Winning Hearts and Minds Through the Stomach: Ethnic Restaurants and Anti-Immigrant Sentiment in the US*

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Abstract

Restaurants are a central part of the immigrant experience in host countries; however, there is limited causal evidence examining how these institutions influence mainstream sentiment towards immigrant groups. Leveraging the first restaurant boom in the US, the 'chop suey craze' of the early twentieth century, this paper investigates how the spread of Chinese restaurants impacted mainstream attitudes towards the Chinese community during a period of intense anti-Chinese sentiment. We use historical press data to construct a measure of anti-Chinese sentiment with granular spatial and temporal variation, and use Census data to track the spread of Chinese restaurants. Exploiting variation in the timing of Chinese restaurant openings in a staggered difference-in-differences framework, we find that restaurants have a large and persistent negative effect on anti-Chinese sentiment. A comparison with the effect of Chinese laundries as well as further text analysis suggests this result is driven by a 'cultural bridging' effect that reduces the socio-cultural distance to Chinese immigrants, rather than mechanisms related to labor market competition, small-business ownership or increased contact with the US-born community.

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1 Introduction

Ethnic restaurants are an almost ubiquitous part of immigrant communities in the US, providing an accessible path to business ownership and representing one of the most prominent forms of cultural exchange. While only constituting 14% of the population, immigrants own 37% of small restaurants in the US (Gotliboym 2022). The quintessential example of this is the Chinese restaurant, now so deeply embedded in American culture that there are more Chinese restaurants today than McDonald's, Burger King's, Wendy's, and KFC's combined (Ferdman & Ingraham 2016). Ethnic food further serves as a means of preserving and expressing cultural values in a host country.[1] However, despite its central role in immigrant interactions, we know very little on exactly how and why ethnic restaurants impact local attitudes towards immigrant groups.

To examine this question, we exploit the rapid growth of Chinese restaurants in the United States in the last nineteenth and early twentieth century in response to the 'chop suey craze'. The Chinese-American community faced intense discrimination throughout the 1800s culminating in the Chinese Exclusion Act of 1882 that effectively prohibited Chinese immigration to the US. A turning point came in 1896 with the American tour of prominent Chinese statesman Li Hongzhang, which created a media sensation and sparked an interest in Chinese culture that led to the 'chop suey craze'.[2] The dish quickly gained popularity as an inexpensive, tasty, and 'exotic' meal, resulting in a rapid spread of Chinese restaurants across the country. By 1930, these establishments had become the largest employers of Chinese workers, accounting for over a quarter of the workforce, and significantly transforming the culinary landscape of America.[3] Panel A in Figure 1 illustrates the main motivation of the paper: the growth in Chinese restaurants coincides with a substantial decline in anti-Chinese sentiment. We examine to what extent restaurants played a role in this striking transformation from 'Yellow Peril' to eventually becoming a integral part of the American immigration narrative.

To measure anti-Chinese sentiment, we use historical press data from *Newspapers.com* covering approximately 200 million pages from 15,000 local newspapers in all US states from

[1]The use of ethnic restaurants and cuisine has also been widely employed by governments as a tool for promoting international relations through so-called 'gastrodiplomacy'. A prominent example of this is the 'Global Thai' program launched by the Thai government in 2002 that sought to nearly double the number of Thai restaurants across the world to improve diplomatic relations and increase exports.

[2]Chop suey, a dish consisting of meat, eggs, vegetables and rice, was likely developed by Chinese-Americans in the mid-to-late nineteenth century, although its exact origins are unclear. The earliest press mention of the 'Chop Suey Craze' dates back to 17 May 1903 in *The Saint Paul Globe*, with the headline "New York Goes Wild Over Chop Suey Fad".

[3]Prior to the craze, there were very limited dining options for working-class Americans outside of taverns, and the few ethnic restaurants that did exist catered primarily to co-ethnics (Lobel 2016).

1870 to 1940. Our preferred measure leverages the usage of Chinese-specific derogatory terms at the county level. We also consider an alternative measure using the co-occurrence of immigration threat-based language with Chinese immigrants in articles.[4] We measure the proliferation of restaurants at the county level with full-count decennial population censuses from 1870 to 1930, using Chinese individuals recorded as working in the restaurant industry as a proxy for Chinese restaurants.[5]

The key empirical challenge is that Chinese restaurant openings are endogenous to local attitudes and trends. We address this a staggered difference-in-differences framework that leverages variation in the timing of restaurant openings across counties. This design effectively controls for time-invariant county characteristics and nationwide shocks to anti-Chinese sentiment. Counties that were always treated (reporting restaurant workers prior to 1900) or never treated (not reporting a restaurant worker by 1930) are excluded from the analysis. We control for both Chinese population and a Chinese presence dummy to isolate the restaurant effect from the effect of the dispersing Chinese population, and include a number of other time-varying county controls.

While the strategy accounts for time-invariant county differences, there is still the concern that changing attitudes towards the Chinese are driving Chinese restaurant openings, which could conceivably be in either direction: growing anti-Chinese sentiment pushing Chinese into self-employment, or easing anti-Chinese sentiment increasing demand for Chinese food. We first consider a pre-trends analysis and find no evidence of trends in Chinese attitudes in either direction prior to the opening of a restaurant, suggesting Chinese immigrants were not responding to changes in sentiment. We also examine which 1880 characteristics predict the timing of restaurant openings. We find counties with more negative Chinese attitudes in 1880 opened restaurants earlier (as well as counties with higher population and income). However, this is likely driven by Chinese presence, as counties with earlier-established Chinese communities naturally received restaurants earlier, but also generally had more negative attitudes towards Chinese. Once 1880 Chinese share and presence are controlled for, anti-Chinese sentiment is not significantly different between early and late treated counties prior to the craze.

Finally, there may still be reverse causality that would not be identified with a decennial pre-trend analysis if Chinese immigrants are responding relatively quickly to more sudden changes in sentiment. To address this, we run an identical analysis on the spread of Chinese laundries. Laundries share many similarities with restaurants for Chinese-Americans during

[4]The immigration-specific threat language dictionary is derived from Card et al. (2022), which uses 140 years of congressional speeches discussing immigration.

[5]We further validate this measure with press mentions of Chinese food, and find the two measures very closely aligned, as illustrated in Figure 1.

this period: like restaurants, they represented an accessible path to business ownership servicing a predominantly white clientele; and, like cooking, washing clothes was seen as 'women's work' and degrading, which meant little US-born competition (Wang 2004).[6] As shown in Panel B of Figure 1, Chinese laundries expanded rapidly after the Chinese Exclusion Act and by 1900 were the largest employer of Chinese representing roughly a quarter of the workforce, before being overtaken by restaurants in 1930. Therefore, many of the potential validity concerns should equally affect the opening of Chinese laundries.

The main finding of the paper is that Chinese restaurants have a large, negative effect on anti-Chinese sentiment, with a restaurant opening leading to a 33-40% decrease in the share of articles using Chinese slurs relative to the mean. We also find a large effect on the intensive margin, with a one standard deviation increase in restaurant workers per capita leading to a 13-15% decrease in anti-Chinese sentiment, conditional on already having a Chinese restaurant. The event study shows the initial effect is quite small but steadily increasing over time, consistent with a gradual cultural change, as well as a steadily increasing number of restaurants. The main results are robust to alternative empirical specifications, measures of anti-Chinese sentiment and treatment definitions, as well as additional regional and demographic controls and dropping early or late treated counties. On the other hand, the estimates on the effect of Chinese laundries are very close to zero and not statistically significant at either the extensive and intensive margin. Similarly, controlling for laundries has no impact on the restaurant effect estimates. This helps to eliminate identification concerns that would also impact the spread of Chinese laundries.

The null results for laundry openings also help to disentangle the potential mechanisms. One of the main possible channels is through the reduction in labor market competition, a significant source of tension with US-born workers and the primary justification for the Chinese Exclusion Act. However, given that a move into laundries represents a roughly equal reduction in competition, we find no evidence in support of this channel. Furthermore, we explicitly test for the labor market competition mechanism by constructing a measure of Chinese competition with US-born workers. We find that decreased labor market competition does have a small, but insignificant, positive effect on Chinese sentiment, but it does not meaningfully affect the main estimate magnitudes. The results for laundries would also seemingly rule out any mechanisms related to small business ownership, or increased contact with the US-born community through the service industry.

Instead, we argue the defining difference between restaurants and laundries that can explain the disparate results is cultural: restaurants involve a cultural exchange and laundries

[6]Only 0.2% of the white, native-born, working-age population worked in laundering in 1920, compared to 0.3% for restaurants.

do not. We examine what we term a 'cultural bridging' effect: restaurants introduce and familiarize consumers with Chinese culture, thereby reducing the socio-cultural distance with Chinese immigrant. In support of this mechanism, we first use the press data and an immigrant dehumanization dictionary developed by Card et al. (2022) to estimate changes in perceived Chinese socio-cultural distance over time. Importantly, the 'cultural bridging' effect is not simply a change in perceived distance, but actually shifting American culture closer to Chinese. Therefore, we also analyze a corpus of American recipes to track American culinary cultural changes, and find the spread of restaurants aligns closely with increased Chinese influence through dishes, ingredients and techniques.

Our paper contributes to several strands of the literature. We contribute to the large literature examining the drivers of hostility and tolerance against minority group members (Blalock 1967, Tajfel et al. 1979, Schlueter & Scheepers 2010). Several factors have been identified in the context of racial prejudice in the U.S., including the arrival of new minorities (Fouka & Tabellini 2021, Fouka et al. 2022), media propaganda (Ottinger & Winkler 2020, Ang 2022) wartime hysteria (Moser 2012, Fouka 2019) and demographic shifts (Cikara et al. 2022). Our paper is the first to examine the role of ethnic restaurants in improving mainstream sentiment. Our findings relate to contact hypothesis, as first proposed by Allport et al. (1954), which suggests hostility can be influenced by intergroup contact under certain circumstances. While we find no evidence of the contact hypothesis effect through business interactions with the mainstream community, the 'cultural bridging' effect we find could be viewed as a specific type of contact hypothesis. This paper is also related to the sub-strand of literature examining labor market segregation and hostility (Boswell 1986, Jha 2008, Becker & Pascali 2019, Bonacich 2019). However, contrary to previous studies, we do not find that changes in labor market composition impact mainstream sentiment.

Finally, the paper also broadly contributes to the literature on the Chinese-American community. Several papers have explored the impact of the Chinese Exclusion Act of 1882 on Chinese-American human capital and assimilation (Chen 2015, Chen & Xie 2020), native labor market outcomes (Hoi 2023) and regional economic growth (Long et al. 2023). We document the shift into self-employment in response to the exclusion and how this affected long-term sentiment towards Chinese immigrants.

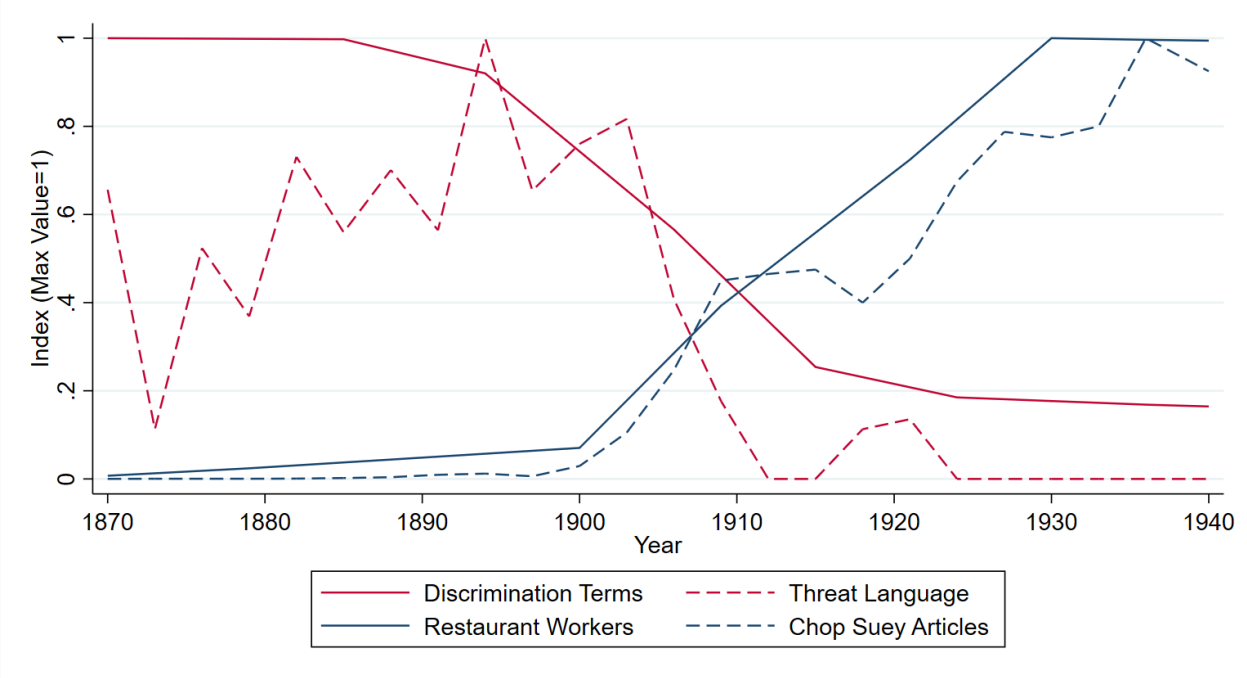
2 Historical Background

2.1 Chinese Immigration to the US

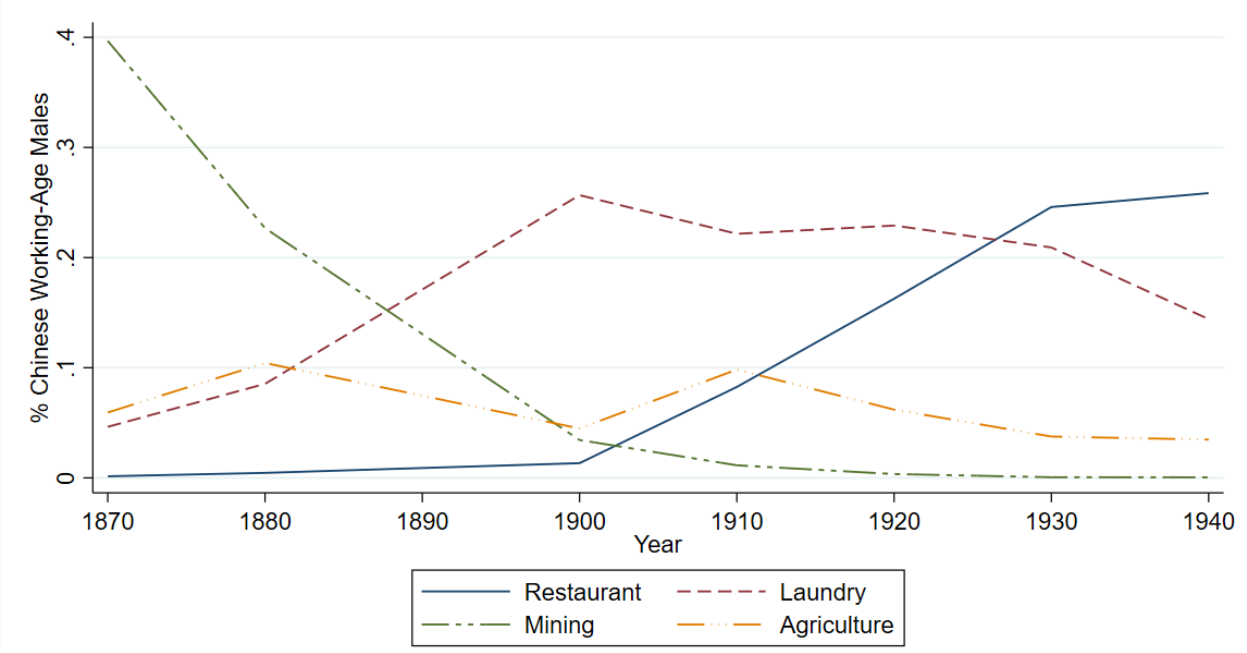
The first significant numbers of Chinese began arriving in the United States in 1848, joining the hundreds of thousands flocking to California looking for gold. This also marks the

Figure 1: Chinese-American Sentiment and Sectoral Employment Trends (1870-1940)

Panel A: Chinese Restaurants and Anti-Chinese Sentiment



Panel B: Chinese Sectoral Employment



Notes: Panel A reports the primary (solid line) and alternative (dashed line) measures of anti-Chinese sentiment (red) and Chinese restaurant presence (blue), indexed to the maximum value of each measure during the period. The red lines represent the normalized use of Chinese derogatory terms and threat-based language against Chinese in the press respectively, while the blue lines represent the number of Chinese restaurant workers and number of articles mentioning 'chop suey' respectively. Panel B reports the proportion of the Chinese male working-age population employed in each industrial sectors.

beginning of what has become known as the 'Age of Mass Migration', where there were no significant barriers to entry and more than 30 million people came to America, predominantly from Europe. From 1848 to the 1882 exclusion, an estimated 300,000 Chinese migrants entered the United States, settling predominantly in the West (Daniels 2002). Chinese laborers initially worked mainly in mining and rail construction, but by 1880 had expanded into other, predominantly low-skilled occupations in manufacturing and agriculture industries.

The Chinese-American community faced intense hostility during this period over both economic and cultural concerns (Lew-Williams 2018) The severe 'Long Depression' of the 1870s in particular fueled anti-Chinese sentiment with the wide-spread belief that low-skilled Chinese workers were depressing wages and taking jobs from US-born workers (Chen & Xie 2020). Chinese immigrants soon became the focal point for all US-born worker's woes. The anti-Chinese rhetoric of the 'Yellow Peril' from this period is considered the earliest known root of the 'immigrant invasion' rhetoric common in today's political discourse (Zimmer 2019).

This anti-Chinese sentiment culminated in the passing of the Chinese Exclusion Act in 1882, America's first significant immigration restriction. The Act prohibited the immigration of Chinese laborers and their relatives to the United States, with a small number of non-laborers exempted (namely merchants, diplomats and students) to prevent disruption of Chinese-American trade (Daniels 2002). The Act was initially only legislated to be in place for 10 years, but was extended in 1892 and made permanent in 1902. The Chinese would remain excluded from entry until the repeal of the Act in 1943.

The Chinese Exclusion Act was further accompanied by legal and extra-legal efforts to remove incumbent Chinese-Americans. Legally, this involved numerous discriminatory laws, such as requiring Chinese to obtain certificates of residence backed by credible non-Chinese witnesses or face deportation, representing the first large-scale deportation effort in American history.[7] Extra-legally, there were widespread efforts to harass, exclude and force incumbent Chinese out of communities in what became known as the 'Driving-Out' period. These often became violent resulting in several massacres of Chinese migrants, including the Rock Springs massacre of 1885 (estimated 28-50 killed) and the Hells Canyon massacre of 1887 (34 killed), without any serious prevention or accountability by law enforcement (Pfaelzer 2008).

Forced out of most other industries in the 1880s, the Chinese-American community became increasingly entrepreneurial, shifting into retail and services. This early shift was particularly into laundries, becoming the dominant employer of Chinese men for nearly fifty

[7]These efforts would, however, prove completely ineffective due to a lack of bureaucratic capacity to carry out large-scale deportations (Lew-Williams 2018).

years, as shown in Panel B of Figure 1. Laundries were an attractive option as it required relatively low start-up capital and limited language skills. Furthermore, there was little competition in the business as washing clothes was largely seen as 'women's work' and degrading (Wang 2004). Chinese laundries would eventually decline after 1930 with the growing popularity of restaurants and the increasing availability of home washing machines reducing demand.

2.2 The 'Chop Suey Craze' and Chinese Restaurants

In the nineteenth century, restaurants primarily served upper-class patrons; the majority of Americans ate very local cuisine with few public dining options available outside of taverns (Lobel 2016). Chinese and other ethnic restaurants did exist, but these were typically located in ethnic enclaves servicing predominantly co-ethnics. The 'chop suey craze' traces its origins to the 1896 American tour of prominent Chinese statesman Li Hongzhang, which created a media sensation and sparked an interest in Chinese culture. The craze first caught hold in Bohemian culture in New York City, with Chinese restaurants providing inexpensive exoticism for adventurous culinary tourists (Gabaccia 2000). Despite initial reservations due to the widespread racist trope that Chinese ate rats and dogs, the dish quickly became popular with mainstream audiences. With now decades of experience and established institutions to set up and run service businesses, the Chinese-American community was well-positioned to take advantage of the new craze and Chinese restaurants spread rapidly over the country (Carter 2011).

3 Data

One main sources of data we use are full-count U.S. Population Censuses from 1870 to 1930, provided by (Ruggles et al. 2021).[8] The Census provides data on place of birth as well as detailed occupation and industry codes.[9] We use this to construct our measure of Chinese restaurants based on Chinese restaurant workers, defined as Chinese-born individuals reporting employment in the industry defined as 'eating and drinking places' (or 'laundering, cleaning, and dyeing services' in the case of Chinese laundries). Census data is also used for county-level demographic data and measure of Chinese labor market competition. We calculate county-level Chinese labor market competition as the percentage of the white, US-born, working-age population facing some Chinese competition, which we define as working in an occupation/industry pair that has a Chinese share greater than 1%.

[8]This excludes the 1890 Census, which was destroyed in a fire in 1921.

[9]The Census provides over 300 occupation codes and over 150 industry/sub-industry codes.

Although a Census-based measure of Chinese restaurants has the advantage of universal coverage, there are several drawbacks. The first is the decennial nature of Censuses, meaning we can only pin down the decade of restaurant opening. To address this, we consider an alternative measure using press mentions of 'chop suey' for robustness, which, while much less precise, has much high frequency. The second issue is that Chinese-born restaurant workers may not necessarily be working in Chinese restaurants, or in restaurants servicing mainly Chinese immigrants.[10] While the historical evidence suggests that Chinese restaurant workers during this period were predominantly working in Chinese restaurants catering to white diners, we further validate the measure by comparing it to the 'chop suey' press measure above. We find the two measures to be highly correlated (see Figure 1), suggesting the restaurant workers measure is strongly related mainstream awareness and interest in Chinese food. Finally, the restaurant worker measure may be noisy as Census data is based on residency, not place of work. Therefore, we consider a county as having a Chinese restaurant if they record at least five Chinese-born restaurant workers to reduce the noise from this and other potential sources of measurement error.[11]

To measure anti-Chinese sentiment, we manually collected counts of newspaper articles from *Newspapers.com*, the most extensive historical press dataset in the United States covering approximately 200 million pages from 15,000 local newspapers in all US states from 1870 to 1940. Newspapers during this period were by far the dominant source of news and were highly localized in their circulation (Ottinger & Winkler 2020). We count the use of the most common, Chinese-specific derogatory terms used during the period: *Chinaman, Celestial* and *Coolie*.[12] We normalize the counts with the neutral word *Monday* and aggregate them to the county decade level.

We only consider counties with the first recorded restaurant between 1900 and 1930, as well as dropping county-year observations with less than 50 total articles. This leaves

[10]City directories provide direct data on restaurant and laundry establishments. However, they have incomplete temporal and spatial coverage, vary in methodology between cities, and do not record owner ethnicity or type of establishment, making city directories unsuitable for this analysis.

[11]Naturally, this may miss the opening of small Chinese restaurants. Therefore we also consider the measure of just a single Chinese restaurant worker for robustness.

[12]The term "Chinaman" is considered derogatory, as noted by *Dictionary.com*, due to its historical use as a racial slur against Chinese individuals, often implying inferiority and reinforcing negative stereotypes, especially during periods of anti-Chinese sentiment (https://www.dictionary.com/browse/chinaman). The term "Celestial," used in late 19th and early 20th-century America to describe Chinese immigrants, originated from the name "Celestial Empire" for China. Initially a cultural identifier, it gradually took on an exoticizing tone, highlighting Chinese immigrants as outsiders. As anti-Chinese sentiment grew, "Celestial" became a common way to underscore their perceived foreignness, reflecting how language shaped social attitudes and fueled stereotypes. The term "Coolie" referred to unskilled Chinese laborers brought overseas for low-wage, often exploitative work in the 19th century. The term became derogatory, symbolizing racial prejudice and servitude. It reflects the harsh history of Chinese migrant labor in global markets.

Table 1: Summary Statistics

	Mean	Std. Dev.	Min	Max
Chinese Discriminatory Count	0.043	0.076	0	1.770
Total Articles (000s)	31.296	48.848	0.055	467.070
Yr First Restaurant	1914.3	9.589	1900	1930
Restaurant per Capita (×1000)	0.261	0.715	0	11.111
Chinese Share	0.007	0.022	0	0.290
Chinese Presence	0.869	0.337	0	1
Immigrant Share	0.180	0.118	0	0.727
Population (000s)	128.313	306.277	0.300	3980.800
Urban	0.454	0.316	0	1
Income Score	8.894	2.336	2.942	24
Literacy	0.737	0.108	0.129	1

The table presents the summary statistics of counties in the unbalanced panel, excluding counties that recorded a Chinese restaurant before 1900 or did not record a restaurant by 1930, or recorded less than 50 total articles.

244 counties in the analysis, or 104 in the balanced panel version (i.e. sufficient articles in every decade between 1870 and 1940).[13] Table 1 reports the summary statistics from the Census and historical press variables for the counties used in the analysis. Table 2 reports the summary statistics by first Census with a Chinese restaurant. It shows the most common first Census is 1910, but that the analysis has a fairly even spread of counties across each possible first Census.

[13]For laundries, we drop counties with laundries prior to 1880 instead, given the boom in laundries occurred earlier than restaurants. This provides 324 counties in the Chinese laundry analysis, or 140 in the balanced panel.

4 Empirical Strategy

4.1 Estimating the Effect of Chinese Restaurant Openings

A two-way fixed effects framework with staggered openings is used to identify the effect of Chinese restaurants on anti-Chinese sentiment. The estimating equation is:

$$y_{it} = \alpha_i + \delta_t + \beta_1 Restaurant_{i,t} + \mathbf{X}'_{it}\gamma + \epsilon_{it} \tag{1}$$

where y_{it} is the normalized Chinese discrimination count in county i in Census decade t. α_i represents the county fixed effects. δ_t represents the time fixed effects. $Restaurant_{it}$ is the binary treatment variable equal to one if county i in year t had five or more Chinese restaurant workers (alternatively Chinese restaurant workers per capita). Therefore, β_1 is the coefficient of interest representing the change in Chinese discrimination counts with the opening of a Chinese restaurant relative to counties who have not yet received a restaurant. $\mathbf{X}_{it}$ is a vector of control variables. including log total number of articles, Chinese presence dummy and log Chinese and total population. Standard errors are clustered at the county level.

The key identifying assumption is that trends in Chinese discrimination usage would not have diverged between counties with different opening timings in the absence of restaurant openings. Table 2 reports covariates in 1880 between different treatment groups and to what extent each factor predicts the opening timing. The first notable feature is that early-entry (Column 1) and late-entry counties (Column 4) are somewhat distinct in many of the categories. Therefore, we consider robustness checks that drop early and late-entry counties. Column 5 reports the coefficient estimates of regressing each covariate on year of opening. Looking to the standardized coefficients in square brackets, Chinese share and presence are by far the largest predictors of restaurant opening timing, which is to be expected. More concerning is that counties with higher pre-treatment Chinese anti-sentiment had earlier restaurant openings (as well counties with higher population and average occupational income). However, this is likely the result of the relationship with Chinese presence and share, as earlier Chinese communities generally attracted more negative attitudes. Once 1880 Chinese share and presence are controlled for, the standardized coefficient becomes substantially smaller (from -0.195 to -0.110) and no longer statistically significant.

To further test the identifying assumption, we conduct an event study to examine whether there are any differing trends in the Chinese discrimination usage in the lead-up to the opening of a Chinese restaurant. However, the event study relies on decennial Censuses and is thus is unable to detect relatively short-term differences in trends in the lead-up to an opening. To address this concern and other potential confounders, we compare the main

results to an identical study of Chinese laundry openings. Since most of the features of the two businesses are similar, comparing the results can help to rule out threats to validity.

5 Results

5.1 The Effect of Chinese Restaurants on Anti-Chinese Sentiment

Table 3 reports the estimated impact of Chinese restaurants on anti-Chinese sentiment. Columns 1 and 2 show negative, but statistically insignificant effects of Chinese restaurant openings on anti-Chinese sentiment. However, the results under the preferred specification in Columns 3 and 4 with county controls are negative and highly significant. The estimates are large in magnitude, equivalent to a 33-40% decrease in Chinese discrimination relative to the mean, or 0.18-0.28 standard deviations. The smaller effect sizes in Columns 1 and 2 are to be expected given that they do not control for Chinese presence and population in the county, which is positively correlated with Chinese restaurants and generally positively correlated with anti-Chinese sentiment. Columns 5 and 6 report effects of restaurant workers per capita on anti-Chinese sentiment. The estimates show that a one standard deviation increase in restaurants per capita among counties that already have a restaurant results in a 13-15% in anti-Chinese sentiment, suggesting restaurants have a strong effect at the intensive margin as well.

Figure 2 plots the event study around the restaurant opening using the main specification under a balanced panel (i.e. reflecting the estimation in Column 4 of Table 3). We find no evidence of pre-trends in Chinese discrimination. There is a slight negative effect at $t = 0$, but this likely reflects a partially treated observation rather than any anticipation effects.[14] After opening, the negative effect on discrimination is highly significant and slowly increasing over time. This gradual effect rather than a sharp shock is reassuring that we are not picking up some contemporaneous shocks, but instead the steady, cumulative nature of restaurant exposure that would be expected given that a population's exposure as well as the number of restaurants gradually increase over time. The estimates become less precise further away from the time of opening as the analysis timeframe and staggered openings means only

[14]This is due to the fact that the measure for restaurant openings (i.e. decennial censuses) can only pin down the decade of opening, and therefore the discrimination measure at $t = 0$ captures both treated and untreated periods. For example, a county that switches to treated in 1910 means there were no Chinese restaurant workers in the 1900 Census, but some in the 1910 Census, implying a restaurant opened sometime between the two Censuses. The $t = 0$ measure of Chinese discrimination in this case would be for articles published between 1901 and 1910, and therefore covers both treated and untreated periods. In the main regression, observations are considered treated after a restaurant opening is confirmed (i.e. from $t = 10$ onwards), and thus partially treated observations are considered part of the control group. However, we also drop these observations as a robustness check in Table 7.

Table 2: Pre-Treatment Balance by Restaurant Timing

	First Census with a Restaurant				Predict
	1900	1910	1920	1930	Treat. Year
	(1)	(2)	(3)	(4)	(5)
Chinese Discrimination Count	0.108	0.074	0.080	0.063	-11.014^{**}
	(0.204)	(0.048)	(0.074)	(0.024)	[−0.195]
Chinese Share	0.018	0.010	0.004	0.002	-61.622^{***}
	(0.038)	(0.039)	(0.019)	(0.006)	[−0.236]
Chinese Presence	0.873	0.630	0.488	0.378	-10.439^{***}
	(0.335)	(0.486)	(0.506)	(0.492)	[−0.449]
Immigrant Share	0.218	0.195	0.178	0.174	−8.760
	(0.140)	(0.124)	(0.135)	(0.155)	[−0.118]
Population (000s)	69.947	51.295	35.544	49.211	0.011^{**}
	(152.195)	(59.176)	(31.360)	(52.953)	[−0.160]
Urban	0.318	0.287	0.248	0.267	−1.994
	(0.361)	(0.270)	(0.233)	(0.201)	[−0.064]
Income Score	8.818	7.512	7.257	6.831	-0.752^{**}
	(3.145)	(2.015)	(2.826)	(1.342)	[−0.201]
Literacy	0.640	0.663	0.651	0.678	5.853
	(0.193)	(0.171)	(0.177)	(0.121)	[0.084]
N	71	81	43	37	

The table compares 1880 baselines statistics of counties by their year of opening with standard errors in parentheses. Column 5 regresses the variable on year of restaurant opening, with standardized coefficients in square brackets.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

counties with the earliest openings record $t = 40$ observations, and vice versa for $t = -40$ observations.

Table 3: Effect of Chinese Restaurants on Anti-Chinese Sentiment

	Chinese Discrimination Count					
	Binary (1)	Binary (2)	Binary (3)	Binary (4)	Per Capita (5)	Per Capita (6)
Restaurant	−0.009	−0.011	−0.014***	−0.019**	−5.583***	−9.936**
	(0.006)	(0.008)	(0.004)	(0.008)	(1.689)	(3.900)
Mean of D.V.	0.043	0.047	0.043	0.047	0.043	0.047
N of Obs.	1,147	624	1,147	624	1,147	624
N of Counties	244	104	244	104	244	104
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls			Y	Y	Y	Y
Balanced Panel		Y		Y		Y

The table reports the effect of Chinese restaurant openings on the Chinese Discrimination Count. *Restaurant* is the treatment variable that in Columns 1-4 is a binary variable equal to one when the county has over 5 Chinese restaurant workers, and equal to Chinese restaurant workers per capita in Columns 5 & 6. Columns 3-6 include controls for log Chinese population, Chinese presence, log total population and log total articles. Columns 2, 4 & 6 exclude counties that do not have sufficient total article counts in every period. Clustered standard errors in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

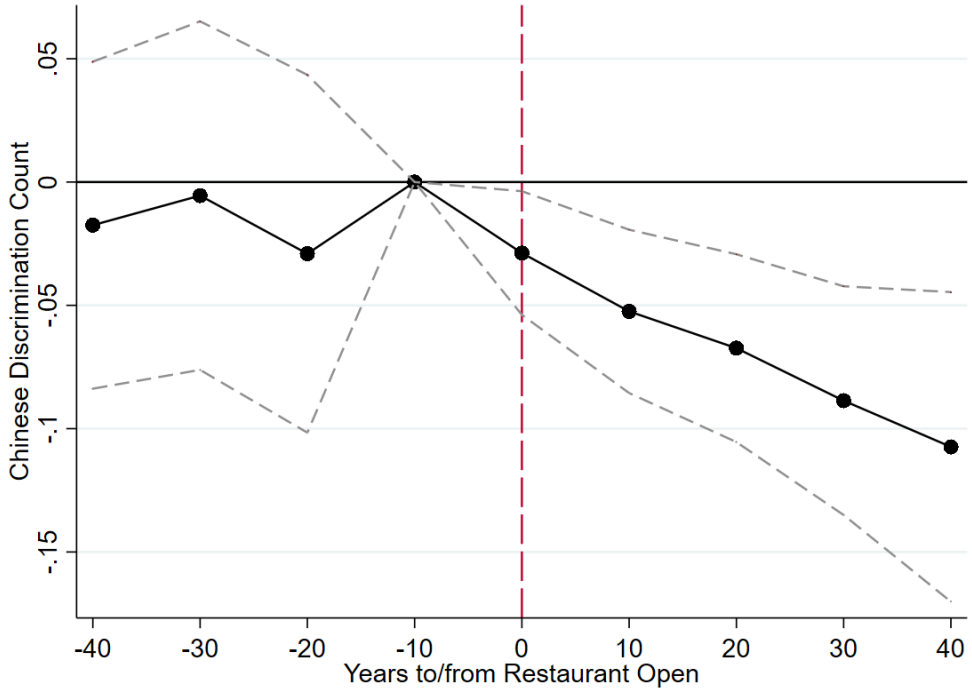
5.2 The Effect of Chinese Laundries on Anti-Chinese Sentiment

Table 4 reports the same specifications as Table 3, but analyzing the effect of laundry openings rather than restaurants. Columns 1 and 2 report the results without county controls and show the opening of a laundry significantly increases anti-Chinese sentiment. However, as above, these are likely positively biased by the omission of Chinese population controls. With the inclusion of county controls, the estimates are small and statistically insignificant under both binary and per capita measures of Chinese laundries. These results essentially rule out any threats to validity that would equally affect Chinese laundries.

5.3 Heterogeneity Analysis

TBC

Figure 2: Chinese Restaurant Opening Event Study



Notes: This graph reports the estimated differences in the Chinese Discrimination Count relative to one decade prior to a Chinese restaurant opening. The estimates use the main equation with two-way fixed effects, county controls and a balanced panel. The grey dashed line indicates the 95% confidence interval, clustered at the county-level.

6 Mechanisms

6.1 Labor Market Competition

This section explores whether the main results are driven by labor market competitions, in that Chinese workers moved out of industries with high US-born competition into restaurants with very low US-born competition. However, given that laundries faced ostensibly similar levels of labor market competition, the null effect of Chinese laundry openings suggests competition did not play a significant role. The results would also seemingly rule out any mechanisms related to small business ownership, or increased contact with the US-born community through the service industry. Nevertheless, we directly test the potential competition mechanism by examining the robustness of the main results to controlling for laundries or labor market competition directly. Table 5 reports the findings and shows the estimates for restaurants remain essentially unchanged under all controls and specifications, suggesting the main results are not driven by decreasing labor market competition. While the estimates for labor market competition are positive, indicating a decline in competition decreases anti-

Table 4: Effect of Chinese Laundries on Anti-Chinese Sentiment

	Chinese Discrimination Count					
	Binary (1)	Binary (2)	Binary (3)	Binary (4)	Per Capita (5)	Per Capita (6)
Laundry	0.013***	0.011***	0.008	−0.001	1.402	0.750
	(0.003)	(0.003)	(0.007)	(0.002)	(1.338)	(2.118)
Mean of D.V.	0.043	0.042	0.043	0.042	0.043	0.042
N of Obs.	1,550	840	1,550	840	1,550	840
N of Counties	324	140	324	140	324	140
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls			Y	Y	Y	Y
Balanced Panel		Y		Y		Y

The table reports the effect of Chinese laundry openings on the Chinese Discrimination Count. *Laundry* is the treatment variable that in Columns 1-4 is a binary variable equal to one when the county has over 5 Chinese laundry workers, and equal to Chinese restaurant workers per capita in Columns 5 & 6. Columns 3-6 include controls for log Chinese population, Chinese presence, log total population and log total articles. Columns 2, 4 & 6 exclude counties that do not have sufficient total article counts in every period. Clustered standard errors in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Chinese sentiment, these are statistically insignificant and very small in magnitude, with a standard deviation decrease in labor market competition resulting in a 1.1-2.0% decrease in anti-Chinese sentiment.

6.2 Cultural Bridging Effect

The lack of effect for Chinese laundries suggests the main mechanism likely lies in the defining difference between restaurants and laundries: the cultural element. We explore the possibility of a 'cultural bridging' effect: restaurants introduce and familiarize consumers with Chinese culture, thereby reducing the perceived cultural distance between Chinese immigrant and the US-born population. We use an immigrant dehumanization dictionary developed by Card et al. (2022) to construct a time-varying measure of perceived cultural distance from the mainstream and analyze how this changes with Chinese restaurant openings.

TBC

7 Summary of Robustness Checks

Finally, we examine the robustness of the main estimates to various subsamples, controls and specifications. Table 6 reports the estimates with alternative samples and additional controls. The results are highly robust to dropping the earliest and latest treated counties,

Table 5: Labor Market Competition and Anti-Chinese Sentiment

	Chinese Discrimination Count					
	(1)	(2)	(3)	(4)	(5)	(6)
Restaurant	−0.014***	−0.019**	−0.013***	−0.019**	−0.014***	−0.019**
	(0.004)	(0.008)	(0.004)	(0.008)	(0.004)	(0.008)
Laundry			0.009	0.000		
			(0.008)	(0.005)		
Competition					0.006	0.012
					(0.019)	(0.021)
Mean of D.V.	0.043	0.047	0.043	0.047	0.043	0.047
N	1,147	624	1,147	624	1,146	624
N. of Counties	244	104	244	104	244	104
County FE	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y
Balanced Panel		Y		Y		Y

The table reports the effect of Chinese restaurant openings on the Chinese Discrimination Count. *Restaurant* is the treatment variable that is equal to one when the county has over 5 Chinese restaurant workers. *Laundry* is a binary variable equal to one when the county has over 5 Chinese laundry workers. *Competition* is the proportion of US-born county population working in an occupation/industry pair with significant Chinese competition. All regressions include two-way fixed effects and controls for log Chinese population, Chinese presence, log total population and log total articles. Columns 2, 4 & 6 exclude counties that do not have sufficient total article counts in every period. Clustered standard errors in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

dropping 1870 observation, and controlling for pre-treatment discrimination and non-Chinese immigrants. The slight exception is that dropping counties in the West in Column 5 makes the estimates smaller and not statistically significant, although still negative.[15] This suggests the effects are larger in the West, which is perhaps unsurprising given that anti-Chinese sentiment was much stronger in these regions, giving greater scope for reduction.

Table 7 tests for different empirical specifications and treatment definitions. The results remain significantly negative when using the staggered treatment design proposed by De Chaisemartin & d'Haultfoeuille (2020) and dropping partially treated observations, as well as defining treatment as having a single Chinese restaurant worker (rather than a five threshold) or ever having a Chinese restaurant (i.e. a county remains treated if a restaurant opens and then closes at a later date).

TBC: Additional Robustness Checks

8 Conclusion

The 'chop suey craze' of the early twentieth century represents America's first mainstream restaurant boom which completely transformed the culinary landscape in the US, leading to ethnic food and eating out to becoming a cultural mainstay. Interestingly, this first restaurant boom (and most future ones) was not driven by a widely tolerated immigrant group in the US. Instead, this was driven by arguably the most discriminated against immigrant group in the US, reflecting the intense labor market discrimination that push immigrants into self-employment. We analyze how this restaurant boom impacted anti-Chinese sentiment by exploiting the spatial expansion of restaurants across the country in a staggered difference-in-differences design. We find that restaurant openings helped to gradually ease the hostility towards Chinese-Americans. There is no evidence of a similar effect with the opening of laundries, suggesting the findings are driven by the cultural element of restaurants. We suggest, and support with text analysis of press and recipe corpuses, a 'cultural bridging' effect that introduce and familiarize consumers with Chinese culture. This helped to reduce the perceived socio-cultural distance with Chinese immigrants and, over time, incorporate Chinese cultural elements into American culture.

[15] The Census defines Western counties as those in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington or Wyoming.

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9 Appendix

Table 6: Robustness Checks: Alternative Samples and Additional Controls

	Chinese Discrimination Count						
	Baseline Specification (1)	Drop Early Entries (2)	Drop Late Entries (3)	Drop 1870 (4)	Drop West Counties (5)	1880 Chinese Discrimination (6)	Non-Chinese Immigrants (7)
Restaurant	−0.014***	−0.011***	−0.013***	−0.013***	−0.007	−0.014***	−0.014***
	(0.004)	(0.002)	(0.005)	(0.005)	(0.008)	(0.004)	(0.004)
Mean of D.V.	0.043	0.040	0.046	0.038	0.038	0.043	0.043
N	1,147	945	963	1,030	657	1,147	1,147
N. of Counties	244	202	206	244	132	244	244
County FE	Y	Y	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y	Y	Y

The table reports the robustness of the estimated effect of Chinese restaurant openings on the Chinese Discrimination Count to alternative samples and controls. *Restaurant* is the binary treatment variable equal to one when the county has over 5 Chinese restaurant workers. Column 1 uses the baseline specification as in Table 3. Columns 2 and 3 drop counties with restaurant openings in 1900 and 1930 respectively. Column 4 drops observations in 1870 while Column 5 drops counties in the West. Columns 6 and 7 control for 1880 Chinese Discrimination Count (interacted with time fixed effects) and non-Chinese immigrant share respectively. All regressions use the main two-way fixed effects specification with county controls and an unbalanced panel. Clustered standard errors in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Robustness Checks: Alternative Specifications

	Chinese Discrimination Count				
	Baseline Specification (1)	de Chaisemartin & D'Haultfoeuille (2)	Drop Partial Treated (3)	Remain Treated (4)	Strict Treat Definition (5)
Restaurant	-0.014^{***}	-0.020^{*}	-0.008^{***}	-0.017^{**}	-0.008^{***}
	(0.004)	(0.012)	(0.002)	(0.007)	(0.002)
Mean of D.V.	0.043	0.043	0.040	0.043	0.038
N	1,147	421	937	1,147	1,670
N. of Counties	244	176	244	244	372
County FE	Y	Y	Y	Y	Y
Decade FE	Y	Y	Y	Y	Y
County Controls	Y	Y	Y	Y	Y

The table reports the robustness of the estimated effect of Chinese restaurant openings on the Chinese Discrimination Count to alternative specifications. *Restaurant* is the binary treatment variable equal to one when the county has over 5 Chinese restaurant workers in Columns 1-3. In Column 4 the treatment variable is equal to one if a county ever had over 5 Chinese restaurant workers, while in Column 5 it is equal to one if there is a single Chinese restaurant worker. Column 1 uses the baseline specification as in Table 3. Columns 2 uses the staggered difference-in-differences design proposed by De Chaisemartin & d'Haultfoeuille (2020). All regressions use the main two-way fixed effects specification with county controls and an unbalanced panel. Clustered standard errors in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$