The Green Books and the Geography of Segregation in Public Accommodations*

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Abstract

Jim Crow segregated African Americans and whites by law and practice. The causes and implications of the associated *de jure* and *de facto* residential segregation have received substantial attention from scholars, but there has been little empirical research on racial discrimination in consumer markets during this time period. We digitize the *Negro Motorist Green Books*, important historical travel guides aimed at helping African Americans navigate segregation in the pre-Civil Rights Act United States to create a novel panel dataset that contains precisely geocoded locations of over 4,000 unique businesses that provided non-discriminatory service to African American patrons between 1938 and 1966. This is the first paper to quantify access to public accommodations in the United States over such a long time horizon and geographically expansive area. Our analysis reveals several new facts about discrimination in public accommodations that contribute to the broader literature on racial segregation. First, the largest number of Green Book establishments were found in the South, while the lowest number were found in the West. The Midwest had the highest number of Green Book establishments per Black resident and the South had the lowest. Second, we combine our Green Book estimates with newly digitized county-level estimates of hotels to generate the share of non-discriminatory formal accommodations. Again, the South had the highest share of non-discriminatory accommodations, with the Northeast following closely behind. Third, for Green Book establishments located in cities for which the Home Owner's Loan Corporation (HOLC) drew residential security maps, the vast majority (over 65 percent) are located in the lowest-grade, redlined neighborhoods. Finally, Green Book presence tends to correlate positively with measures of material well-being and economic activity.

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"Do you remember any good stopping places
in Arizona or western Texas?
Anything in Phoenix or El Paso?
And what is the best route from here to the coast?
I have never driven it, you know."

— Arna Bontemps, quoted by Wilkerson (2010)

Jim Crow segregated African Americans and whites by law and practice. The causes and implications of the associated *de jure* and *de facto* residential segregation have received substantial attention from scholars. The consensus is that residential segregation exacerbated racial disparities in income, employment, education, political influence, and homeownership (Cutler and Glaeser, 1997; Card and Rothstein, 2007; Ananat and Washington, 2009; Ananat, 2011; Aaronson, Hartley, and Mazumder, 2018). Relatively less attention has been paid to understanding segregation's role in access to public accommodations and business ownership.[1] This is not due to a lack of interest or importance; after all, the Jim Crow era is characterized by the denial of services to African American consumers and equal access to public accommodations was one of the key demands of the Civil Rights Movement. Rather, the absence of reliable data on the location and quantity of non-discriminatory businesses has hampered researchers' ability to investigate this topic.

This paper makes use of an important historical tool created to assist African Americans in navigating segregation. From From 1936 to 1960, Harlem postal worker Victor Green and his associates published travel guides for African American motorists.[2] Colloquially known as the *Green Books*, these directories listed hotels, businesses, restaurants, and other services that were friendly towards African American clientele during a time when travel could be uncomfortable, at best, and dangerous, at worst. We use the Green Books to uncover regional, county-, and city-level patterns of access to public accommodations. By digitizing

[1] An important exception is Gil and Marion (2020) who exploit a ban against segregation in Washington, D.C. in 1953 to test whether segregation in cinemas was due to taste-based discrimination among firms (cinema owners) or consumers, or both parties. Whereas, they focus on a narrow industry (cinemas located in 26 cities), we present evidence on the geographic and temporal extent of access to public accommodations across industries for counties throughout the continental United States. Another exception is Roback (1986)'s study of segregated streetcars. Roback's central thesis differs from our paper, as she questions whether the development of the Jim Crow system was motivated by political factors or changed attitudes towards Blacks. In contrast to studying how segregation affected the demand for services among African Americans, Cook (2012b) examines the strategies Black inventors developed to cope with consumer-side discrimination, with a particular emphasis on the strategies implemented by Garret A. Morgan, inventor of both the gas mask and traffic light.

[2] Publication of the Green Books continued up until 1966. Taylor (2020) documents that Victor Green worked on the Green Books up until the time of his death in 1960. His wife, Alma, ran the publication until 1962 at which point she sold it to Langley Waller, a Harlem businessman, and Melvin Tapley, an illustrator for the New York Amsterdam News (Sorin, 2020).

and geocoding the exact location of all establishments listed in the Green Books between 1939 and 1964, we provide a unique lens into the geography of racial discrimination in public accommodations during the last years of legal Jim Crow in the United States.

There is a widespread notion that outside of the South, where unequal treatment of African Americans was codefied by Jim Crow laws, African Americans did not experience hardship in patronizing retail and service sector businesses. We find that the majority of Green Book listings were actually outside of the South. Even in Northeastern states, where *anti*-discrimination laws were in place, there were thousands of Green Book listings. Even outside of South, information about establishments that welcomed African American patrons was valued by Black motorists, which indicates that they did not take equal service as given.[3]

Our analysis uncovers several previously undocumented facts about the geography of access to public accommodations for African Americans. First, access to non-discriminatory establishments was not uniform across the United States. The largest number of Green Book establishments were found in the South, while the West had the fewest number of Green Book establishments.[4] The Midwest had the largest number of establishments per Black resident, while the South had the least. Second, since areas with a large number of Green Book listings may be areas that have more establishments in general, we also digitize sections of the 1935 and 1948 Census of Business to obtain county-level data on the total number of formal accommodations.[5] Combining formal accommodation counts from the Green Books with the Census of Business counts allows us to compute the share of non-discriminatory hotels and motels by county. Using this measure, we find again, that the South had the highest share of non-discriminatory accommodations, with the Northeast lagging slightly behind. The finding that the South was relatively close to the Northeast in terms of the share of non-discriminatory accommodations is not dissimilar to patterns

[3]This experience was shared other minority groups, such as the Jewish community, that experienced similar types of discrimination when it came to accessing public accommodations. In fact, Victor Green pointed to similar travel guides for American Jews as his inspiration for creating the Green Books (Sorin, 2020).

[4]We employ the U.S. Census Bureau definition of the South throughout our study (this includes states that joined the Confederacy as well as border states): Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

[5]While the 1948 Census of Business volume lists hotels and tourist courts (also known as motels) separately, the 1935 publication only lists hotels explicitly; however, it is our contention that the 1935 definition would have included both categories of establishment. This is supported by the fact that the inclusion criteria are quite detailed and many other types are explicitly excluded (boarding houses, Y.M.C.A.s, and tourist camps, for example). Moreover, the decision to list them separately most likely reflects the increased prominence of tourist courts following the end of WWII gasoline rationing and the return of troops following the cessation of hostilities. The hey-day of motels was during the 1940s and 1950s (Jackson, 1993).

of residential segregation found during the early twentieth century in national measures of segregation (Logan and Parman, 2017).

Next, we investigate how the location of Green Book establishments within cities relates to the practice of redlining, whereby the Home Owner's Loan Corporation (HOLC) drew residential security maps of 239 American cities in the 1930s to caution lenders against lending to patrons in high-risk neighborhoods (Aaronson et al., 2018). Over 70 percent of the Green Book establishments are located in cities for which digitized HOLC security maps are available, the majority of which (67 percent) were located in the lowest-grade, redlined neighborhoods. The next largest group of Green Book establishments were located in no-grade, likely business district, areas. While we hesitate to draw strong conclusions about establishments in D-grade versus no-grade neighborhoods, we suggest that this may reflect racial differences in business ownership.

Finally, we estimate a series of elasticities of the number of Green Book establishments with respect to a set of covariates to understand how Green Book presence relates to economic activity, material well-being, and existing measures of segregation and discrimination. We find that the presence of Green Book establishments correlates positively with the prevalence of electricity, radios, refrigerators, manufacturing activity, and war contracts; however, conditioning on the counts from the Census of Business reveals that these elasticities are primarily explained by the fact that places with more economic activity also have more accommodations.

We also find that Green Book prevalence is positively correlated with the number of Confederate symbols in a county, which would suggest that more Green Book establishments may proxy for racial animus; however, they are not associated with another measure of racial animosity, namely, Black lynchings, once we account for the prevalence of all accommodations from the Census of Business. This result is at odds with the existing literature that has found historical lynchings to be positively related to the presence of Confederate streets (Williams, 2019).

At the state-level, we use the legislative changes made to discrimination and anti-discrimination laws across the United States by 1950 to understand how Green Book presence is related to legal segregation in the U.S. We digitize nearly 2000 instances, originally compiled by Murray (1950), that describe either the strengthening or weakening of discriminatory legislation within a state. Perhaps unsurprisingly, we find that the number of discriminatory laws is positively correlated with the presence of informal accommodation listings in the Green Books, while anti-discrimination laws correlate positively with all industry types.

There are obvious historical reasons one might be interested in quantifying equal access

to public accommodations, but it is often overlooked that racial segregation along this dimension is not only an historical phenomenon. Five states—Alabama, Georgia, Mississippi, North Carolina and Texas—do not have a public accommodation law for racial discrimination. If the Civil Rights Act of 1964 were invalidated, it would be possible to move back to "separate but equal" and segregation in those states.

The remainder of the paper is organized as follows. Section 2 provides a background of the Green Books and describes our digitization process, including a discussion of the procedure by which we generated a panel of establishments over time, as well as the method we used to geocode establishment locations. Section 3 presents our findings on regional and city trends. We discuss selection into the Green Books in Section 4 and the correlates of Green Book establishments in Section 5. Section 6 provides a brief summary of our findings and concludes.

2 Assembling the Green Book Data

2.1 A Brief History of the Green Books

The *Negro Motorist Green Books* (henceforth, Green Books) were a series of travel guides published during the Jim Crow era, that were created by Victor Hugo Green, an African American postal employee from Harlem, New York City. Green's objective was to provide information on businesses that African American motorists could frequent without jeopardizing their safety. Although the Jim Crow laws that segregated the Southern U.S. did not extend to the North and West, many communities in these areas practiced segregation *de facto*.[6] The Green Books provided a directory of safe (and dignified) places that African American tourists could rely upon while traveling.

The first Green Book was published in 1936 as a ten-page pamphlet containing New York City establishments that served African Americans.[7] The idea behind the Green Books was borne from Green's own experience with racial discrimination while traveling with his wife, Alma, in 1936 (Brown, 2017). During this time period, African American motorists were often advised to drive below the speed limit and even under the cover of night to avoid confrontations with police (Sugrue, 2010). At a time when lynchings were still occurring in the southern US and "sundown towns" barred African Americans from entering after dark, the threat of racial discrimination on the road was not only uncomfortable for African American travelers, but could also result in potentially life-threatening encounters.[8]

[6] By 1960, over 10,000 cities across the North, Midwest, and West had become established "sundown towns"—localities where African Americans were threatened with violence after nightfall (Loewen, 2009).

[7] To our knowledge there are no known copies of this original Green Book.

[8] See Loewen (2009) for a rich discussion of "sundown towns".

Green's original publication listing non-discriminatory establishments in New York City in 1936 was so successful that coverage was expanded across the Northeast in the following year and to the South and Midwest the year after. While the original intention of the Green Book was to help African American motorists undertake their journeys safely, by providing listings of gas stations, hotels, motels, and tourist homes, Green also recognized the importance of the Green Books for African Americans seeking other types of services within cities, including restaurants, bars, barber shops and beauty parlors, pharmacies, and more.

> *The idea of "The Green Book" is to give the Motorist and tourist a Guide not only of the Hotels and Tourist Homes in all of the large cities, but other classifications that will be found useful wherever he may be.* –1947 Edition of the Green Book, pg. 1.

Figure 1 illustrates an example of the entries in the 1956 Green Book. Establishments were organized by cities within states and, in almost all instances, included exact street addresses. Information on businesses that were friendly towards African Americans spread largely through word-of-mouth. In several instances, Green sourced information from the network of Black U.S. postal workers to obtain recommendations from letter carriers across the U.S. (Khan, 2015; Taylor, 2020). Starting with the 1938 edition, Green invites the public to provide information about places that are not listed so that they can be included in subsequent editions of the Green Book. In addition to simply being listed, businesses could also pay to have an advertisement included in the travel guides. Figure 2(c) includes an example of the types of advertisements that appeared in the publications.

Although many shops and services were included in the Green Books, we document that the vast majority of listings were for accommodations, as well as eating and drinking places (see Figure 2). Publication of the Green Books halted from 1942-1946, when virtually all domestic resources were diverted to sponsoring America's engagement in World War II (Landry, 1988). The books continued to be published until 1966; just one edition was published after the Civil Rights Act outlawed the racial segregation that had once necessitated the Green Books (McGee, 2010). While there is relatively little narrative history of the Green Books at present, works by Sorin (2009, 2020) and Taylor (2020) provide the most comprehensive histories of the Green Books.

2.2 Digitization and Cleaning

This paper introduces a county-level panel dataset on the number of establishments that were friendly towards African Americans patrons that were listed in the Green Books–broken

down by type of business. Using a combination of hand collection and probabilistic matching techniques we digitize all the entries, including advertisements, in the 21 Green Books that are published in the New York Public Library's (NYPL) Digital Collections.[9] In particular, we hand-recorded all names, descriptions, and locations, including exact street addresses in most cases, in each edition of the Green Books. These entries were subsequently checked and audited for accuracy. The inconsistent formatting of entries across and within Green Books, largely due to the irregular size and placement of advertisements, and variation in image quality proved to be ill suited for OCR.

After collecting and vetting the data, a combination of probabilistic matching and human verification was used to clean the dataset, which involved matching establishments across years. Idiosyncrasies of the published volumes make it challenging to rely solely on machine learning or probabilistic matching techniques like the Levenshtein or Jaro-Winkler distance to match observations over time. Table 2 highlights two examples where human judgment is useful.

Example 1 is straightforward: the entry for Fresno Motel had the same name and address between 1957 and 1962, but in the following year its name was slightly different, and the address became more detailed (an intersection instead of simply a street name). For the purposes of geocoding businesses and quantifying openings and closures, identifying these as a match and using the most accurate address are critical, we find that human processing of the data is well poised to exploit contextual information and make this determination.

Example 2 makes the challenges of processing the Green Books data even more apparent. From 1947-52 two related business: "Jim Summers" (a restaurant) and "Summers" (a liquor store) are listed at addresses on Main Street. In 1953, these two businesses disappear, and a similarly named establishment, "Summer's Hotel & Court" is listed with the address 721 Adams Street. The following year, "Summer Hotel," which has a slightly different street number takes its place. In 1955 the street number changes once again. And over the following two years, either the name or the street address changes. The most likely explanation for this pattern is that the proprietor of "Jim Summers" and "Summers" closed these businesses in 1952 and the following year a hotel opened on Adams Street; however, additional contextual information from city directories would be useful for determining if this hotel was owned by the same proprietor as the aforementioned restaurant and liquor store. These types of instances are difficult to match with machine learning or probabilistic matching techniques owing to the changes in addresses and establishment names over the different editions of Green Books.

[9]The complete collection can be found here: https://digitalcollections.nypl.org/collections/the-green-book

Another issue that arises is print error. There are instances in which an establishment is listed more than once; sometimes under a "hotels" sub-heading as well as a "general" businesses sub-heading—but the names are slightly different. For example, in the 1955 edition, in Montgomery Alabama "Hotel Ben Moore" with address "Cor. Hight & Jackson Sts." appears in bold under the hotels sub-heading. Meanwhile, "Ben Moore, Cor. High & Jackson" also appears under the non-hotel heading. Other errors include misspellings of street-names, business names, and, in the case of rural establishments, very rough approximations of the city in which an establishment is located.[10]

In spite of the aforementioned issues with the Green Books, generating county level counts of listings by industry is quite straightforward, since Greenbook establishments are (almost) uniquely identified in each issue.[11] Generating the counts of establishments within HOLC red-lined regions requires more attention. The main issue to contend with is that the level of detail about an establishment's address can vary significantly across years, in some years it could be missing, in others it could be a location description, or an exact street address. Failure to account for this before transposing addresses to HOLC maps makes it difficult to interpret any change in listing counts in HOLC graded areas over time. For example, we would not know whether it reflect a real increase (decrease) in Green Book listings or simply variation in address accuracy. To account for this, the most precise address that appears across all publication years is assigned to each establishment and is used for geocoding.[12] This requires that each establishment be uniquely identified across years. To generate unique panels with consistent addresses we proceed in the following manner:

1. Match establishment names across years, matching exactly on state, city, and industry and probabalistically, using the Levenshtein distance, on name.[13]

2. Standardize addresses.[14]

3. Assign the modal establishment name conditional on standardized address.

4. Conduct a final check of the assigned modal name against the original establishment name using the Jarowinkler distance. If dissimilarity is high, this is flagged for human review to determine that it is indeed the same establishment.

[10] Fortunately, these addresses are often very descriptive, which allows for their accurate geocoding and attribution to the correct county.

[11] The exception to this is double-entries of listings due to the inclusion of an establishment in the "listings" section and a separate advertisement for said establishment (sometimes with minor variation in the name).

[12] We did not encounter instances of obvious conflict between a descriptive address and an exact street address.

[13] We supplement this with a human double-check to determine the similarity cut-off and adjudicate potential matches around it.

[14] We standardize abbreviations for road type, direction, capitalization, and punctuation.

5. The most accurate address is assigned to all observations within each panel. These cleaned panels are the inputs in the geocoding procedure described in the following section.

2.3 Geocoding Greenbook Establishments

In addition to collecting the list of establishments in each city, we also geocoded their locations for each year. Here we outline the procedure used to geocode the Green Book entries. An initial pass was implemented by running all addresses through the U.S. Census Geocoder.[15] This produced either an exact match, a non-exact match, a tie, or no match. Exact matches occur when one unique address is found that matches the input address. About 50 percent of the addresses returned an exact match. Non-exact matches occur if the geocoder was able to locate a similar, but not exact match to the input address. Ties occur when there is more than one address that matches the input address. In some cases, the geocoder is not able to locate the input address. In the case of a tie or "no match," the input addresses were searched by hand.

A second pass was implemented by hand checking each address in the Green Books in Google Maps. Exact matches that returned latitude and longitude coordinates that were different from the Google Maps coordinates were assumed to be correct if there was less than a one mile difference between the two sets of points (the addresses from the Geocoder and Google Maps). Addresses that were above this threshold were rechecked for typos and historical context. This included addresses that did not return an initial exact match, which were then matched by hand through Google Maps. In these instances the remaining missing addresses were imputed using a majority rule. For example, if there was no number associated with a given address, yet the city in which the establishment was located had several establishments on the same street, then the unnumbered address was geocoded in close proximity to the other addresses on that street. For address that are descriptions, for example, the "Corner 126th St. and 8th Ave" (Braddock Tavern in Harlem, NY) or "Rt. 301, 6 miles N. of Potomac River Bridge" (Blue Star Motel in Faulkner, MD), Google Maps and measurement tools were used to approximate the location. In instances where large construction projects, often the interstate highways, altered the landscape drastically, historical sources were consulted to inform an educated guess of the establishment location.

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 6.4 percent of addresses

[15] The Census Geocoder can be found here: https://www.census.gov/geo/maps-data/data/geocoder.html

were not able to be matched at all. In these instances the centroid of the city was assigned as the geocoded location of the establishment. Table 1 shows the break-down of geocoding accuracy for different regions of the United States. In terms of accuracy, exact matches are the most accurate while county centroids are the least. "Approximate location" and "mid-point of street" are in between, but the relative accuracy ranking of these two categories is difficult to ascertain since there is significant variation in these categories.

Overall, our procedure has distinct advantages over automated approaches. First, as we mention in the previous section, there are idiosyncratic errors in the original Green Book publications. We are able to detect each of these errors and correct the corresponding data to ensure that existing and new businesses are appropriately recorded. Second, since our procedure involved checks of addresses against two sources for geocoding, we have a substantially higher match rate than studies such as Akbar et al. (2019), who link addresses over subsequent census enumerations. 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 biased inference from the data. A number of Green Book locations are in rural areas, and accurately geocoding them is important for identifying the range of coverage available in the Green Books.

2.4 Green Book Establishments Over Time

Figure 3 plots the total number of Green Book establishments listed in each year.[16] One striking feature is the sharp drop in the number of Green Book establishments after 1955. This decline was not caused by a reduction in the geographic coverage of the Green Books or an indiscriminate decrease in listings. Figure 4 displays the number of establishments by type: service stations, beauty and barber shops, eating and dining places, formal accommodations, informal accommodations, and other establishments. With the exception of both formal and informal accommodations, all categories experienced steep declines in the number of listings after 1955. Meanwhile, formal accommodations actually increased throughout the period of publication and informal accommodations declined fairly gradually throughout the post-war period.

The 1955-56 drop in listings is not well understood. According to newspaper accounts from the period, the African American travel guide industry had become quite competitive.[17]

[16] We exclude 1937 and 1938 because coverage of the Green Books did not include western states. Even if one were to focus on the remaining regions, the 1937 edition is problematic because it only contained advertisements–in subsequent years, businesses were listed separately based on whether or not they paid to advertise.

[17] A column in the Kansas City Plain Dealer recounts the challenges faced by Bert E. Grayson, the publisher of a rival African American travel guide, who was unable to repay the cost of a print run (Levette, 1953).

It could be the case that the increased focus on accommodations simply reflects a pivot towards a narrower market. Also consistent with a "business strategy" explanation is the fact that the 1956 edition had a substantially altered layout from its predecessors; listings were organized in just one column as opposed to two, this increased the aesthetic appeal and also happens to be much closer to the layout of the "Travelguide," a competing motorist guide that targeted more affluent African Americans.[18] Figure 5 presents additional evidence that is consistent with our business conditions interpretation of the drop. Each subplot displays a different industry, where the left vertical axis indicates the total number of establishments and the right vertical axis is the share of listings that are advertisements. From these figures, it appears that there was a shift away from free listings, towards paid advertisements for non-lodging entries. Figure 7 shows the number of advertisements per year, by industry. It is clear that despite the decline in non-lodging related listings, advertisements showed an upward trend after 1955.

An alternative explanation is that the Civil Rights movement posed a challenge to encouraging African Americans patronage of specific locales as this could have been interpreted as acceptance of the discriminatory status quo. This issue merits further investigation. In the absence of a convincing explanation for the drop, we restrict our attention to the pre-1955 period in the analysis that follows.

2.5 Establishments that Disappear and Reappear

Sometimes businesses in the Green Books appear in one year, disappear from the publications for a year or more, and then reappear in subsequent editions. Depending on how pervasive this issue is, it may impact the results of analyses that are conducted using the Green Book data. We examine the extent of this issue in Figure 8, which plots the total number of Green Book establishments, the number of "missing establishments", and the number of Green Book establishments if we "fill in" in the series with the missing establishments. We classify missing establishments as establishments that appear in one year and reappear in a later year with a gap of at least one year in between. As evidenced by the figure, the presence of missing establishments does not alter the underlying trend in the number of total establishments throughout this time period. Our analysis, therefore, proceeds without filling in missing establishments.

[18] Travelguide began publication in 1947 and ran until at least 1957 (Reut, 2019).

2.6 Introduction of a "Vacation Guide" in 1950

In 1950 the Green Books started to include a supplement called the *Vacation Guide*.[19] For the most part, these listing are cottages and cabins that targeted residents of New York City, and they are largely located in the Northeastern states of New York, New Jersey, and Massachusetts, while Michigan is a notable exception to this pattern.[20] Since the inclusion criteria for these accommodations is not applied nationwide on a temporally consistent basis, we omit them from our analysis. With the exception are listings that appeared in the Green Books in an earlier year. Of the 279 listings that appeared in the Vacation Guide supplement over 1950-55 a total of 26 of them had appeared in a pre-1950 edition of the guides. Figure 9 shows the impact of dropping these listings on the time-series of formal accommodations across the United States, it can be described as a level jump in the number of listings with little change in the overall trend. Throughout the remainder of the paper we also employ a number of additional data sources which are discussed as they appear.

3 The Expansion of Green Book Establishments Across Regions, Counties, and Cities

Initially, Green Book establishments were located in the Southern and Northeastern U.S., with a small number of businesses open to serving African Americans in the easternmost regions of the Midwest. Figure 11(a) shows the location of all Green Book establishments in 1938, while Figure 11(b) provides a detailed look at establishments in Georgia. By 1955, Green Book establishments were present in every state in the continental US, aside from Montana and North Dakota.[21] The following subsections investigate the evolution of the number of Green Book establishments in more detail, including regional patterns in Green Book expansion and their relationship to residential housing patterns.

3.1 Regional Differences

Figure 12(a) displays the evolution of the number of Green Book establishments in the United States listed in each year between 1939 and 1955. We start our analysis in 1939 since this is the first year with nationwide coverage of the Green Books and we end it in 1955 due to the aforementioned drop in listings. In every year except 1939, the South had the highest number of Green Book establishments, followed by the Northeast, the Midwest, and finally the West. Figure 13 displays the geographic breakdown of Green Book establishments

[19] In 1949 Victor Green published a Vacation Guide separately from the Green Books.

[20] See Figure 10 for the number of listings in each state that appeared in the Vacation Guide section in 1950, similar patterns are observed over the following years.

[21] These states do show up in later editions of the Green Book.

per 1,000 Black residents in 1950. While the Northeast and Midwest certainly appear to have a greater density of Green Book establishments in relation to the African American population, there are a substantial number of counties across the entire U.S. that do not have any Green Book establishments.

Given that the Green Book listings are places of business, it is important to consider how they relate to measures of population density, as this better captures consumer access to non-discriminatory services. Additionally, the absence of Green Book establishments likely reveals important information about the geography of discrimination. If a county does not appear in the Green Book in a particular year of publication, we infer a count of 0 establishments for that county-year. Next, we construct a balanced-panel of counties for the duration of the Green Book publications. To compute the number of Green Book establishments per capita, we divide the number of establishments by the Black population (in 1000s), as measured by the county population estimates for census years (Haines, 2010). From 1939-1941 we use the population in 1940 and from 1947-1955 we use the population in 1950.[22] Figure 12(b) indicates that, despite the concentration of Green Book establishments in the South and the Northeast, on a (Black) per capita basis, listings were, on-average, highest in counties located in the Midwest and, to a lesser extent, the West. The large jump in Midwest establishments per capita is due to the presence of a small number of counties that have a combination of a very low level of establishments to begin with, combined with a small increase in listings in counties and almost no change in the Black population.

Apart from the South, where establishments per capita were flat over the period of study, counties across all regions experienced an increase in the mean number of establishments per capita. This is consistent with an interpretation that firms were reluctant to either serve Black customers or, at the very least, draw awareness to themselves as welcoming Black customers in areas that had higher levels of racial animus.

3.2 Formal Accommodations in the Green Books and the Total Number of Accommodations

As noted earlier, Figure 4 raises a concern that the process by which firms were being listed in the Green Books may have changed over time. Indeed, the steep drop in listings in 1955 across multiple establishment types indicates that this was the case towards the later part of the sample, but it could be a concern earlier on as well. For this reason, we also consider formal accommodations—hotels and motels—separately. These types of businesses did not experience the steep decline in 1955 and were essentially the *raison d'être* of the

[22] Recall that publication of the Green Books halted during WWII.

Green Books from the time of their inception. Figure 14 displays the number of formal accommodations across the US Northeast, West, Midwest, and South. While the ranking of regions largely mirrors that of total establishments, in contrast to the total establishment count, the number of formal accommodation listings has an upward trend across all four regions. It is also noteworthy that the Northeast and the Midwest have roughly identical levels of formal accommodations for the period that we study.

If we consider the number of establishments per 1,000 Black residents to be a measure of access to public accommodations, we can learn about the relative access across U.S. regions. Figure 14(b) presents the average number of listings per (Black) capita for the different regions of the United States. The main finding is that hotels and motels are more equally distributed (in per capita terms) than the total number of listings (see Figure 12(a)). There is substantially more variation in this measure, especially across the pre- and post-WWII publication hiatus. Following the resumption of publication, the average number of formal accommodation per 1,000 Black residents followed an upward trend across all four regions, but growth in the South was more gradual.

Since areas with a large number of Green Book listings may also be areas with more formal accommodations operating, we are also interested in understanding what share of establishments are non-discriminatory. An additional advantage of focusing on formal accommodations is that we can obtain county-level counts of hotels and models from the service trade section of the 1935 and 1948 Census of Business.[23] Figure 16 provides an illustration of what this data source looks like for several counties in the state of Alabama. These counts are available for counties that were deemed to have adequate coverage by the census and enough hotels or chains to prevent disclosing the identity of a particular business in 1935. This means that the counties for which we have counts of total accommodations are a subset of the counties for which we have Green Book information. We match our counts of formal accommodations in the Green Books with the counts of all accommodations from the Census of Business to construct the share of non-discriminatory accommodations by county. Since an annual series of total formal accommodations is not available, we use the 1935 Census of Business counts for pre-1941 Green Book years and the 1948 Census of Business counts for post-1947 Green Book years.

Figure 14(c) displays the regional trends in the share of non-discriminatory accommodations. Here we can see that the South and the Northeast had the largest share of non-discriminatory accommodations, while the West had the lowest. Our measure was at its highest level, just under 3 percent, in 1939 in the South and Northeast, before subsequently

[23]To be more precise, in 1935 information on hotels is published in a separate volume, in 1948 (and subsequent Census of Business publications) it is incorporated in the services trade volume.

settling down around 1.5 percent by 1950. To put these numbers in context, consider Figure 15 which shows the rates of Black hotel ownership across regions.[24] The highest rate of Black hotel ownership, about 2.2 percent, was in the South, and the ranking across regions is similar to what we find in the Green Book shares (except the Midwest has a higher Black-owned share than the Northeast). Since many of the properties listed in the Green Books are known to have been Black-owned businesses, especially in the case of the South, this lends some credence to the notion that the Green Books data captures a substantial portion of the non-discriminatory marketplace for Black accommodations. One could also conjecture that the difference between the Black-owned share and the Green Book share in the Northeast could be explained by the fact that white-owned hotels welcomed African American patrons at a higher rate than other parts of the country.

3.3 Green Book Business Expansion and Redlined Neighborhoods

Our final objective is to consider how the location and expansion of Green Book establishments is related to local characteristics. In the 1930s, the Home Owners Loan Corporation (HOLC) produced city maps that classified the relative riskiness of lending across neighborhoods. Maps were drawn for over 200 cities, dividing neighborhoods into ratings of A (least risky) to D (riskiest). Some neighborhoods were not classified by the HOLC, these were predominantly business districts and are assigned a value of "No Grade."[25] These maps were used to inform mortgage lenders about the risk-profile of different neighborhoods. As a result, subsequent access to credit was affected by neighborhood classification.[26] We overlay HOLC maps with the geocoded location of Green Book establishments that were able to be identified with certainty to determine the grade of the neighborhood in which each

[24]The 1935 Census of Business Bulletin with the breakdown of Black Hotel Ownership by state does not report counts for the following states: Delaware, Idaho, Maine, Montana, New Hampshire, New Mexico, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Vermont, and Wisconsin. It is unclear if this is simply because no Black-owned hotels were located in these states or if there is another explanation, such as suppressing values for confidentiality in smaller states. As a result, the regional groups do not coincide exactly with those presented elsewhere in this paper.

[25]The analysis here considers all Green Book establishments that were located in an HOLC-mapped city. As a robustness check against the possibility that some of the Green Book listings classified as "No Grade" areas were, in fact, outside the city boundaries, as opposed to inside business districts, we have also run the analysis restricting to the 168 cities classified as Standard Metropolitan Areas in 1950 (these are a subset of the HOLC-mapped cities) for which NHGIS shapefiles are available through IPUMS. This has very little impact on our findings (96.4% of observations in HOLC mapped cities are within the SMA boundaries), these results are available upon request.

[26]Aaronson et al. (2018) provide a thorough discussion of the historical debate surrounding the exact use of HOLC maps by lenders. They find evidence that HOLC classification had causal impacts on homeownership rates, house values, and rents that continue to persist.

establishment is located.[27] Over 67 percent of Green Book listings are found in cities for which redlining maps are available.

Figure 17 displays the location of Green Book establishments in 1956 with the HOLC map for Newark and the Burroughs of New York City. Visually, it appears that the majority of Green Book establishments are located in redlined neighborhoods. Indeed, out of the establishments that appear in cities for which the georeferenced HOLC security maps are available, an overwhelming majority of them (67 percent) appear in "D-grade" neighborhoods. Approximately 23 percent occur in neighborhoods that did not receive a rating from the HOLC, likely business districts, and only 0.24 percent are located in "A-grade" neighborhoods.[28]

We examine trends in the number of Green Book establishments by HOLC grade in Figure 18, where it is clear that Green Book establishments expanded most quickly in"D-grade" neighborhoods. Neighborhoods that did not receive a grade, but were located within cities for which we have HOLC security maps also experienced a reasonably large increase in the number of establishments, though by 1955 there were still half as many establishments in "No-grade" neighborhoods in comparison to "D-grade" neighborhoods. "A-grade" neighborhoods experienced almost no growth in Green Book establishments. In fact, in 1955–the year with the highest number of Green Book establishments in "A-grade" neighborhoods– there were only 8 Green Book establishments in these highest rated neighborhoods out of all cities in the U.S. for which the HOLC security maps are available.

Figure 19 shows how the number of Green Book establishments in each HOLC-grade neighborhood evolved across industry-type. For each industry, the majority of establishments are found in redlined neighborhoods. That being said, the number of Green Book establishments grew in nearly all HOLC-grade neighborhoods and across all industries. Two notable exceptions, include barber shops and gasoline stations, which did not appear in A-grade neighborhoods at any point between 1939 and 1955. The absence of businesses in either category from A-grade neighborhoods is not entirely surprising as neither one is often found in highly sought after residential neighborhoods, even today. We also present these trends across regions within the U.S. in Figure 20. These results largely mirror those in the country-wide plot in Figure 18.

Identifying the location of Green Book establishments within cities likely has important

[27]The HOLC maps that we use come from the Digital Scholarship Lab at the University of Richmond which has digitized and made publicly available HOLC maps for 202 cities (Nelson, Winling, Marciano, Connolly, and et al., Nelson et al.). These can be accessed here: https://dsl.richmond.edu/panorama/redlining/

[28]Recall that we exclude from our analysis establishments that had could not be geocoded accurately. This is not driving our findings. For instance, if we include establishments that were georeferenced based on a descriptive address or that were assigned the midpoint of a street we find that 65.7 percent were in redlined areas and only 0.22 percent were in "A-grade" neighbourhoods.

implications for understanding the degree to which variation in Green Book establishments reflects differences in Black business ownership or differences in discriminatory practices on the part of white owners. Given that the racial composition of a neighborhood was an explicit determinant of the HOLC grade assigned to a neighborhood (Aaronson et al., 2018), Green Book establishments in "D-grade" neighborhoods were more likely to be Black-owned compared to those in "No-Grade" (business) districts. Although scholars have discussed the propensity of some white businesses to locate in predominantly Black neighborhoods in order to subvert the zoning laws that prevented them from operating in white neighborhoods, these businesses were often in industries that produced negative externalities, such as noise, pollution, or unsightliness– not consumer facing businesses (Rothstein, 2017). It would have been more unusual to find white-owned formal accommodations in predominantly Black neighborhoods.[29]

In the next section, we combine aspects of the previous sections to understand the selection of businesses into the Green Books.

4 Selection into the Green Books

One factor that is crucial to interpreting the expansion in Green Book establishments is understanding the process by which establishments entered into the publication. At the heart of this goal lie two related questions. First, we are interested in understanding whether we can interpret an increase in Green Book listings as an increase in access to public accommodations for Black customers, or, alternatively, whether an increase in listings represents an increase in the propensity to list, perhaps due to an information diffusion process wherein business owners learned about the Green Books over time. Second, we want to know whether the rise in Green Book establishments represents an increase in Black-business ownership or a conscious decision not to discriminate on the part of white business owners.

We begin by focusing on the information diffusion process across counties. We then discuss some of the preliminary work we have done to combine the HOLC grades with newly collected information on whether or not establishments that appear as new listings in the Green Books actually existed in previous years' phone books. Combined with information on redlining, we expect the latter exercise to inform us on the propensity for Black-owned and white-owned businesses to appear in the Green Books over time.

[29]We are currently investigating this distinction by comparing the Green Book establishments to the Negro Business Directory of the State of Wisconsin (1950-1951).

4.1 Establishment Growth

A key detail of the Green Book listing process is that listings were crowd-sourced and free for firms. While firms could pay for an additional advertisement, they did not have to pay for inclusion in the Green Books. Victor Green leveraged his employment in the U.S. Postal Service to get recommendations from letter carriers with routes all across the U.S. (Khan, 2015; Taylor, 2020). In addition, the general public, as well as firms, could provide recommendations directly. In fact, starting in 1938, Victor Green used the introduction of the Green Book to solicit recommendations for inclusion from the public. These features give us some confidence that once there was awareness about the Green Books in a particular county, increases in listings do indeed measure actual increases in access to public accommodations.

An additional consideration is about the interpretation of aggregate trends: is the increase in Green Book listings due to expanded geographic coverage or an actual increase in non-segregated firms in local markets? The first exercise we use to address this issue is to plot the trend in the share of counties with at least one Green Book establishment in Figure 21. In general, the trend is not consistent with a model of social learning, which typically follows an S-shaped pattern. It could still be the case that the 1940-1955 time period was one of gradual diffusion and even in the absence of the Civil Rights Act, a more rapid expansion of non-discriminatory establishments would have followed; however, this is not something we are able to empirically evaluate. Relatedly, the share of counties with at least one Green Book establishment increased from just over 12% in 1939 to about 16% in 1955, which translates to about 126 new counties in the Green Books over the period. This finding suggests that the majority of the growth in new Green Book establishments happened along the intensive margin. That is, the growth in establishments occurred in counties that already had at least one Green Book establishment in 1939.

We provide additional evidence to support this claim in Figure 22(a) which displays a decomposition of establishment counts into the number of establishments that appear in counties that already had at least one Green Book listing in the previous year and the number that appear in "new" counties. The figure shows clearly that the majority of growth in Green Book establishments appeared in counties that already had at least one listing. Thus, if social learning explains some of the rise in Green Book listings, it is likely among businesses that are located within the same counties as existing businesses, and not due to a diffusion process across counties more broadly.

One potential issue with the exercise in Figure 22(a) is that the outcome may be mechanical. As the number of counties with listings increases, we would expect an ever increasing

number of new listings to appear in the growing pool of covered counties. To circumvent this issue, we conduct a similar decomposition, this time separating counties into two bins: those that were included in the Green Books in 1939, and those that were not. The results are shown in Figure 22(b). We find that the majority of the increase in Green Book listings occurred in counties that were already listed by 1939–which suggests that the increase in aggregate Green Book listings is a real expansion in access to public accommodations and not simply an expansion of the geographic coverage of the Green Books.

4.2 Do Green Books Listings Represent New Entry, Switching, or Increased Awareness?

A fundamental question is how to interpret the growth of business listings in the Green Books. Does this increase represent a rise in Black-friendly business (new entry), and if so, is this explained by Black-owned businesses? Is the increase the result of a conscious decision not to discriminate on the part of white businesses owners (switching)? Or is it simply that firms that were not discriminating became aware of the fact that they could list in the Green Books (awareness)? Essentially, we want to understand at a more granular level whether local businesses are learning about the Green Books or if they are indeed becoming non-discriminatory. For instance, a firm in one period may be non-discriminatory but also unaware that the Green Books exist as a mechanism for advertising their business and upon becoming aware, it could decide to advertise. To partially mitigate this concern, we can restrict our analysis to firms that did not pay to advertise. However, this does not rule out the possibility that the Green Book editors were also learning about which firms were non-discriminatory. An innovation we propose to deal with this question is to hire researchers to look up businesses in historical phone books and city directories located at the Library of Congress. These phone books are not available online and the majority are available on microfilm, only. This process will allow us to determine whether a business that is new to the Green Books in one year existed in the previous year, and since we have the geocoded address of each Green Book establishment, we can examine whether this occurs disproportionately in neighborhoods rated higher or lower by the HOLC, which we consider to have informational content about the ownership of the business because red-lined areas were predominantly served by Black businesses. By comparing the tenure of firms in the Green Books by year and HOLC rating, we expect to gain insight into the change in the propensity of non-discriminatory establishments to be listed in the Green Books over time compared to the change in the propensity of Black businesses to develop over time.

As a preliminary check, we hired two researchers with experience working with the Library of Congress phone book collections to complete this procedure for a small sample

of cities and years. Our researchers examined 191 Green Book entries from Atlanta, Los Angeles, New York City, and St. Louis in 1941 and 1940; and 407 Green Book entries from Atlanta and New York City in 1948 and 1947. In the 1941 sample, 85 establishments (44 percent) were new to this edition of the Green Book but were not new businesses (i.e., they appeared in the 1940 phone books). In our 1948 sample, 147 establishments (36 percent) were new Green Book listings but were located in the 1948 and 1947 phone books. This is consistent with no measurable change, or even a slight decrease, in the likelihood that an existing firm would become listed in the Green Books over time.

Going forward, we will examine the demographics of these neighborhoods in more detail using information from the 1940 and 1950 Censuses of Population regarding racial composition at the census tract level. We believe our preliminary analysis using redlining maps highlights the potential of this methodology for disentangling the growth in new listings due to changes in discriminatory attitudes and geographic expansion of accommodations versus the growth in new listings due to businesses learning about the value of listing in the Green Books.

5 Correlates of Green Book Establishments

As a final objective of this paper, we seek to understand the correlates of Green Book presence. At the county level, we consider measures of economic development, including education, involvement in manufacturing, and WWII military contracting; as well as other measures of segregation and discrimination that have traditionally been used in the literature, such as residential segregation, lynching, and the number of Confederate symbols. We also introduce a new state-level dataset that consists of the number of discrimination and anti-discrimination laws passed by states as of 1950.

5.1 County Characteristics and the Presence of Green Book Establishments

Figures 23 to 28 present elasticities of the number of Green Book establishments and the set of aforementioned factors. All regression specifications are estimated at the county level–e.g., number of Green Book listings by county–and both the dependent and independent variables have been transformed using the inverse hyperbolic sine function so that they can be roughly interpreted as elasticities.[30] The estimates presented here should not be construed as having a causal interpretation. Instead, these should be viewed as new, descriptive, findings about the relationship between access to public accommodations and measures of population, economic activity, and discrimination, that are considered to be important determinants of

[30]We use the arcsinh transform instead of a log-log specification due to the presence of a large number of zeros in the dependent variable, as many counties did not have any Green Book listings.

the well-being of African Americans during this period.

Many of the factors we examine may also be correlated with city size or economic activity, and consequently the number of establishments in a given county more generally. These have the potential to bias our coefficient estimates. Fortunately, by focusing on the set of formal accommodations listed in the Green Books, we can check whether conditioning on the total number of accommodations in a county affects these correlations.

In all figures, elasticities using all Green Book establishments are represented by squares; estimates restricted to using formal accommodations are represented by circles; estimates restricted to using formal accommodations and further restricting to the sample of counties for which we also have Census of Business counts are represented by triangles; and estimates restricted to using formal accommodations and conditioning on Census of Business counts are represented by diamonds. Ultimately, we are interested in understanding whether our coefficient estimates are affected by conditioning on the total number of accommodations from the 1935 Census of Business; however, we impose each of our restrictions and specification changes in sequence so that we are able to assess which of the three additional specifications are driving the changes in coefficient estimates.

We begin with Figure 23 by showing these elasticities for a set of demographic characteristics that we take from the 1940 complete count census (Ruggles et al., 2019). Unconditionally, a one percent increase in the Black population is associated with a precise 0.1 percent increase in the number of Green Book establishments. This coefficient estimate is halved once we restrict to formal accommodations, and then remains stable using the sample for which we have Census of Business estimates, as well as conditioning on the number of Census of Business accommodations. The remainder of the elasticities are estimated conditional on the Black population.

Given that narrative accounts about the Green Books point to a network of Black postal workers as an important source of listings, we may expect places with a higher number of Black postal workers to also have more Green Book establishments. Indeed, we find that, conditional on the Black population, a one-percent increase in the number of Black postal workers is associated with nearly a 0.5 percent increase in the number of Green Book establishments.[31] This finding suggests that any analyses that use the Green Books should be mindful of this relationship and account for it in empirical specifications. Again, restricting to formal accommodations approximately halves this elasticity estimate, and it remains stable thereafter.

There is a substantial body of scholarship studying the determinants and effects of the

[31] We compute the number of Black postal workers by summing over the number of Black mail carriers, post masters, and express messengers and railway mail clerks.

Great Migration - the movement of roughly 7 million African Americans out of the South and into the Northeast (and West) between 1910 and 1970.[32] For this reason, we estimate the correlation between Green Book establishments and the presence of Black migrants within a county. Reminiscent of shift-share instruments used in the migration literature (Boustan, 2009; Derenoncourt, 2019), the share of Black migrants in 1940 may be correlated with the presence of Green Book establishments if the presence of migrants tends to attract more migrants over time. For this reason, we also consider the relationship between Green Book presence and the share of the Black population who are migrants from out of state, as well as the share of the Black population who are migrants from within state.[33] Unconditionally, the presence of both types of migrants is positively correlated with the number of Green Book establishments. However, in both cases, restricting to an analysis of formal accommodations more than halves our coefficient estimates, and in the case of between-state migration, the coefficient becomes negative once we condition on the Census of Business hotels. That being said, the share of migrants within state remains precisely estimated and positively correlated with the number of Green Book establishments. The relationship between the amenities available to African Americans and the location decisions of Black migrants is an area that merits further investigation.

Figure 24 examines the relationship between educational attainment and the presence of Green Book establishments. We estimate the elasticities of Green Book establishments with respect to the share of the Black and white population aged 15-65 with no formal education, with at least 5 grades of schooling, and with at least 10 grades of schooling. Overall, it appears that having both educated Black and white populations is associated with a greater presence of Green Book establishments, while a higher share of the adult population with no education is negatively correlated with the presence of Green Book establishments. Generally speaking, these estimates are robust to all sample restrictions and to conditioning on the number of formal accommodations from the Census of Business, although the latter specification is less precisely estimated.

In the next figure, we examine the correlation between county level household characteristics and the presence of Green Book establishments. We use household characteristics to proxy for wealth or well-being. Figure 25 shows that Green Book presence is negatively correlated with the percent of Blacks who own their own dwelling, which may not be surprising if the presence of Green Book establishments is also correlated with other segregation or discrimination laws that prevented African Americans from participating in lending mar-

[32] For a recent overview of this body of work see (Collins, 2020).

[33] We do not condition on the Black population in these specifications because the Black population is the denominator for the share of Black migrants.

kets, for instance. That being said, this correlation is not statistically different from zero and changes very little once we impose our sample restrictions and condition on the Census of Business estimates.

Other measures of material well-being, such as the percent of all households who have an electric light, radio, or fridge in their dwelling are all positively correlated with the presence of Green Book establishments, but are substantially reduced in magnitude, and some of which are statistically insignificant once we condition on the number of accommodations from the Census of Business. It is important to note here that the reduction in the magnitude of the coefficient estimates is partly due to the focus on accommodations, and partly due to conditioning on the Census of Business estimates.

Turning to other proxies of economic activity in Figure 26 tell a similar narrative. Green Book establishments appear more prominently in areas with more involvement in manufacturing, as measured by total manufacturing wages, establishments, wage earners, output, and value added; however this result is also reduced in magnitude once we focus on formal accommodations, and is further reduced when we condition on the total number of accommodations from the Census of Business. US federal government World War II contracts also tend to be associated with more Green Book establishments. In Figure 27 we show the elasticities of Green Book establishments with respect to war contracts for the supply of combat equipment, other types of supplies, industrial facilities contracts, and military facilities contracts. In each instance a one-percent increase in the number of contracts is associated with a 0.04-0.05 percent increase in the number of Green Book establishments. Again, these elasticities are reduced in magnitude to below 0.01 percent and are, at times, marginally statistically significant after conditioning on the total number of accommodations.

Overall, the elasticities of the number of Green Book establishments with respect to various measures of economic activity are generally positive and statistically significant, but are reduced in magnitude and precision when we condition on the total number of accommodations. Although this change is partially attributed to sample restrictions we have to impose in order to estimate the conditional elasticities, the majority of the reduction in coefficient magnitudes can be attributed to the inclusion of the total number of accommodations. This result suggests that places that have higher levels of economic activity may be marginally less discriminatory, but are often just areas with more businesses to begin with.

Figure 28 examines the relationship between discrimination in public accommodations and measures of residential segregation that have been considered in the literature. We present the elasticities of Green Book establishments with respect to three measures of residential segregation: the dissimilarity index, the isolation index, and the Logan-Parman

segregation index.[34] The dissimilarity index measures the similarity of the distribution of minority residents to that of non-minority residents in a geographic unit, by comparing the percentage of Black residents to the percentage of white residents across geographic sub-units. The isolation index measures the "extent to which minority members are exposed only to one another" (Massey and Denton, 1988). The Logan-Parman segregation index provides an alternative to these two measures, which may be especially suitable for historical data. Within a census enumeration, within a county, this index compares the number of households with neighbours of a different race to the benchmark cases of total segregation and random residential assignment. All three measures are obtained from Logan and Parman (2017). Keeping in mind that a higher value of all three of the segregation indices indicates a higher degree of segregation, we find that, unconditionally, areas with a higher Green Book presence tend to be areas that are also more segregated residentially. The elasticities constructed using all three indices remain positive and statistically significant when we restrict to formal accommodations and when we restrict to the Census of Business sample. With the exception of the dissimilarity index, we also find the elasticities are positive after conditioning on the total number of hotels from the Census of Business. We conclude from this figure that areas with greater levels of residential segregation generally have more Green Book establishments. This result is in line with the historical on Black business districts and the likelihood that stronger racial intolerance jointly impacted the development of housing as well a business practices when it came to serving members of the minority group.

In Figure 29, we examine the relationship between the presence of Green Book establishments and a darker part of American history. Here, we display the elasticities for a number of proxies for racial animus or discrimination. In line with the work of Williams (2019), we use the number of Confederate symbols in a county.[35] First, counties with more Green Book establishments also have more Confederate symbols—statues, plaques, and roads or public building named in honour of Confederate soldiers and politicians. Although there is a gain in precision when formal accommodations are considered separately, the correlation with Confederate symbols is largely unchanged across specifications.

Next, we consider the relationship between Green Book establishments and historical violence against Blacks, captured by the cumulative number of Black lynchings in a county, up to 1936. These measures are from the database collected in Cook (2012a) and expanded on more recently. We find, conditional on the Black population, lynchings against Blacks

[34]For each of the three indices a value of one indicates complete residential segregation, while a value of zero indicates complete residential integration.

[35]The Confederate symbols are collected from the Southern Poverty Law Centre's collection: https://www.splcenter.org/20190201/whose-heritage-public-symbols-confederacy.

to be be negatively correlated with the total count of Green Book establishments.[36] The point estimate for Black lynchings is negative across all four specifications. That said, the elasticity between formal Green Book accommodations and historical lynchings of Blacks is smaller in magnitude than the elasticity between all Green Book establishments and historical lynchings of Blacks. This estimate changes little when we restrict to counties that also have Census of Business counts, but we cannot reject that the correlation is zero at the 10 percent significance level when we condition on the total number of formal accommodations. Finally, we find a small positive elasticity of Green Book establishments with respect to White Lynchings; however, this estimate is marginally significant and is a precisely estimated 0 when we impose any of the sample restrictions.

In light of the impact that conditioning on the total number of firms has on the estimated elasticities, we conclude that the local level of market competition, as measured by the number of firms, played an important role in the provision of public accommodations to African American customers during this period, and it is paramount that this be taken into account in any empirical analysis using the Green Books data. Tables 3 and 4 push this hypothesis further by presenting a set of regression results that includes all relevant explanatory variables in the same specifications.

Table 3 estimates the relationship between the total number of Green Book establishments in 1940 and all county-level characteristics. Column (1) includes all controls and column (2) includes all controls, as well as state fixed effects. These columns are included for reference, as we will focus our discussion on columns (3) and (4). In column (3), we first use a LASSO procedure to select controls optimally, while using a data-driven approach to selecting the penalty loadings (λ) (Ahrens et al., 2019; Belloni et al., 2012, 2013, 2014, 2015). Specifications are then estimated via OLS with the LASSO-selected set of controls. Column (4) also includes controls selected via LASSO, but with state fixed effects.[37] All independent variables have been standardized, so that coefficient estimates can be interpreted as the impact of a one standard deviation change in the independent variable on the level of the dependent variable.

In both column (3) and (4), the LASSO chosen controls include the Isolation index, the Logan-Parman Segregation index, the number of black residents with no formal schooling, the number of black migrants from within the same state, the percent of households with electricity, the number of manufacturing establishments, the number of military war facilities projects and the total population. Without fixed effects (column (3)), the lasso also selects

[36] Without conditioning on the Black population, historical lynchings is positively correlated with the presence of Green Book establishments. These results are unreported, but available upon request.

[37] The state fixed effects are included in the LASSO procedure that optimally selects controls and are not be penalized by the LASSO.

the number of white residents with more than a grade 5 education, and with state fixed effects (column (4)), the lasso selects the number of confederate symbols.

The vast majority of the correlations between the LASSO chosen variables and the number of Green Book establishments are consistent with the previous analysis. The only difference is that the estimate of the relationship between the number of white residents with more than 5 years of schooling is negatively correlated with the number of Green Book establishments in column (3), while it is positive in the figures which only condition on the number of black residents. Overall, the results reinforce our previous findings that Green Book presence tends to correlate positively with measures of material well-being and economic activity. For instance, the number of households with electricity, the number of manufacturing establishments, and the number of military war facilities projects are all positively correlated with the number of Green Book establishments, while the number of black residents without formal schooling is negatively correlated with the number of Green Book establishments. Measures of segregation–both the isolation and Logan-Parman indices–are positively correlated with Green Book presence. The black population is positively correlated with the number of Green Book establishments, as would be the case if a higher number of black residents increases the demand for black-serving businesses. Finally, the number of black migrants from within state is also positively correlated with the number of Green Book establishments.

Table 4 conducts a similar exercise, but for the number of formal Green Book hotels. The first two columns present OLS estimates of the number of Green Book hotels on our full set of controls, with column (2) including state fixed effects. Column (3) introduces the first set of estimates with LASSO-chosen controls, column (4) includes the LASSO-chosen controls with state fixed effects, column (5) restricts to the sample of counties for which we also have counts from the Census of Business, and column (6) conditions on the total number of hotels from the Census of Business.

The first notable result in Table 4 is that in each of the columns where the controls are selected via LASSO, the LASSO consistently selects the isolation index, the number of black migrants within state, and the black population as explanatory variables. In the most restrictive specification, where we restrict the analysis to counties that have counts from the Census of Business and condition on this county-level control, the LASSO also selects the number of white residents with greater than a grade 5 education. As was the case in Table 4, the isolation index, number of black migrants from within state, and black population are positively correlated with the number of Green Book hotels. Not surprisingly, counties with a large number of hotels overall also tend to have a larger number of Green Book hotels. Also consistent with the results for the total number of establishments, we find that the

number of white residents with more than a grade 5 education is negatively correlated with the number of Green Book hotels.

While descriptive in nature, the results of this section provide an overview of the factors that are important determinants of the number of Green Book establishments and should serve as a guide for researchers wishing to conduct analyses with the Green Book data.

5.2 State-Level Discrimination Laws and the Presence of Green Book Establishments

This section evaluates the relationship between the presence of Green Book establishments and state-level variation in laws relating to discrimination. In 1950, African American activist and lawyer, Pauli Murray, published a volume, titled, *"States' Laws on Race and Color."* Murray's 746-page volume, which Thurgood Marshall later termed the "bible" of Brown v. Board of Education, listed all the laws passed in the United States that were related to segregation and discrimination.[38] We digitize all entries in *"States' Laws on Race and Color"* to construct a state-level dataset of the number of laws passed related to segregation or discrimination. For our purposes, we focus on anti-discrimination laws and discriminatory laws.[39] As an example of an anti-discrimination law, in 1944 the state of Maine passed a statute prohibiting life insurance companies from discriminating between individuals of the same class of insurance risk. Alternatively, an example of a law upholding discrimination includes a statute from Maryland passed in 1935 that prohibited marriage between whites and African Americans.

We present scatter plots of the relationship between the number of discriminatory laws by 1950 and the number of Green Book establishments in 1950 in Figure 30. A linear regression of the number of Green Book establishments on the number of discriminatory laws produces a slope coefficient of 0.5, suggesting that an additional discriminatory law is associated with roughly 0.5 more Green Book establishments, on average. Interestingly, we also find a positive correlation between anti-discrimination laws and the number of Green Book establishments in Figure 31. With a slope coefficient of 2.88, this relationship is much stronger, suggesting an additional anti-discrimination law is associated with almost 3 more Green Book establishments.

The fact that both anti-discrimination and discriminatory laws are positively correlated with the number of Green Book establishments presents a puzzle, which can partially be

[38] See the description in *The New Yorker*'s "Many Lives of Pauli Murray": https://www.newyorker.com/magazine/2017/04/17/the-many-lives-of-pauli-murray.

[39] Both anti-discrimination and discriminatory laws include acts of assembly, assembly bills, constitutional changes, executive orders, general acts, house bills, house resolutions, joint resolutions, regional compacts, resolutions, and statutes. Municipal ordinances are excluded.

addressed by a breakdown of these correlations by industry. Figures 32 and 33 display these plots. Beginning with the industry-level plots for discriminatory laws in Figure 32 reveals that informal accommodations may be driving most of the positive correlation between Green Book establishments and discriminatory laws in Figure 30. Intuitively, we might expect a large number of informal accommodations to arise in areas with a greater level of *de jure* segregation or discrimination. Turning to formal accommodations, eating and drinking establishments, and barber and beauty shops we see almost no relationship between discrimination laws and the number of Green Book establishments. On the other hand, Figure 33 shows a strong, positive correlation between the number of anti-discrimination laws and Green Book establishments for all industries. In Figures 35 and 36 consider the relationship between the number of listings per 1,000 Black population–perhaps a more direct measure of the access to public accommodations for the average Black resident–and laws for and against discrimination at the state level. Greater numbers of discriminatory laws are associated with lower access to public accommodations across all six industries that we consider, albeit, for service stations the effect is muted. With the notable exception of lodgings, both formal and informal, that are negatively correlated with greater antidiscriminatory jurisprudence, antidiscriminatory laws have a substantially weaker association with Green Books listings per 1,000 Black population. This last finding merits further investigation, a more granular analysis that takes into account the content of the laws could be insightful. Considering the fact that Green Book listings targeted a specific group, Black motorists, and as such they were concentrated in more populated areas–the majority of towns/counties did not have any listings at all, we recognize that this is an imperfect measure of access to public accommodations at the state level. That being said, the patterns we observe are, broadly speaking, in line with our interpretation that higher levels of Green Book listings, or listings per 1,000 Black population, are an indicator of less discrimination against African Americans.

6 Conclusion

The Green Books present an unprecedented historical account of discrimination in public accommodations during Jim Crow. By digitizing and geocoding the location of all establishments listed in these publications, we have produced the first comprehensive dataset of establishments across the United States that welcomed Black patrons in the decades leading up to the 1964 Civil Rights Act. We use this novel dateset to provide new insights into the geography and correlates of this type of discrimination. While the number of non-discriminatory public accommodations increased nationwide between 1939 and 1955, this growth was largest in the South. On a per-capita basis (based on the number of African

American residents) counties in the Midwest vastly exceeded the rest of the country over this same time period in terms of access to non-discriminatory public accommodations. Combining our counts of Green Book formal accommodations with newly digitized counts of the number of accommodations by county across the United States reveals that the South also had the largest share of non-discriminatory public-accommodations. Within cities, Green Book establishments were disproportionately located in areas that were traditionally excluded from lending markets due to the practice of redlining, wherein the Home Owner's Loan Corporation drew residential security maps which resulted in lenders from providing less credit in certain neighborhoods.

In general, the presence of Green Book establishments is positively correlated with a wide range of factors that proxy for economic activity: educational attainment, household characteristics like having an electric light, radio, or fridge, involvement in manufacturing, and the value of WWII contracts. That being said, many of these correlations are reduced substantially when we restrict our analysis to formal accommodations and condition on the total number of accommodations from the U.S. Census of Business. Thus, the presence of Green Book establishments appears to be positively correlated with economic activity insofar as economic activity generates businesses more broadly, and is not entirely due to a fundamental difference in the propensity to discriminate in these areas.

Overall, our analysis presents several new facts related to access to non-discriminatory public accommodations during the pre-Civil Rights Act era, which had previously been undocumented. While the literature is clear about the pervasiveness of residential segregation across the United States during this period, we find that, contrary to the common perception that discrimination in public accommodations was largely a Southern concern, a large portion of listings were for establishments outside of the South. In other words, we have quantified the degree to which discrimination against Blacks in public accommodations was a nationwide phenomenon during the mid-20th century, as well as its evolution over time.

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A Tables

Table 1: Geocoding Accuracy by Region

	Midwest	Northeast	South	West	All Regions
Approx. Location	1.86	2.96	5.07	5.93	3.74
County Centroid	7.16	4.64	7.65	5.51	6.38
Exact Match	86.68	86.97	73.92	84.88	81.89
Mid-point of street	4.30	5.43	13.36	3.88	7.99

Table 2: Idiosyncratic Greenbook Entries

Example	Year	Establishment	Address	City	Type
Fresno Motel	1957 - 1962	Fresno Motel	Hwy. 99	Fresno, CA	Lodging
	1963	Fresno Hacienda	Hwy. 99 and Clinton	Fresno, CA	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	Summer Hotel	754 1/2 Adams St. S. W.	Camden, AR	Lodging
	1955	Summer Hotel	740 Adams Ave. S.W.	Camden, AR	Lodging
	1956	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

Table 3: Correlates of the Total Number of Green Book Establishments in 1940

	All Controls		Lasso Chosen Controls	
	(1)	(2)	(3)	(4)
# Confederate Symbols	0.132	0.175*		0.252**
	(0.098)	(0.097)		(0.112)
Dissimilarity Index	-0.0253	-0.0572		
	(0.046)	(0.050)		
Isolation Index	0.366***	0.395***	0.307***	0.288**
	(0.098)	(0.120)	(0.095)	(0.107)
Logan-Parman Index	0.196***	0.208***	0.106**	0.0892*
	(0.046)	(0.066)	(0.053)	(0.046)
# Black Lynchings	-0.152***	-0.126**		
	(0.048)	(0.054)		
# White Lynchings	0.0362	0.0438*		
	(0.034)	(0.024)		
# Black No Formal School	-0.0334*	-0.0211	-0.0358**	-0.0403***
	(0.018)	(0.018)	(0.016)	(0.012)
# Black $\geq$ Grade 5	-0.162***	-0.137**		
	(0.044)	(0.060)		
# White $\geq$ Grade 5	-0.0589	0.00922	-0.209***	
	(0.139)	(0.179)	(0.031)	
# White No Formal School	0.0641*	0.0178		
	(0.035)	(0.034)		
# Black $\geq$ High School	0.230***	0.178***		
	(0.042)	(0.061)		
# White $\geq$ High School	-0.195	-0.247		
	(0.146)	(0.168)		
# Black Postal Workers	0.116	0.0775		
	(0.299)	(0.316)		
# Black Migrants Out Of State	0.0813***	0.0833***		
	(0.021)	(0.021)		
# Black Migrants Within State	0.275***	0.320***	0.244***	0.170***
	(0.035)	(0.053)	(0.030)	(0.035)
# Black Own House	-0.163	-0.164		
	(0.239)	(0.208)		
% Households With Electricity	0.0114	0.117	0.324***	0.140*
	(0.085)	(0.118)	(0.071)	(0.074)
% Households With Radio	0.281***	0.0333		
	(0.078)	(0.076)		
% Households With Electricity	0.240***	0.136		
	(0.087)	(0.106)		
Manufacturing Wages	1.872	2.391*		
	(1.275)	(1.330)		
# Manufacturing Estab	3.025***	3.178***	2.269***	2.363***
	(0.359)	(0.268)	(0.415)	(0.371)
# Manufacturing Workers	-0.520	-0.825		
	(0.733)	(1.060)		
Manufacturing Output	-0.541	-0.497		
	(0.936)	(1.225)		
Manufacturing Value Added	-1.777	-2.240		
	(1.979)	(1.669)		
# War Supply Contracts: Combat	-0.178	-0.263		
	(0.169)	(0.211)		
# War Supply Contracts: Other	0.752**	0.638**		
	(0.328)	(0.280)		
# War Facilities Projects: Industry	-0.259	-0.101		
	(0.167)	(0.132)		
# War Facilities Projects: Military	0.161**	0.161*	0.118	0.0954
	(0.066)	(0.092)	(0.086)	(0.074)
Black Population	1.387***	1.393***	0.765***	0.604*
	(0.332)	(0.392)	(0.287)	(0.355)
Total Population	-0.874***	-0.797**		
	(0.303)	(0.303)		
State Fixed Effects		X		X
Observations	3105	3105	3105	3105
Adjusted R^2	0.703	0.734	0.661	0.693

Notes: The dependent variable in each column is the total number of Green Book establishments. All independent variables have been standardized so that coefficients can be interpreted in terms of the impact of a one standard deviation change in the independent variable on the level of the dependent variable. Columns (1) and (2) include the full set of controls, while columns (3) and (4) include a set of optimal controls that are selected by LASSO with a data driven choice of penalty loadings (λ) (Ahrens et al., 2019; Belloni et al., 2012, 2013, 2014, 2015). Columns (2) and (4) include state fixed effects, where state fixed effects are not penalized in the LASSO-chosen optimal set of controls. Robust standard errors in parenthesis in columns (1) and (3) and standard errors clustered by state in parentheses in columns (2) and (4). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

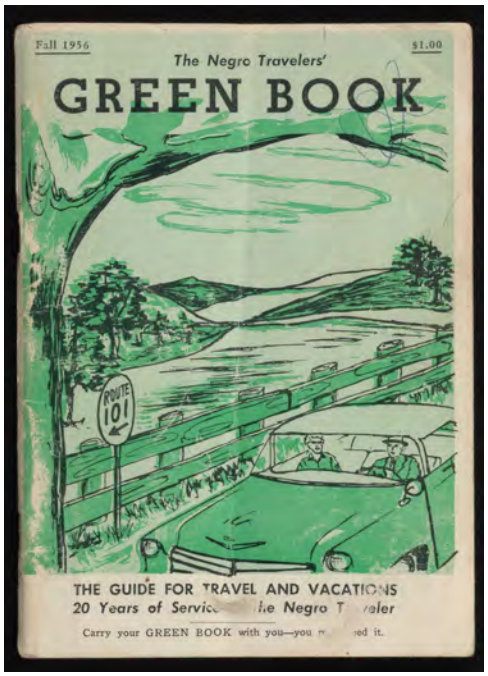
Table 4: Correlates of the Number of Green Book Hotels

	All Controls		Lasso Chosen Controls			
	(1)	(2)	(3)	(4)	(5)	(6)
# Confederate Symbols	-0.00783	-0.00196		0.00716		
	(0.020)	(0.019)		(0.019)		
Dissimilarity Index	-0.00668	-0.0157				
	(0.011)	(0.013)				
Isolation Index	0.0874***	0.0839***	0.0651***	0.0608***	0.0985***	0.0693**
	(0.027)	(0.029)	(0.024)	(0.022)	(0.036)	(0.030)
Logan-Parman Index	0.0256**	0.0222				
	(0.011)	(0.017)				
# Black Lynchings	-0.0499***	-0.0427***				
	(0.014)	(0.014)				
# White Lynchings	0.0167	0.0171				
	(0.011)	(0.011)				
# Black No Formal School	-0.00936**	-0.00616*	-0.0180***	-0.0116***	-0.0189***	
	(0.004)	(0.003)	(0.005)	(0.003)	(0.006)	
# Black $\geq$ Grade 5	-0.0378***	-0.0315***				
	(0.010)	(0.012)				
# White $\geq$ Grade 5	0.0645*	0.0656				-0.0563***
	(0.037)	(0.046)				(0.011)
# White No Formal School	-0.00674	-0.00739				
	(0.010)	(0.008)				
# Black $\geq$ High School	0.0581***	0.0465***				
	(0.011)	(0.012)				
# White $\geq$ High School	-0.120***	-0.112**				
	(0.038)	(0.046)				
# Black Postal Workers	0.167**	0.190*				
	(0.083)	(0.096)				
# Black Migrants Out Of State	0.0190***	0.0165***				
	(0.006)	(0.006)				
# Black Migrants Within State	0.0636***	0.0664***	0.0355***	0.0402***	0.0645***	0.0885***
	(0.010)	(0.013)	(0.006)	(0.010)	(0.013)	(0.016)
# Black Own House	0.0307	0.0250		0.00726		
	(0.062)	(0.066)		(0.058)		
% Households With Electricity	0.0363	0.0677*	-0.0227	0.0142		
	(0.023)	(0.038)	(0.020)	(0.032)		
% Households With Radio	0.0535***	0.0161	0.113***	0.0421	0.123***	
	(0.017)	(0.023)	(0.021)	(0.026)	(0.038)	
% Households With Electricity	-0.00126	-0.0108				
	(0.019)	(0.027)				
Manufacturing Wages	0.542**	0.664	0.202**			
	(0.270)	(0.452)	(0.089)			
# Manufacturing Estab	0.328***	0.347***		0.213***	0.216***	
	(0.060)	(0.094)		(0.039)	(0.052)	
# Manufacturing Workers	-0.117	-0.194				
	(0.166)	(0.183)				
Manufacturing Output	0.00853	-0.0234				
	(0.244)	(0.191)				
Manufacturing Value Added	-0.446	-0.522				
	(0.392)	(0.582)				
# War Supply Contracts: Combat	0.101*	0.0981	0.0597	0.120**		
	(0.057)	(0.079)	(0.079)	(0.052)		
# War Supply Contracts: Other	0.0171	0.0145				
	(0.065)	(0.056)				
# War Facilities Projects: Industry	0.0157	0.0212		-0.000720		
	(0.039)	(0.044)		(0.047)		
# War Facilities Projects: Military	0.0285	0.0318				
	(0.020)	(0.021)				
Black Population	0.276***	0.304***	0.407***	0.381***	0.447***	0.523***
	(0.080)	(0.094)	(0.050)	(0.102)	(0.084)	(0.078)
Total Population	-0.194	-0.185				
	(0.125)	(0.147)				
# Census of Business Hotels						0.296***
						(0.095)
State Fixed Effects		X		X	X	X
Census of Business Sample					X	X
Observations	3105	3105	3105	3105	1916	1916
Adjusted R^2	0.647	0.657	0.607	0.637	0.647	0.673

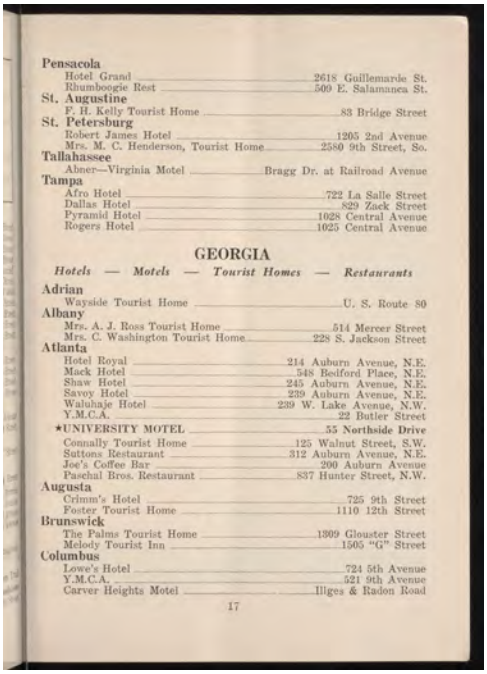
Notes: The dependent variable in each column is the total number of Green Book hotels. All independent variables have been standardized so that coefficients can be interpreted in terms of the impact of a one standard deviation change in the independent variable on the level of the dependent variable. Columns (1) and (2) include the full set of controls, while columns (3) and (4) include a set of optimal controls that are selected by LASSO with a data driven choice of penalty loadings (λ) (Ahrens et al., 2019; Belloni et al., 2012, 2013, 2014, 2015). Columns (2) and (4) include state fixed effects, where state fixed effects are not penalized in the LASSO-chosen optimal set of controls. Robust standard errors in parenthesis in columns (1) and (3) and standard errors clustered by state in parentheses in columns (2) and (4). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B Figures

Figure 1: Sample of the Green Book publications from the year 1956 and the state of Georgia.



(a) Front page



(b) Example from Georgia

(c) Example of an advertisement

Reproduced from the New York Public Library Digital Collections.

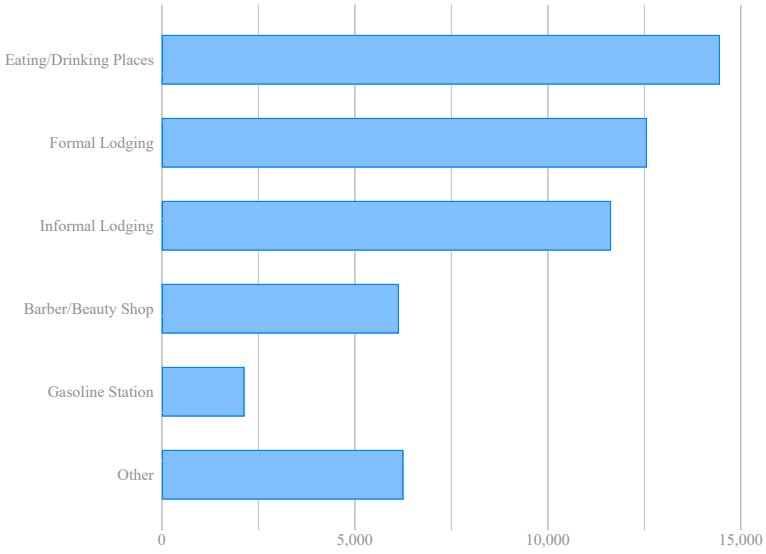


Figure 2: Frequency of establishments in all years listed by type of establishment.

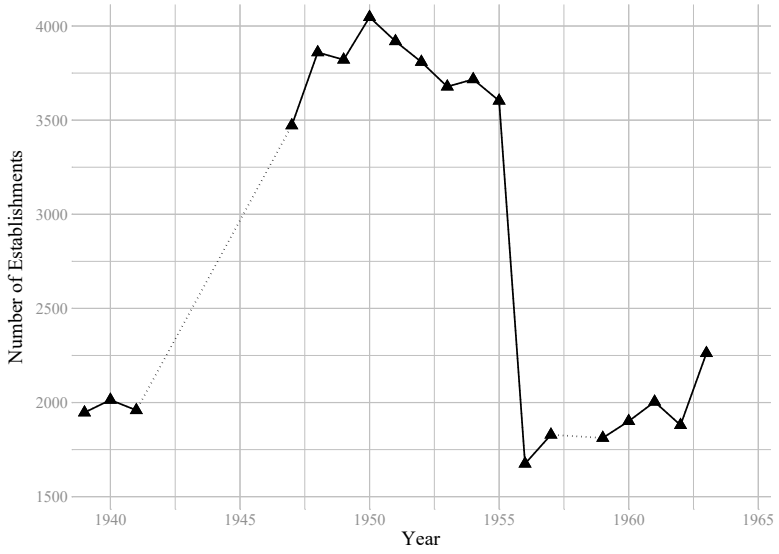
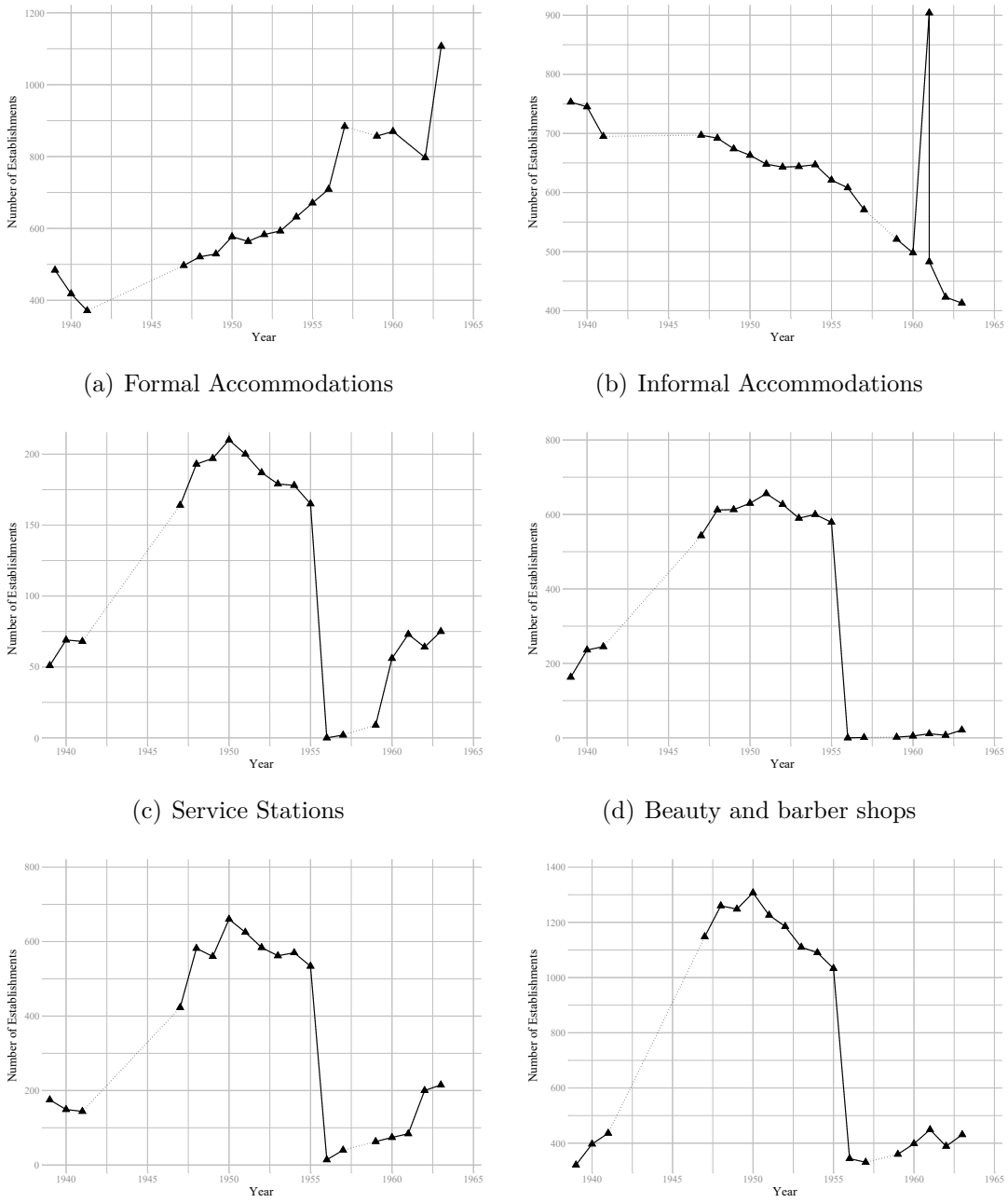


Figure 3: Number of Green Book establishments listed for the United States in each publication of the travel guides.



(a) Formal Accommodations

(b) Informal Accommodations

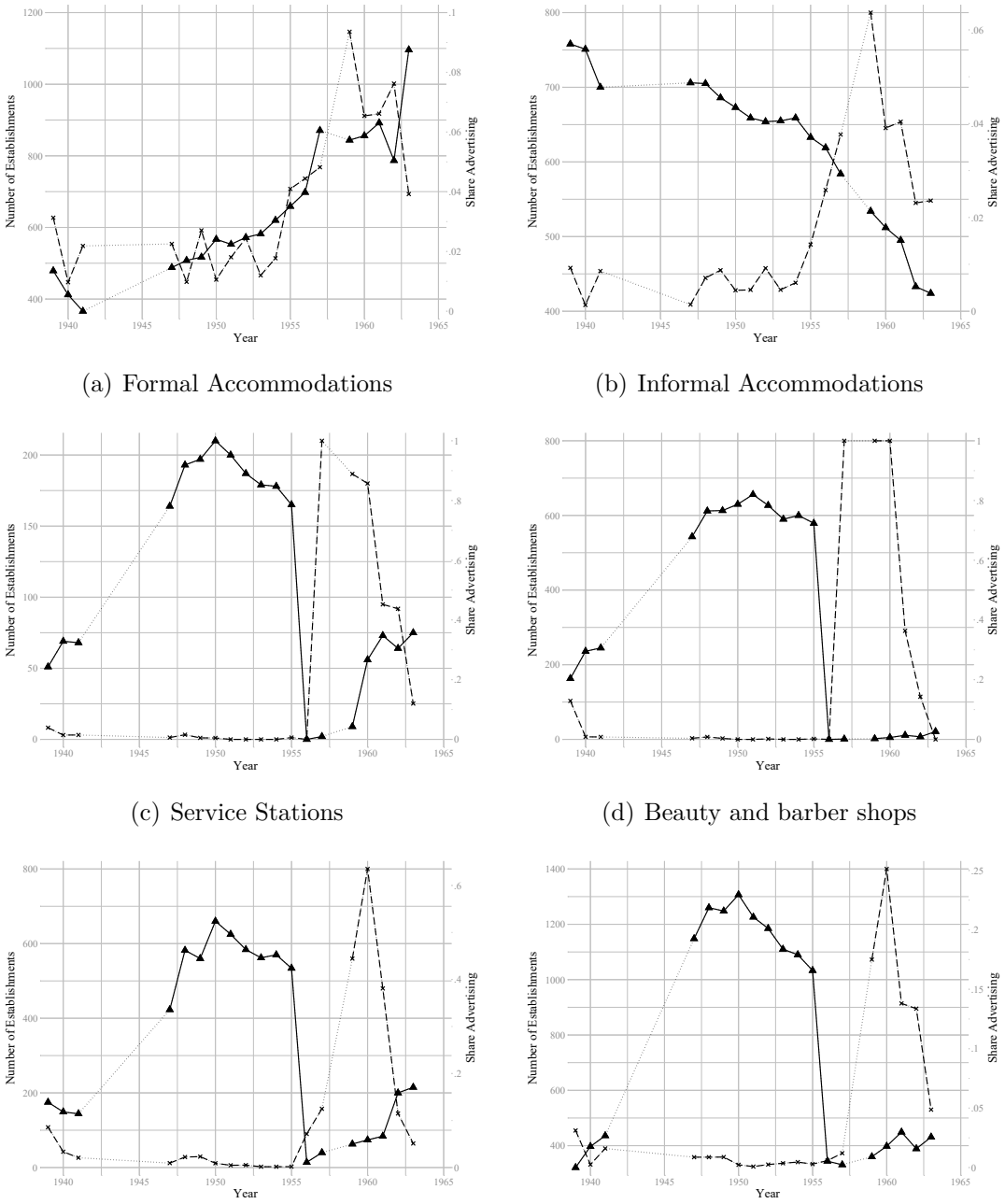
(c) Service Stations

(d) Beauty and barber shops

(e) Other

(f) Eating and dining

Figure 4: Number of Green Book establishments listed for the United States in each publication of the travel guides. Each subplot displays a different establishment category. Beauty and barber shops also include beauty schools; Eating and dining include all restaurants and cafes; Formal accommodations include hotels and motels; Informal accommodations includes tourist homes, boarding houses, camps, and other lodging; Other includes all other establishments that did not fit clearly into one of the above categories.



(a) Formal Accommodations

(b) Informal Accommodations

(c) Service Stations

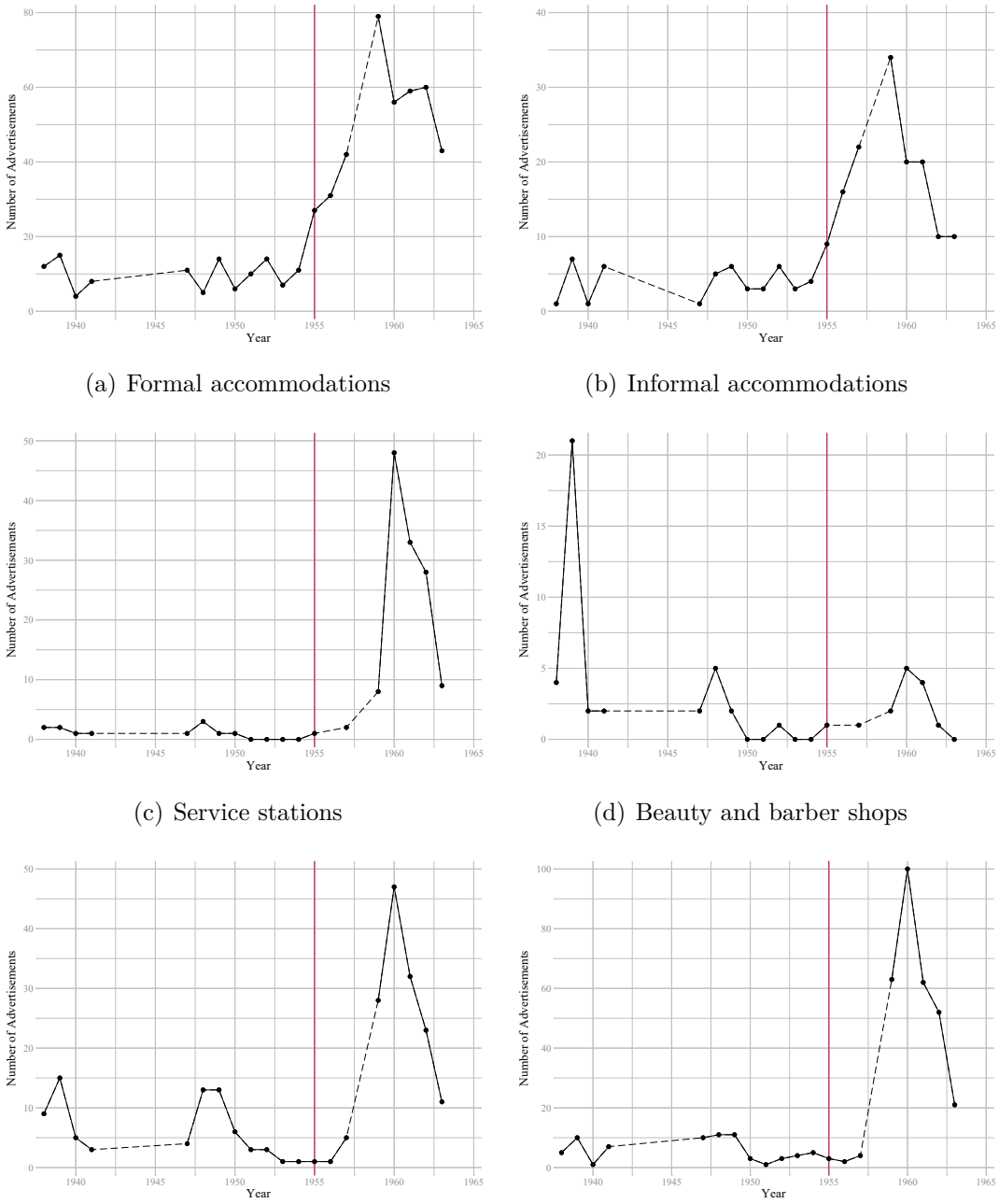
(d) Beauty and barber shops

(e) Other

(f) Eating and dining

Figure 5: Number of Green Book establishments listed for the United States in each publication of the travel guides. Each subplot displays a different establishment category, as well of the share (zero to one) of listings of that category that were advertisements. Beauty and barber shops also include beauty schools; Eating and dining include all restaurants and cafes; Formal accommodations include hotels and motels; Informal accommodations includes tourist homes, boarding houses, camps, and other lodging; Other includes all other establishments that did not fit clearly into one of the above categories.

Figure 6: Number of Advertisements in the Green Books, by Industry.



(a) Formal accommodations

(b) Informal accommodations

(c) Service stations

(d) Beauty and barber shops

(e) Other

(f) Eating and drinking

Figure 7: Number of advertisements that appeared for the continental United States, over 1939-1964. Beauty and barber shops also include beauty schools; Eating and dining include all restaurants and cafes; Formal accommodations include hotels and motels; Informal accommodations includes tourist homes, boarding houses, camps, and other lodging; Other includes all other establishments that did not fit clearly into one of the above categories.

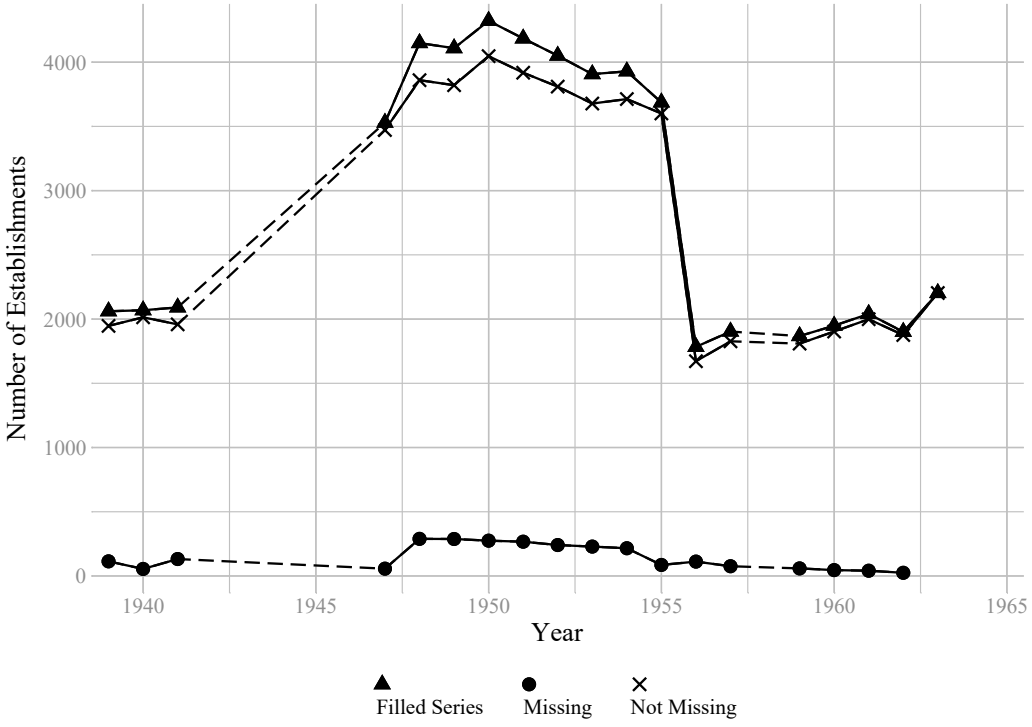


Figure 8: Number of establishments with and without filling in gaps.

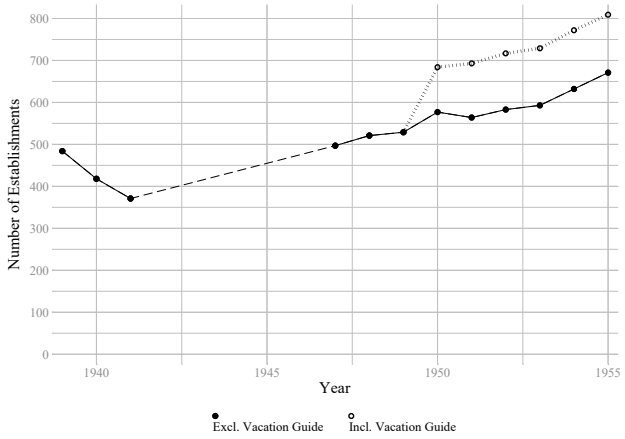


Figure 9: Number of formal accommodation establishments that appeared in the Green Books with and without the "Vacation Guide" supplement.

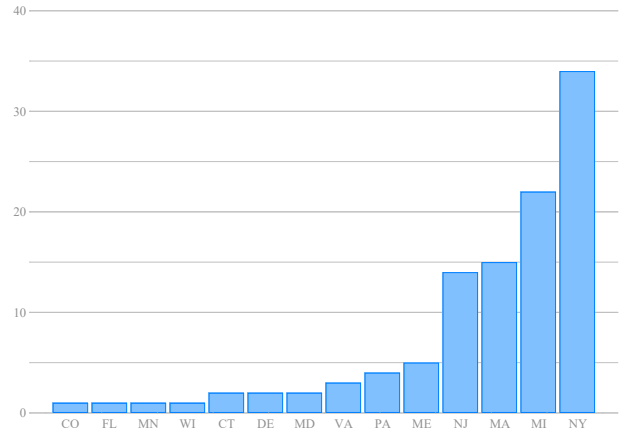
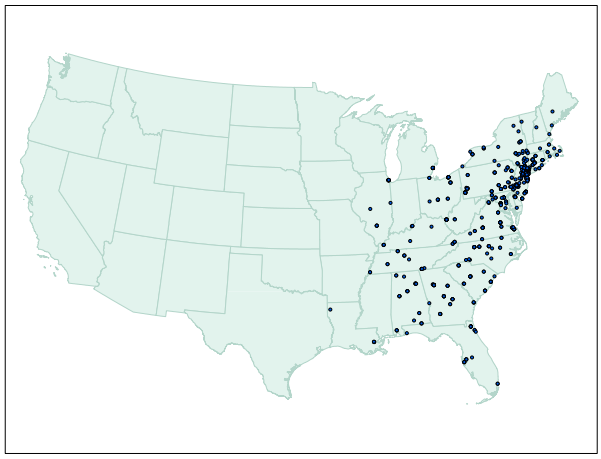
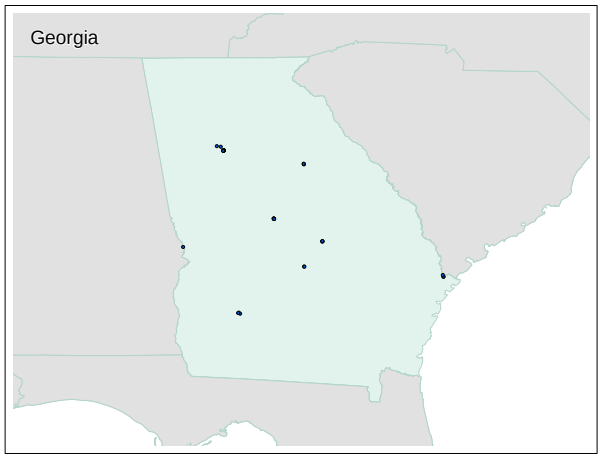


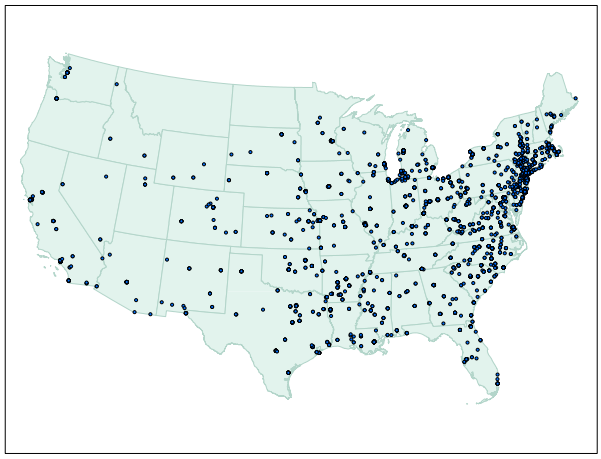
Figure 10: Number of formal accommodation listings that appeared in the "Vacation Guide" supplement in the 1950 edition of the Green Book.



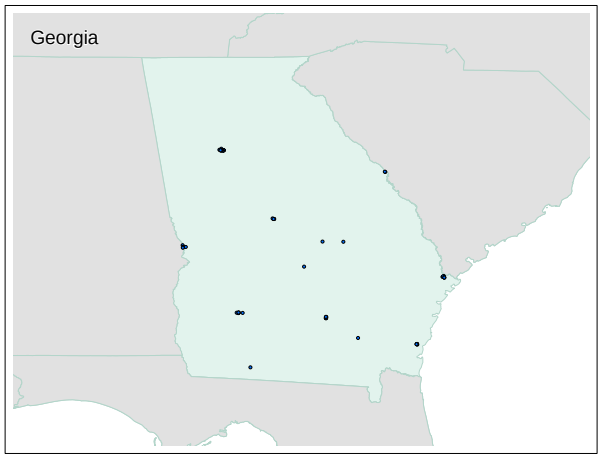
(a) All Green Book locations in continental USA (1938)



(b) All Green Book locations in Georgia (1938)

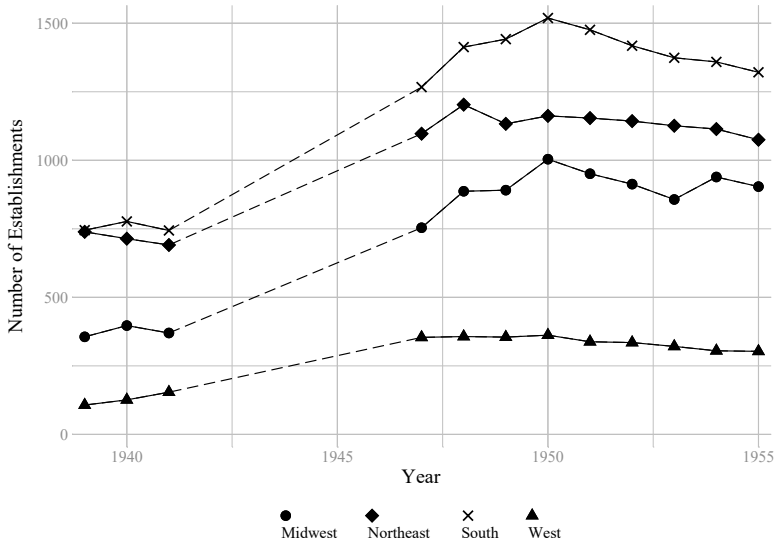


(c) All Green Book locations in continental USA (1955)

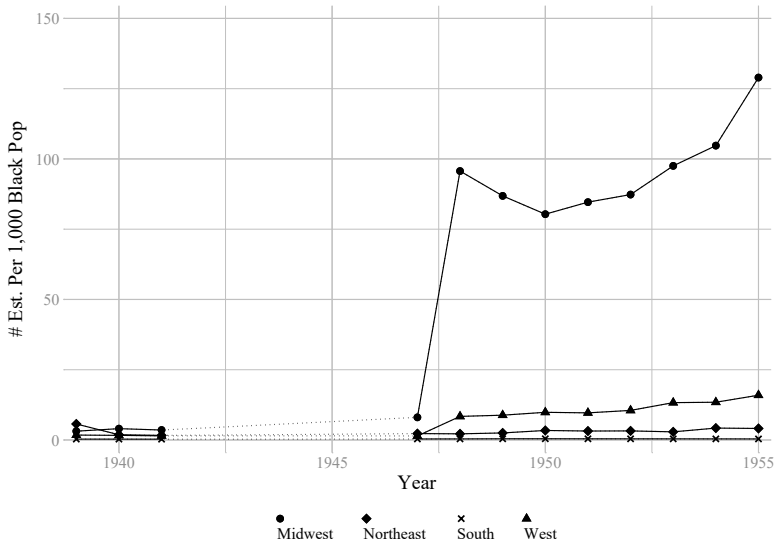


(d) All Green Book locations in Georgia (1955)

Figure 11: Location of Green Book establishments in 1938 and 1955 in continental USA and state of Georgia.



(a) Number of establishments, regional breakdown



(b) Establishments by Black population, regional breakdown

Figure 12: The evolution of Green Book establishments by region.

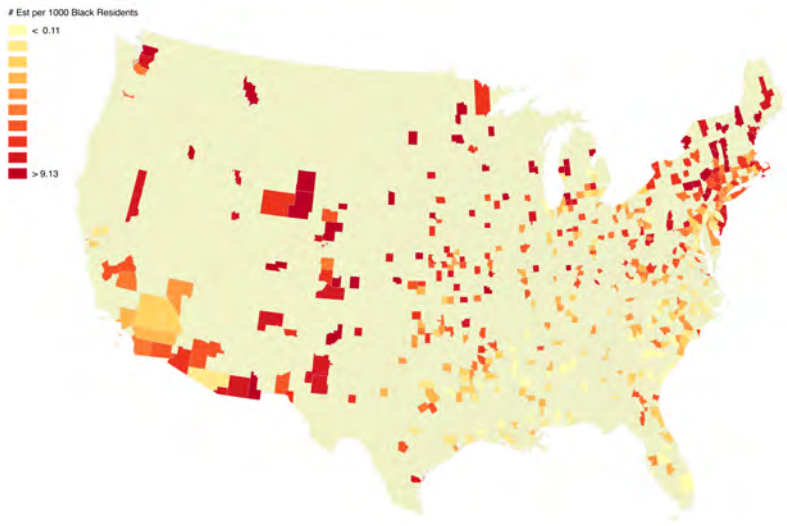
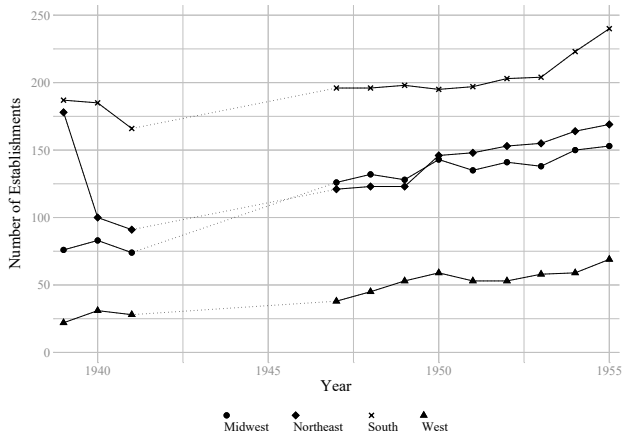
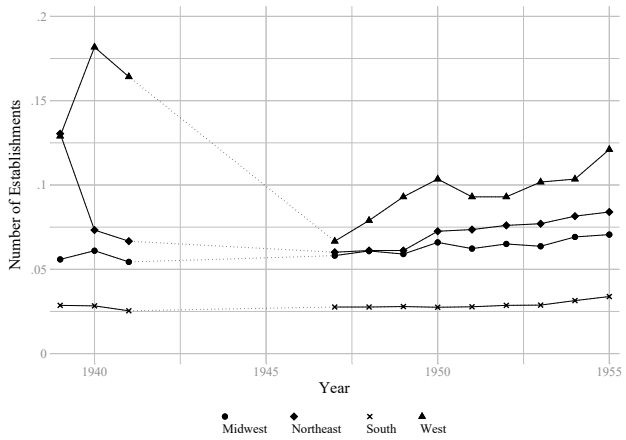


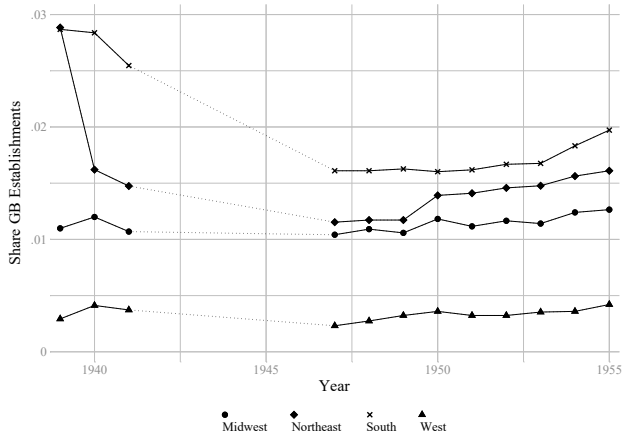
Figure 13: The number of Green Book establishments per 1000 African American residents in 1950.



(a) Number of formal accommodations



(b) Formal accommodations by Black population



(c) Share of total accommodations that are listed in the Green Books

Figure 14: Total number of formal accommodations, formal accommodations per 1,000 Black population, and share of all accommodations that are listed in the Green Books, split by region.

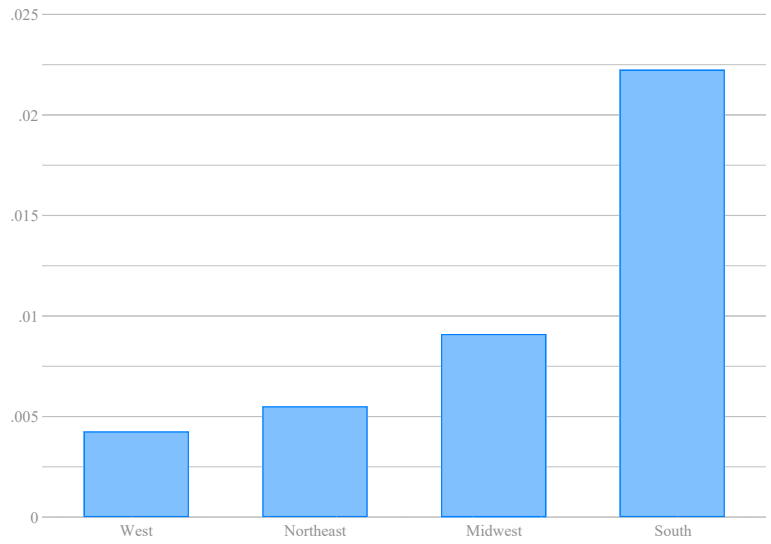


Figure 15: Black-owned hotel share across U.S. regions in 1935. The numerator (Black-owned hotels) comes from the 1935 Census of Business Bulletin and the denominator comes from the published hotel trade volume in the 1935 Census of Business.

State and County	Number of Establishments	Total number of guest rooms	Receipts (add 000)	Active proprietors and firm members	Employees (full-time and part-time). Average for year.	Total pay roll* (add 000
ALABAMA	248	9,728	$4,223	210	2,656	$998
Baldwin	8	170	29	7	16	4
Butler	3	49	14	3	9	2
Calhoun	7	223	84	5	64	20
Clarke	5	83	22	5	16	2
Colbert	3	137	50	2	35	15
Covington	8	124	34	7	31	8
Dallas	5	247	61	4	45	21
De Kalb	5	134	14	3	10	3
Escambia	3	99	27	2	23	8

Figure 16: An example of the county-level hotel information from the 1935 Census of Business.

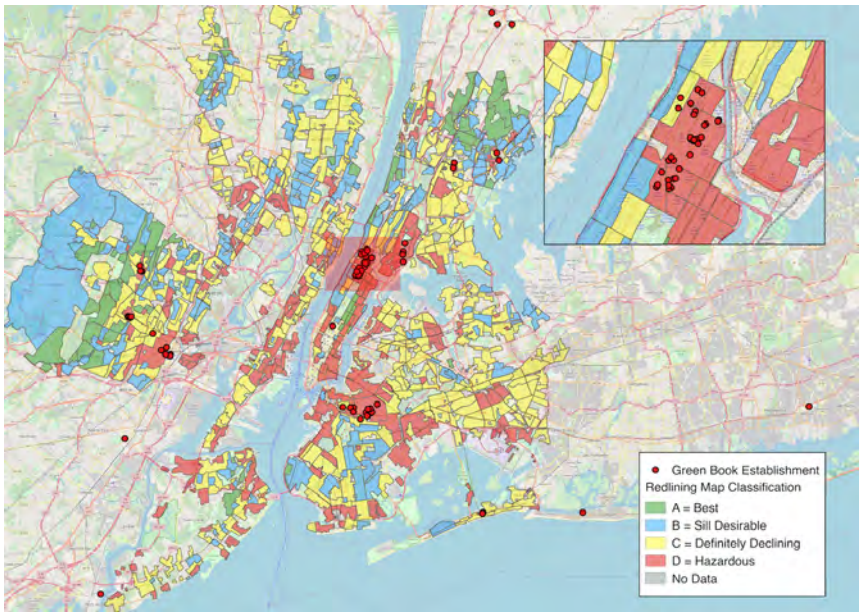


Figure 17: Redlining and the location of Green Book establishments in New York, NY, and Newark, NJ in 1956.

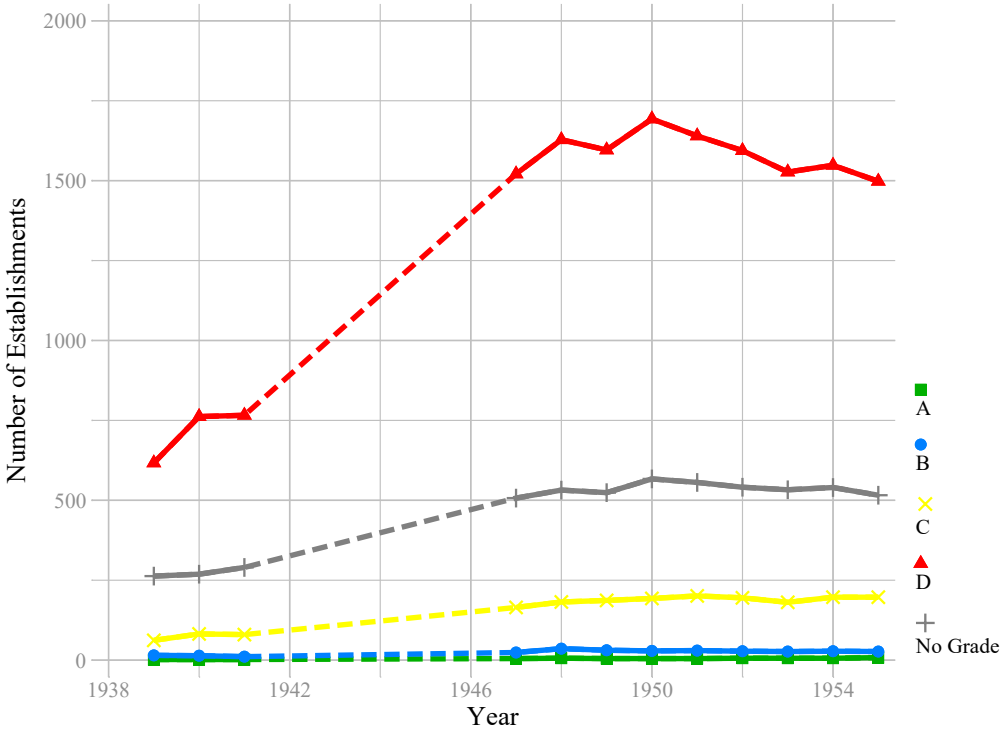


Figure 18: Number of establishments over time by HOLC grade.

(a) Barber Shops

(b) Eating and Drinking

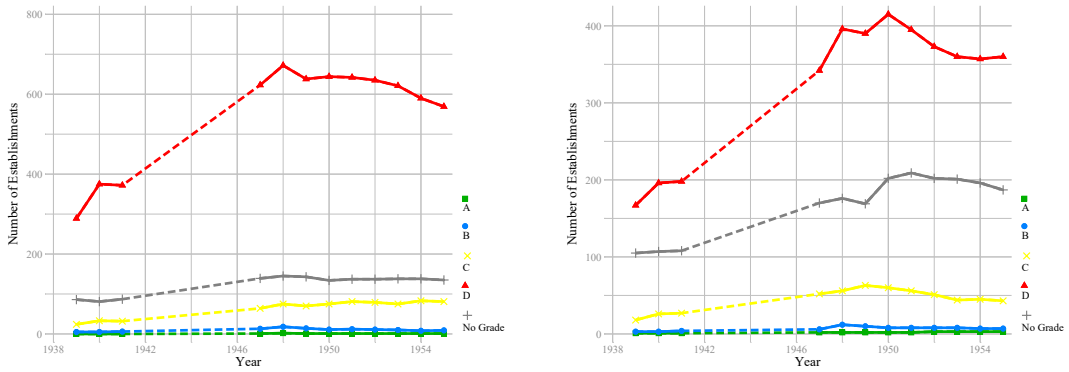
(c) Formal Accommodations

(d) Informal Accommodations

(e) Gasoline

(f) Other

Figure 19: Number of establishments over time by HOLC grade and by industry.



(a) Northeast

(b) South

(c) Midwest

(d) West

Figure 20: Number of establishments over time by HOLC grade and by region.

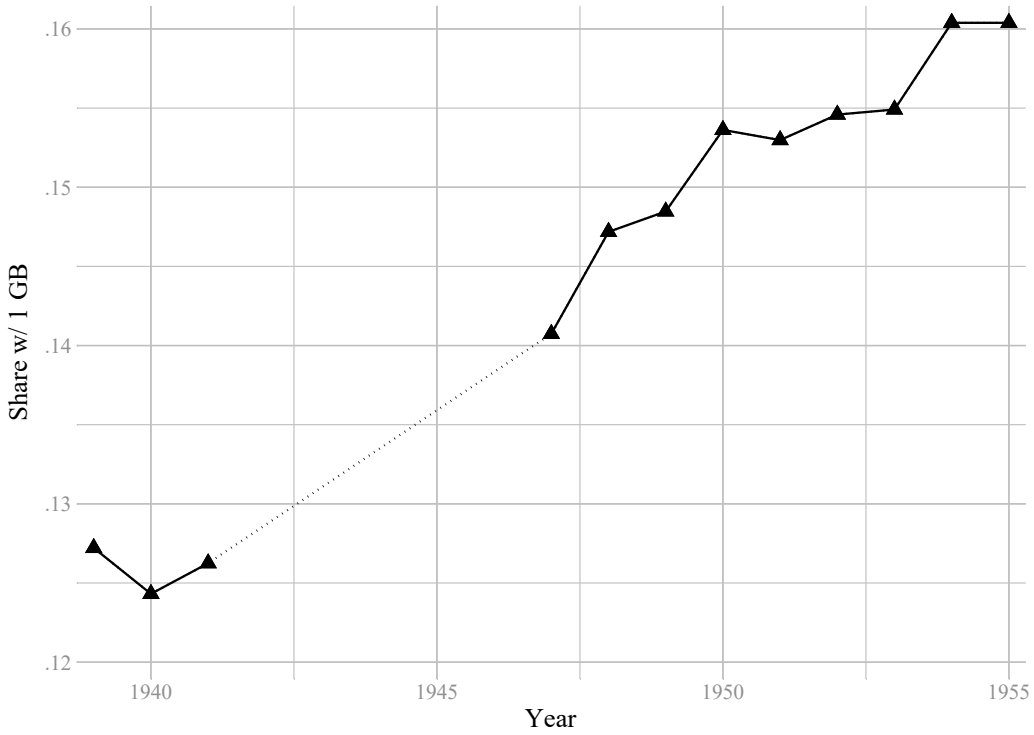
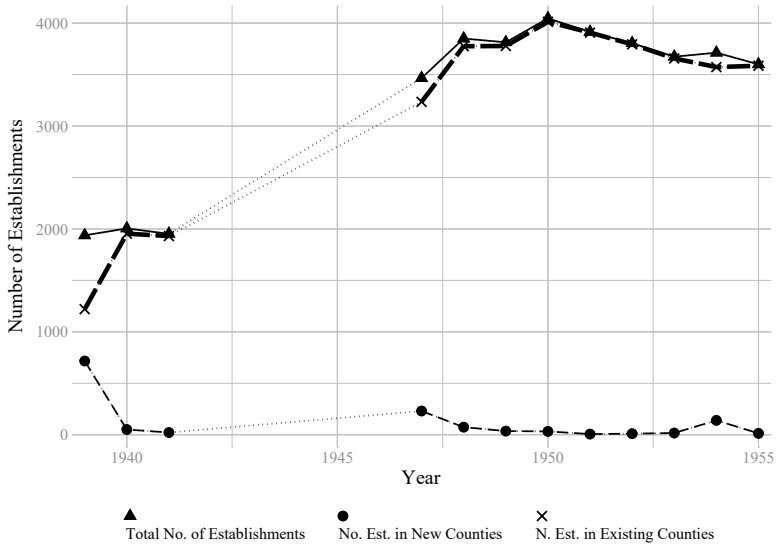
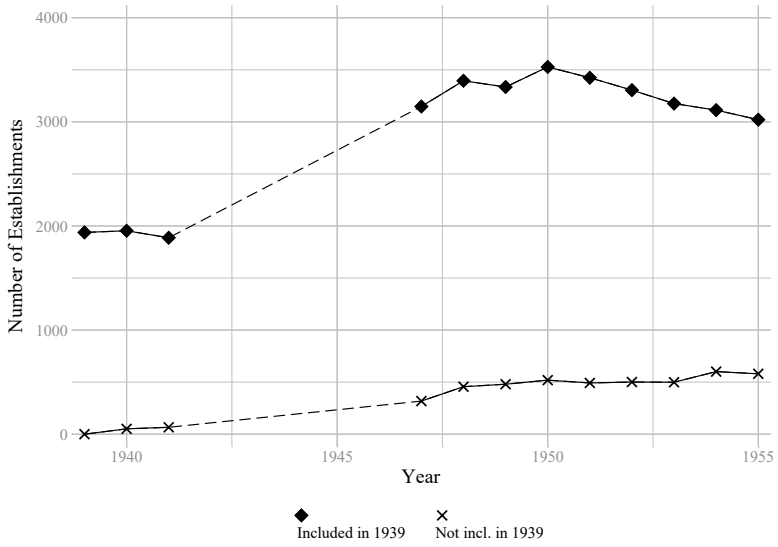


Figure 21: The share (zero to one) of counties with at least one Green Book establishment.



(a) Total number of establishments



(b) Green Book establishments in "1939 incumbent" and "new entrant" counties

Figure 22: Geographic coverage and Green Book listings growth

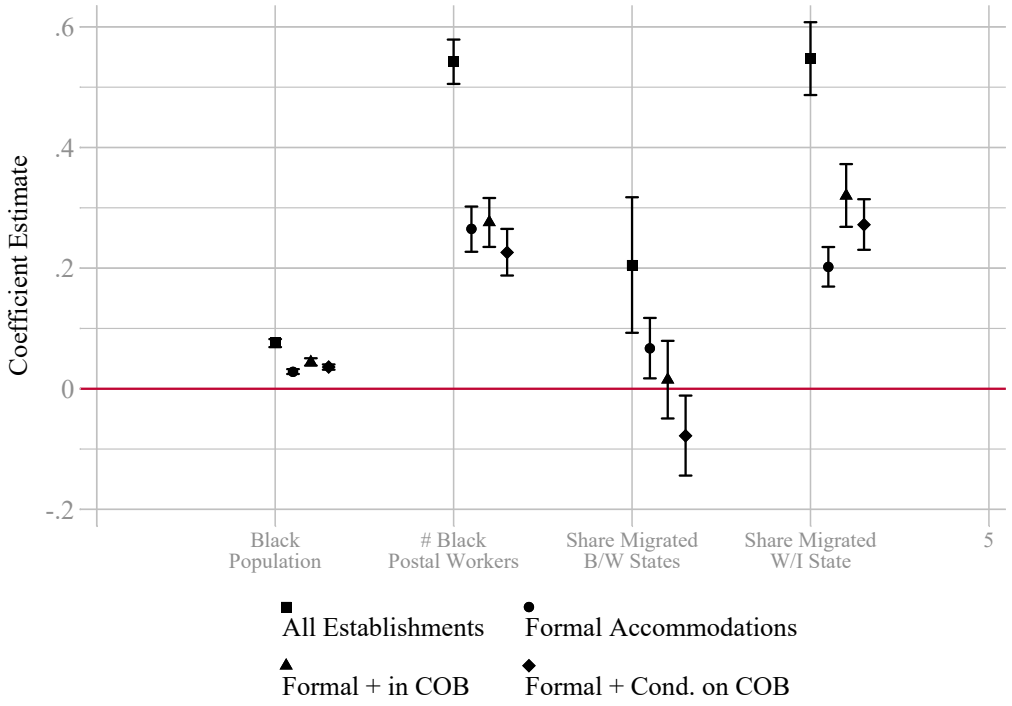


Figure 23: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of Green Book listings on a set of correlates in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population (with the exception of the elasticity with respect to the Black population). Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

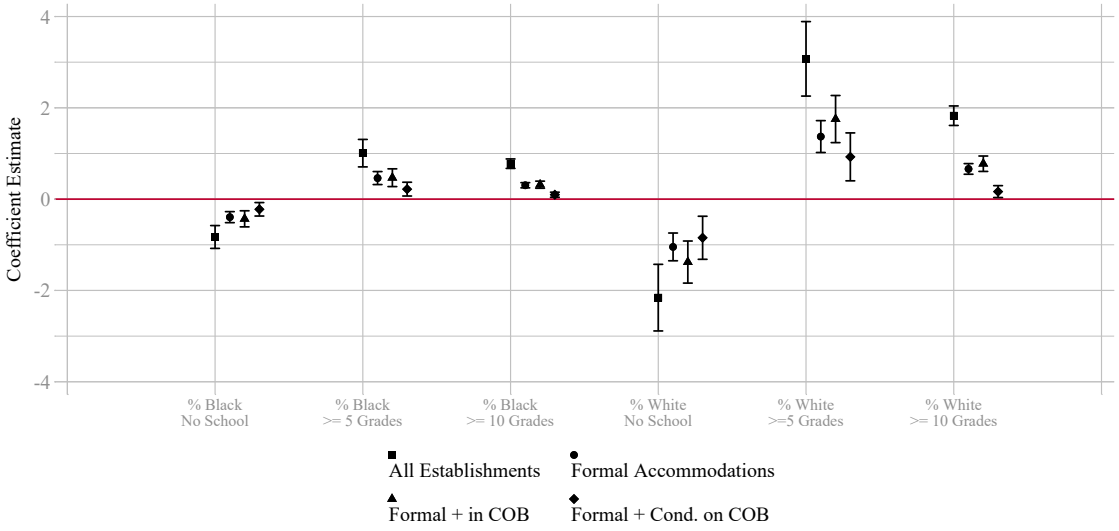


Figure 24: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of Green Book listings on a set of correlates in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population (with the exception of the elasticity with respect to the Black population). Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

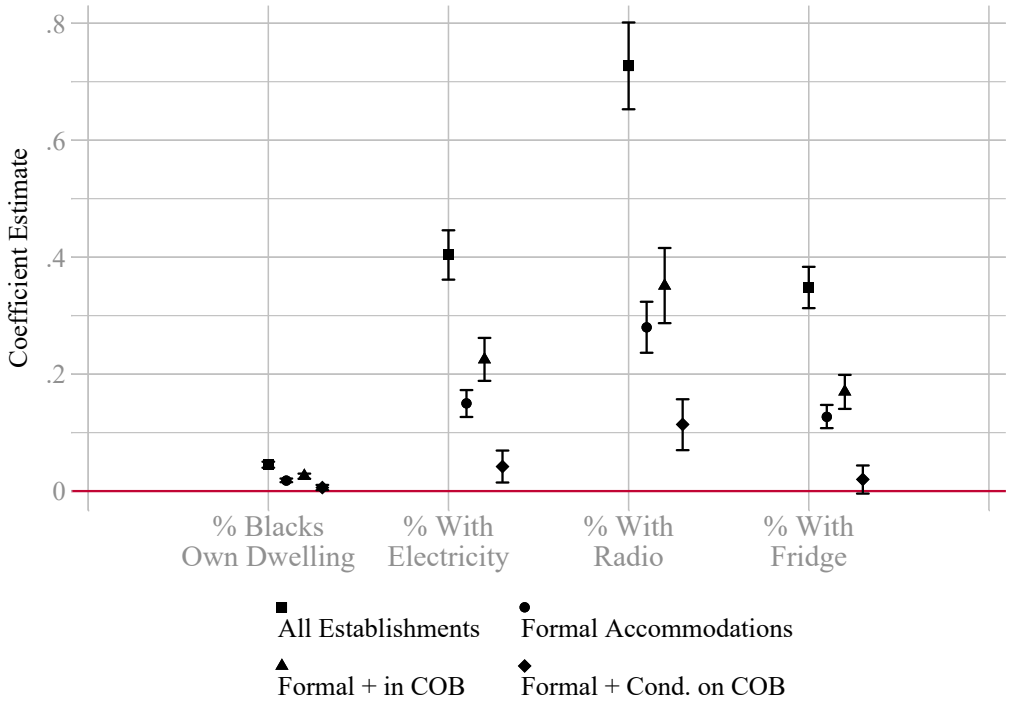


Figure 25: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of GB listings on measures of material wellbeing in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population. Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

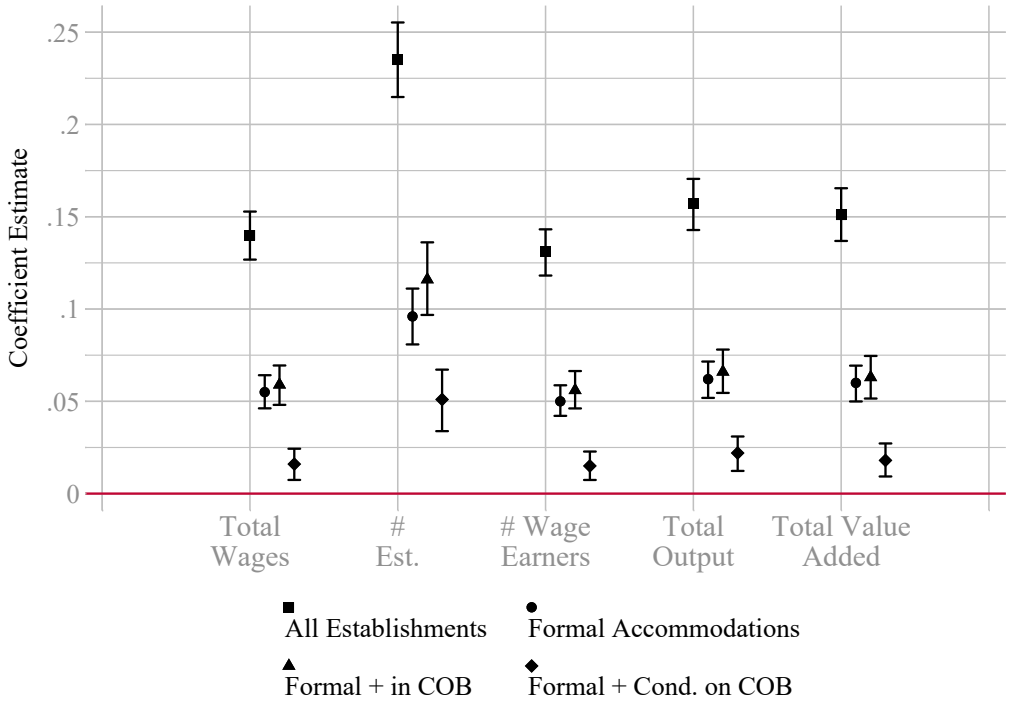


Figure 26: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of GB listings on the prevalence of manufacturing in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population. Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

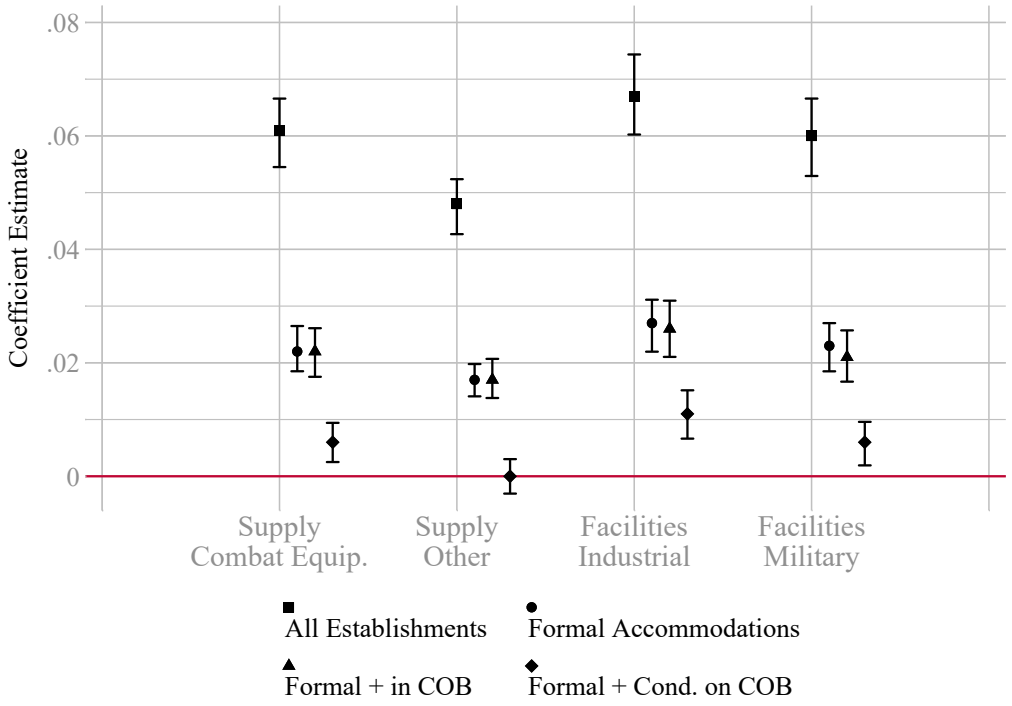


Figure 27: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of GB listings on WWII contracts. Regressions are estimated at the county level and estimates are conditional on the log of the Black population. Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

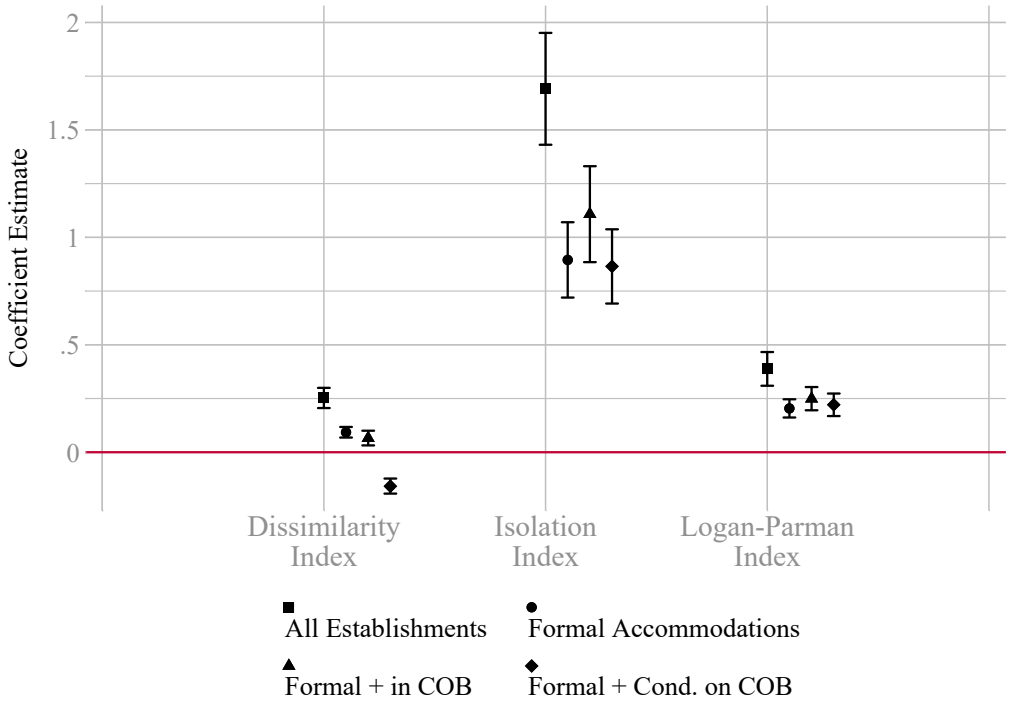


Figure 28: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of GB listings on measures of segregation in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population. Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

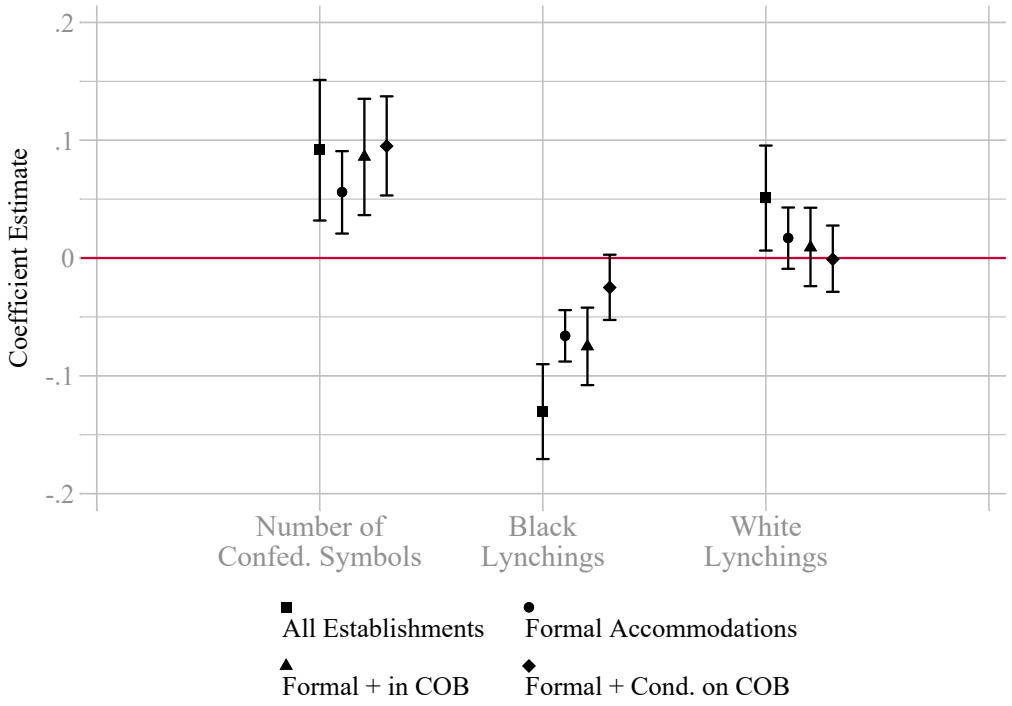


Figure 29: Coefficient estimates and 90% confidence intervals from separate $sinh - sinh$ regressions of the number of GB listings on measures of discrimination in 1940. Regressions are estimated at the county level and estimates are conditional on the log of the Black population. Coefficient estimates marked "All Establishments" regress the total number of Green Book establishments on each measure of discrimination/segregation. "Formal Accommodations" restrict the analysis to formal lodging. "Formal + In COB" restricts the analysis to formal lodging and only includes counties for which we also have data from the 1935 Census of Business (some were omitted due to disclosure rules). "Formal + Cond. on COB" restricts the analysis to formal accommodations in counties for which we have Census of Business data and conditions on the total number of hotels in these counties.

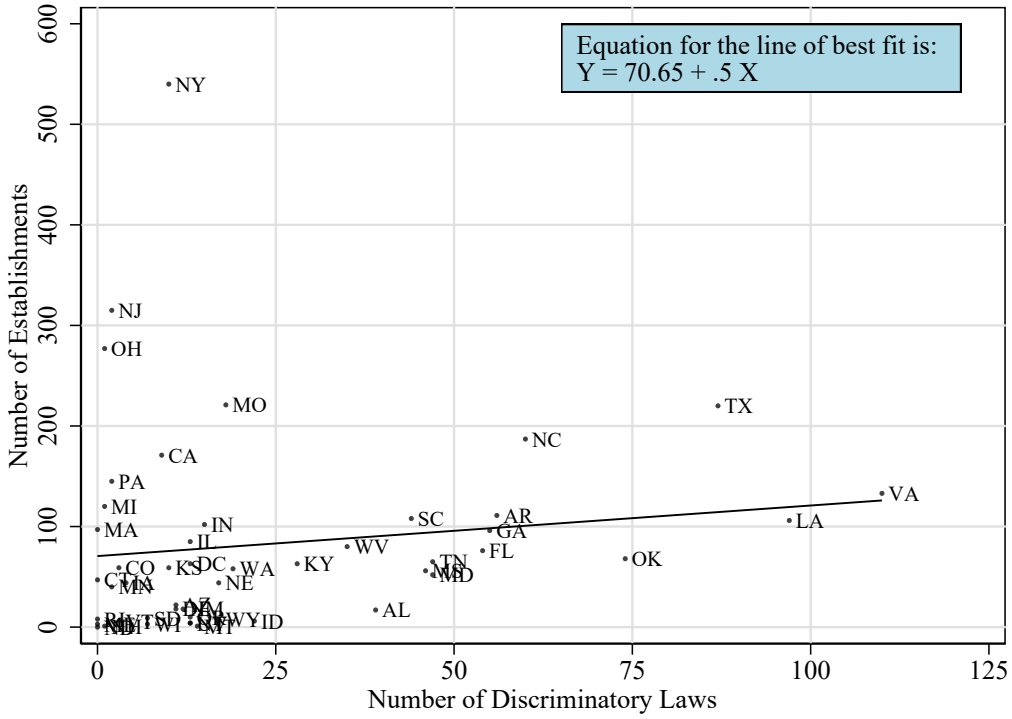
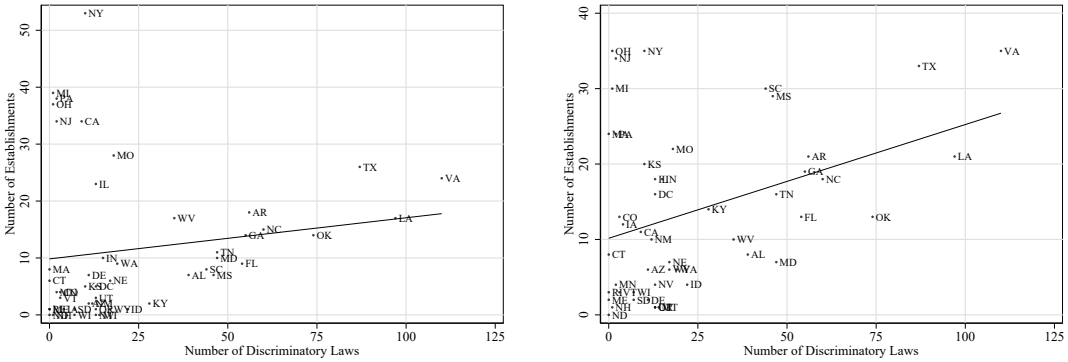


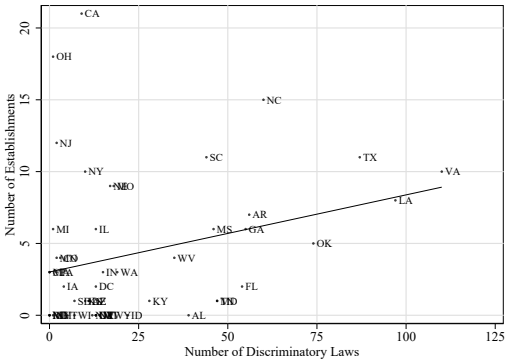
Figure 30: This figure displays state-level counts of the number of laws related to discriminatory practices on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).

Figure 31: This figure displays state-level counts of the number of laws related to anti-discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).

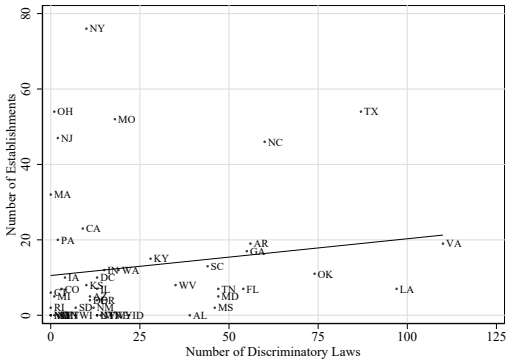


(a) Formal Accommodations

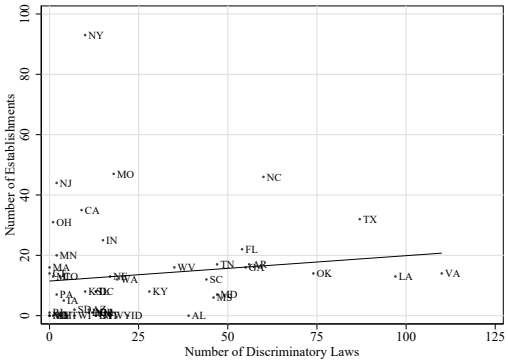
(b) Informal Accommodations



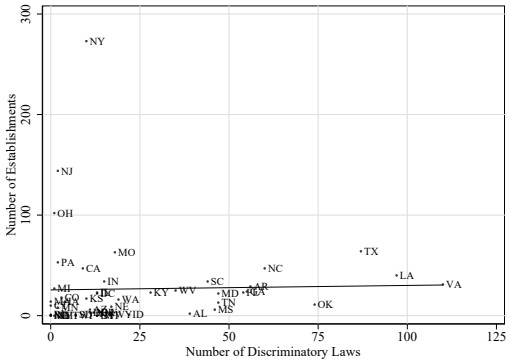
(c) Service Stations



(d) Beauty and barber shops



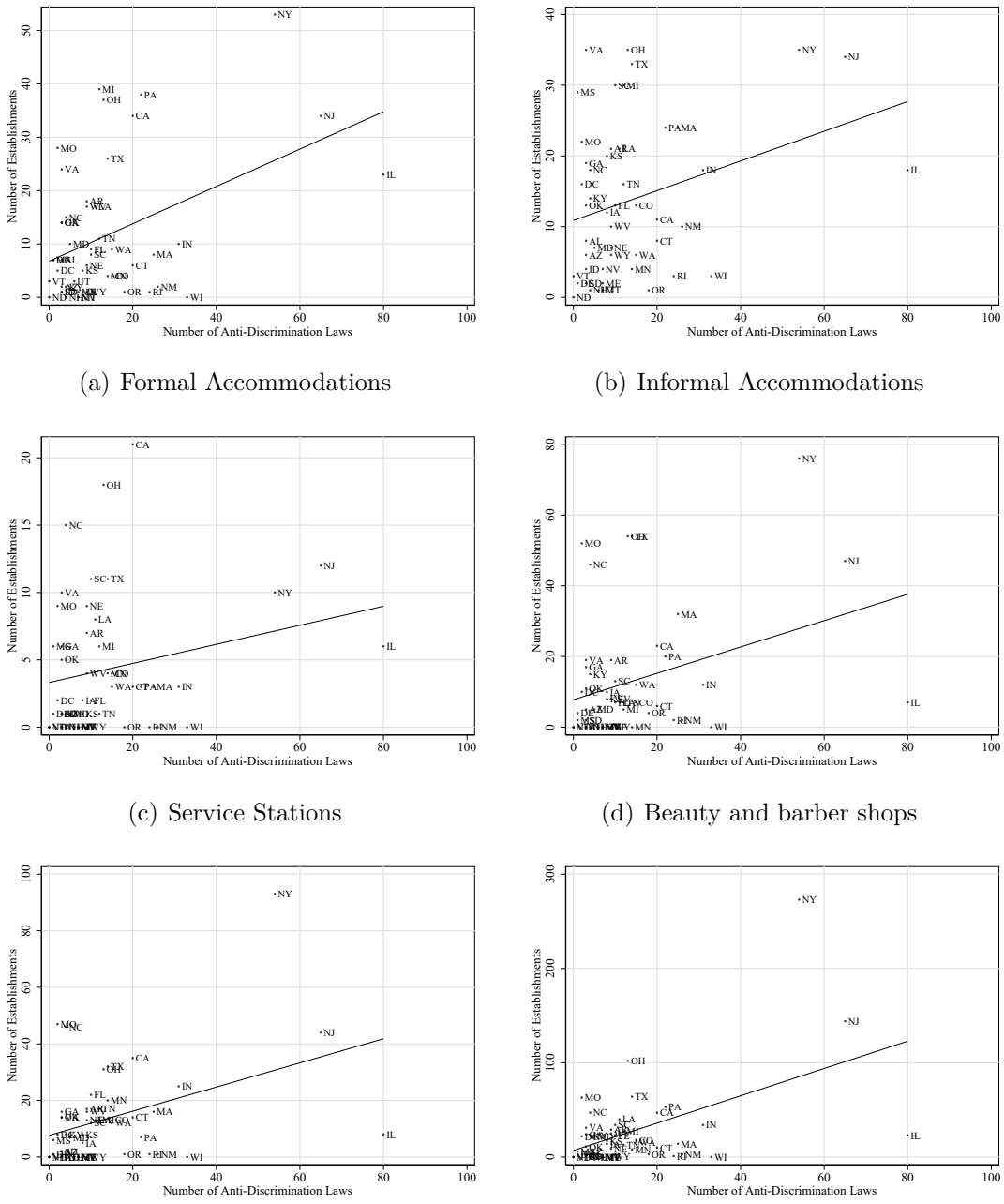
(e) Other



(f) Eating and dining

Figure 32: Correlation between State Discrimination Laws and Green Book Listings, Excluding New York, New Jersey, and Illinois

This figure displays state-level counts of the number of laws related to discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950 and plots are shown for each category of industry. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).



(a) Formal Accommodations

(b) Informal Accommodations

(c) Service Stations

(d) Beauty and barber shops

(e) Other

(f) Eating and dining

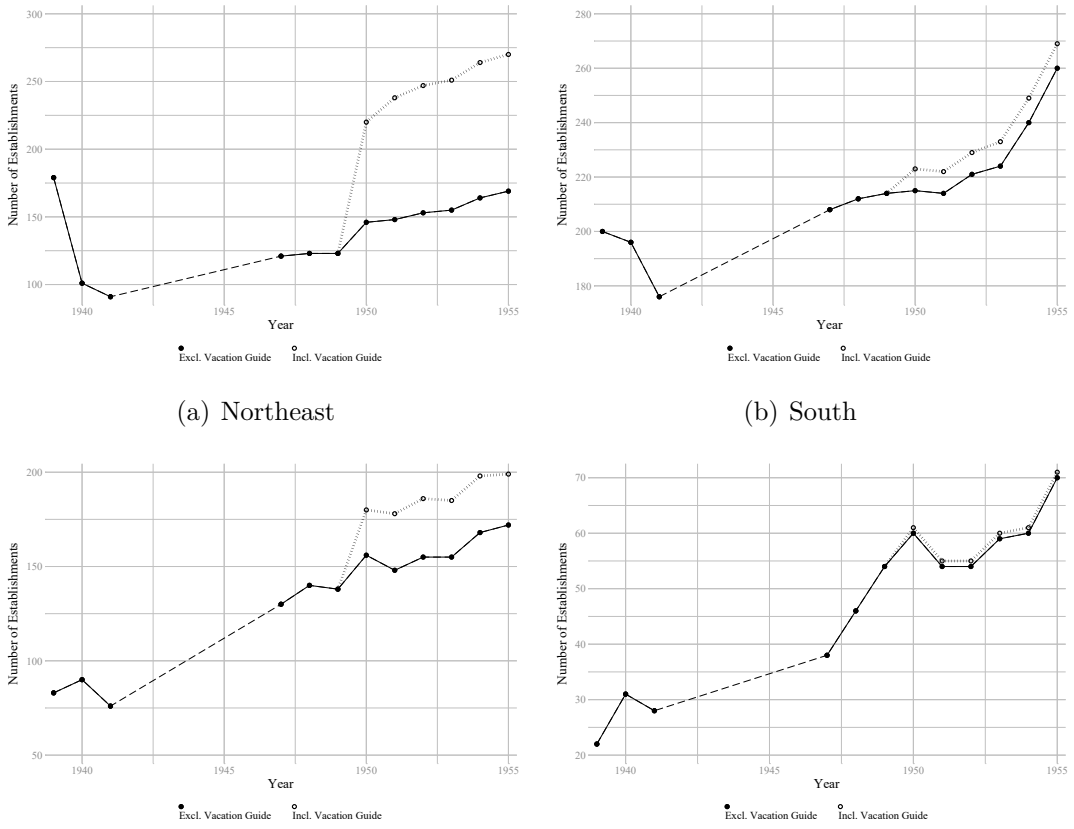
Figure 33: Correlation between State Anti-Discrimination Laws and Green Book Listings

Note: This figure displays state-level counts of the number of laws related to anti-discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950 and plots are shown for each category of industry. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).

C Appendix

C.1 Figures

Figure 34: Regional breakdown of formal accommodations listed in the Green Books, including "Vacation Guide" listings.



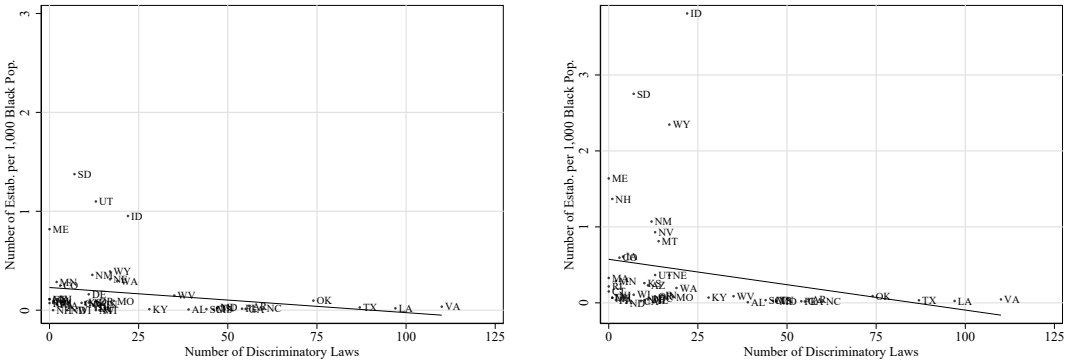
(a) Northeast

(b) South

(c) Midwest

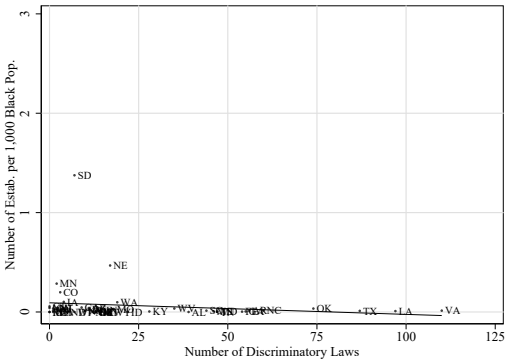
(d) West

Note: These figures include the listings that appear in the "Vacation Guide" supplement starting in the year 1950.

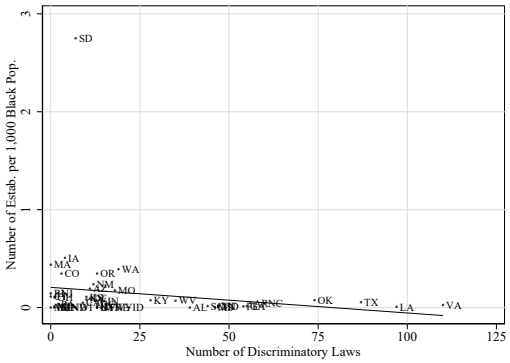


(e) Formal Accommodations

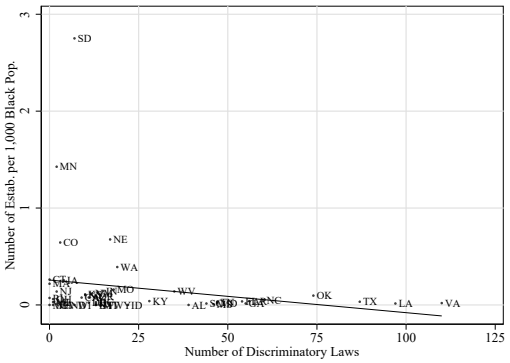
(f) Informal Accommodations



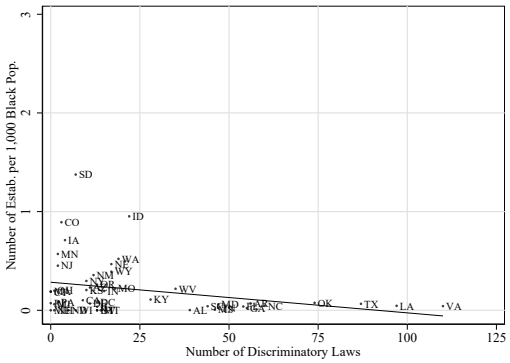
(g) Service Stations



(h) Beauty and barber shops



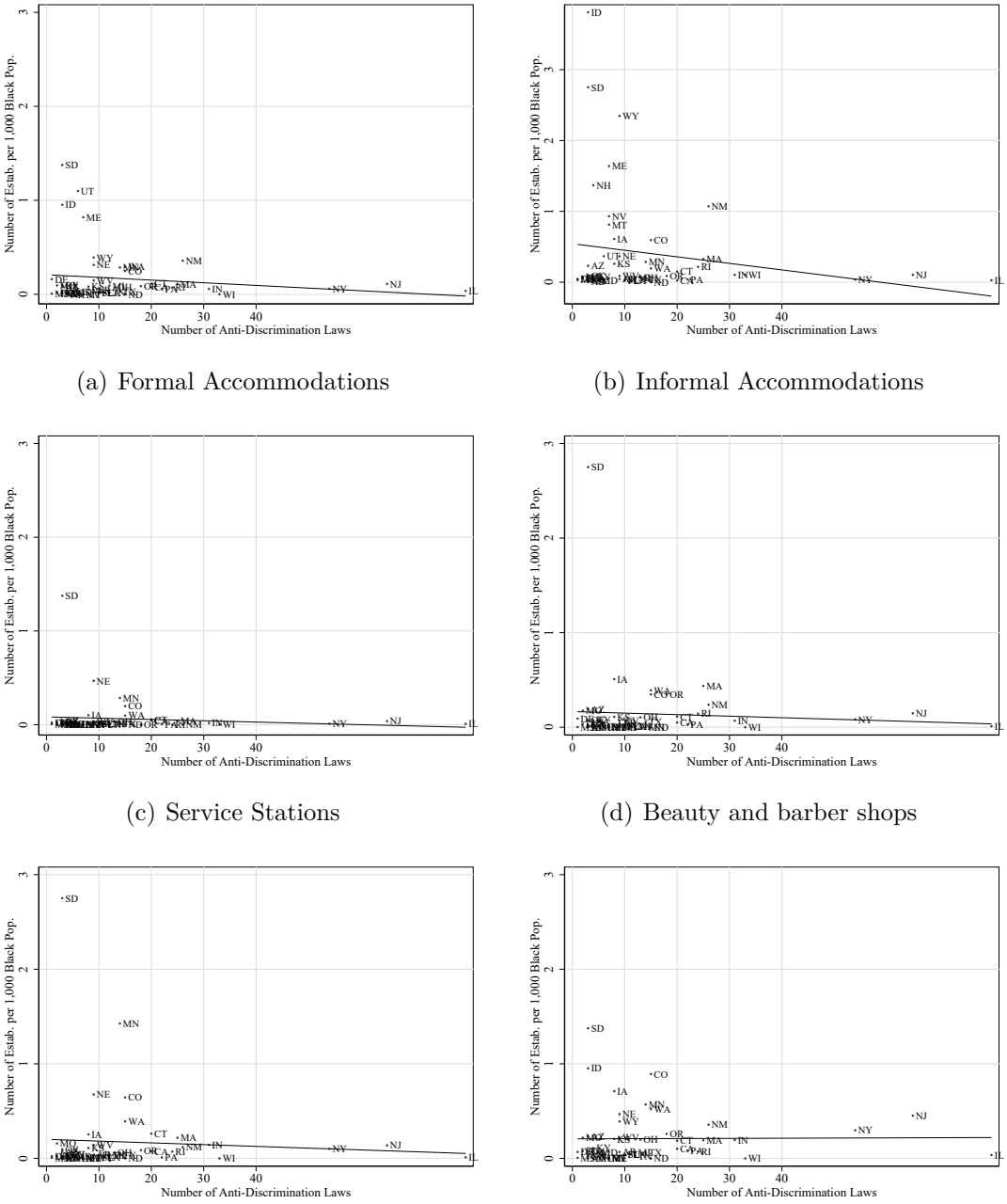
(i) Other



(j) Eating and dining

Figure 35: State Discrimination Laws and Green Book Listings per 1,000 Black Population

Note: This figure displays state-level counts of the number of laws related to discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950 and plots are shown for each category of industry, all panels exclude Vermont as it is an outlier in terms of listings per 1,000 Black population. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).



(a) Formal Accommodations

(b) Informal Accommodations

(c) Service Stations

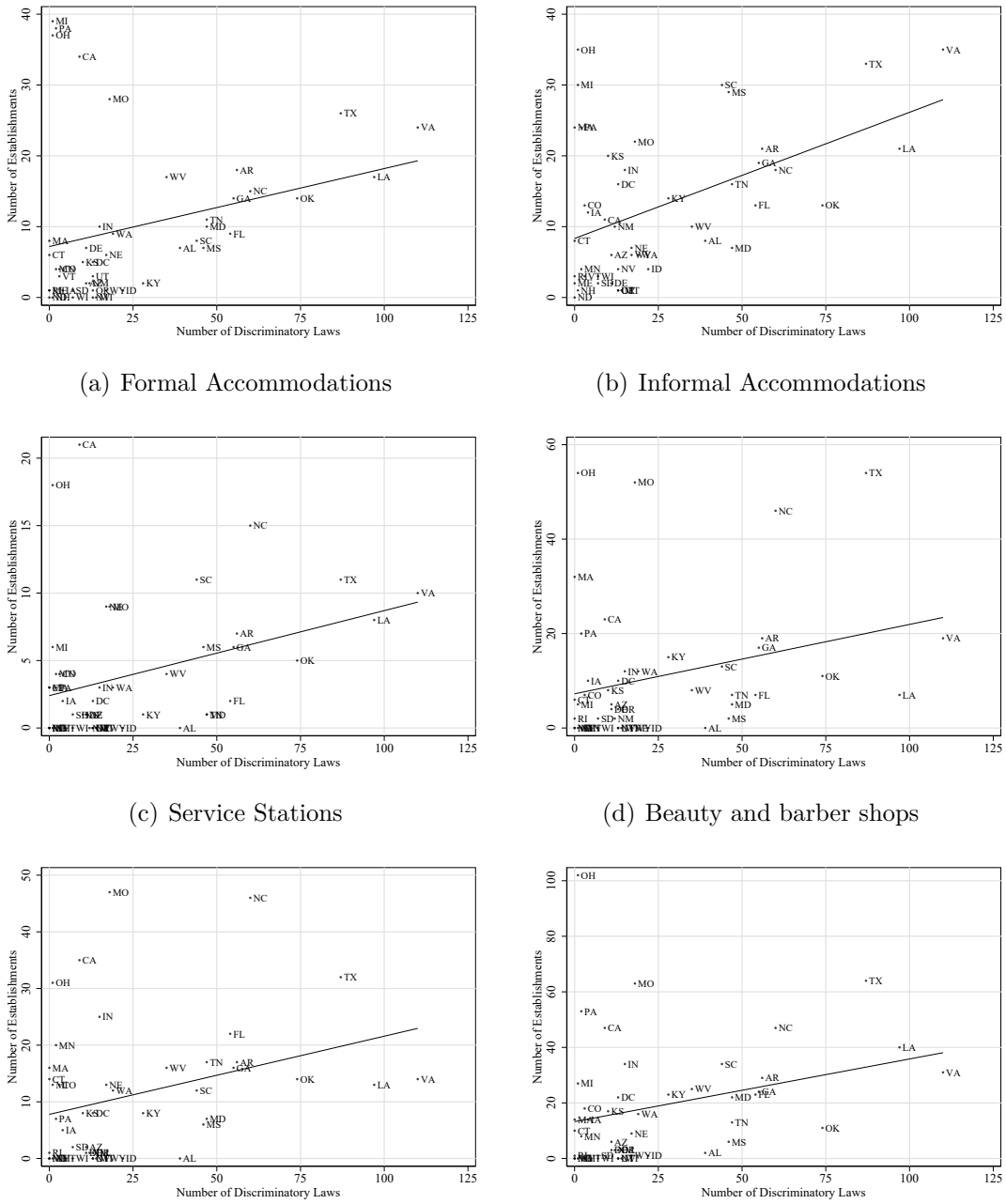
(d) Beauty and barber shops

(e) Other

(f) Eating and dining

Figure 36: State Anti-Discrimination Laws and Green Book Listings per 1,000 Black Population

Note: This figure displays state-level counts of the number of laws related to anti-discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. These counts are measured as of 1950 and plots are shown for each category of industry, all panels exclude Vermont as it is an outlier in terms of listings per 1,000 Black population.. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).



(a) Formal Accommodations

(b) Informal Accommodations

(c) Service Stations

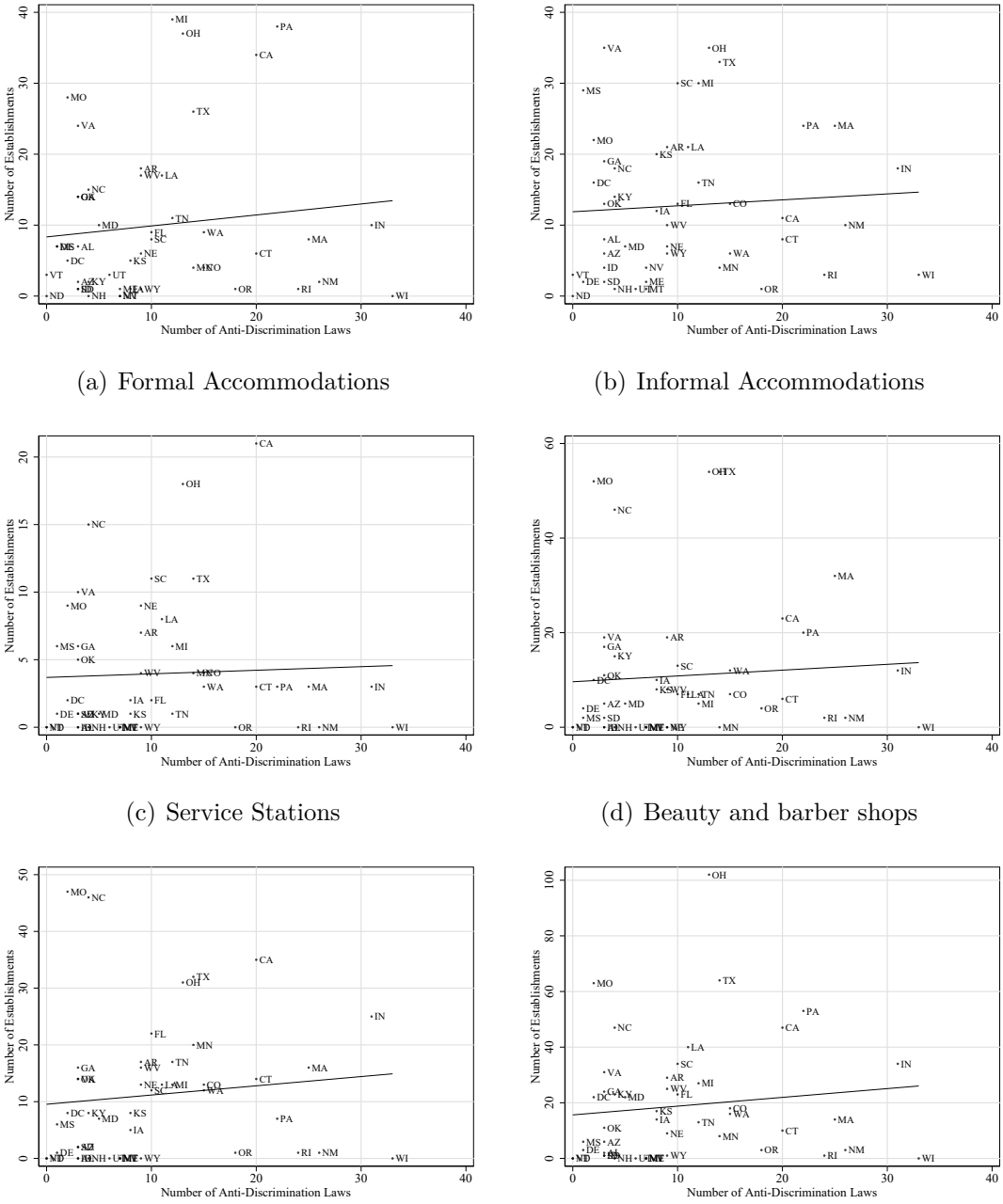
(d) Beauty and barber shops

(e) Other

(f) Eating and dining

Figure 37: State Discrimination Laws and Green Book Listings, Excluding New York, New Jersey, and Illinois

Note: This figure displays state-level counts of the number of laws related to discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. New York, New Jersey, and Illinois, the three states with the highest number of Green Book listings, are omitted. These counts are measured as of 1950 and plots are shown for each category of industry. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).



(a) Formal Accommodations

(b) Informal Accommodations

(c) Service Stations

(d) Beauty and barber shops

(e) Other

(f) Eating and dining

Figure 38: State Anti-Discrimination Laws and Green Book Listings, Excluding New York, New Jersey, and Illinois

Note: This figure displays state-level counts of the number of laws related to anti-discrimination on the horizontal axis and state-level counts of the number of Green Book establishments on the vertical axis. New York, New Jersey, and Illinois, the three states with the highest number of Green Book listings, are omitted. These counts are measured as of 1950 and plots are shown for each category of industry. Counts of discrimination laws were collected by the authors from compiling the work of Murray (1950).