Competition and Discrimination in Public Accommodations: Evidence from the Green Books

Lisa Cook ^{1,5} Maggie Jones ² Trevon Logan ^{3,5} David Rosé ⁴

¹ Michigan State University

 2 University of Victoria

³The Ohio State University ⁴Wilfrid Laurier University

You may need it.

⁵NBER

MOTIVATION

- ▶ Little is known about the role of consumer discrimination and access to public accommodations for African Americans
 - ▶ Hampered by a lack of data
 - ► A key area of racial discrimination (*Plessy* to Montgomery to Greensboro)
 - ▶ Most contentious issue for the passage of the 1964 Civil Rights Act
- ▶ If the Civil Rights Act of 1964 were invalidated, it would be possible for 5 states to move back to "separate but equal" public accommodations
- ► How important is legislation/regulation in expanding access to public accommodations?
 - Major focus of debate on access for discriminated groups (race, religion, gender identity, etc.)

MOTIVATION:

- ▶ Jim Crow laws segregated African Americans and Whites by law and practice, discrimination in multiple settings and dimensions
- ▶ World War II marked the beginning of a lengthy period of socioeconomic change for African Americans
 - ▶ Wage increases and occupational upgrading, legislative changes, expansion of the franchise, legal bans on discrimination
- Public accommodations were a large part of civil rights activism, legal strategy, and legislative goals

The Green Books Project

We study the economics of segregation using a historical tool that assisted African Americans in navigating segregation



Travel guides published from 1936-1966 including hotels, informal accommodations, restaurants, services

This Paper:

Use the Green Books to study the role of consumer discrimination in upholding segregation before the Civil Rights Act banned discrimination in public accommodations in 1964

What we do

- ▶ We look to see if firms expanded service to Black customers in response to changes in their customer base
- ► Exploit exogenous geographic variation in number of White consumers caused by deaths in WWII
- ► Formalize a model of consumer-driven segregation in public accommodations and present a theoretically-grounded empirical analysis
- Provide a discussion and empirical evaluation of alternatives to the market conditions hypothesis

PREVIEW OF RESULTS

- 1. Difference-in-differences
 - ▶ White casualties directly related to growth in Green Book est
 - ▶ 100 more White casualties \rightarrow 1.4 Green Book est post-WWII
- 2. Model
 - ▶ Firms maintain segregation to appease discriminatory White consumers
 - Ratio of minority to majority consumers plays an important role in determining the ratio of non-discriminatory to discriminatory firms
- 3. Instrumental Variables
 - ► Isolate the profit maximizing motive by instrumenting for the Black-White consumer ratio
 - ▶ 1% increase in the Black-White ratio \rightarrow 2% increase in the firm ratio
- 4. Alternative Explanations
 - Black political activism, increased economic wellbeing, occupational upgrading, and attitude changes are unlikely to explain our findings

CONTRIBUTIONS

1. Consumer Discrimination

Indifferent profit maximizing firms can exist in a discriminatory eq^m if they respond to prejudiced White consumers (Wright, 2013)

- highlight role of consumers in expansion of non-discriminatory firms (Roback, 1986; Anderson and La Croix, 1991; Leonard et al, 2010; Cook, 2012; Gil & Marion, 2018, 2020)
- 2. History of the Civil Rights Movement Results are consistent with strong consumer preferences for discriminatory services which would not be easily bid away via a market process
 - ▶ provide evidence on the necessity of federal policy in overcoming the prevailing social order of this time period
- 3. WWII and Socioeconomic Progress Black-White wage differentials decreased, income and wealth increased, occupational upgrading, educational attainment increased
 - e.g., Maloney, 1994; Margo, 1995; Collins, 2000; Turner & Bound, 2003; Aaronson & Mazumder, 2011; Ferrara, 2020

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OUTLINE OF TALK

- 1. Background on segregation in public accommodations
- 2. Overview of Green Books & data sources
- 3. Empirical approach
- 4. Results
 - a White casualties and growth in GB establishments
 - b Profit maximizing motive theory and empirics
 - c Alternative Explanations
- 5. Conclusion

Segregation in Public Accommodations

► Soon after the 1896 *Plessy v. Ferguson* decision upholding the constitutionality of "separate but equal" public facilities, legal segregation penetrated every facet of social life in the South

"The wall of segregation had become so formidable, so impenetrable, apparently, that the entire weight of the American tradition of equality and all the strength of the American constitutional system had to be brought to bear in order to make even the slightest crack in it."

- John Hope Franklin, 1949

► Segregation continued to be practiced in the North, including protests against desegregation and some towns outright barring African Americans from staying after dark

SEGREGATION IN PUBLIC ACCOMMODATIONS

- ► Some legal desegregation had begun as early as 1911; however, elsewhere segregation laws were still expanding
- ▶ The landmark case *Brown v. Board* banned segregation in schools in 1954 and marked a turning point for Civil Rights
- ▶ Opposition to *Brown v. Board* fueled a robust anti-segregationist response, leading to some of the protests that would become hallmarks for the Civil Rights Movement
- ► The culmination of these events was the passage of Title II of the Civil Rights Act of 1964, which prohibited discrimination in public accommodations on the basis of race, color, religion, or nationality

Segregation in Public Accommodations

"The managers are extremely sensitive to public reaction, and merchants engaged in general merchandising businesses who also have food departments are fearful that if they served all races on an integrated basis in the food department, they will lose a sufficient percentage of their present patronage to the nonintegrated eating establishments in our city to cause a presently profitable food department to operate at a loss."

- Quoted from Wright, 2013, p. 78

- ▶ If businesses segregate because it is profitable, the loss of enough White consumers could entice firms to serve Black patrons
 - 1. Were firm owners correct about the preferences for discriminatory services from their White customers?
 - 2. Would market forces have led to a significant decline in racial discrimination in public accommodations?

The Green Books



Victor Green started the Green Books in 1936 for NYC establishments; by 1939 almost every state was covered in the Green Books

The Green Books



11		COLUMN TWO IS
	Pensacola	
	Hotel Grand2618 Guillemarde St.	
	Rhumboogie Rest	
3	E H Kalle Temalet Heres	
3	St Petersburg	
1	Robert James Hotel 1905 2nd America	
	Mrs. M. C. Henderson Tourist Home 2580 9th Street So.	
11	Tallahassee	
	Abner-Virginia Motel Bragg Dr. at Railroad Avenue	
0.0	Tampa	
	Afro Hotel722 La Salle Street	
	Dallas Hotel	
	Pyramid Hotel 1028 Central Avenue	
	Rogers Hoter	
	CEODCH	
156	GEORGIA	
	Hotels - Motels - Tourist Homes - Restaurants	
	Adviou	
	Wandle Woodst The	
	Albany	
	Mrs A J Ross Tourist Home 514 Manage Street	
	Mrs. C. Washington Tourist Home 228 S. Jackson Street	
1.4	Atlanta	
	Hotel Royal 214 Auburn Avenue, N.E.	
	Mack Hotel	
	Shaw Hotel	
	Walubaja Hatal 239 Auburn Avenue, N.E.	
	Y.M.C.A 29 Butlay Street	
	*UNIVERSITY MOTEL 55 Northeide Drive	
	Connally Tonvist Home 195 Welput Street S.W.	
	Suttons Restaurant 312 Auburn Avenue, N.E.	
	Joe's Coffee Bar 200 Auburn Avenue	
	Paschal Bros. Restaurant	
	Augusta	
	Crimm's Hotel	
	Poster Tourist nome1110 12th Street	
	The Dolma Tanalat Hama 1900 Clauster Street	
	Melody Tourist Inn 1505 "G" Street	
	Columbus	
	Lowe's Hotel	
四門	Y.M.C.A. 521 9th Avenue	
	Carver Heights MotelIllges & Radon Road	
	17	
		and the second

We hand-record over 56,000 entries, including names, descriptions, and addresses in the 1938-1964 Green Books advertisements

The Green Books

Listings came from knowledgeable people writing to the editors

- ▶ Network of Black postal workers
- ▶ Establishments and travel agencies

Distribution was widespread

- ▶ U.S. Travel Bureau promoted the Green Books
- Standard Oil (Esso) sponsored and distributed the Green Books at service stations
- ▶ Circulation was 15,000 copies at its peak, Taylor (2020) claims a distribution of 2,000,000

GREEN BOOK ESTABLISHMENTS, 1938-1964



1950 GREEN BOOKS & DISCRIMINATION LAWS



Discrimination and anti-discrimination laws come from Pauli Murray's States' Laws on Race and Color (1950). The number of Green Book establishments and the number of laws have been residualized by the Black population in 1950.

DATA COLLECTION

i Green Book data

- ► Construct a panel of establishments by county (1939-1955*)
 - ▶ geocode establishments in the US geocoding
 - ▶ infer 0 for counties not listed in the Green Books
 - $\blacktriangleright\,$ break in 1942-1946 for WWII
- ii World War II casualties
 - ▶ Enlistments and casualties from National Archives
 - ▶ digitized and matched by Ferrara (2020)
 - ▶ available by race, skill-level, and county map

iii Additional controls

- ▶ Variety of county-level controls correlated with Green Book presence and WWII
 - Black migration, postal workers, education, household appliances, religiosity, manufacturing, WWII contracts, Confederate symbols, lynchings, residential segregation sources

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Map of # White WWII Casualties



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DATA: SUMMARY STATISTICS

	Listed		Never	Listed
	mean	sd	mean	sd
Green Book Listings				
Eating/Drinking Places	1	3.8	0	0
Gasoline Station	.18	.6	0	0
Barber/Beauty Shop	.6	2.5	0	0
Informal Lodging	1.9	1.9	0	0
Formal Lodging	1.1	2.1	0	0
County Demographics				
White population (000s)	158	341	21	39
Black population (000s)	17	35	2.3	5
Black to white pop. ratio	.25	.38	.21	.51
Farmland share	.6	.27	.71	.27
Rural Black population share	.34	.3	.54	.44
Black migrants b/w (1935-40)	.067	.071	.051	.14
Black migrants w/in (1935-40)	.56	.12	.36	.31
Black postal workers	11	42	.12	.53
Residential Segregation & Dis-				
crimination				
Dissimilarity index	.64	.18	.5	.32
Isolation Index	.25	.2	.09	.12
Logan & Parman index	.57	.22	.39	.27
Confederate symbol count	1.8	4.4	.32	.98
Historical Black lynchings	1.7	3.7	.71	2
World War II				
Eligible white draft (males 18-64)	518	1161	41	55
White mortality count	244	484	34	63
Observations	387		2,718	

OUTLINE OF EMPIRICAL APPROACH Exploit exogenous Δ in White population due to WWII

▶ Racial segregation in the military meant that Whites had proportionally higher enlistment and combat assignments

"In not one instance, Mr. President, could they place a Negro officer in a responsible position. In not one instance could they place upon his shoulders the responsibility of combat [...] The Negro soldier was an utter and dismal failure in combat in Europe."

- Senator James Eastland (D-MS)

▶ Blacks had lower mortalities due to lower enlistments, segregation in the army, and assignment to non-combat roles

Diff-in-Diff: compare changes in the # of Green Book establishments over time and across counties with varying levels of White casualties (Ferrara, 2020; Jaworski, 2014; Goldin and Olivetti, 2013; Acemoglu, Autor, and Lyle, 2004)

DIFF-IN-DIFF FRAMEWORK:

 $GB_{ct} = \alpha + \beta \underbrace{\text{casualties}_c \times \text{post-WWII}_t}_{\text{Treatment}} + \gamma_c + \delta_t + \epsilon_{ct}$

- GB_{ct} is the # of Green Book listings in county c in year t
- $\blacktriangleright\,$ time-invariant differences across counties: γ_c
- secular changes in outcome across time: δ_t
- replace γ_c with matrix of county-level controls: $\mathbf{X}_{ct} \boldsymbol{\Theta}$

 $\hat{\beta}$ is the parameter estimate of interest

UNDERLYING ASSUMPTIONS

- 1. Changes in Green Book listings must reflect real changes in public accommodations, *not* merely selection **Selection Balance**
 - Sufficient that selection not happening differentially in high and low mortality counties
- 2. No anticipation effects—GB establishments should not have been increasing in expectation of White mortality in WWII
- 3. Parallel trends—in absence of WWII, counties would have experienced same growth in GB establishments Event Study

RESULTS

	(1)	(2)	(3)	(4)	(5)
# White Deaths \times Post-WW2	1.388^{***}	1.133^{***}	1.388^{***}	1.489^{***}	1.736^{***}
	(0.247)	(0.354)	(0.258)	(0.278)	(0.512)
County Controls		Х			Х
County F.E.			Х	Х	
Year F.E.		Х	Х	Х	Х
State F.E.	Х				
State X Year F.E.				Х	
County X Linear Trends					Х
Observations	37260	37260	37260	37260	37260
Adjusted R^2	0.448	0.719	0.892	0.896	0.940
Clusters	3105	3105	3105	3105	3105

Table: Effects of White Casualties on the Number of Establishments

Notes: The dependent variable in all columns is the total number of Green Book establishments. Standard errors clustered by county in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01



RESULTS BY REGION

Table: Effects of White Casualties on the Number of Establishments by Region

	(1)	(2)	(3)	(4)	(5)
	Midwest	Northeast	South	West	Total
# White Deaths \times Post-WW2	1.438***	1.399^{***}	1.943^{***}	1.592^{***}	
	(0.536)	(0.451)	(0.551)	(0.114)	J
# White Deaths \times Post-WW2 (Midtwest)					1.486^{***}
					(0.534)
# White Deaths \times Post-WW2 (Northeast)					1.257^{***}
					(0.390)
# White Deaths \times Post-WW2 (South)					1.976^{***}
					(0.483)
# White Deaths \times Post-WW2 (West)					1.590^{***}
					(0.117)
Observations	12672	2604	17016	4968	37260
Adjusted R^2	0.775	0.938	0.864	0.930	0.893
Clusters	1056	217	1418	414	3105
<i>p</i> -value on joint significance test					0.667

Notes: The dependent variable in each regression is the number of Green Book establishments. All columns include county and year fixed effects. Standard errors clustered by county in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01

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Results by Industry

Table: Effects of White Casualties on the Number of Establishments by Industry

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total	Barber &	Eating &	Gas &	Formal	Informal	Other Retail
		Beauty	Drinking	Auto	Lodging	Lodging	& Service
# White Deaths \times Post-WW2	1.388^{***}	0.167^{***}	0.738^{***}	0.0611^{*}	0.146^{***}	0.0171	0.259^{***}
	(0.258)	(0.060)	(0.185)	(0.033)	(0.043)	(0.013)	(0.046)
Observations	37260	37260	37260	37260	37260	37260	37260
Adjusted R^2	0.892	0.805	0.866	0.772	0.905	0.854	0.785
Clusters	3105	3105	3105	3105	3105	3105	3105

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RESULTS: ADDITIONAL SPECIFICATIONS

Table: Effects of White Casualties on the Number of Establishments: Intensive vs. Extensive Margins

	(1)	(2)	(3)	(4)
	Total	$\Pr(\text{GB} = 1)$	Had GB 1939	Asinh(# GB)
# White Deaths \times Post-WW2	1.388^{***}	0.00332	1.368***	
	(0.258)	(0.002)	(0.300)	
$ainsh(\# White Deaths) \times Post-WW2$				0.0646^{***}
				(0.009)
Observations	37260	37260	4752	37260
Adjusted R^2	0.892	0.856	0.892	0.906
Clusters	3105	3105	396	3105

Notes: All columns include county and year fixed effects. Standard errors clustered by county in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01

Heterogeneity

Model Sketch

Goal: Capture the equilibrium relationship between firms' decisions to discriminate and consumer preferences for discrimination.

- \Rightarrow Elements of Becker (1957) and Salop (1979)
- 1. Firms choose whether to enter a segregated or non-segregated sub-market (each one is a unit circle)
- 2. Firms set prices
- 3. Consumers make purchases
 - a. White consumers choose which sub-market to buy from, some are prejudiced against shopping alongside Blacks
 - b. Black consumers buy from the segregated market

Model: Bottom Line

Firm j enters the segregated market if:



In equilibrium the following condition arises:

$$\frac{N^0}{N^1} = \sqrt{\frac{\theta + (1-\theta)F(\bar{\eta})}{(1-\theta)[1-F(\bar{\eta})]}}$$

▶ N^0 (N^1) is the number of non-segregated (segregated) firms

- ▶ θ is the share of the Black population
- $F(\bar{\eta})$ is the share of the non-discriminatory White population
 - prejudice is below a cut-off level, $\bar{\eta}$

Connecting the Model with Empirics

Model:



Empirics:

 $\ln(\text{firm ratio})_{ct} = \gamma_0 + \gamma_1 \ln(\text{b-w consumer ratio})_{ct} + \rho_c + \delta_t + \epsilon_{ct}$

Caveats:

Ignores changes in $\bar{\eta}$ that may affect the # of non-discriminatory consumers. Changes in $\bar{\eta}$ not present in discussions of consumer preferences in the literature. Endogenous population change is key threat.
CONNECTING THE MODEL WITH EMPIRICS Solution:

Instrument for the Black-White population ratio using the number of White casualties in a difference-in-differences model

1st Stage:

$$\begin{aligned} \ln(\text{b-w ratio})_{ct} &= \alpha_0 + \alpha_1 \ln(\text{casualties} \times \text{post-WW2})_{ct} + \\ &\alpha_2 \ln(\text{casualties})_c + \alpha_3 \ln(\text{post-WW2})_t + \varepsilon_{ct} \end{aligned}$$

2nd Stage:

$$\ln(\text{firm ratio})_{ct} = \gamma_0 + \gamma_1 \ln(\widehat{\text{b-w ratio}})_{ct} + \epsilon_{ct}$$

Advantage:

Directly isolates the mechanism through which White casualties impact the growth in Green Book establishments

Measuring Non-GB Establishments

Digitize # of hotels in 1,915 counties in 1935 & 1948 Census of Business

State and County	Num- ber of Estab- lish- ments	Total number of guest rooms	Receipts	Active pro- prie- tors and firm mem- bers	Employ- ees (full- time and part- time). Average for year.	Total pay roll*
ALABAMA	248	9,728	\$4,223	210	2,656	\$998
Baldwin Butler	83	170 49	29 14	7 3	16 9	4
Clarke	7	223 83	84 22	5	64 16	20
Colbert	3	137	50	2	35	15
Covington	8	124	34	7	31	8
Dellas	5	247	61	4	45	21
De KALD Freembie	2	134	14 27	3 2	23	ວ ສ

Compute # of discriminatory hotels as: # COB Hotels - # GB Hotels Results

Are Hotels the Right Industry?

- 1. Historical argument Empirical Evidence
 - ► Hotels are most frequently listed type of establishment in Green Books and main informational problem guides aimed to solve
 - ▶ Discrimination at hotels occurred at the extensive margin
 - ▶ Hotel analysis may provide a lower bound estimate of the market conditions hypothesis
- 2. Empirical argument Empirical Evidence
 - ▶ Number of hotels proportional to local population
 - Market composition of travelers is proportional to the market composition of local residents

We will present results for both own county and own + neighbor county population changes

RESULTS: FIRM VS. POPULATION RATIO

Table: The Relationship Between Firm Ratios and Population Ratios

	Marl	ket: Own C	County	Marke	eighbor	
	(1)	(2)	(3)	(4)	(5)	(6)
asinh(B-W Population Ratio)	0.406 (0.404)			0.262 (0.305)		
asinh(Black Population)	()	0.0574^{**} (0.023)	0.0306^{*} (0.017)	(*****)	0.0717^{**} (0.029)	0.0532^{**} (0.021)
asinh(White Population)		-0.0255	()		0.00200	()
as inh(# White Deaths) X post-WWII		(0.074)	0.0273^{**} (0.013)		(0.074)	0.0200^{*} (0.012)
Observations	751	751	751	749	749	749
Adjusted R^2	0.440	0.440	0.448	0.435	0.444	0.450
Clusters	396	396	396	395	395	395

Notes: The dependent variable in all columns is the asinh of the ratio of Green Book to non-Green Book establishments. All columns include county and year fixed effects. Standard errors clustered by county in parentheses. * p < .10, ** p < .05, *** p < .01

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RESULTS: FIRST STAGE

Table: First Stage for IV Results of White Casualties on Black/White Population Ratio

	Mark	et: Own Co	ounty	Marke	Market: Own+Neighbor			
	(1)	(2)	(3)	(4)	(5)	(6)		
Dependent Variable:	B-W	B-W	$\Delta B-W$	B-W	B-W	$\Delta B-W$		
	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio		
as inh(# White Deaths) \times Post-WW2	0.0215^{***} (0.004)	0.0108^{***} (0.003)		0.0200^{***} (0.003)	$\begin{array}{c} 0.0114^{***} \\ (0.003) \end{array}$			
asinh(# White Deaths)			0.0133^{***}			0.0135^{***}		
			(0.003)	J		(0.004)		
County F.E.	Х	х		х	х			
Year F.E.	Х	х		Х	Х			
State \times Year F.E.		Х			Х			
State F.E.			Х			Х		
Observations	792	792	396	790	790	395		
Adjusted R^2	0.982	0.988	0.353	0.988	0.993	0.464		
Clusters	396	396	46	395	395	46		

Notes: Standard errors clustered by county in columns (1), (2), (4), and (5) and by state in (3) and (6). * p < .10, ** p < .05, *** p < .01

RESULTS: FIRST STAGE

Table: First Stage for IV Results of White Casualties on Black/White Population Ratio

	Marl	ket: Own C	ounty	Marke	Market: Own+Neighbor				
Dependent Variable:	(1) B-W	(2) B-W	(3) $\Delta B-W$	(4) B-W	(5) B-W	(6) $\Delta B-W$			
	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio			
as inh(# White Deaths) \times Post-WW2	$\begin{array}{c} 0.0215^{***} \\ (0.004) \end{array}$	0.0108^{***} (0.003)		0.0200*** (0.003)	0.0114^{***} (0.003)				
asinh(# White Deaths)			$\begin{array}{c} 0.0133^{***} \\ (0.003) \end{array}$			0.0135^{***} (0.004)			
County F.E.	Х	Х		Х	Х				
Year F.E.	Х	Х		X	Х				
State \times Year F.E.		Х			х				
State F.E.			Х			Х			
Observations	792	792	396	790	790	395			
Adjusted R^2	0.982	0.988	0.353	0.988	0.993	0.464			
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RESULTS: IV

Table: Market Composition and the Ratio of GB to non-GB Firms

Dependent Variable:		asinh($asinh(\Delta$	$\frac{GB}{non-GB}$)		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	IV	OLS	IV	OLS	IV

Panel A: Market: Own County

asinh(B-W Ratio)	0.406	1.582^{***}	0.0649	2.341^{**}		
$\operatorname{asinh}(\Delta$ B-W Ratio)	(0.404)	(0.462)	(0.490)	(0.314)	0.0267 (0.263)	2.053^{**} (0.809)
County F.E. State X Year F.E.	х	Х	х	х		
State F.E.					Х	Х
Observations	751	710	751	710	355	355
Clusters	396	355	396	355		
First Stage F -Stat		64.87		31.50		26.14

Notes: The dependent variable is the asinh of the ratio of GB to non-GB hotels in cols (1)-(4); in cols (5) and (6) it is the asinh of the change in the number of GB to non-GB hotels between 1940 and 1950. Standard errors clustered by county in (1)-(4) and state in (5) and (6). * p < 0.10, *** p < 0.05, **** p < 0.01 Own + Neighbor

RESULTS: IV

Table: Market Composition and the Ratio of GB to non-GB Firms

Dependent Variable:		$asinh(\frac{1}{2})$	$asinh(\Delta \frac{GB}{non-GB})$			
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	IV	OLS	IV	OLS	IV

Panel A: Market: Own County

$a\sinh(B-W \text{ Ratio})$ $a\sinh(\Delta B-W \text{ Ratio})$	$\begin{array}{c} 0.406 \\ (0.404) \end{array}$	1.582^{***} (0.482)	0.0649 (0.496)	2.341^{**} (0.914)	0.0267 (0.263)	2.053^{**} (0.809)
County F.E. State X Year F.E. State F.E.	Х	Х	Х	х	X	X
Observations Clusters First Stage <i>F</i> -Stat	751 396	710 355 64.87	751 396	$710 \\ 355 \\ 31.50$	355	355 26.14

Notes: The dependent variable is the asinh of the ratio of GB to non-GB hotels in cols (1)-(4); in cols (5) and (6) it is the asinh of the change in the number of GB to non-GB hotels between 1940 and 1950. Standard errors clustered by county in (1)-(4) and state in (5) and (6). * p < 0.10, *** p < 0.05, **** p < 0.01 Own + Neighbor

ALTERNATIVE EXPLANATIONS

i Changes in the attitudes of White veterans

- ► *Positive:* interaction with African Americans during the war led to more favorable attitudes towards desegregation
- ► *Negative:* Whites may have seen the increase in Black social standing within the military as a threat to the prevailing social order
- ▶ White (2019) shows that WWII service had limited impact on changing social views among White veterans
- ii Black political involvement
 - Returning Black veterans spurred the Civil Rights Movement Double V Campaign eventually became national in nature
- iii Changes in the economic conditions of Black Americans
 - Marked increase in economic wellbeing of African Americans during and after WWII (Margo, 1995; Collins, 2001)
 - ▶ Black workers filled semi-skilled labor shortages induced by casualties among Whites in WWII (Ferrara, 2020)

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Dependent Variable:		# GB Est	ablishment	s		asinh(d)	$\Delta \frac{GB}{non-GB}$)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	OLS	OLS	OLS	OLS	IV	IV	IV
# White Deaths × Post-WW2	1.388^{***}	1.389^{***}	1.388^{***}	1.393^{***}				
	(0.258)	(0.266)	(0.258)	(0.259)				
Δ B-W Ratio					0.0267	2.053^{**}	2.292^{**}	1.260^{**}
					(0.263)	(0.809)	(0.899)	(0.570)
# of NAACP Chapters/Branches		-0.0169						
		(0.285)						
Has an NAACP Chapter/Branch			-0.106					
			(0.176)	J				
Δ NAACP Chapters							-0.0431	
							(0.031)	
% Black Employed				-0.0395				
				(0.306)				
Occupational Rank				-0.000126				
				(0.016)				
Δ Avg Black Occ Rank								-0.0321^{**}
								(0.015)
Δ Avg Black Employment								0.166^{*}
								(0.085)
Observations	37260	37260	37260	37260	355	355	355	355
Adjusted R^2	0.892	0.892	0.892	0.892	0.099			
Clusters	3105	3105	3105	3105				
First Stage F-Statistic						26.14	22.40	31.43

Dependent Variable:		# GB Est	ablishmen	ts		asinh($\Delta \frac{GB}{non-GB}$)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	OLS	OLS	OLS	OLS	IV	IV	IV
# White Deaths × Post-WW2	1.388^{***}	1.389^{***}	1.388^{***}	1.393^{***}				
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		(0.285)						
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			(0.176)					
Δ NAACP Chapters							-0.0431	
							(0.031)	
% Black Employed				-0.0395				
				(0.306)				
Occupational Rank				-0.000126				
				(0.016)				
Δ Avg Black Occ Rank				<u> </u>	, 			-0.0321**
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	OLS	OLS	OLS	OLS	OLS	IV	IV	IV
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	(0.258)	(0.266)	(0.258)	(0.259)				
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# of NAACP Chapters/Branches		-0.0169			. ,	. ,	. ,	· · · ·
		(0.285)						
Has an NAACP Chapter/Branch		()	-0.106					
Hab an Hiller Chapter/Branch			(0.176)					
A NAACP Chapters			(0.110)				0.0431	
A NAAOI Ollapteis							(0.021)	
7 Plast Employed				0.0205			(0.031)	
70 Black Elliployed				-0.0393				
O I I D I				(0.300)				
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DISCUSSION OF OCCUPATION CHANGES

Occupational change during 1940s well documented for African American population (e.g., Maloney, 1994; Margo, 1995; Collins, 2000; Turner & Bound, 2003; Whatley et al. 2003; Aaronson & Mazumder, 2011; Ferrara, 2020; Aizer et al. 2020)

- ▶ Labour shortages in semi-skilled occupations were filled by Blacks
- ▶ Entirely driven by casualties among White semi-skilled workers

We test to see whether semi-skilled deaths are behind our results:

$$GB_{ct} = \alpha + \sum_{s \in skills} \beta_s casualties_{sc} \times post-WWII_t + \gamma_c + \delta_t + \epsilon_{ct}$$

where s indexes the skill level of casualties

1

▶ skills = {unskilled, clerical, semi-skilled, skilled, prof., service}

RESULTS: OCCUPATIONAL UPGRADING?



Treatment effect computed using casualties among Whites in various types of occupations. All treatment effects computed jointly.

CONCLUSION

- ▶ We use a new national dataset of non-discriminatory firms to show that WWII was a followed by a period of increased access to non-discriminatory public accommodations for African Americans
- ▶ We suggest that the increase is causally related to White casualties in WWII
- ▶ Our interpretation, grounded in Wright (2013), is that profit maximizing firms responded to the change in the market composition of Black and White consumers
 - ▶ We present a model and related empirical exercise that is lends provides support to this explanation
 - ► Show that our results are unlikely to be driven by common alternative explanations

Advertisements in the Green Books



An example of an advertisement found in the 1956 Green Book for the "Amigo Motel and Cafe" in Tucumcari, New Mexico.



DATA GEOCODING

- ▶ An initial pass was implemented by running all addresses through the U.S. Census Geocoder
- ► About 50% of the addresses returned an exact match
- ► A second pass was implemented by hand checking each address in the Green Books in Google Maps
- ► A final high-level error-check was completed by running the coordinates through a feature manipulation engine to verify that they lay within the state boundaries of the state corresponding to the coordinates' entry in the Green Books
- ▶ About 11% of addresses were not able to matched at all, in which case the centroid of the city was assigned as the geocoded location of the establishment

Advantages of Geocoding Approach

- ▶ First, there are idiosyncratic errors in the Green Books that miscode names and locations of businesses in one year.
- ► Second, since our procedure involved checks of addresses against two sources for geocoding, we have a substantially higher match rate than other studies
- ▶ Third, our method works to ensure that the overall match rate is not driven by urban locations alone, as a failure to accurately account for rural establishments could result in biases inference from the data.

Table: Idiosyncratic Greenbook Entries

Example Fresno Motel	Year 1957 - 1962 1963	Establishment Fresno Motel Fresno Hacienda	Address Hwy. 99 Hwy. 99 and Clinton	City Fresno, CA Fresno, CA	Type Lodging Lodging
Summer's Hotel & Resto.	1947-52	Jim Summers	719 S. Main St	Camden, AR	Restaurant
	"	Summers	715 1/2 S. Main Street	Camden, AR	Liquor store
	1953	Summer's Hotel & Court	721 Adams Street	Camden, AR	Lodging
1954 1955	1954	Summer Hotel	754 1/2 Adams St. S. W.	Camden, AR	Lodging
	1955	Summer Hotel	740 Adams Ave. S.W. Camden, AR		Lodging
$\begin{array}{c} 1956 \\ \& \end{array}$		Summers Hotel & Restaurant	740 Adams Avenue S.W.	Camden, AR	Lodging & Resto.
	1957	Summer's Hotel & Motel	750-754 1/2 Adams Ave.	Camden, AR	Lodging

DATA COLLECTION AND GEOCODING

- ▶ The geocoding required overlays to historical road maps to uncover all locations
- ► Highly successful exact match rate, especially given the problems with locating rural establishments

Match Type	Count	Percent
Centroid of city	$5,\!377$	9.31
Midpoint of street	$4,\!687$	8.11
Match	$47,\!559$	82.32

back

Additional Data Sources

County-level controls:

- ▶ 1940 Census of population (IPUMS)
- ► ICPSR Historical, Demographic, Economic, and Social Database
- ▶ National Lynching Database (Cook, 2012)
- ► Confederate symbols (Southern Poverty Law Center)
- ► Segregation Index (Logan and Parman, 2017)

Assumption: Selection



back

BALANCE IN COVARIATES



Assumptions: Parallel Trends

Event Study Analysis:

$$GB_{ct} = \psi_c + \phi_t + \sum_{t=1939, \neq 1941}^{1955} \delta_t \mathbb{1}(\text{year} = t) \times \text{casualties}_c + \epsilon_{ct}$$

▶ Omitted year is 1941, the year that the U.S. entered WWII

If there are no differential pre-trends in GB_{ct} , then $\hat{\delta}_t$ will not be statistically different from 0 for t < 1941

EVENT STUDY: PARALLEL TRENDS



Event study estimates $(\hat{\delta}_t)$ on the interaction of White casualties and each year before and after WWII Including 1938 back

EVENT STUDY - INCL. 1938



Event study estimates $(\hat{\delta}_t)$ on the interaction of White casualties and each year before and after WWII (back to 1939) (back to assumptions)

Results: Trimming Percentiles



Treatment effects and 95% confidence intervals from trimming the top and bottom percentiles of the distribution of White casualties during WWII (back)

VARYING THE SAMPLE WINDOW

Estimates of the interaction of White casualties and a post-WWII indicator using different time frames back

RESULTS: ADDITIONAL SPECIFICATIONS

Table: Effect of White Casualties on the Number of Green BookEstablishments: Alternative Samples and Specifications

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total	Outside	Inside	All	Some	All	Population	Dropped
		SMA	SMA	Rural	Rural	Urban	Weighted	P-tiles
# White Deaths \times Post-WW2	1.388^{***}	-0.00271	1.390^{***}	-0.765	1.221***	1.586^{***}	1.268^{***}	1.270***
	(0.258)	(0.004)	(0.259)	(2.275)	(0.297)	(0.566)	(0.293)	(0.263)
Observations	37260	37260	37260	1321	5620	30319	37176	36204
Adjusted R^2	0.892	0.854	0.896	0.536	0.840	0.929	0.913	0.845
Clusters	3105	3105	3105	1053	1369	2837	3098	3017

Notes: The dependent variable in each regression is the number of Green Book establishments. All columns include county and year fixed effects. Standard errors clustered by county in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01

back

ARE HOTELS THE RIGHT INDUSTRY?

Number of Green Book Hotels (1950) and Number of Hotels Listed in Wisconsin Black Business Directory (1950) at the State Level

ARE HOTELS THE RIGHT INDUSTRY?

Number of Green Book Hotels (1950) and Number of Hotels Listed in Wisconsin Black Business Directory (1950) at the City Level

back

ARE HOTELS THE RIGHT INDUSTRY?

Table: Correlation Between Number of Green Book Hotels and Other Measures of Hotels

	1935 Census of Business	1950 Wisconsin Black Business Directory		
	(1)	(2)	(3)	
asinh(# Black-Owned Hotels (COB))	0.735^{***} (0.108)	; ; ;		
asinh (# Black-Friendly Hotels (WBBD))		0.539^{***} (0.100)	0.294^{***} (0.052)	
Intercept	$\begin{array}{c} 0.998^{***} \\ (0.230) \end{array}$	$\begin{array}{c} 1.609^{***} \\ (0.220) \end{array}$	$\begin{array}{c} 0.885^{***} \\ (0.046) \end{array}$	
State Level	Х	х		
City Level			Х	
Observations	49	49	373	
Adjusted R^2	0.487	0.366	0.077	

Notes: The dependent variable in each column is the inverse hyperbolic sine of the number of Green Book hotels. Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01 back
ARE HOTELS THE RIGHT INDUSTRY?

	2018 Census Bureau		1958 Consumer Attitudes			
	Log # Hotels	Log # Hotels	Visit Friend/ Family	< 200 Miles		
Log(Population)	0.630^{***} (0.026)	0.674^{***} (0.024)				
Black respondent			-0.0203 (0.033)	-0.0408 (0.058)		
Intercept			0.293*** (0.040)	0.284^{***} (0.067)		
State F.E.		Х				
Clusters Observations	$49 \\ 2167$	$49 \\ 2167$	$83 \\ 1446$	$81 \\ 617$		

Table: Supporting Evidence for Focusing on Hotels

Notes: Standard errors clustered by state in columns (1) and (2) and by sampling unit (city/suburb) in columns (3) and (4). * p < 0.10, ** p < 0.05, *** p < 0.01 back

ARE HOTELS THE RIGHT INDUSTRY?

	2018 Census Bureau		1958 Consumer Attitudes			
	Log #	Log #	Visit Friend/	< 200		
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Intercept			0.293^{***}	0.284^{***}		
			(0.040)	(0.067)		
State F.E.		Х				
Clusters	49	49	83	81		
Observations	2167	2167	1446	617		

Table: Supporting Evidence for Focusing on Hotels

Notes: Standard errors clustered by state in columns (1) and (2) and by sampling unit (city/suburb) in columns (3) and (4). * p < 0.10, ** p < 0.05, *** p < 0.01 back

SAMPLE CHANGE IN HOTEL ANALYSIS

Table: Effects of White Casualties on the Number of Green BookEstablishments Conditional on Census of Business Hotels

	(1)	(2)	(3)	(4)	(5)	(6)
	Total	Total	Total	Hotels	Hotels	Hotels
$asinh(\# White Deaths) \times Post-WW2$	0.306^{***}	0.313^{***}	0.316^{***}	0.106^{***}	0.126^{***}	0.126^{***}
	(0.042)	(0.043)	(0.045)	(0.030)	(0.031)	(0.031)
Census of Business sample		Х	Х		Х	Х
Conditional on all hotels			Х			Х
County F.E.	Х	Х	Х	Х	Х	Х
Year F.E.	Х	Х	Х	Х	Х	Х
Observations	4752	4260	4260	4752	4260	4260
Adjusted R^2	0.857	0.861	0.861	0.857	0.860	0.860
Clusters	396	355	355	396	355	355

Notes: The dependent variable in columns (1)-(3) is the inverse hyperbolic sine of the number of Green Book establishments; in columns (4)-(6) it is the inverse hyperbolic sine of the number of formal accommodations (hotels). Standard errors clustered by county in parentheses. * p < .10, *** p < .05, *** p < .01 (back)

SAMPLE CHANGE IN HOTEL ANALYSIS

Table: Effects of White Casualties on the Number of Green BookEstablishments Conditional on Census of Business Hotels

	(1)	(2)	(3)	(4)	(5)	(6)
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	(0.042)	(0.043)	(0.045)	(0.030)	(0.031)	(0.031)
Census of Business sample		Х	Х		Х	Х
Conditional on all hotels			Х			Х
County F.E.	Х	Х	Х	Х	Х	Х
Year F.E.	Х	Х	Х	Х	Х	Х
Observations	4752	4260	4260	4752	4260	4260
Adjusted R^2	0.857	0.861	0.861	0.857	0.860	0.860
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Notes: The dependent variable in columns (1)-(3) is the inverse hyperbolic sine of the number of Green Book establishments; in columns (4)-(6) it is the inverse hyperbolic sine of the number of formal accommodations (hotels). Standard errors clustered by county in parentheses. * p < .10, *** p < .05, *** p < .01 (back)

RESULTS: IV

Table: Market Composition and the Ratio of GB to non-GB Firms

Dependent Variable:		$asinh(\frac{1}{n})$	$asinh(\Delta \frac{GB}{non-GB})$						
	(1)	(2)	(3)	(4)	(5)	(6)			
	OLS	IV	OLS	IV	OLS	IV			
Panel B: Market: Own County + Neighbor Counties									
asinh(B-W Ratio) (All)	0.262	1.395***	-0.188	2.514^{*}					
	(0.305)	(0.478)	(0.425)	(1.396)					
$\operatorname{asinh}(\Delta \text{ B-W Ratio})$ (All)					-0.228	2.135^{*}			
					(0.188)	(1.197)			
County F.E.	х	Х							
State X Year F.E.			Х	Х					
State F.E.					Х	Х			
Observations	749	708	749	708	354	354			
Clusters	395	354	395	354					
First Stage F -Statistic		88.27		25.60		22.09			

Notes: The dependent variable is the asinh of the ratio of GB to non-GB hotels in cols (1)-(4); in cols (5) and (6) it is the asinh of the change in the number of GB to non-GB hotels between 1940 and 1950. Standard errors clustered by county in (1)-(4) and state in (5) and (6). * p < 0.10, ** p < 0.05, *** p < 0.01