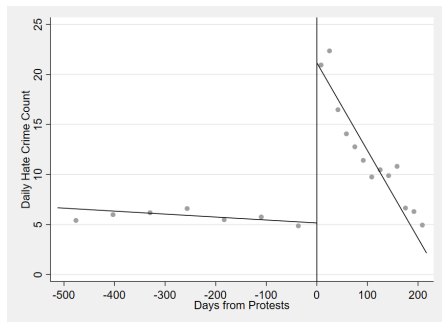
Regression Discontinuity in Time-DD (RDiT-DD)

Augmented local regression discontinuity;

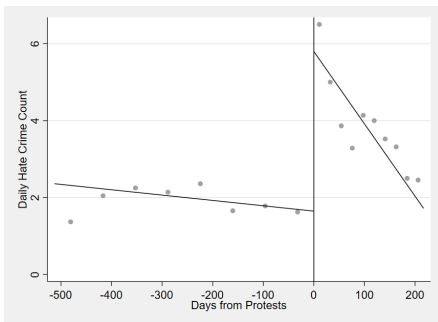
- 1 Remove long-term components using full dataset by taking the residuals from a fixed effects panel estimation including a time trend, day-of-week and month fixed effects (seasonality), and bias fixed effects.
- 2 Run a local regression discontinuity using 30/40/50 days on each side of the cutoff date, controlling for other hate crime biases.

Discontinuity: 26 May 2020

RD Plot



(a) Anti-Black Hate Crime



(b) Anti-White Hate Crime

$$y_{at} = \sum_{t=-3}^{17} \alpha_t(I_t) + \sum_{t=-3}^{17} \beta_t(R_a \times I_t) + \psi_t + \theta_a + \varepsilon_{at} \quad (1)$$

- Outcome variable is the crime count deviation from pre-protest group average (percent change from average)
- Model includes a linear time trend, day-of-week and month fixed effects, and fixed group effects.
- Three pre-protest, 3 intra-COVID dummies, and 14 intra-protest dummies
 - Temporal effects of the protests on treated racial hate crime
- Baseline period: December 2019

Synthetic Control Methods

Generates a counter-factual treated HC from a weighted basket of the 12 control cases, s.t.:

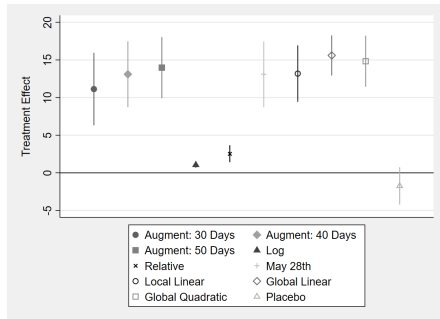
$$\min \frac{1}{t^0} \sum_{t < t^0} (y_t^1 - \sum_{c \in C} \omega_c^* y_{ct}^0)^2 \quad (2)$$

Where:

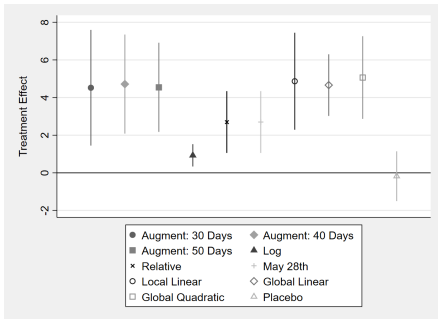
- y_t^1 relative anti-Black or -white hate crime
- $t < t^0$ are pre-protest periods
- $\omega_c^* y_{ct}^0$ are weighted other hate crime biases
- Matching by outcome variable
- Data aggregated by month for a better overlap (smoother time series)

$$\hat{\beta}_{ct} = y_{ct}^1 - \sum_{c \in C} \omega_c y_{ct}^0, \quad (3)$$

Anti-Black and Anti-White Racial Hate Crime - RD Results



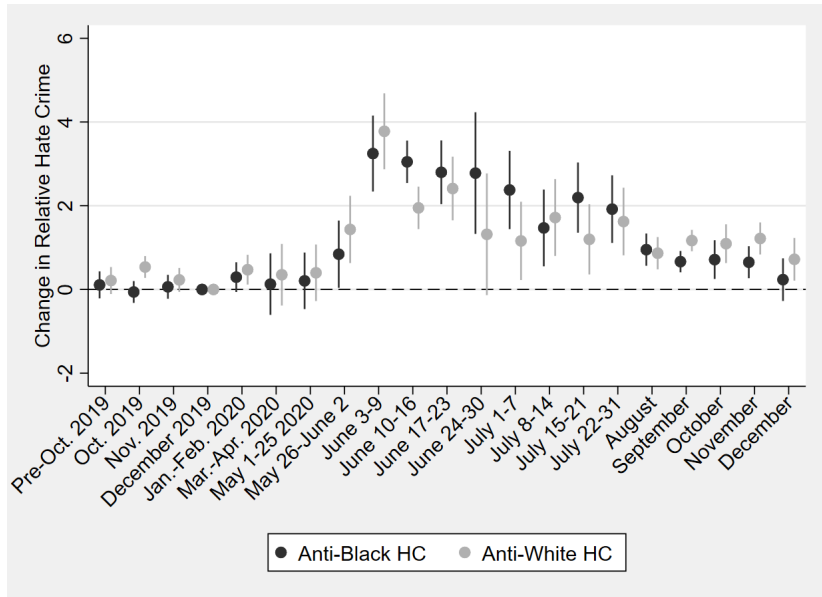
(a) Anti-Black Hate Crime



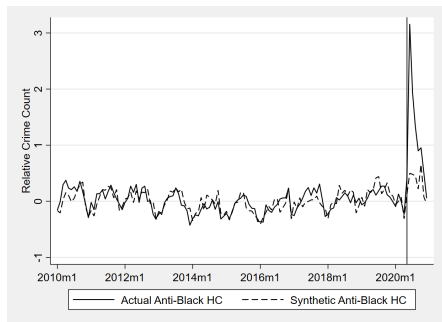
(b) Anti-White Hate Crime

Notes: Each line represents a different regression discontinuity in time DD specification. The first three are the baseline local augmented model with bandwidths of 30, 40, and 50 days, respectively. The fourth and fifth are alternative crime measurements, log and relative deviation to average. The sixth uses an alternative cutoff dates, May 28th. The eighth and ninth estimates are for a local linear and global linear RD model. The ninth is a global polynomial estimation. The final specification is a placebo in time test using 26 May 2019 as the discontinuity.

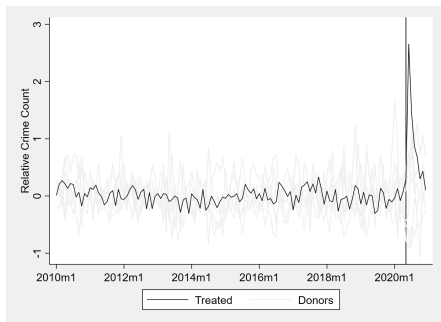
ES Results



SCM Results - Anti-Black Hate Crime



(a) SCM: Treatment



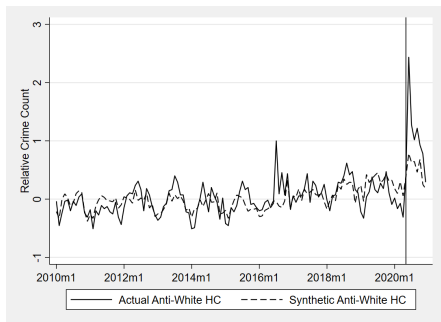
(b) SCM: Placebos

SCM Results Table

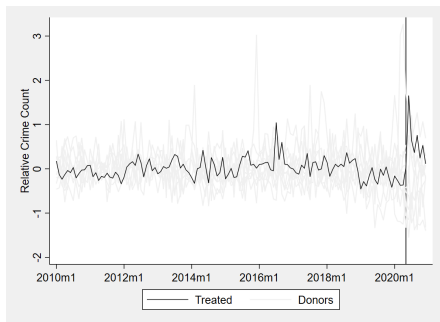
	Treatment Effects		Synthetic Weights	
	Treatment	P-values	Group	Weight
May 2020	0.278	0.429	Antisemitism	0.012
June 2020	2.590	0.000	Arab/Muslim	0.008
July 2020	1.425	0.000	Asian	0.013
August 2020	0.861	0.000	Disability	0.008
Sept. 2020	0.660	0.000	Gender	0.002
Oct. 2020	0.287	0.143	Hispanic	0.013
Nov. 2020	0.428	0.000	Homophobia	0.619
Dec. 2020	0.085	0.714	Nat. Amer.	0.021
			Race-Other	0.267
			Rel.-Christian	0.011
			Rel.-Other	0.025
			Transphobia	0.002

Source: Recorded crime data from the FBI's Uniform Crime Report.

SCM Results - Anti-White Hate Crime



(a) SCM: Treatment



(b) SCM: Placebos

SCM Results Table

	Treatment Effects		Synthetic Weights	
	Treatment	P-values	Group	Weight
May 2020	0.034	1.000	Antisemitism	0.067
June 2020	1.651	0.000	Arab/Muslim	0.046
July 2020	0.643	0.083	Disability	0.045
August 2020	0.369	0.333	Gender	0.013
Sept. 2020	0.757	0.083	Homophobia	0.266
Oct. 2020	0.244	0.500	Race-Asian	0.069
Nov. 2020	0.528	0.083	Race-Hispanic	0.067
Dec. 2020	0.092	0.714	Nat. Amer.	0.051
			Race-Other	0.235
			Rel.-Christian	0.060
			Rel.-Other	0.065
			Transphobia	0.016

Source: Recorded crime data from the FBI's Uniform Crime Report.

1 RD

- Local and global linear, global quadratic, alternative crime measure, placebo-in-time [Results](#)
- Permutation test [Results](#)

2 ES

- Alternative crime measure, race controls only, substitution/spillover checks, placebo-in-time [Results](#)

3 SCM

- Alternative matching period and crime measure, placebo-in-time, removing homophobia [Results](#)

Mechanisms Summary

- 1 Correlation with cable news headlines and tweets [Results](#)
- 2 Google mobility [Results](#)
- 3 Heterogeneous effects [Results](#)
 - Location of crime
 - County demographics
 - Political party or voting
 - Protest history
 - COVID policies
- 4 Change in reporting probability, police response [Results](#)
 - Probability of reporting victimisation by race
 - Did police behaviour change following protests?
- 5 Comparison to past deaths [Results](#)

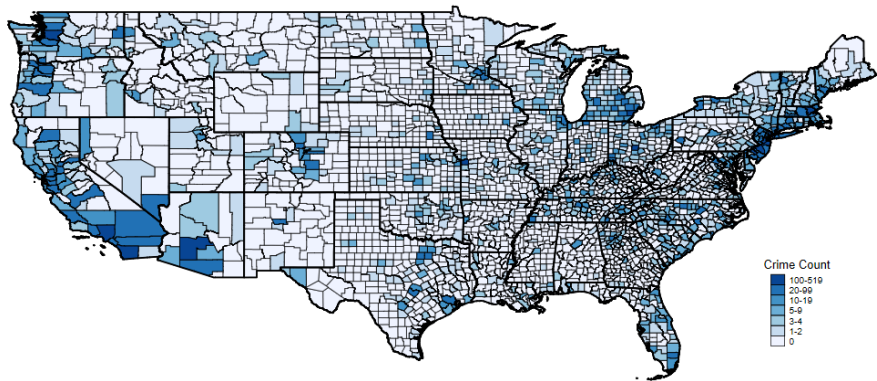
Concluding Remarks

- Hate crimes against Black (White) Americans increased by 260% (160%) in June 2020 and remained elevated through September 2020.
 - Larger than the effect of terrorism, Brexit, Trump, COVID-19, past deaths
- Check for changes in reporting probability
 - One-third of increase in AWHC attributed to increase in reporting
- Increase driven by areas with high changes in unemployment, income (ABHC), and Democratic voting
- Positively correlated with tweets proxying retaliation, protectionism, and opposition to protests
- Significantly correlated with number but not size of protests

THANK YOU

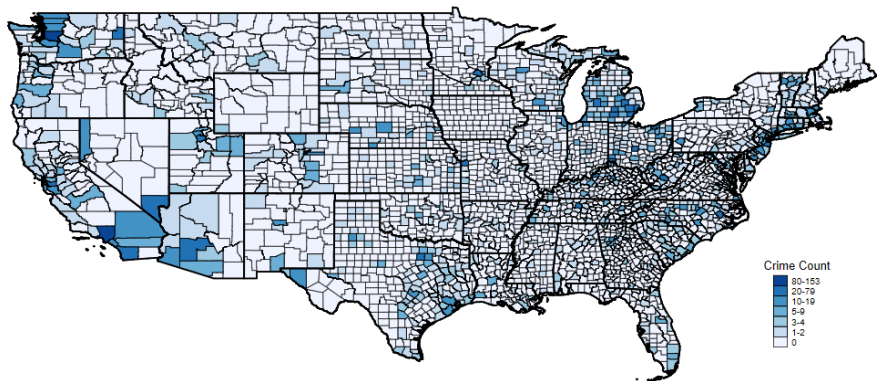
joel.carr@uantwerpen.be

Figure: Anti-Black Hate Crime Map, 2016-2020

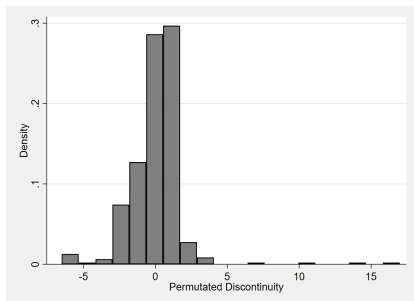


Source: Recorded crime data from the FBI's Uniform Crime Report.

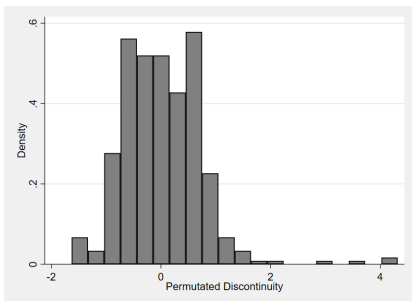
Figure: Anti-White Hate Crime Map, 2016-2020



[Back](#)



(a) Anti-Black Hate Crime

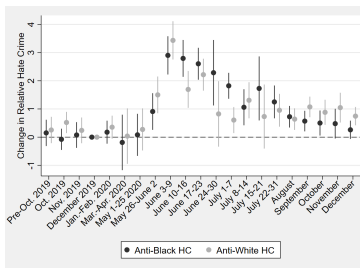


(b) Anti-White Hate Crime

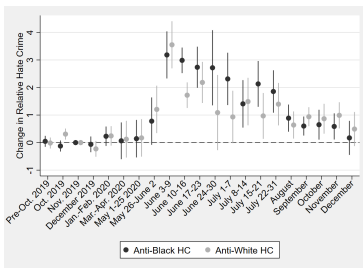
Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Distribution of permuted discontinuities for (a) anti-Black and (b) anti-white hate crime using daily crime count as the outcome variable. Permutations consist of every two days going back 2000 days prior to (and including) the actual discontinuity on 26 May 2020.

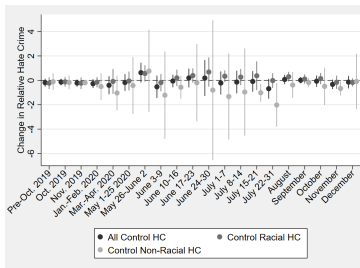
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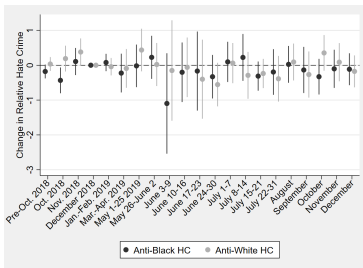
(a) Race Controls Only



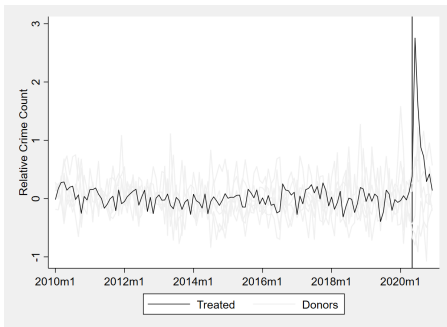
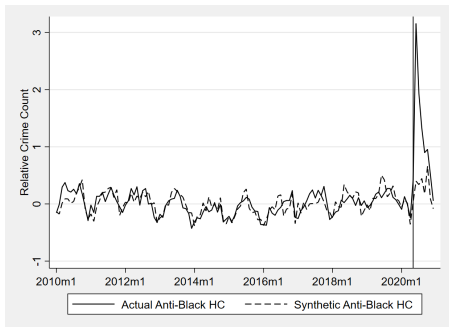
(b) Alternative Baseline



(c) Substitution Effects



(d) Placebo in Time: 2019

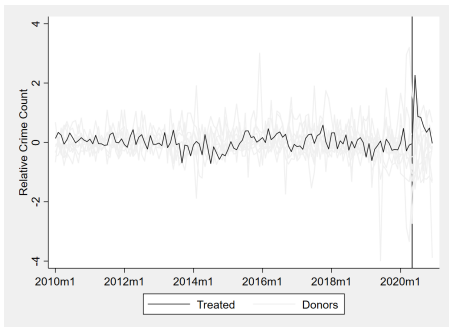
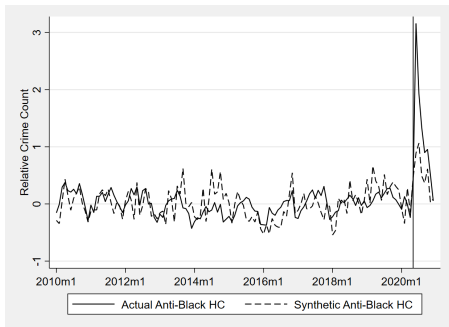


(a) SCM 3 Year Matching: Treatment

(b) SCM 3 Year Matching: Placebos

Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). The treated group is anti-Black hate crime and the control groups are other groups and biases. The matching period is January 2017 to December 2019.

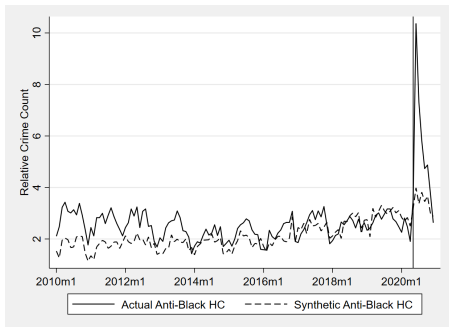


(a) SCM No Homophobia: Treatment

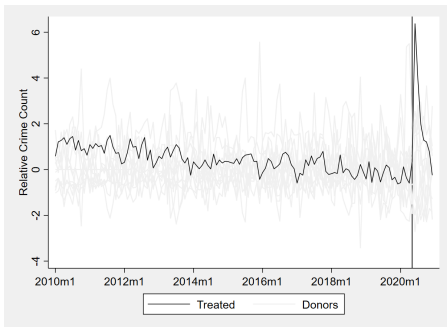
(b) SCM No Homophobia: Placebos

Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). The treated group is anti-Black hate crime and the control groups are other groups and biases excluding homophobic hate crime. The matching period is May 2016 to December 2019.



(a) SCM Std. Dev: Treatment

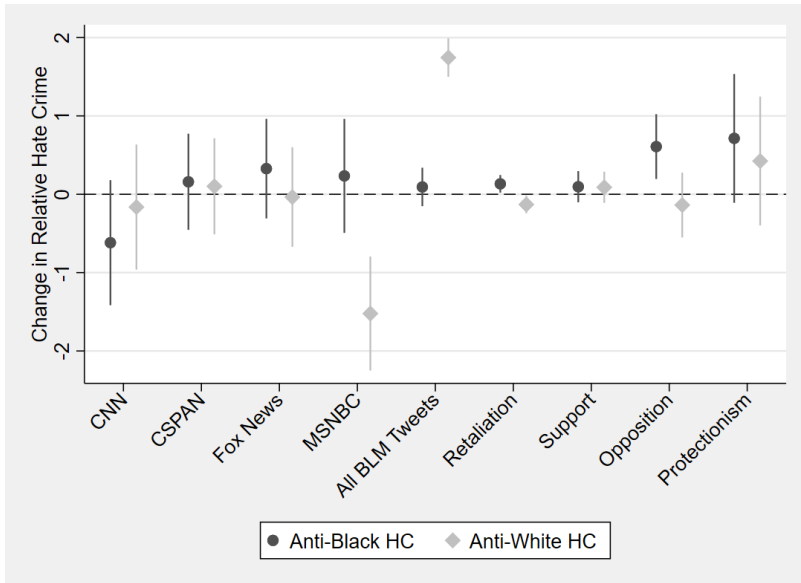


(b) SCM Std. Dev: Placebos

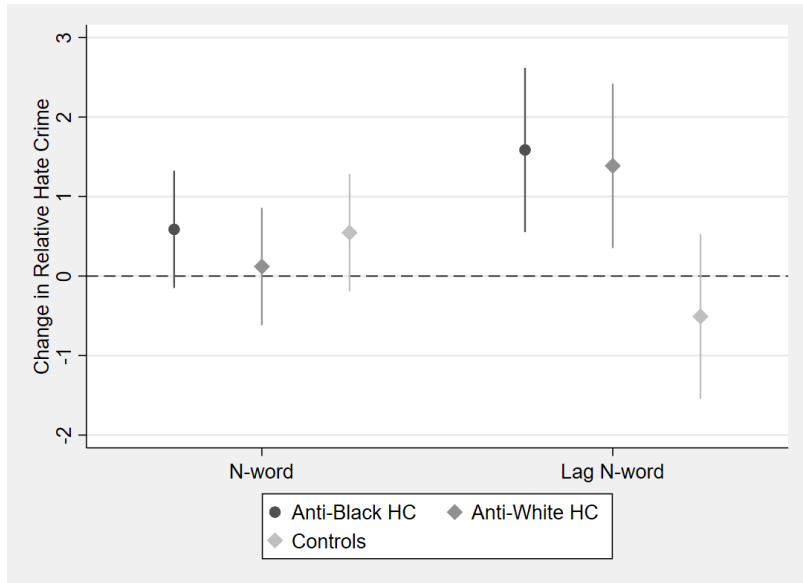
Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as crime count relative to the pre-treatment standard deviation. The treated group is anti-Black hate crime and the control groups are other groups. The matching period is May 2016 to December 2019.

Correlation with Cable Headlines and Tweets



Correlation with N-word



Correlation with Mobility

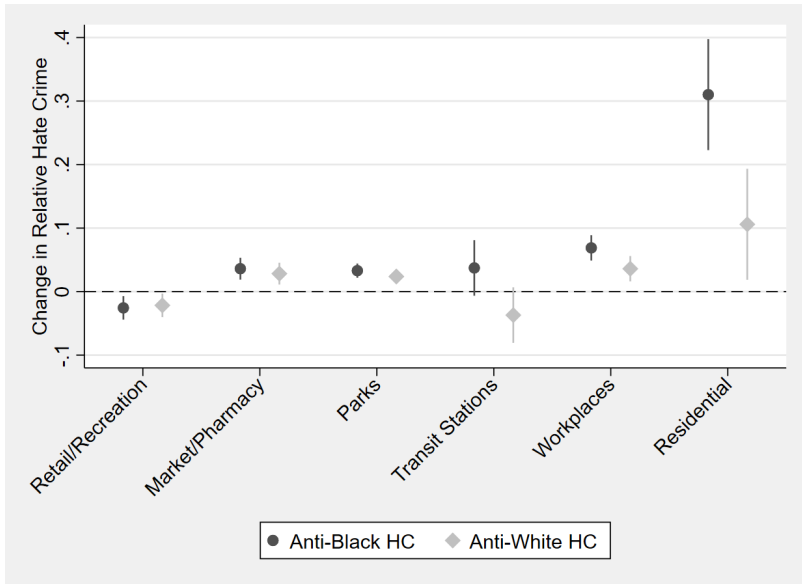
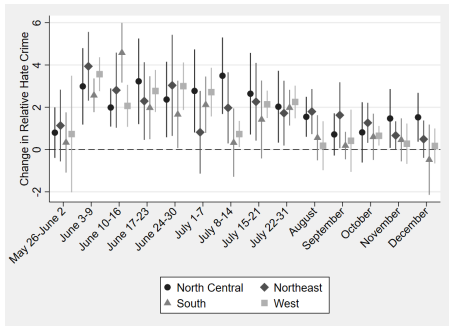
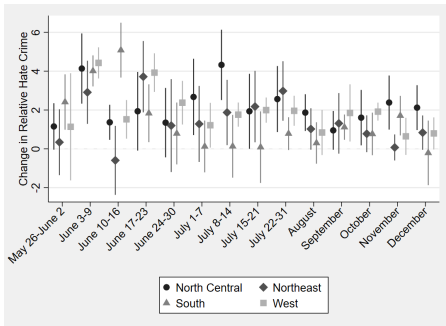


Figure: Results by Region, ES



(a) Region: Anti-Black HC

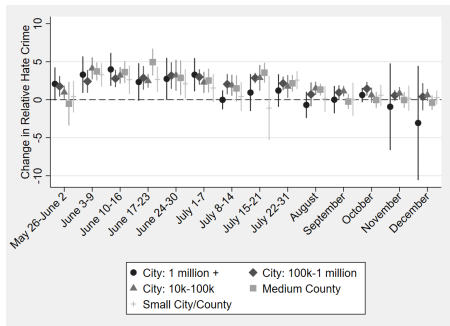


(b) Region: Anti-White HC

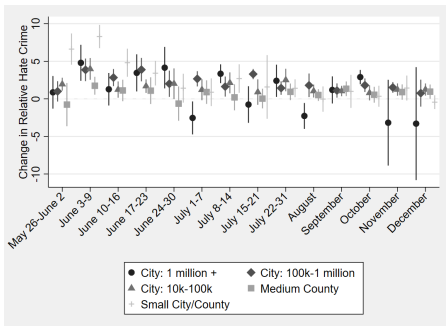
Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. Baseline period is December 2019.

Figure: Results by Location Size, ES



(a) Size: Anti-Black HC

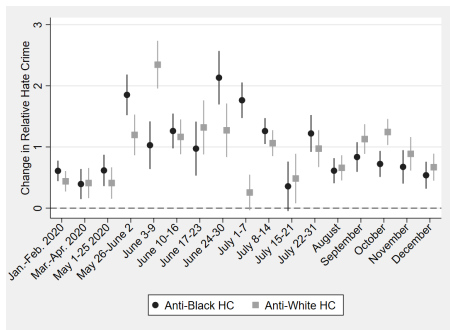


(b) Size: Anti-White HC

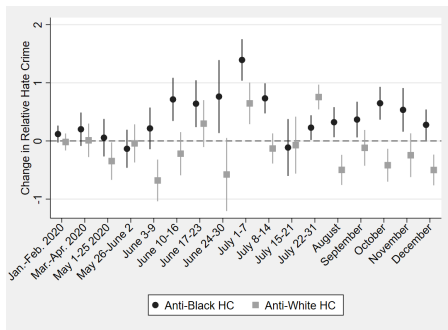
Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. Baseline period is December 2019.

Figure: Results by County Demographics, ES



(a) Change in Unemployment

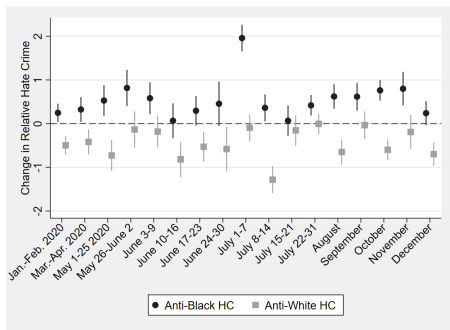


(b) Income

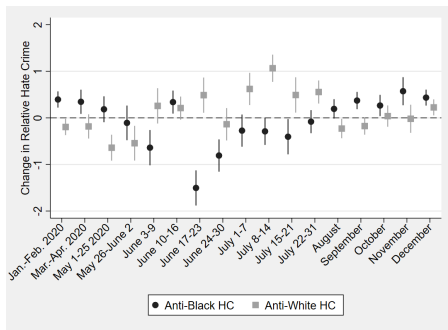
Source: Recorded crime data from the FBI's Uniform Crime Report.

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. These include racial hate crimes against Asians and Pacific Islanders, Native Americans/Alaskans, Hispanics, and Other racial groups, religious hate crimes against Christians, other religious groups, antisemitism, and Arab/Muslims, as well as disability, transgender, gender, and homophobic hate crime. Baseline period is December 2019.

Figure: Results by County Demographics, ES



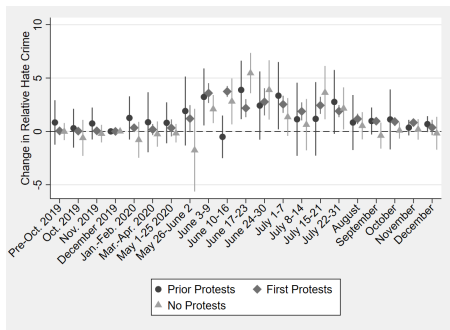
(a) University Degree



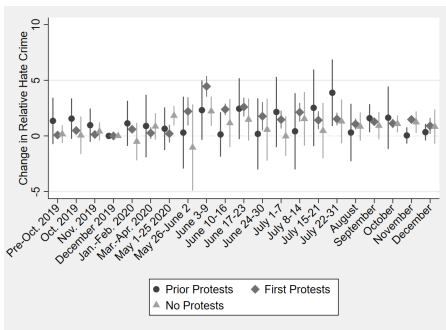
(b) Black Population

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. These include racial hate crimes against Asians and Pacific Islanders, Native Americans/Alaskans, Hispanics, and Other racial groups, religious hate crimes against Christians, other religious groups, antisemitism, and Arab/Muslims, as well as disability, transgender, gender, and homophobic hate crime. Baseline period is December 2019.

Figure: Results by Protest History, ES



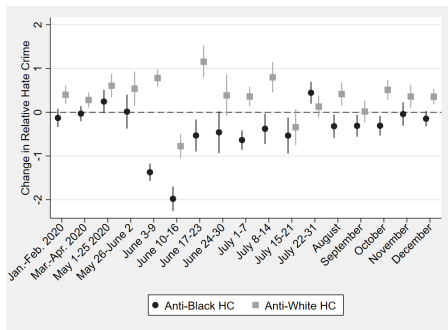
(a) Anti-Black HC



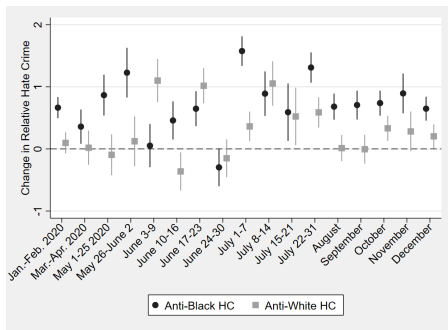
(b) Anti-White HC

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. These include racial hate crimes against Asians and Pacific Islanders, Native Americans/Alaskans, Hispanics, and Other racial groups, religious hate crimes against Christians, other religious groups, antisemitism, and Arab/Muslims, as well as disability, transgender, gender, and homophobic hate crime. Baseline period is December 2019.

Figure: Results by Presidential Voting, ES



(a) Change in Trump Vote



(b) 2016 Presidential Election

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. These include racial hate crimes against Asians and Pacific Islanders, Native Americans/Alaskans, Hispanics, and Other racial groups, religious hate crimes against Christians, other religious groups, antisemitism, and Arab/Muslims, as well as disability, transgender, gender, and homophobic hate crime. Baseline period is December 2019.

Correlation with Protests

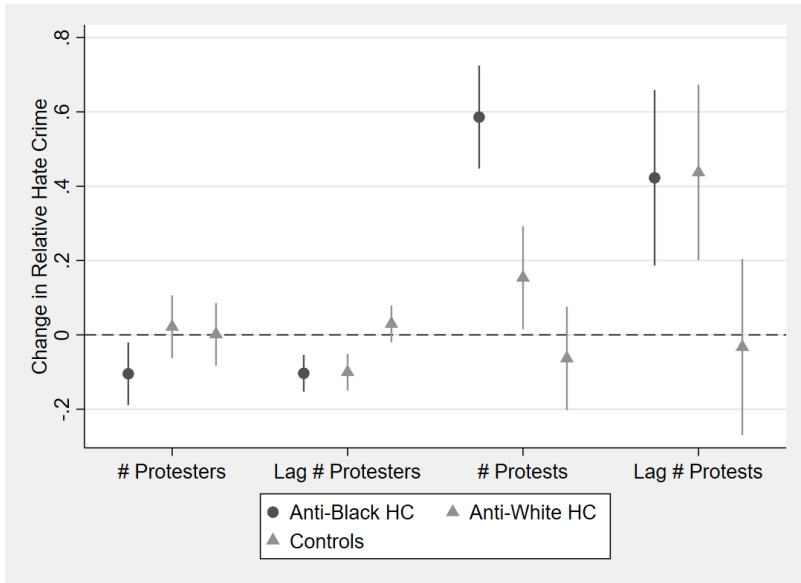
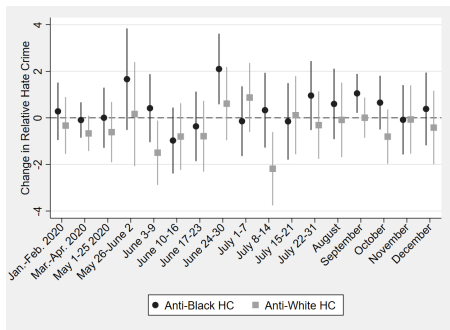
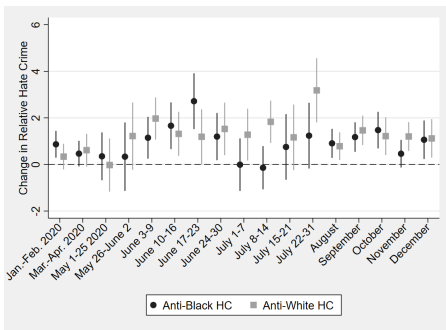


Figure: Results by COVID Policy, ES



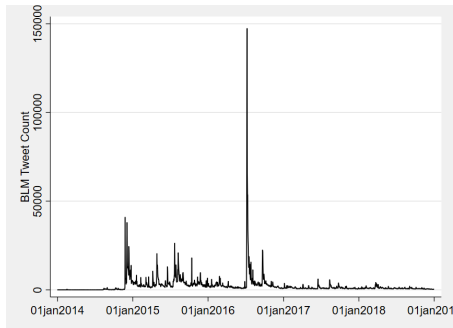
(a) Stringency



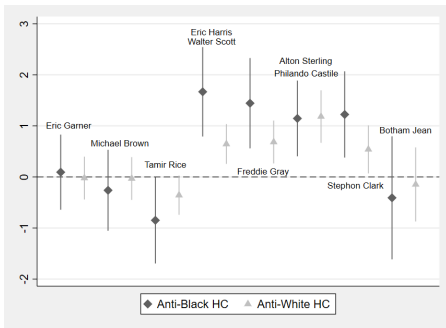
(b) Economic Support

Notes: Outcome variable is measured as deviation from the pre-treatment average relative to the average (percent deviation). Regression population includes control groups of the baseline analyses: other groups and biases. These include racial hate crimes against Asians and Pacific Islanders, Native Americans/Alaskans, Hispanics, and Other racial groups, religious hate crimes against Christians, other religious groups, antisemitism, and Arab/Muslims, as well as disability, transgender, gender, and homophobic hate crime. Baseline period is December 2019.

Comparison to Discontinuities at Past Deaths



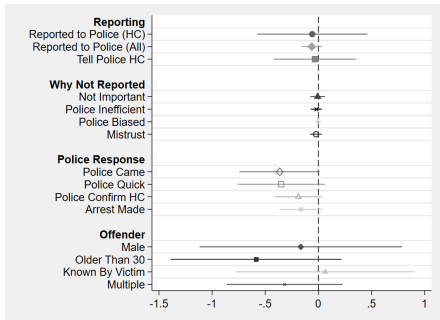
(a) BLM Tweet Count



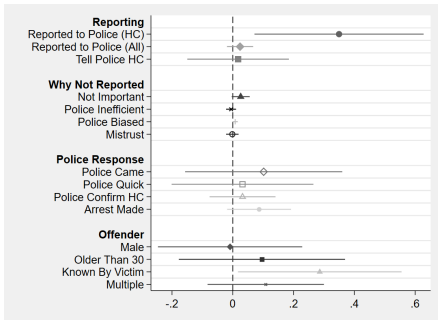
(b) Discontinuities

Notes: Eric Garner (July 17, 2014), Michael Brown (August 9, 2014), Tamir Rice (November 22, 2014), Eric Harris (April 2, 2015), Walter Scott (April 4, 2015), Freddie Gray (April 12, 2015), Alton Sterling (July 5, 2016), Philando Castile (July 6, 2016), Stephon Clark (March 18, 2018), and Botham Jean (September 6, 2018).

Discontinuities in Reporting, Views, and Police Response



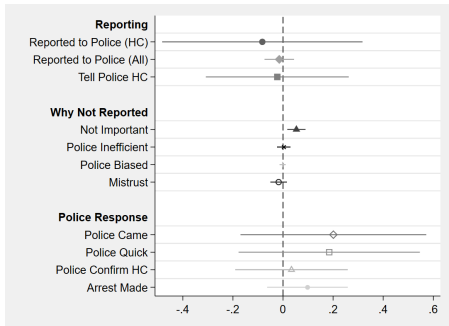
(a) Black Americans



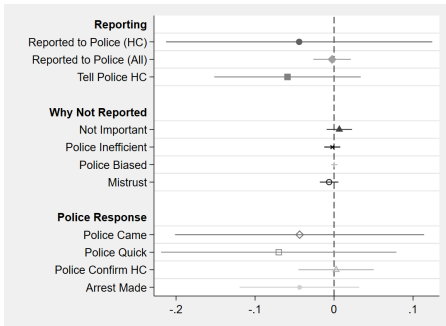
(b) White Americans

Placebo-in-time test Results

Figure: Crime Victimization Survey Robustness



(a) Placebo: Black Americans



(b) Placebo: White Americans

Source: National Crime Victimization Survey.

Notes: Regression discontinuity beginning at the protests with triangular kernel weighting applied. White Americans refer to non-Hispanic Caucasians by self-identification.

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